#### **Doctors, Data and Decisions**

**COACH Clinician Forum** 

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Sarah Hutchison
Chief Executive Officer, OntarioMD

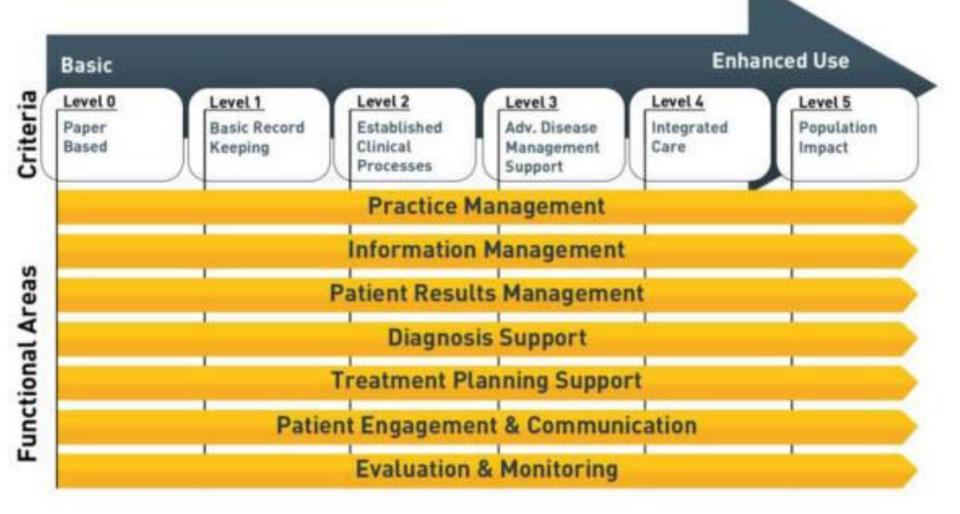


### **EMR** Implementation

- Accomplished in Ontario for Primary Care
- Significant uptake in Specialist market
- Moving from basic to enhanced use
- EMR as tool for improved care and opportunity to contribute to system improvements

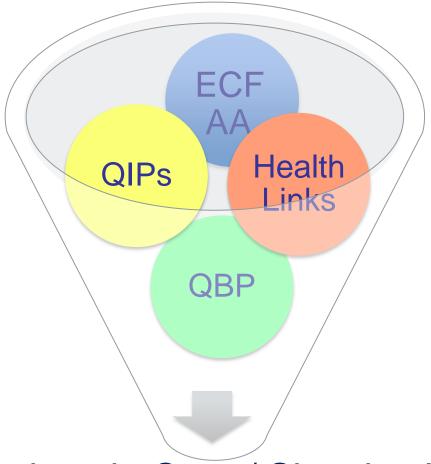


#### OntarioMD's EMR Maturity Model





## **Supporting Physician Participation**



Innovations in Care / Showing Value



### **OMA Leadership in eHealth**

Bringing Data analytics to the Community Physician





Better Information.
Improved Care.





#### Better Information. Improved Care.

Vision: The vision for the i4C program lies in facilitating optimal use of EMR data by physicians and the broader health care system for improving direct patient care. This vision will be enabled through a suite of technology-based services designed in the best interest of patients, physicians and other health care providers and will inspire meaningful use of EMRs.



# i4C Six Objectives

- 1. Leverage the OMA's unique role to represent and serve physicians and advocate for the health of all Ontarians
- 2. Provide physicians with important clinical and individual patient insights from their EMR data
- Design a 'one-stop' technical solution
- 4. Facilitate sharing of de-identified data into a larger aggregated data set
- 5. Deliver direct value to physicians
- 6. Articulate specific roles for OntarioMD and the OMA



### Why OMA?



Clear policy, governance and guidelines are critical to any future use of health care data. The **OMA** is bringing the physician voice to the table.





#### **OMA SGFP**

Canadian Institute for Health Information

Institut canadien d'information sur la santé







ONTARIO HOSPITAL ASSOCIATION



association of family health teams of ontario

60 St. Clair Avenue East, Suite 800, Toronto ON M4T 1N5



Stakeholders who have provided Letters of Support and Endorsement



Inforoute Santé du Canada







Ontario College of Family Physicians











### Physician Leadership roles

- Governance space and policy creation
- Sustainability and health system spend conversations
- Patient advocacy and privacy
- Putting evidence to practice

All of the above incorporate use of EMR data by clinicians and the rules of engagement to ensure it is done well.



#### Physicians views on data use

http://youtu.be/YOTvh01HMZc



### Clinical decision support tools

- Computerized Provider Order Entry (CPOE)
- "Smart forms" in the EMR
- Rules based decision trees (i.e.: drug interactions checkers)
- EMR reminders and alerts



#### **Current CDS pros/cons**

TOOL	BENEFITS	LIMITATIONS
CPOE	<ul> <li>Guide informed testing and Rx</li> <li>Many exist (COTS)</li> <li>Commercial so network for changes and dissemination</li> <li>Proven to change behavior if consistently used</li> <li>Well studied</li> </ul>	<ul> <li>Poorly integrated</li> <li>Do not use patient data</li> <li>Drive action not knowledge</li> <li>No predictive capacity</li> </ul>
SMART	<ul> <li>Work well with defined actions (as CPOE)</li> <li>Popups to embed evidence</li> <li>Can be created locally</li> <li>Malleable</li> <li>Can be written by regular users</li> </ul>	<ul> <li>Easily over ridden</li> <li>Usually not commercial</li> <li>Specific to each EMR</li> <li>Hard to disseminate</li> <li>No responsibility for upkeep</li> </ul>



#### **Current CDS pros/cons**

TOOL	BENEFITS	LIMITATIONS
RULES BASED	<ul> <li>use data in real time</li> <li>Data not re-entered</li> <li>Can guide more complex decision making</li> <li>Can be mixed and overlapped</li> <li>Predictive capability</li> </ul>	<ul> <li>Immature</li> <li>Medico legal considerations if used or avoided</li> <li>Clinician trust</li> <li>Little reliability /validity testing</li> </ul>
ALERTS / REMINDERS	<ul> <li>Built into many EMRs</li> <li>Flexible</li> <li>Part of current workflow</li> <li>Used for individuals and populations</li> </ul>	<ul> <li>For individuals, must be in record at the time</li> <li>For populations not run routinely</li> <li>No predictive capability</li> </ul>



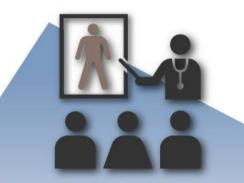
## A new paradigm

- Data use outside of the EMR structure
- Use of both structured and unstructured data
- Natural Language Processing understands
- Predictive analytics
- Ability to centralize
- Ability to personalize
- Adaptive learning systems now possible





Real-time clinical insights



Representing the physician's perspective in the health policy debate





Better Information. Improved Care.



IMPROVEMENT

Consolidate multiple sources of medical info

PUBLIC HEALTH BULLETIN







Updated Guidelines

#### THE PROBLEM



#### THE SOLUTION



#### i4C SERVICES CONCEPTUAL MODEL





### i4c Prequalified Vendors

- IBM
- Intersystems
- Deloitte/SAP/PHEMI
- Alere Analytics/Dapasoft/Microsoft
- Thoughtwire
- HQIC
- Informatica
- Advanced Software Concepts
- McKesson
- TimeAccount
- Privacy Analytics Inc



