Transitioning Clinical Informatics

Through our Stage 6 Journey

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Learning Objectives

Learning Objective 1

The role of clinical informatics in the EHR implementation

Learning Objective 2

The transition of the informatics role from implementation to sustainability

Learning Objective 3

The importance of the focus on evaluation from an informatics perspective

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Agenda:

- Introductions
- Overview Ontario Shores Centre for Mental Health Sciences
- Project Overview
- Role of Clinical Informatics at Ontario Shores
- Industry Trends related to Clinical Informatics
- Future for Clinical Informatics at Ontario Shores

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Ontario Shores Today
At a Glance

- A teaching hospital specializing in comprehensive mental health care and addiction services for those with complex and serious mental illness
- 1,200 employees
- 339 inpatient beds, extensive outpatient programs
- 3,000 outpatients
- Care provided in partnership with patients, families, other care providers and community
- Programs for adolescents to seniors providing assessment, stabilization, treatment and transition

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Ontario Shores Today
Our Program Clusters

3 Areas of Strategic Focus

- Forensics
- Geriatric Mental Health
- Adolescents

Other Services:

- Assessment and Reintegration – complex general psychiatry and rehabilitation
- Neuropsychiatry
- Specialized Outpatient/Outreach Services
- Integrated Health Services - metabolic clinic, outpatient ECT, dental services, primary care

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Organizational Changes
Focus on What is Important

- Enhance Patient Safety & Quality
- Comprehensive, Integrated, Evidence-Based, best practice standards
- Enable new Culture of Care
- Accountability and Transparency
- Data to support decision making, utilization review and other clinical initiatives
- Opportunities to improve and enhance interdisciplinary communication, practice, care

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Organizational Changes
Focus on What is Important

- Enable, support and improve clinical practice effectiveness - process mapping, work flow analysis, best practices and use of evidence.

- Dynamic process – Quality , Accountability, Safety - engage users in improvement and evaluation to support quality of care, professional accountabilities for documentation and communication utilization; use of the electronic system and opportunities for quality improvement processes. Auditing of system use.

- Inform and leverage clinical decision making by using clinical data to support clinical outcomes, quality and safety - through reporting and analysis structures, processes and positions.

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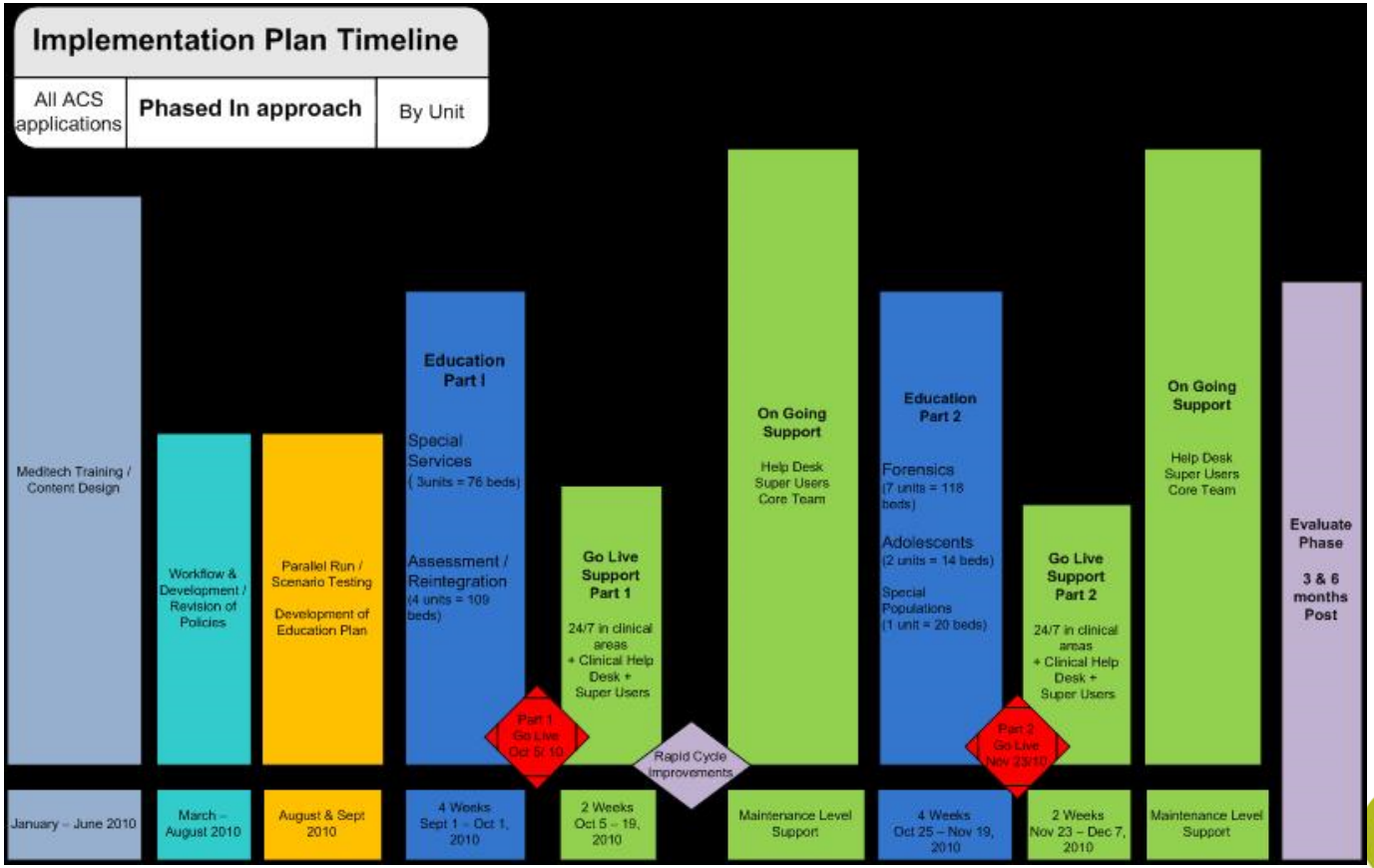
Project Overview



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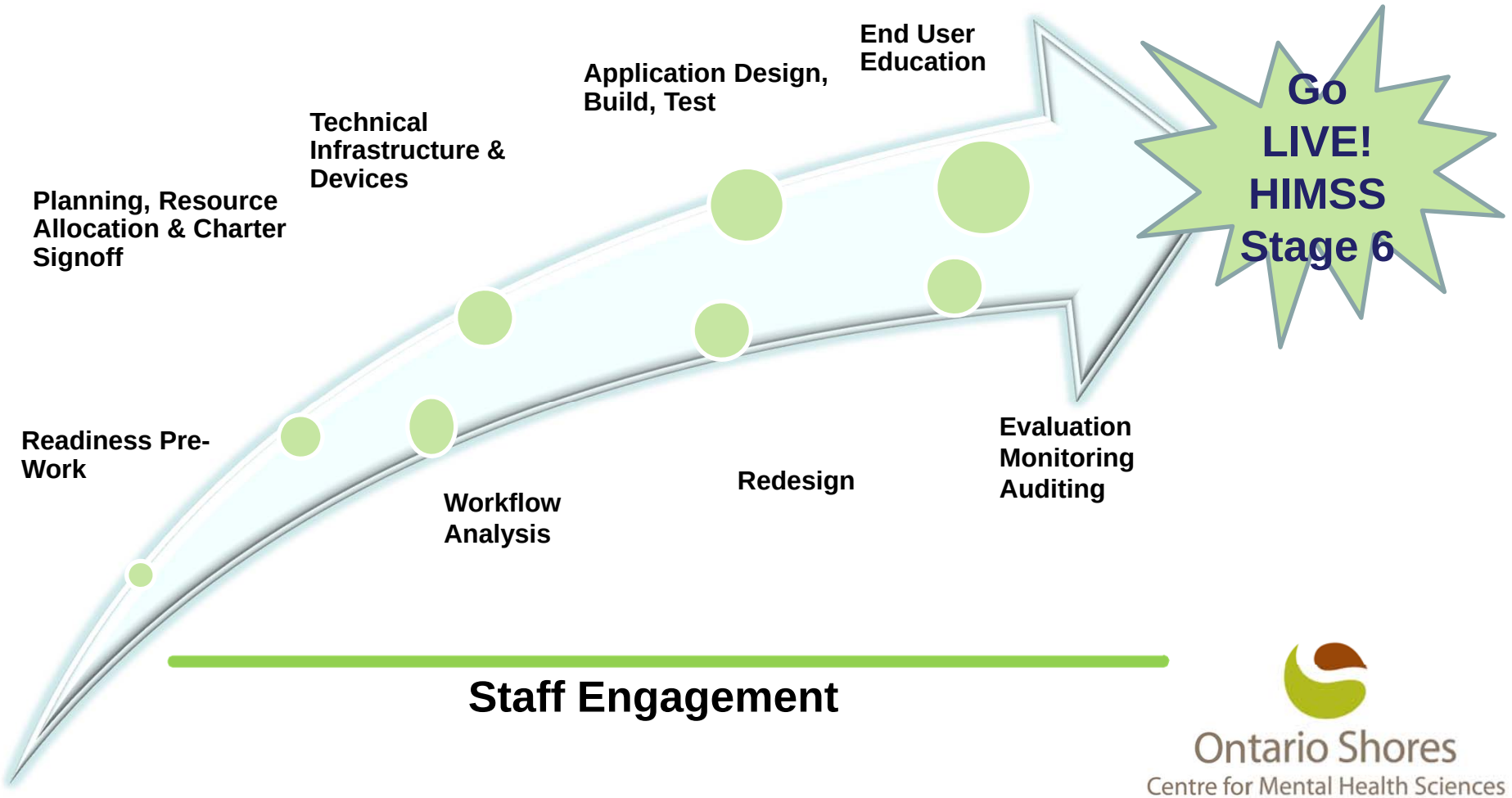
Adoption and Change Management Roadmap



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Canada EMR Adoption Model

Canada EMR Adoption Model [SM]			
Stage	Cumulative Capabilities	2012 Q1	2012 Q2
Stage 7	Complete EMR; CCD transactions to share data; Data warehousing; Data continuity with ED, ambulatory, OP	0.0%	0.0%
Stage 6	Physician documentation (structured templates), full CDSS (variance & compliance), full R-PACS	0.5%	0.5%
Stage 5	Closed loop medication administration	0.3%	0.3%
Stage 4	CPOE, Clinical Decision Support (clinical protocols)	2.5%	2.5%
Stage 3	Nursing/clinical documentation (flow sheets), CDSS (error checking), PACS available outside Radiology	36.2%	34.1%
Stage 2	CDR, Controlled Medical Vocabulary, CDS, may have Document Imaging; HIE capable	21.9%	24.6%
Stage 1	Ancillaries - Lab, Rad, Pharmacy - All Installed	15.2%	15.0%
Stage 0	All Three Ancillaries Not Installed	23.5%	23.0%
Data from HIMSS Analytics® Database ©2012		N = 639	N = 639

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EHR Life Cycle

1. Infrastructure, Registration, Departmental Systems
2. Results Review, Order Entry, Clinical Documentation
3. Integrated Decision Support
4. Knowledge Management
5. Knowledge Generation

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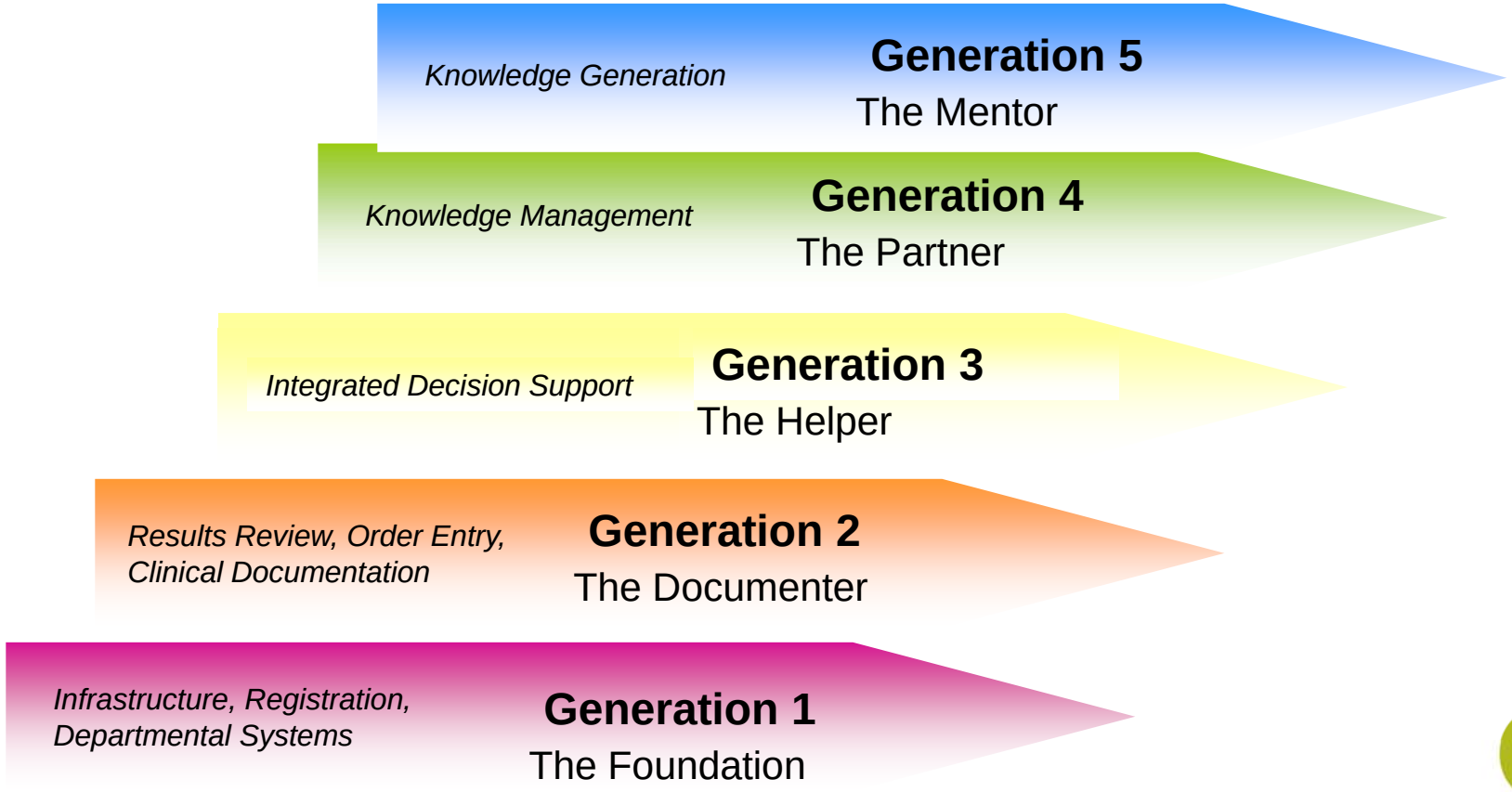

EHR Evolution

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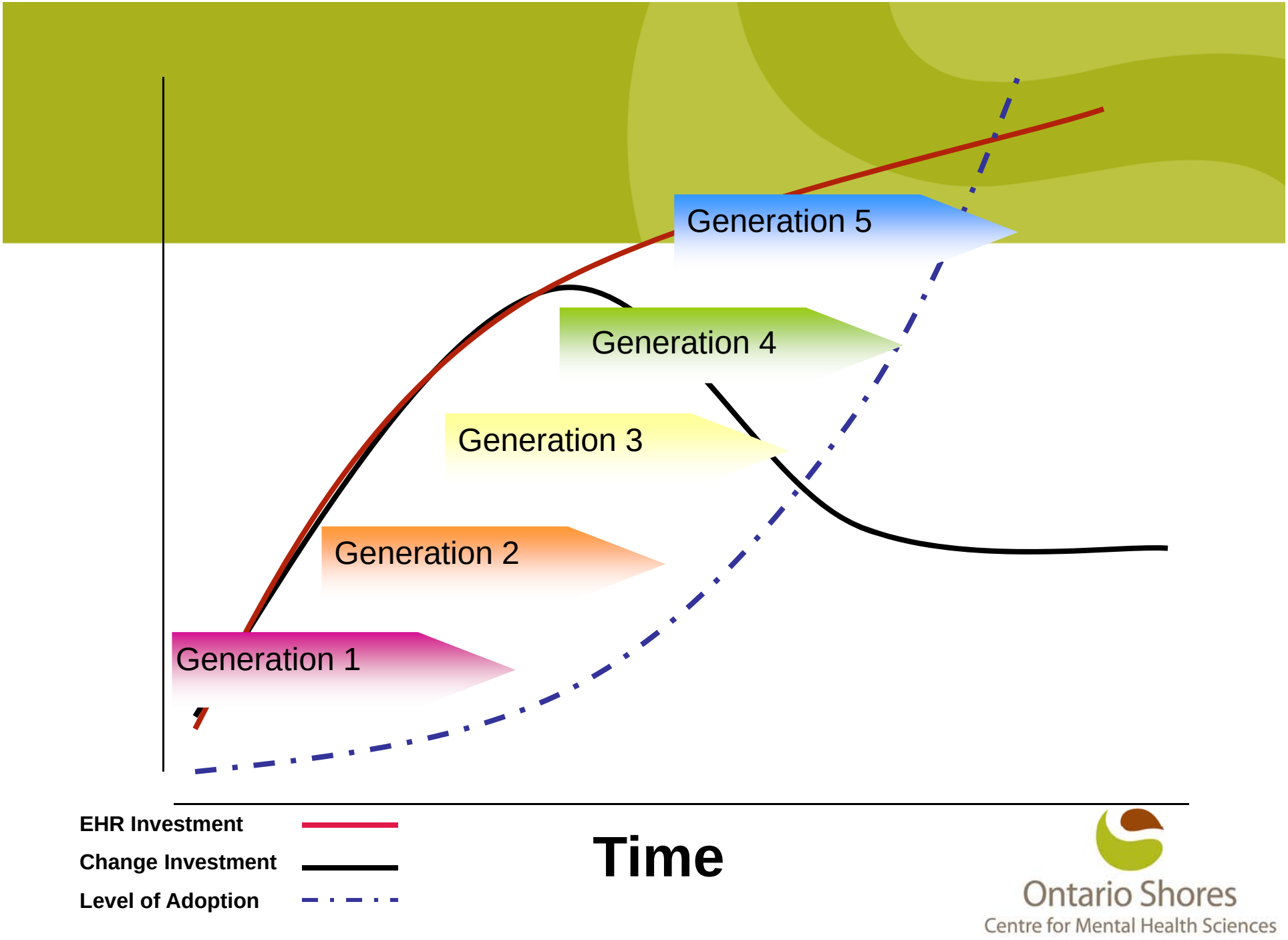
Generation 5
Generation 4
Generation 3
Generation 2
Generation 1
EHR Investment
Change Investment
Level of Adoption
Time
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Definition of Clinical Informatics

"Combining knowledge of patient care with an understanding of informatics concepts, methods and approaches…

…focused on assessing the information and knowledge needs of health care professionals and patients…

…evaluating, and refining clinical processes in the context of ICT solutions

and…

developing, implementing, and refining clinical decision support systems.

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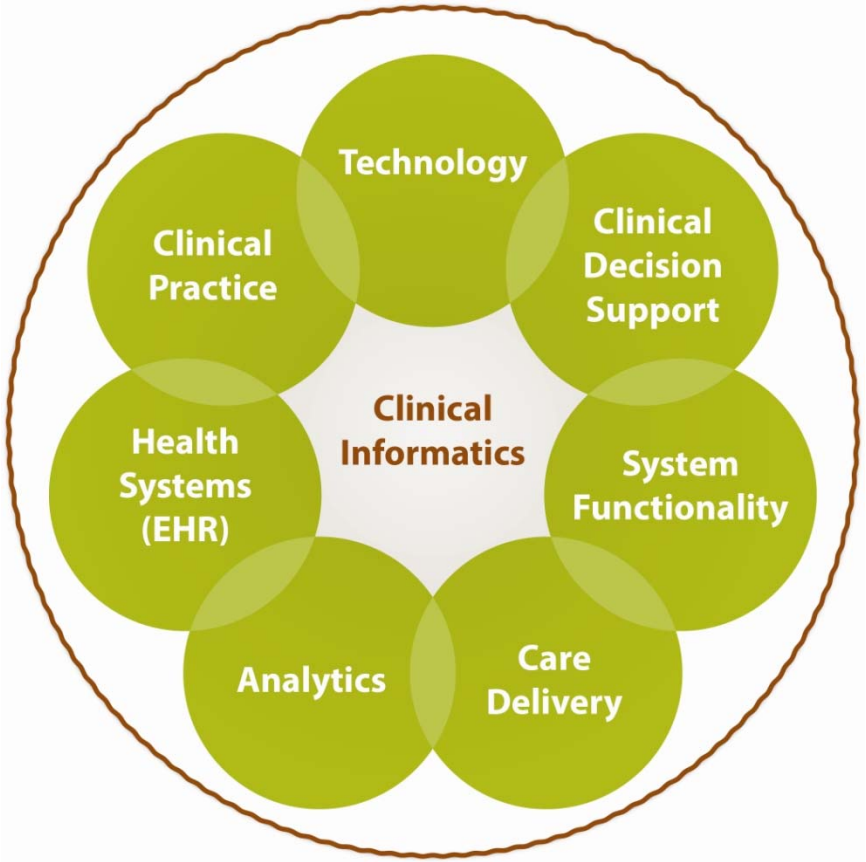
Clinical Informatics
eVitalizing Patient Care and Practice……



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Clinical Informatics

- Maintain – Sustain – Optimize
- Enable and support quality and safety in patient care
- Enable and support Practice
- Patient Outcome measures
- Clinical Practice Effectiveness:
  - Leveraging clinical decision making
  - Work flow analysis/Process mapping
  - Integrating evidence into practice

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Change Management and the Role of Clinical Informatics

- Supporting adoption – visibility at unit levels
- Integration of Analytics strategies into design
- Tracking and Trending
- System use and System design – user and committee levels
- Challenges to the system
- Supports and enablers of the practice
- Measures of the patient outcomes
- Role for Clinical Informatics' Specialist – SME

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Role of Clinical Informatics Professionals

Leaders

High functioning, structured team

Organic beginnings

- Contribute to the greater e-health network, give back to the community
- Be seen as proactive leaders, not reactive responders
- Clinical Informatics representation and voice on committees
- Develop a department mandate and post go-live team processes
- Develop your brand, position your team
- Grow interests in Informatics and Management
- Incorporate in-house expertise in the design, build and testing phases
- Provide experienced leadership
- Recognize in-house talent, recruit from the outside

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Indicators/Measures of Success

Canadian Health Infoway Benefits Realization Framework indicators:

- **System Quality**
  - Levels of decision support as measured through HIMSS Analytics – reports, reminders, references, alerts
  - Monitoring downtime
- **Information Quality**
  - Auditing for completeness, accuracy, relevance and comprehension in documentation
  - Timeliness of information – practice
- **Service Quality**
  - End-user training and ongoing support – orientation, training
  - Availability of end-user support – triaged to CI via Help Desk
- **User Satisfaction**
  - Timeliness of changes and updates – flow sheets, documentation forms
  - Ease of use, responsiveness of the system
  - Comfort levels – user friendliness

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Indicators/Measures of Success

- **Net Benefits Quality**
  - Near misses – medication and non- medication
  - Predictive Surveillance – falls, suicide risk, choking, infection control
  - Monitoring health status and clinical outcomes (RAI/SCIPP)
  - Adherence with guidelines, policies i.e restraint minimization

- **Net Benefit Access**
  - Patient portal
  - Patient access to their information
  - Cultural diversity supported within the system

- **Net Benefit Productivity**
  - Efficiency – IAR access, PACS access,
  - Care coordination across continuum – outpatient and inpatient documentation

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Measures of Success

Admisson Order Set Utilization	Total Admits Q4 2011 - Q3 2012	Total Order Sets used Q4 2011 - Q3 2012	Utilization	Comments
ADOL/ DDS	52	29	55.76%	DDS Utilization was actually 87.51% (8 admissions and 7 used the DDS Admission Order Set but ADOL brought down %).
ARP	326	211	64.72%	
Geri Psych and Neuro Psych	131	120	91.60%	
Forensics	165	134	81.21%	
Overall Admission Order set utilization for Jan-Dec 2012			73.32%	

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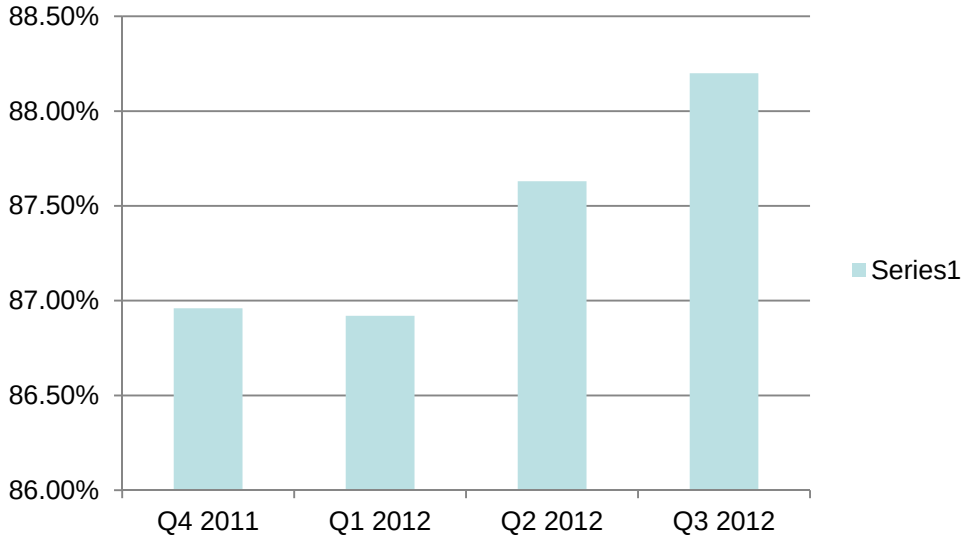
Measures of Success

Medication Scanned - Total	Q4 2011	Q1 2012	Q2 2012	Q3 2012	Average	Comments
	86.96%	86.92%	87.63%	88.20%	87.43%	In all four quarters one unit was only 67% to 75%. To note we cannot exclude Patients own meds from the report and those medications are not barcoded therefore not scanned.



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Measures of Success

CPOE	Physician Totals*	Non Physician Totals**	Total Orders	%CPOE
Total Orders	83837	14289	98126	85.43%
* Physician totals represent direct Physician Order Entry				
** Non Physician totals represents all Order sources other than those entered directly by physician: e.g. written, verbal, telephone, standing etc…				

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Future Evaluation and Benefits

Ontario Shores EHR Net Benefits

- Quality
  - Performance that is practice related based on professional responsibility and accountability
  - Timeliness of care and documentation
  - Outcome measures monitoring and measuring patient outcomes
  - Clinical relevance of the documentation
  - Use of analytics & clinical decision support to guide patient care
- Access
  - Use of patient portal
- Productivity
  - Streamlined documentation and care delivery processes

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Thank You!

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