

# Transforming Health Care through Informatics

Welcome Class 602 to Group B's presentation....

**“Strategies to increase familiarization and acceptance of the electronic health record among healthcare professionals.”**

**We would first like to introduce our team:**



Leana de Jager is an Occupational Therapist who graduated in 1990 at the University of Stellenbosch, South Africa. In 2003 she relocated to Grande Prairie where she worked as an Occupational Therapist to date. Currently she is in the role of Allied Health Manager for Spirit River, Beaverlodge, Hythe and Grande Prairie Community.



Kathy Rasmussen is a nurse who has been practicing since 1981. She works in pediatrics, with eighteen years experience in PICU. She is currently the Program Manager for Specialty Medicine at BC Children's Hospital in Vancouver.



Graham Fry is a Registered Nurse. He graduated from Laurentian University in 2003 (BScN) and then completed a critical care certificate from Seneca College in 2005. He has experience in cardiology and intensive care and is currently working at Grey- Bruce Health Services- Owen Sound site in the Emergency Department.



Judy Hawkins has been a Registered Nurse since 1986. She worked in adult med/surg for several years then made a change into pediatric nursing where she worked for twelve years. She is now a Clinical Nursing Instructor for the Graduate Nurse Internationally Educated Re entry Program at Kwantlen Polytechnic University in Surrey, B. C.

### Goals of our presentation:

To define the electronic health record (EHR).

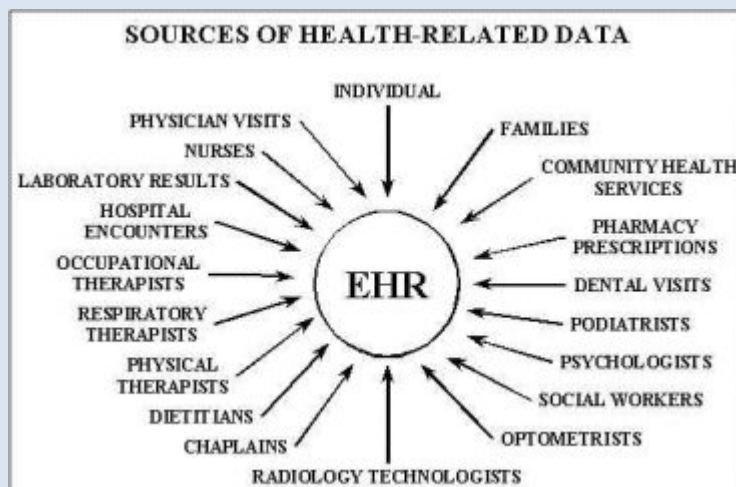
To identify the stakeholders and consumers.

To describe the benefits and barriers of the EHR.

To highlight strategies for familiarization and acceptance of the EHR.

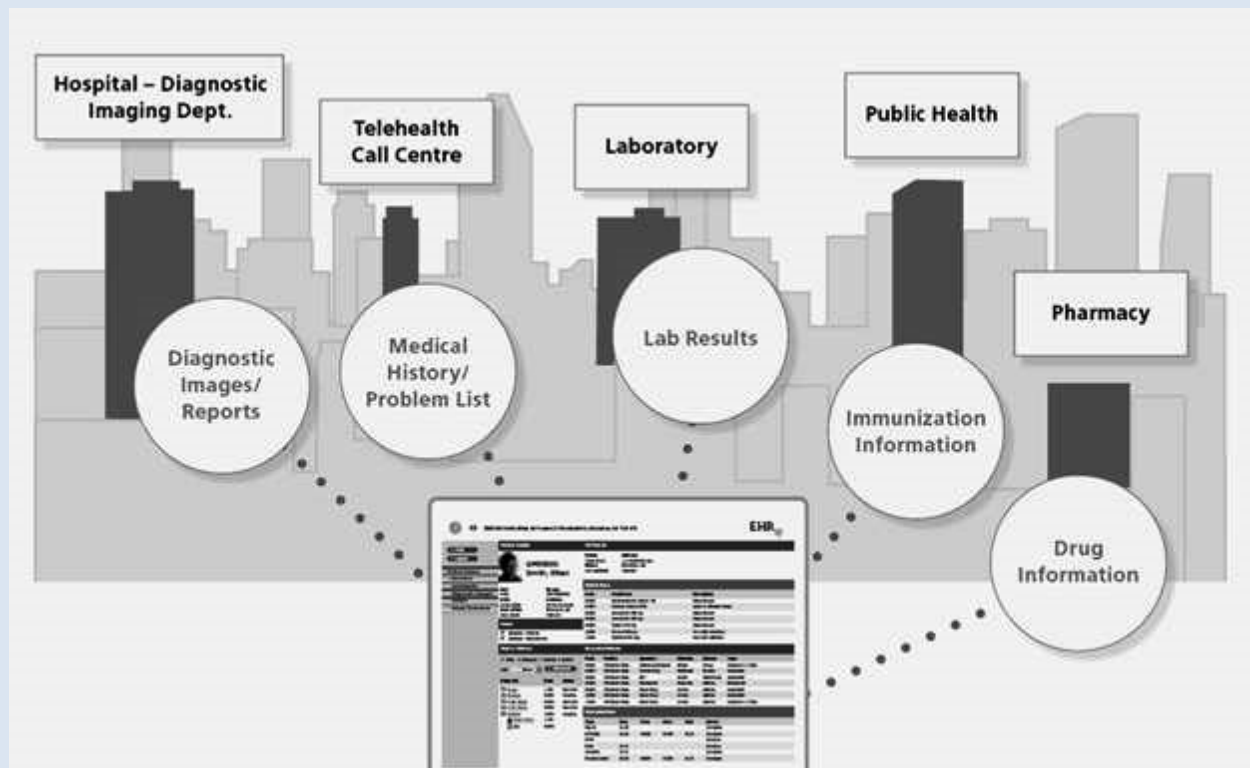
### What is an EHR?

An Electronic Health Record (EHR) is a longitudinal electronic record of patient health information capturing all of the patient's encounters with the health care system. It is not limited to a specific facility or region, but is attached to the patient. The idea behind the electronic health record is to provide a seamless flow of information allowing health professionals to document, communicate and combine health information about patients ultimately improving the quality of clinician decision-making and patient care. (Kushniruki, Borycki, Armstrong, Joe & Otto, 2009). An Electronic Health Record would include patient demographics, progress notes, problems, medications, vital signs, past medical history, immunizations, laboratory data and radiology reports (see diagrams below)



Source: Office of Health and Information Highway, (2001)

## System Components of an EHR



Source: Canada Health Infoway, (2010)

**Client Registry:** A directory that lists all patients and their relevant personal information (names, addresses, etc.).

**Provider Registry:** A comprehensive directory of participating authorized health care providers; each authorized health care provider will be authenticated to ensure that he or she is authorized to access electronic health records.

**Diagnostic imaging (DI)** – The DI system electronically collects, stores, manages, distributes and displays patient radiology images and reports. It includes tests such as: X-rays, ultrasounds, MRIs and CT images. The DI system enables authorized health care providers to access and view diagnostic images regardless of where the image was created (Canada Health Infoway, 2010).

**Telehealth** - Telehealth facilitates the delivery of health information and services between patients and their authorized health care providers regardless of location (Canada Health Infoway, 2010).

**Laboratory information** –No matter where or when a patient has a test, this system allows laboratory technicians to enter the results into a database, which is accessible to all authorized health care providers. These results link to the patient's EHR providing additional information to assist in diagnosing and treating patients (Canada Health Infoway, 2010).

**Public Health** - supports jurisdictional and pan-Canadian projects that implement solutions for the identification, management and control of infectious diseases that pose a threat to the public's health. (Canada Health Infoway, 2010).

**Drug information system** – This system checks for allergy alerts, and drug-to-drug interactions against a complete medication profile for each patient and each drug. The goal is to dramatically reduce the number of adverse drug reactions by providing physicians and pharmacists with information enabling them to prescribe and dispense appropriate and accurate medications. This system allows authorized health care providers to access, manage, share and safeguard patients' medication histories (Canada Health Infoway, 2010).



Please review our power point presentation:

Double click on the picture below to access our slide show (Power Point Show). If you have difficulty opening this presentation please refer to the power point attached in the forum.



### **Principles of Change Management**

Throughout the implementation process of the EHR, we refer to change management. There is an abundance of literature available in books and on the internet dealing with the principles of change management. Below is one helpful link we found that summarizes the process and provides clear guidelines to be implemented by the Team Leader in the Implementation Plan (Booz Allen Hamilton Inc., 2010). [Ten Principles of Change](#)

### **The Lived Experience of Implementation**

Please click on the icon below to review the interview undertaken by our team member Leana De Jager with a representative who was involved in the implementation of an EHR system.



INTERVIEW.doc

### **Tools to include during implementation**

The Pre Implementation Checklist is used to determine the culture and needs of the agency/unit where the project is being implemented.

## Electronic Health Record Pre Implementation Checklist

**Organization:**

**Date:**

Item #	Action	Completion Date and Who is Responsible	Initial for Completion
1	Determine stakeholders and consumers (both within organization and across spectrum of care)		
2	Understand current state		
3	What are the goals of the project?		
4	What are the funding sources for implementation, updates and maintenance?		
5	Determine key leaders for implementation		
6	Determine appropriate electronic record product (may be pre-built and modified or custom built)		
7	Develop clinical support tools (standard order sets, drug interaction support tools, best practice guidelines)		
8	Redesign processes as needed prior to implementation		
9	Understand current job descriptions and duties of involved staff and change as required		
10	Determine educational needs of staff involved and outline education plan with timelines		
11	Determine timeline for implementation and education		
12	Outline implementation plan ensuring stakeholders and consumers have input into plan		
13	Create ongoing communication plan		
14	Create ongoing evaluation plan (including additional education, product changes as required and feedback avenues for staff)		

**GANTT Chart**

The GANTT chart is developed to provide clarity of timelines for implementation and expectations. It is a form of communication among all stakeholders.

Steps of implementation	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC	JAN
Appoint a leader.	X												
Develop an implementation team		X											
Assessment of culture and readiness for change		X	X										
Ensure clear communication providing information to all stakeholders		X	X	X	X	X	X	X	X	X	X	X	X
Assessment of computer literacy skills			X	X									
Develop plan for education & Training				X	X								
Provide Education & Training					X	X	X						
Ensure on site support								X	X		X	X	
Implement to first area								X	X				
Evaluate										X			
Implement to second area including any changes identified from evaluation											X	X	
Evaluate													X

Please now return to our forum. We have posted questions to promote a discussion related to our topic.

Graham, Kathy, Leana & Judy wish to thank you for participating in our presentation.

## References

Booz Allen Hamilton Inc. (2010). Ten guiding principle of change management. Retrieved from: [http://portals.wi.wur.nl/files/docs/ppme/extfile.bah.com\\_livlink\\_livlink\\_138137\\_func.pdf](http://portals.wi.wur.nl/files/docs/ppme/extfile.bah.com_livlink_livlink_138137_func.pdf)

Canada Health Infoway (2010). Infoway's investment programs. Retrieved from: <http://www.infoway-inforoute.ca/lang-en/about-infoway/approach/investment-programs>

Kushniruk, A.W., Borycki, E.M., Armstrong, B., Joe, R., & Otto, T. (2009). Bringing electronic patient records into health professional education: Towards an integrative framework. Retrieved from: <http://www.hst.aau.dk/~ska/MIE2009/papers/MIE2009p0883.pdf>

Office of Health and Information Highway, (2001). Towards electronic health records. Retrieved from: [http://www.hc-sc.gc.ca/hcs-sss/alt\\_formats/pacrb-dgapcr/pdf/pubs/ehealth-esante/2001-towards-vers-ehr-dse/2001-towards-vers-ehr-dse-eng.pdf](http://www.hc-sc.gc.ca/hcs-sss/alt_formats/pacrb-dgapcr/pdf/pubs/ehealth-esante/2001-towards-vers-ehr-dse/2001-towards-vers-ehr-dse-eng.pdf)