

Canada Inforoute
Health Santé
Infoway du Canada

The Power of LEAD

Learning from Others;
Exemplifying Benefits;
Accelerating Adoption; and
Delivering Results



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Faculty/Presenter Disclosure

Presenter

- Anna Sherlock

Relationships with Commercial Interests

- none

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The National LEADing Practice Initiative

KNOWING
IS BETTER
THAN NOT
KNOWING.

As part of the *Knowing is Better* campaign, in partnership with Accreditation Canada, the initiative seeks to demonstrate the advanced use and benefits of technology by identifying and showcasing best practices across Canada.

**Learning from others;
Exemplifying benefits;
Accelerating adoption; and
Delivering results!**



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National call for participation

In the fall of 2013 we put out a national call for participation to health care teams and organizations from across the continuum of care including, but not limited to:

- Acute care
- Primary care
- Community care
- Long-term care
- Public health



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What makes a practice LEADing (cont'd)

3. Enables continuous quality improvement
4. Interprofessional and patient-centered
5. Evaluated and able to demonstrate intended results
6. Adaptable by others
7. Sustainable



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What makes a practice LEADing?

The following criteria was used by a Selection Committee to determine whether a practice is LEADing:

1. Exemplifies one or more of the five benefit areas of digital health



2. Supports care management across the health care continuum

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The Selection Committee

- Accreditation Canada
- Canadian Healthcare Association
- Canadian Nurses Association
- Canadian Medical Association
- Canadian Pharmacist Association
- Clinical Reference Group (2)
- Clinical Council (1)




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The National LEADing Practices

- Seven organizations were recognized for having LEADing Practices
- Representing primary care, community care, acute care, ambulatory care and public health
- Manitoba, Ontario and Nova Scotia




To view the LEADing Practices Profiles and other resources go to knowingsbetter.ca

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Sunnybrook Health Sciences Centre

- Sunnybrook has established itself as the largest single-site hospital in Canada
- 1.2 million patient visits each year
- 10,000 employees
- \$100 million of research each year.



Sunnybrook HEALTH SCIENCES CENTRE

C-QUIPS Centre for Quality Improvement and Patient Safety

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Sunnybrook Health Sciences Centre

Dr. Edward Etchells
Medical Director, Information Services

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SunnyCare


- Access
- Integration
- Ease of Use




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SunnyCare: Integration



For application support, please contact the **Sunnybrook Help Desk (x4155)**
 SunnyCare Quick Reference
 20140424 14:25PM

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SunnyCare

Access:
SunnyCare Mobile

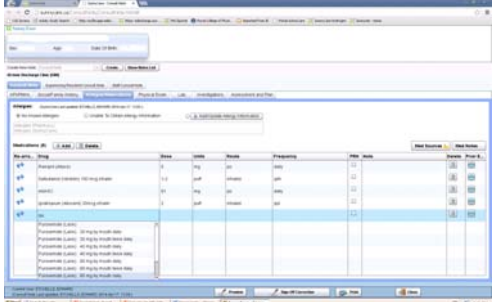




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SunnyCare: Integration



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SunnyCare: Integration

Basket Candy (7017196)
Age: 17 Date of Birth: 1994-Jun-10 Gender: F Encounter: 70081HE Location: C4-C4333 Admission C
Allergies: Shellfish, Peanuts, Sulfa
Additional Precautions: URGIA Positive

Pre-Admission Medications
Last updated by Pharmacist Assist, Fam (2013-May-11, 11:00)

Medication	Customize	Adjust	Stop	Estimate for Change
Tempraol 1000mg 1 mg po q8h	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Sulfasalazine 1000mg 2 puffs inhaled q8h PRN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Salbutamol 2mg 2 puffs inhaled q8h PRN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Formoterol 12mcg 2 puffs inhaled q12h PRN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Formoterol 12mcg 2 puffs inhaled q12h PRN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Formoterol 12mcg 2 puffs inhaled q12h PRN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Formoterol 12mcg 2 puffs inhaled q12h PRN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

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SunnyCare: Impact

- “I have only used it for two days but I love it. It is totally intuitive”
- “SunnyCare Mobile is awesome”
- “Best thing since sliced bread. SunnyCare Mobile is a tremendous clinical tool that I use almost every day”

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SunnyCare: Impact

- Each month:
- Desktop:
 - 20,000 log ons
 - 2,500 consult notes signed
- Mobile:
 - 1,000 log ons
 - 7,000 patient charts viewed

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SunnyCare: Impact

- “Easy to use. It is so efficient”
- “great work by everyone on this project as Sunnycare is phenomenal!”

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Success Factor(s)

- Usability testing with local opinion leaders

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Summary: SunnyCare

- Access
- Integration
- Ease of Use

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Love is blind

A photograph of a snail on the left and a metal eye on the right. The snail is looking towards the metal eye.

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Value of Usability Tests

1. Early: fix design problems
2. Late: inform expert level training

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Lessons Learned

- Analyze workflow more
- Test more

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Summary

- Usability testing with local opinion leaders
- Analyze workflow more
- Test more

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Connected Community Practice in Action

Dr. Barbara Teal
Family Physician,
Ontario MD Peer Leader

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Our Office Motto:

How can we do things better?
..... Electronically



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Harvard Medical Group Drs. Lamb, Mielke, Teal

- Community based Family Practice, Hamilton, Ontario
- Care for 5,000 patients- "cradle to grave"
- Full EMR since 2000
- 3 physicians, NP, Nurse, Office Admin, 5 support staff
- Supported by Hamilton Family Health Team (HFHT)- with dietician, pharmacist, mental health counsellors, asthma educator

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Impact

- Organize: with better proactive care plans
- Innovate: with Shared Appointments
- Communicate: allowing secure access
- Connect: with fast, accurate, safe transfer of data
- Patient advocate: decrease waiting appts, for results, less repeat tests, prevent readmissions
- Save Money!!

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Maximize EMR potential

- Using templates and making custom forms
- EMR data to focus care/searches
- Reach specialist- "Telederm"
- Communicate with patients by secure email
- Maximizing connectivity to hospitals/labs

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Patient Journey Consolidated

Encounter Date	Discharge Date	Type/Status	Reason For Visit
10/02/2013 13:08		ENCOUNTER	* TESTING CLINICAL Q
11/06/2012 15:19		ENCOUNTER	VOMITING
28/03/2013 17:25		ENCOUNTER	CONGESTIVE HEARTF
18/04/2013 14:18		ENCOUNTER	ADD PAIN
01/02/2013 10:00	13/01/2014 11:41	INPAT PL	SOCA
10/02/2013 11:16	31/03/2014 09:00	INPAT IN	TESTING

Facility
Cambridge Memorial
Cambridge Memorial
Brantford General Hospital
Cambridge Memorial
Cambridge Memorial
SW-CCAC
HNHB-CCAC

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Home Care

Home Care

Demographics List
 Characteristics List
 Medical Contacts (Active)
 Personal Contacts (Active)
 Service List
 LTCH Choices and Bookings
 Community Support and Other Resources (Active)
 Diagnosis List (Active)
 Note List
 Primary Care Group List (Active)
 Risk List (Active)
 Safety Issue List (Active)
 Referral List
 Equipment and Supplies List

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New for Health Links

New for Health Links

High use patients flagged
 Plan is to link to Shared Care Plan

Account Number	Encounter Date	Discharge Date	Type/Status	Reason For Visit	Principal Diagnosis	Facility
ER00004209	10/02/2010 13:38		EMERGED ER	TESTING CLINICAL CONNECT		Cambridge Memorial
ER00001212	11/06/2010 13:13		EMERGED ER	WOUNDING		Cambridge Memorial
ER00000013	29/10/2010 11:23		EMERGED ER	CONGESTIVE HEART FAILURE		Sturford General Hospital
ER00001012	18/04/2010 14:18		EMERGED ER	ABSTINEN		Cambridge Memorial
AC00013812	01/12/2012 16:08	13/01/2014 11:41	INPAT IN	SICK		Cambridge Memorial
AC00007709	10/02/2010 11:19	31/12/2010 08:00	INPAT IN	TESTING		Cambridge Memorial
10000291						SHR/CCAC
1037968						HRWB/CCAC

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ClinicalConnect™ | CONNECTING SOUTH WEST ONTARIO

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Greatest Advancement In The Last Five Years?

- CT/MRI Images?
- DNA Coding?
- New Drugs?
- Connectivity between providers?

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Critical Success Factors

Team

- Regular meetings and daily “huddles”
- Workflow groups
- Attitude that we are ALL responsible for care

LEADing to:

- Advanced Access booking
- Secure email positive outcome
- Dashboard tracking



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Lessons Learned

- Workflow perceptions
- PDSA's- may take a few tries
- EMR investment-needs nurturing
- Data quality
- Cost factors- time is \$, “Fire hose” of data
Never stop asking “How can we do things better....electronically”

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Critical Success Factors

Data rich EMR


- Direct download from our local EHR/28 hospitals (ClinicalConnect)
- Complete patient journey from hospital(s), ER, clinics and Homecare
- Efficient, accurate results in real time

LEADing to:

- Saving time
- Saving cost
- Enhanced patient safety

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Thank You!

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Public Health Ontario


- Public Health Ontario (PHO) is dedicated to promoting the health of all Ontarians and reducing inequities in health by linking public health practitioners, front-line clinicians and researchers to the best scientific intelligence and knowledge from around the world
- Public Health Ontario Laboratories (PHOL) provides clinical diagnostic and reference testing, environmental testing and specialized services (e.g. bioterrorism response, outbreaks) at 11 laboratories located around the province
- 4.5 M clinical tests performed annually



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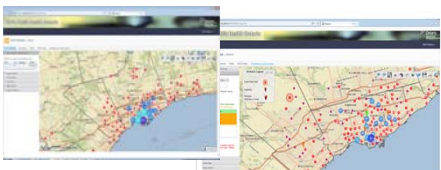
Dr. Frances Jamieson
Medical Microbiologist



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OUT-TB WEB 2.0

**Ontario Universal Typing of Tuberculosis:
Web-based Surveillance and
Communication System**




Demonstration video:
<http://www.youtube.com/watch?v=kTXiPvMwiHg>

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Tuberculosis: The world comes to us

- Ontario has 40% of all TB cases in Canada
- TB case management and investigation is undertaken by 36 health units across Ontario
- Public Health Ontario Laboratories provides all TB reference testing



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OUT-TB: How We Simplified Genotyping Interpretation

- Significant quantity of complex data, with on-going active expansion of the database
- Challenge was to provide this information to the end-user in a user-friendly, actionable, easy-to-use format

OUT-TB Web application was built with key input and consultation with the end-users at all stages!

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Tuberculosis: The world comes to us

- "DNA fingerprinting" (genotyping) provides TB control staff with information confirming suspected links between cases AND identifying unsuspected links
- All new laboratory-confirmed cases are genotyped

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Mapping and Disease Surveillance



- TB Case Locations, Case Histories
- Health Region Boundaries (e.g. PHUs)
- Demographics, Risk Factors
- Hospitals, Shelters, Correctional facilities
- Sentinel Sites, Trends, Monitoring
- Drug Resistance, Biological Markers

Core Functionality builds greater understanding when integrated with additional data sources

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Searching Cases View Case Information

Alternatively click either option to view more detailed information

Click to view more detailed information about the case and any other identical genotypes

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Critical Success Factors

- User Centered Design: Engaged end-users actively in design and development of OUT-TB Web
- Focus groups and one-on-one interviews and questionnaires to identify user needs, essential functions and technical requirements; post-implementation evaluations and continued consultations for application improvements

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Example: Discovered Using OUT-TB Web

Patient 1

- Tibetan origin
- local delivery driver
- High incidence of TB in Tibetan persons; case assumed to be **reactivation**
- Genotyping identified strain lineage as Euro-American, not usually found in Tibetans, and a unique identical match to another case

Patient 2

- Canadian born First Nations
- Under-housed history
- Contact investigation revealed these patients were known to each other...
- Patient 1 allowed patient 2 ride along in the truck with him while deliveries were made

Patient	RFLP	Spoligotype	MIRU24
1			
2			

Discovery: Unfortunately, Patient 2 transmitted TB to Patient 1

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Critical Success Factors

- On-going identification and development of end-user case management protocols incorporating OUT-TB Web use (change management)
- Super-users provide leadership and “lessons-learned” to others in use of OUT-TB Web for TB case investigation

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Lessons Learned

- Ensure IT involvement and “buy-in” early on and throughout the process
- “Be prepared for the unexpected” - understanding and recognizing differences in participants
- “Old habits die hard” – anticipate some “overlap” with user current protocols and new solution before complete switch
- Clear communication with all stakeholders is essential – end-users, developers, data generators, others

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Questions



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Thank you

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