

Linking with Lusaka

Improved HIV care, fewer child deaths and better pharmaceutical practice are just some of the benefits of an unlikely pairing between Brighton and a teaching hospital in Zambia.



Eleven years since being established, the Brighton-Lusaka Health Link has not only brought significant benefits to medical staff and patients in Lusaka, but has forged a lasting impression on the UK professionals who have taken part in the project.

It all began with a visit to Zambia; Head of the Department of Global Health and Infection at BSMS, Professor Melanie Newport was in the country on other business. She was introduced to the medical director of the University Teaching Hospital (UTH) in Lusaka, a facility that already had a few links to Brighton and the UK.

“Often, the model for links between UK and international rural hospitals was limited to short-term visits to deliver clinical care,” recalls Professor Newport. “For example, someone from the UK may visit a rural hospital to perform surgery for two weeks, before returning home. We really wanted to set up a longer lasting, two-way connection that would focus on training and allow all departments to be linked up. As teaching hospitals with medical and nursing schools attached, UTH and Brighton were perfectly matched.”

Improving HIV treatment

With the link established, the Brighton group wasted no time in speaking to staff at UTH to find out the needs of the hospital and how they could help. The first project saw them set up an HIV education programme for nursing staff.

“We were surprised to learn that many of the nurses had poor knowledge of HIV, despite it being such a big problem in the country,” Professor Newport explains. “There was little respect for their role, morale was low and contracting the infection from needle stick injuries was a common hazard of the job. Consequently, we were asked to put together an education programme that not only helped the nurses’ clinical understanding of HIV, but empowered them, too.”

Set up by senior nursing staff from Brighton and Sussex University Hospitals (BSUH) and the University of Brighton, the programme is ongoing and has made a number of lasting impacts: HIV now features in student nurses’ pre-registration curriculum, post-exposure



prophylaxis (PEP) treatment has been made available to hospital staff, and Zambia's Ministry of Health has since introduced a policy for dealing with HIV in the workplace.

The group's HIV work continues today. Dr Jaime Vera, a Clinical Senior Lecturer at BSMS, recently received funding to develop a sustainable link between collaborators at the medical school, the Universities of Brighton and Sussex, and UTH, to design research projects exploring sexual health and preventing sexually transmitted infections (STIs) and HIV. Dr Vera explains, "Despite the improvement in the coverage of treatment, STIs including HIV and hepatitis remain a major public health problem in sub-Saharan Africa. We are aiming to set up a link that will enable research projects on the testing and management of STIs, and the stigma and discrimination associated with sexual health in HIV and non-HIV populations."

Enhanced paediatric care

With the success of the HIV education programme, the link began to expand into other areas. Staff from BSUH and BSMS also began regular visits to UTH as external examiners for the medical school.

During one of their regular visits to Lusaka, the group learned of the extremely high mortality rate for its child patients. "Two-thirds of children who died at the hospital, died within 48 hours of admission," says Professor Newport. "While they were often very ill on arrival, simple errors or knowledge gaps among healthcare staff contributed to these avoidable deaths. Many nurses weren't equipped with the skills needed to treat children."

The team worked hard to help address this issue, with the Schools of Nursing at the University of Brighton



Paediatric nursing at UTH

and UTH collaborating on the introduction of a post-registration diploma in paediatrics. The course provides nurses with essential skills and knowledge to care for child patients.

Further paediatrics links continued to grow over time, with UK clinical and academic staff volunteering, setting up training courses and joint clinics.

Currently, the group are running a fundraising campaign to replace the hospital's special-needs school bus, as many of the schoolchildren are otherwise unable to travel to attend classes.

Pharmacy links bring mutual benefits

A relatively recent development has seen the group working on building links with the pharmacy department at UTH and the University of Zambia's Pharmacy Department.

Together with local colleagues, Dr Sarah Marshall, a global health pharmacist at BSMS, visited the hospital and university in Lusaka to identify ways that they could help. During their visit, the team lobbied Zambia's Ministry of Health to increase funding for pharmacists. "The pharmacists in Zambia are doing amazing work," says Dr Marshall, "but there is a need for additional funding to expand their work further, with pharmacists urgently required in rural hospitals."

The UK pharmacists have already helped with a number of projects, including developing educational materials and sharing resources to help UTH's staff audit their day-to-day tasks, to help increase the visibility and perceived value of their role.

In volunteering on the link, many UK staff have gained insight and learnt from their Zambian



The first paediatric nursing class at UTH

Research



In Zambia pharmacists are urgently required in rural hospitals

The initiative continues to flourish, with volunteers from the medical school, NHS Trusts, local universities and the community getting involved with projects at UTH.

If you would like get involved with the Brighton-Lusaka Health Link or make a donation please visit <http://bit.ly/BrightonLusakaHeathLink>

peers. "These days, a lot of a pharmacist's work is done at a desk in front of a computer screen," observes Dr Marshall. "One of the things that struck us about the pharmacists in UTH was that they were out there on the wards, and it really inspired our group to make sure we get out and see patients."

Going strong

"The success of the projects has been through people travelling between Brighton and Zambia, meeting colleagues, building friendships and sharing experience," surmises Professor Newport. "The link sees us all working towards a common goal: improving health of people in Zambia through training healthcare professionals."

The Brighton-Lusaka Health Link (LHL) was established between BSMS, Brighton and Sussex University Hospital NHS Trust (BSUH), and the University Teaching Hospital (UTH) in Lusaka, Zambia in 2005.

The link was set up by Professor Melanie Newport at BSMS and colleagues at BSUH. It aims to provide educational and clinical support for healthcare workers at UTH, and to share knowledge and clinical experience between the institutions.

The link gained charity status in September 2011.

New clues in sepsis diagnosis

Researchers have identified a new way of diagnosing sepsis. Also known as blood poisoning or septicaemia, sepsis is one of the leading causes of death worldwide and is responsible for 37,000 deaths in the UK alone every year.

Sepsis is triggered by an infection or injury, which pushes the body's immune system into overdrive as it tries to fight infection. This systematic inflammation can affect vital organs and lead to multiple organ failure and death if not treated quickly.

The study found that molecules known as micro-RNAs were found to circulate in the blood of patients with sepsis, and could therefore be used as biomarkers to identify the condition. This would help to

differentiate sepsis from other similar, critical illnesses such as non-infective systemic inflammatory response syndrome (SIRS). While SIRS has very similar symptoms to sepsis, it is not caused by an infection and the two conditions must be treated very differently.

"Severe sepsis kills many thousands of people in the UK every year, and early diagnosis is key to successfully treating it and preventing deaths," says postdoctoral researcher Dr Stefano Caserta, who worked on the study with Dr Martin Llewelyn at BSMS and the intensive care team at the Royal Sussex County Hospital. "We are hopeful that our work will aid the development of novel biomarkers to help doctors diagnose the condition and put the right treatment in place as early as possible."

The study has been published in *Scientific Reports*.

