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Primary Care Focus
May 9, 2016

Advancing Integrated Vascular Health Care Capacity, Quality and Efficacy

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Welcome Everyone!

Next Generation-

Vascular Health Assessment and Support Tool (VHAST) Briefing

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Session Objectives

TO:

1. Receive an overview & progress update on:
   - Provincial Vascular Health Primary Care Priority Activities
2. Review & discuss how the current resources/approaches link with current Primary Care QI Decision Support Initiatives
3. Discuss collaborative opportunities to help Inform future implementation plans

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Why Focus on Vascular Health?

BURDEN

- **Vascular diseases** are the **leading cause of preventable death and disability in Canada**
- Between 2010 - 2014, hypertension rates ↑8.4%, diabetes ↑10.1%, obesity ↑8.9% - for Canadians aged 35+
- **90% of Canadians have elevated risk**, modifiable by effective management of health behaviours and common cardiovascular risk factors

POTENTIAL

- Prevalence of 5 or more positive modifiable vascular health determinants/ behaviours is associated with 88% ↓risk of death

Vascular Health Profile-Ontario

Health Profile	2012 Ontario	2014 Ontario
Obesity %	18.0	18.3
Diabetes %	6.8	6.6
Hypertension %	17.4	17.6
Current Daily Smoker %	14.5	14.4
Heavy Alcohol %	15.9	16.9
Physical Activity %	50.5	53.8
Hospitalized Heart Attack (per 100,000 population)	207	198
Hospitalized Stroke (per 100,000 population)	125	119

Adapted from "Health Profile, June 2012 and 2014: South East Health Integration Network Ontario" by Statistics Canada, 2014. Retrieved from www.statcan.gc.ca

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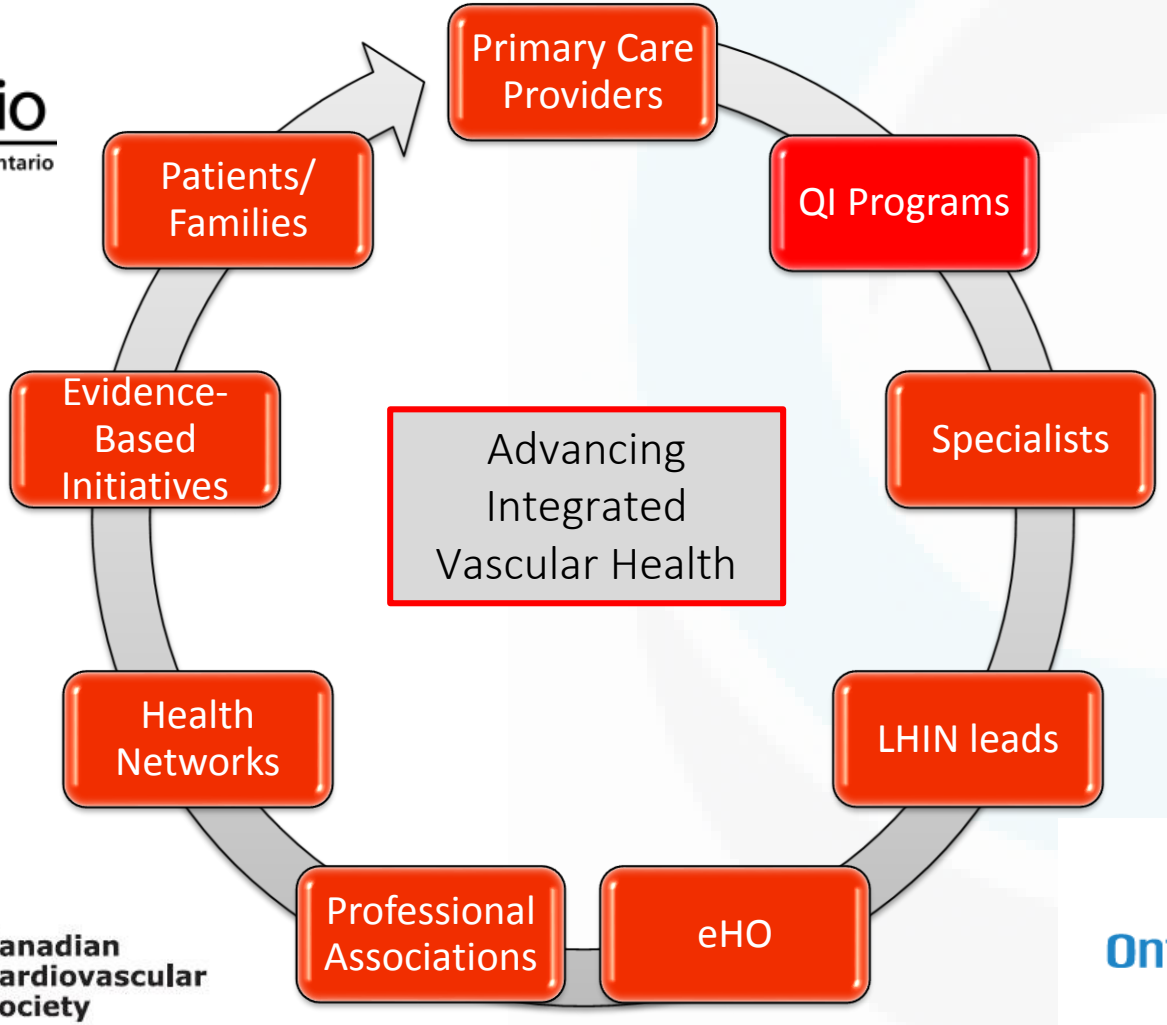
Primary Care Work Group (PCWG)

Following the 2012 *Vascular Health Blueprint for Ontario,* the **PCWG** was established to *improve quality & access to continuum of vascular services by:*

- Referencing HMP experience, evolving e-health technology & current system barriers/enablers to support implementation of Vascular Health (VH) best practices
- Recommending & disseminating targets, tools and strategies to:
  - *Enhance use of best practices*
  - *Increase access to current, high-quality health information*
  - *Support collaboration between Specialists & Primary Care HCPs*

PCWG & Key Stakeholder Engagements



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Primary Care Priority Activities

- Hypertension Management Program (HMP)
- Provincial Vascular Health Primary Care Work Group Initiatives
  - Vascular Health Assessment & Support Tool (VHAST)
  - Vascular Health QI Toolkit
  - Vascular Health Medical Directives

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Hypertension Management Program (HMP)

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HMP Overview

Evidence-informed program developed to improve diagnosis, management & control of primary hypertension

- Education, practice support, provider tools to improve detection, management & treatment + resources promoting patient self-management
- HCP- and Patient-focused content developed & maintained by HMP team with input from Hypertension Canada, Heart&Stroke, CDA, & other partners
  - Content relevancy: always reflects current evidence, guidelines & best-practices
  - Health information consistency & minimal content redundancies/duplicate resources achieved through collaborations
- Program evaluations have repeatedly shown **significant reductions in SBP/DBP** as well as **positive changes in** relevant **labs** (E.g. cholesterol, glucose, A1c)
- **Lessons learned from the HMP has informed "VHAST" development**

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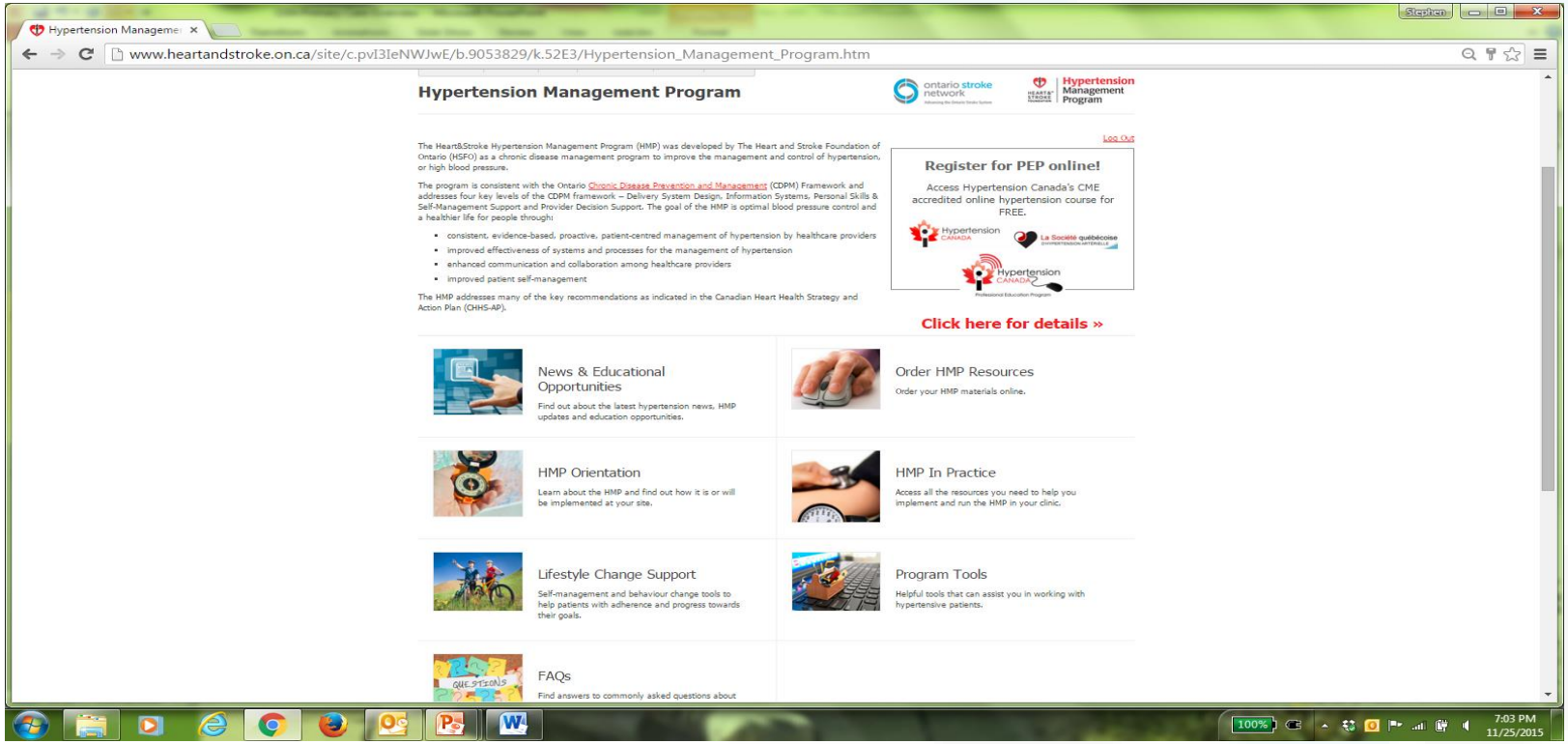
HMP Overview – cont'd

- Operational infrastructure functions on a fully scalable, web-based delivery platform enabling sustainable program mgmt. & clinic support processes



www.heartandstroke.on.ca/hmp

- Use of Client Relationship Management software

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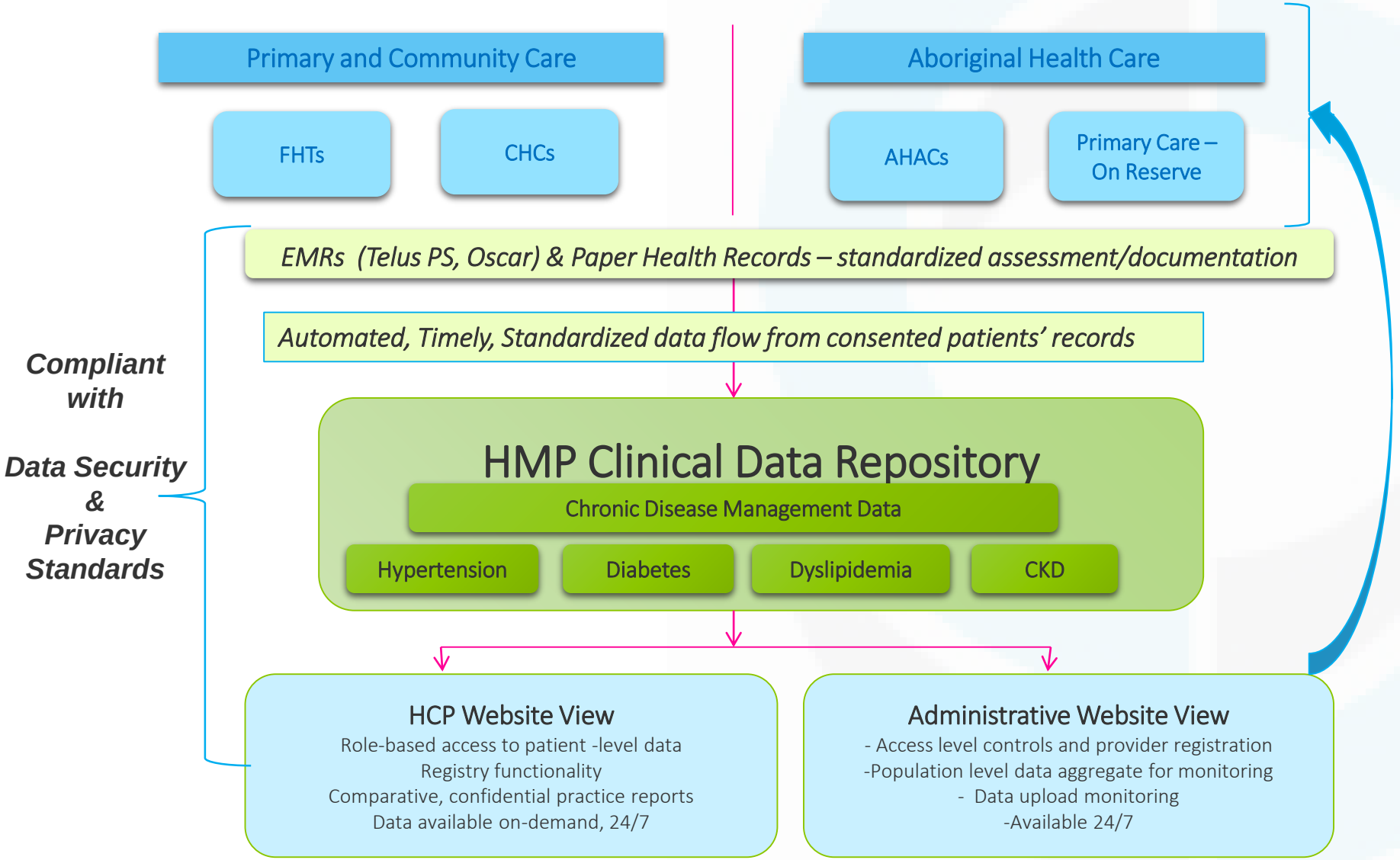
HMP Data Flow Schematic



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HMP – Sites

- Current Participation: 73 primary care clinics (incl. 14 First Nations)

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Vascular Health Primary Care Initiatives

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PCWG Priority 1: VHAST

VHAST:
Comprehensive point-of- care, patient-centred, decision support resource building on effective elements of the collective experiences of the PCWG and stakeholders.

Building on a "Proof of Concept" model & alpha prototype designed with primary care providers and stakeholders, the VHAST proposes to function within Ontario EMRs with embedded capability for clinical data to be compared against best practice guidelines, including C-CHANGE guidelines, at point of care.

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VHAST Prototype Goals

- Have straightforward, feasible specifications
- Include the following diseases/conditions:

Hypertension	Diabetes	Dyslipidemia	PAD
Angina/MI	CHF	CKD	Stroke/TIA

- Function within OSCAREMR Connecting Care, Creating Community. Ontario MD funding-eligible eMR
- Leverage published **C-CHANGE** (2014) guidelines

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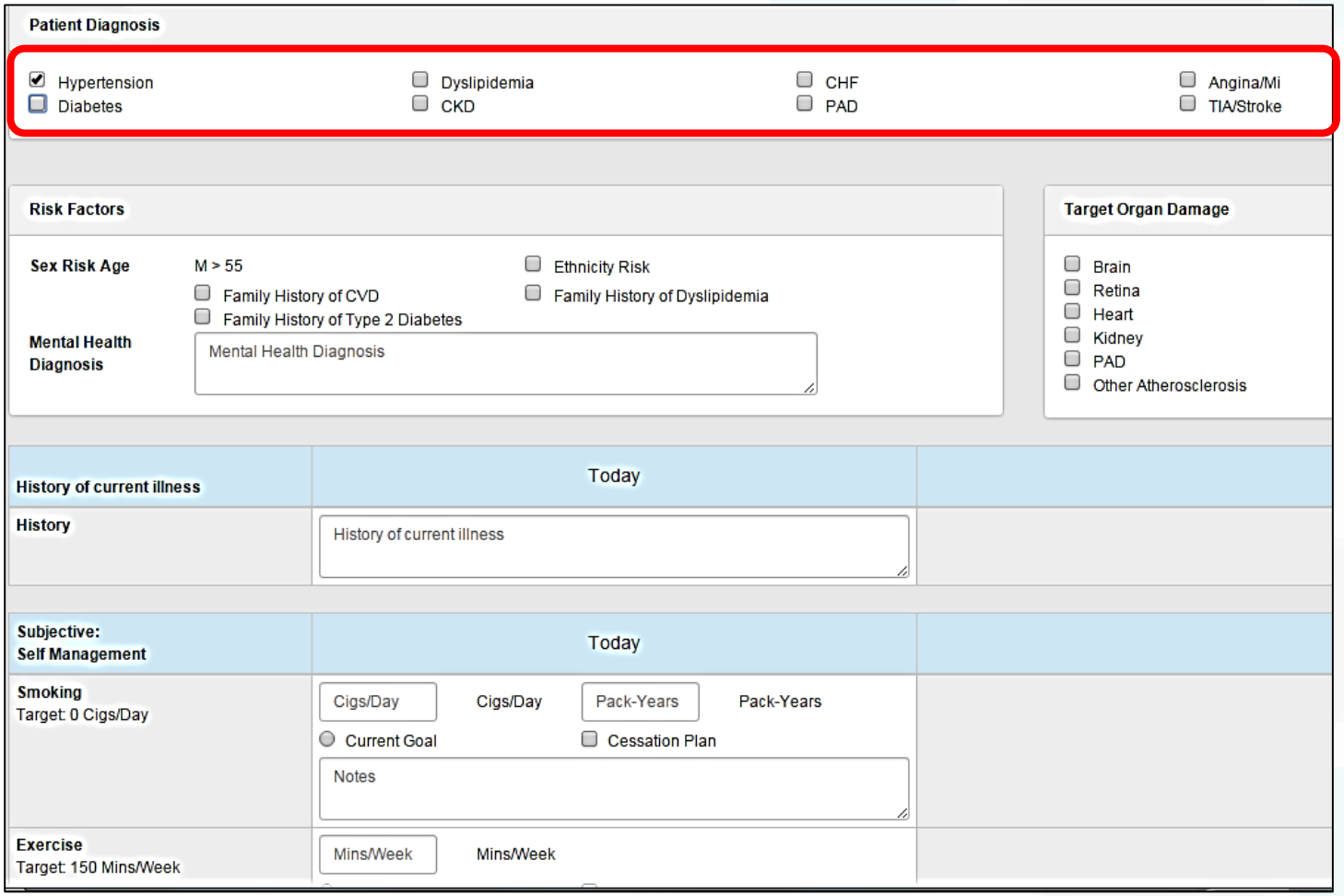
VHAST Prototype - Features

Feature #1: Present/capture multiple diagnoses in a single flowsheet



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VHAST Prototype - Features

Feature #2 – Provide a longitudinal view of past encounters

Patient Diagnosis

☑ Hypertension	☐ Dyslipidemia	☐ CHF	☐ Angina/Mi
☐ Diabetes	☐ CKD	☐ PAD	☐ TIA/Stroke

Subjective: Self Management	Today	Oct 15th, 2015
Smoking Target: 0 Cigs/Day	Cigs/Day — Cigs/Day; Pack-Years — Pack-Years ○ Current Goal ☐ Cessation Plan Notes	8 Cigs/Day; Pack-Years — Pack-Year ● Current Goal! ☑ Cessation Plan Notes
Exercise Target: 150 Mins/Week	Mins/Week — Mins/Week ○ Current Goal ☐ Exercise Plan Notes	150 Mins/Week ○ Current Goal! ☐ Exercise Plan Notes
Weight	Kg — Kg ○ Current Goal ☐ Weight Loss Plan Notes	85 Kg ○ Current Goal! ☐ Weight Loss Plan Notes
Nutrition	Fruits & Veg: — Fruits & Vegs/Day ○ Current Goal ☐ Nutrition Plan Notes	6 Fruits & Vegs/Day ○ Current Goal! ☐ Nutrition Loss Plan Notes

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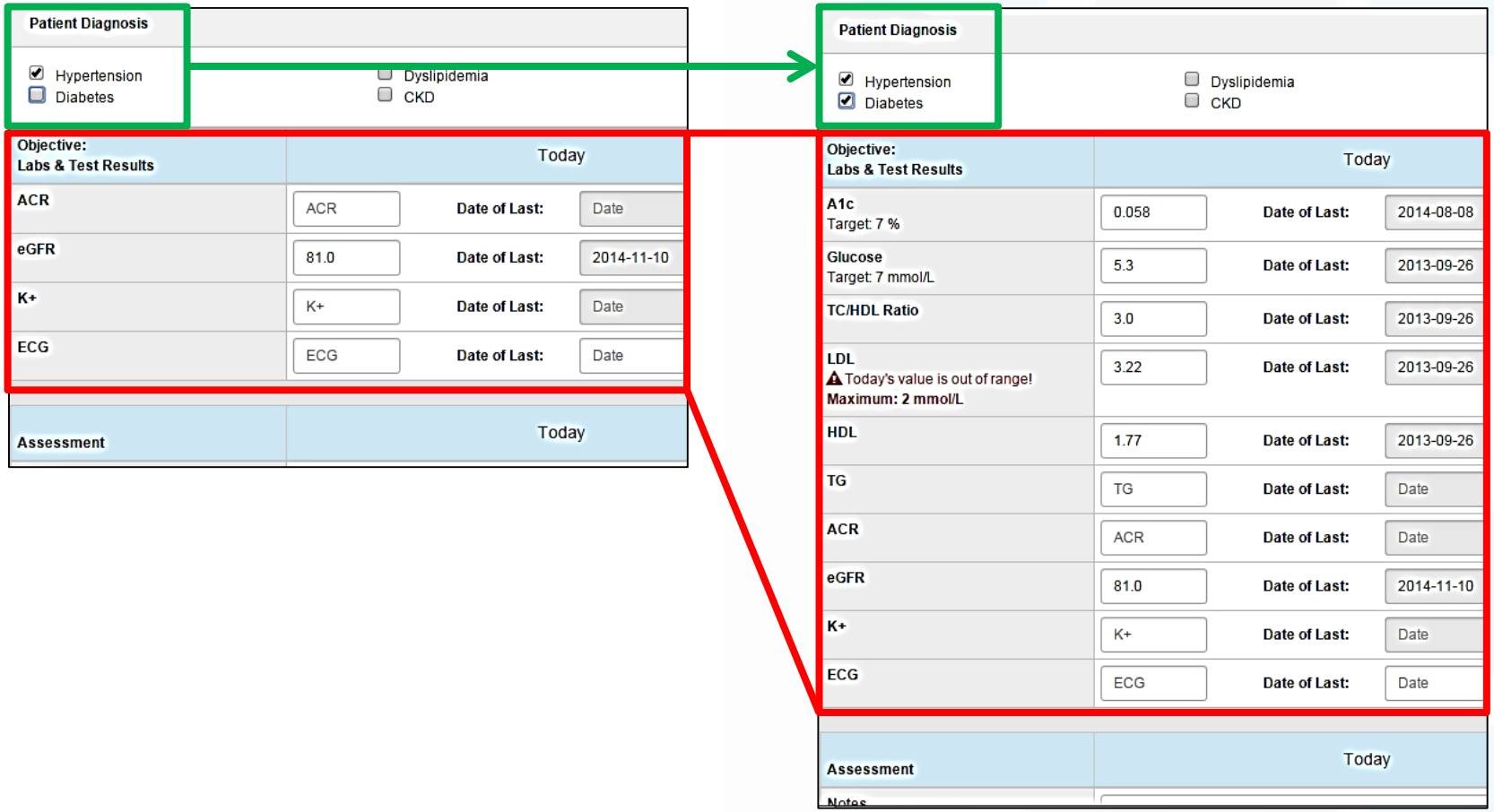
VHAST Prototype - Features

Feature #3 – Expand/Shrink based on a patient's diagnoses



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VHAST Prototype - Features

Feature #4 – Pre-populate flow sheet with EMR Data

Patient Diagnosis

☐ Hypertension	☐ Dyslipidemia	☐
☑ Diabetes	☐ CKD	☐

Objective: Labs & Test Results	Today		
A1c ⚠ Today's value is out of range! **Maximum: 7 %**	7.8	**Date of Last:**	2014-10-06
Glucose ⚠ Today's value is out of range! **Maximum: 7 mmol/L**	7.1	**Date of Last:**	2015-03-10
TC/HDL Ratio	5.0	**Date of Last:**	2014-10-02
LDL ⚠ Today's value is out of range! **Maximum: 2 mmol/L**	3.7	**Date of Last:**	2014-10-02
HDL	1.2	**Date of Last:**	2014-10-03

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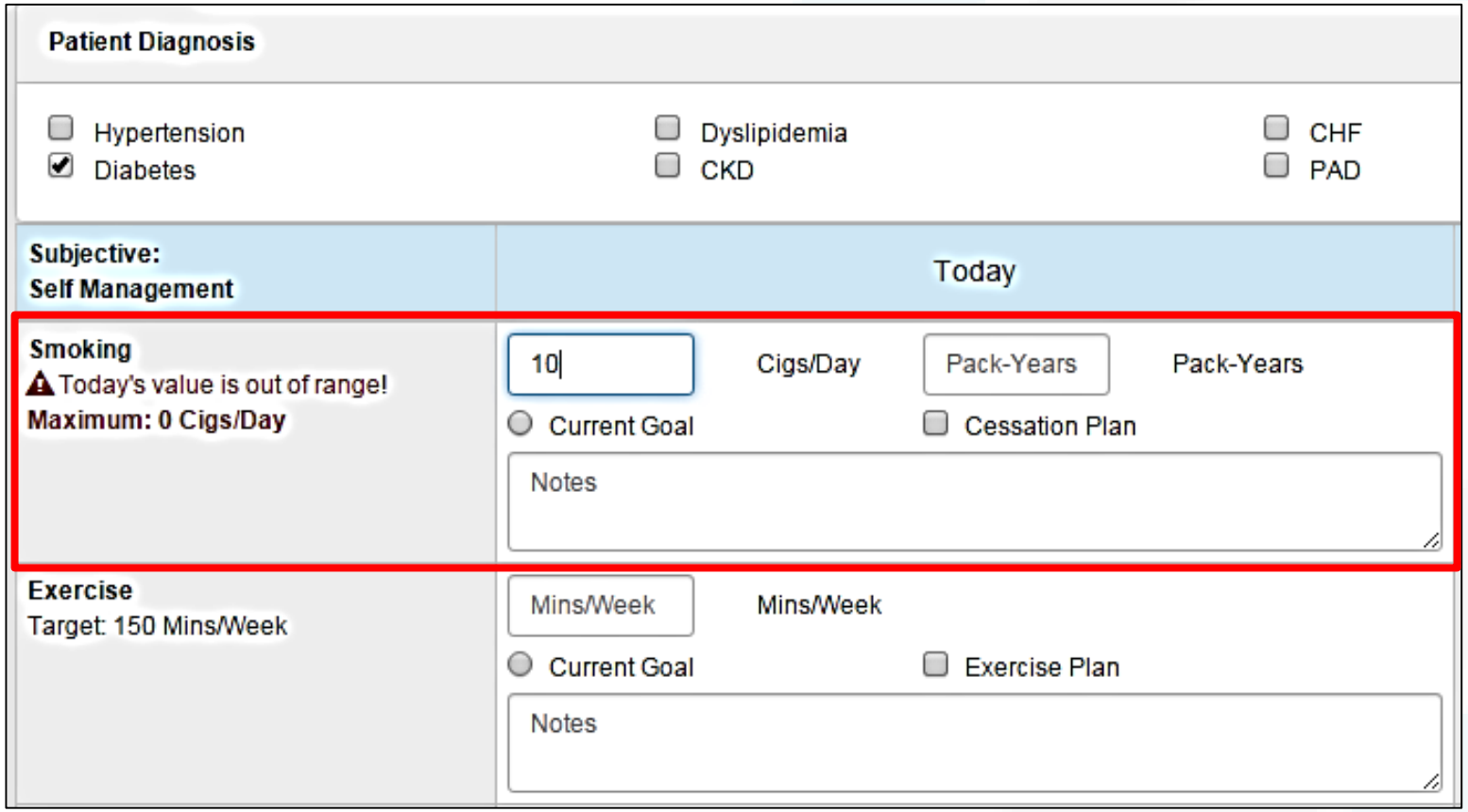
VHAST Prototype - Features

Feature #5 – Provide alerts based on integrated C-CHANGE guidelines



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VHAST Prototype - Features

Feature #6 – Categorize medication into applicable categories

Patient Diagnosis

☑ Hypertension	☐ Dyslipidemia	☐ CHF
☐ Diabetes	☐ CKD	☐ PAD

Plan: Treatments	Today	
Anti-hypertensive Diuretic		
ACEi/ARB	Ramipril 10 Mg	**Adherent:** ○ Yes ○ No Clear
	Ramipril 5 Mg	**Adherent:** ○ Yes ○ No Clear
	Ramipril 10 Mg	**Adherent:** ○ Yes ○ No Clear
CCB		
Alpha-blocker		
Beta-blocker		
Other	Omnaris 50µg	**Adherent:** ○ Yes ○ No Clear
	Ava Pantoprazole 40 Mg	**Adherent:** ○ Yes ○ No Clear
	Avodart 0.5 Mg	**Adherent:** ○ Yes ○ No Clear

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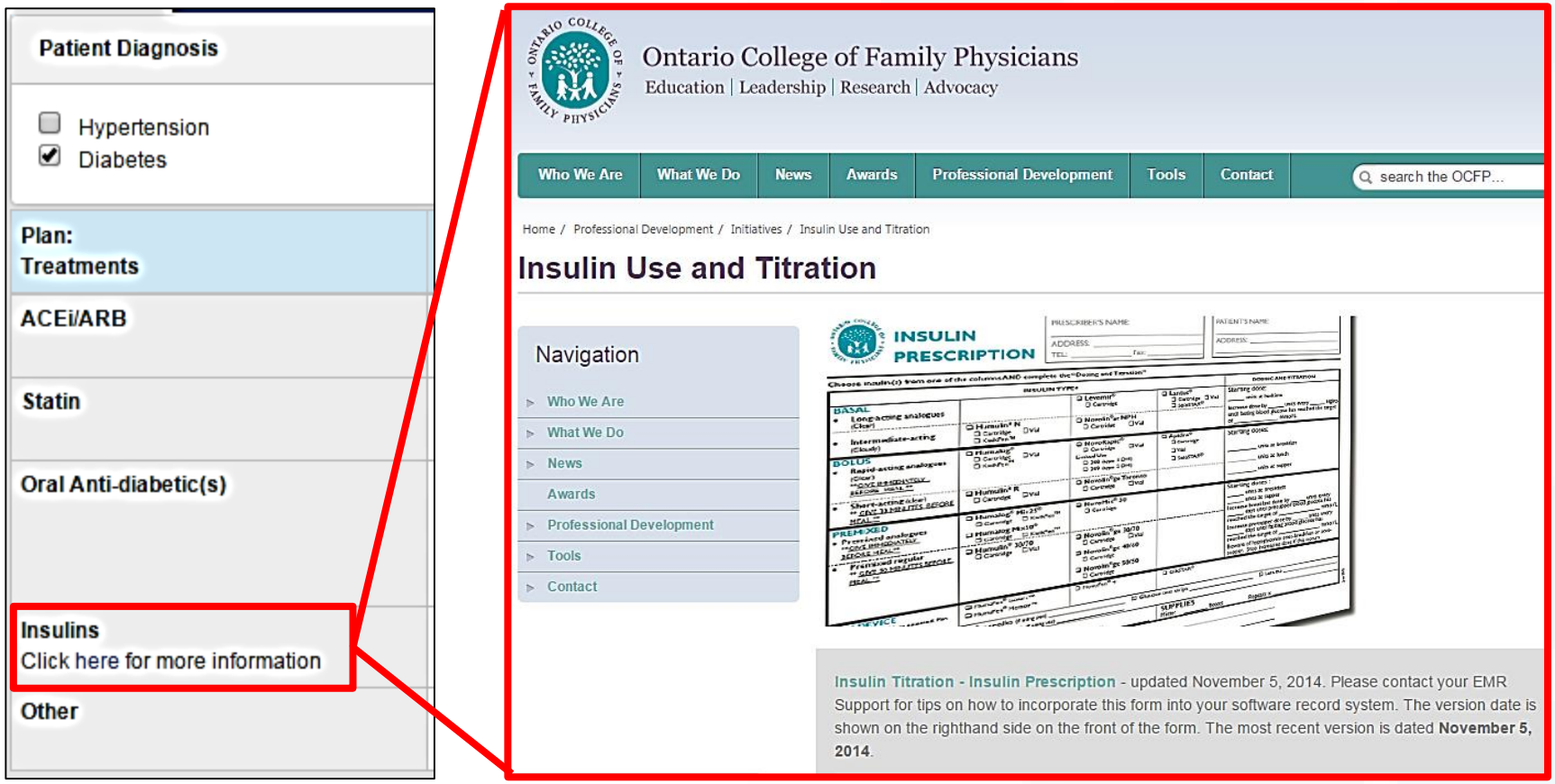
VHAST Prototype - Features

Feature #7 – Demonstrate simple, integrated clinical decision support



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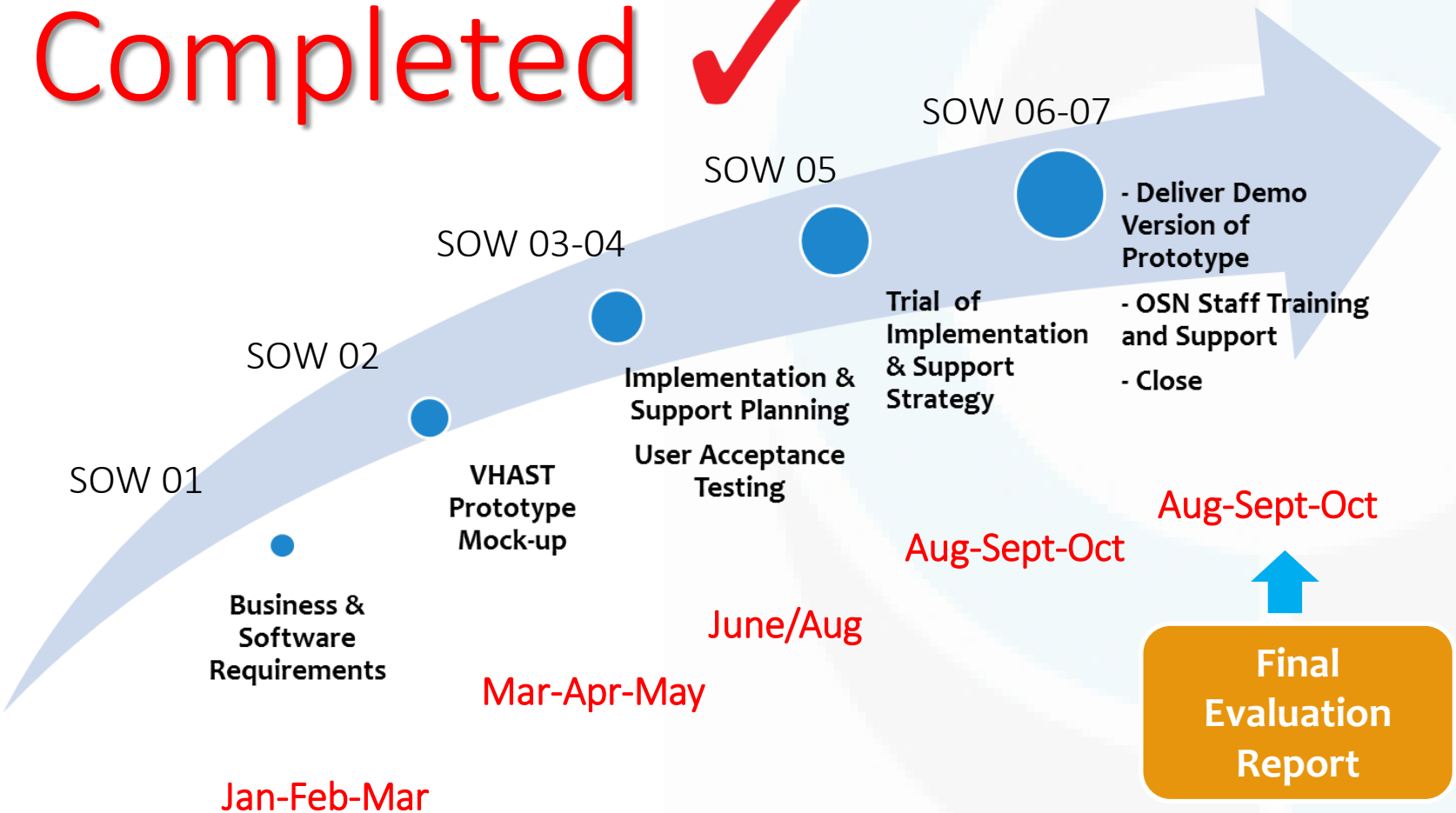
VHAST Prototype Project Timeline

Completed ✓



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Prototype Achievements

- VHAST prototype completion achieved October 2015
  - ability to pull existing data from an EMR offering
  - integrate care elements for the 8 vascular conditions
  - link data to relevant C-CHANGE recommendations
  - introduce value-added data transformations (Rx categorizing)
- Key milestones achieved including-
  - clinical and functional requirements gathered & logged
  - Usability Assessment Testing with 5 test cases by 12 different health care professionals at 7 Ontario PC organizations
  - report on findings including lessons learned

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Prototype Achievements

- VHAST prototype completion achieved October 2015
  "Proof of concept" features-
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- Key milestones achieved including:
  - clinical and functional requirements gathered & logged
  - Usability Assessment Testing with 5 test cases by 12 different health care professionals at 7 Ontario PC organizations
  - report on findings including lessons learned

"Covers a large number of patients in my practice & covers patients with more than one disease!" (PC physician)

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Future VHAST Benefits & Value Proposition

Value	Current Environment	Future State-VHAST
Capacity	▪ Data elements & flowsheets for 3 vascular conditions ▪ Not easily scalable	▪ Data elements for any combination of 8 vascular conditions ▪ Design scalable
Integration & Quality Improvement	▪ Search disparate, disease-centred views ▪ ↓Integrated CDM ▪ User-customized forms required	▪ Easily access common care elements within an integrated, patient-centred view ▪ Capacity to manage multiple CDs concurrently
	▪ Non-standardized data elements reside on individualized forms	▪ Common data elements displayed in data fields within a consistent, standardized view

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Future VHAST Benefits & Value Proposition

Value	Current Environment	Future State-VHAST
Clinical & Patient Decision Support	▪ Disease-specific CBPGs dissemination vary ▪ Limited access to integrated CBPG's in EMRs ▪ Data alerts vary	▪ Point of care decision support via EMR-embedded, harmonized guidelines (including C-CHANGE) ▪ Integrated care plan prompts for 8 vascular conditions
	▪ Rx not categorized by class ▪ Rx compliance per CBPGs not flagged consistently	▪ Categorizes vascular drugs Comparisons of patient Rx & CBPG-recommended drug therapy
Support Patient Self-Management	▪ No standard tracking of patients' readiness for modifying risk factors, lifestyle goals, or progress	▪ Incorporates tracking of patient lifestyle goals, priorities, behaviour change, progress & supports ▪ Links to patient education resources

VH: Vascular Health; CDM: Chronic disease management; CQI: Continuous quality improvement; KT: Knowledge translation; QIP: Quality improvement plan; CBPG: Clinical best practice guideline; C-CHANGE: Canadian Cardiovascular Harmonized National Guideline Endeavour; Rx: Prescription; HCP: Health care provider

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PCWG Priority 2: Vascular Health QI Toolkit

- PCPs ID'd need for *"Go To"* VH QI Toolkit to assist in developing & implementing QI Plans or projects
- Drafted "companion" QI resource & overarching AIM
- Initial complimentary Vascular Health topics chosen:

Hypertension Screening & Management	Smoking Cessation
Abdominal Aortic Aneurysm (AAA) Screening	CKD Screening (patients with diabetes)

- Completed draft QI elements templates for AAA screening hypertension screening & management, smoking cessation, CKD screening (patients with diabetes)
- Future Plans: Test & evaluate with interested PC sites; Format into web based tool

Hypertension Management – Improving screening, identification and management of hypertension for adult patients in Ontario

How might our primary care team improve the processes within our clinic to support hypertension management for more patients?

Imagine having access to information on patients in your practice/organization that facilitates identification of those whom would most benefit from hypertension interventions? Who would that patient be and how might the improvement change their care experience, their health journey, their life?

The Reason for the Effort

- *Carol, age 67, was unaware that her blood pressure was uncontrolled and this has resulted in the decline of kidney function. Imagine being able to screen and follow the 'Carols' in your practice to ensure this does not happen?*
- *Ahmed, age 38, has a family history of high blood pressure but was shocked to learn that he has high blood pressure at his age. The screening program offered at his primary care clinic enabled him to learn about treatment options and self-management approaches to reduce risks for his cardiac and vascular health.*

Background

Hypertension is a major risk factor for cardiovascular morbidity and mortality and is the highest ranking diagnostic category for drug expenditures in Canada [1]. In 2000, hypertensive heart disease, which includes high blood pressure and any conditions due to high blood pressure, was the leading contributor to cardiovascular disease drug costs (60.2%). Hypertensive heart disease accounted for 26.5% of physician costs [2]. In 2003, the estimated direct healthcare cost of hypertension in Canada was $2.4 billion. In 2007, 21.1 million visits to community physicians were attributed to hypertension. With the current demographic changes due to the aging of the 'Baby Boomer' generation and an unusually large cohort born between 1946 and 1965, provincial health plans are grappling with how to plan for the 'silver tsunami' as this generation become senior citizens over the next 23 years.

Epidemiologic studies have indicated that, for people aged 40–69 years, each increase of 20 mm Hg in usual systolic blood pressure is associated with a doubling of mortality rates for stroke and ischemic heart disease. Hypertension also referred to as the 'silent killer', affecting 21.3% of the adult population (23.8% of men and 19.0% of women). Prevalence increases with age, from 3.4% among people 20–39 years of age to 51.6% among those 60–79 years of age. According to the Heart and Stroke Foundation of Ontario 2006 Ontario Survey on the Prevalence and Control of Hypertension (ON-BP), [3] there has been a significant improvement in the treatment and control rate since the Canadian Heart Health Survey: among those with hypertension, 65.7% are treated and controlled. However, one-third of Ontarians with hypertension are still not treated and their blood pressure is not well controlled. In a recently published study of hypertension management in Ontario primary care practices, screening, treatment and control rates were 92.5%, 86.4% and 44.9% respectively [4].

QI Initiative Elements

QUALITY DIMENSIONS: Effectiveness; Population health

AIM: Improve the screening, identification and management of hypertension for adult patients in primary healthcare teams in Ontario with a focus on patients at high risk for development of vascular diseases.

MEASURES: **General Focus –** Screening & Identification

Outcome Measures	Process Measures	Balance Measures
	% of adult patients 18 years of age or older with a B/P value in the EMR *	
% of adult patients diagnosed with hypertension and w B/P value ≤140/90	% of adult patients 18 years of age or older with a diagnosis of hypertension	

*B/P values may be obtained during regular scheduled office visits or may be provided by patients in follow-up to B/P measurement at another location, e.g. community pharmacy.

MEASURES: **High Risk Factor Focus –** Screening, Identification & Management

Outcome Measures	Process Measures	Balance Measures
	- % of adult patients 18 years of age or older with identified risk factors such as diabetes*	
% of adult patients w identified risk factor(s)* w B/P value ≤ 140/90 in EMR	% of adult patients w identified risk factors such as diabetes* w B/P value in the EMR	

* Risk factors include:
- Diabetes
- Vascular diseases – cerebral vascular disease (CVD), chronic kidney disease (CKD), peripheral arterial disease (PAD), coronary artery disease (CAD)
- Behavioural activities - smoking
- Other – Obesity
- Ethnicity - Southeast Asian, African, Aboriginal

CHANGE IDEAS:

1. *Focus on **data discipline** to support primary care providers to screen populations with the intent to measure blood pressure*

    - Implement an evidence-informed hypertension flow sheet (e.g., OSN Hypertension Management Program Flowsheet; Vascular Health Assessment and Support Tool (VHAST) when available) for standardized, consistent assessment and documentation in electronic medical record (EMR)
    - Map the hypertension patient journey from diagnosis including anti-hypertensive medications where relevant

2. **Decision support aids** *for patients*

    - Implement the provision of website links, online and paper-based information tools to support self-management and increase awareness of hypertension risks and/or management of B/P, e.g. patient resources from the Ontario Stroke Network, **Hypertension Management Program (HMP)** (http://ontariostrokenetwork.ca/hmp/)

    - Implement the provision of website links, online and paper-based information tools to support self-management related to behavioural modification such as related to smoking cessation, weight loss, exercise programs

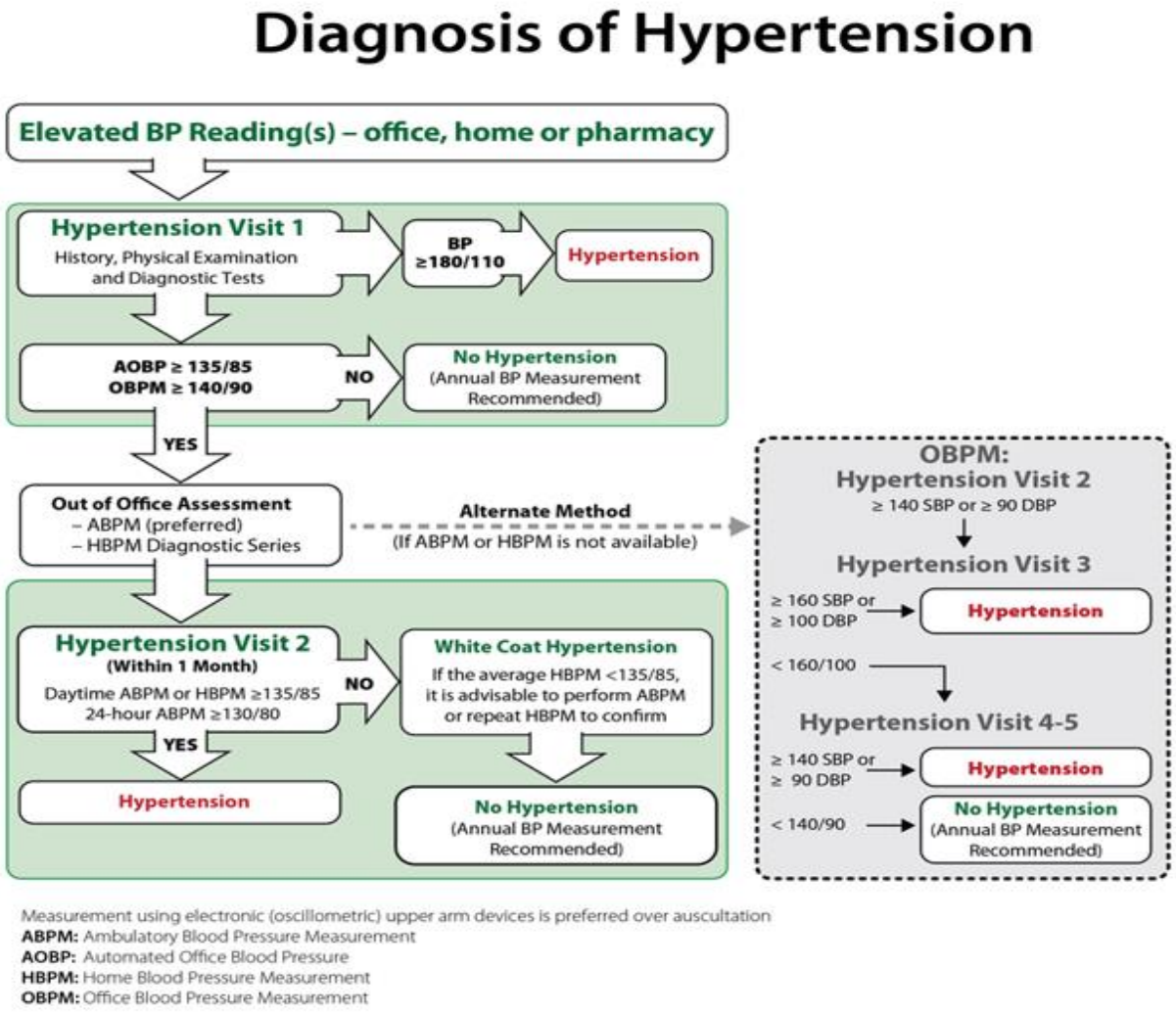
3. ***Decision support aids** for health care professionals*
    - HCP and staff training/education
    - Use of a hypertension medical directive (e.g., Vascular Health Medical Directives when available) to enhance capacity for interprofessional team collaboration in care delivery.

QI Plan Template

AIM		Measure				Change			
Quality Dimension	**Objective**	**Measure/Indicator**	**Current Performance**	**Target for 2015/16**	**Target Justification**	**Planned improvement initiatives (Change Ideas)**	**Process measures**	**Change ideas (2015/16)**	**Comments**
Effective/Population Health	**Improve the screening, identification and management of hypertension for adult patients in primary healthcare teams in Ontario with a focus on patients at high risk for development of vascular disease such as diabetes.**	• % of adult patients diagnosed with hypertension and w B/P value < or = to140/90 • % of adult patients w identified risk factor(s) w B/P value < or = to 140/90 in EMR				**PROVIDER** - EMR-Focused change ideas **PATIENT** - Patient decision-support-focused change ideas	1. % of adult patients 18 years of age or older with a B/P value in the EMR 2. % of adult patients 18 years of age or older with a diagnosis of hypertension	1. EMR reminder/recall systems 2. Decision support aids 3. Pharmacological prescribing 4. Behavioural support	
						PROVIDER - EMR-Focused change ideas **PATIENT** - Patient decision-support-focused change ideas	1. % of adult patients 18 years of age or older with identified risk factors 2. % of adult patients w identified risk factors w B/P value in the EMR	1. EMR reminder/recall systems 2. Decision support aids 3. Pharmacological prescribing 4. Behavioural support	
Integrated									
Patient-Centered									

Quality Improvement Tools

Process Map



Measurement using electronic (oscillometric) upper arm devices is preferred over auscultation
ABPM: Ambulatory Blood Pressure Measurement
AOBP: Automated Office Blood Pressure
HBPM: Home Blood Pressure Measurement
OBPM: Office Blood Pressure Measurement

Hypertension Canada. (2015) Criteria for diagnosis of hypertension. Retrieved from http://guidelines.hypertension.ca/diagnosis-assessment/diagnosis/

Provider Resources

The Ontario Stroke Network's Hypetension Management Program (HMP)

http://ontariostrokenetwork.ca/hmp/

Hypertension Canada

https://www.hypertension.ca/en/chep

Patient Resources

The Heart and Stroke Foundation of Canada-Blood Pressure Action Plan

https://etools.heartandstroke.ca/HeartStroke/BPAP.Net/Tracker.aspx

Hypertension Canada

http://guidelines.hypertension.ca/patient-resources/

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Future Planning

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2016/17Work Plan Elements

Priority 1: The VHAST (Complete ß Prototype)

1. Engage & assess readiness with key stakeholders & optimum development pathway
2. Conduct environmental scan of current systems
3. Preliminary recommendations for next phase VHAST development
4. VHAST Privacy Framework report and program agreement updated
5. Link to best practice resources

Priority 2: QI Toolkit & Medical Directives

1. Recommend refinement and further development of QI Toolkit
2. Recommend vascular health medical directives supporting PC

Priority 3: Integrated VH Care

1. Engage and align with provincial efforts to advance integrated vascular health care

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Vascular Project Timeline

2015/16 → 2016/17 → 2017/18 → 2019 & Beyond

- Complete requirements to inform final version of prototype
- Confirm solution & architecture goals

on schedule

- Build requirements in next iteration
- Check functional requirements
- Test at 10-12 sites-2 LHINs
- Test scope for all VH Dx (e.g., PAD, dementia, TIA)
- Confirm ICES role

- Full scale pilot & research strategy
- Complete L-T scalability & sustainability plan
- Migrate HMP into VH Program

- Increase research & implementation
- Consider incorporation of other chronic conditions

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Making the Connection & Sharing Current Initiatives

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Recognition of PC Priorities

Recognition that programs, tools, resources and initiatives from others key primary care stakeholders further support integrated vascular health care delivery

MoHLTC-

- *Patient's First: A Proposal to Strengthen Patient-Centred Health Care in Ontario*-focused on population health & integration at local level
- *Preventing and Managing Chronic Disease: Ontario's Framework*
- Health Links further support an integrated VH delivery based in PC

HQO & AFHTO-QIDSS

- Tools and resources to support primary care teams in relation to Quality Improvement (e.g., QIPs, Primary Care Practice Reports, Quality Compass)

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Connecting the Dots & Next Steps

- There are many dedicated individuals who have and will freely give up their time and expertise to advance and inform this work
- Ongoing identification and engagement of VH champions/leaders from all areas of the heath care system is necessary for continued momentum

Thank You!

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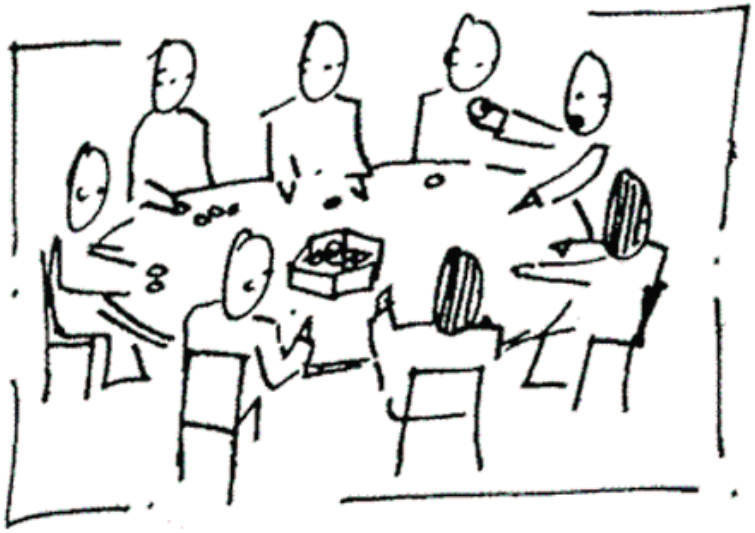

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Environmental Scan/ Discussion Questions

1. What are some current integrated vascular health initiatives, programs, resources in place in your PC setting?
   - *Share successes & learnings*
2. How do we support improved integration through enhanced information systems, data collection and data sharing?
3. What components of the VH PC approaches are most important to your programs? What is missing?
4. What are the anticipated gaps and facilitators to mobilize readiness and gain support for the PC vascular health resources?
5. If interested, how do we remain connected?

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Resources

Hypertension Management Program & Primary Care Programs: www.ontariostrokenetwork.ca

Cardiac Care Network: http://www.ccn.on.ca/ccn_public/FormsHome/HomePage.aspx

Health Quality Ontario: http://www.hqontario.ca/

Ministry of Health and LTC: http://www.health.gov.on.ca/en/