Healthcare Sustainability:

Designing for Wellness
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- Factors affecting Healthcare sustainability
- Government policies, initiatives, and direction
- How can facility design and management help with assuring the sustainability of the health system?
- A practical holistic solution
- Design strategies/examples
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- The Canadian universal healthcare system in its current form is not sustainable as annual expenditures are approaching 50% of the total provincial budget in virtually all provinces.
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Factors affecting Healthcare sustainability:

• Aging population

• Rising costs of care
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Factors affecting Healthcare sustainability:

• New procedures resulting in an increase in care

• Resistance to change in practice

• Lack of strong economic growth especially since 2008 (less government revenue)
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Government policies, initiatives, and direction:

• More money and more care has not been the answer

• Initiatives are underway to improve upon and keep the healthcare system sustainable but these efforts must be more aligned and coordinated with an overall strategy that does not focus on increased care but rather prevention and increased wellness.
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The Conference Board of Canada Guiding Principles of Health and Health System Sustainability:

• **Appropriateness**—seeing outcome targets defined, accountability at all levels, and alignment with accreditation and funding.

• **Value for money**—achieving better outcomes from the same investments.

• **Fair and timely access**—limiting barriers to access, financial or otherwise.

• **Accountability for results**—seeing outcome targets defined, accountability at all levels, and alignment with accreditation and funding.
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- Framework
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The triple aim of the BC Provincial Government is to:

- Improve the health of communities (prevention);
- Improve the patient experience of care; and
- Reduce the per capital cost of health by focusing on quality and efficiency.
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So how can facility design and management help with assuring the sustainability of the health system?
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**GOAL**
In conjunction with government policies, initiatives and direction on healthcare sustainability: “Create physical and social environments within healthcare facilities and communities that promote wellness and good health for all.”
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A practical **holistic solution** promoting a Concept of Wellness: Base facility design and management decisions on supporting principles of health promotion, prevention and, treatment. THIS WILL HAVE A POSITIVE IMPACT ON THE ENVIRONMENT, PEOPLE (Social), AND THE BOTTOM LINE IE. A HOLISTIC SOLUTION;

- **Design and build the development to Best Practice Sustainability and Evidence Based Design Principles.**
- **Promote wellness by integrating a range of community, health services and residential care into a complete healthcare community;**
- **Incorporate the “Determinants of Health” into project;**
- **Create a “healthcare precinct” development that is connected to and part of the community versus designing “a hospital”;**
- **Provide the physical environment that promotes access to housing, health care, public services, amenities, recreational and cultural activities (Connection to the Community);**
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A practical holistic solution: Sustainability

- **Design and build the development to Sustainability and Evidence Based Design Principles**
- **Think BIG PICTURE**
  - **Sustainable Planet**
    - **Environmental Stewardship**
    - **Paris Agreement**
    - **BC Greenhouse Gas reduction Targets Legislation**
    - **Carbon Action Plan**
  - **Sustainable Communities**
    - **EcoDistricts**
    - **District Energy**
    - **Green Care Community**
    - **Global Real Estate sustainability Benchmark (GRESB)**
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A practical holistic solution: Innovation

- **Sustainable Buildings**
  - Green Building Council of Canada: LEED 4.0 Gold Mandatory
  - Living Building Challenge 3.0
  - Green Guide for Healthcare (GGHC)

A practical holistic solution: Patient Centered Care

- Think human scale

- **Evidence Based Design**
  - Centre for Health Design (Pebble)
  - Well Building Standard (Delos)
  - Workplace Wellness Standard
  - CSA and AIA Guidelines
  - Practice Green Health
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Example Czorny Alzheimer's Centre, Surrey BC

- home to 72 residents, is tranquil by design - the architecture reflects its innovative holistic, person-centred approach to dementia care. There are communal kitchens, living rooms and fireplaces,
- offers music therapy, recreation, a spa, a hair salon, two recreation halls with dance floors, a kitchen, and a piano. Residents can bake, garden, and have visitors at any time. The outdoor paths through the gardens are ringed with benches, flowers, and strawberry patches. Pathways are circular, so no one can get lost.
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- The Centre’s therapeutic goals follow the Eden principles of care which seek to eliminate loneliness, boredom, and helplessness through tailored care and connection with nature. It is person-centred care; the lens with which they make all of the care decisions.

- In order to optimize a design that reinforces the care model the first 36 beds unit was designed and built per best practice EBD known and a research grant was established with the Simon Fraser University Gerontology Department to measure what design elements worked best post occupancy. Based on this research the second unit’s design was modified to provide better care support.
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ACTIONS:

• Look beyond LEED for sustainability innovations, standards, and guidelines as they evolve - look for advances in building technology that are leading edge.

• Add to the relatively limited body of research and true evidence linking good design with better health by actively creating a living lab in your project.
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Concept of Wellness: Healthy Community

Incorporate the “Determinants of Health” into project;

Determinants of Health

*Public Health Agency of Canada

- Income/Social Status/ Employment
- Social Support/Education
- Social Environment
- Physical Environment

- Personal Health Practices
- Healthy Child Development
- Health Services
- Culture
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Concept of Wellness: Integration

• *Create a “healthcare precinct or campus of care” development that is integrated, connected to, and part of the community versus designing “a healthcare facility”*;

• *Integration of Services including acute, residential, community and academic*

• Green Field Development: St. Paul’s
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- Existing Campus Development: Surrey Memorial Hospital “Precinct”
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Concept of Wellness: Integration

• Promote wellness by integrating a range of community health services and residential care into a complete healthcare community;

• Improving the effectiveness of primary, community (including residential care), medical specialist and diagnostic and pharmacy services and facilities for patients with moderate to high complex chronic conditions, patients with cancer, patients with moderate to severe mental illness and substance use such as to significantly reduce demand on emergency departments, medical in patient bed utilization, and residential care.
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• ACTION: Advocate for and either build new or replace community health and residential facilities in an integrated way with a focus on design excellence for in order to support the programs that will keep people from hospital admission
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Concept of Wellness: Healthy Community

- *Provide the physical environment that promotes access to housing, health care, public services, amenities, recreational and cultural activities (Connection to the Community);*
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**Dogwood Pearson Development - Key Elements:**

- Canada Line Station;
- Community Health Hub – YMCA, Community Health Centre, Therapeutic Pool;
- 150 bed Residential Care Home (Dogwood replacement);
- Distributed independent living for Peoples with Disabilities;
- District energy & storm water management;
- Open space;
- Activity Hubs;
- Art and Culture Venues;
- Food Production;
- Non-market housing;
- Market housing.
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5 Whole Health Elements

Nested within the "Whole Health" vision, there are 5 fundamental elements that unify the design of the future Pearson Dogwood Neighborhood. The 5 elements tell the story of life in the neighborhood.

The 5 Whole Health Elements were developed based on best practices, evidence-based design, and consultation with stakeholders including Pearson residents, Dogwood residents’ families, Vanpale residents, therapeutic pool users, health services professionals, Urban Farmers on 5th, representatives from the disabilities community, and others.

FLOW
Water and energy flow through and within the neighborhood, shaped by unique topography with therapeutic offerings for human and eco-systems.

ACCESS
The neighborhood is "turned inside out" through strong connections and destinations within reach by all.

GROW
The neighborhood is a place of creation and growth. Celebrating seasonality, it yields food, community, beauty, and wellness. It also yields a financial endowment for health across the region.

THRIVE
The neighborhood is a nourishing and healing landscape. It provides people with the opportunity to touch every aspect of their being. It restores healthy human-earth relationships.

HARMONIZE
Diverse needs, desires, and aspirations are brought together in integrated housing, health services, and other destinations that allow residents and visitors to shop, work, play, and rejuvenate within walking or wheelchair distance of home.
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Action:
• Be aware of and advocate for the hospital or healthcare campus as a major component of the community and leverage its development for the betterment of that community.
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Summary- Facility Designers and Operators have a major role to play in Healthcare sustainability:

- Think of **wellness and prevention** as keys to Health Sustainability
- Think of the **BIG PICTURE**: Sustainable Planet, Healthy Community
- Think **Innovation**
- Think **human scale**: Patient Centered Care
- Think **holistically** as all design decisions at any scale are truly **integrated** and have direct impacts not only on the environment but on patients, their families and the bottom line
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Thank You!