

## Growth of the interoperable electronic health record (iEHR) in Canada: Maturity of Benefits



# Interoperable electronic health records (iEHRs)

- Secure, private and integrated view of a patient's health and health care history
- EHR components:

## Client & Provider Demographics



## Dispensed Drugs



## Diagnostic Images



## Lab Test Results



## Clinical Reports/ Immunizations



## Objective

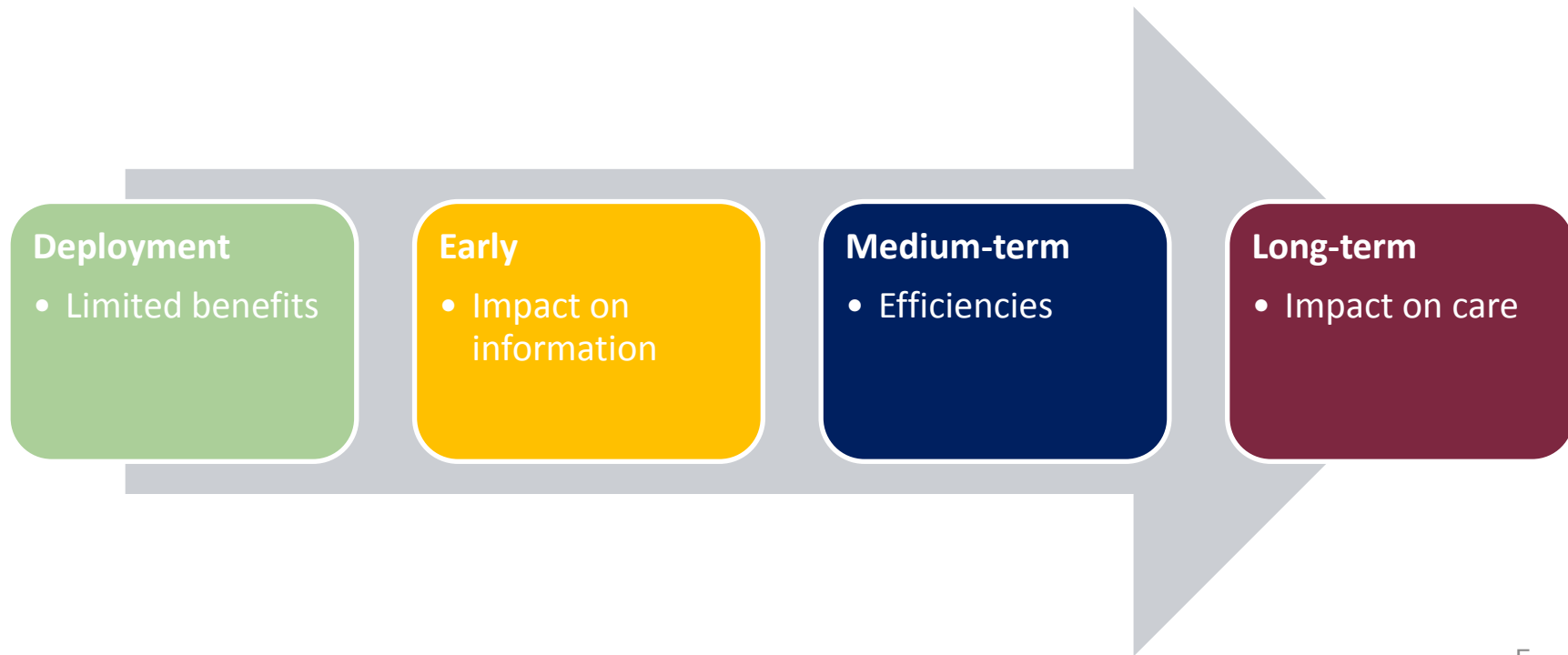
- Examine the maturity of iEHR benefits that have been realized by users
- Factors that accelerate or hinder benefit realization.



## Approach:

- As iEHR systems were implemented, jurisdictions across the country have undertaken evaluation to understand user experience.
- Summarize benefits from recent iEHR evaluations
  - Conducted between 2011-15 in 3 jurisdictions across Canada
  - System and Use surveys

# Typical iEHR Benefit Maturity Model

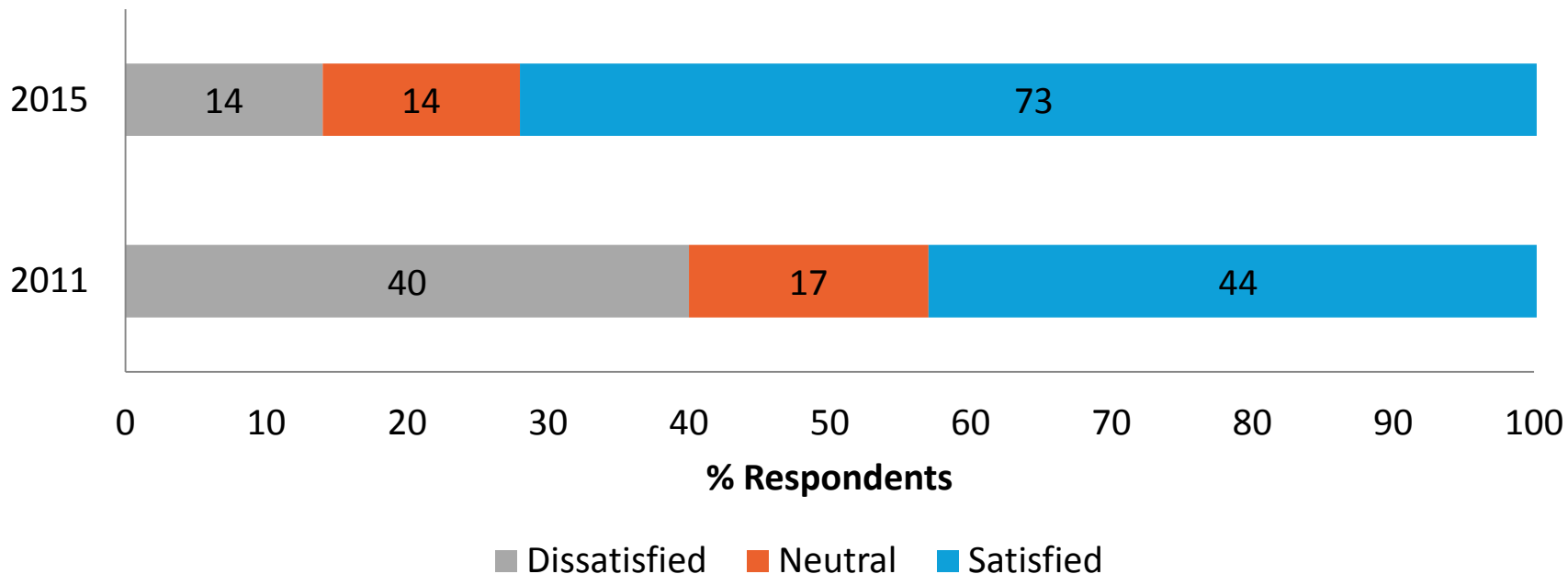


## PEI iEHR Evaluation

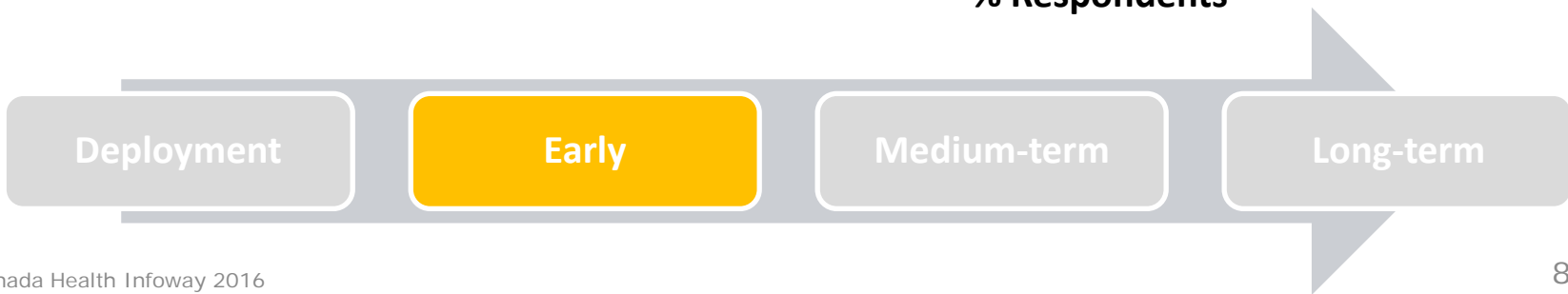
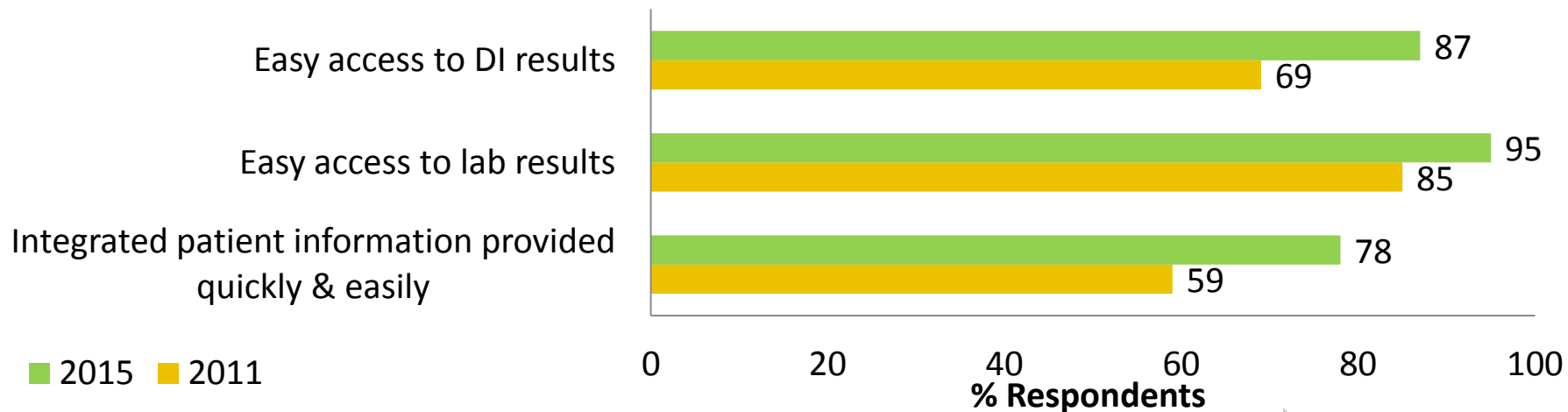
- Implementation of PEI's iEHR "Clinical Information System (CIS)" began in 2008 and currently in all 7 hospitals
  - 2 acute care, 4 community, 1 mental health facility
  - Over 3,000 active users
- Evaluations conducted in 2011 & 2015
  - System and use survey administered to users (Physicians, Nurses, Allied health, Administrative)

Source: Benefit Evaluation of the PEI Clinical Information System (2015). Newfoundland Centre for Health Information. (Available @ [www.infoway-inforoute.ca](http://www.infoway-inforoute.ca))

## Improvement in PEI iEHR users' satisfaction

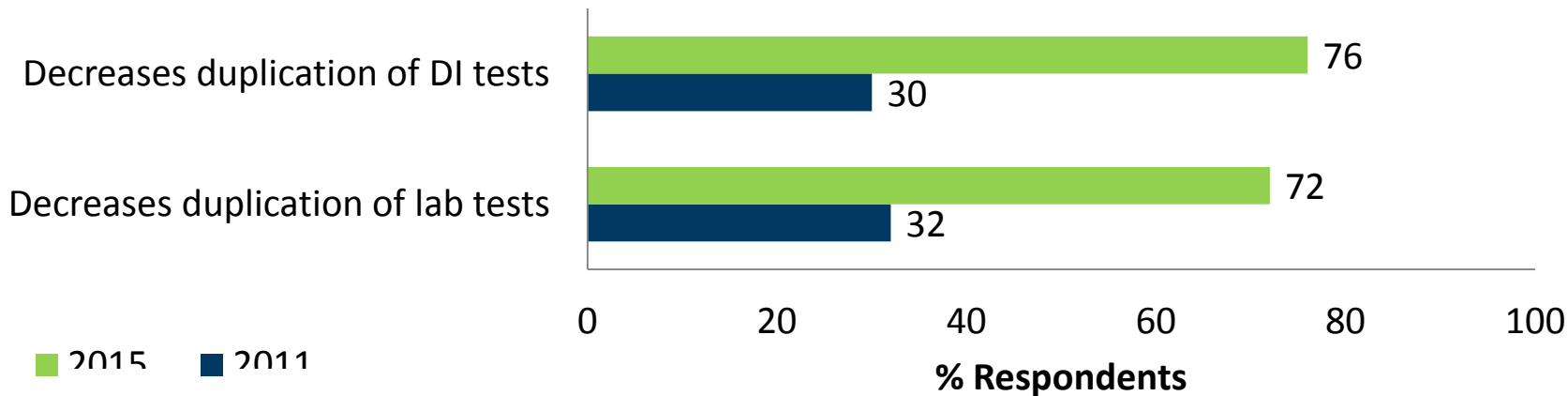


## Early benefits seen in availability of patient information

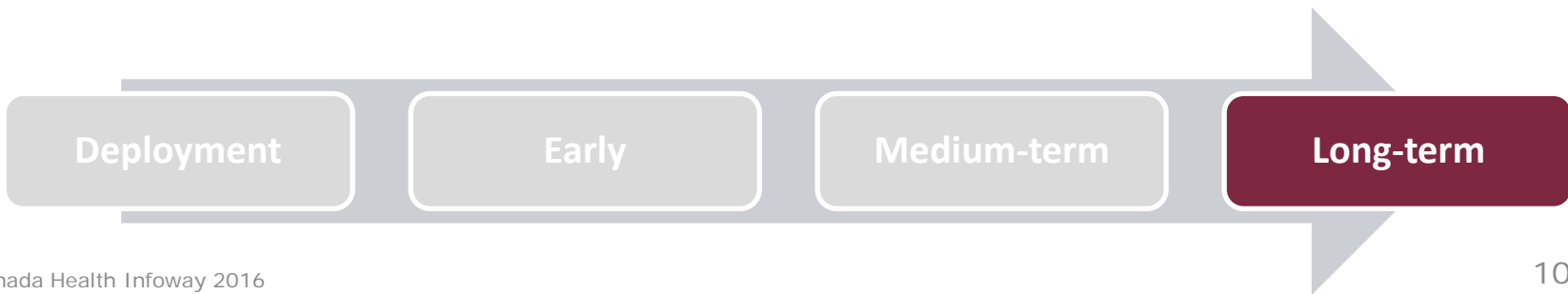
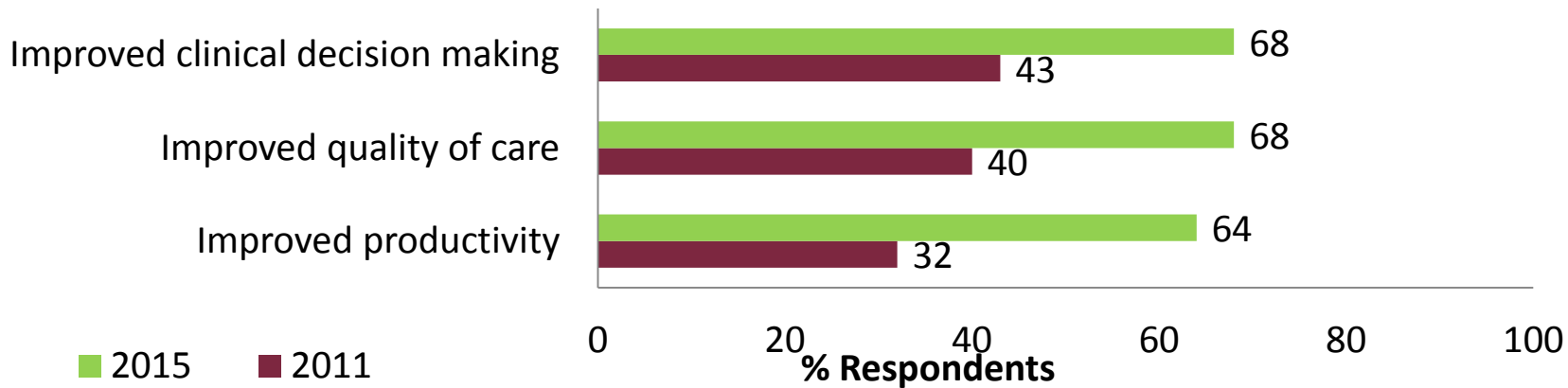




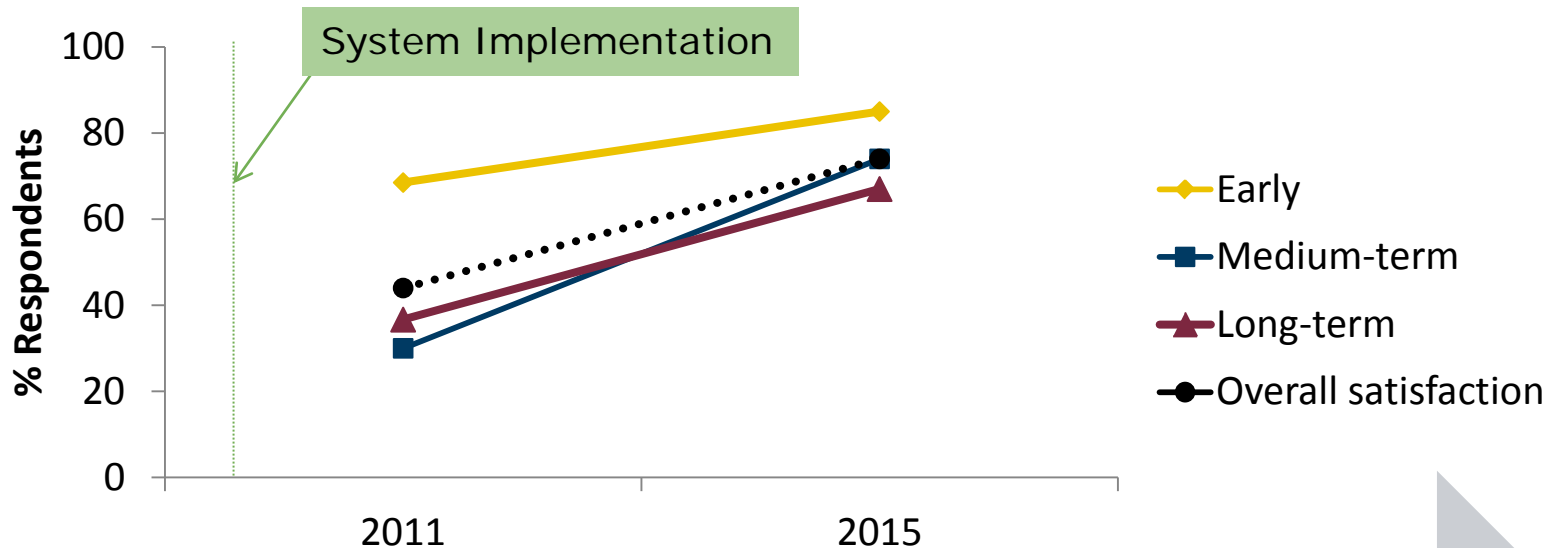
## Ability to reduce duplicate testing improved



## Better information means better care



# Maturity of iEHR Benefits



**Deployment**

- Limited benefits

**Early**

- Impact on

**Medium-term**

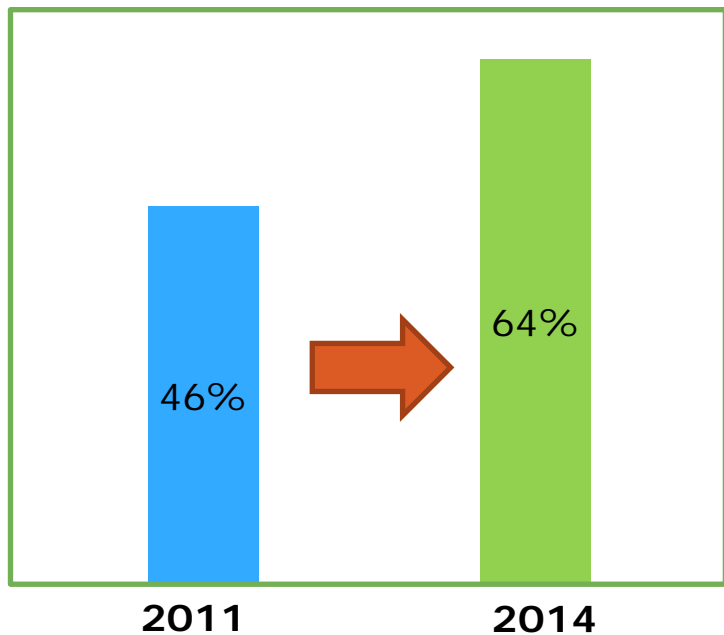
- Efficiencies

**Long-term**

- Impact on care

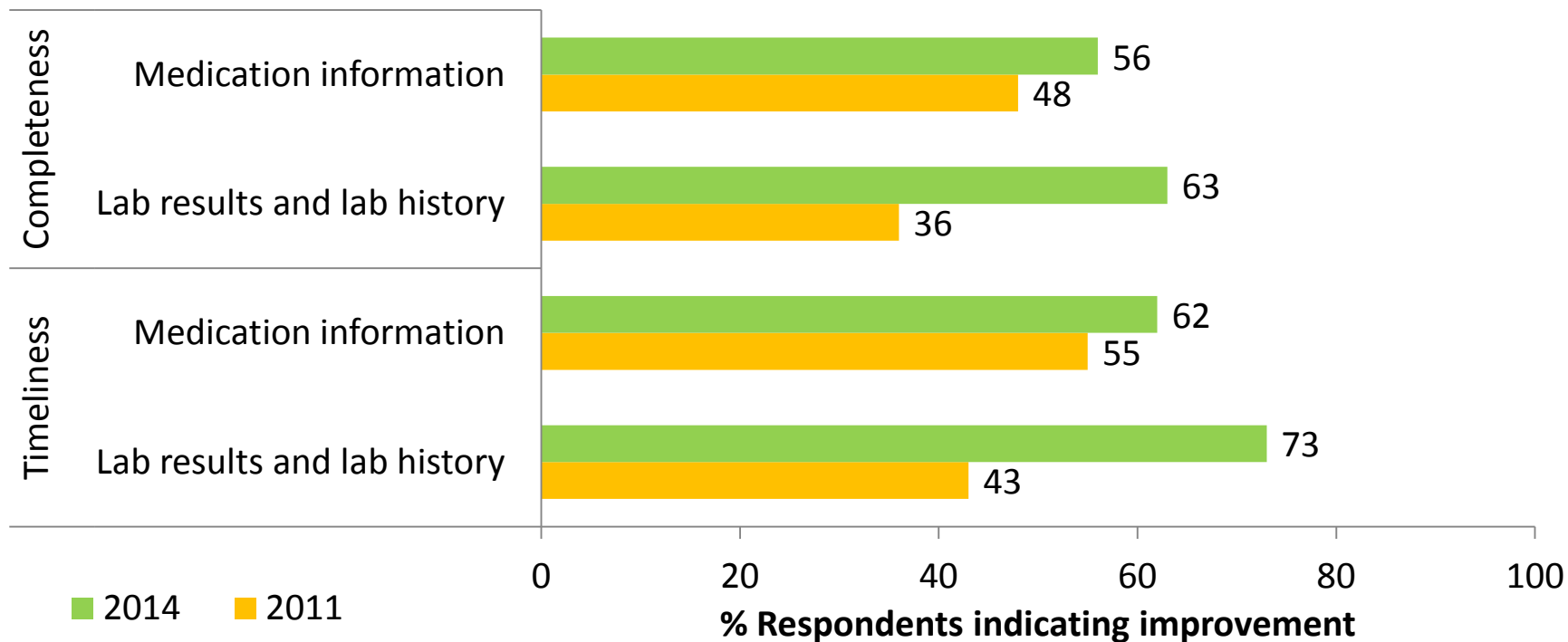
# Manitoba iEHR Users access increases with time

- Proportion of weekly users



96% would recommend eChart to a friend or colleague (2014)

## Early benefits relating to iEHR information in Manitoba

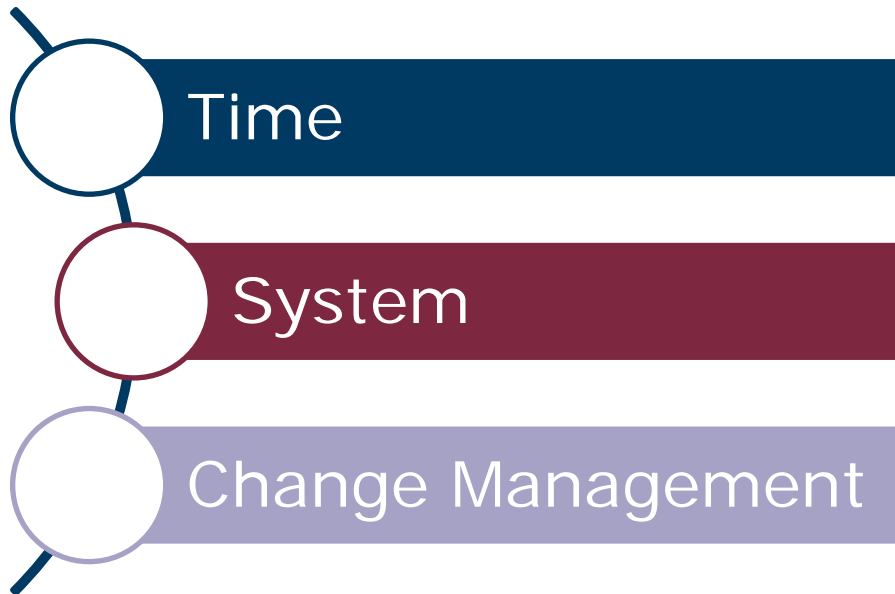


# Change Management drives satisfaction for BC iEHR

60% of respondents report satisfaction

	😊 Satisfied	Dissatisfied 😞
<b>Technical support and training acceptable</b>	<ul style="list-style-type: none"><li>• 58%</li></ul>	<ul style="list-style-type: none"><li>• 22%</li></ul>
<b>Integrated into workflow</b>	<ul style="list-style-type: none"><li>• 78%</li></ul>	<ul style="list-style-type: none"><li>• 24%</li></ul>

# Drivers of maturity of benefits



## Conclusions/Implications

- iEHRs have led to benefits for clinicians
- Maturity model emerging for realizing benefits in stages
- Let's understand and act upon factors that impact benefits realization:
  - Time, training, workflow integration, technical support, system integration challenges
- Continued evaluation is key to demonstrating benefits







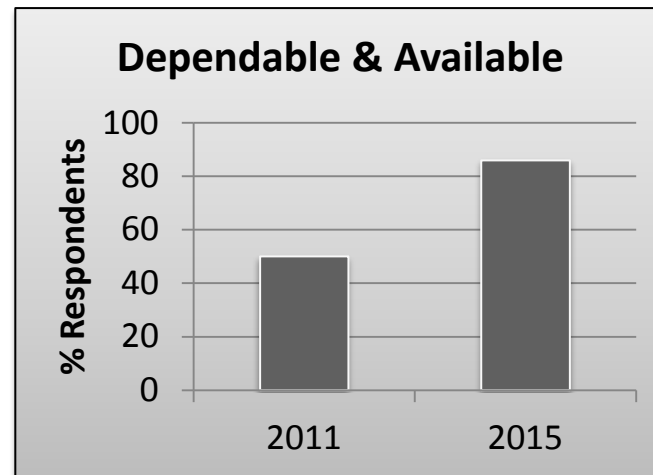
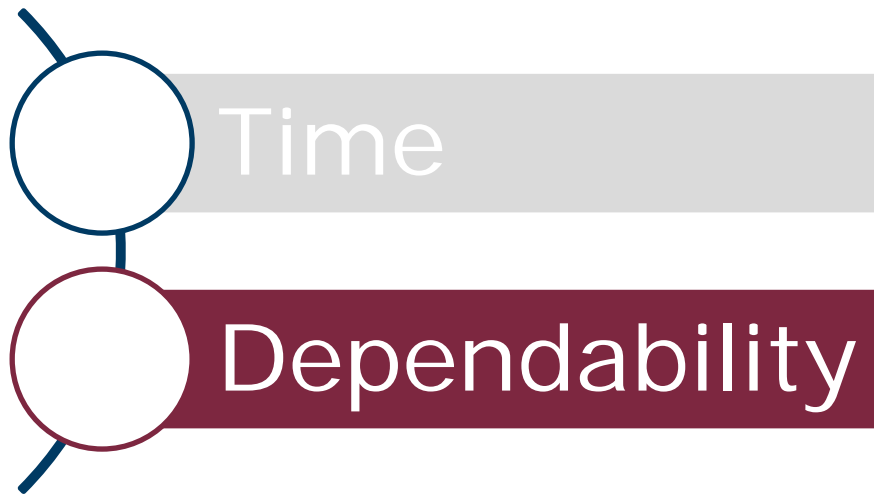
Canada Inforoute  
Health Santé  
Infoway du Canada

Thank you

# Drivers of maturity of benefits

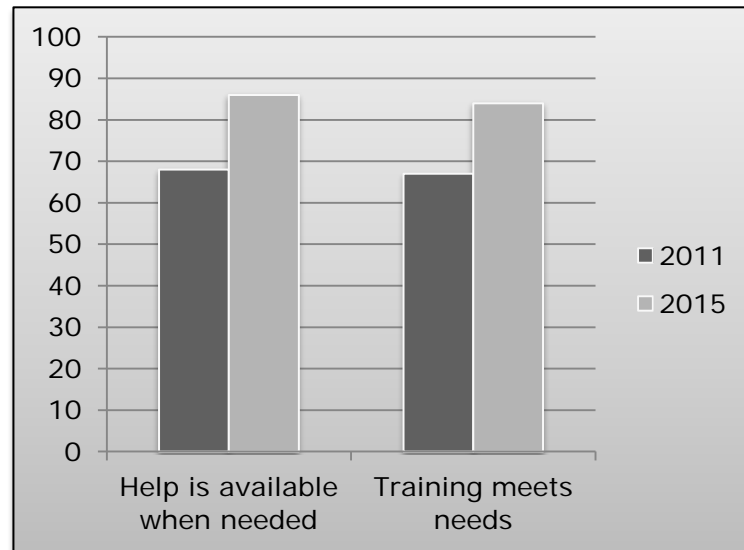
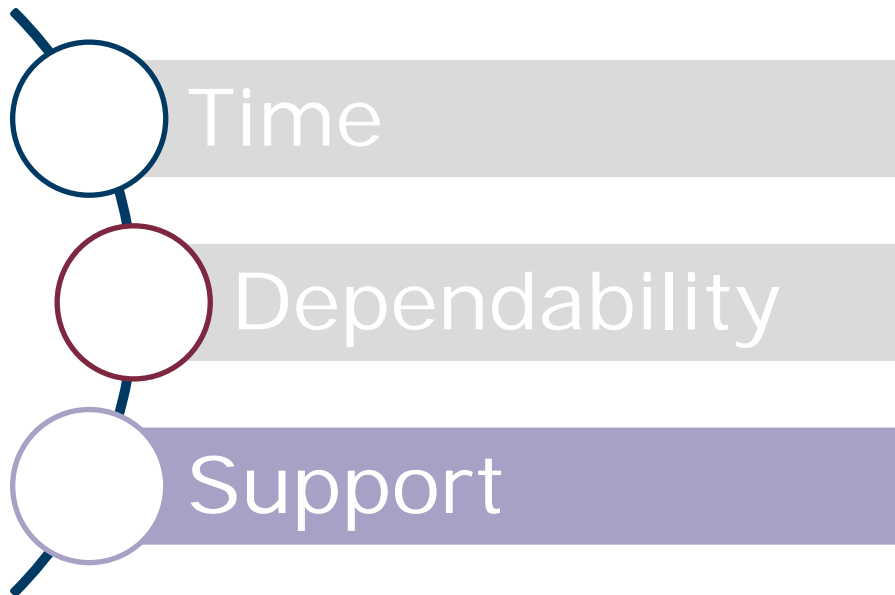


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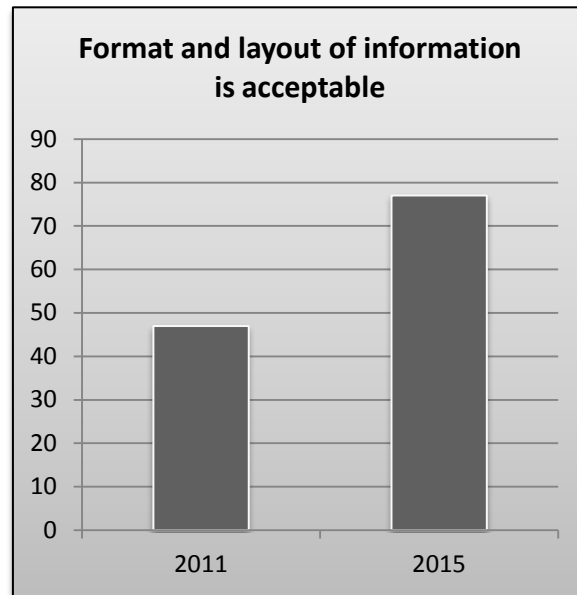
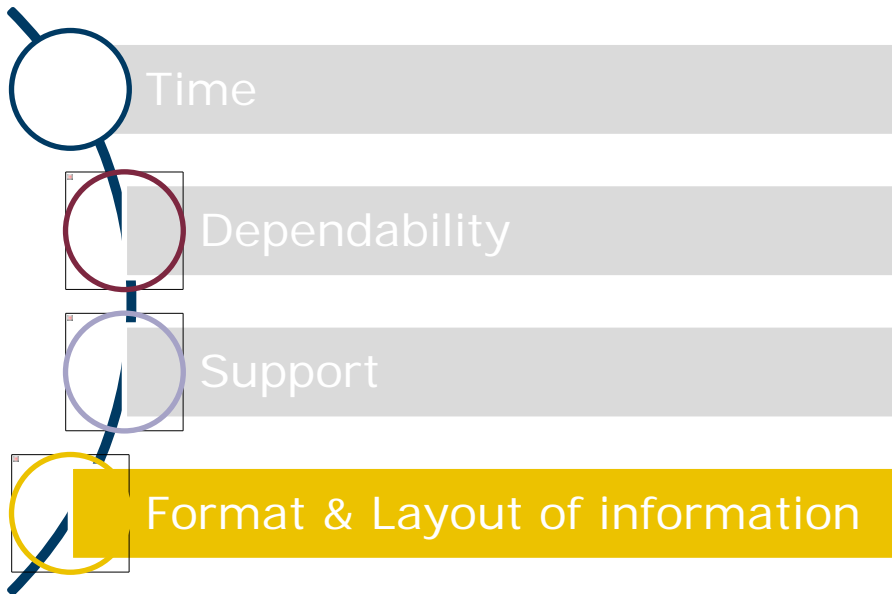


*"I depend on [iEHR] a lot and I consider it an essential tool really for my work."  
- Physician [2015 evaluation]*

# Drivers of maturity of benefits



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# Electronic Health Record Maturity Curve

Early data suggests a long maturity curve for the EHR

