# REPORT ON AN OVERSEAS TRAINING ATTACHMENT – SWAZILAND, APRIL - SEPTEMBER 2005

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| | |
|---|---|
| ***Training location*** | Good Shepherd Hospital, Siteki, Swaziland |
| ***Duration of attachment*** | 6 months |
| ***Training supervisor*** | Prof John Wright MPH MRCP FFPHM Consultant in Public Health & Clinical Epidemiology, Bradford Hospitals NHS Trust |
| ***Training accreditation*** | The attachment was approved for training by the Faculty of Public Health |

***Aim***

- To gain experience of public health work in a developing country with a view to pursuing a career in international public health on completion of specialist training (projected CCST date 1 July 2006)

***Objectives***

- Assessing need and planning services to enable a district health service to reflect and respond to the health needs of the local population
- Supporting local health promotion efforts to re-orient health services towards the promotion of health as well as the prevention of disease
- Developing and implementing community-based programmes of care for HIV/AIDS and chronic disease management.
- Gaining epidemiological expertise for the monitoring of disease and the running of disease registers
- Developing and implementing clinical guidelines across primary and secondary care
- Evaluating the impact of health service developments on outcomes of care
- Supporting communicable disease control in TB and HIV/AIDS

# *1. Organisation of training placement*

## Training location

Good Shepherd Hospital (GSH) is a mission, acting regional hospital located on the outskirts of Siteki, a small market town, whose small population of 4,157 (1997) belies its importance as the administrative centre of the Lubombo region. Recently the hospital has been at the leading edge of a Globally-Funded antiretroviral treatment (ART) initiative combating the HIV/AIDS epidemic in Swaziland.

## Arrangement

The training placement of 6-12 months duration was advertised in the March 2004 issue of *'ph.com'.* The placement is organised through a health partnership that exists between the Good Shepherd Hospital, Swaziland, NHS public health specialists in Bradford and academic public health specialists at the Nuffield Institute for Health in Leeds. Funding and peer review of the programme had previously been obtained by the above partners through successful bids to UK donor organisations, namely the Department for International Development (DfID), the Tropical Health and Education Trust (THET) and the Elton John AIDS Foundation (EJAF). Subsequent to my application and personal contact with the principal sponsor (Professor John Wright) I negotiated a six-month placement to commence early April 2005, to follow my submission for the MFPH Part II examination.

## Supervision

At the training location supervision was provided by Dr Aby Philip, the Medical Director at Good Shepherd Hospital. Although his professional background is general surgery Dr Philip has, over two decades serving as Medical Director, assumed a number of public health responsibilities as Acting Regional Medical Officer for the Lubombo region. I attended weekly meetings with Dr Philip and the lead members of the Community Health teams every Tuesday morning. Additionally I was able to meet with Dr Philip on a one-to-one basis to discuss problems and progress as often as necessary.

Faculty-accredited training supervision was provided by Professor John Wright in Bradford, with additional support from Dr John Walley at the Nuffield Institute in Leeds. Supervision was provided by telephone and/or e-mail contact with both John Wright and John Walley, and a one-week visit by John Wright to Good Shepherd Hospital during the second month of the training placement.

# *2. Context*

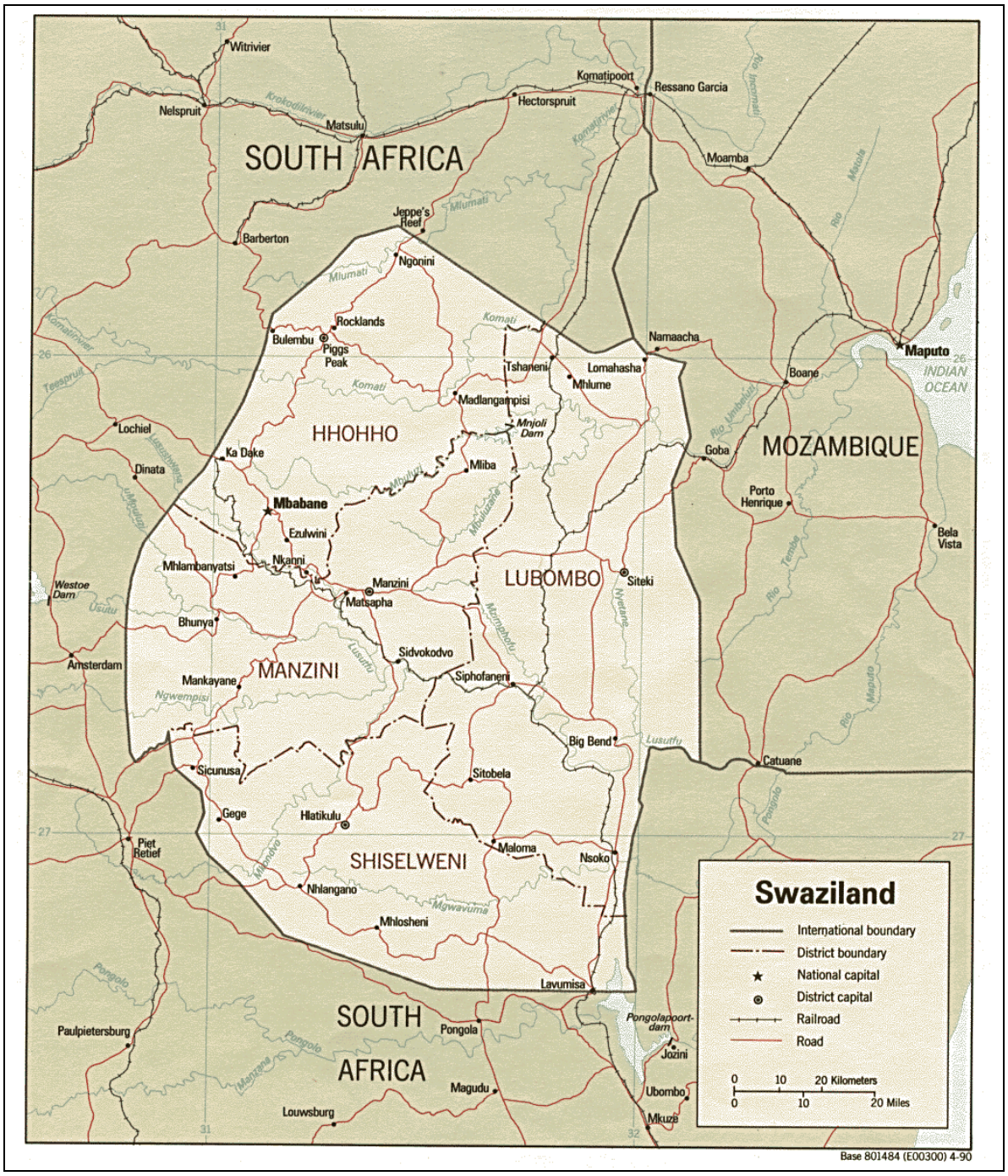
## Demographic, political and socioeconomic status

The Kingdom of Swaziland is a small (17,364 km) land-locked country in southern Africa bordering South Africa to the north, south and west, and Mozambique to the east. Its population of 1,077,000 (2003 estimate) is closely related to the Zulu people in both language and culture. The country gained its independence from the United Kingdom in 1968 and was governed by a constitutional monarchy until the current state of emergency was declared in 1973. Since then, despite a number of mainly non-violent moves towards democratic reform, an absolute monarchy has maintained a firm grip on

government. The latter consists of elected or royally-appointed members of a House of Assembly, who are drawn almost exclusively from the large, elite royal clan.

The country is divided geographically and administratively into four regions (Figure 1), of which Lubombo is the largest in area but least densely populated (estimated 220,000).

***Figure 1 Map of Swaziland***



A diminutive player in the world economy Swaziland attracts little international attention save that engendered by the recent excesses of the monarchy and the highest adult prevalence of HIV infection in the world (2003 estimate 37.2-40.4%). With ailing textile and sugar exports, retrenchment of the mining industry in South Africa and workforce attrition due to HIV/AIDS Swaziland is in economic decline. Between 30 and 40 per cent of the population are unemployed and 66 per cent are estimated to live below the poverty line ($21 per month). The majority of Swazi people live off subsistence farming and, in common with most countries in Southern Africa, Swaziland has been severely affected by food shortages as a result of successive years of drought since 2002.

**Table 1a. Population estimates**[1]

| *Indicator* | *Swaziland* | *South Africa* | *Mozambique* | *United Kingdom* |
|---|---|---|---|---|
| Total population | 1,077,000 | 45,026,000 | 18,863,000 | 59,251,000 |
| Annual population growth rate | 1.8% | 1.4% | 2.4% | 0.3 |
| Dependency ratio (per 100) | 88 | 58 | 89 | 52 |
| Percentage of population aged 60+ | 5.2% | 6.3% | 5.1% | 20.8 |
| Total fertility rate | 4.5 | 2.6 | 5.6 | 1.6 |
| Percentage urban population | 26.0 | 56.7 | 29.0 | 89.1 |

**Table 1b. Health indicators**

| *Indicator* | *Swaziland* | *South Africa* | *Mozambique* | *United Kingdom* |
|---|---|---|---|---|
| Life expectancy at birth (years) | | | | |
| Males | 33.0 | 48.0 | 44.0 | 76.0 |
| Females | 36.0 | 50.0 | 46.0 | 81.0 |
| Child mortality (<5 years per 1000) | | | | |
| Males | 159 | 70 | 163 | 7 |
| Females | 147 | 61 | 154 | 5 |
| Adult mortality (15-59 yrs per 1000) | | | | |
| Males | 894 | 642 | 621 | 103 |
| Females | 790 | 579 | 543 | 64 |
| Healthy life expectancy at birth (years) | | | | |
| Males | 33.2 | 43.3 | 36.3 | 69.1 |
| Females | 35.2 | 45.3 | 37.5 | 72.1 |
| Healthy life expectancy age 60 (years) | | | | |
| Males | 10.2 | 10.6 | 9.8 | 15.7 |
| Females | 10.9 | 12.1 | 10.4 | 18.1 |
| Percentage of total life expectancy lost due to poor health | | | | |
| Males | 10.1 | 11.3 | 11.9 | 8.8 |
| Females | 12.9 | 13.8 | 14.5 | 10.4 |
| Maternal mortality rate (per 100,000 live births) | 370 | 230 | 1,000 | 7 |
| Infant mortality rate (per 1,000 live births) | 87 | 45 | 135 | 5 |

**Table 1c. Health accounts indicators**

| *Indicator* | *Swaziland* | *South Africa* | *Mozambique* | *United Kingdom* |
|---|---|---|---|---|
| GDP per capita (international dollars) 2002 | 5,132 | 7,935 | 870 | 27,959 |
| Total expenditure on health as % of GDP | 6.0 | 8.7 | 5.8 | 7.7 |
| Total expenditure on health per capita (US$) 2002 | 66 | 206 | 11 | 2,031 |
| Private expenditure on health as % of total expenditure on health | 40.5 | 59.4 | 29.0 | 16.6 |

[1] World Health Organisation 2003

## Health care system

The Swaziland health care system is administered at national government level by the Ministry of Health and Social Welfare (MoHSW) and at local government level by the Regional Health Management Team, led by a Regional Health Administrator. Service delivery is through a mixture of public, mission and private health providers, with additional, mainly preventative, services provided directly or indirectly by international non-governmental organisations (NGOs). There is also an abundance of traditional healers in Swaziland. Mission-sponsored health services are particularly important contributors to health care in two of the four regions, including Lubombo, and are subsidised by the government. The private sector employs almost 50% of all the country's doctors, although only a small proportion of the population can afford access to private health care. Swaziland's health infrastructure is relatively strong in comparison to many other African countries, but still has lower capital health expenditure as a percentage of GDP than many of its comparators (Table 1c).

The three principal levels of health care delivery are hospitals, health centres and clinics. About 80% of the population live within 5 miles of a health facility, although socioeconomic factors such as transportation are important barriers to access. Notwithstanding the HIV/AIDS epidemic a number of factors have undermined the health sector's capacity to improve the nation's health in recent years:

- Shortages of skilled health workers, particularly nurses, due to resignation and attrition through HIV-related illness and death
- Low and declining levels of staff morale
- Static government spending on health care for some years until a large uplift for 2005/6, largely absorbed by a pay increase for nurses
- Declines in service infrastructure including equipment, drugs and other supplies, and inefficiencies in management and administration systems

Primary care and secondary care are not clearly demarcated in Swaziland, and the majority of people in Lubombo seek medical help by self-referring directly to GSH Out-patient Department (OPD), which also has an Emergency Room (ER) for accidents and emergencies. There are a few private clinics with doctors in town and a number of mainly nurse-run health clinics in the surrounding rural communities, some of which are visited by a government-employed doctor once or twice a month. A number of large employers, for example the national railway and the sugar industry, provide primary medical services for their employees and their local communities.

Health care in Swaziland is not free at the point of access. At GSH a co-payment of E15[2] (E30-40 outside normal working hours) is payable before the initial consultation for a new medical problem. Subsequent follow-up visits for that problem are free. Likewise, standard fees are charged for laboratory tests, radiological examinations, surgical operations etc. The tariff for the most common investigations and procedures is summarised in Box 2.

[2] Swaziland's basic unit of currency is the Lilangeni (plural Emalangeni), the value of which is tied to the South African Rand (E1=R1). At the time of this placement the exchange rate was approximately E11 = GBP£1 = US$6

**Box 2. Tariff for common investigations and procedures at GSH 2005**

| | | |
|---|---|---|
| Consultations | Normal working hours (0700-1600 Mon–Fri) | E15 |
| | Outside normal working hours – Mon-Fri | E30 |
| | Weekends and public holidays | E40 |
| Prescriptions | Acute illness – included in consultation fee | Free |
| | Chronic disease | Variable |
| Inpatient care | | E13 per day |
| X-rays etc. | Chest | E7 |
| | Abdomen | E30 |
| | Limbs | E15-22 |
| | Skull or spine | E80 |
| | Ultrasound | E30 |
| Laboratory tests | Biochemistry - basic | E5 |
| | Haematology (FBC) | E10 |
| | Diff. WCC etc. | E10 |
| | Pregnancy test | E10 |
| Interventions | Operation – major | E130 |
| | Operation – minor | E35 |
| | Suture (ER) | E25 |
| | Suture (OR) | E35 |
| | Fracture – POP | E35 |
| Maternity | Confinement | E13 per day |
| | Normal delivery | E60 |
| | Caesarean section | E134 |
| Infusions | First unit | E20 |
| | Subsequent units | E5 |
| | Blood | Free |
| Mortuary | | E30 per day |

## National response to HIV/AIDS

The first HIV case in Swaziland was reported in 1986, since when an HIV/AIDS epidemic of a scale almost without precedent anywhere else in the world has taken hold of the country. King Mswati III declared the HIV-AIDS epidemic a national disaster in 1999. A profusion of governmental and non-governmental organisations has sprung up in response to escalating public health emergency, the gestation of which is summarised in Box 3.

**Box 3. Timeline of the HIV/AIDS epidemic in Swaziland**

| | |
|---|---|
| 1986 | First reported case of HIV infection in Swaziland |
| 1987 | First AIDS case in Swaziland reported. Government of Swaziland and World Health Organisation establish the Swaziland National AIDS/STIs Program (SNAP) |
| 1992 | First ante-natal sentinel surveillance report – HIV prevalence 3.9% |
| 1999 | King Mswati III declares HIV/AIDS epidemic in Swaziland a national disaster |
| 2001 | National Emergency Response Committee on HIV/AIDS (NERCHA) created to mobilise and co-ordinate the national response to the epidemic |
| 2002 | Sentinel surveillance report – HIV prevalence 38.6% |
| 2003 | Global Fund for AIDS, TB and Malaria awards Swaziland a conditional grant of $57M over 5 years ($31M guaranteed for the first 2 years) to fund national response to HIV/AIDS epidemic |
| 2004 | National ART programme commenced |

# *3. Public health in Lubombo*

## Good Shepherd Hospital

GSH is a mission, acting regional hospital with 125 inpatient beds and a large out-patient department (OPD), providing a comprehensive 'illness service' for the whole of Lubombo. Patient numbers at GSH have increased greatly in recent years, not only due to the HIV/AIDS epidemic, but also due to the confidence of the local population in the hospital, which draws in many people from outside its regional catchment area. Hospital activity data rely on manual counting and recording in a hand-written ledger, but a rough idea of clinical workload can be gained form the statistics in Table 2. These show marked increases in OPD attendances and deaths in hospital in the early years of this century compared to corresponding figures in 1986, the year that the first HIV case in Swaziland was reported. Trends in inpatient days have remained fairly flat over that period with the exception of 1992/1993, when a surge of inpatients was associated with severe drought and the presence of large numbers of refugees from Mozambique displaced by the civil war during that period.

**Table 2. Hospital episode statistics for GSH 2000-2004**

| Year | 1986 | 1993 | 2000 | 2001 | 2002 | 2003 | 2004 |
|---|---|---|---|---|---|---|---|
| Inpatient days | 52,474 | 75,768 | 59,192 | 52,839 | 59,782 | 55,023 | 48,159 |
| Av. bed occupancy | 115% | 166% | 130% | 116% | 131% | 120% | 106% |
| Deaths in hospital | 294 | 405 | 909 | 910 | 858 | 879 | 948 |
| OPD attendances | 32,455 | 44,077 | 51,433 | 51,207 | 55,272 | 58,774 | 74,880 |
| Hospital births | 1,906 | 2,064 | 2,730 | 2,880 | 2,864 | 2,898 | 3,153 |
| Caesarean sections | 203 | 242 | 286 | 463 | 519 | 437 | 471 |
| (%) | (10.6) | (11.7) | (10.5) | (16.1) | (18.1) | (15.1) | (14.9) |

Opened in 1948 the hospital has a small (by UK standards) executive team led by a Medical Director and a Hospital Administrator under the auspices of the GSH Board. The Board, Chaired by the Roman Catholic Bishop of Swaziland, is accountable the Southern African Catholic Bishops' Consortium (SACBC). The Medical Director is a trained general surgeon, but also provides general medical services and participates in the hospital on-call rota. In the absence of a substantive incumbent he is also Acting Regional Medical Officer of Health. Other permanent medical staff, who also provide out-of-hours services, include an obstetrician/gynaecologist, a general surgeon and a general doctor cum paediatrician. With the increasing workload in recent years the hospital has come to rely on volunteer health care workers from overseas (mainly USA), the bulk of whose stipends are paid by the Catholic Medical Missions Board or other volunteer agencies. The volunteer staff has recently included an internist, who also runs the antiretroviral treatment clinic (ARTC), a general medical doctor, a nurse practitioner, a midwife, a pharmacist, a physiotherapist, and a nurse and nursing assistant attached to Home Based Care. The volunteer staff do not participate in the out-of-hours rota. The remaining nursing and administrative staff are currently employed by the SACBC, although their salary budget will shortly be transferred to the Swaziland Ministry of Health and Social Welfare (MoHSW). A consultant ophthalmologist employed by the Colin Bland Memorial Trust (CBM) is retained at GSH. Lastly, numerous visiting doctors and medical students on electives help out in the wards and OPD on short-term bases.

Over the past decade or so the visibility and influence of the Catholic Church at the hospital has diminished and, with the imminent transfer of the staff salary budget to the MoHSW, the metamorphosis of GSH into something more resembling a government hospital will progress further. However, the real estate and the management board of the hospital remain under the control of the SACBC, as evidenced by the continuing symbolic presence of the Catholic Church around GSH and the hospital's policy on condoms. Whilst not actually proscribing the inclusion of condoms in routine health promotion advice it does not allow active promotion or distribution of condoms either on site or as part of community-based activities. Politically GSH is still treated as a mission hospital.

Public health activities are executed by GSH through the following channels:

- **Voluntary Counselling & Testing (VCT)** – confidential HIV/AIDS counselling and testing service
- **Prevention of Mother to Child Transmission (PMTCT)** – preventing vertical transmission of HIV through targeted VCT and maternal and neonatal nevirapine administration
- **Anti-Retroviral Treatment Clinic (ARTC)** – diagnosis, treatment and follow-up of patients with WHO Stage III and IV AIDS
- **Tuberculosis (TB) Clinic** – diagnosis, treatment and monitoring of TB cases, with links to VCT and ARTC services as appropriate
- **Home Based Care Team (HBCT)** – hospital discharge planning and community care of bedridden/housebound patients, including preventative (health education), curative and palliative measures, promotion of ARV and TB treatment adherence, and community empowerment
- **Chronic disease management of epilepsy (Epilepsy Clinic)** – diagnosis, treatment and monitoring of epilepsy, with special emphasis on devolvement of management to community clinics, education of healthcare staff, patients and carers, and distribution of anticonvulsant drugs

- **Community Health** – infant growth and development monitoring and childhood immunisation programmes
- **World Food Programme (WFP)** – free monthly allowance of maize meal for eligible patients

For historical or political reasons some of the above activities e.g. childhood immunisation and TB treatment are funded by the government, whereas others such as VCT, PMTCT and WFP are funded by national or international NGOs. Yet other services, for instance the ARTC, are partly resourced by the government, partly by an NGO (SACBC) and an international charity (EJAF), and partly through international donor funds (Global Fund for AIDS, Tuberculosis and Malaria). Funding streams for certain public health activities differ between healthcare organisations. Thus the government is prepared to fund some activities (e.g. VCT) if they are provided by a government hospital or clinic, but not if they are provided by a mission hospital, even if that happens to be the only hospital for that region.

## Impact of HIV/AIDS in Lubombo

Most people attending GSH OPD and other health centres in Lubombo present with HIV-related problems. They are diagnosed and treated mainly by nurses, who have been trained to use the Swaziland-adapted WHO "Integrated Management of Adolescent-adult Illness (IMAI)" guideline. They are offered an HIV test (now available in many health facilities and counselling centres near to GSH, as well as the hospital itself). If they have the test and are HIV positive they are counselled with a view to having their CD4 count done. Where the CD4 count is less than 200 or the patient is clinically in WHO Stage III or IV AIDS the option of ARV treatment is discussed with the patient and, if deemed appropriate, commenced. For people on ARVs the IMAI acute as well as chronic HIV-ARV modules are used to manage both acute and chronic sequelae, which tend to be troublesome in the early months of treatment. For patients in the later stages of HIV/AIDS, frequently bedridden at home, the palliative (home care) guideline should be followed, although this has not yet been locally implemented.

The first ARV patient enrolled at GSH ARTC on 29 March 2004. At the end of the monthly reporting period on 30 August 2005 (a total of 18 months operation):

- A total of 2,431 people had registered for HIV follow up care and prevention, including cotrimoxazole prophylaxis
- 369 (15.2%) registered ARV patients had died
- 393 (16.2%) registered ARV patients had either defaulted or transferred to another treatment centre
- 1,669 (68.6%) people currently remained on ART, of whom:
- 60.0% were female, 40.0% male
- 91.6% were adults and 8.4% were children under 15 years
- 25% had missed one or more appointments (Feb 2005)
- 11.9% had permanently defaulted (failed to be traced and/or not attended for more than one month).

In Lubombo the biggest challenge is presented by the mismatch between patient numbers (Figure 2) and resources available to deal with them. There is an urgent need to increase the amount of education and counselling at each stage, and to enhance community worker follow up. The latter is currently provided by government-employed Rural Health Motivators (RHMs), who play a vital role in accurately locating patients'

homes, supporting patients' families or other carers, and dealing with adherence and other problems. Additionally in Lubombo GSH employs Treatment Adherence Supporters on motorbikes ('the bike boys') to trace late attendees and either encourage their return to regular attendance or, through the use of a structured questionnaire, ascertain the reasons for default. The overall aim is to improve adherence to ARV and prophylactic drugs, thereby improving clinical outcomes for individual patients and minimising adverse population outcomes, for example emerging HIV resistance to ARVs. However, for a significant proportion of the population healthcare needs are overshadowed by basic food, shelter and security needs, especially among older people and orphans and vulnerable children (OVCs).

With the adult prevalence of HIV exceeding 40% the number of very ill patients presenting to healthcare facilities has increased dramatically. Setting up HIV-ART services has greatly increased the burden on regional hospitals, where over-stretch caused by chronic underinvestment in the healthcare sector has been compounded by progressive attrition of human resources through HIV-related illness and death.

## *4. The task*

My tasking during this supervised training placement can be classified under primary and secondary headings:

**Primary**

- Scale up of antiretroviral treatment (ART) programme in Lubombo:
  - Project managing an ART expert patient support intervention study
  - Implementing IT within ARTC patient management processes
  - Auditing ARTC activities
  - Improving patient flows and access to ART
  - Creating and implementing strategies to improve treatment adherence
  - Developing or procuring health information and education materials
  - Establishing regular ARTC staff meetings

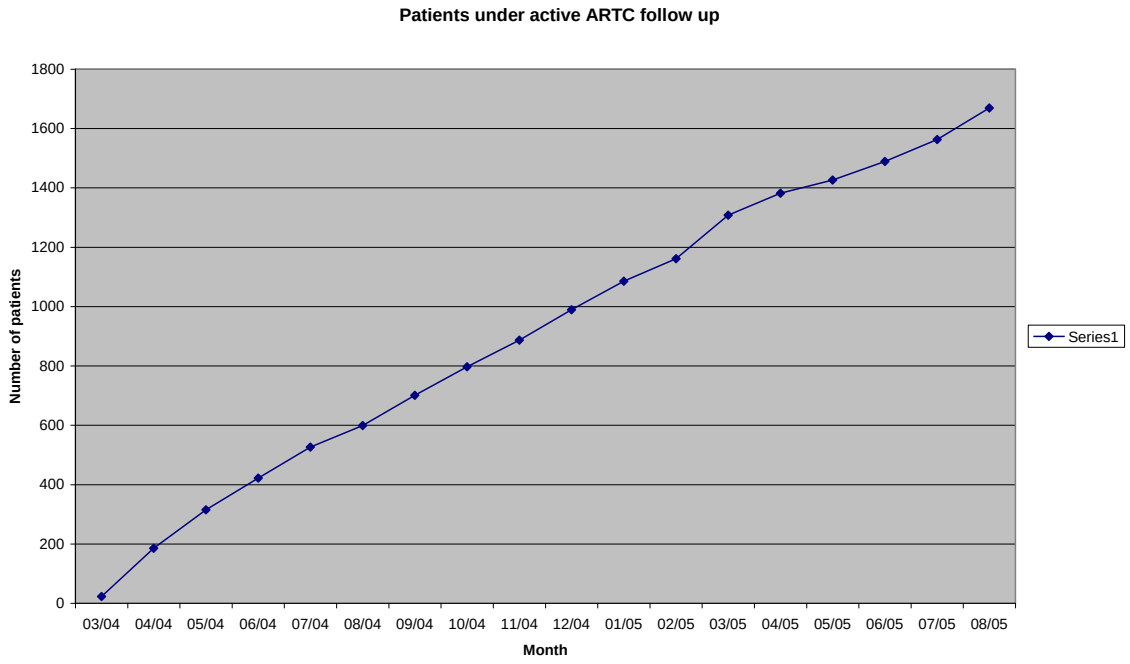
**Secondary**

- Expansion of chronic disease management programme for epilepsy
- Supporting TB treatment programme
- Supporting Voluntary Counselling and Testing (VCT) and Prevention of Mother to Child Transmission (PMTCT) programmes
- Supporting Home Based Care Team (HBCT)
- Cultivating a community microagriculture project
- Producing funding bids for future HIV/AIDS prevention, care and control projects
- Attending meetings and participating in forums concerning national HIV/AIDS and TB policies and strategies
- Public health advocacy activities
- Clinical work in OPD

## Scale up of antiretroviral treatment (ART) programme in Lubombo

Before starting my training placement the key aim was to improve access to the existing GSH-based ART service by enabling patients on ART to attend follow-up appointments at their nearest clinic, instead of having to travel sometimes very long distances to be reviewed at GSH. Decentralisation of the service and rationalisation of ARTC follow up routines have become increasingly pressing issues as the numbers of patients attending for review have increased linearly throughout the clinic's 18-month existence (Figure 2). At the end of my 6-month placement 1,669 patients were under active ARTC follow-up. Thus, on average, approximately 80 patients currently attend the clinic every day, and every month the total number of patients under active follow-up increases by approximately 90. With strictly limited opening hours and staffing of the ARTC remaining static with one doctor, one nurse and a handful of ancillary staff the amount of clinical contact time with a health professional is being steadily compressed, while waiting times and overcrowding in the waiting area continue to increase. Regrettably, a number of crucial internal and external barriers rendered the ART scale-up aims unachievable within the timescale of my 6-month placement.

**Figure 2. Graph showing number of patients under active ARTC follow-up over time**




## ART expert patient support intervention study

An abundant and potentially valuable resource within the ART programme is the expanding patient population, the longer-standing elements of which have the potential to support their less experienced peers as 'expert patients'. It was speculated that creating expert patient support networks in the community might help to compensate for the shortage and inaccessibility of professional support available through the GSH-based ART service, thereby improving treatment adherence and outcomes. A study was designed to test the hypothesis that expert patient support group-enhanced ARTC management leads to better outcomes than standard ARTC management alone.

***Intervention***
33 expert patients or *Basiti*[3], as they elected to be called, were selected by the ARTC nurse on the basis that they were stabilised on ARVs, currently well, had an excellent ARTC attendance record, and generally had the right personal attributes to enable them to be effective in the role. The *Basiti* were trained in basic HIV-AIDS knowledge and listening and facilitation skills during a 2-day workshop. They were then directed to lead weekly support groups for ARTC patients within their respective communities who had been on antiretroviral treatment (ART) for less than 6 months and who had given their informed consent to participate. The support groups were intended help new ART patients maintain good adherence with their treatment regimens, particularly when they are likely to become discouraged because of adverse effects or other problems during the early phases of treatment. All ARTC patients were free to join or leave their support group at any time, provided that they are within the first 6 months of ART, but only new patients who had given their informed consent were to be included in the evaluation. The primary outcomes to be measured were:

- **Late attendance of ARTC appointments** – defined as non-attendance by the date the prescribed drugs are due to run out
- **Default from ARTC attendance** – defined as failure to return to ARTC within 30 days of scheduled appointment
- **ART adherence** – patient compliance < 95% ≥ drugs prescribed based on pill counts
- **Functional status** – modified Karnofsky scores recorded in patient monitoring treatment record card

These measures are recorded by the Lay Counsellors employed in the ARTC on a specially created Pill Count Form.

***Study design***
Initially it was intended to evaluate the expert patient intervention by means of a randomised controlled trial. However, logistic and political constraints made this impossible, and after lengthy discussion and negotiation stakeholders settled for a pragmatic, quasi-experimental design. A non-randomized intervention study using geographical controls was launched in mid-July, with all new patients registering in the ARTC enrolling into either: standard care plus support group (intervention) or standard care only (control) groups according to which community *(inkhundla)* they normally resided in. The classification of study groups as either 'intervention' or 'control' could not be randomised, being determined solely on the basis of the distribution of the *Basiti* volunteers, and so the possibility of introducing a selection bias was inevitable. Geographical controls were used to minimise the possibility of 'contamination' between the two arms of the study, and to try to avoid creating resentment in the standard care only arm through them getting less attention than the support group people. All patients retain their freedom to move between intervention and control groups, but the analysis will be carried out on an intention to intervene basis.

***Conduct of study***
Enrolment of patients and consent The ARTC nurse invites all new ART patients living in the 'intervention' *tinkhundla* to join an ART support group. Information and explanation

[3] *Basiti* (singular *Umsiti*) literally means 'helpers' in siSwati

about the nature and purpose of the study are given to eligible patients by the ARTC nurse verbally and via an information leaflet in siSwati. New ART patients from the 'control' *tinkhundla* receive normal care without the support group enhancement. Baseline data are collected on all patients. If at the end of the evaluation support groups have been shown to significantly improve outcomes additional *Basiti* will be recruited and trained and support groups will be established in the 'control' *tinkhundla* as well.

Recording of outcome measures Information on clinic attendance (late or on time), default, medication compliance and functional status is recorded on specially designed Pill Count Forms by the Lay Counsellors every time patients attend for review. The information on the forms is later collated and entered into a computer programme (EpiInfo). In order to facilitate complete recording of outcome measures all new ART patients are provided with a plastic box labelled with simple instructions, in siSwati, to encourage them to bring their medication and adherence card to every ARTC appointment.

Referral of 'intervention' patients to *Basiti* Once patients from 'intervention' *tinkhundla* have agreed to join a support group they are given the name and contact details of their local *Umsiti* and advised to introduce themselves to him or her at the earliest opportunity. The ARTC nurse maintains a register of 'intervention' patients and their respective *Basiti*. The names of patients attending the weekly support group meetings are recorded by *Basiti* and reported to the ARTC staff at the monthly *Basiti* meetings held at GSH. The list of patients referred to *Basiti* is then reconciled with the lists of support group attendees.

Weekly ART Support Group meetings These were intended to be held once per week in the local community within 'intervention' *tinkhundla*. *Basiti* are each provided with a folder containing their Terms of Reference, a document prescribing the conduct of Support Group meetings, a form for recording the names of attendees and the topics discussed at meetings, and printed resources. ALL patients who have been on ARVs for less than 6 months are eligible to attend Support Group meetings, not just the new patients referred by the ARTC nurse. This is to enrich the collective experience of the Support Group attendees at an early stage and to avoid creating any tension between study participants and non-participants.

Monthly *Basiti* continuing education and development meetings These are held at GSH every second Wednesday of the month. The purpose of the meetings is give *Basiti* an opportunity to share experiences and ideas for 'best practice', to provide them with information updates, to collate information recorded in the weekly Support Group meeting forms, and to pay *Basiti* their monthly E100 allowance.

***Evaluation***

Outcome variables are being continuously monitored by analysis using EpiInfo. The intention was to report on these at monthly intervals until completion of the evaluation period after 6 months, or on unequivocal demonstration of the benefits of the ART expert patient support, whichever was the sooner. Unfortunately, because of the delay in the start of the programme engendered by uncertainty over the optimal study design, a decision was taken to 'go live' with the programme from the outset, instead of running a pilot first. Recent evaluation of the experience of the first 2 months of the programme with the *Basiti* has demonstrated that this decision was flawed, and a number of unanticipated problems have necessitated major changes to the intervention and raised

questions about the viability of the whole expert patient programme. Recruitment of patients into support groups has been very slow, apparently because of major misgivings of patients about the *Basiti'* credentials, fear of stigmatisation and breach of confidentiality, and logistical problems in attending meetings in the more remote locations. Responding to this feedback the patient information leaflet has been revised and a personalised letter of introduction has been produced for patients to take to their *Umsiti* on referral. Also, I obtained sponsorship from Boots PLC in the UK to pay for good quality badges and identity cards to provide the *Basiti* with more of a corporate identity and to help them gain patients' trust and confidence.

It seems likely that the programme will need to run much longer than 6 months (funds permitting) in order to demonstrate any significant intervention effect, and unless the changes made result in big improvements in recruitment soon the programme is likely to be suspended. However, important lessons have been learned that may still merit publication, so that other workers attempting similar patient-led HIV/AIDS initiatives can benefit from our experience.

## Implementing IT within ARTC

Since starting in April 2004 the ARTC has used manual patient registration, recall and attendance systems using handwritten registers and diaries. With increasing demand for ART clinic data from different organisations (e.g. MoHSW and SACBC) the amount of information routinely recorded at every clinic attendance and collated in monthly reports has escalated. This often necessitates multiple separate entries of the same information (e.g. patients' names) in as many as 5 different books or forms in a single visit. As ARTC workload has increased the pressure on staff time has intensified and the scope for errors in transcription has increased. This has occasionally resulted in serious errors such as laboratory samples being misidentified. The need for streamlining of patient administration systems has become acute.

NERCHA responded to the need for effective IT systems in ART centres by introducing the Innovir system, which had been used successfully in the private sector in South Africa. This nationally networked comprehensive ART information system was accessible at GSH via 4 PCs provided by NERCHA – three in the clinic and one in the pharmacy. Unfortunately the system proved to be too sophisticated and user unfriendly for the ARTC staff, the majority of whom were unused to IT and had little time or opportunity to learn new ways of working to meet the rising demand for ARVs. Consequently, at the start of this placement the computers had lain idle with no data entry being carried out for almost a year. I arranged my own training on the Innovir system with NERCHA, intending to train the local ARTC staff in turn and get the system up and running at GSH. Unfortunately the day after completing my training session the MoHSW decided to scrap the Innovir system. Because NERCHA had retained exclusive Administrator rights on the four GSH PCs they could not be used for any other purpose. I requested NERCHA to 'unlock' the PCs and install Microsoft Office on them, and in the meantime I set up Access databases for recording ARTC registration data and laboratory results on my own laptop PC, and set about the huge task of populating the database with patient information. After much pleading Microsoft Office was installed on two of the PCs. However, the set up did not include Access and at the end of my placement three months later the ARTC database still only consisted of files stored on my own PC. Before leaving the files were transferred to the ARTC PCs, but still could

not be used by the staff. Spreadsheet analysis of some of the data enabled a limited audit of some ARTC activity (see below).

## Audit of ARTC laboratory requests

All laboratory reports returned to the ARTC between 1 January and 31 July 2005 were entered onto a Microsoft Access database and analysed on an Excel spreadsheet. Of the total of 1,361 reports entered into the database:

- 195 (14.3%) either could not be identified from the information given on the request form, or there was a major mismatch between details on the form and those on the sample

There were 1,059 reports in the 'unclaimed results' file with sample dates between 1 January and 30 June 2005, i.e. patients had not returned for over 1 month after their sample was taken. Of these:

- 701 (66.2%) female, 358 (33.8%) male
- 961 were CD4 results, representing 21.1% of the total of 4,539 CD4 tests ordered by GSH during the same 6 month period
- 57 (5.4%) child/adult status could not be determined. 921 (87.0%) aged 10 years and over. Of these:
- 437 (51.6%) had CD4 <200; 682 (80.6%) had CD4 <400

Thus, over half of these 'primary defaulters' qualified for ART at the time of sampling on the strength of a CD4 count below 200. It is likely that many of those with CD4 200-400 at the time of sampling would have since qualified had they returned for a repeat test 3 months later or developed symptoms of Stage III or IV AIDS.

The office of the Senior Assistant Registrar of Births, Deaths and Marriages for the Lubombo region was visited to try and determine what proportion of the non-returnees had died. Perusal of entries in the death register revealed that death registration by an informant may occur as long as 25 years after death in Swaziland and there is usually no information about the place of residence of the deceased at the time of death. There is therefore no means of determining whether non-returnees have died using routinely available data. An attempt was made to explore a possible association of non-return for results with distance of normal place of residence from GSH. However, patients' physical addresses were not always accurately recorded on laboratory request forms and the lack of accurate, up-to-date maps and difficulty in enlisting the help of staff with good local knowledge impeded progress with mapping. Initial 'eyeballing' of the data suggested that a disproportionately large number of non-returnees were from outside the Lubombo region.

Since this audit procedures for the correct labelling and identification of blood samples have been tightened up by the laboratory. Also, doctors and nurses at the clinical interface have been briefed to complete patient details on lab request forms more carefully, including the identity of the patient's nearest community clinic, and to explain to patients the need to return for their results. This will open up the possibility in the future of patients' blood test results to be passed to their nearest clinic by secure fax, so that they can be informed of their result by a trained health care professional at their local clinic, thus obviating the need for an often long and prohibitively expensive journey to GSH. Why so many patients fail to attend for their results remains open to speculation. Denial by patients, even when severely ill, is commonly observed in AIDS and this,

together with ignorance of the benefits of ART, probably accounts for many instances of primary default.

## Other ARTC-related activities

Patient flow The biggest challenge for the ARTC service has been and remains how to deal with a growth in the number of cases under ART follow up of approximately 90 persons per month, which has been virtually linear since the ARTC at GSH opened in April 2004. With the same number of staff working the same hours and same working routines capacity within the ARTC has remained static and the ARTC continues to try and meet the increasing demand by processing larger numbers of patients per unit time. Personal observation confirms the extreme congestion and massive throughput in the clinic. Patients typically spend several hours in the waiting area for an interview with one of the lay counsellors or the clinic nurse lasting about 10 minutes and a consultation with the clinic doctor lasting as little as 30 seconds. However, good use is made of the long waiting periods with the lay counsellors providing talks and leading discussions on topics such as positive living with HIV, diet and ARV drug compliance. Patients often stand up and address the others in the waiting area with their own testimony of how they cope with problems related to AIDS, ART etc. But default rates (around12% of patients have permanently defaulted since the ARTC started) appear to be increasing and staff report that some patients are frustrated by having to travel long distances every month for no more than a cursory review and to collect their next month's supply of medication. Public health efforts have focussed on innovation in improving patient flow and encouraging ARTC staff to adopt ways of working differently instead of just working harder. Many ARTC staff have been keen to be involved in developing new ways of working, including delegation of patient reviews to the clinic nurse, 2-monthly reviews and repeat prescriptions, and opening up ARV review clinic in satellite health facilities closer to patients' homes. Greater staff involvement in service development issues has been encouraged by holding monthly ARTC staff meetings on the 3rd Wednesday of every month, which I introduced towards the end of my placement. These have been very successful and popular with most staff, but major barriers to change presented by personalities at both local and national levels have impeded progress towards improving patient flow, and a crisis looms as the Global Fund threatens to withdraw funding for ARVs in Swaziland because of poor accounting practices.

Promoting ART adherence Probably the second biggest challenge faced by the ART service is ensuring good adherence to ARV treatment regimes. Less than 95% adherence to the strict ARV drug taking regimes results in rapid rises in viral loads and opens up the possibility of drug resistance. Severe side effects may be experienced in the early months of treatment and the need to take the medication regularly with meals is hard to satisfy in patients with little or no food as a result of unemployment in excess of 40% locally and successive years of drought and crop failures. A free monthly 8kg allowance of maize meal from the WFP for ART patients, distributed by GSH, helps to mitigate food shortages. Poor adherence is sometimes the result of misinformation from friends or family, and sometimes follows advice from traditional healers *(Sangoma)*, whose remedies are often mixed with or substituted for ARVs. Sadly even some practitioners of complementary medicine from the UK and USA are not above plying their trade among a vulnerable population heavily imbued with beliefs and ideas surrounding *muti* (black magic), and some of this advice is in direct conflict with that of conventional medicine. Previously the treatment adherence promotion effort relied on opportunistic advice given by health care staff in ARTC and Home Based Care,

instruction given to groups of patients in the waiting area by the lay counsellors, and targeted advice for clinic defaulters delivered in the community by Treatment Adherence Supporters on motorbikes. However, the introduction of routine pill counting for all new patients in the ARTC as part of the expert patient programme evaluation demonstrated that time spent by lay counsellors with patients on a one-to-one basis was well rewarded by exposing patients' adherence issues, sometimes unusual and unexpected, and offering protected time in private to address them. This additional task increased the workload of the lay counsellors significantly, but it was offset by increasing the complement of lay counsellors from 3 to 6 with extra funding from the SACBC. In order to encourage patients to bring their medication to clinic with them a cheap, durable and compact 'pill box' was conceived with involvement of both ARTC staff and users. With SACBC funds I procured 400 boxes direct from a Swazi plastics factory and these were then labelled with the patient's name and ARTC number, and simple instructions in siSwati. These are issued to all new ARV patients and have proved popular.

Health education and information materials Despite being the country with the highest prevalence of HIV infection of in the world there has been surprisingly little investment in producing health educational materials related to HIV infection in siSwati. Although both English and siSwati are the official languages of Swaziland the majority of people in the rural areas (nearly three quarters of the population) speak little or no English, and very few can read or write English. But almost all materials produced by the government and NGOs involved in HIV/AIDS care are only available in English. During my placement I made several approaches to the key organisations in Swaziland responsible for HIV/AIDS-related health promotion activities, but in the absence of any tangible results I started to produce home-made resources in siSwati for use at GSH. This relied on taking existing materials produced by organisations such as the International AIDS Alliance and adapting and translating them for Swazi patients. Unfortunately lack of funding for this activity and constraints on translator time limited my capacity to produce attractive materials in anywhere near the required volume, but some headway is being made.

Sponsorship of ART expert patients To help motivate the *Basiti* participating in the ART expert patient programme and with the agreement of the other stakeholders involved in the programme I invited Boots The Chemist in the UK to sponsor items designed to promote the corporate identity of the *Basiti.* To this end I produced a T-shirt design. In order to help support the local economy I felt that it was important to use a local manufacturer to produce the T-shirts. However, this proved to be prohibitively expensive and, because of concerns over patient confidentiality and stigmatisation, the T-shirt idea was abandoned in favour of the less visible and lower cost alternative of high quality name badges, ID cards and other small items. Boots generously met the estimated cost of £260 for procuring these.

## Supporting GSH-sponsored community health activities

A number of clinics and departments at GSH existed under the heading 'Community Health'. These included TB Clinic, Epilepsy Clinic, PMTCT, VCT and Home Based Care. Examples of my involvement in the activities of these clinics and departments are given below:

TB Clinic – audit of new TB patients seen and referrals for VCT The records of all new patients seen in the TB clinic in the 5-month period between November 2004 and March 2005 were reviewed to ascertain how many patients were referred for HIV testing and

what proportion of these were HIV positive. Also, how many HIV positive TB patients were put on cotrimoxazole prophylaxis. The results are shown below:

| Month | New TB patients seen | TB patients tested for HIV | TB patients testing HIV +ve | HIV +ve TB patients Rx cotrimoxazole | HIV +ve TB patients on ART |
|---|---|---|---|---|---|
| Nov 04 | 148 | 65 | 61 | ? | 0 |
| Dec 04 | 179 | 128 | 126 | ? | 1 |
| Jan 05 | 168 | 89 | 83 | ? | 3 |
| Feb 05 | 99 | 61 | 57 | ? | 2 |
| Mar 05 | 108 | 64 | 62 | ? | 3 |
| **Total** | **702** | **407** | **389** | **?** | **9** |

- 58% of new patients seen in the GSH TB clinic were tested for HIV at GSH. The remainder of patients did not have an HIV test result recorded because:
  1. they had transferred out of area, or
  2. they had not yet made up their mind to have VCT, or
  3. they had declined VCT

  The vast majority had simply transferred out of area, and so no information about their subsequent follow-up is available at GSH
- 96% of new patients seen in the GSH TB clinic tested for HIV had a positive result
- The numbers of HIV positive TB patients put on cotrimoxazole prophylaxis could not be determined, as cotrimoxazole is initiated by the ARTC and this information is only relayed back to the TB clinic if the patient volunteers it.

The main recommendations from this audit were that: 1) referral of TB patients for HIV testing should be automatic and only deferred by patient opt out. This is in line with WHO recommendations; 2) information links between the TB clinic and ARTC need to be strengthened in order to ensure that all HIV positive TB patients are offered cotrimoxazole prophylaxis.

Epilepsy Clinic, VCT and PMTCT My involvement with the Epilepsy Clinic consisted of visits to some of the 23 clinics throughout Lubombo that were participating in the chronic disease management for epilepsy programme, and also helping to run a series of workshops for health care and allied professionals and Rural Health Motivators (RHMs) designed to enhance the quality of epilepsy care in the region. With VCT and PMTCT my involvement likewise consisted of supervisory visits to outlying clinics providing these services. In addition I attended regular PMTCT/VCT meetings organised by the MoHSW and carried out some analytical work based on monthly statistical reports to SACBC and MoHSW.

## Supporting Home Based Care

Most of the prevention, treatment, and care and support activities for Swazi people living with HIV/AIDS (PLWHA) are located in hospitals and clinics. Domiciliary-based primary care, as per the UK model, is almost non-existent, although home based care is explicitly included in the government's HIV/AIDS strategic plan. By Swazi standards the GSH home based care service is relatively well developed. The Home Based Care Team (HBCT) has a schedule for visiting all homesteads within a 50km radius of GSH once per month, when usually a team of 3 nurses take the HBCT 4x4 vehicle loaded with basic nursing requisites, disinfectant, a few pain killers, oral rehydration solution

(ORS), eggs, vegetable oil and bags of maize meal to the homes of housebound patients (many on ART) at the direction of the local RHM. The purpose of the visit is usually to assess nursing care, medical and social needs, give practical instruction to carers on meeting basic nursing needs, such as washing, care of pressure areas, feeding etc, distribute food to the poorest families, and mobilise what meagre community resources there were to care for seriously ill or dying parents and OVCs. Sometimes visiting doctors or elective medical students would accompany the HBCT to provide medical input. Needless to say even the best efforts of the GSH HBCT were rarely equal to the routine nursing needs of the community, let alone the huge clinical, especially palliative, care needs encountered. It is likely that, owing to stigmatisation and social isolation, many cases of severe need never come to the attention of the RHM or HBCT. Typical cases for whom little could be done except offer basic advice and recommend referral to the hospital were severe Kaposi's sarcoma, vesico or recto-vaginal fistulae, severe wasting and neuroparalytic conditions secondary to AIDS and, in children, diarrhoea and failure to thrive.

Apart from accompanying the HBCT on visits my involvement consisted mainly of preparing a $156,000 funding bid to the United States Agency for International Development (USAID) for recruiting a specialist community nurse, developing a clinical prioritisation tool for RHMs, health promotion initiatives and community micro-agriculture projects. I also assisted in the procurement of a water pump to sustain a micro-agriculture project already under development (see below).

## Community-led micro-agriculture project to support PLWHA

Maphungwane is a rural community about 15km south of Siteki. Three years earlier a group of men and women approached GSH HBCT to look into the feasibility of setting up a vegetable garden, the produce of which was intended to help feed people who are housebound through infirmity (mostly PLWHA) or old age, as well as orphans and other vulnerable children living in the area. A plot of land situated on a fertile, well-drained hill slope adjacent to a natural lake was obtained through the local Chief. For nearly 3 years local volunteers have been working with the technical assistance of an Agricultural Officer appointed by the Ministry of Agriculture to grow peanuts, beans, maize, cabbages, lettuces and various other vegetables in rotation. Tanks nearby were once filled with water pumped from the lake below to water an adjacent plot of land. Unfortunately the pump failed soon after installation and, because it was either impossible or uneconomic to repair, it was removed. Since then the women have had to carry water in watering cans or pails on their heads 200 metres up a steep path every day to keep the crops from dying during the dry season. Promised repairs to the pump have never materialised, although seedlings and assistance with expanding the garden have, and after an unusually prolonged dry season the women's manual watering efforts were insufficient to prevent some of the produce from dying. A nurse from the HBCT and I entered into lengthy negotiations with local stakeholders, an NGO called World Vision and representatives from the UN Food and Agriculture Organisation (FAO) to carry out a survey, procure a portable diesel pump, additional tanks and replacement pipes and, just before I left, restore the water supply. However, the pump remains the property of HBC and, because of its portability, can be used to assist with water emergencies in other locations within its catchment area. The first harvests will be distributed to PLHWA soon. The project will be evaluated and, if deemed successful and sustainable, replicated elsewhere.

## HIV/AIDS and TB policy and strategy meetings

During this placement I took part in a number of meetings concerned with HIV/AIDS treatment and care and TB control. Information about and invitations to meetings were usually received at very short notice and were usually occasioned by an apology for absence on the part of the Medical Director rather than being a regular and ongoing personal involvement. Meetings attended included:

- Quarterly PMTCT meeting (SNAP)
- TB meeting (WHO)
- ART information management (SNAP)

Despite usually lacking an agenda or previous meeting notes these meetings were a rare and valuable source of information on national policy and strategy, or provided me with a useful platform to offer information, feedback or personal views during 'Any Other Business'. Occasionally there was enough notice and information about the purpose of a meeting to be able to prepare an item for late inclusion in the agenda. But generally meetings were poorly advertised or were cancelled or had their times or venues changed at the last minute, or sometimes without any notice at all. Chairing was usually mediocre and minutes were almost never circulated. Actions were rarely recommended or executed. On the positive side meetings always began and ended with prayer, ended on time and the customary free meal on conclusion assured a healthy attendance. Unfortunately such meetings were always held in the capital Mbabane, and so for GSH people the long journey meant that a whole working day was usually lost.

## Public health advocacy

In Swaziland fear of domestic violence appears to be deterring some women from disclosing their HIV status to their sexual partner, thereby denying them access to ART. Before people can be started on ART they must be prepared to disclose their HIV status to a partner or close friend/family member, as the arduous programme of treatment and follow-up is impossible to undertake in secret. There are many anecdotal reports of HIV positive women being beaten up and abandoned to poverty on disclosure and of others foregoing ART because they feared the violent consequences of disclosure, but no data exist to help estimate the scale of the problem. AIDS treatment centres in the USA and UK recommend screening for domestic violence at the VCT stage. However, these countries have well-established infrastructures to support women who are the victims of domestic violence. Such support does not exist in Swaziland and so the ethics of screening women for risk of domestic violence at VCT, when there is no effective legal or social welfare recourse to intervene in it, are questionable. I started to engage with two organisations, namely Swaziland Action Group Against Abuse (SWAGAA) and the Anglican Diocese in Swaziland to look at the feasibility of carrying out a needs assessment on this issue, but lack of time and conflicting priorities prevented me from progressing this further. However, I was able to establish that this is a very important and under-researched issue in Swaziland, and there is plenty of enthusiasm among interest groups to support future projects in this area.

## Clinical work

I had limited personal exposure to the clinical workload through working a small number of sessions in the OPD and accompanying the Home Based Care Team on visits to rural communities. This provided an invaluable opportunity to witness first-hand the scale and depth of HIV-related morbidity, suffering and poverty prevalent in the rural areas of Swaziland.

## *5. Reflections on my training experience*

### Public health analysis

Six months in Swaziland witnessing the evolving public health disaster has led me to conclude that its unprecedented scale and rate of progression are the product of an extraordinary amalgam of political, social and cultural factors. I have tried to tease out these factors by carrying out a SWOT analysis based on my observations and information gathered during the training placement.

- ***Strengths***

Swaziland is a small country with relatively good communication systems and 80% of the population live within 5 miles of a health care facility. Apart from English there is only one language (siSwati) and only one indigenous group (Swazi), 98% of which is Christian. Thus Swaziland is largely immune from the kind of internecine tensions that have impeded progress in other African states. The land is relatively fertile, though successive years of drought have taken their toll of crop harvests, and compared to its neighbour, South Africa, it is regarded as a safe and secure place to live. There is a thriving tourist industry. The Swazi people impressed me with their friendliness, courteousness and humour, and there seemed to be a high degree of cohesiveness and reciprocity within families and communities.

- ***Weaknesses***

The country is governed as an absolute monarchy and political parties are officially outlawed. Apart from the few remaining white Swazis and expatriates political power and wealth is vested almost exclusively in a large and elite royal clan, who maintain their position of dominance in society by keeping two-thirds of the population rooted in poverty and by restricting their access to education. The King is a staunch traditionalist. Since coming to power in 1985 he has set great store by maintaining Swazi cultural values and traditions, which set many inequitable legal and social precedents ensuring that the distribution of status, wealth and power favours males in general and the King in particular. Polygamy is rife and the position of poorer women, especially widows, in society is both wretched and precarious. Despite 98% of Swazi declaring themselves Christian their beliefs, attitudes and behaviours are strongly influenced by the fear and suspicion engendered by *muti*, which pervades relationships not only between ordinary citizens but also between key political players. Consequently few Swazi are prepared to confront their peers, colleagues or political leaders over their shortcomings for fear of incurring bad *muti* for themselves or their families. Likewise many of the population, especially in the poor rural areas, will recourse to traditional healing before conventional medicine in the event of a downturn in their wellbeing. Thus, public health solutions begat of the post-enlightenment era are having little impact on societal health problems of a darker and more anachronistic conception. Numerous governmental, non-governmental, voluntary and charitable organisations exist for the purpose of tackling the HIV/AIDS epidemic (Box 4), indeed a select minority of Swazi people are growing in prosperity as a result of a booming HIV/AIDS ‘industry’. However, overall coordination of these organisations is weak.

**Box 4. Organisations involved with HIV/AIDS in Swaziland**

- SNAP – Swaziland National AIDS Programme
- NERCHA – National Emergency Response Council on HIV/AIDS
- SASO – Swaziland AIDS Support Organisation
- SwaNASO – Swaziland Network of AIDS Support Organisations
- SWAPOL – Swaziland Positive Living for Life
- PSI – Population Services International (Swaziland)
- New Start
- TASC – The AIDS Information & Support Centre
- SHAPE – Schools HIV/AIDS Population Education
- UNAIDS (Swaziland)
- WHO (Swaziland)
- Save the Children (UK) Swaziland
- The Italian Co-operation (Swaziland)
- Anglican Diocese of Swaziland

Policy and strategy documents such as The National Strategic Plan for HIV/AIDS and the MoHSW Seven Point Plan for Tackling HIV/AIDS are purported to exist. But these documents have never been cascaded down to providers at GSH, and even personal visits to MoHSW and NERCHA were never rewarded with the sight of these documents. Typical responses from officers were 'not yet published – awaiting statistics from sentinel surveillance report', 'being revised and reprinted', and (from the Department for Health Development at MoHSW) 'never heard of it – try SNAP'. Perhaps the most serious barrier to turning the tide of the HIV/AIDS epidemic is the *laissez-faire* attitude that seems to pervade most of Swazi society. There does not appear to be any will to change. Most people have little interest in politics of any kind, let alone the politics of envy, and even the crass inequalities that confront nearly all Swazi at some time or other produce few murmurings of discontent. The position of the most affluent members of Swazi society is regarded by the most deprived as good fortune or a blessing from God. Despite his well publicised excesses King Mswati III remains a popular figure, and the highly privileged stations of the large royal elite in Swaziland are rarely challenged. Interestingly, there is no exact translation for the word 'corruption' in siSwati. The closest equivalent word in siSwati literally means 'opportunity'. Mswati III holds that the culture perpetuating royal pre-rogatives and traditions of male dominance and polygamy is a key strength of the Swazi nation. Despite the official rhetoric and billboard messages promoting sexual fidelity or abstinence the 38 year-old King's recent betrothal to a teenage girl shortly to become his thirteenth wife suggests that he does not take his position as a role model very seriously and, not surprisingly, the new Constitution (still in draft form) does little to alter the *status quo*.

- ***Opportunities***

Building on the strengths referred to above a number of opportunities exist to halt the decline in Swaziland's economic and public health. The Global Fund has enabled free access to ARV and TB drugs and, along with other sources of international donor funding, ample resources are being channelled through NERCHA and SNAP to tackle the HIV/AIDS crisis. As a head of state still enjoying the popular support of the majority of Swazi citizens the King is in a strong position to influence the attitudes and behaviours of people at risk of HIV infection today and in the future. He has only to set an example by adopting health-seeking attitudes and behaviours himself.

- ***Threats***

NERCHA and the MoHSW are seriously behind with the HIV/AIDS patient management plan and ARV drug distribution reports that are required by the Global Fund, who have threatened to withdraw funding if the required information is not forthcoming by the extended deadline of the end of November 2005. This is no empty threat, as a similar fate befell Uganda, which likewise failed to deliver on its mandatory reporting requirements. Although a limited contingency fund exists withdrawal of Global Fund support could spell the end of free ARV drugs and disaster for most PLWHA in Swaziland. The trade union movement and other politically active groups are gathering strength and support in Swaziland, and undercurrents of discontent are beginning to break the surface in the form of public demonstrations, small-scale bombings and the appearance in a previously restricted national press of articles openly critical of the government. The King shows no sign of departing from his line of staunch traditionalism in either his personal or public life, and his continued promotion of a new constitution reasserting government by royal decree provides scant hope for a reversal of the social and economic ills that continue to vitalize Swaziland's HIV/AIDS epidemic.

## Training analysis

My six months in Swaziland have been a very worthwhile experience, but my perception of the practice of public health in sub-Saharan Africa, in particular the role of international actors, has changed considerably. Despite the inevitable frustrations I am thankful to have had the opportunity to make perhaps a small difference to at least a small section of the impoverished and disempowered majority. It has reinforced my conviction that all humanitarian work in the poor majority world must be properly evaluated to ensure that long-term impacts are beneficial, and that donor resources should be made to work for people in the most efficient way possible. My subjective assessment of the strengths and weaknesses of the training placement are given below:

- ***Strengths***
  - Opportunity to experience public health practice in an international setting with direct exposure to a chronic disease epidemic of complex causality involving broad determinants
  - Strongly home-supported training placement offering a rare opportunity for a public health trainee to gain that elusive 'previous overseas experience' usually required by prospective employers in international public health
  - 'Arms length' supervised training experience with the right balance of relative autonomy and supervision for the development of self-motivated learning, leadership and project management skills
  - Well-maintained vehicles are readily available (with driver, if required) for the trainee to use on hospital business

- ***Weaknesses***
  - Local support for the trainee is weak, for example the lack of dedicated office space, IT, secretarial support and public health professional back-up for dealing with cultural, administrative, logistic and professional barriers. However, the latter encouraged the use of personal resources and survival strategies that afforded useful conditioning and training for future work in this kind of setting

- ***Opportunities***
  - As outlined under ‘strengths’
  - The life skills to be gained from working and living with people of a different culture are great providing you are prepared to venture outside the comfort zone of a close-knit expatriate community. The experience of living as a member of a cultural minority is illuminating

- ***Threats***
  - In my experience the main threats to health were from ticks (tick typhus) and road traffic accidents (near-misses on my bicycle and as a pedestrian). Personal security is less of a concern in Siteki than in most parts of the UK, but the large towns in Swaziland (Manzini and Mbabane) should not be regarded as safe. Police and other uniformed officials are reasonably trustworthy in Swaziland, but should not be trusted under any circumstances in Mozambique.

## *6. Training competencies met*

Training competencies covered during the course of my placement are listed in Box 5.

**Box 5. List of competencies covered during training placement**

| | |
|---|---|
| 1.6 | Access and use appropriately other routine data sources including health service utilisation data, laboratory reports, prescribing, cancer registry and public health common data set. |
| 1.8 | *Use data from routine information sources to undertake time trend analysis and on a geographical basis to address local issues, using spreadsheet and database skills. |
| 2.1 | Recognise inequity, discrimination and its impact on health. |
| 3.9 | *Use data collected at local level to evaluate the effectiveness or outcomes of an intervention or service. |
| 3.10 | *Design, initiate and complete evaluation/audit projects with public health and outside public health in partnership with clinical or other colleagues. |
| 3.11 | *Identify steps for the implementation of recommendations based on research where appropriate and possible. |
| 4.8 | Demonstrate facilitative skills and an ability to work with colleagues from different professional and organisational backgrounds. |
| 5.2 | Demonstrate commitment to the promotion and protection of health, the prevention of disease, the reduction in inequalities and long-term achievement of equity in health. |
| 5.14 | Ensure that the development of health programmes and services are informed by consideration of health inequalities. |
| 6.1 | Understand the importance and impact of public policy and legislation on health at local, national and global levels. |
| 7.7 | Act as an advocate for the public health and articulate the needs of those with poor health in society, including those who are dispossessed, vulnerable and discriminated against. |
| 7.5 | Identify and engage key stakeholders and partners for effective public health practice. |
| 8.13 | Demonstrate perseverance, resilience and diplomacy in dealing with opposition or antagonism to sound public health advice. |
| 8.7 | Deal with the uncertainty and prolonged time-scales of public health work. |
| 9.7 | *Draw appropriate conclusions, set in context, and make recommendations from the results of own and others' research. |
| 10.2 | *Understand relevance of management skills and apply them for effective public health practice. |
| 10.15 | *Appraise a business case |
| 10.16 | *Demonstrate project management skills in specific pieces of work. |

* denotes competencies not previously met

## 7. Conclusions

From the training point of view my six months in Swaziland was very successful. However, from a population health perspective, I am disappointed at how little my efforts have impacted on HIV/AIDS service development in Lubombo, even allowing for the relatively short duration of my stay. This in itself has been a valuable lesson in change management. In Swaziland the barriers to change appear to come not only from the powerful minority who have vested interests in maintaining the status quo, but also from the disempowered majority, whose almost universal, fatalistic acquiescence to the status quo is rooted in poor education, superstition and strongly traditionalist gender and social norms. Despite the scale of the suffering and its proximity to almost every family in Swaziland there continues to be disproportionately little appreciation of the need or will to forsake high HIV-risk behaviours, and with precious little engagement between the political powers and the poor majority the prospects for successful rehabilitation in the near future appear bleak. With so little commitment at almost every level to address the public health challenge of HIV/AIDS the mismatch between insight and power that besets the lone public health practitioner in Swaziland is frustrating and demoralising.

## 8. Recommendations for future training placements

This six month training placement afforded an exceptional opportunity to gain exposure to public health work in a developing country setting where a trainee has little or no previous overseas experience. Working within a disintegrating health care system at the epicentre of the global HIV/AIDS pandemic presented added challenges. Regular resort to first principles in the absence of established public health infrastructures tests basic public health knowledge and skills, as well as personal resources.

As it stands at the moment, based on my experience in 2005, this training placement can be highly recommended to a specialist registrar in the later stages of public health training. Given the strongly 'doctor-centred' culture prevalent within the health care system the balance of the SWOT analysis of training outlined above might weigh less favourably for non-medically qualified public health specialist training. However, there is scope for flexibility within the training placement, and the early experience of the non-medically qualified person who succeeded me has been positive.

Notable additional points for any individual planning such a placement:

- A portable notebook computer with the full Microsoft Office suite, EpiInfo, Internet and an additional statistical package (e.g. Stata) is essential
- Comprehensive travel insurance is vital
- Sorting out immigration formalities about 6 months in advance is advised
- It is not worth taking a lot of books. Excess baggage is costly and it makes better economic sense to have new books sent out from Teaching Aids at Low Cost (TALC) http://www.talcuk.org/ and leave them there
- A full UK driving license with photocard is recommended

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