Enhanced EMR Value for Physicians
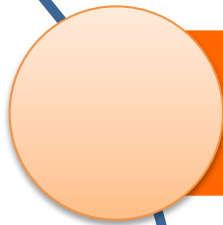# Piloting an EMR Physician Dashboard
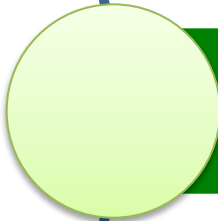
Darren Larsen, MD, CCFP, MPLc
Chief Medical Information
Officer

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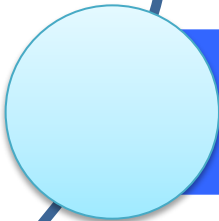
Session Objectives

By the end of this session, you will be able to answer the following:

What are the most common types of dashboards used by clinicians?

What clinical purpose do dashboards serve?

How do dashboards prepare for broader analytics and reporting objectives?

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Session Outline

1. The Dashboard Environment

2. OntarioMD EMR Physician Dashboard Framework Proof of Concept

3. Proof of Concept Objectives

4. Current Progress and Timelines

5. Proof of Concept Benefits Evaluation and Early Lessons Learned

What is a dashboard?

Local EMR Dashboards

- EMR specific examples

- Disease based

- Locally customized

- Difficult to scale

- Not linked to system objectives outside of fee codes

miDASH

intelliDASH

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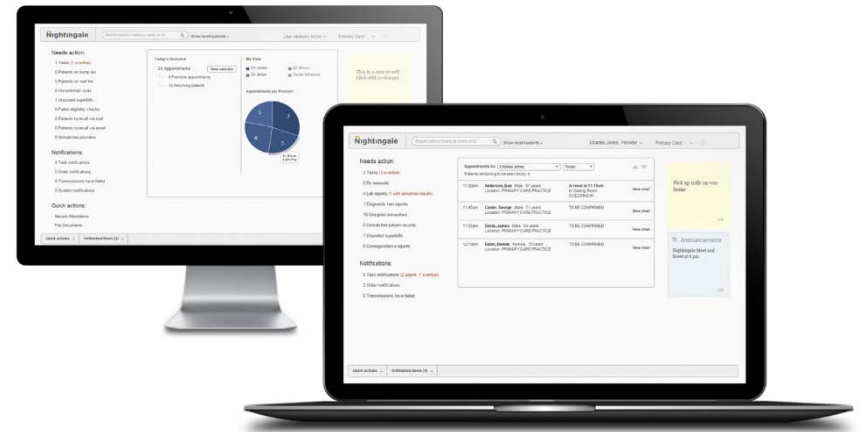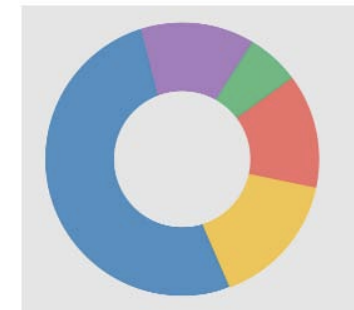
External Dashboards

Indicators of Patients (%) *
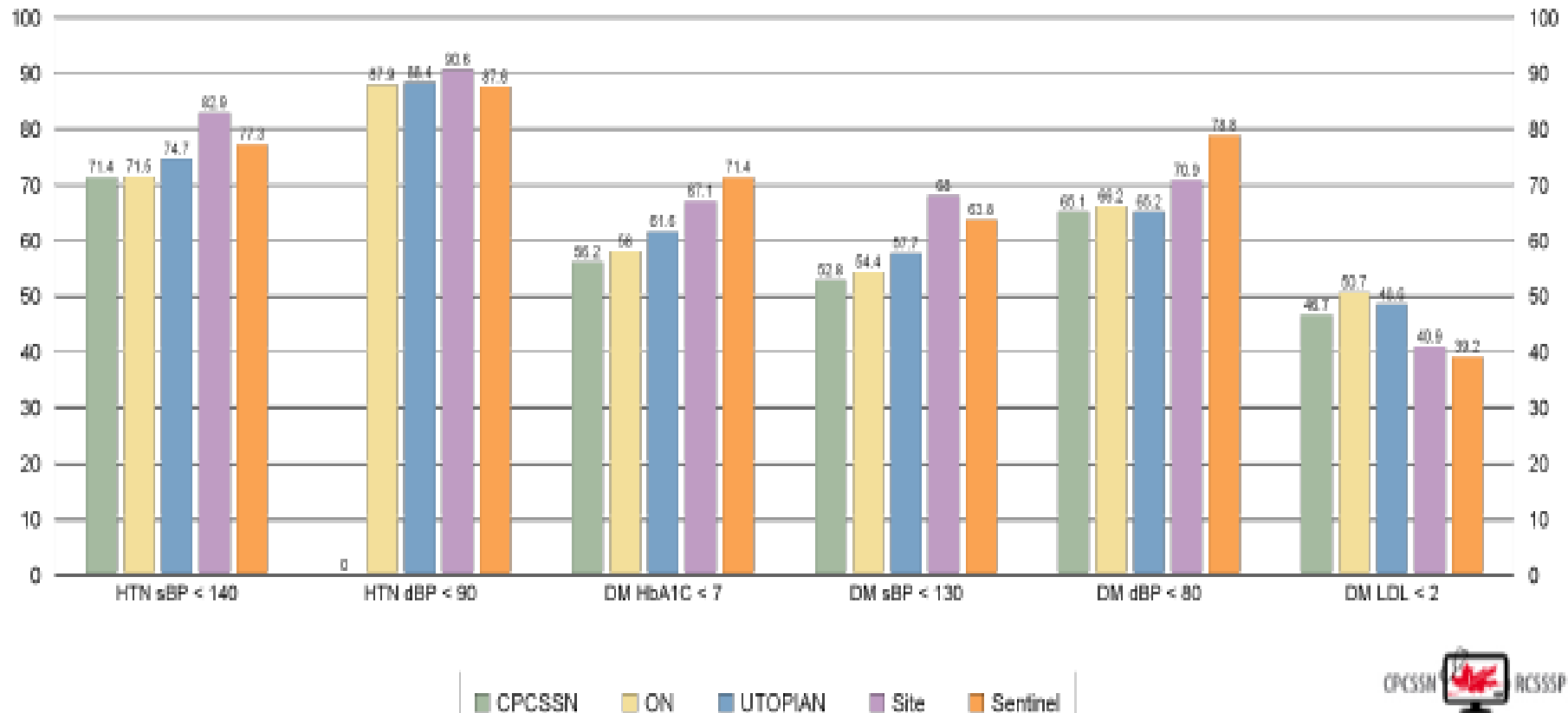
External Dashboards

- Manual extractions
- Research based
- Not real time
- Data normalization after the fact
- Drill downs often not possible
- Limited in scope to selected EMR vendor solutions/practice models
- Cannot customize

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Environmental Scan – BC's ODD

- BC's Objective Data Dashboard (ODD)

- over 2,400 GPs

- improving data quality

- Linked to chronic disease management incentives

- MU3 increased from 16% to 85% with use

Environmental Scan - Summary

- There will never be only one, single dashboard

- There is currently no single dashboard solution that is repeatable across all EMR vendor solutions

- Data quality begins at the point of care and is a fundamental requirement for indicator effectiveness

- Clinicians are motivated for change when there is clinical or practice value

- Existing solutions are not often driven by provincial indicator frameworks)

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OntarioMD EMR Dashboard Framework

- Proof of concept

- High value provincial indicators

- Data quality improvement focus

- Is provincially scalable across all certified EMRs

- Easily expanded with new and indicators

- Collaborative

Collaborative Stakeholder Groups

Clinical Working Group

- Business requirements development
- Composed of HQO, CIHI, AFHTO and practicing docs
- Selection and refinement of indicators

EMR Vendors

Proof of Concept Sites

Clinicians

- 3 – 5 practices (10 – 25 physicians) per vendor to participate in demonstration of the proof of concept

- Physicians will represent a mix of practice models and maturity levels

- Includes General Practitioners as well as community based specialists (Rheumatology)

Framework for Provincial Indicators

- What's needed?
  - Actionability
  - Scalability
  - Usability
  - Benchmarking
  - Reporting potential
  - Look to the future: performance measurement
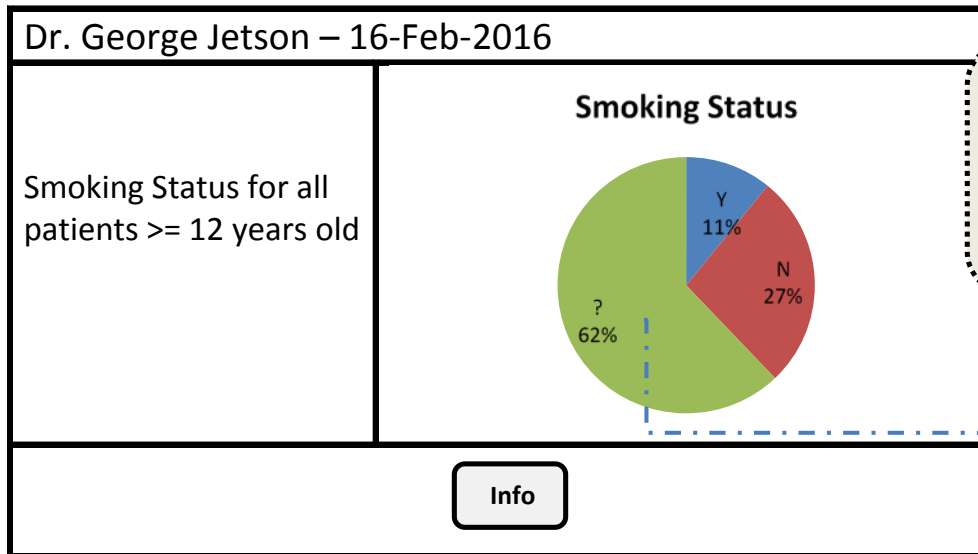
A Framework for Provincial Indicators

- Mapping of validated indicators from HQO, CIHI and AFHTO

- 17 overlap in 7 clinical areas
  - Diabetes
  - Cancer prevention
  - Immunization
  - Smoking
  - HT
  - Obesity
  - CAD

Highlight Data Quality

- Drill down capability
- Yes / no / unknown
- Enables actions which improve patient care

Conceptual Mock-up:

Dr. George Jetson – 16-Feb-2016

Smoking Status for all patients >= 12 years old

Smoking Status

Y 11%

N 27%

? 62%

Info

- Indicator **Panel** consists of title, cohort definition, indicator, and footer.
- Title contains physician on whom cohort is defined and date of data refresh.
- Cohort definition shows patient population defined for indicator.
- Indicator shown as graphic (e.g. bar or pie chart) where each individual element can be drilled down to reveal underlying patient data
- Info button in footer bar for viewing indicator definition

Name	ChartNum	Smoking Status Value
Boop, Betty	1111	NULL
Flintstone, Wilma	1234	NULL
Jetson, Jane	6211	NULL
Jetspn, Judy	1345	NULL
Oyl, Olive	4521	NULL
Rubble, Betty	3322	NULL
...		

- Drill-down on pie slice for unknown smoking status reveals patient list with data contents of field that maps to smoking status in EMR.

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Provincially Scalable

Expandable customizable indicators

- Easily expanded to include new indicators
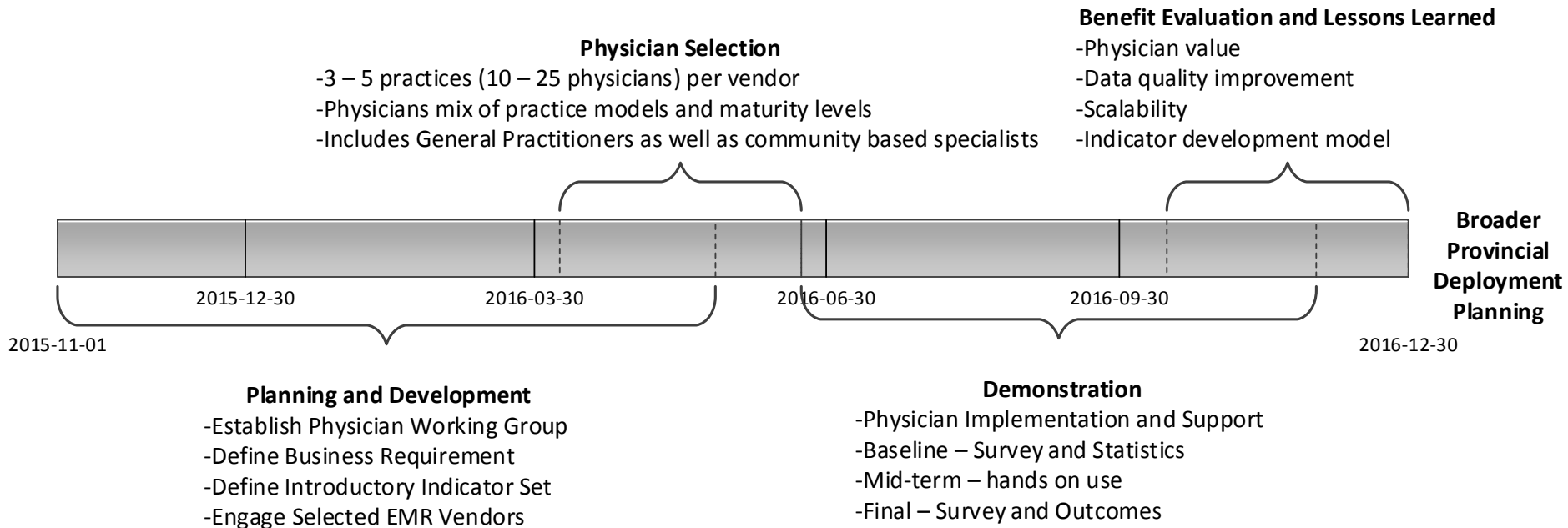- Can be customized and shared with other physicians

Repeatable across EMR vendor platforms

Based on OntarioMD Core Data Set (CDS) data elements common to all EMR vendors

Change management

Education in use of dashboard tools

Support for data quality improvement

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Timeline and Outcomes

Physician Selection
-3 – 5 practices (10 – 25 physicians) per vendor
-Physicians mix of practice models and maturity levels
-Includes General Practitioners as well as community based specialists

Benefit Evaluation and Lessons Learned
-Physician value
-Data quality improvement
-Scalability
-Indicator development model

Broader Provincial Deployment Planning

2015-12-30   2016-03-30   2016-06-30   2016-09-30

2015-11-01

2016-12-30

Planning and Development
-Establish Physician Working Group
-Define Business Requirement
-Define Introductory Indicator Set
-Engage Selected EMR Vendors

Demonstration
-Physician Implementation and Support
-Baseline – Survey and Statistics
-Mid-term – hands on use
-Final – Survey and Outcomes

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Benefits Evaluation

- Assess clinical value for Provincial Indicator use
- Usefulness in quality improvement work
- Improvements in data quality
- Scalability and extendibility across vendors
- Change management needs for implementation
- Early plan for provincial rollout

Early Learning

- Provincial indicators are on their own maturity curve and require refinement and feedback to the framework owners:

  - Limitations in clinical usefulness surfaced during the selection of indicators

  - Some indicators must be enhanced to be 'actionable'.

- The comparative assessment of 'my indicator results' with the practice, region, province is in high demand

Proposed indicators

|		
Diabetes	Diabetes with HbA1C Testing	% of patients with diabetes aged 40 years and older who have had two or more HbA1C tests within the past 12 months
Diabetes	Diabetes with HbA1c in Range	% of patients with diabetes whose glycemic control in the last 12 months was in the following range: HbA1C <= 7%; 7% < HbA1C <= 8.5% HbA1C > 8.5%
Cancer	Patient Care: Colorectal Cancer Screening Preventive Care Bonus: Colorectal Cancer Screening	Patient Care: Colorectal Cancer Screening: % of patients aged 50 to 74 years old, inclusive, with an FOBT within the past two years, sigmoidoscopy within 5 years or a colonoscopy within the past 10 years. Preventive Care Bonus: Colorectal Cancer Screening: Target population: consists of enrolled patients who are between 50 and 74 years of age, inclusive; on March 31st of the fiscal year for which the bonus is being claimed.
Cancer	Patient Care: Cervical Cancer Screening Preventive Care Bonus: Cervical Cancer Screening	Patient Care: Cervical Cancer Screening: % of female patients aged 21 to 69 who had a Pap test within the past three years Preventive Care Bonus: Cervical Cancer Screening: Target population: consists of enrolled female patients who are between 21 and 69 years of age, inclusive, as of March 31st of the fiscal year for which the bonus is being claimed.
Cancer	Patient Care: Breast Cancer Screening Preventive Care Bonus: Breast Cancer Screening	Patient Care: Breast Cancer Screening: % of female patients aged 50 to 74 who had a mammogram within the past two years Preventive Care Bonus: Breast Cancer Screening: Target population: consists of enrolled female patients who are between 50 and 74 years of age, inclusive, as of March 31st of the fiscal year for which the bonus is being claimed.

Proposed indicators

Immunization	Patient Care: Childhood Immunization Preventive Care Bonus: Childhood Immunization	Patient Care: Childhood Immunization: % of patients aged 30 to 42 months who have received all of the ministry-supplied immunizations as recommended by the National Advisory Committee on immunizations. Preventive Care Bonus: Childhood Immunization: Target population: consists of enrolled patients who are aged 30 to 42 months of age, inclusive as of March 31st of the fiscal year for which the bonus is being claimed.
Immunization	Patient Care: Influenza Immunization Preventive Care Bonus: Influenza Immunization	Patient Care: Influenza Immunization: % of patient population age 65 and older who received influenza immunization Preventive Care Bonus: Influenza Immunization: Target population: consists of enrolled patients who are 65 years or older as of December 31st of the fiscal year for which the bonus is being claimed.
Immunization	Pneumococcal Immunization	% of patients age 65 and older who received pneumococcal vaccine in the past 12 months
Smoking	Smoking Status	% of patients >= 12 years old for whom smoking status is recorded
Hypertension	Hypertension	% of patient population, age 18 and older, with hypertension who received testing for all of the following: Blood glucose or HbA1c, BP measurement, Obesity/overweight screening.
Obesity	Obesity	% of population, age 18 and older, who are currently overweight or obese.
Coronary Artery Disease	Coronary Artery Disease	% of patients, age 18 and older, with Coronary Artery Disease (CAD) who received testing for all of the following: Lipid profile screening; Blood pressure measurement; and Obesity/overweight screening

Preparing for the Future

Dashboards provide clinical motivation for improved data quality as a foundation for Tirple or Quadruple AIM

- The broader sharing and aggregation of primary and secondary care data

- Benchmarking and comparative reporting

- Improved clinical quality and population health

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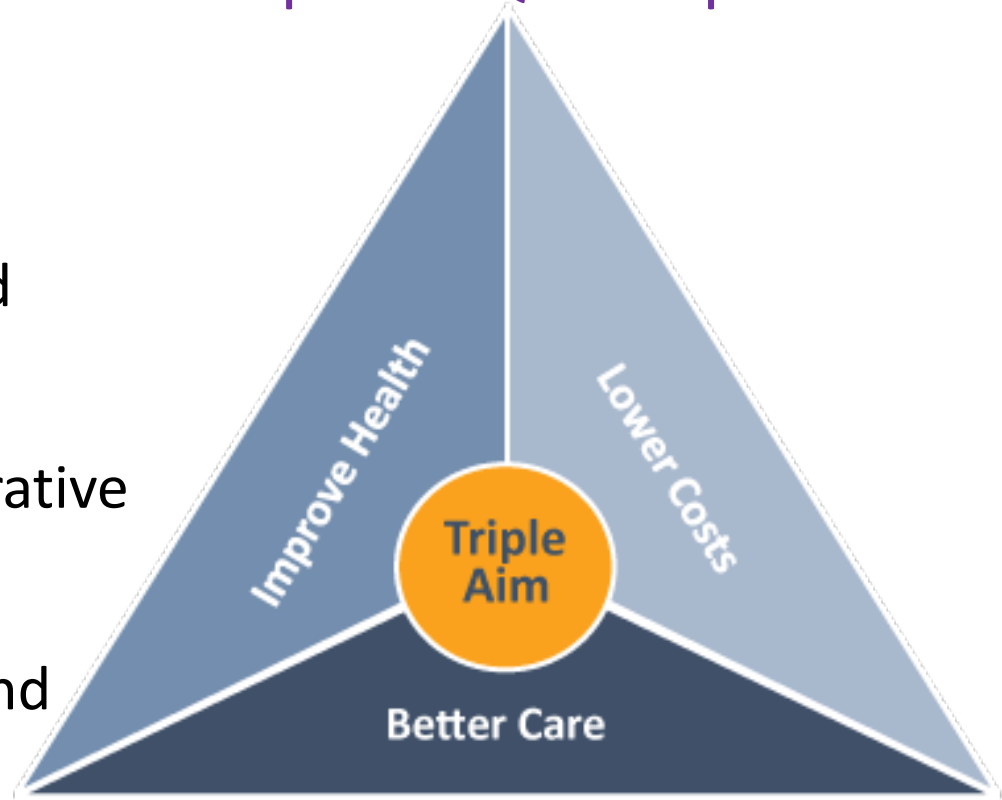
Thanks!

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