

INNOVATIVE HEALTH INFRASTRUCTURE

Building, repairing, and expanding health infrastructure – which includes the range of settings from hospitals to long-term care institutions, chronic care facilities and community-based clinics, and others – creates jobs and economic activity over the short-term; and improves the health and health care of Canadians.

Since the last major influx of federal funding in health infrastructure (which took place in the 1960'sⁱ), researchers, providers, architects, engineers and planners, in Canada and abroad,ⁱⁱ have identified important advancements in how health care settings are built save lives; improve access to care; attract and retain health care professionals; and yield greener communities. Here are some examples...

1. SAVING LIVES...

By implementing innovations that safeguard against adverse events^{iii iv v}

- Air quality control technology that reduces the spread of air-borne infections
- Technology to reduce medication dosage errors in hospital and community settings
- Nursing station placements that optimize the monitoring of multiple patients
- Patient rooms designed to reduce the spread of infections and the need for lifts & transfers
- Flooring and railing design and materials that prevent or reduce the impact of patient falls
- Noise barriers that allow patients to rest and providers to monitor and attribute alarms and signals
- Increased accessibility of hand-washing stations promoting patient safety

2. IMPROVING ACCESS TO CARE...

By building and retrofitting healthcare places and spaces for new models of care^{vi}

- Innovative facilities that allow patients to remain in and receive care in community settings
- Settings that support families as part of the healthcare team for their loved ones
- Spaces designed to accommodate the technologies that help to get people home safer and faster
- Emergency departments that permit more efficient and effective triage
- Design considerations that reduce inefficiencies in process and communication

3. ATTRACTING AND RETAINING HEALTH CARE PROVIDERS AND RESEARCHERS...

By enabling professions to practice and do research in safe, secure, and healthy places^{vii}

- Settings that reduce physical stress and strain to permit focused attention
- Design considerations that inspire productivity and satisfaction in work settings
- Environments that support Canada's position in a global competition for talent
- Teaching environments that promote best practices and provides a world class education
- Spaces for state-of-the-art technologies that permit the best research and teaching patient care

4. BUILDING GREENER COMMUNITIES...

By making repairs/retrofits that meet environmental and efficiency standards^{viii ix}

- More efficient energy systems, waste management, heating and cooling systems
- Adopting Canadian technologies that help meet environmental standards
- Incorporation of chemical-free water treatment systems
- Better use of natural day-lighting and use of activated lights in non-clinical areas
- Standards that result in less harm to environment and people

ASSOCIATION OF CANADIAN ACADEMIC HEALTHCARE ORGANIZATIONS

The Association of Canadian Academic Healthcare Organizations (ACAHO) is *the national voice* of Teaching Hospitals, academic Regional Health Authorities (RHAs) and their Research Institutes. The Association represents more than 45 organizations, with members ranging from single hospitals to multi-site, multi-dimensional regional facilities (also known as "Research Hospitals").

Members of ACAHO are leaders of innovative and transformational organizations which have an overall responsibility for the following integrated activities:

- Timely access to a range of high-quality specialized and some primary health care services.
- Provision of all of the principal clinical teaching sites for Canada's health care professionals including partnerships with all 17 Faculties of Medicine and Faculties of Health Sciences.
- Infrastructure to support and conduct health research in its dimensions - medical discovery, knowledge creation, knowledge translation, and innovation and commercialization.

There are no other organizations in the health system that provide the unique combination of health services that our members do. We consider our institutions to be vital "hubs" in the health system - in addition to being a national resource.

CANADIAN HEALTHCARE ASSOCIATION

The Canadian Healthcare Association (CHA) is the federation of 13 provincial and territorial hospital and health organizations across Canada. Through its members, CHA represents the broad continuum of care, including acute care, home and community care, long-term care, public health, mental health, palliative care, addiction services, children, youth and family services. These services are provided through regional health authorities, hospitals and other facilities and agencies that serve all Canadians.

CHA is committed to a publicly-funded health system that provides access to a continuum of comparable health services across Canada.

CHA is a leader in developing, and advocating for, health policy solutions that meet the needs of Canadians.

CHA's policy development, advocacy, communications, professional development and conference services work together to support CHA members and to promote and advance CHA's vision and mission. Learn more at our website at www.cha.ca.

NOTES AND SELECTED REFERENCES

- i Federal government investment in health infrastructure has two important precedents - the first in 1948 (*Hospital Construction Grants Program*) and the second in 1966 (*Health Resources Fund Act*).
- ii The United Kingdom is building 100 new hospitals by 2010 (see reference vii), and in 2006 the United States entered the largest healthcare construction boom since World War II (*USA Today*, January 2006).
- iii Anjali, J. Mahbub, R. The Architecture of Safety: Hospital Design. *Current Opinions in Critical Care*. 13(6), December 2007, p. 714-719.
- iv Stichler, J.F. Is your hospital hospitable? How Environment Influences Patient Safety. *Nursing for Women's Health*. October/November 2007. pp 506-511.
- v Wolf, E.J. Promoting patient safety through facility design. *Healthcare Executive*. Vol. 18, Issue 4; page 16.
- vi Health Council of Canada. *Healthcare Renewal in Canada: Accelerating Change*. January 2005.
- vii Price Waterhouse Coopers/CABE. The role of hospital design in the recruitment, retention, and performance of NHS nurses in England. Executive Summary Available: <http://www.cabe.org.uk/AssetLibrary/2289.pdf>.
- viii American Society of Healthcare Engineering. Green Healthcare Construction Guidance Statement. Available: [www. http://www.ashe.org/ashe/products/pdfs/ashe_guidance_sustainconst_rev2_0410.pdf](http://www.ashe.org/ashe/products/pdfs/ashe_guidance_sustainconst_rev2_0410.pdf).
- ix Vision statement of the Canadian Coalition for Green Healthcare.