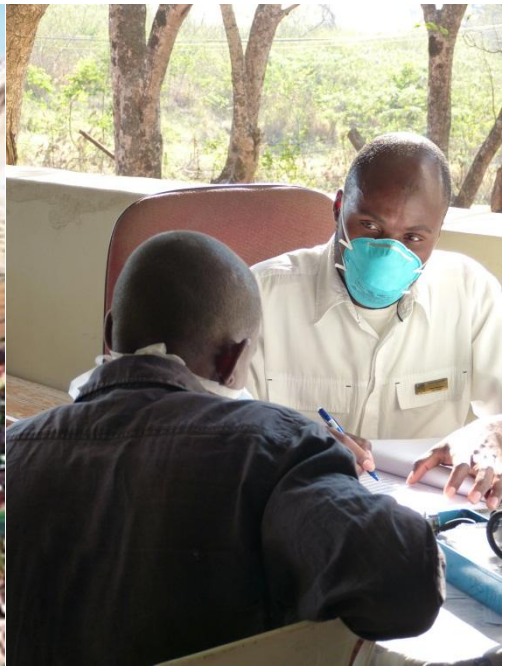
Eight months in Lubombo

International Public Health Attachment: 2012/13

Reflections on public health work based at Good Shepherd Hospital, Kingdom of Swaziland



Dr James Elston

Introduction

This job is special

There are not too many jobs where you can wake up, have a leisurely breakfast with your young family open the door to bright sunshine and take a 3 minute stroll down to your workplace interrupted only by warm smiles and friendly greetings of *everyone* you pass and know that **today** you will make a difference. There are very few opportunities in life to do what most people intend when as bright eyed teenagers they enter medical school- to do a job where you can actually "save lives". This is one of those jobs.

Without doubt the time in Swaziland proved the most worthwhile and fulfilling of my professional career, was huge in terms of my professional development, and the most unforgettable and enjoyable experience for my young family -one that we still reminisce about on an almost daily basis.

When I was asked by John Wright to produce a report on my time in Swaziland I was uncertain how to go about this. Reading the reports of predecessors I was rather intimidated: they are without exception excellent. They provide a very good background on Swaziland, the health care setting, the disease epidemiology, cover the history behind the creation of the job and detail the work activities relating to the post- I highly recommend them! As I am incapable of matching the efforts of my predecessors I have largely chosen not to try. A difference from my predecessors is that I was not a public health registrar at the time that I went to Swaziland (though I am now!) and so mercifully I do not have to carp on about how many competencies I got. I also do not feel restricted to meet the demands of an educational supervisor. So this 'report' I suppose is really more of a recollection of my experiences and reflections of work and life in Swaziland (September 2012 – May 2013). I have tried to recreate some of the situations I faced and bring a personal perspective to the work I was involved with.

I hope that this report will give you an insight into what the job is really about day-to-day and I hope it is of interest to you. I hope that you will support the continuation of the role and the UK- Good Shepherd partnership in the future and perhaps I might even tempt one of you to pack your bags and head to Lubombo…!

Welcome to Swaziland!

The Kingdom of Swaziland is a land-locked lower middle-income country located between South Africa and Mozambique. It is a beautiful place, the green rolling highveld contrasts with harsh bush of the lowveld and there are plenty of reserves with game and for hiking. The weather for most of the year is fabulous with plenty of sunshine.

Highveld, near Manzini

Swaziland boasts four of the 'big five'

The Swazi people, of whom there are around 1 million, are incredibly friendly and hospitable. Unfortunately it is doubtful that there is a single person amongst them untouched by the HIV and TB co-epidemics. Approximately one quarter of adults (and one half of all women aged 30-34 years) live with HIV, the highest prevalence in the world. If you consider that in this environment people with HIV have an *annual* risk of developing TB of around 10-15%, it is not surprising that Swaziland also has the highest TB incidence in the world (nearly 100 times that of the UK). Multi-drug resistant TB is rapidly increasing and unchecked may prove catastrophic in a country associated with catastrophe. Life expectancy has plummeted largely due to HIV/TB (some estimates as low as 34 years until recently). Just under half of the population is aged <15 years and approximately one third of children are orphans (defined as loss of one or both parents).

Swaziland is unfortunately also a country of extreme inequalities with around 60% of the population considered rural poor. Health services are overburdened and under-resourced. Non-communicable diseases (such as cardiovascular disease, hypertension, diabetes), which have been largely neglected also present a huge challenge.

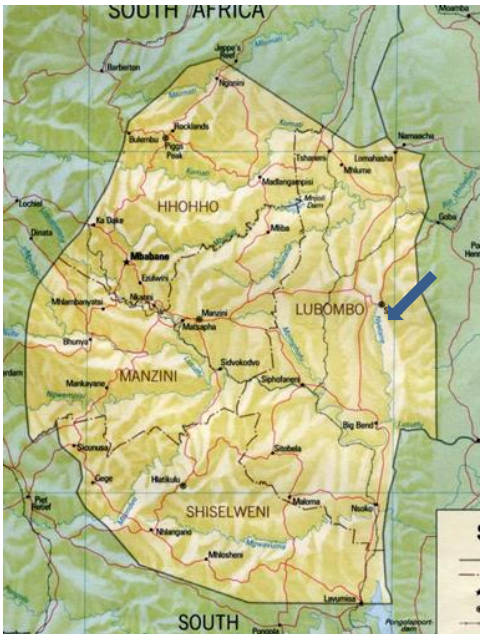
Rural poor in Lubombo

Poorly ventilated home with indoor stove

Against this rather bleak picture there are some rays of light. Not least there now appears to be real political commitment to address HIV and TB with both declared a national emergency by the King. International donors led by the US government through PEPFAR and local partners continue to invest in the health system. Antiretroviral therapy is now widely available and free of charge at the point of care which is a massive step forward. And in Lubombo, the poorest, most rural of the Swaziland regions there is Good Shepherd Hospital (GSH).

Good Shepherd Hospital

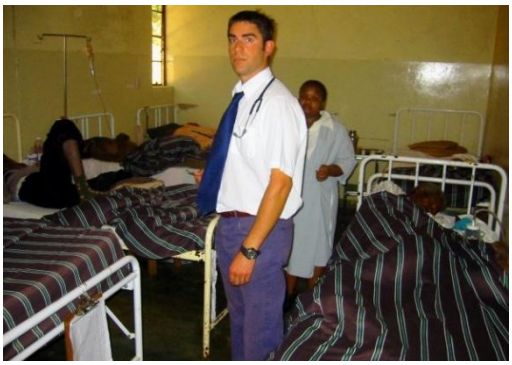
Good Shepherd Hospital (GSH) is the regional hospital for Lubombo and serves a predominantly poor rural population of approximately 220,000. There are 13 resident doctors. GSH is considered one of the leading hospitals in Swaziland and has led the way in the decentralisation of HIV and TB care, due in no small part to the efforts of Professor John Wright (Bradford teaching Hospitals NHS Trust) and Professor John Walley (Nuffield Institute for International Health) over the last decade, and more recently my predecessors in this job who have worked in partnership with dedicated GSH staff.



Map with approximate position of GSH indicated

My journey to Swaziland

I am an infectious diseases physician by background. I am an infectious disease physician by background *because* I worked in Swaziland in 2003. In the worst period of the HIV epidemic before antiretrovirals were available I spent a few months as a relatively junior doctor working at GSH (placed in charge of all male medical inpatients). Without wanting to overly dramatise the situation, the experience of watching many people die at a younger age than I was is one that has stayed with me and has motivated me since. During my time in Swaziland in 2003 I came across John Walley who was at the time working with WHO and involved in building capacity in HIV/TB services and decentralising care to the community- in the process he opened my eyes to the possibility of public health in developing countries and was an inspiration to me. Nine years later (after I had secured my CCT in infectious diseases and general medicine, and a MSc in public health) I knocked on John's door. I was informed of this upcoming post and after a straightforward application and a friendly interview with John and John Wright I was told to pack my toothbrush!



A rare photo me from 2003- the facial expression says it all!

The job

My predecessors have explained the background to the creation of the job so I will not repeat it but merely give a 'thumbs up' and respectful nod to John, Helen Ford and John for their amazing efforts down the years. I prefer to refer to the role as a job rather than a placement or attachment. Unlike many public health placements it comes with real responsibilities and you are not 'attached' to anyone. As I was not a public health registrar there was some debate as to what to call myself and describe the job; at one point I think John Wright suggested: "Population health and communicable disease medical officer and public health researcher for Lubombo". John would agree this is rather a mouthful but I think does illustrate well the breadth of responsibilities and scope of the job and that it is not confined to Good Shepherd Hospital. My predecessors have explained there is a 50:50 split in duties between operational research and capacity building. In all honesty I was not really aware of this until one day in Swaziland I read their reports…! I certainly found that there was significant overlap: the operational research is concerned with building capacity and often the best way to build capacity is through operational research. The supervisors for the job are John and John. In my opinion one of the great strengths of this job is in its leadership. John and John afforded me the freedom and flexibility to determine local priorities and act and they provided very effective support and guidance via email or Skype as and when I needed (the Johns complement each other well and a five minute chat with either of them is public health gold dust!). The ability to respond quickly in a crisis without having rigid lines of accountability and paperwork is priceless and is another unique feature of the job. There was a good balance between the steady proactive research work and the more unpredictable and intense reactive work.

Arrival in Swaziland

On arrival to Swaziland our sleep deprived and grumpy family were met by the smiling face of Abigail Knight my predecessor who then served up an amazing butternut squash lasagne. Abigail gave me a great handover over ten days or so. Although there was a bit of an adjustment for me to the realities of the work it helped that I already knew the surroundings. I got off to a good start with Dr Petros, the Senior Medical Officer at GSH- he taught me how to insert large bore chest drains a decade before. He is a man who cares deeply for GSH and works hard to improve it and I was happy to be working with him again. It was important to hit the ground running..

"Emergency situation"

When I arrived the most immediately pressing issue was that five staff members had been diagnosed with TB, four of them with MDR-TB within a short period of time. Many of them had been working for several weeks with symptoms before being diagnosed. The hospital environment was positively conducive to TB transmission (more of that below) and so this almost certainly represented the tip of the iceberg of nosocomial TB infections. There was a degree of staff unrest and the National TB Program (NTP) considered the situation an "emergency".

From this scenario much of my work began.

Implementing a HIV/TB healthcare worker screening programme

This was an obvious first step. However, anyone familiar with HIV or Africa will know that testing for HIV and TB are extremely sensitive issues. Fear and stigma associated with diagnosis are real concerns, surprisingly apathy and feeling of inevitability also exists. There are also major economic disincentives for being diagnosed (those staff diagnosed with active TB and MDRTB where not permitted to work and went without any pay for long periods). In addition, there are organisational disincentives: being seen to have a problem with TB is bad for business!

By the time I arrived Abigail had already done a great job and had influenced the GSH management to approve a screening program for GSH staff. She had also engaged with the National Wellness (occupational health) Program. In view of the sensitivities Abigail had made plans with Thokozani Dlamini (sister in charge of the GSH Wellness team) to run a sensitisation/ awareness program prior to the screening. It was over to me to design and run the sensitisation programme and make the screening programme a success.

The main purpose of the sensitisation programme was to maximise acceptability (therefore uptake) of the screening programme, however, it also served as a great vehicle to introduce an infection prevention and control agenda was a perfect opportunity for me to introduce myself and get to know staff. The sessions (presentations and discussion format) were led by Thokozani and myself daily over 3 weeks and the screening at the GSH Wellness clinic followed immediately afterwards for a 10 week period.

Sister Thokozani Dlamini, the man who keeps GSH healthy, conducting a screening consultation

In my view the programme was a success: of 356 staff 253 (60%) attended sensitisation and 247 (59%) attended screening (attendance was optional). Just over half of those attending for screening opted for HIV testing. We managed to secure a supply of isoniazid for the programme sufficient to offer all staff TB chemoprophylaxis (regardless of HIV status) and 133 (54% of those screened) took it up with a 70% completion rate at six months. Of most public health significance: two new cases of active TB were detected and were promptly commenced on therapy. The screening programme will now be run annually at GSH and my successor Clare is working with the National Wellness team to roll out this model to all large health facilities in Swaziland.

I have tried not to overdo the detail here, should you wish to read further the following link will take you to the presentation:

https://www.phe-events.org.uk/HPA/media/uploaded/EVHPA/event_173/Elston.pdf

TB ward renovation

Below is the view of the TB ward from the main hospital thoroughfare corridor.

It is a single door. The door has been left open. I will ask you to put yourself in the position of a 30 year old female Swazi nurse on duty for this ward…

As you venture through the door there will be a number of patients with TB lying on beds close together. The room is dark and very poorly ventilated. The ward is sectioned off into three parts; there is no window to the outside in two of the three sections including the one you have walked into. The patients are sick, many of them dying and need your attention some of them need to be washed. You are wearing your N95 face mask that you have been issued for the month (in the UK nurses get a new one of these every day), you yourself have a 50% chance of having HIV. Your colleague recently got MDR-TB. You are going to be in here for a while…

Frightening isn't it? Now imagine doing that day after day!

Patients were not effectively cohorted. The nurses' station was located along the corridor from the TB wards so patients moved in and out relatively unrestricted mixing with other non-TB (most HIV positive) inpatients. The bathrooms for the female TB patients were actually across the main hospital corridor! There were even airbricks allowing cross transfer of airborne suspended TB from TB to non-TB patient areas. There was no dedicated TB inpatient nursing team (nurses divided their duties between all male or female medical inpatients) so unsurprisingly TB patients received relatively less attention than others which impacted on length of stay, further exacerbating the situation.

In short the conditions were pretty much perfect to facilitate nosocomial TB transmission. The facilities most built in the 1950s and 1960s (prior to the HIV epidemic) were quite simply not fit for purpose.

It seems that most of my predecessors had a project that they were most engaged with- this was mine, rather it became a bit of an obsession. I just had to do something. One of my predecessors Will Welfare had come up with a provisional design to refurbish the TB ward a few years before, incorporating mechanical fan extractors and, although people had voiced their support at the time, no money was forthcoming and despite efforts no progress had been made since his departure.

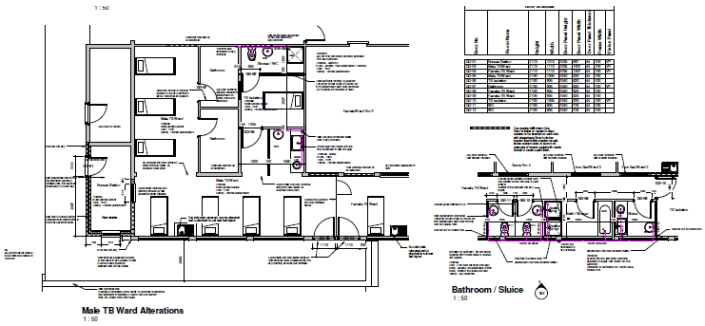
The challenges I faced were the same longstanding issues: most of all that there was no money. To add some background: although HIV and TB have mobilised the global community, TB infection control has been largely neglected in policy and practice. Infrastructure projects do not appeal to international donors as there are perceived risks (reliance on local labourers, materials and lack of expertise at the design stage) plus potential issues of ownership. Therefore it was clear to me that if I was going to get money I would have to scratch around for local donations and the budget was likely to be very low. The second challenge was that I had to fit any new design into the hospital infrastructure (as I could be certain that I would not have enough money to build a purpose built facility). This was very much an emergency situation (albeit a long standing one) so speed was key- whatever I came up with needed to be constructed in a short period of time to respond to the emergency situation and limit disruption to hospital function. I could not rely on steady electricity supply (frequent power cuts and non-functional hospital generator) so mechanical ventilation was not an option. Of course I had no guarantee that if I came up with something that people would be interested. I decided to go for it anyway.

My eyes were drawn first to the hospital structure shown below.

The hospital 'veranda'

The 'veranda' was elevated, well ventilated and exposed to the sun for most of the day. The idea was simple: to turn the 'veranda' into something of an old style TB sanatorium- this would involve knocking down 4 internal walls and opening up the whole length, sealing off all connections with the rest of the hospital and creating a new entrance at the front (to ensure cohorting of TB patients away from others). It wold be simple potentially to build a new nurses station beside the entrance (and therefore have a dedicated TB inpatient nursing team whilst ensuring their safety as much as possible). Natural ventilation would be maximised by inserting roof whirly birds (wind driven turbines which also allow 'stack' airflow driven by differences in air temperature in still conditions) and floor level vents (basically glorified holes in the wall).

I drew up a design. I was grateful to Will for having provided a template of GSH layout which I adapted for the new plan. I worked with the in-house maintenance team led by Tulane Malaza (my partner in crime) to ensure I was being realistic and came up with a provisional budget. I then presented the plan to GSH management: they were delighted with the plan…until I told them I had no money! They did however, agree to contribute some funding (a good contribution but insufficient alone) from the tight hospital budget and suggested I get approval from national quality assurance and infection control teams. I was happy, I had their backing and the ball began rolling. I then went to Themba Dlamini, the head of the National TB Programme (a great man) who had been increasingly concerned about the problems at GSH and who was very happy with the plan and promised to try and divert some funds from a private donor that had been allocated for another purpose. I gained support of the national infection control and quality assurance teams who inspected the site and plans in person and promised to try and use their influence. Things were moving but I felt I needed to step it up a notch and so I contacted John Wright with my plans and progress. John put me in contact with Ian Hinitt the Director of Apex 4d healthcare architects, based in Yorkshire. Ian was enthusiastic to help on a pro-bono basis and we quickly formed a working group with Steve Batson, director of Bowman Riley Healthcare Architects and Dr Cath Noakes a leading researcher in infection control engineering based at the University of Leeds. I provided my plans together with photos, measurements and information on context and the team were able to use novel software to simulate the site, optimise the plan and produce a professional design for the renovation, remotely from the UK. From that moment it was game on!



An example of the professional design

Computer generated image of proposed renovation (both images courtesy of Bowman Riley)

I went direct to potential donors, the Ministry of Health and managed to gather a budget of 280,000 Swazi Emelengeni (~18,800). The fundraising culminated in my appearance on stage at World TB day commemorations to receive a check from the Honourable Minister of Health for the Kingdom of Swaziland and then giving an impromptu speech of thanks on behalf of GSH in front of around a thousand people!

OK, so the man on the right did more digging…

The building work for the new TB ward is complete and it is now open to business!

From left to right: Mandiza, Dr Fred, Busani and Vusani and the new TB ward!

I do not pretend though that it is a perfect design, given the limitations we faced this was very much an emergency measure. I hand over to my successors (perhaps you?) to make the next step for a stand-alone purpose built TB/ MDR-TB ward and with recent developments (including imminent dissemination of Global Fund funds to the National TB Program) there is certainly more potential now to do this..

Neonatal sepsis outbreak

"docotela we have septic babies"

It was the week before Christmas, I was sitting at my desk. I felt the blood drain from my face as Matron Jerry delivered the bombshell. I was aware that Merav one of my predecessors had been involved in a neonatal sepsis outbreak. It was something that I intended to follow up but other work had so far taken priority. That changed in an instant. I got up and went with Matron Jerry to meet with Mr Soko, the infection control lead nurse and attempted to set up an immediate outbreak meeting. The 24-48 hours that followed indicated to me the scale of the challenge ahead.

In the maternity unit there were ten hand basins, only two of them had soap and paper hand towels, new mothers with their newborns were lying next to heavily pregnant women, some of them were on the floor (average bed occupancy 120%). There were two delivery beds and generally at least 7-8

deliveries per day, maternity staff were short of equipment and were re-using (soiled) delivery gowns. Staff were overstretched, moving between several different duties/ patient groups frequently (e.g. delivery to premature baby room etc) which increased risks relating to sub-optimal hand hygiene.

Most seriously, and I do not feel comfortable putting this all down in print, I felt there was certainly a general feeling of "see no evil, hear no evil and talk no evil", furthermore I felt that some at GSH initially actively opposed and hindered my efforts to investigate and control this situation. This was the first major test of my ability to influence people, motivate and lead a disparate team to action. I did manage to declare this an outbreak and progress was made, though it was far too slow for my liking and the Christmas period did not help. To give an example of the on-going issues I faced I will relate one outbreak meeting where I remember we were talking about paper handtowels for nearly one hour and the conversation went something along the lines of this:

[head of maintenance]: "docotela I cannot allow you to have more hand towels in maternity, and I will not make any more hand towel holders……..every morning my guys they are spending one hour removing the towels from the drains- these women they do not know how to use them and put them in the toilet"

[me]: "why?..... Do they not have enough toilet rolls?"

[stores]: ……"docotela, I will not go into the toilets to put in the rolls they are disgusting and dirty- the nurses need to replace the rolls!

[maternity nurse]: "it is not our job…….. These women they use too much anyway (makes action to mimic rolling the tissue around the hand)…….we would need a key to replace the rolls anyway"

[stores]: "you will lose the key… we can put rolls in sister's office"

[matron]: "no the staff will take them, it is your job stores!"

[stores]: "no my 'In Charge' says no!"

…….

I do not feel it appropriate to put it print here the numbers affected nor their outcomes, however, to give an idea of the seriousness there were several weeks where 10% of babies delivered developed neonatal sepsis (and true numbers were underestimated as we relied on babies returning). In time, with the support particularly of Matron Jerry (who I rate very highly and who became a 'go to' man) we made much progress. There was a great focus on awareness raising and staff education. We also made great progress on improving internal structures and systems in the maternity unit. We set up morbidity and mortality meetings, improved documentation and monitoring of outcomes and built capacity in quality assurance. I say 'we' because by the end it really was a team effort with infection control, quality assurance, matrons, maternity unit, stores coming to the fore together with Dr Joyce (Paediatrician) and Dr Kambale (Obstetrician) providing leadership. It was very satisfying to see the transformation over some weeks with initially quiet members of the team stepping up and addressing previously accepted problems. In all, I chaired ten outbreak meetings and presented the

report and recommendations to GSH management. By the time I left, eight of ten hand basins were adequately provisioned (which really was the best we could achieve), GSH management purchased alcohol sanitising hand gels which I sourced, and they funded our 'bespoke' take home umbilical cord care packs(!). They approved my plan for hospital wide infection control trainings. Importantly they also agreed to boost capacity in infection prevention control at GSH leading to the appointment of a lead infection control doctor at GSH, and releasing the lead nurse from his on call commitments, and agreeing to fund a computer for the IPC team.

One the posters we created and plastered around the hospital

Infection prevention and control (IPC) training

I had this in mind from the moment I arrived in Swaziland though the neonatal sepsis outbreak and issues with MDR-TB pushed this to the fore. I gained a willing partner in University Research Council led by Country Director Dr Samson Haumba (who is a great leader who also was a great support to me in many areas of work). We managed to run trainings for around 220 staff. There were big challenges, for example: hand washing, unlike in the UK, was not necessarily part of routine accepted practice (if you've never been taught the importance of good hand hygiene and hand hygiene technique, and there are few well provisioned hand basins why would you practice good hand hygiene?). However, the training went down well all things considered. The highlight for me was a five minute talk given at the beginning of the session every day by a member of staff who had been affected by MDR-TB (we had a few to choose from!) relating to their colleagues their experience and urging them to act to protect themselves: you could see sleepy eyes suddenly focus! I used the infection control trainings unashamedly to boost IPC capacity and recruit focal nurses for IPC in all hospital departments.

The neonatal sepsis outbreak was declared 'over' after nearly 4 months though in truth the issue should never be considered closed. We intend to continue monthly meetings and close surveillance will be continue to be undertaken, supervised by my successor Clare.

I hope the hospital is in a stronger position to prevent further similar scenarios in the future but urge all future successors to please maintain the focus on IPC!

The 'big picture'

Whilst at GSH I heard reports of a measles outbreak that had occurred two years previously when around 200 people with measles attended GSH in a two week period. One of the doctors related to me that the only way that GSH could get support from the Ministry of Health was to invite journalists from the Times of Swaziland to the hospital and the support provided when they did arrive was apparently 'suboptimal'. There was an issue clearly much bigger than GSH or Lubombo

and hearing this really highlighted the gaps at national level in terms of communicable disease control, particularly around infectious diseases surveillance and response. I was not really convinced I could do much about it. However, I was aware of a neighbouring country with far more resources with a vested interest in controlling communicable disease in populations moving regularly across its borders. One of my predecessors Merav did me a great favour by putting me in touch with Chikwe Ihekweazu, a Consultant epidemiologist working for the then Health Protection Agency but seconded to the National Institute of Communicable Disease (NICD) in Johannesburg. I got in touch with Chikwe and he gave me great hope that we could achieve something together and advice about what NICD could potentially offer. Essentially NICD had a remit to provide support for communicable disease support for the Southern African region and received international funding to do so, it had excellent laboratory facilities and the expertise. NICD however did not wish to be seen as pushing itself onto neighbours. On the other side sat the Ministry of Health (MoH) for Swaziland, I had at that stage no idea whether they would be receptive to potential partnership or whether they even would want to admit to limitations. I thought I would find out. I managed via a circuitous route to get a 10 minute appointment with Dr Simon Zwane, the Director of Health Services for Swaziland (the Swazi equivalent of the CMO). I managed to sell the idea and came armed with a letter which I had written essentially requesting a meeting with NICD to 'explore opportunities for collaborative working'. He put the letter on a MoH template and signed it, the ball was rolling. Over the next few weeks I acted as a go-between between the MoH and NICD and it culminated in a meeting held in Johannesburg in May 2013. I represented the MoH together with Dr Zwane, Babazile Shongwe (head of research) and Gugu Maphalala (head of laboratory services) and I set our aims and objectives at the start of the meeting. It was a great day, ending with agreement that resources will be shared and collaborative projects initiated in order to protect the health of the populations of both countries. NICD will provide additional training and expert support in order to enable the MoH to build capacity in infectious disease surveillance, epidemiology, outbreak response, laboratory diagnostics and public health research within Swaziland. This agreement has been included in a memorandum of understanding between the governments of South Africa and the Swaziland, and work has started.

Meeting between representatives of the National Institute of Communicable Disease, South Africa and the Ministry of Health, Kingdom of Swaziland. Johannesburg, 7th May 2013

From L-R: Prof David Lewis, Dr Chikwe Ihekweazu, Dr Gillian Hunt, Dr Simon Zwane, Prof Shabir Madhi, Babazile Shongwe, Gugu Maphalala, Prof Lucille Blumberg, and me

I must say at this point that Swaziland is very lucky to have good people at high levels in the Ministry of Health. Dr Zwane is a seriously intelligent, astute man and leader and it was my great privilege to work alongside him (albeit briefly) and his equally impressive deputy Rejoice Nkambule. They offer great hope for the future.

Operational research

I am conscious that I have not given as much attention in this report to the operational research. Perhaps it is because the sudden nature of the reactive work lends itself better to print. To clarify though I would assign equal importance to the research element of the job which potentially has greater long term impact especially when materials produced and lessons learnt are disseminated to other settings.

MDR-TB operational research

The usefulness and relevance of the operational research I feel is well demonstrated with the MDR-TB project. As mentioned earlier I believe MDR-TB to be the gravest threat to population health in Swaziland and really could halt and possibly reverse the recent health gains attributed to antiretrovirals. With the help of two very willing and able final year medical students I found that the prevalence of rifampicin resistance (a good indicator of MDR) amongst our new (not re-treated) sputum positive TB patients was 12.6% (considerably higher than estimated nationally and very concerning!). All MDR-TB patients are currently referred to the National TB Hospital in Manzini (~50km away) for all treatments and follow up. Considering how poor most of our patients are and how difficult it is to even get to GSH -how many got to the National TB Hospital, how many continued to be followed up? We suspected not many, with probably a large number of people either dying or continuing to infect others in the community. There is a great need to decentralise MDR-TB care. This operational research project was to facilitate decentralisation through trainings, clinical desk guides, and service development. Our research project complimented national priorities and a linked national Global Fund application (which I was also co-opted by the National TB Programme to work on as an emergency over two long days when it ran into trouble…) and helped to make progress. I was within a virtual fingernail of getting agreement for GSH to provide MDR-TB care when I had to depart and it is a regret of mine that I was unable to complete this and not able to secure an MDR-TB facility at GSH. However the operational research continues and Clare my successor continues efforts.

Non-communicable diseases

NCDs (including cardiovascular disease, hypertension, diabetes etc etc) have been neglected but are a major cause of morbidity and premature mortality. My wife Ekta, a GP who also had experience of Swaziland 10 years before took on this challenging work. Again framed around the operational research project Ekta engaged with the Ministry of Health and partners including WHO and co-authored the first Swaziland NCD strategy. She worked tirelessly and produced desk guides on cardiovascular disease, diabetes, hypertension, epilepsy, lifestyle and mental health for use in Swaziland and other similar settings (latest we heard John Walley is taking them to Nigeria). Clare continues to work on the NCD research which will provide trainings and build capacity at GSH and hopefully provide the model for NCD care in Swaziland.

John Walley visited for 2 weeks in December 2012. Here he is explaining what 'randomisation' is- with little success!

Other activities

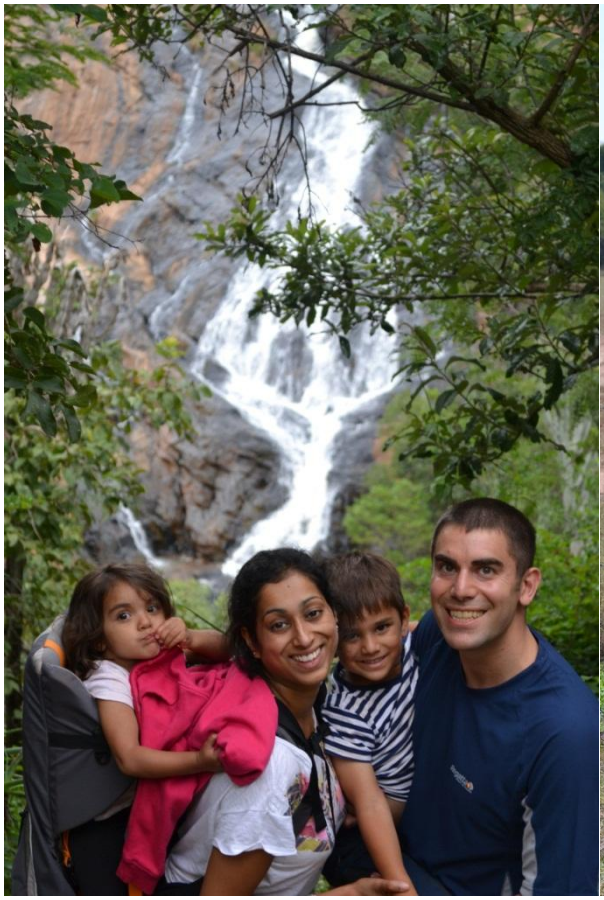
There was plenty more, not least the two other operational research projects (TB contact tracing and male circumcision), capacity building of the Programs team at GSH, the World bank maternal child health projects, EU grant submissions, successful paediatric grant applications, home based care work (including assisting with setting up the first community palliative care service in Swaziland)…. but I rather feel that I have written enough- you get the picture, the work was all consuming and great.

At this point I thought I would show you a few pictures to illustrate what life was like for our family, after all we did not choose to go to Swaziland only for the work!!

Family life in Swaziland

Home sweet home

Mili and Hari playing in 'the garden'



A family day trip to Pophanyane falls

Not another rhino! (Hlane national park, 20 minutes down the road).

Final thoughts-my lessons from Swaziland

I learnt an incredible amount from my time in Swaziland. Before going I was a physician first and foremost; I had only been to a handful of meetings in my life and had never chaired one. I had not really had to influence anyone particularly and was very much a 'head down, get on with it' type of person. It was a steep learning curve but an exhilarating journey. If I have to pick out some salient lessons that I learnt they might include: the importance of striking whilst the iron is hot; to maintain momentum and keep going for a good cause even when it looks like going nowhere; the importance of putting yourself in the other persons shoes to influence them; to have ambition for the bigger picture; to lead your leader. Importantly I also learnt the importance of human relations: it was not possible to talk to someone in Swaziland without first greeting them appropriately as follows: "Sowubona" to which they would reply "Yebo", then I would ask "unjani?" to which they would reply "nia pila" and then ask me "wena unjani?" my reply "nia pila nam". I came to understand that this is not some interesting quirk of Swazi people but it is just a polite and respectful way to address people to begin a conversation; it is something I really hope I can continue (in English!) in the UK.

Auggi and Simangele find my attempts at Siswati amusing.

The workplace was a fun environment!

However I value one lesson that I learnt in Swaziland above all others: to *be happy and grateful.* Just about every Swazi person you speak to has a story of personal or family tragedy, many live in poverty yet they are very positive people and a smile is never far away. This really helped put things into perspective when we had our own family tragedy.

It was on the 18th of May 2013 that my wife and I belatedly realised that the bruising affecting Mili (our then 20 month old daughter) was not normal. We took her to GSH outpatient department for a full blood count. We were lucky- they had just received a supply of reagent and could process a sample. The lab technician took the blood and passed me the printout of the report: he suggested there was something wrong with his machine- there wasn't. Within 24 hours Mili and Ekta were evacuated by air ambulance to the one of the best hospitals in South Africa where Mili had a bone marrow aspiration and was diagnosed with leukaemia. Five days later we were escorted by a Consultant anaesthetist on a plane back to the UK and taken to one of the best children's hospitals in the UK. Mili currently continues chemotherapy in one of the best countries in the world for leukaemia treatment.

Had Mili been a Swazi it is doubtful she would even have had a full blood count.

It is therefore rather difficult to justify self-pity, if it hadn't been for our time in Swaziland it is doubtful that we would have coped as we have.

Our time in Swaziland was cut short by two months (we spent eight months there). It was to my regret that I was unable to give Clare my successor a handover in Swaziland. She is doing a great job.

We will never forget our time in Swaziland it has given us so much as a family but our time there is over for now. Now it's over to you…!.

Thank you

There are so many people I would like to thank and there are too many to name. I must pick out a few though for special mention: John and John- thank you for the opportunity and the long leash! Thanks to Abigail my predecessor for a great handover and continued support during the job. Dr Petros: thank you for trusting me- it was only with your support that I was able to be effective.

Vusani, Busani, Simangele, Auggi, Hlopzile, Tivelele, Fidelia, Matrons Futhi, Constance, Eunice and Jerry, Dr Fred, Dr Sam, Dr Joyce and all the other great people at GSH: siyabonga!