Improving health services changes lives and transforms communities. The key element in the delivery of health services is an effective, productive workforce. Up to 80% of operational costs in health systems are related to staff and employment. The provision of sustainable health systems that deliver effective services to the communities they serve depends on health human resources (HHR) planning. However, in spite of significant reforms in recent years, health systems still face serious workforce challenges. Aging populations, limited budgets, changing public expectations, new technologies, and the emergence of new diseases are testing health systems as they consider ways to meet needs and protect, promote, and restore health. Traditional planning methods for the professionals required to provide these services have given little consideration to changes in the needs of the populations they serve or to changes in the amount/types of services offered or how they are delivered.

The aim of the World Health Organization Collaborating Centre on Health Workforce Planning and Research, based at Dalhousie University, is to build local and global capacity for HHR planning that is based on people’s health needs. The Centre’s work falls into three areas:

**HHR planning.** Whenever possible, the development and testing of enhanced methods of HHR planning is carried out in collaboration with the Centre’s Canadian and international partners. In this respect, the organization acts as a resource centre, providing and disseminating information and knowledge on planning for health systems and HHR using needs-based approaches.

**Capacity-building and knowledge exchange.** The Centre strives to build global capacity for and exchange knowledge about HHR planning in a number of ways: by offering the expertise of its members to the Pan
American Health Organization (PAHO) and the World Health Organization (WHO); by providing education and training sessions for decision-making partners; by supporting undergraduate and graduate education and exchange; and by facilitating the sharing of best practices and tools for HHR planning through local and international forums, both in person and online.

**Evaluation.** The Centre provides expertise in the evaluation of various HHR management and education initiatives using such methods as outcome mapping. The approaches used are adapted as needed to different contexts but always incorporate the engagement of relevant stakeholders in determining appropriate process and outcome indicators to measure the progress and successes of the initiatives in question.

The Centre is engaged in a number of research, planning, and capacity-building projects in Canada and other countries. Although each project is unique in its scope and objectives, the underlying goals are the same: to improve the way in which health-workforce planning is carried out both at home and abroad.

The work currently being conducted by the Centre in Canada includes an evaluation of the Model of Care Initiative in Nova Scotia, in which teams of health-care providers collaborate to deliver patient-centred, high-quality, safe acute care. The Centre has worked with partners in Nova Scotia’s Department of Health, the province’s District Health Authorities, and the IWK Health Centre to determine the impact of the Initiative on outcomes for patients and families, providers, and the system, including its potential impact on provincial HHR shortages. Dissemination of the findings of this evaluation is now underway.

Another Canadian project in which the Centre is currently engaged is the testing and application of a competency-based approach to HHR planning for seniors in Nova Scotia and Nunavut. The aim of this approach is to achieve optimal management of scarce HHR by aligning the unique competencies of the available health workforce with the specific health-care needs of the population it serves. Among the collaborators on this project, which is funded through a Contribution Agreement with Health Canada, are partners in the Nova Scotia and Nunavut departments of health. The project began in November 2009 and is slated for completion by the end of 2012.

This competency-based approach to planning is also being explored through a grant from the Canadian Institute for Health Research (CIHR) under its Partnerships for Health Systems Improvement program. This work also involves a partnership with two jurisdictions: the Province of Nova Scotia and the Vancouver Island Health Authority. Its focus is on how a competency-based approach can help planners to better respond to surges in health-care needs, such as seen during the
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recent influenza pandemic. The work of the project is based on earlier research by members of the Centre and other partners in Nova Scotia and Ontario. This is a 3-year project now in its early stages.

Internationally, the Centre is currently involved in projects in Brazil, Jamaica, and Zambia. While these countries differ widely in size and in political, economic, social, and cultural makeup, the overall goal is the same: to build capacity for needs-based HHR planning both in the country concerned and in Canada, through the adaptation and application of enhanced planning methods and the exchange of knowledge about shared challenges to HHR planning.

The Centre’s work in Brazil is an integral part of a Memorandum of Understanding between the Brazilian and Canadian ministries of health. This project involves the development of a series of simulation models to guide HHR planning for two Brazilian states — Minas Gerais and Ceará — based on population health needs. It entails the ongoing exchange of knowledge between Canadian and Brazilian partners about shared priority areas in HHR planning, including interprofessional collaborative practice and education, team-delivered primary health care, and the provision of health services to rural and remote populations.

In Jamaica, similar to the case in Brazil, the Centre is engaged in the integration of needs-based approaches to HHR planning into the country’s health-system planning. This work is being carried out through the development of a suite of simulation models designed to simultaneously estimate the supply of and requirements for specific health professions. Models for five professions have been produced thus far and others are in development. Another component of the Centre’s work in Jamaica is the establishment, with its Jamaican partners, of the Caribbean Centre of Excellence (Jamaica) in HHR planning. The CCEJ is an intersectoral network of government bodies, academic institutions, and stakeholders sharing political and technical cooperation in the planning, management, and strengthening of the health workforce in pursuit of the 20 Goals for Human Resources in Health for the Decade. Other countries partnering with the CCEJ are Barbados, Grenada, and St. Lucia, with additional partnerships being developed. The Centre’s work in Jamaica has been funded by a Contribution Agreement with Health Canada and PAHO.

Like the Nova Scotia-Nunavut project, the Centre’s work in Zambia entails the adaptation of a competency-based approach to HHR planning. However, the focus of the Zambia project is the health needs of the entire population of two of the country’s more rural districts: Gwembe and Chibombo. It is hoped that the adoption of competency-based planning will help to offset the critical HHR shortages in these districts. A second component of the Zambia project is the evaluation, using outcome mapping, of various recruitment and retention initiatives aimed
at increasing the supply of HHR in the country. Although a number of such initiatives have been attempted, their effectiveness is not well understood. It is hoped that a comprehensive evaluation of the initiatives will help to inform HHR planning in Zambia, thereby further offsetting the country’s HHR shortages. The Centre’s work in Zambia is funded by the Global Health Research Initiative, a partnership between CIHR, Health Canada, the International Development Research Centre, and the Public Health Agency of Canada. It is being conducted in collaboration with partners in the Zambia ministry of health, the University of Zambia, and the Zambia Forum for Health Research.

Recently, the Centre hosted its second annual Summer Institute. Participants came from Barbados, Belize, Brazil, Canada, Grenada, Jamaica, St. Lucia, Trinidad and Tobago, the United States, and Zambia. Consistent with the title of this year’s event, Evidence to Policy: Building Strategies to Address Priority Challenges in Health Care, the focus was how partnerships between HRH observatories and collaborating centres might be created, how respective countries use different technologies and methods for HRH metrics, and ongoing country-specific projects and initiatives. The discussions were centred on three themes: needs-based planning for primary health care, mental health, and planning for the elderly. In addition to holding numerous round-table discussions on these themes, the organizers arranged several site visits to health-care facilities in order to give international visitors a better sense of the Canadian health system. Throughout the Institute, participants identified shared challenges to HHR planning, as well as their potential solutions, and laid out avenues for future collaboration between international partners.

The Centre is fortunate to have forged partnerships with non-governmental research agencies, which have helped to build its resource network and guide its work. Among these key partners is the Nova Scotia Health Research Foundation, whose mandates of fostering health research, studying priority health areas, and increasing public knowledge about this kind of work and its benefits are well aligned with the goals of the Centre. In addition, the Centre has been physically housed by the NSHRF since its inception. Another valued partner is the Canadian Coalition for Global Health Research, a Canada-based network to promote better and more equitable health worldwide through the production and use of knowledge — an aim that is well aligned with the work of the Centre. The Coalition has been a particularly valuable partner in facilitating the Centre’s work in Zambia.

The Centre also collaborates frequently with a number of individual researchers across Canada. Among those who have worked on multiple projects with the Centre are Dr. Stephen Birch, a health economist at McMaster University; Dr. Rob Alder, an epidemiologist at the University...
of Western Ontario; and Dr. Stephen Tomblin, a political scientist at Memorial University of Newfoundland.

Since its founding in 2008, the Centre has been engaged in an array of activities as part of its mandate to build local and global capacity for HHR planning. All evaluations of the Centre’s work to date have shown that it has been successful in its endeavours. The staff of the Centre look forward to both completing existing projects and taking on new ones in collaboration with its many partners.

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