ABSTRACT
The worldwide investment in health research is currently about US$100 billion. Of this amount, less than 10% is targeted on the problems of societies that bear 90% of the global burden of illness. This article addresses this unacceptable situation in three ways:

• by describing the global problem in more detail, including what is currently being done about it;
• by summarizing Canada’s contribution to resolving the problem, both through federal government agencies, and through a new non-government organization: the Canadian Coalition for Global Health Research (CCGHR);
• by suggesting what Canadian university students might consider doing about it. This includes getting informed, getting involved, and considering “global health” as one component of their future careers.

The article concludes with the conviction that this is a remarkable moment for Canadians to play a more active role in global health—and indeed in global citizenship more broadly.

WHAT IS CANADA DOING ABOUT “GLOBAL HEALTH RESEARCH”?

In 2002, the worldwide investment in health research was about US$100 billion. It is a startling fact that of this amount, less than 10% was directed to research on problems of societies that bear 90% of the global burden of illness. This enormous mismatch (between where the problems are, and where the investment is) is now well recognized, and has also come to the attention of Canadians. Initiatives are underway in many parts of the world to address this imbalance. The health research community in Canada is contributing as well.

This paper will:
• Describe the global problem;
• Summarize what Canada is doing about it; and
• Make some suggestions about what Canadian university students could do.

THE GLOBAL HEALTH RESEARCH “INVESTMENT-BURDEN GAP”

In the late 1980’s, several international health funding agencies became increasingly concerned about the growing burden of illness in low and middle income countries (LIMCs), and about the fact that research efforts to address this burden appeared to be too small and ineffective. A major 2-year study was undertaken by the Independent International Commission on Health Research for Development (CHRD). The Commission released what has become a landmark report in 1990. Among its findings, the CHRD reported that about 93% of the global burden of preventable mortality (measured as potential years of life lost) occurs in LIMCs. However of the US$ 30 billion invested in health research in 1986 (the most recent year that accurate information was available to the CHRD), only $1.6 billion (or 5%) was targeted specifically to the health problems of developing countries. The report included several other recommendations, including that every country in the world should establish arrangements for “essential national health research” or ENHR.

These findings and recommendations stimulated a series of actions during the decade of the 1990’s. New organizations were created to deal with the problem, such as the Geneva-based Council on Health Research for Development (COHRED), which began in 1993. Its main role was to help developing countries with the process of ENHR. A little later, the Global Forum for Health Research (GFHR) was created. As its name implies, the GFHR serves as a forum where the global health research community can meet to determine whether...
progress has been made on what has been called “the 10/90 gap.”

In the year 2000, ten years after the Commission’s report, a major international conference was held in Bangkok, Thailand. The main purpose was to review progress during the decade of the 1990’s regarding the “investment-burden gap”. The participants learned that more than 50 developing countries had implemented the ENHR strategy in some form. By 1998, global health research investment had risen to US$ 70.4 billion. Several countries (such as Argentina, Brazil, Mexico, Thailand, the Philippines, Malaysia and India) had increased their investment in health research. The aggregate amount from these countries was about US$ 2.2 billion. However, overall the “dis-equilibrium” described in 1990 was substantially unchanged. This was in the face of deteriorating health conditions in many countries. For example, 9 countries in Africa, where formerly there had been health gains, were now showing reversals of these gains, primarily because of the AIDS epidemic.

A CANADIAN RESPONSE

A few Canadians participated in the Bangkok conference. It was their conviction that Canada’s involvement in this global challenge was pitifully small and grossly inadequate. In an editorial in the Canadian Medical Association Journal, they strongly recommended actions related to increased awareness; increased involvement; and increased funding. The concluding statement by the authors was this:

“Following the invigorating exchange of ideas at the Bangkok conference, it is time for all those in Canada concerned with equitable health care and health development – our governments, the health care professions, academic and research institutions, and individuals – to renew our commitment to investing resources in equity-oriented health research. These resources include not only finance, but also, perhaps more importantly, our collective energy and talent.”

Fortunately, about this time, there was a renewed interest in Canada in “global health research” (GHR) – that is, research targeted on the health problems of societies in low and middle income countries. This interest resulted in two major developments. Led by within-agency “champions”, four Canadian agencies most concerned with international health came together in a remarkable collaborative arrangement. The agencies were: the Canadian International Development Agency (CIDA); Health Canada (HC); the International Development Research Centre (IDRC); and the recently established Canadian Institutes for Health Research (CIHR). In November 2001, senior representatives of these four agencies signed a memorandum of understanding (MOU) with the name, the “global health research initiative” (GHRI). The collaborative intent was to increase funding support for GHR, shape policy, contribute to the global health research agenda, and streamline mechanisms across agencies for sharing information and resources.

Since its inception, the GHRI has marshaled increased funding for GHR—from small amounts in 2000 to more than $CAN 8 million in 2004. As a result, more than 70 groups of Canadian researchers, in partnership with research from “the south” have embarked on research projects focused on priority health problems in developing countries. The leadership in these agencies has become increasingly aware of the importance of health knowledge (research) – both its production and application. These efforts have been recognized in the recent Canadian health commission reports. For example, the Kirby report includes the statement: “This joint undertaking (the GHRI) will contribute to a great humanitarian cause—the health of citizens of all countries, including Canadians. This is the beginning; much more needs to be done.” The prime minister of Canada recently reinforced this idea, “We are a knowledge-rich country. We must apply more of our research and science to help address the most pressing problems of developing countries.”

In parallel to the efforts of federal government agencies, a second entity has been created. It has become a non-government organization known as the Canadian Coalition for Global Health Research (CCGHR). The stated mission of the CCGHR is “to promote better and more equitable health worldwide by: mobilizing greater investment in global health research; nurturing productive partnerships among Canadians and people from low and middle-income countries; and translating research into action.”

The CCGHR was launched in October 2003. It now has an elected board of directors, a small secretariat (shared with the GHRI), and six active task groups, and a rapidly growing membership that has now surpassed 400 individuals—not only from Canada, but also from countries all over the world. Among its achievements, the CCGHR last year conducted its first “Summer Institute” for researchers that were relatively new to the field of global health research, from both Canada and from LMICs.

Canada is playing an increasingly prominent role within the global health research community. For example, in November 2004, a major “Ministerial Summit on Health Research” took place in Mexico City, in conjunction with the 8th Global Forum on Health Research. The “summit”, organized by the World Health Organization, brought together the largest grouping of ministers of health ever assembled. A “Mexico statement” was issued. To quote an editorial in a major medical journal, “participants joined forces to mobilize around a single argument—that the present definition of health research is leading to the unnecessary death of millions of the most marginalized peoples in the world.” Dr. Alan Bernstein, president of the CIHR, was a keynote speaker. The official Canadian delegation was led by Dr. David Butler-Jones, the head of Canada’s new Public Health Agency. A large “team Canada” contingent of more than 70 persons contributed actively to various sessions at both meetings.

A growing number of Canadian research groups are making outstanding contributions to the understanding and solution of health problems in developing countries. An example is McMaster’s Dr. Salim Yusuf and his team based at the Public Health Research Institute. Very recently, Dr. Yusuf and a coalition of investigators in 52 countries published the results of a remarkable epidemiologic study—the INTERHEART study.
The study revealed that risk factors for heart attacks were very similar throughout the world, thus opening the way for the widespread application of preventive measures that are known to be effective in high income countries. The report published by Dr. Yusuf and his colleagues was given special mention in an annual “paper of the year” competition sponsored by the prominent U.K.-based health journal, the Lancet, citing the fact that the study was “an incredible feat of epidemiologic investigation, drawing together collaborators from 52 countries.”  

WHAT CAN UNIVERSITY STUDENTS DO?

There is a remarkable increase in interest at many levels across Canada in the challenge of health research for development. And there is much that Canadian university students could do. Three suggestions are offered here.

Get Informed

A good place to start might be to track down and read the articles and reports referenced below, and have a look at the various websites. Health science students in particular could explore and discuss the “global” implications of the topics they are studying. For example, when studying about myocardial infarctions, ask yourself questions such as these: Are the risk factors that are known to be important in Hamilton also important in India? How big is the heart attack problem in India? Is tobacco a problem in India – if yes, why? Would the same preventive interventions that are effective in Canada work in India? Another good venue for being informed is the Student International Health Initiative (SIHI) – a lively student-run organization that has been active for ten years.

Get Involved

There are many ways to get more actively involved in global health and global health research. Here are some examples:

- Health science students in many universities across Canada have formed interest groups in global health and are advocating (with university authorities) for courses in international health. At several universities, plans are evolving for graduate programs (at both a Masters and PhD level) in global health.
- University students are voting citizens, like any one else. Why not find out what your member of parliament thinks about global health research? For example, Prime Minister Paul Martin recently proposed that 5% of Canada’s investment in research and development be allocated to research on problems in developing countries. Does your MP know about this, and is he or she promoting it actively? Write a letter or an e-mail message to find out. Better still, make an appointment and ask directly.
- Each year, there is a dynamic meeting in Ottawa devoted to global health – the Canadian Conference on International Health (CCIH). This includes meetings and events organized by a Canada-wide student network. For more details, check out the website of the organizing society – the Canadian Society for International Health. Why not consider participating in person? The next CCIH takes place in Ottawa, November 6-12, 2005. The theme is: “Wealth, health and the choices we face.”

Consider including “global health” in your career plans

Some of you may be starting to think about how involvement in global health might become part of your future career. This may be the time to start exploring this idea. One way to start might be to organize a summer or elective research studentship. For example, the CSIH manages a scholarship fund to support students in international health and development (check out the CSIH website). Or track down one of several McMaster faculty members and groups that are involved in global health research. Ask whether they have summer student research opportunities to explore. If you have classmates and friends interested in these same ideas, why not start your own study group? It’s usually more effective – and more fun – to explore these ideas as a group.

CONCLUSION

This is a special moment in history to get more informed about and involved in global health. Increasingly, health is being recognized as a central element in social and economic development. The production, and in particular the application of knowledge (research, science and technology) is seen as the “driver” of progress. It is interesting to note, for example, that at least 6 Canadian Research Chairs (CRC’s) in Canada have been allocated to individuals involved in global health research. And Canada itself has a remarkable opportunity to re-define its role as a global citizen. In a recent book, the Canadian scholar Jennifer Welsh (currently a professor in international development at Oxford University) said this:

“...Canada is at a crossroads. Our history and our reputation have given us much, but they can no longer sustain us. While the threat to national unity has largely subsided, we face a new crisis of identity about our place in the global community. Canada’s new leaders must redefine the global role we will play in the twenty-first century and ensure that we make the necessary investments to carry it out.”16
REFERENCES


Author Biography

**Dr. Neufeld** is a Professor Emeritus of Medicine and Clinical Epidemiology, McMaster University, Hamilton, Ont. He is the founder, and former director of McMaster’s Centre for International Health, and currently operates as a consultant on international health-related issues in a variety of global forums.