Countries in Africa are among the poorest in the world. As a result, they often do not have resources for basic health care. The most common medical problems are related to a variety of infectious diseases, and African countries have the highest incidence rates in the world of life-threatening infections such as tuberculosis, meningitis, malaria, and acquired immunodeficiency syndrome (AIDS).

In November 2000 I went to Zimbabwe as a medical volunteer with a Canadian–Jewish humanitarian organization called Veahavta. I worked at a rural Salvation Army hospital, the Howard Hospital, in a small farming community called Gweshe, about 90 km north of Harare, the capital city. The area is primarily agricultural, with numerous small subsistence farms. The hospital has 150 inpatient beds, a very busy outpatient facility, and a regional obstetrical service with more than 3000 deliveries per year. There is one full-time physician, an obstetrician born and trained in Canada.

I spent nearly 3 weeks at the Howard Hospital, where I was responsible for medical care for both inpatients and outpatients, assisted at surgical procedures, supervised a clinical research study, and provided educational sessions for nurses and nursing students. As might have been expected, the major medical problems encountered were a variety of infectious diseases, including AIDS, tuberculosis, pneumonia, gastroenteritis, and schistosomiasis. We also treated patients with rheumatic fever, malaria, hepatitis, meningitis, sexually transmitted diseases, pelvic inflammatory disease, mucocutaneous candidiasis, burns, and traumatic wound infections. The only laboratory tests available were hemoglobin level, white blood cell count, blood glucose level, pregnancy testing, Gram staining, acid-fast staining, malaria prep, direct smears for ova and parasites, and VDRL (Venereal Disease Research Laboratory). Microbial cultures were not available. It was possible to perform plain radiography and abdominal ultrasonography, but no other imaging studies. As a result, most of our diagnoses and treatment were empiric. A restricted group of anti-infective agents were available — penicillin, cloxacillin, ampicillin, erythromycin, tetracycline, clindamycin, cotrimoxazole, nalidixic acid, metronidazole, kanamycin, chloroquine,
This individualization of drug therapy and the complexity of drug selection are expected, more than ever, to necessitate a team approach to health care. Existing collaborative relationships not only between the pharmacist and the patient but also with physicians, clinical laboratories, and other health-care professionals, must be expanded to include this new focus. As pharmacists, we will be expected to be an integral part of the team because of our extensive knowledge base of how other factors (such as food, concomitant medications and pathophysiologic conditions, gender, environment, and socioeconomic status) may contribute to the success or failure of a treatment plan. In addition, the pharmacist is one of the health-care professionals most likely to be “aware of the demand for cost-effectiveness, the rapid growth of disease management programs, and the narrowing of formularies.”

As a 12-year-old in the 1960s, when the movie 2001: A Space Odyssey was first released, I could hardly imagine what the world would be like at such a distant time in the future. But here we are in what seemed, long ago, to be a futuristic time. While many of the predictions of Stanley Kubrick’s work of science fiction have not come to pass, I continue to be fascinated and amazed by such tremendous advances in science and technology, far beyond the wildest imaginings of that 12-year-old. I hope that the “pharmacogenomic odyssey” will stimulate us all to consider the potential of this dynamic area. Perhaps we will even anticipate and prepare for it together.

References

Mary H.H. Ensom, PharmD, FASHP, FCCP, is Professor, Faculty of Pharmaceutical Sciences, University of British Columbia, and Clinical Pharmacy Specialist, Pharmacy Department, Children’s and Women’s Health Centre of British Columbia in Vancouver, British Columbia. She is also an Associate Editor for CJHP.

Address correspondence to:
Dr Mary H.H. Ensom
Pharmacy Department (OB7)
Children’s and Women’s Health Centre of British Columbia
4480 Oak Street
Vancouver BC
V6H 3Y4
e-mail: ensom@interchange.ubc.ca

Andrew E. Simor, MD, FRCPC, FACP, is Head of the Department of Microbiology and an Infectious Diseases Consultant, Sunnybrook and Women’s College Health Sciences Centre, University of Toronto, Toronto, Ontario.

I found my brief experience at the Howard Hospital in Zimbabwe enjoyable and immensely rewarding. I am certain that I learned much more than I was able to contribute in such a short time. I was most affected by the observation that, despite our concerns in Canada about shrinking health-care resources, there is no comparison between what we have access to here and what is available there. Zimbabwe is a beautiful country with many natural resources and enormous potential. Unfortunately, it now faces huge political, economic, and social challenges, largely because of a corrupt and inefficient government. I have returned home with a much greater appreciation for the freedom and benefits we enjoy in Canada.

continued from page 5
quinine, and antituberculous drugs — but no cephalosporins, fluoroquinolones, or antiviral agents. The only antifungal drugs were gentian violet and griseofulvin.

Zimbabwe has among the highest rates of infection with the human immunodeficiency virus (HIV) in the world, and 1 of every 4 women who presented in labour at the Howard Hospital had the virus. Treatment for this infection is generally nonexistent in Zimbabwe because of the high cost. Veahavta started a study at the Howard Hospital to investigate the use of short-course (and affordable) antiretroviral treatment for HIV-infected women in labour, with the aim of preventing transmission of the infection to newborns. HIV testing supplies and medications have been donated. One of my responsibilities was to audit the conduct of the study, which has been under way for a little less than a year.