How can South Africa's medical profession contribute to humanitarian action?

2008 has witnessed a tragically familiar cycle of humanitarian crises across Africa. Nutritional emergencies in Niger, Uganda and Ethiopia; conflict in Somalia, Chad, the Central African Republic, Darfur and the Democratic Republic of Congo (DRC); haemorrhagic fever in DRC and North Sudan; cholera in Mozambique and Zimbabwe.[1] These crises are laid over a background toll of infectious diseases that tip mortality well above alert thresholds but, because of their familiarity, are often no longer considered a crisis. HIV/AIDS in particular, once labelled a humanitarian disaster in its own right,[2] is receding into the shadows of the routine.

South Africa experienced its own humanitarian emergency this year with the xenophobic violence that broke out in May, displacing over 100 000 people. The rapid mobilisation of health workers across the country to provide care for thousands of traumatised displaced serves as a reminder that many in the medical profession have an innate sense of humanitarianism. In the past few years, teams from South African emergency services have been deployed to a number of crises, including earthquakes in Algeria, floods in Mozambique and volcanic eruptions in the DRC.

Médecins sans Frontières (MSF), an international aid agency working in over 70 countries, established a regional office in South Africa in 2007. MSF has been supporting HIV treatment programmes in South Africa since 2001, helping launch the first public sector antiretroviral treatment programmes in the country in Khayelitsha, Western Cape. The strong tradition in South Africa of advocating for health care as a fundamental human right, coupled with a high degree of expertise and resources compared with its neighbours, has led MSF to recognise that South Africa's medical profession can contribute to improving humanitarian assistance in the region in a number of important ways.

The first is through the deployment of medical personnel. Health staff trained in South Africa are exposed to a diversity of clinically nuanced challenges that create a cadre capable of dealing with anything from paediatric HIV to gunshot trauma. Such broad skills are rare among international medical volunteers, and can contribute significantly to improving the quality of emergency medical assistance in affected countries.

The second is through training. South African hospitals and clinics provide an opportunity for clinicians in neighbouring countries to gain exposure to familiar pathologies in an environment highly conducive to teaching, thanks to superior investigative capacity and high-quality academic support. Doctors working for MSF in the region have benefited from excellent clinical training in HIV and tuberculosis that would never have been available to them back home. The University of Pretoria, together with the International Committee of the Red Cross (ICRC), has been running a course on Health Emergencies in Large Populations in the region for several years, which has helped develop regional capacity for responding to humanitarian emergencies. Training courses in trauma care, HIV medicine and other areas are all making important contributions to developing essential capacity in the region.

The third contribution is made through epidemic surveillance. The National Institute of Communicable Diseases (NICD) in Johannesburg provides expertise for outbreak investigations across southern Africa. As one of only two Biosafety Level 4 labs on the continent, NICD's contribution is most visible during haemorrhagic fever outbreaks (including confirmation of the recent arenavirus outbreak), but it has also made important contributions in less exotic outbreaks in the region. For example, when cholera was suspected in Zimbabwe in November, NICD offered to provide MSF with support for outbreak confirmation. This technical capacity for epidemiological investigation in the region contributes to increasing reactivity, allowing humanitarian organisations to respond rapidly to help reduce mortality and contain epidemic spread.

Fourth is the involvement in regionally relevant biomedical research. South Africa is the site for many clinical trials of considerable importance to public health in the region, including new TB diagnostics, TB and HIV vaccines, HIV medicines, and multidrug-resistant (MDR)-TB drugs. That these trials are done in South Africa helps ensure that the eventual outputs are relevant to the demographic and epidemiological realities of southern Africa, for example by ensuring that MDR-TB drug trials include HIV-positive patients or that HIV vaccine research provides immunity against HIV subtype C, and not only subtype B which is more common in Europe and the USA.

Finally, in seeking to provide care in the context of high disease burden and limited resources, South Africa has established a number of models of delivery that are relevant to the reality of resource-constrained health systems. For example, the nurse-based clinic-centred HIV programme developed in the Eastern Cape has served as a blueprint for rural HIV programmes in Lesotho and Swaziland.[3] Similarly, until the advent of Tugela Ferry, international knowledge of MDR-TB was almost entirely developed in Russia and Eastern Europe, settings with very low HIV prevalence and little in common with southern Africa. As the MDR-TB epidemic begins to reveal itself in Malawi, Mozambique and further afield, these countries will be looking not to Harvard or Geneva for

answers, but to the pilot programmes developed in South Africa.

In each of these areas, South Africa is already making important contributions to improving the health of its neighbours. There is potential to do much more.

The contribution that South African health staff can make in humanitarian crises is tempered by the willingness of professional bodies to allow staff to take time out of their careers to volunteer. In Europe the bureaucratisation of the medical profession is making it increasingly difficult for doctors even to take a year out without falling off the career ladder.[4] In contrast, South African doctors working in regional crises should be supported in this endeavour, recognising that working in the region can in fact provide opportunities to develop clinical and management skills relevant to South Africa in ways that working in Manchester or Melbourne cannot.

Training opportunities in such areas as trauma and infectious disease management should be expanded with a view to supporting health professionals in the region. At the same time, because the majority of health staff in the region will not be fortunate enough to be able to travel to South Africa, training modules should be developed that can be replicated in neighbouring countries.

Research projects should be guided to ensure they remain relevant to the clinical and public health challenges faced by the region. The knowledge generated by academics and health care providers in Africa has made an immeasurable contribution to the development of context-adapted knowledge to tackle major epidemics such as HIV/AIDS, TB and malaria. This tradition of providing locally relevant research must be protected against the temptation of unfettered funding from international institutes whose interests may not match those of the region.

This still leaves the question of why South Africa – indeed why anyone – should be concerned about humanitarian problems beyond their borders when there are so many problems to fix at home. A recent article in *The Lancet* suggested five reasons why the West should contribute to global health: foreign policy, security, charity, investment and infectious disease control.[5] The legacy of health care injustice in the country has nurtured a strong sense of activism against injustice and inequity among many in the health profession, providing strong motivation to assist in regional crises. This, together with a capacity and expertise that is unique in the region, suggests a more fundamental reason why South Africa's medical professions should support humanitarian assistance – regional solidarity.

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in which rates of occupational injuries have increased over the past decade.[2] In our opinion, even when the risks are well known and well documented, health care personnel can come to feel immune to the hazards present in their working environment and also tend to place more emphasis on their patients' health than on their own. This can result in the occupational health of hospital personnel not being given the same value as the health of patients.

South Africa has a much better equipped health care system than other countries in Africa. Its diagnostic and health care facilities are more advanced and geared more towards rare infections and diseases. In addition to coping with existing challenges such as the rampant tuberculosis epidemic, including the increasing threat of MDR-TB and XDR-TB, and overcrowded hospitals and clinics, health care workers therefore have to be prepared for unplanned emergency admissions of foreign and local patients with possible contagious viral diseases (for example haemorrhagic fevers, avian flu and viral encephalitis). This situation increases the risks of hazardous exposures.

Most South African facilities have set up infection control systems to minimise exposure of patients and staff to contagious organisms. These serve mainly to prevent the spread of infection to other patients. So where does infection control end and occupational health practice start? Since the two functions overlap, this can be difficult to answer, even for experienced occupational health practitioners. OHS involves the prevention of injury and disease in workers in which infection control plays a large part, particularly for health care workers. However, other good occupational health practices such as staff training, good management policies and surveillance programmes are also necessary to protect staff adequately.[3]

The transmission of an infection from a patient to a health care worker points to a breakdown in infection control and a lack of occupational health services. Communicable diseases among health care workers can be prevented by following established protocols, using prophylaxis (e.g. vaccination if available) and, if necessary, issuing effective protective equipment to prevent nosocomial infections.

Immunologically compromised health care workers deserve special occupational health attention. Placing them in positions where they are exposed to contagious patients increases their risk of contracting an occupational disease. It is vital that they have access to prophylactic treatment when necessary.[1] They should be regularly monitored to detect infection at an early stage, so as to minimise its severity and reduce time off work.

The recent emergency admission of a highly contagious patient to a private South African hospital highlighted the need for all health care facilities to have an occupational health policy. First-line personnel, nurses and doctors were at high risk, but health care support workers were also at risk of contracting what turned out to be a haemorrhagic fever. As a result, health care workers were infected with the virus.[4] In situations where patients are potentially infectious, good infection control is important, but well-implemented occupational health practices are needed to protect health care workers. These include training to identify potentially infectious patients, and provision of personal protective equipment and ensuring its proper use.

The Department of Health's responses to recent events were correct to protect the public from an epidemic and to identify the causative virus. However, protection of front-line staff was limited. This protection must come from the occupational health protocols in place in each health care facility. Occupational health policy improvements must become a priority in both the public and the private health care sectors, both to protect vulnerable workers and to retain vitally important, highly skilled health care personnel.

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