From academia to Zimbabwe: Waterloo pharmacy students go global

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Globalization has generated a heightened focus on global health, defined by Koplan et al. as “... an area for study, research and practice that places a priority on improving health and achieving equity in health for all people worldwide.”¹ As such, there has been an upsurge in the demand for global health education.² MacFarlane et al. go so far as to suggest that “academic institutions have an opportunity — as well as a responsibility — to assure that leadership for global health be as inclusive and worldwide as the tasks ahead are broad and daunting.”³ To ensure that the pharmacy students at the University of Waterloo graduate with a more global perspective on health, Veneta Anand and Veneta Harris were hired as Global Health Coordinators. Part of this role included the creation and teaching of a new Global Medical Aid elective in the summer of 2011.

The Global Medical Aid course focuses on issues germane to the provision of medical aid to global communities. Students gain an appreciation for the health care needs of rural, marginalized people in developing countries, the prevalence of communicable diseases and potential language and cultural barriers. The work the students have done in this course has already had far-reaching benefits, as one of their assignments formed the basis for the development of a formulary for the RAMBIA clinic in Uganda.

In August 2011, 3 students from the class — Michael Collins, Kathryn Guse and Denise Kreutz-wiser, as well as Stephanie Voss, an elementary school teacher — joined Veneta and Veneta on a medical aid mission to Zimbabwe. The trip was organized under the auspices of Short Term International Medical Missions Abroad (STIMMA), a

non-profit charity founded by Veneta Anand in 2006. The group spent 10 days at Howard Hospital, about 80 km north of Harare. The Salvation Army-run hospital is the referral centre for the Mazowe district of Mashonaland Central Province, with a population of more than 270,000 people.

The team participated in a variety of activities at the hospital, working alongside the local staff. The pharmacy at Howard Hospital primarily supplies ward stock to the in-patient hospital wards and fills outpatient prescriptions for patients visiting the outpatient clinics or being discharged from the hos-

Veneta Anand and Mike Collins in the expired drugs storeroom at Howard Hospital, Mazowe District, Zimbabwe.

For more information on similar medical aid missions, check out the STIMMA website — www.stimma.org.

pital. Having never had a fully licensed pharmacist on site before, the pharmacy staff were particularly curious as to what skills the team would have to offer. In Zimbabwe, pharmacy technicians complete a 4-year training program. Munyaradzi Mukanhairi, a pharmacy technician employed at Howard, competently runs the pharmacy and supervises a number of local pharmacy and pharmacy technician students completing placements at the hospital. The work in the pharmacy is predominantly distribution-based, with the local students being allowed to work with surprisingly little supervision. Patients are provided with small zip-locked bags containing their medications, with the instructions written on the front. They receive very little education beyond basic instructions on how to take their medications. When asked, one of the local pharmacy students admitted that they do not usually consult with patients about their medications, as many would consider this to be an invasion of privacy. The Waterloo students quickly identified this as a particular area for improvement and put together an information sheet for the pharmacy staff, which provided education information similar to what would be included on the auxiliary labels of the more commonly prescribed medications in Canada.

One of the main tasks the team tackled was to sort through and take inventory of 2 large storerooms filled with expired medications and prepare

them for destruction. Most of the medications in these storerooms had been donated to the hospital, but for a variety of reasons had not been used. Some had been donated in excessive quantities and the hospital was unable to use them before they expired. Understaffing makes it difficult for the pharmacy staff to sort through shipments in a timely manner, making it particularly challenging for the hospital to take maximum advantage of this type of donation. Other medications had no indication for use in the local patient population, were difficult to identify due to foreign language labelling or were unfamiliar to the local staff. Despite the fact that some of the medications would likely be safe for use past their expiration dates, Howard Hospital is subject to strict laws in Zimbabwe — similar to those in Canada — that prohibit the use of medications past their expiration date. Indeed, the hospital risks being closed down if it is found to be dispensing expired medications.

Like many hospitals and clinics in developing countries, Howard Hospital relies heavily on international donors for its medications. Staff come up with a Needs List of medications, but will accept any medications donors or drug companies are willing to send in hopes of getting at least some of the items on this list. Since there are few restrictions on donated medications, except that they are in date at the time of donation, it is common for unused or unusable medications to become a

burden to the beneficiary, not to mention a stress on the local environment. The team conservatively estimated that there were more than \$2.5 million worth of expired medications thrown into a large hand-dug pit and burned on site at the hospital. More concerning, Canadian drug companies have recently become less generous with their donations, meaning that the hospital may not have some of the medications needed to replace those that have expired.

In order to try to avoid the waste of more medications, the team provided an in-service training session to the nursing staff who do most of the prescribing and encouraged them to use some of the medications they currently had in stock but were not utilizing. The team also participated in doctor rounds, HIV

Sometimes, if we couldn't do everything during the day, we brought our work home with us to finish in the evenings: Kathryn Guse counts tablets, while Denise Kreutzwiser writes labels for a supply of iron supplements to be dispensed to new mothers at the hospital.

and antiretroviral clinics and a mobile community outreach clinic, where they gained an understanding of the more common diseases encountered and an appreciation for the many challenges faced by Zimbabwean patients and health care workers alike. Stephanie worked with the local teachers at the primary school and high school in the village. The high school students, in particular, appreciated having a native English speaker to challenge their English language skills.

Despite the many obstacles apparent to the team, the Zimbabwean people were quietly optimistic and incredibly thankful for the health care services available to them at Howard Hospital. We hope that this experience will impact on the goals and values that these 3 promising new pharmacists will take with them as they embark on their new careers. Already, Veneta and Venita have plans for the group of pharmacy students registered in the 2012 Global Medical Aid class who will accompany

them to Howard Hospital for the next chapter in STIMMA's medical mission to Zimbabwe. ■

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UPDATE FROM ZIMBABWE

University of Waterloo professors Veneta Anand and Dr. Venita Harris are currently in Zimbabwe on a STIMMA medical mission with a team of volunteers who were planning to spend 2½ weeks working at Howard Hospital again this year under the supervision of Dr. Paul Thistle, chief medical officer of the hospital. Unfortunately, due to the precipitous transfer of Dr. Thistle by the Salvation Army of Zimbabwe, the team has left Howard Hospital to ensure their continued safety. The group of Canadians has traveled to popular tourist destinations where they are better able to assimilate and avoid persecution, as they await news from the airlines regarding the availability of earlier flights back to Canada. While the team was unable to fulfill the medical mission they had planned, they were pleased to be able to deliver much needed medical and dental supplies to the hospital and hope that these can still be put to good use. They are deeply saddened by Dr. Thistle's departure, as they worry about the 270,000 people of the area who relied on Dr. Thistle for their health care. They sincerely hope the Salvation Army will consider reversing their decision to transfer Dr. Thistle and return him to Howard Hospital, where he is much loved by the people, as was shown by their protests. His absence deprives them of a physician who is both passionate and tireless in his work.