



Applied Health Informatics Bootcamp

The Structure of the Healthcare System and Its ITC From National to Institutional

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Agenda

- How is the system organized?
- How is ehealth development organized?
- Why is this important?
- What are the issues in ICT investment and deployment?



Canadian Health Care System

- Socialized system – “medically necessary services” are paid for by taxes
- Federal legislation provides the framework but with the exception of the military/veterans and aboriginal people Health Canada are not responsible for health care system i.e. delivery of services
- Health care delivery is a provincial responsibility
- Can incent key changes usually through investment e.g. Canada Health Infoway



Principles of the Canada Health Act

- Universality
- Portability
- Public Administration
- Accessibility
- Comprehensiveness



Provincial Health Care System Components

- Public Health
- Physician services
- Laboratory services
- Community Services
 - Home Care
 - Long Term Care
 - Community health and social service programs
- Acute hospital services (hospital services may include teaching and research)
- Other hospital services
- Ambulance services (funding responsibility shared with municipalities)
- Provincial Drug program
- The *Ontario Health Insurance Plan (OHIP)* was established to provide coverage for insured in-patient and out-patient hospital and health facility services. These services are governed by the *Health Insurance Act (1990)*, and *Regulation 552* under that Act. *OHIP* is administered on a non-profit basis by Ontario's *Ministry of Health and Long-Term Care*



Some Key Provincial Organizations

- Ministry of Health and Long Term Care
- Ontario Hospital Association and other provider group organizations
- Professional colleges and associations
- Organizations that have been set up between two or more of these groups e.g. Joint Policy and Planning, Physician Services committee
- LHINs –new on the scene
- Smart Systems for Health Agency



Hospitals

- Generally *private corporations* usually developed under the Corporations Act. A few have been created by legislation directly.
- As corporations they have a board/governance structure with board committees
- The board usually has one employee – the chief executive office
- The board also appoints a chief of staff to take responsibility for the medical quality of care.
- *Physicians are not hospital employees.* The relationship of physicians and hospitals is governed by the Public Hospital's Act and includes provision for a minimum of 2 physicians on the board
- Therefore there are two/three organizational components
 - Staff structure
 - Medical departmental structure
 - Medical staff structure
- Often will have a supporting Foundation to take on fundraising and donor relations
- Often have associated Volunteers and sometimes an Auxiliary who also do supportive fundraising



Hospital Staff

- Nursing
 - Registered Nurses, Registered Practical Nurses
- Allied Health Professionals
 - Occupational Therapists, Physical Therapists, Social Workers, Pharmacists, Psychologists, Technologists, Dieticians
- Other staff
 - Health Records, engineering, housekeepers, food services, IT, security, finance, clerical etc.



Medical Staff and other credentialed staff

- Can be family practitioners and/or specialists and subspecialists
- Usually organized in medical departments each with an identified “chief” who then report to the chief of staff on the quality of medical care
- Medical staff are also required under the PHA to have a staff association with a president to represent the staff interests to the organization including the board

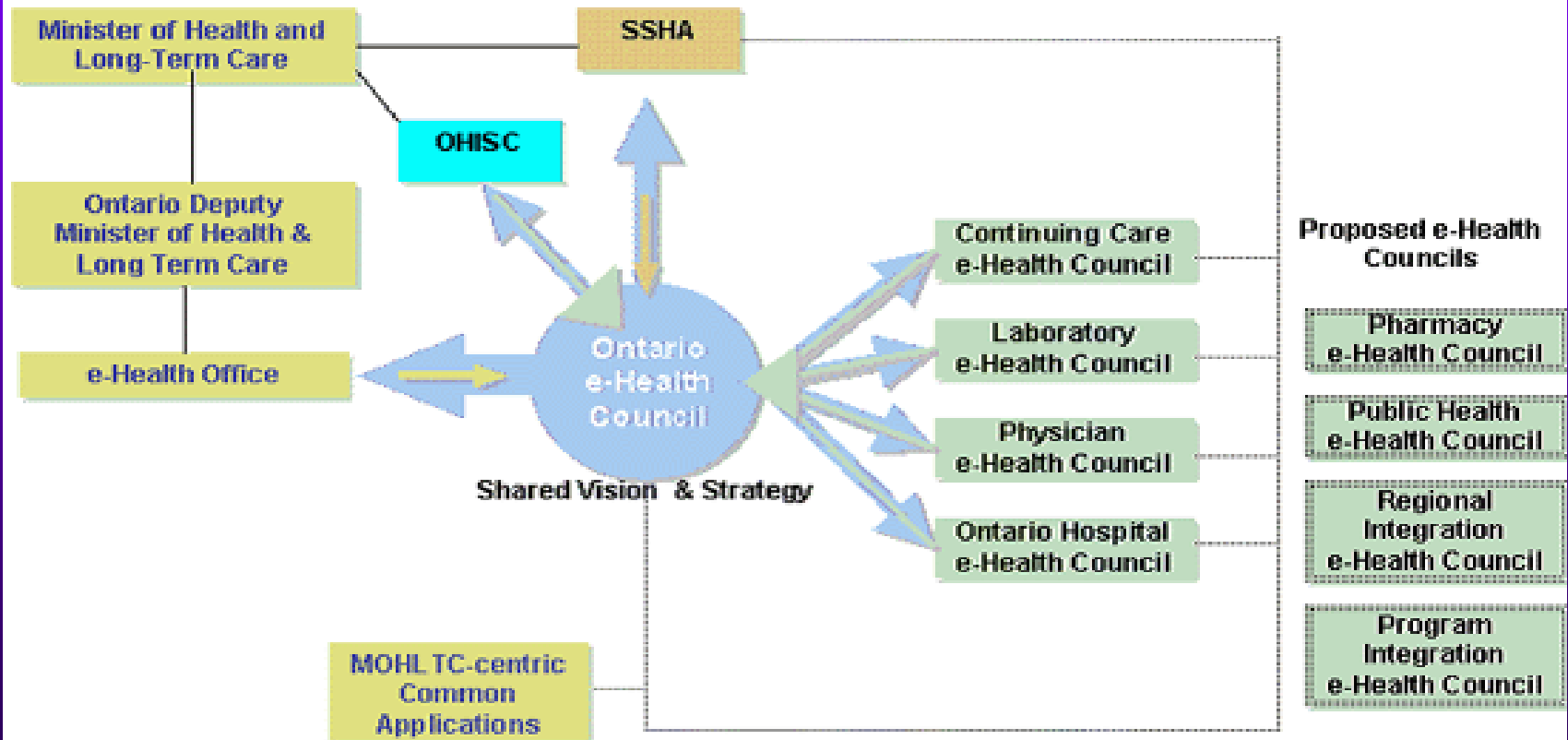
How is ICT development organized?

Canada Health Infoway

- *Infoway* was created in 2001 in response to a commitment of Canada's First Ministers to "work together to strengthen a Canada-wide health infostructure to improve quality, access and timeliness of health care for Canadians."
- *Infoway* is an independent, not-for-profit corporation, and a genuine partnership of federal, provincial, and territorial governments. Its members are the deputy ministers of health from across Canada.
- **Mission**
Fostering and accelerating the development and adoption of electronic health information systems with compatible standards and communications technologies on a pan-Canadian basis with tangible benefits to Canadians. *Infoway* will build on existing initiatives and pursue collaborative relationships in pursuit of its mission.

Ontario ehealth

Governance and Accountability Framework



A collaborative approach is key to the successful implementation of e-Health in Ontario

Regional ehealth

- LHIN CIO's?
- Provincial ehealth leader forums
- OHA ehealth council EHR working group reconstituted by leaders by LHIN
- Many groups working at regional level
 - some across LHIN's

Why is this important?



Hospitals have changed

Previously

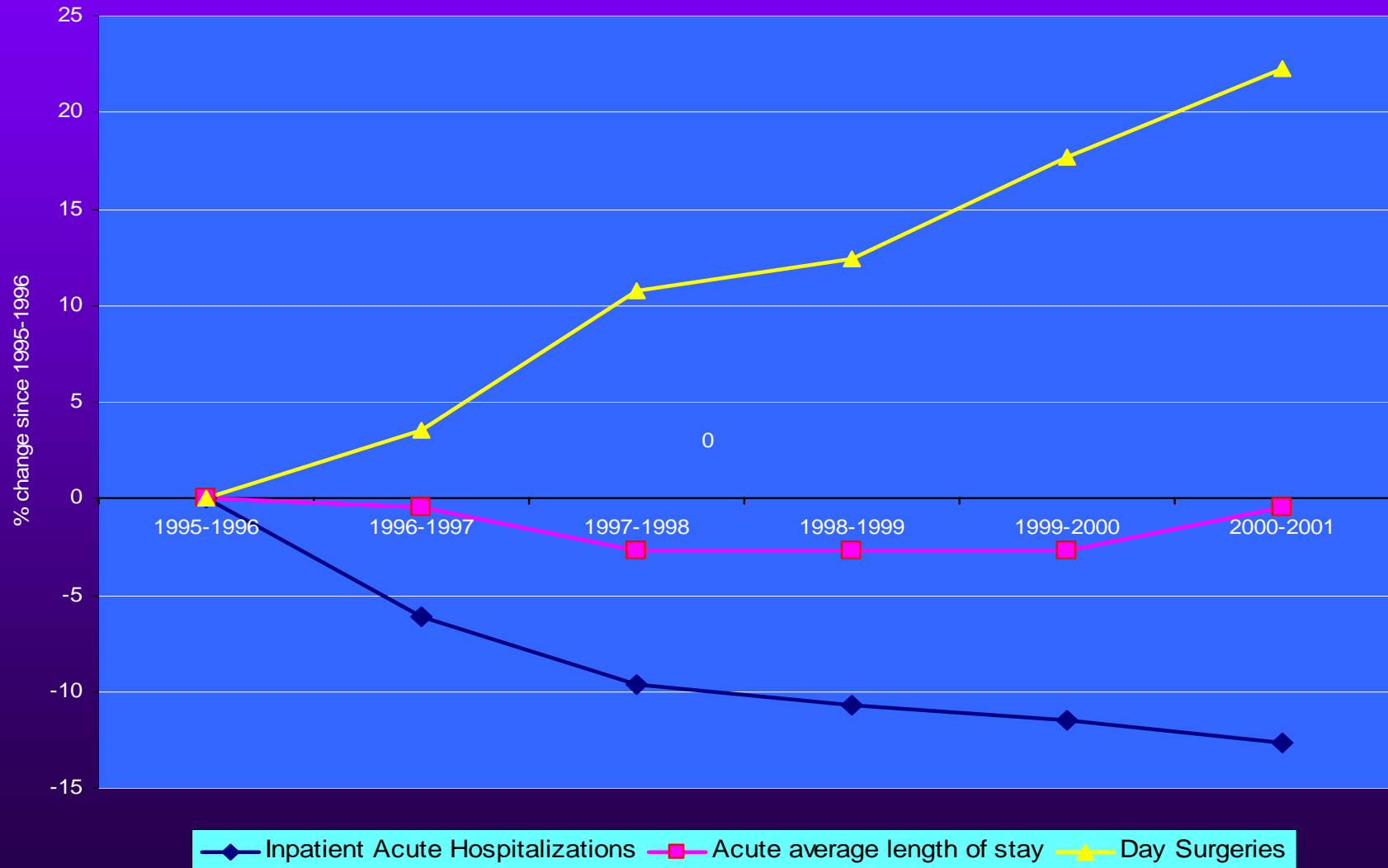
- Relatively simple care
- Different standard of care was tolerated
- Longer hospital stay
- Focus on providers – primarily physicians
- Emphasis on Service delivery

Current

- Care is more complex
- Changing expectations of patients and providers
- Decreased use of hospital beds
- Focus on population needs
- Emphasis on Accountability



Decreased Use of Hospital Beds



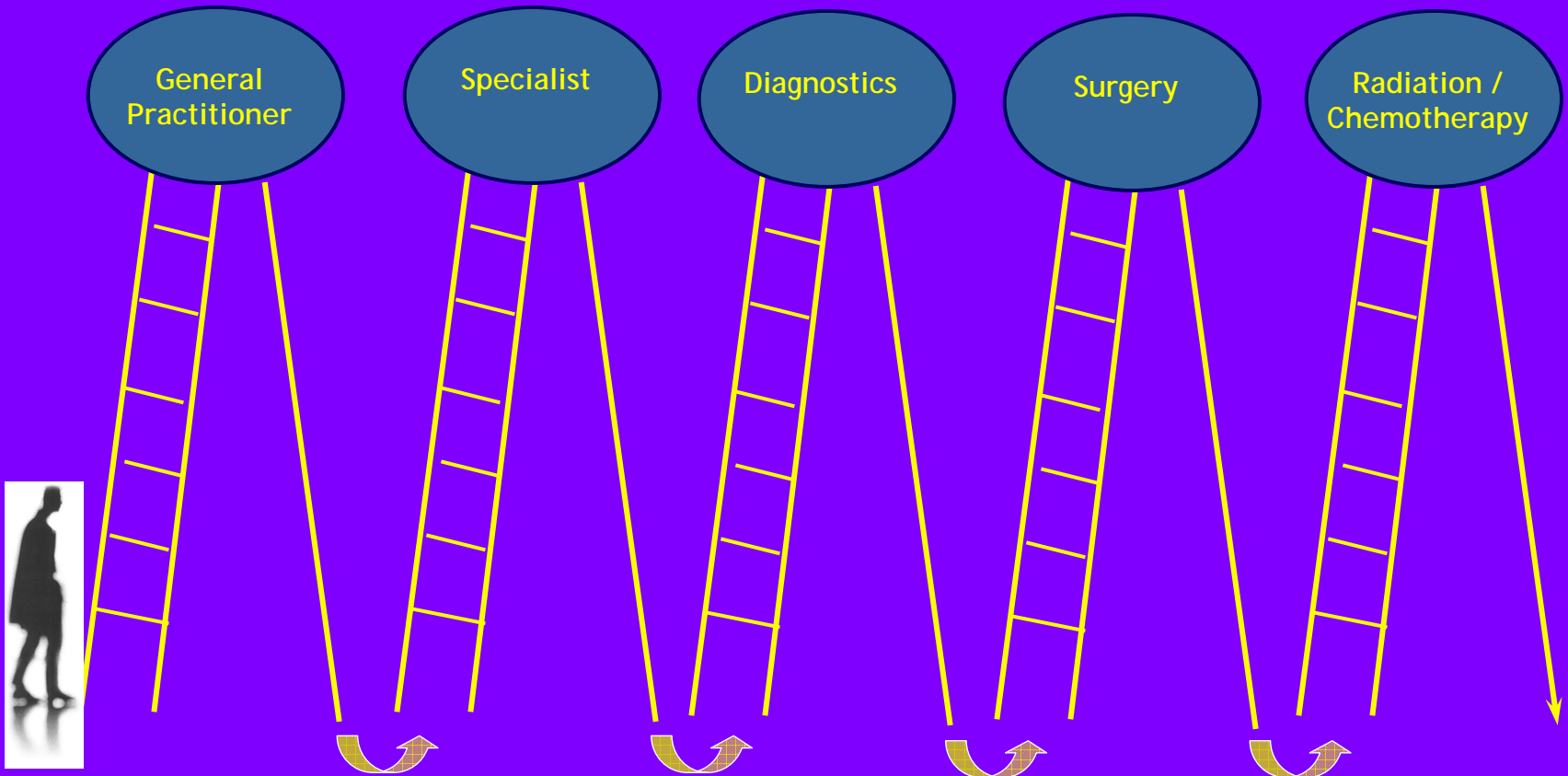


Decreased Use of Hospital Beds pg 2

- New ways of thinking about some of diagnoses
 - Before an accepted 3 day stay may now be coded as “may not require hospitalization.”
 - Development of the group of “ambulatory sensitive conditions”
- It is no longer up to the doctor alone to define how (or where) the care is to be delivered
- Linkages pre and post hospitalization are now critical and waiting is not an option.

Focus on the Patient Experience

The Patient's Journey (CISC Report December 2001)



Can ICT help to make this something other than a series of waiting experiences?



Changing Expectations of patients

- Effect study recently released findings which established time (e.g. door to needle) benchmarks based on research.
- All providers rural, community and teaching hospitals are all expected to meet those expectations – how the standards are met can vary but meeting the standard is not optional.



Changing expectations of providers

- Lifestyle –
 - Expect reasonable call group if covering 24/7
 - Many opting to not do hospital work because of the increased pressure of sicker patients and timely patient management
- Shortages of providers mean that people can pick and chose between offers – up to date equipment, work group fit and synergy, good physical facilities
- Approximately 21% of physicians in Ontario with hospital privileges are likely to relinquish privileges over the next 3-5 years primarily related to stress of hospital practice, remuneration, on-call and lifestyle issues



Focus on Population Needs

- Canadian Council on Health Service Accreditation standard on Addressing Needs
- “The organization anticipates and responds to the community’s changing needs and health status.”
- “The organization has broad and meaningful linkages and partnerships with other organizations and with the community.”



Focus on Accountability

- Auditor general involvement
- Ontario Bill 8 and accountability agreements
- Accountability is often demonstrated through reporting. The costs of reporting must go down!!



ICT is an important part of addressing these challenges

- Focus on the Patient experience –
 - less fragmentation,
 - data captured once,
 - more timely
- Focus on Working together for efficiency –
 - get from dual systems to one (e.g. film and electronic to film less)
 - Reporting to be a behind the scenes activity supported by more automated data capture
 - Transfer data between organizations and sites of care

Challenges in ICT Investment and Deployment

- Uneven funding support by government to different parts of the system
- Availability of key human resources
- Capability of ehealth products

Uneven funding support by government

- Full support of certain health sectors
- Almost no support to hospitals historically
- For profit versus non profit players
 - Pharmacies
 - Physicians
 - Labs
 - Long term care facilities



ICT Professional capacity

- Organizational leaders to support the need for new business practices particularly across organizational boundaries
- Clinical leaders to lead the development and deployment of new business practices
- Implementers – support new business practices (CIO's, technical experts, application specialists, security specialists)
- Vendors – to develop and improve products that address real business issues
- Researchers – to pursue understanding of what is needed, what works and why and how it can be improved
- Teachers – to increase the supply of trained individuals to play roles particularly in the implementers category as ICT plays a more significant and growing role in health care

Capability of ehealth products

- Are the products robust in applied settings i.e. readily able to be incorporated into a busy work environment? (the human and technology interface)
- Capability across a variety of settings (large to small, acute to community)
- Proprietary versus interoperable capability

Key Health System ICT Issues

- Patient ID
- Record linkage
- Robust and usable clinical record
- Summarization of records i.e. data entered once and extracted in the background
- Infrastructure to allow transmission of data (local and remote access)
- New clinical modalities – separation between clinical and ICT increasingly blurred
- Decision support capability – “rules” “pathways” etc.

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Web Sites

- www.hc-sc.gc.ca/ohih-bis/chics/pt/2002/on_e.html
- www.ssha.on.ca
- www.oha.com
 - Programs
 - ehealth

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Questions?