

Out of Programme Training: International Public Health Training Placement

**Good Shepherd Hospital, Siteki, Swaziland
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REPORT



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1. Introduction

This report outlines the work undertaken during my placement at GSH. The report includes a brief introduction to Swaziland and Good Shepherd Hospital, a personal narrative, and a description of the work undertaken (grouped by disease) and some reflections.

My predecessors have written in detail about both Swaziland and the placement and I would refer readers to those reports.¹

A separate version of this report includes a detailed handover and next steps.

2. Background

2.1 Swaziland

Swaziland is a country in Southern Africa with a population of approximately 1 million, surrounded by South Africa and Mozambique.

Swaziland is a monarchy, and the current Head of State is King Mswati III. The parliament consists of the Senate (30 seats; 10 members appointed by the House of Assembly and 20 appointed by the monarch) and the House of Assembly (65 seats; 10 members appointed by the monarch and 55 elected by popular vote). Election of the members of the House of Assembly is done on a non party basis, with candidates nominated by the local council of each inkhundla (constituency).

There is a complex relationship between parliamentary structures and traditional structures.

Swaziland is a lower middle income country with a Gross Domestic Product (PPP) of \$4,400 (2009 estimate). 69% of the population live below the poverty line with 28% unemployment². Subsistence farming remains common.

Current life expectancy in Swaziland is 48 years.³ The Human Development Index for Swaziland is 0.572, ranking it as 142nd out of 182 countries with data⁴.

Swaziland has both the highest adult HIV prevalence in the world (26.1% of adults aged between 15 and 49 in 2007) and the highest TB incidence (1200 per 100 000 population per year in 2008)⁵. Health issues are explored in detail under each section.

2.2 Good Shepherd Hospital

Good Shepherd Hospital (GSH) acts as the district hospital for Lubombo region, the most rural and poorest region of Swaziland (fig.1).

¹ Reports available at <http://www.bradfordresearch.nhs.uk/index.php?id=8&sid=66>

² <http://data.worldbank.org/country/swaziland>

³ <http://www.who.int/whosis/whostat/2010/en/index.html>

⁴ http://hdrstats.undp.org/en/countries/country_fact_sheets/cty_fs_SWZ.html

⁵ <http://www.who.int/gho/en/>

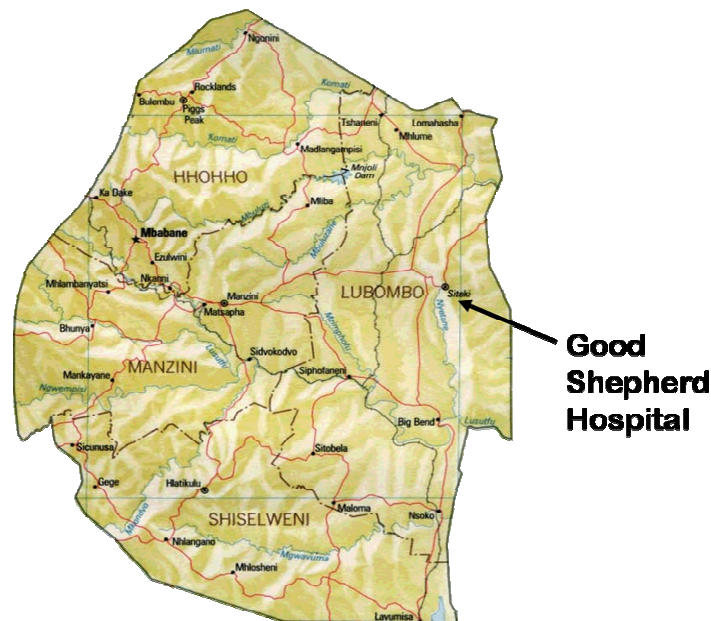


Fig. 1. Map of Swaziland

GSH is a TB diagnostic and treatment centre and provides comprehensive and integrated TB/ HIV management for approximately 900 TB patients per year. GSH is the largest centre for HIV care and treatment in Lubombo and has initiated over 6000 adults and children on anti retroviral therapy (ART). GSH is a Non-Governmental Organisation (NGO) which was originally a mission hospital. Currently near all of the funding for GSH is from the Government of the Kingdom of Swaziland. GSH is currently in the process of becoming a parastatal organisation.



Fig. 2. Wards at GSH

2.3 Placement

Over the last ten years a link has been established between the Nuffield Centre for International Health, Bradford Hospitals NHS Trust and GSH. This is described in detail elsewhere⁶.

Over the last 4 years, GSH has been part of the COMDIS research programme consortium funded by the Department for International Development.

I was the 5th public health trainee at GSH. Supervision was provided by two UK based public health trainers: Professor John Wright, Bradford Teaching Hospitals Foundation Trust and Professor John Walley, Nuffield Centre for International Health and Development, University of Leeds. In addition, local Supervision was provided by Dr

⁶ Wright J, Walley J, Philip A, Petros H, Ford H. Research into practice: 10years of international public health partnership between the UK and Swaziland. J Public Health (Oxf). 2010 Jun;32(2):277-82.

Petros, Senior Medical Officer, Good Shepherd Hospital and Dr Joris Vandelanotte, Public Health Consultant and Technical Director, International Center for AIDS Care and Treatment Programs (ICAP) - Swaziland, Mailman School of Public Health, Columbia University. In addition, Ciaran Humphreys, one of my predecessors and currently a Consultant in Public Health with Public Health Wales visited me early in my stay in Swaziland to provide support and supervision.

3. Personal Narrative

Communicable disease control has been a longstanding passion for me, first being manifested in an intercalated BSc in Parasitology and Entomology. During that year, I started to realise the importance of both a public health perspective and a global perspective.

After graduation and core medical training, this interest took me into Public Health and the North West Public Health Training scheme (via an interview which included discussion about a recent VHF outbreak).

After my MPH and just over a year with a PCT, I started a 2 year health protection placement. This left a few months at the end of training, an ideal opportunity to do something different and to consolidate all my training.

I had seen the advertisement in PH.com for the placement in Swaziland- and this seemed ideal- a combination of health protection and international public health. Following discussions with John Wright and John Walley and negotiations with Mersey Deanery, I was offered the placement and applied to PMETB for recognition of this placement as Out of Programme Training (OOPT).

During this time, I visited Good Shepherd Hospital for a week to see Susan Elden (my predecessor) in action and returned both excited by the opportunity but a little daunted by the challenges and the obvious abilities and achievements of previous registrars.

PMETB approval was granted in September, and then we (wife Lindsay and my son Ben, and I) started the preparations required to move to Swaziland.

At the end of December 2009, Lindsay, Ben and I left the UK in deep snow, successfully avoiding what would be a very harsh winter, and arrived in Swaziland.

I started my time at GSH with a planned self designed 2 week orientation programme. Unfortunately, I have still not completed this as in the second week urgent procurement issues for the Global Fund Project arose and work and life rapidly sped up from there!

During my 6 month placement, my planned focus was the completion of the operational research on pre ART and implementation of a Global Fund Against AIDS, TB and Malaria (GFATM) funded project. Other work was based on need and opportunities that arose. These are described in detail below.

After we had settled and arranged child care, Lindsay, a GP, started work in the Outpatients Department. She soon became increasingly involved in the hospital - in particular developing the resuscitation service and a chronic diseases clinic.

We spent a very busy 6 months as part of the hospital, often it seemed with a house full of people. We worked hard but also enjoyed the advantages of living on site. Instead of weekly commuting from Liverpool to London or daily commutes to Manchester, I went home for lunch and had the opportunity to be back before Ben's bedtime. Even on days I had meetings elsewhere, the drive home across Swaziland was preferable to the traffic jams of the M62! We also took the opportunity to explore Swaziland. Watching rhinos on a Friday evening is a very effective way of unwinding!

After 6 months, it was difficult to leave Good Shepherd. It has had a huge impact on me both professionally and personally and I learnt a huge amount. I was fortunate in that I had completed all my competencies prior to GSH; however during the 6 months I revisited and used a huge number of these. Additional reflections and a list of competencies revisited are included at the end of this report.

4. Tuberculosis

4.1 Background

Swaziland has the highest TB incidence in the world (1200 per 100 000 population per year in 2008)⁷.

In 2009 a total of 11,032 cases were notified to the National Tuberculosis Control Program: 9,558 new cases and 1,474 retreatment cases. Case detection rate stands at 76%. Nationally treatment success rate is 68% (cure rate of 50% and completion rate of 18%).

A recent drug sensitivity survey has shown that 7.7% of new cases of TB are multi drug resistant TB (MDR TB) and 33.9% of previously treated cases are MDR TB.

4.2 Global Fund to Fight AIDS, TB and Malaria Round 8 Grant

Background

GSH was successful in being awarded sub recipient status under Global Fund to Fight AIDS, TB and malaria (GFATM) Round 8 TB grant. This was based on work led by Kerry Bailey during a previous placement. This proposal covered a number of key areas:

1. Incentives to Community Based Organisations (CBOs) for patient follow up
2. Enablers to community MDR-TB treatment supporters
3. PR (Principal Recipient) and SRs (Sub Recipients) administration and overheads
4. Salaries of staff for Facility and Community levels
5. Training of Adherence officers to include DOTS, TB/HIV
6. Training of Community Health Workers on MDR-TB (Multi Drug Resistant Tuberculosis)
7. Training of Community treatment supporters on adherence, TB suspects identification, sputum collection etc.

This was to start on 01/01/2010.

Overall Project

Activities

After the considerable effort in winning the grant funding came the hard work of delivery. The role of GSH was changed during the later stages of the award. The Principal Recipient (National Emergency Response Council on HIV Aids (NERCHA)) and the National TB Control Programme (NTP) opted to deliver some of these activities themselves.

⁷ <http://www.who.int/gho/en/>

During grant writing, twelve CBOs were identified as sub sub recipients and these are listed below.

- 7th Day Adventist
- AMICAALL
- Cabrini Ministries
- Caritas Swaziland
- Catholic Clinics
- GSH
- Methodist
- Mpaka High Care Clinic
- Muna Healthlife
- Nazarene HIV Task Force
- TASC
- Wellness Centre

These were believed to be already supporting TB patients through treatment. Initially GSH was to only supervise other organisations in Lubombo. Following the withdrawal of the other sub recipient and extensive discussions, GSH agreed to supervise all the CBOs with NTP support.

A detailed GSH proposal was developed for NERCHA with an associated concept paper on patient support, an operational plan, a budget and a monitoring and evaluation (M&E) framework. This was a prolonged process due to lack of clarity about the process and changing requirements of the PR, limited leadership from the NTP, some concerns from hospital management, and a marked difference between the situation described in the grant bid and the current reality.

At the start of Quarter 2, the proposal was agreed and funds transferred. GSH agreed to undertake the following activities

- 1 Incentives to Community Based Organisations for patient follow up
2. Sub recipient administration (monitoring of Community Based Organisations
3. Salaries of staff for facility and community levels [GSH only responsible for own staff]

In addition GSH was to provide technical input into all the training activity but NTP would deliver the training.

A project board and project team were formed. A project nurse and an M&E officer were recruited and are implementing the project. Significant training and support was provided to these 2 staff members. The money for the finance officer was used as part of the funding for the new financial manager at GSH.

An assessment of all 12 CBOs was undertaken. Most had systems to provide support to people living with HIV (PLHIV) but none of the CBOs had formal systems of TB patient support. Extensive organisational development has been undertaken. An M&E system was designed and implemented. A curriculum for TB treatment supporters was developed with the NTP and a training programme was developed. By end of August 2010, training will have been delivered to the treatment supporters of all the CBOs. A referral system from TB diagnostic centres to CBOs was developed and this is currently being communicated to all the diagnostic centres. A financial system has been developed and implemented.

Between April and June 2010, 218 patients were supported and rapid scale up is anticipated.

Initially I undertook most of the work of this project, in particular proposal and project development, and detailed planning. Once project staff were recruited, I slowly withdrew to a technical support role. This project remains at an early stage and is being led by Dr Canaan Mamvura.



Fig.3. Discussions with Sabelo Nkwanyana, Project Nurse

Implementation at GSH

Background

GHS was one of the implementing CBOs, so that our patients would also benefit from this initiative.

In 2005, a network of volunteer expert patients on ART (Basiti) was established across the region to provide support and mentoring for newly diagnosed patients. Basiti are patients on established ART based in each village or town in the region. They provide a mentoring and support role for local patients and run regular support group meetings.

The bid included funding for all diagnostic centres to have a motorcycle adherence officer and a cough monitor (TB screener). These staff were to be recruited nationally and then deployed.

Funding was available for renovation of the TB ward at GSH. This was initially allocated for the construction of a small MDR TB unit.

Activities

In line with our overall countrywide approach, we sought to introduce a model of patient support that included a family treatment supporter providing daily support and a community treatment supporter providing support to both the patient and family treatment supporter but also serving as a link to GSH and the local clinic. The aim was to utilise the current structures as much as possible. Following appropriate training and implementation of referral and communication systems, we extended the role of the basiti to act as TB community treatment supporters.

We also plan to use some of the available funding to pay transport fees for patients to attend reviews, to partly overcome the geographical and financial barriers to access.

Instead of nationally recruited staff, GSH received the relevant funding. The funding for the motorcycle adherence officer was used to support the current posts. The TB screener has been recruited and will start shortly in the Outpatients Department (OPD) as part of an initiative to screen all OPD patients for TB symptoms (as TB screening currently occurs in ART, VCT and PMTCT). This activity will be led by Dr Koshy, and

evaluated as part of his Masters in Family Medicine. Initial support in research design was provided.

The construction of the MDR TB unit faced a number of barriers from funding rules to lack of agreement on funding an MDR service. It was agreed that renovation of the current isolation wards (as a significant proportion would have undiagnosed DR TB) was a priority and an appropriate use of this money. An options paper was developed and a range of opinions sought. An option was agreed, based on maximal impact with minimal disruption to hospital services. Following the failure of the X ray machine at GSH, and consequent complete disruption of X ray services, GSH management have asked to reprogramme this money to purchase a replacement X ray machine.

4.3 National level TB work

Background

In 2009, 11,032 cases were notified to the National Tuberculosis Control Program- 9,558 new cases and 1,474 retreatment cases. The case detection rate is estimated at 76%. Nationally the treatment success rate was 68% in 2009 (cure rate of 50% and completion rate of 18%). 84% of TB patients were co-infected with HIV.

GSH is a member of the Stop TB partnership and the TB Technical Working Group (TWG).

Activities

Through the TWG and Stop TB partnership, GSH contributed to:

- Planned declaration of TB as an emergency on 26th July 2010, with associated response plan. (After my departure, the Government decided not to declare TB as an emergency.)
- Implementation of GFATM Round 8 grant (as above)
- Development of annual work plan for National TB programme
- Writing of NTP annual report
- Development of training materials for community treatment supporters
- Writing of the GFATM Round 10 TB proposal (see below)

4.4 GSH TB Unit

Background



Fig. 4. TB Team, GSH



Fig. 5. Motorcycle Adherence Officers

GSH is a TB diagnostic and treatment centre and, following work undertaken by previous trainees, is an example of successful TB and HIV integration. It provides

comprehensive and integrated TB/ HIV management for approximately 900 TB patients per year.

Activities

Regular meetings of the TB unit continued with a focus on quality improvement. Initiatives included dedicated lead areas for individuals, alterations to suspect management, improved patient flow, and a development of the TB unit.

The wards formerly used for TB “lodgers” were converted into a global fund office and an additional consulting room. Handwashing facilities were installed in all consulting rooms in both TB and HIV to improve infection control. Additional furniture and equipment was secured for TB and HIV units.

Ongoing huge staff turnover continues to provide a major challenge to maintaining and improving quality of care and outcomes.

4.5 Global Fund to Fight AIDS, TB and Malaria Round 10 Bids

Background

The Country Co-ordinating Mechanism (CCM) announced a call for Expressions of Interests for a country proposal for Round 10. Subsequently the National TB Programme decided to apply for Round 10 separately, and asked for Expressions of Interest from the Stop TB partnership.

Activities

GSH led the development of an expression of interest for HIV bid on behalf of the Lubombo sub regional consortium (a development of the decentralisation team above). This was submitted to the CCM. The CCM then opted to change the process, and asked all those that had submitted an expression of interest to form sector based consortia to develop proposals. GSH supported the development of the government proposal, in particular community system strengthening.

GSH led the development of an expression of interest for TB bid on behalf of the Lubombo sub regional consortium. I also joined the national bid writing team, in particular working on patient support and Public Private Mix (PPM).

Next Steps

The final country proposals are awaited.

5. HIV

5.1 Background

Swaziland has the highest adult HIV prevalence in the world (26% of adults aged between 15 and 49 in 2007). Women are disproportionately affected (31% women aged between 15 and 49 are HIV positive compared to 20% of men)⁸. In contrast to many other countries, there is no clear evidence of a decline in HIV in Swaziland (as

⁸ <http://www.who.int/gho/en/>

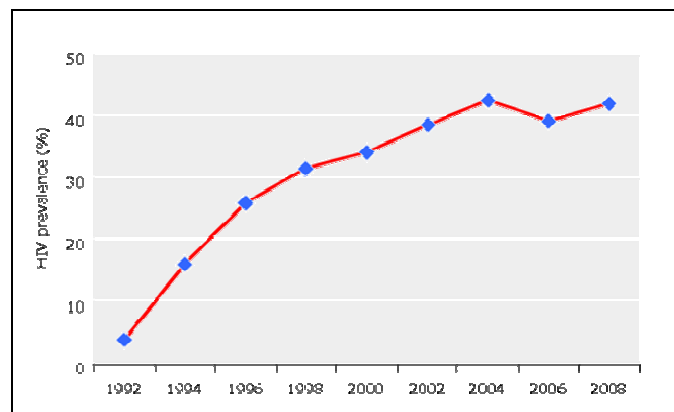
illustrated below)⁹. The estimated HIV incidence rate is 2.9%, high compared to other countries in the region.

In 2009, 185, 803 people are estimated to be living with HIV and this is projected to increase to 216,735 by 2015.

Based on the previous threshold for ART, a CD4 count below 200, there were 52,967 people in need of ART in 2009 and 47,241 people on ART, a coverage of 89%. If the new threshold of 350 is used, 59% of adults and children in need of antiretroviral therapy were receiving it in 2009.

<http://www.unaids.org/en/CountryResponses/Countries/swaziland.asp>

Fig.6. HIV prevalence among antenatal clinic clients in Swaziland 1992-2008¹⁰



5.2 Pre ART

Background

Swaziland has focused on increasing HIV testing and increasing the numbers on Antiretroviral Therapy (ART). There has been little focus on the pathway between testing and ART and services for those not yet eligible for ART. Pre-ART spans the period between a person testing positive for HIV and requiring initiation of ART, and encompasses the interventions included in the continuum of HIV care between these points.

This COMDIS project aimed to develop, implement and evaluate a Pre ART service in the primary care clinics as part of a comprehensive HIV care service. The hypothesis to be investigated was to determine if a Pre-ART service in primary care can effectively prevent and manage opportunistic infections and if a Pre ART service will lead to earlier initiation of ART. Pre ART had been implemented at 4 clinics but further roll out and implementation at existing sites had been restricted by capacity problems, in particular insufficient nurses at clinics, supply problems (Co-trimoxazole and INH), lack of MoH approval for Isoniazid Preventive Therapy and very limited laboratory transport.

Activity

The current research was reviewed and 2 projects were developed- a qualitative project working with the clinics (as a BSc International Health project) and a quantitative project looking at the outcomes at GSH. These were initially agreed by the

⁹ http://data.unaids.org/pub/EPISlides/2009/2009_epiupdate_report_figure4_en.ppt

¹⁰ http://data.unaids.org/pub/EPISlides/2009/2009_epiupdate_report_figure4_en.ppt

Regional Matron (acting Regional Health Administrator), but we were subsequently directed to the MoH Scientific and Ethical Committee (SEC). The SEC did not approve the submissions due to a lack of detail, and concerns about external publication, but they did agree that this could occur as internal service evaluation. Formal feedback from the SEC cited only a lack of research capacity building.

Due to lack of MoH approval, the research involving the clinics was abandoned but an internal service evaluation was planned at GSH, with subsequent submission to SEC for permission to publish. This proposal was resubmitted to the July meeting of SEC and we are waiting final approval. If necessary it will be resubmitted again to the September meeting.

The service evaluation aimed to evaluate the introduction of a pre ART service at Good Shepherd Hospital. In particular 3 cohorts of patients were described and compared- a baseline cohort of Pre-ART patients (Feb/March 2009), a cohort of patients from April-June 2009, as a marker for service implementation, and a cohort of Pre-ART patients in Feb/March 2010, as a marker of service performance and development. The evaluation work was undertaken by David Burtle as part of his BSc in International Health.

The initial plan of phased roll out was not occurring, and the main drive for pre ART services was coming from International Center for AIDS Care and Treatment Programs (ICAP) (a major PEPFAR recipient and technical partner of MoH) not GSH. At the sub regional decentralisation team, (see below) it was agreed that pre ART would be included within a comprehensive package of care and this would be decentralised rather than looking at pre ART and ART services separately.



Fig. 7. PMTCT Unit with HIV/TB building beyond

5.3 HIV Decentralisation

Background

Over several years there have been efforts to decentralise HIV services. Currently there is an ART roll out that visits 15 clinics across Lubombo. In many clinics this was effectively a satellite clinic rather than supporting true decentralisation. There was also an HIV Testing and Counselling (HTC) roll out, which also took and transported CD4 counts and sputum samples for TB testing.



Fig. 8. Sister Fakudze on ART roll out

Activities

ICAP is leading the drive for HIV care and management decentralisation across Lubombo. Lubombo is now divided into 2 sub regions, one with GSH as a hub, the other with the Sitobela Health Centre as a hub. ICAP arranged a weekend meeting of the clinics, GSH and Regional Health Management Team to discuss decentralisation. A Lubombo Sub regional decentralisation team has been formed, a partnership between GSH, ICAP, the Regional Health Management Team (RHMT), the Swaziland National AIDS Programme (SNAP) and the National TB programme (NTP).

The aim is to decentralise both HIV and TB services (as the previous success on TB decentralisation has been reversed by the high levels of co-infection and lack of decentralisation of HIV services). The sub regional decentralisation team has created an interim laboratory transport service using the resources previously used by HTC roll out, while awaiting the implementation of the delayed national service. A strategy of having two joint decentralisation teams to mentor and support clinics to carry out HIV and TB reviews has been agreed. The initial phase of communicating this to and planning with clinics has started. ART initiations have started at 2 clinics using GSH staff.

The decentralisation team developed and submitted expressions of interest to both GFATM R10 TB and GFATM R10 HIV.

5.4 TB/HIV (3 Is)

Background

A response to the global TB/HIV challenge was outlined by the WHO in its “Three I’s” report: intensified case finding (ICF), isoniazid prevention therapy (IPT), and infection control.

The current building had been renovated by previous registrars to allow integration of TB and HIV services but with effective infection control. ICF was in place with screening occurring in ART, VCT and PMTCT. Within the TB/ HIV unit, administrative measures were in place with a separation of the 2 wings of the building (one for TB and HIV, the other for HIV alone) and environmental measures were in place to some extent.

Infection control for TB in the wards remains poor. Some administrative measures are in place with isolation wards, but environmental measures are poor and there is an over reliance on personal protective equipment (often inappropriate PPE) by all cadres of staff.

IPT was part of a previous COMDIS project, and had been piloted in a number of community clinics.

Activities

A proposal was developed to implement ICF in general OPD with an associated evaluation. Both the implementation and the research are led by Dr Koshy.

ICAP have agreed to renovate the ART unit to improve both filing and infection control (increased ventilation from larger windows and roof whirlybirds, and increased light). Initial plans were developed to improve filing and to improve patient flow. Once improved filing was in place, it was agreed to remove the current reception and to trial a series of different designs of reception to improve patient flow, introduce cough triage and clinical triage. Once a design had been agreed on, ICAP offered to fund construction of the reception.

SNAP and WHO reviewed how TB/HIV integration had been achieved at GSH and other sites in Swaziland. GSH is to act as the model for TB/HIV integration in Swaziland.

The IPT pilot was drawing to a close, with approximately 500 patients recruited. Data collection was supported and some initial analysis was performed. SNAP requested that we end recruitment. At the request of NCC, our protocol was shared with them and a draft protocol was developed to integrate the 3 pilots. The results of the GSH pilot was accepted as a presentation for the SA TB conference but SNAP would not agree to this being presented.

6. Measles

Background

Swaziland is aiming for measles elimination. All children are offered a dose of measles vaccine at 9 months with a second dose at 18 months. Supplementary Immunisation Activities (SIAs) in the form of child health days are held at intervals, the last being in 2009, with more planned in 2010.

In 2009/10, there was a rise in measles cases across Southern Africa, including a large outbreak in South Africa¹¹. The numbers of measles cases in Swaziland has been rising significantly since November 2009.

Activities

Cabrini ministries alerted GSH and ICAP of an increasing number of cases of a febrile rash illness and challenges in getting any laboratory confirmation. Joint working allowed a rapid investigation and laboratory testing that suggested that the increased numbers were caused by a mix of measles and streptococcal infections. In addition, the paediatrician at GSH highlighted increasing numbers of suspected measles cases. Surveillance was improved at GSH, including implementation of the national

¹¹ <http://www.nicd.ac.za/>

surveillance system, and GSH undertaking transport of specimens to Mbabane Government Hospital for testing rather than relying on the regional health management team. Paediatrics implemented opportunistic measles vaccination for all children attending GSH. Initial work with the Regional Epidemic Taskforce and attempts to highlight this nationally met with little success.

A combination of pressure from a range of partners and media reporting prompted Ministry of Health (MoH) to resume meetings of the National Epidemic Taskforce (NETF). I joined the measles outbreak analysis team, with MSF, UNICEF and MoH. We reanalysed the data available and presented this to the NETF together with recommendations. The recommendations were accepted and chairs of the NETF were tasked with working with the MoH to implement these.

7. NCD

Background

In 2003, a chronic disease management programme for epilepsy was created to improve the diagnosis, initial treatment and on-going active management of epilepsy. Epilepsy services were previously centralized and based within the mental health unit. The programme decentralised epilepsy care and management to clinics supported by a nurse-led outreach from GSH.

OPD attendances at GSH continue to grow. The management of non communicable diseases is unsystematic and varies between clinicians. There was a separate clinic room for Non Communicable Diseases (NCD) – mainly hypertension and type 2 diabetes-, but reviews were unstructured and often ineffective.

Activities

Dr Laura Bernstein led a review and evaluation of the epilepsy service, using qualitative and quantitative methods. New guidelines and patient information leaflets were developed with input from GSH, Taiwanese Medical Mission, National Psychiatric Hospital and Dr Helen Ford. The support to the decentralised clinics was strengthened. Record keeping was reviewed and improved. Education sessions were carried out in OPD, in a local school and with nursing students. Service developments were slowed by problems in ensuring consistent staff availability due to night shifts, although a solution may now have been reached with the NCD developments below. The new GSH guidelines have been proposed to the national NCD programme at the Ministry of Health as a potential model for the national guidelines.

Development of the NCD clinic was led by Dr Lindsay Gibb, initially focusing on type 2 diabetes and hypertension. A diabetes deskguide and quick reference guide were developed and agreed as was a quick reference guide for hypertension (deskguide for hypertension currently in development). A system of structured assessments and reviews was developed, including design and printing of new hand held patient cards, files and structured review sheets. A senior nurse was identified to lead the development of the NCD clinic, supported initially by a volunteer nurse practitioner. CPD sessions for medical and nursing staff on diabetes and hypertension are planned. Lindsay participated in a national workshop to develop national guidelines for type 2 diabetes and hypertension, using the GSH guidelines as a basis.



Fig. 9. Inside and Outside OPD (very early on a Saturday morning!)

8. Management

Background

The public health registrar has been project managing 3 projects - Claypotts funded project on HTC roll out; COMDIS research project(s); and South African Bishops Conference Fund.

At the request of the SMO or Matrons, I was involved in a range of other activities.

Activities

Following work with the new finance manager, financial reporting and budget management systems are in place in the hospital.

The COMDIS funded research on pre ART is described above. A COMDIS proposal was developed and submitted, for the evaluation of patient support by CBOs (as per GFATM Round 8).

The HTC rollout funded by Claypotts has evolved considerably, and on 19th July it became the sub regional transport service. Due to the reliance on public health registrar for all reporting, Claypotts agreed to fund IT training for 4 members of staff.

Activities undertaken to support the senior management team or the hospital included:

- Support to restarting PH programmes meetings
- Working with the Paediatrician to write a UNICEF bid
- Assistance to meet COHSASA¹² standards- in particular development of a resuscitation service
- Assistance to Matron's office on completion of quarterly reports for MoH, in particular overall activity data.
- Support to SMO on liaison with external donors including Heart for Africa and CURE.
- Introduction of CPD session as part of the Wednesday morning doctors meeting
- Improvements to data security

Lindsay Gibb led the support to the resuscitation committee, in particular ensuring the committee met, development of resuscitation service- including policies and protocols, development of and delivery of BLS training for clinical and non clinical staff, and an introduction to ALS for medical staff.

¹² Council for Health Service Accreditation of Southern Africa <http://www.cohsasa.co.za/>

Lindsay Gibb and Laura Bernstein led the development of the CPD sessions for doctors, included within the routine Wednesday morning meeting.

Updated antivirus software was installed on the computers. An encryption programme was installed on computers storing identifiable data and all identifiable data was placed in an encrypted file unless part of a national system. Encrypted memory sticks were provided to key members of staff. The importance of data security both for physical and electronic records was reinforced at every opportunity.

An office for the public health registrar was identified and equipped. Initial contact has been made with the University of Swaziland (UNISWA).

9. Education

Activities

I provided local supervision for the research undertaken by David Burtle, a medical student, for his intercalated BSc on International Health. Lindsay Gibb provided clinical supervision and I provided public health supervision for Laura Bernstein. Lindsay and I also provided support to a number of elective medical students.

Supervision for a range of staff was provided as part of the activities outlined above. Informal teaching sessions were provided for a range of audiences.



Fig. 10. Outside the COMDIS office in the TB wing of the HIV/TB building

10. Reflections

This is a training placement like no other. It was both an opportunity to make an impact on a very sick population and an opportunity to develop professionally. Such mutual benefits are the basis of international partnerships.

Unlike placements in the UK, we lived this placement for 6 months. There were huge challenges and frustrations, but the successes meant even more and the health gain associated with the work far greater than an equivalent period in the UK. Taking the

time to reflect on achievements was crucial rather than just always focusing on the next challenge or problem.

This placement is a fantastic opportunity to develop and deliver your own work plan. Prioritisation was crucial and difficult, as the need and potential work is so large. Working in such an environment with limited resources truly highlights opportunity costs, in particular around deployment of limited staff capacity (including myself). Just maintaining current services requires considerable work, let alone aiming for continual improvement.

This placement has no positional, reward or coercive power within the hospital or region, thus it is necessary to work with/persuade others and to develop an expert role. This is probably good experience for public health anywhere in the world!

I was very aware that I had only 6 months, and thus I was working on a very different timescale from many others at GSH and especially in government. Having a time limited role, I tended to adopt a task focused approach. This was often a sharp contrast to the very people (staff) focused approach to management taken by many organisations in Swaziland.

All my knowledge and skills in PH were used, tested and improved at GSH. It was very effective as a way of demonstrating how much I have changed and learnt over the previous 4 years. I hope that consolidating and testing my public health training in this placement will ease my transition from registrar to consultant.

I have returned with a renewed appreciation and enthusiasm for the NHS, HPA and UK Public Health training. A system that partly relies on out of pocket payments, with consequent barriers to care, highlights the importance of an NHS providing care that is available to all, free at the point of delivery, delivered on the basis of need and is based on effective primary care. The contrast also highlighted the progress the UK has made in developing cultures of continuing professional development, multidisciplinary working, patient involvement, and evidence based medicine. The importance of effective health service management was also highlighted; I never expected to miss NHS accountants!

This report and my public health training started with my enthusiasm for communicable disease control. My time at GSH has reinforced that enthusiasm and a belief in the importance of a global perspective to public health.

11. Acknowledgements

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Benedict Welfare for his tolerance and ability to adapt

12. Competencies consolidated

Competency	Area of Work
2.4 Understand the principles involved in childhood immunisation programmes, occupational health and travel health procedures.	Measles
2.10 Provide public health management of an outbreak with practical experience of at least two of the following: meningitis, food poisoning, gastro-enteritis, hospital acquired infection, blood borne viruses, tuberculosis and legionella.	Measles
2.11 Take a major role in, and prepare a written outbreak control report.	Measles
3.5 Assess the evidence for proposed and existing screening programmes, using established criteria.	TB/HIV
3.7 Understand and apply the principles of evaluation, audit, research and development and standard setting in improving quality.	GSH TB, Pre ART, NCD
3.9 Use data collected at local level to evaluate the effectiveness or outcomes of an intervention or service.	Pre ART
3.10 Design, initiate and complete evaluation/audit projects with public health and outside public health in partnership with clinical or other colleagues.	Pre ART
4.1 Recognise and value the potential contribution to improving health made by different agencies: health and other – in public, private and voluntary sectors.	GFATM R8
4.2 Be able to bring an articulate public health perspective to a decision-making forum in health, social care or public policy.	National Tb Work
4.5 Understand, contribute to and value the work of the non-statutory sector and their role in improving the public health.	GFATM R8
4.7 Demonstrate effective intervention in a multi-agency setting, e.g. by participation or chairing a multi-agency group containing representatives from at least three different organisations	HIV Decentralisation
5.1 Provide professional advice to health authorities and other bodies understanding the impact of such advice on both populations and individuals	National Tb Work, HIV Decentralisation
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.	Overall
5.3 Use performance indicators for the NHS and other relevant bodies in an appropriate fashion	National Tb Work , Management
5.4 Provide a population perspective to the development of clinical guidelines and protocols in the light of current knowledge and practice.	NCD
5.5 Provide a population perspective to the development, implementation and monitoring of quality improvement programmes in health care in the light of current knowledge and practice.	National Tb Work, NCD
5.9 Use health needs of a population to inform decisions about health and preventive measures, demonstrating an ability to propose realistic changes to meet identified needs.	GFATM R8, GFATM R10, HIV Decentralisation
5.10 Understand the competing and conflicting influences on public and political perception of the need for health care and preventive measures, and the difference between health needs and demands.	GFATM R10
5.13 Be pragmatic and politically able in addressing issues associated with prioritisation, resource allocation and rationing in health and health care.	GFATM R10
5.14 Ensure that the development of health programmes and services are informed by consideration of health inequalities.	GFATM R10, NCD
6.8 Be able to lead the collation and interpretation of advice from clinical colleagues to inform policy.	GFATM R10
7.4 Understand the importance of addressing the wider determinants of health within communities, e.g. housing, employment and education.	Overall
7.5 Identify and engage key stakeholders and partners for effective public health practice.	Measles

7.6 Understand and use appropriate methods of involving the public and communities in improving health and reducing inequalities	GFATM R8
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.	National Tb Work, GFATM R10
8.8 Demonstrate understanding of the essential role and the application of different types of leadership.	GFATM R8, NCD, Education
8.9 Demonstrate the ability to teach and to educate a wide range of audiences on public health issues.	Education
8.10 Identify the steps needed to implement and secure change.	GFATM R8, HIV Decentralisation, TB/HIV
8.12 Demonstrate objectivity, independence, integrity and foresight.	Measles
8.13 Demonstrate perseverance, resilience and diplomacy in dealing with opposition or antagonism to sound public health advice.	GFATM R8, HIV Decentralisation, Measles
8.14 Recognise and allow for the potential self-interest of professional groups.	HIV Decentralisation
8.15 Demonstrate vision in designing a long-term strategy based on the assessment of research evidence of effectiveness.	GFATM R10
9.5 Be able to decide on the data required to answer a specific question.	GFATM R8
9.6 Undertake data collection and analysis using specially collected ad hoc health information	GFATM R8
9.7 Draw appropriate conclusions, set in context, and make recommendations from the results of own and others' research.	Pre ART
9.8 Identify steps for recommendation based on research findings.	Pre ART
9.9 Turn complex research outcomes into information and knowledge that can be used to improve health.	Pre ART
10.2 Understand relevance of management skills and apply them for effective public health practice.	GFATM R8, Management
10.7 Manage own time and prioritise workload effectively and to negotiate and meet reasonable deadlines.	Overall
10.9 Understand and appreciate ethical and legal issues surrounding confidentiality, data protection information	Pre ART Management
10.10 Understand the principles of budget management	GFATM R8, Management
10.12 Understand the principles of good employment practice, including fair and effective recruitment.	GFATM R8
10.15 Appraise a business case	GFATM R8
10.16 Demonstrate project management skills in specific pieces of work.	GFATM R8, Management