Faculty/Presenter Disclosure

- Faculty: HELENE CLEMENT

- Relationships with commercial interests:
  - NONE

Disclosure of Commercial Support

- This program has received financial support from [*Coach*] in the form of [program funding].
- This program has received no in-kind support
- <u>Potential for conflict(s) of interest</u>:
  - No conflicts of interest

Mitigating Potential Bias

- Does not apply

COACH Health Informatics Primer For Clinicians

Monday June 1st 2015
eHealth Conference 2015

CCF™

Taking Health Informatics Mainstream

ASSOCIATION CANADIENNE
D'INFORMATIQUE DE LA SANTÉ

COACH™

CANADA'S HEALTH
INFORMATICS ASSOCIATION

Presentation Overview

- Welcome from COACH

  Hélène Clément and Ian Hodder, COACH Clinician Forum Advisory Committee

- Overview of COACH, the CCF & "The COACH HI Primer for Clinicians"

- Overview of Primer Contents

- Questions & Answers

COACH, The CCF & The HI Primer for Clinicians

- **COACH:** Canada's Health Informatics Association represents a diverse community of accomplished, influential professionals working passionately to make a difference in advancing healthcare through information technology

- The **COACH Clinician Forum (CCF)** is an instrumental, multidisciplinary **HI** community supporting clinical engagement in HI, providing a forum for clinicians to engage on emerging topics and contribute to the advancement of HI across Canada

- The **COACH HI Primer for Clinicians** provides an introduction to the COACH and the CCF along with the principle stakeholders, interest groups and topic areas in HI.
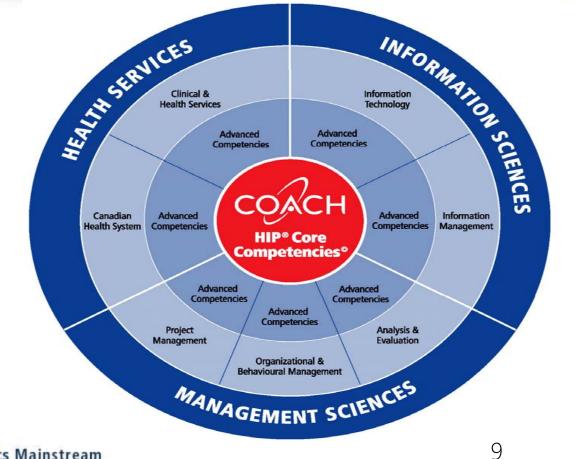
Acronyms & Abbreviations

- **CPHIMS-CA:** Certified Professional in Healthcare & Information Management Systems - Canada
- **EHR:** Electronic Health Record
- **HI:** Health Informatics
- **HIT:** Health Informatics Technology
- **IM:** Information Management
- **IT:** Information Technology
- **PHR:** Personal Health Record
- **EMR:** Electronic Medical Record
- **PPMS**: Pharmacy Practice Management System

Taking Health Informatics Mainstream

Health Informatics & HIP Core Competencies

- **HI** involves the application of Health Information Technology **(HIT)** to facilitate the creation and use of health-related data, information and knowledge.

- Examples of HI applications include the design, development, implementation, maintenance and evaluation of:

  o Electronic patient records & Electronic health records

  o Digital imaging and image processing systems

  o Telehealth technologies to facilitate and support remote diagnosis treatment

  o Internet and mobile technology and applications for engaging patients in their own care

  o Electronic Medical Records

The COACH HIP Core Competencies

9

The Basis of Healthcare in Canada

- Canadian healthcare services are provided by the 10 provinces, 3 territories along with several agencies and programs of the federal government and private insurance programs

- Actual delivery of care occurs through venues ranging from physician's offices to family health clinics, community, regional and university hospitals and chronic/long term facilities

- The goal is to create and sustain a seamless flow of communications and information between care providers and venues- focused on patient and continuum of care

The Basis of Healthcare in Canada

- Key public/private sector organizations driving collaboration:

- **Canada Health Infoway (Infoway)** - promoting and enabling strategic investments for digital solutions such as **EHRs**.
  - Fostering adoption and use of **HIT** by clinicians
  - Supporting communications and technology standards and a common technology blueprint

- **Canadian Institute for Health Information (CIHI)**- leads the development and maintenance of integrated **HI** that enables sound policy and effective health management that improves healthcare
  - Provides data and analysis on Canada's health system
  - Publishes several reports annually based on collected information

The Basis of Healthcare

- **Canadian Institutes of Health Research (CIHR) –** Supporting and transforming health research in Canada by:
    - Funding investigator-initiated research as well as on targeted priority areas
    - Building research capacity in under-developed areas and training the next generation
- **Canadian Patient Safety Institute (CPSI) –** Advisory organization that provides leadership on patient safety and continuum of care
    - Raise awareness and implement ideas and best practices to transform patient safety
- **Accreditation Canada-** Working to improve quality, safety and efficiency of care delivery
    - Developed standards and accreditation programs to evaluate healthcare delivery
    - 1200+organizations have been accredited (hospitals, labs, clinics etc.)

Clinical & Health Services

- **HI** facilitates access to clinical information to improve healthcare delivery across the continuum of care

Health Informatics Benefits

1. **Patient Safety -** More rapid access leads to more informed healthcare decisions. E.g. Improved medication administration
2. **Clinical Care Efficiencies -** Reliable access to digital medication profiles, lab results, diagnostic imaging etc. This avoids time wasted retrieving information, duplication of tests while leading to money saved and more productive clinicians
3. **Communication and Workflow -** Improved patient information exchange within patient's circle of care improves clinician to clinician communication

Clinical & Health Services

Trends in Clinical Practice

1. **Patient Engagement & Satisfaction -** Healthcare delivery is changing to support involvement with family and significant others
2. **Health Promotion -** Consumers have increased awareness of their own wellness and management of their care and can take a more proactive stance
3. **Inter-Professional Healthcare -** Multi-professional team models involving a more collaborative approach to planning care and treatment
4. **Transformation of Healthcare -** Tools to assist all phases of patient care from diagnosis to treatment and greater access to services
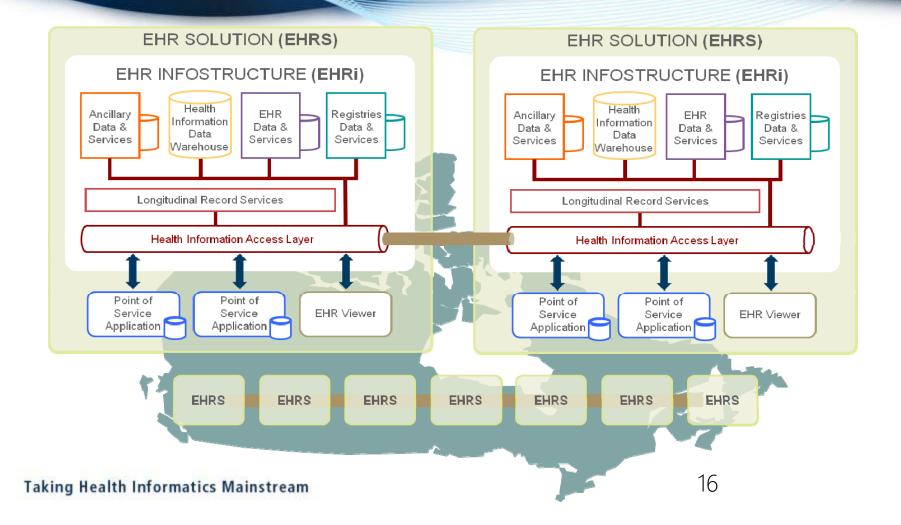5. **Analytics -** Standardized clinical terminologies and nomenclatures supporting data and synoptic reporting

Information Management/ Information Technology

Health Information Systems

- **IM/IT** components referred to as "*Core Applications*" support operations of a healthcare organization & the services it provides

- **Electronic Medical Record (EMR)**: important information system supporting primary care delivery
  - Allows storage, retrieval and modification of healthcare records
  - Integrated regionally or provincially to provide access to patient specific information

- **Pharmacy Practice Management System(PPMS):** used to support delivery of care for patients
  - Capture information on prescriptions and related dispense
  - Must record, display, store and exchange other patient information

- Increasing consumer health "apps", lead to **Personal Health Record(PHR)** – people can monitor and track their own general health

Information Management/ Information Technology

Taking Health Informatics Mainstream

Information Management/ Information Technology

Health Information Standards

Examples of health information standards directly affecting clinicians:

- **Classifications standards: C-HOBIC** (Canadian Health Outcomes for Better information and Care) promoted standardized collection of patient information based on evidence- based clinical outcome indicators. Also includes **ICD-10-CA, CCI** and **ICPC**

- **Interoperability Standards: HL7** (Health Level 7) sets out communication standards for transfer of clinical data and documents. Also includes **DICOM** and **IHE**

- **Clinical terminology standards:** provides terms and synonyms to record patient history, test results and treatment to support healthcare delivery. E.g. **ICNP** (International Classification of Nursing Practice),

Organizational & Behavioral Management

- Using **HIT** to "reinvent" the provision of healthcare services

- E-Health initiatives require change in processes, relationships and power structures

- eHealth Change management involves planning for & understanding use of IT functionality and data to facilitate optimization & use in clinical practice

Collection, Analysis and Evaluation of Healthcare Data

- Challenge for clinicians is the efficient, effective and safe integration of the multiple sources of data to enable evidence based practices and support point-of-care decisions

- Data collected is reported and made available through organizations such as **CIHI** (*Canadian Institute for Health Information*)

  - Clinicians still need more and better information to enable timely decision making

- The adoption of analytics and 'big data' in healthcare is key in understanding how these data holding can further healthcare delivery

Your Career in Health Informatics

Health Informatics Professional Career Matrix©

Level	Clinical & Health Services	Canadian Health System	Project Management	Organizational & Behavioural Management	Analysis & Evaluation	Information Management	Information Technology
5 Master	Chief Clinical Information Officer	Chief Information Officer	Project Services Vice President	Chief Transformation Officer	Chief Knowledge Officer	Chief Privacy Officer	Chief Technology Officer
4 Expert	Clinical Informatics Director	eHealth Program Director / eHealth Strategist	PMO Director / Project Director	Change & Evaluation Services Director / Process Improvement Director	Senior Methodologist	Standards Director / Information Management Director	Information Technology Director / Enterprise Architecture Director
3 Proficient	Clinical Informatics Manager / Clinical Informatics Specialist	eSafety Manager / Senior Business Analyst / Business Development Specialist	PMO Manager / Program Manager / Project Manager	Change Manager / Process Improvement Specialist / Engagement Manager	Senior Information Analyst / Outcomes Specialist	Privacy Specialist / Data Architect / Standards Specialist / Standards Manager	Security Specialist / Service Manager / Solutions Architect
2 Competent	Clinical Informatics Analyst	Business Analyst / eHealth Analyst / eSafety Analyst	Project Analyst	Trainer / Product Specialist / Process Improvement Analyst	Information Analyst / Benefits Evaluation Analyst	Data Integrity Analyst / Privacy Analyst / Standards Analyst	Senior Testing Analyst / Technical Lead
1 Emerging Professional	Clinical Informatics Coordinator	Junior Business Analyst	Program Coordinator / Project Coordinator	Training Coordinator / Product Analyst	Research Coordinator	Privacy Coordinator / Data Coordinator	Service Desk Analyst / Testing Analyst

COACH
CANADA'S HEALTH INFORMATICS ASSOCIATION
ASSOCIATION CANADIENNE D'INFORMATIQUE DE LA SANTÉ

Questions? Comments?

- Feel free to contact COACH
  - 416-494-9324
  - Toll Free 1-888-253-8554
  - info@coachorg.com
- Grant Gillis, Executive Director, Forums & Practices
  ggillis@coachorg.com

Taking Health Informatics Mainstream

COACH Health Informatics Primer For Clinicians

Monday June 1st 2015
eHealth Conference 2015

Thank You!

Hélène Clément

Ian Hodder

Grant Gillis

CCF™

Taking Health Informatics Mainstream

ASSOCIATION CANADIENNE
D'INFORMATIQUE DE LA SANTÉ

COACH™

CANADA'S HEALTH
INFORMATICS ASSOCIATION