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The Future of Health Care Design

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The Future of Health Care Design

- A brief history of hospital design
- The South Health Campus
 - Planning concepts and principles
 - Specific design features

2




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History of Health Care Design

Almshouses.....to the medical campuses of today

- Ancient Greece: classic temple design.
- Middle Ages: monastic design.
- Renaissance Italy: central courtyard and geometric principles
- 1854 (Crimean War): Florence Nightingale – barracks hospital design.

3

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Factors leading to our current state:
Revolution #1: Science and Technology

Mid 18th century Paris:

- one in four patients did not survive “hospitalization.”
 ⇒ Clean air and water became priorities.

Early 20th century:

- cost of x-ray drove need to centralize.
- discovery of bacterial disease
 ⇒ Concentrate resources and technology.
 ⇒ Diseased paupers could not afford this new hospital...

4

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Factors Leading to our Current State
Revolution #2: Social and Managerial Revolution

WW I and WW II:

- Creation of social welfare states
 ⇒ Led to the concentration of facilities to provide efficient, cost effective care to large populations.
- Medically driven, authoritarian model of management.
 ⇒ Move to professional, generic management.

5

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Factors Leading to our Current State
Revolution #3: Patient Empowerment

Mid to late 20th century:

- Patients were being treated as a set of symptoms or diseases, not as individuals.
- Hospitals were being criticized as inaccessible medical machines.
 ⇒ Led to the concept of patient centered care.
 ⇒ “On stage” and “off stage” areas.

6

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Creating the Future of Health Care.

7

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South Health Campus

What is it?

- Health and wellness services
- Research
- Education

8


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SHC

Where is it?



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Drivers for Change

- Growing and Aging Population
- Increasing Chronic Disease
- Safety Issues
- Patient Experience
- Workforce Challenges
- Emphasis on Wellness
- Connectedness to the Community


10

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Enablers for Change

- Greenfield Space
- Technology
- eHealth
- Chronic Disease Management
- Primary Care Reform
- Interdisciplinary Care
- Prevention and Health Promotion

11

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<i>From:</i>	<i>To:</i>
*FACILITY-BASED	VIRTUAL!
TREAT ILLNESS	ENABLE WELLNESS
*PROVIDER: RECIPIENT	PARTNERSHIP

12

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<i>From:</i>	<i>To:</i>
DELIVERY BY DISCIPLINE	→ INTERDISCIPLINARY
LOCAL EXPERTISE	→ GLOBAL EXPERTISE
SINGLE PURPOSE FACILITIES; SEPARATE FROM THE COMMUNITY	→ MULTI-PURPOSE FACILITIES; INTEGRATED WITH THE COMMUNITY

13

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<i>From:</i>	<i>To:</i>
TECHNOLOGY THAT IS SPECIFIC & INDEPENDENT	→ TECHNOLOGY THAT IS PERVASIVE & INTERDEPENDENT
*ACQUIRE KNOWLEDGE	→ PRACTICED LEARNING
RESEARCH THAT IS DISCRETE	→ INTEGRATED RESEARCH

14

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VIRTUAL (from Facility Based Care)

A reconfigured continuum of care with multi-modal access points that is coordinated around patient care needs.

Drivers:

- Shift of care to community*
- ↑ Chronic Disease Management*
- Shortage of Healthcare Providers*


15

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VIRTUAL - How?

- Fewer conventional beds (bed equivalents).
- New models of care.
- Information flow – EHR.
- Remove certain terms from our language such as “Discharge.”
- New access
 - Alternative care providers
 - Web based options
 - Home monitoring – Hospital in the Home
 - One stop shopping

16

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Practice Learning (from Acquiring Knowledge)

“Learning on the job, just-in-time learning . . .

Drivers:

- Shortage of healthcare providers.*
- Novice healthcare providers.*
- Rapidly changing, complex care.*

17

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Practiced Learning

How?

- Greenfield site:
 - establish a new culture
 - new ways of learning
- Interdisciplinary care/learning.
- Decision support
- Knowledge translation
- Calgary Health Education Alliance
 - Health Technology Learning Centre
 - Simulation

18


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Partnership (from provider:recipient relationship)

Drivers

- Could this be how we make healthcare more sustainable?
- Informed citizens
- Choice
- Patients are seeking individualized care to meet their own goals.

19


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Partnership

How?

- Change the culture.
- Education
- Point of Care
- New ways to access and participate in care.
- Wellness focused

20

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Health Care Transformation

- How will it feel different to the patient?
- How will it be different for the providers?
- “One stop shopping?”
- “Reconfigured Continuum” with community based care as focal point?
- Targets for clinical outcomes – evaluate and learn as we go!

21

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The Hospital of the Future?

22

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23

Monday

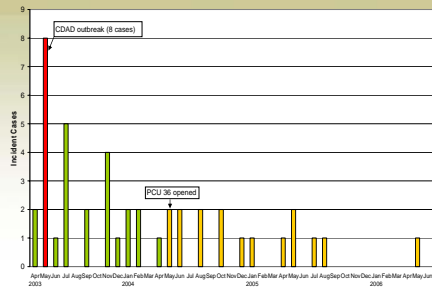
**Mayo Clinic
bans guns
in these
premises.**

Notice required by Minnesota law.

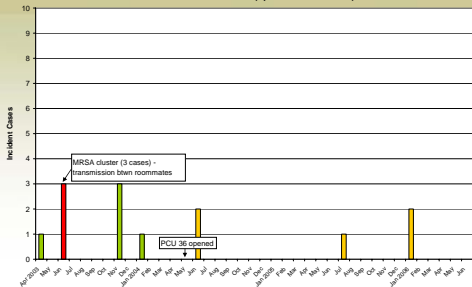
This is a safety conference after all....

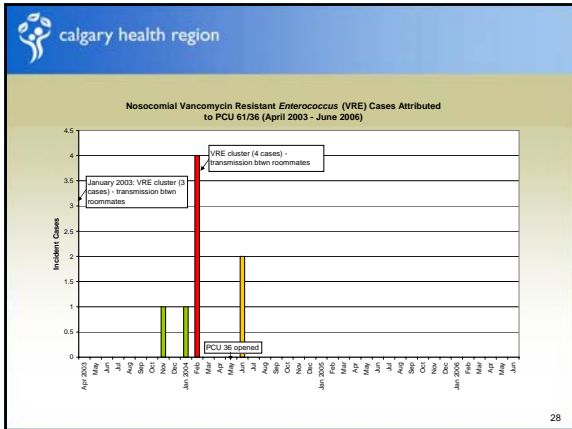
- Single rooms
- Bariatric rooms
- Healing environments
- Senior friendly environment
- Learning's from the Ward of the 21st Century

Nosocomial *Clostridium difficile* Cases Attributed to PCU 61/36 (April 2003 - June 2006)



Nosocomial Methicillin Resistant *Staphylococcus aureus* (MRSA) Cases Attributed to PCU 61/36 (April 2003 - June 2006)





**“We shape our buildings;
thereafter they shape us”**

Winston Churchill

29

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30
