

# WELCOME

## **Dragon's Den: Pitching real-life innovations in EMR queries**

*Six Ontario teams make their pitches*

# Presenter Disclosure

- **Relationships with commercial interests:**  
None, except where noted in individual presentations

# Disclosure of Commercial Support

- **None, except where noted in individual presentations**
- **Potential for conflict(s) of interest:**  
None

# Mitigating Potential Bias

- No significant sources of bias have are declared.

**Partnering for Quality**

Working together to  
improve health outcomes

# Beyond an Electronic Paper File – Optimizing Your EMR

**AFHTO Conference  
October 28, 2015**



*A Healthier Tomorrow*

# *Disclosures*

## Presenters:

Rachel LaBonté – Program Lead, Partnering for Quality Program

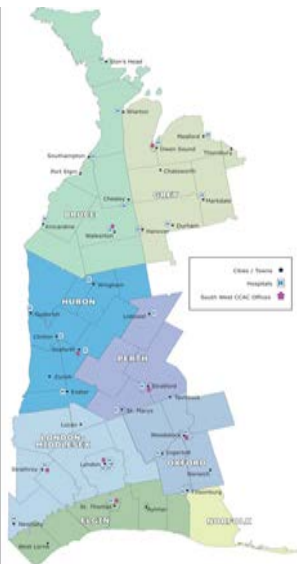
Gina Palmese – eHealth Coach, Partnering for Quality Program

No Relationships with commercial interests or support to declare

No conflict of interest to declare

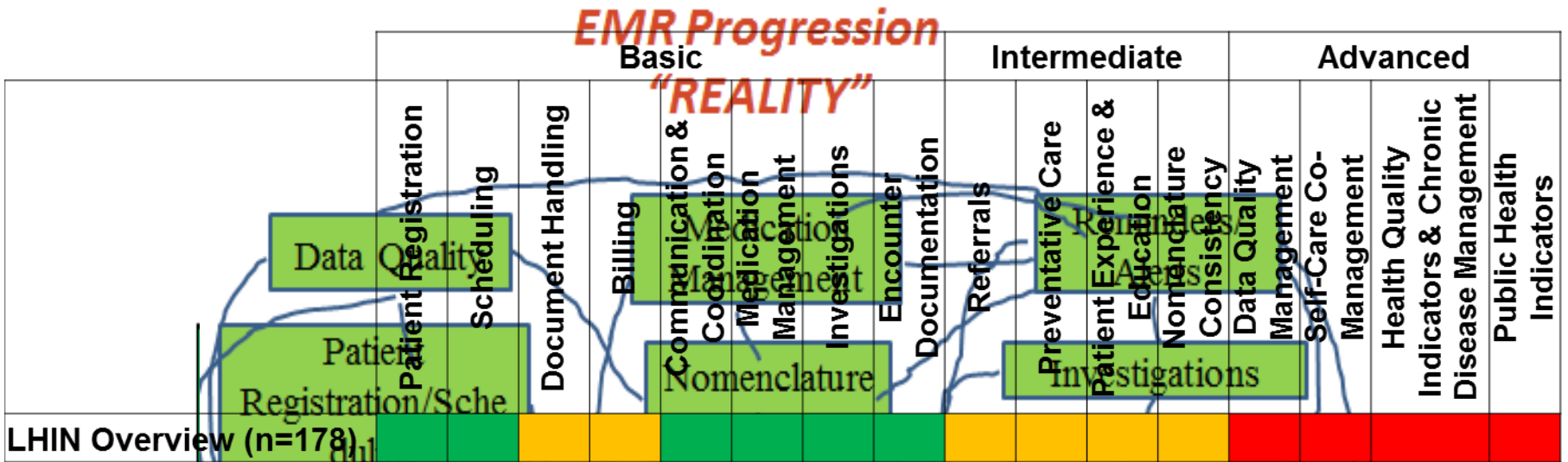
# *Partnering for Quality - Who are we?*

- Our mandate is to support primary care in optimizing their EMR in order to implement practice changes in chronic disease management.
- Working with over 700 Stakeholders and 335 physicians (in all makes/models of primary care CHC, NPLC, FHT, FHO, Solo Practices)



South West LHIN funded – hosted  
at the South West CCAC

# What problem does this solution address?



## Features with highest use:

- Patient Registration
- Scheduling
- Communication & Coordination
- Encounter Documentation

## Features with lowest use:

- Data Quality Management
- Self Care Co-Management
- Health Quality Indicators & Chronic Disease Management
- Public Health Indicators

Legend	
< 50% of respondents using EMR feature	Red
51% - 80% of respondents using EMR feature	Yellow
> 80% of respondents using EMR feature	Green



## *The Solution*

# DATA STANDARDIZATION

*Why bother?*

Critical to ensure the right decisions are being made with the right data located in the right place at the right time

- Accessing point of care patient information
- Reducing clinical workflow duplication
- Optimized use of the right forms, templates or stamps
- Patient recalls at the right time
- Population Health
- Engagement in Health Links
- Etc.

# DATA INTEGRITY

# Data Standardization Tools...

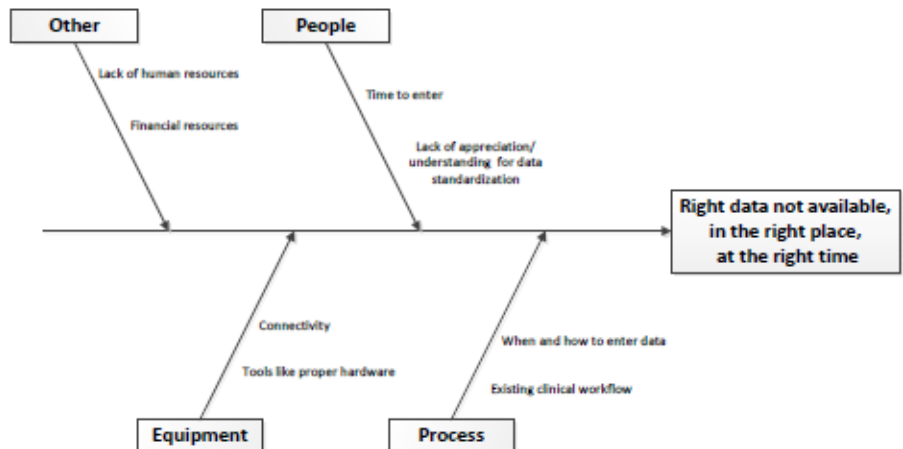
ICD codes: Problem List	Family Hx
70 Viral Hepatitis (Acute)	429 CVD
249 Pre-Diabetes (HbA1C between 6-7)	<b>Infectious Alerts (Alerts Captured in Demographics)</b>
250 Diabetes Mellitus	HIV
272 Hypercholesterolemia	Hepatitis B or C
290 Dementia	MRSA
296 Bipolar Depression	TB, VRE positive patients
300 Anxiety	<b>Influenza Tracking Codes (Billing)</b>
303 Alcoholism	G590 Active Immunization with a Visit
304 Drug Dependence	Q590 Active Immunization without a Visit (sole reason for visit)
305 Smoking	<b>Immunization Tracking Codes (Billing)</b>
309 Acute Situational Crisis	G840 Quadracel: Quadrivalent vaccine (DTaP-IPV)
311 Depression	G841 Pedicel: Pentavalent vaccine (DTaTIPV-Hib)
314 ADHD	G842 Hepatitis B vaccine
401 Hypertension	G843 HPV vaccine
428 CHF	G844 Menjugate (Conjugate meningococcal C vaccine)
436 Stroke (CVA)	G845 MMR vaccine
491 COPD	G846 Prevnar / Pneumovax (Conjugate pneumococcal vaccine)
493 Asthma	G847 Adacel (Tdap vaccine)
571 Cirrhosis of the Liver	G848 Chicken Pox (Varicella vaccine)
573 Other Liver Disease	<b>Immunizations (in Patient's CPP)</b>
585 Chronic Renal Failure	Tetanus
733 Osteoporosis	<b>Preventative Care Tracking Codes (Billing)</b>
896 Immunization	Q130 Influenza Vaccine TRACKING CODE for Patients Age 65 and Over - out of office
897 Economic Problems	Q011 Pap Smear TRACKING CODE for Patients Between Age 35 and 70
898 Marital Difficulties	Q140 Pap Smear EXCLUSION CODE for Patients Between Age 35 and 70
901 Family Disruption/Divorce	Q131 Mammogram TRACKING CODE for Patients Between Age 50 and 70
902 Educational Problems	Q141 Mammogram EXCLUSION CODE for Patients Between Age 50 and 70
905 Occupational Problems	Q132 Immunizations TRACKING CODE for Patients Age 2 and Under
906 Legal Problems	Q133 Colorectal Screening TRACKING CODE for Patients Between Age 50 and 74
<b>Social History</b>	Q142 Colorectal Screening EXCLUSION CODE for Patients Between age 50 and 74
ACP/ACD	<b>Procedures &amp; Preventative Care</b>
Alcohol non-drinker (tick box)	Pap Smear. : System
Contraception	Exclude Pap Smear : System
Disability: WSIB/ODSP/ CPP (dropdowns)	Mammogram : System
DNR	Exclude Mammogram : System
Driving Status	Colonoscopy : System
Drugs	FOBT : System
EDITH	Exclude FOBT : System
Employment	spirometry : Diagnostic Testing *
Family: list members	ECG : Diagnostic Testing *
Hobby	Echocardiogram : Diagnostic Testing *
Marital Status	PHQ-9 : Screening
Narcotic Agreement	PPS : Screening
Tobacco (current/ex-smokers: dropdowns) non-smoker (tick box)	Cognitive Screen : Screening
	Thoracic Screen : Screening
	BMD : Screening

\* variations in Diagnostic Testing (i.e. diagnostic test, diagnostic testing)

# *Implementing the Solution:*

- It's not just about a tool – it's about empowering clinicians/teams
- It's using simple quality improvement methodology to get to the root cause (change management)
- Need to actualize the benefits to clinicians at every level (\$\$; patient care; quality focus, Professional College requirements)

Possible reasons for 'Right data not available in the right place at the right time'



## *Sustainability: Keeping things on track*

- **Commitment** from leadership and of staff to keep the work going
- **Understanding** of tools that need to be in place for data integrity sustainability
- **Training/learning** to enhance skill level
- **Feedback mechanism** – how will you know if things stay on track if you don't monitor.

# *How does solution make a difference to patients?*

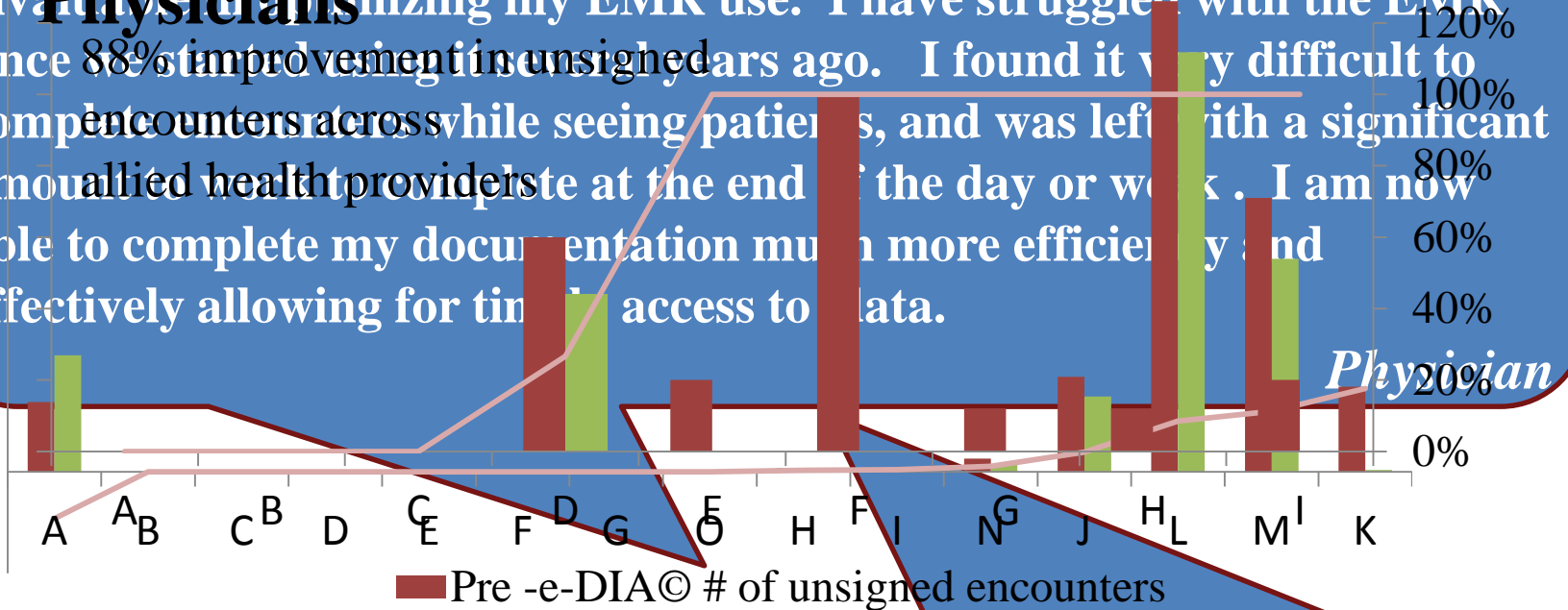
- **Accurate and reliable** data in the right place at the right time (at point of care and to retrieve data)
- Clinicians understand how their **data entry impacts patient care** and entire team
- **Improved screening** due to real time data vs. retrospective data
- **Increased organized care** – information in the right spot minimizes searches

I have found the help I have received through the DSP project to be invaluable in optimizing my EMR use. I am now able to complete my documentation much more efficiently and effectively allowing for timely access to data.

- Physician

# The Outcome

I have found the help I have received through this work to be invaluable in improving my EMR use. I have struggled with the EMR since 88% improvement in unsigned encounters across while seeing patients, and was left with a significant amount of allied health providers at the end of the day or week. I am now able to complete my documentation much more efficiently and effectively allowing for timely access to data.



The data standardization process has, from an efficiency perspective, allowed us to identify our specific patient populations by e-DIA© coding. In Comparing volume of unsigned encounters pre e-DIA© and post e-DIA©. Physicians: 'B-I' maintained zero unsigned encounters during project while Allied health providers A-C maintained zero unsigned encounters during project while remaining AHP's decreased or eliminated encounters entirely. Compliance and follow up. Both measures will contribute to better patient care and quality outcomes.

*Physician*

# Dragon's Den

**Optimizing EMRs to Accurately Identify COPD  
and other Chronic Disease Patients**

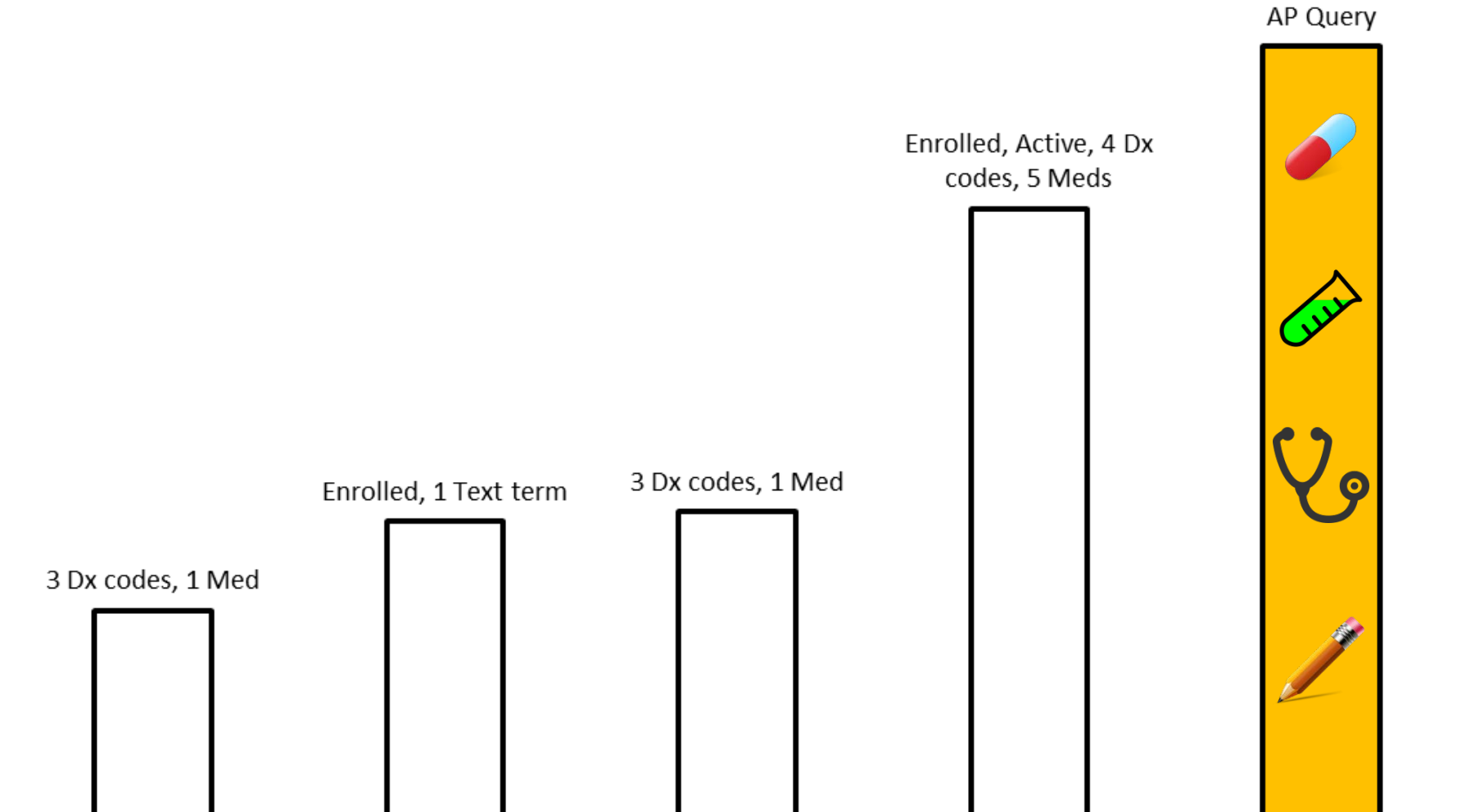
**Sara Dalo, Thiv Paramsothy and Brice Wong  
October 29, 2015**

# Key Messages

1. Improve collaboration
2. Access to clinical data & consistent searches
3. Easy and early identification
4. Improve patient outcomes
5. Reduce costs to healthcare system



# Comprehensiveness



# AP Methodology

## Step 1

Identify priority conditions

## Step 2

Leverage existing case definitions



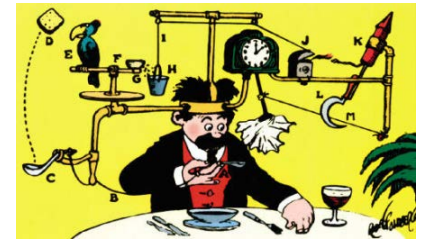
## Step 3

Collaborate with experts



## Step 4

Test searches



## Step 5

Revise searches



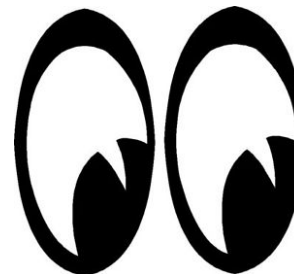
## Step 6

Search retrieval



## Step 7

Validation



## Step 8

Extract reliable and meaningful data from EMR

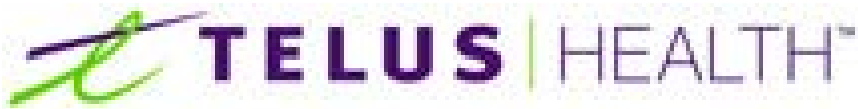
# Sustainability

- Running query
- Facilitate conversation & collaboration
- Review the list
- QI and QIP Committees
- Use the data to improve data quality
- Recruit champion
- Reinforcing consistency improves flow

# EMRs Involved



Nightingale



PS Suite<sup>®</sup> EMR



# Presenter Disclosure

- **Presenters:** Dr. Mohamed Alarakhia, Kathryn Flanigan, Masood Darr
- **Relationships with commercial interests:**
  - None

# Disclosure of Commercial Support

- None
- Potential for conflict(s) of interest:
  - None

# Mitigating Potential Bias

- None

***USING EMR DATA  
TO TRANSFORM  
PATIENT CARE***

**MASOOD DARR**

**KATHRYN FLANIGAN**

**MOHAMED ALARAKHIA**

***THE EHEALTH CENTRE OF EXCELLENCE***



***NOT TOO LONG AGO, IN SOUTH WEST ONTARIO***

**IT IS A PERIOD OF GREAT EHEALTH  
ADVANCEMENT IN PRIMARY CARE.**

**THE MAJORITY OF PRIMARY CARE  
PRACTITIONERS HAVE ADOPTED AN EMR.  
BUT – THERE IS A GREAT DISPARITY IN THE  
LEVEL OF INFORMATION MANAGEMENT,  
AND PATIENT CARE OPPORTUNITIES  
ARE BEING MISSED...**

## **STAGE 1 – TWO FHTS**

- \* EMR data standardization of 40, 000 patient records
- \* Training, tools and support for on-going data standardization by clinicians at the point of care
- Environmental scan of primary care clinicians, and literature scoping review of 40 articles to inform on data standardization best practices

Feb 5, 2015

Encounter - Condition List

Anxiety disorder

Asthma

Atrial Fibrillation

Coronary Artery Disease (CAD)

Cerebrovascular (CVA)

COPD

Congestive Heart Failure (CHF)

Dementia

Depression

Diabetes - Gestational

Diabetes - Type1

Diabetes - Type2

Hypertension

MCI

Multiple Sclerosis (MS)

Osteoporosis

Parkinson Disease

Spinal Cord Injury (SCI)

Finish

***POINT AND CLICK CODING***  
eHealth Centre of Excellence  
2015

# STAGE 1 – TWO FHTS

\* Implementation of automated best practice care reminders, based on standardization data

Reminder Name: \_\_\_\_\_

CPP Prob SNOMED CT any item starts with DB-61030  
Or  
CPP HPH SNOMED CT any item starts with DB-61030  
and  
Creatinine [Cr] months since latest >=12

! Insert Lab Req - Select Diabetes Long

Ensures all diabetic patients have their creatinine levels tested every 12 months

Reminder Name: MD CHF

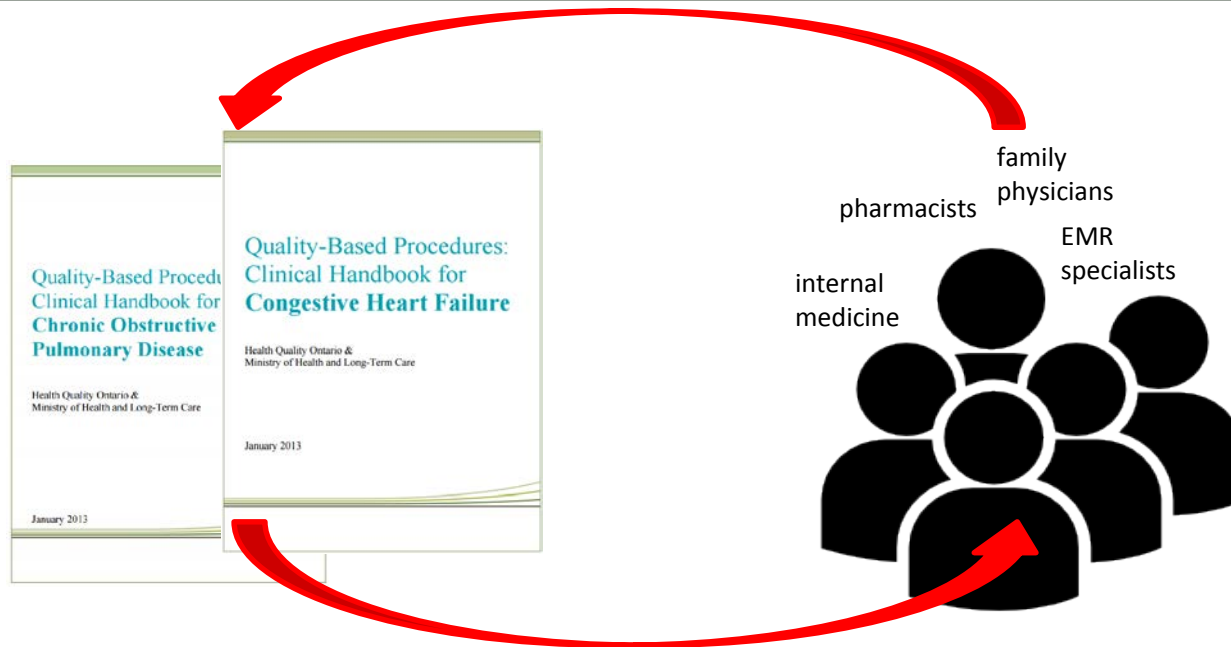
PROB/Problem List/Problem List contains D3-16010  
and  
pneumococcal [all types] number of times done = 0  
and  
influenza virus vaccine months since latest >= 12

Flu shot and Pneumococcal vaccine for CHF patient

Ensures all CHF patients are vaccinated against influenza and pneumonia

## ***STAGE 2 – TWO FHTS, TWO FHOS, 1 CHC, 1 NP CLINIC***

- \* Implementing CDPM standardization across the WWLHIN
- \* Chronic disease patient searches for Telus PSS EMR and Data Miner for Nightingale EMR
- \* CDPM EMR Templates and indicators



# STAGE 2 – TWO FHTS, TWO FHOS, 1 CHC, 1 NP CLINIC

- \* Templates developed with input from clinical experts
- \* Ensures best practice patient care and capture of clinical indicators in a searchable format

**Comorbidities**  DM  HTN  AFib  Asthma  CHF  Obesity  Ruled out asthma & other lung diseases <sup>0</sup>

**Spirometry** FEV1%  FEV1/FVC:  FEV1% Class:   
 O2 Saturation  Recommend ABG?

New COPD diagnosis

**Immunizations**  
 Influenza (annually): Last: Nov 18, 2008  
 Pneumococcal: Last: May 17, 2011

(pneumococcal at least once; in high-risk patients, consider repeating in 5-10 years (level 3)

Date of Last COPD Exacerbation:   ER / Hospitalization required  
 Frequency past year:  0  1  2  >3 date of last:

**Co-Morbid Conditions**  
 PHTN (Consider if ankle swelling)  No  Yes  
 Depression:  No  Yes

Dyspnea scale:   
 COPD Classification:

**History**

**Wt:**  **Due** **Ht:**  99 **BMI:**   
**Physical Exam** RR:   Dyspnea at rest  Crackles  Wheezing  Peripheral edema

**Management** **Last Done**

Reviewed Need for Supplemental O2 <sup>0</sup>  never done **Due**  
 Reviewed Need for Nocturnal Ventilated Support  never done **Due**  
 Current Smoker  Ex-smoker  Never smoked  Smoking Cessation Discussed  Smoking Cessation Program

**Education**

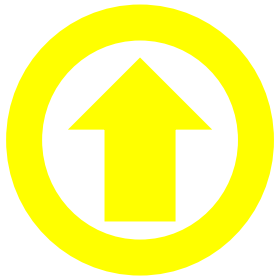
[Flowsheet](#)

[Refresh](#)

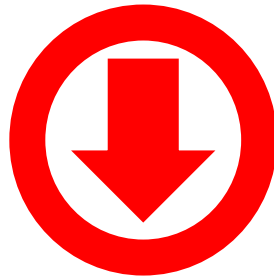
	Latest Value	Last Done	Aug 20 2015	Aug 21 2015
FEV1%				
O2sat				
DyspneaScale				
Weight (Wt:)	15	Aug 20	15	15
Height (Ht:)	99	Aug 21	99	99
BMI (calc from Ht & Wt)	15.3	Aug 20	15.3	15.3
RR				
Hb	133 G/L	13 Mar		
Cr				
Oxygen Saturation				
pO2				
pCO2				
CO3				
pH				
Chest X-Ray	X	08 Jun		
Respirology				
prednisone				



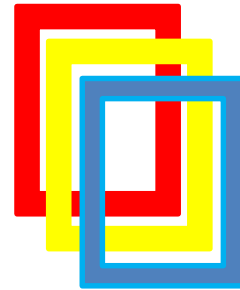
# *RESULTS*



109%  
Increase in  
creatinine  
tests



82%  
Decrease in  
unvaccinated  
CHF patients



91  
Clinicians using  
standard CDPM  
templates



3  
Options for  
Primary Care to  
pursue  
EMR value

# MODEL OPTIONS

## **BASIC**

Chronic disease search algorithms  
Improved basic report generation  
Improved EMR functionality  
Standard chronic disease templates

**Resources: Data Analyst, Technical Lead , Change Management Lead**

## **INTERMEDIATE**

Historical data standardization  
Workflow analysis and changes integrated into organizational processes  
Improved organizational processes including advanced searches and billing efficiencies  
Improved intra/inter-organizational referrals for CDPM

**Resources: Basic + Project Management**

## **ADVANCED**

Links to clinical guidelines and proactive CDPM (interventions)  
Dashboard for performance improvement, development and QIP  
Communications interface, referral specific tools.

**Resources: Basic & Intermediate + Health Education Lead, Decision Support/Health Informatics Specialist**

# Leveraging Convergence of Healthcare Delivery, Business Dynamics, and Technology Advancements to Advance Collection and Utilization of Meaningful COPD Patient Data

Dr. Greg Armstrong

Dr. Doug Kavanagh

Stephen Graper



# Presenters Disclosure

Presenters	Relationships with Commercial Interests
Dr. Greg Armstrong	None
Dr. Doug Kavanagh	Medical Director and Co-Founder, CognisantMD Inc. (Ocean provider) - shareholder
Stephen Graper	President and Founder, Healthcare Together Ltd - shareholder

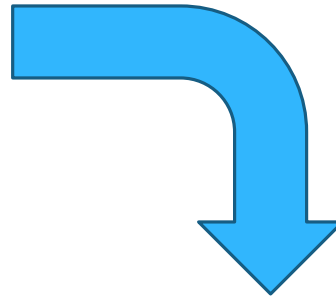
# Disclosure of Commercial Support

- \* The COPD program has received external implementation support from CognisantMD, founder of the Ocean platform and Healthcare Together Ltd. which provides support for the adoption and utilization of the Ocean platform.
- \* The Couchinching Family Health Team has received financial support from Boehringer Ingelheim (Canada) Ltd. in the form of a restricted grant.
- \* This presentation has not received any external financial support.
- \* **Potential for conflict(s) of interest:**
  - \* The Ocean platform, developed by CognisantMD will be discussed in this program.

# Mitigating Potential Bias

- \* Dr. Greg Armstrong, Couchiching Family Health Team lead physician will be presenting the results of the program.

# Ocean Platform



**PHIPA Compliance**



**EMR Integration**



**Secure data**

Sep 24, 2015

SG/Ocn

*Changing smoking status from 'never smoked' to 'smoker - 30-40 cigarettes/day'.*

Consent: [@EmailConsentLongForm](#): **Granted** - The patient provides informed consent to communicate clinical information using email.

The email address to use is: [steve.graper1@gmail.com](mailto:steve.graper1@gmail.com)

CFHT Email Confirmation

[Steve.graper1@gmail.com](mailto:Steve.graper1@gmail.com)

**Smoking Screen:** Your Smoking Status

**Currently smoking.** Cigarettes/day: **30-40**

How soon after you wake up do you smoke your first cigarette? **5-30 minutes**

Urged patient to quit. Smoking cessation counseling provided according to the "5 A's" protocol. **Bill E079 code if eligible; book follow up appt for smoking cessation.**

**The patient is interested in participating in the smoking cessation program. Provide a copy of the Smoking Cessation Program Invite or email information if email consent given**

**Canadian Lung Health Test**

Do you cough regularly? **"Yes"**

Do you cough up phlegm regularly? **"Yes"**

**@CLHT: 2**

**Positive screen: spirometry indicated to screen for COPD**

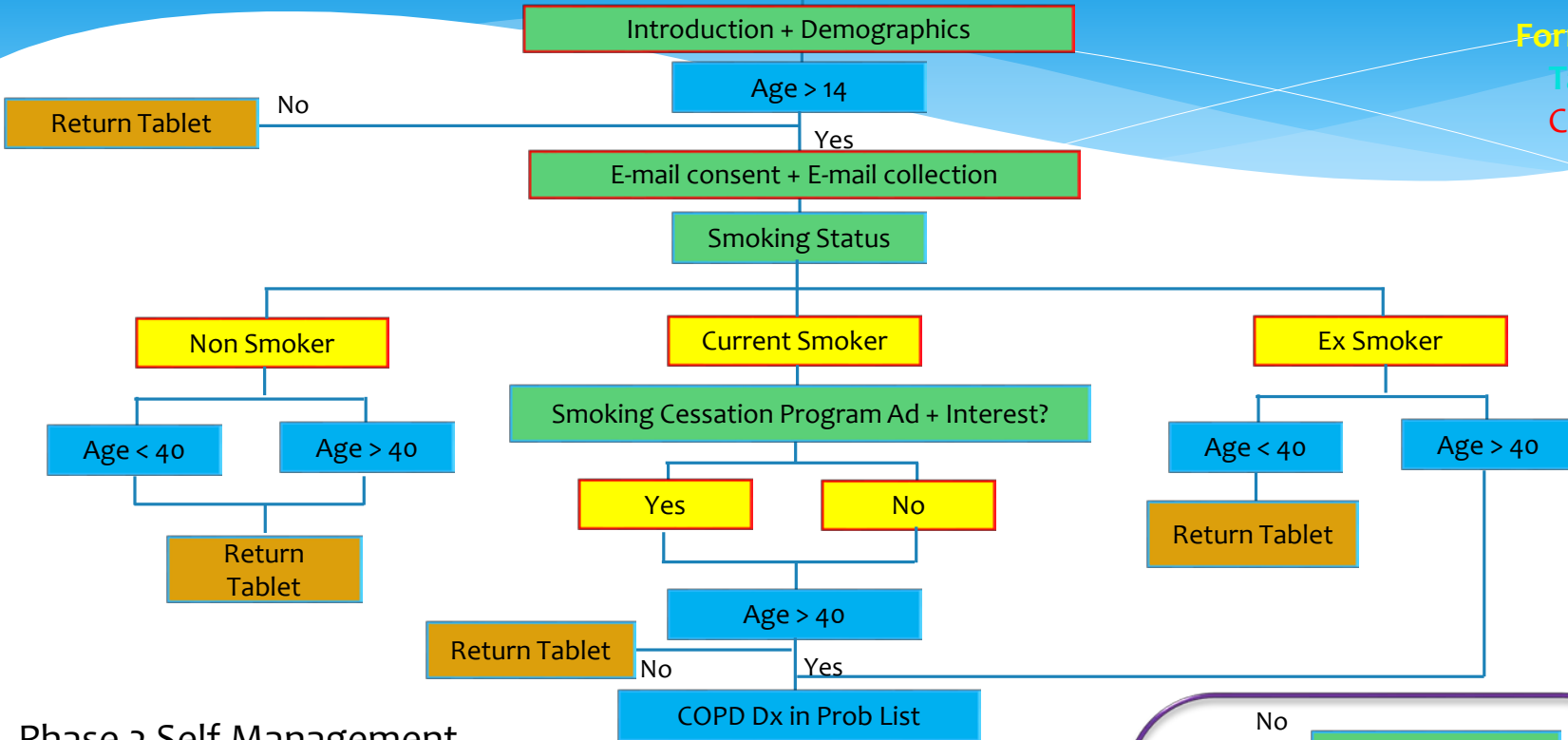
**MRC Dyspnea Scale @MRC: 4**

(Stops for breath after walking 100 yards)

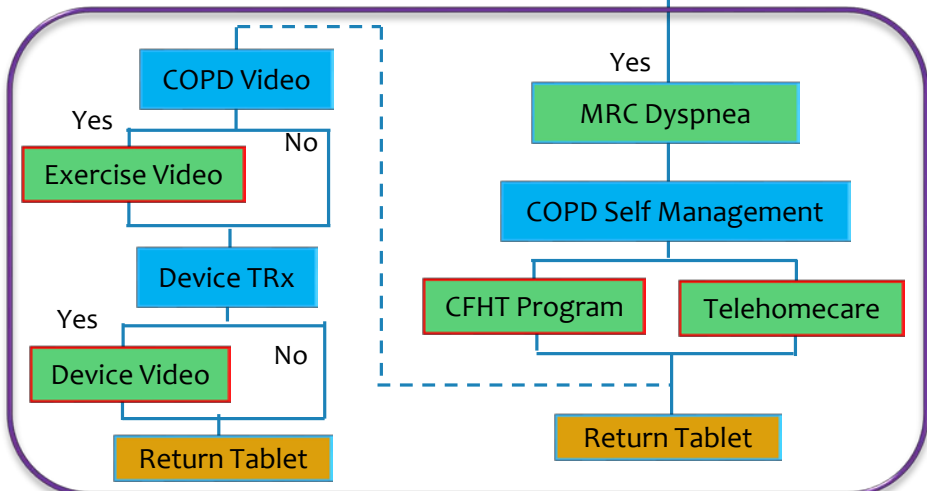
Patient Check In - All pts. > 14 given tablet, 3 digit code only

Rule

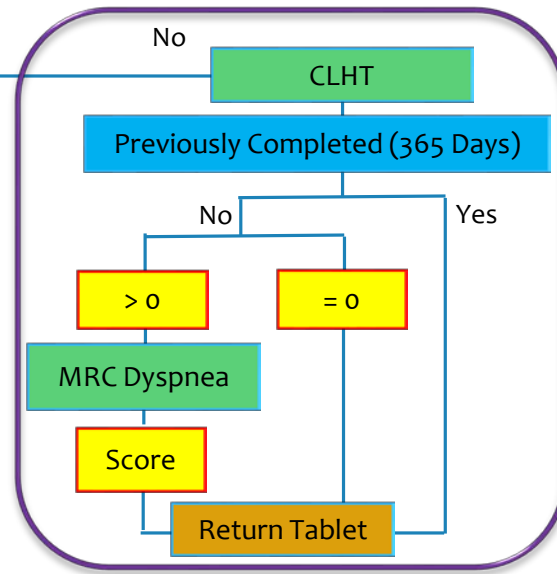
Ocean Form  
Form Response  
Tablet Action  
Clinical Notes



### Phase 2 Self Management



### Phase 1: Screening



# Solutions

- \* **Family Physician:**

- \* Saves time documenting in EMR, providing more time to interact with patients
- \* More robust EMR with opportunity to increase E079 billing code utilization

- \* **Administrative Support:**

- \* Saves time checking/collecting demographics
- \* Eliminate time required to print and scan documents into EMR

- \* **Patients:**

- \* Increased satisfaction with healthcare
- \* Increased comfort when dealing with “hard topics”

# Team-Based Implementation

- \* **FHT:**

- \* Time on behalf of committee dedicated to a transparent, process driven implementation based on specific, agreed upon objectives

- \* **Resources and Partnerships:**

- \* Tablets, Ocean license, technical support, training support

- \* **Budget:**

- \* Cost considerations – tablet, monthly tablet license fee (\$50), training & technology support varies depending on capacity

# Sustainability

- \* **Time:**

- \* Administrative/operational investment low, tablets automate many time consuming tasks

- \* **Capacity:**

- \* Follow through on results is required for this initiative to be successful

- \* **Change Management:**

- \* Integration of new patient engagement process for all staff involved

- \* **Budget:**

- \* Cost neutral or revenue generator by leveraging platform



# Patient Satisfaction

- \* Engagement
- \* Early identification
- \* Comfort when answering difficult questions
- \* Increased time with physician
- \* Information on FHT programs, health education videos, and handouts
- \* Increased self-efficacy

# Reported Results

<ul style="list-style-type: none"><li>• Time Savings</li></ul>	<ul style="list-style-type: none"><li>○ Time savings in &gt; 90% of patient cases</li><li>○ Less time spent on demographic reconciliation and data entry</li></ul>
<ul style="list-style-type: none"><li>• Improved Interactions</li></ul>	<ul style="list-style-type: none"><li>○ More time spent interacting with patients and less time typing in EMR</li></ul>
<ul style="list-style-type: none"><li>• Better Documentation &amp; Improved Adherence to Clinical Guidelines</li></ul>	<ul style="list-style-type: none"><li>○ Uncovered previously undisclosed patient concerns and red flags</li></ul>
<ul style="list-style-type: none"><li>• Positive Patient Feedback</li></ul>	<ul style="list-style-type: none"><li>○ Overwhelmingly positive patient feedback; 91% average patient score on the System Usability Scale</li></ul>

# Questions?



***Burlington***

Family Health Team

# Data Tracking: Creating Your Own Path using OSCAR EMR

**Burlington Family Health Team**

Presented by Melonie Mawhiney, Caitlin Grzeslo,  
& Urslin Fevrier-Thomas

# Presenter Disclosure

AFHTO 2015 Conference

- \* **Presenters:** Melonie Mawhiney, Caitlin Grzeslo, Urslin Fevrier - Thomas
- \* **Relationships with commercial interests:**
  - \* **Grants/Research Support:** none
  - \* **Speakers Bureau/Honoraria:** none
  - \* **Consulting Fees:** none
  - \* **Other:** none

# Disclosure of Commercial Support

AFHTO 2015 Conference

- \* **This program has not received financial support.**
- \* **This program has not received in-kind support.**
- \* **Potential for conflict(s) of interest:**
  - \* **Speakers as listed above** have not received payments or funding from any organizations.
  - \* **No products will be discussed in this program.**

# Mitigating Potential Bias

AFHTO 2015 Conference

- \* No potential sources of bias were identified.

# What is the problem we're trying to solve?

## ***Workload Management and Data Tracking using OSCAR***

- \* Helps IHP's track quarterly stats through EMR (as work happens!)
- \* Helps program committees track QI measures
- \* Helps to collect baseline data for programs or future clinic needs
- \* Helps admin track staff workload and time utilization
- \* Helps ED collect for Ministry reports
- \* Assessing the efficiency and sustainability of programs and resources



# What does it take to implement?

- \* Time – deciding on codes, entering codes, staff training for how to use codes (follow “how-to”), data collection
- \* Skills – administration privileges... awareness and understanding of EMR (eg. Where to enter new codes)

Ontario Billing - Mozilla Firefox

https://207.107.158.122:11042/oscar\_mhfhc/billing/CA/ON/billingObj.jsp?billRegion=ON&billForm=MFP&hotclick=&appointment\_no=0&demographic\_name=MEL+TEST&status=t

Ontario Billing Help Edit SUPER CODES - Next Exit

TEST, MEL F 41 years RO 2015-10-08 Warning: The patient does not have a valid HIN.

The default unit and @ value is 1

Specialist billing	Instruction	Code	Time %	Code	Time %	Dx	Search
x	@			x	@	dx1	Search
x	@			x	@	dx2	Search
x	@			x	@	Refer. Doctor #	Search
x	@			x	@		
x	@			x	@		

Billing Physician	Select Provider	Assig. Phys.	
Visit Type	00   Clinic Visit	Billing Type	Do Not Bill
Visit Location	Not Applicable	Manual:	<input type="checkbox"/>
SLI Code	Not Applicable	Billing form:	RN fake billing sheet
Admission Date			

Episodic Care	Description	Fee	Programming	Description	Fee	Phone	Description	Fee
<input type="checkbox"/>	RN020A Nursing Clinic visit	0.00	<input type="checkbox"/>	RN025A Diabetic Flowsheet	0.00	<input type="checkbox"/>	RN032A 1-3 MINUTES	0.00
<input type="checkbox"/>	RN001A Vital signs	0.00	<input type="checkbox"/>	RN005A HTN flowsheet	0.00	<input type="checkbox"/>	RN033A 3-5 MINUTES	0.00
<input type="checkbox"/>	RN004A Weight	0.00	<input type="checkbox"/>	RN017A INR management	0.00	<input type="checkbox"/>	RN034A > 5 MINUTES	0.00
<input type="checkbox"/>	RN008A Height/length	0.00	<input type="checkbox"/>	RN022A S/C admission	0.00	<input type="checkbox"/>	RN012A Phone triaging	0.00
<input type="checkbox"/>	RN007A Urine dip	0.00	<input type="checkbox"/>	RN024A S/C fu visit	0.00	<input type="checkbox"/>	RN011A Phone health teaching	0.00
<input type="checkbox"/>	RN006A Diabetic Foot Exam	0.00	<input type="checkbox"/>	RN023A S/C discharge	0.00	<input type="checkbox"/>	RN010A Phone abnormal test results	0.00
<input type="checkbox"/>	RN013A Visual acuity	0.00	<input type="checkbox"/>	RN0050A A1C 0.5% improvement	0.00	<input type="checkbox"/>	RN030A Phone normal test results	0.00
<input type="checkbox"/>	RN016A Throat swab	0.00				<input type="checkbox"/>	RN014A Phone specialist/lab/imaging	0.00
<input type="checkbox"/>	RN003A Well Baby injections	0.00				<input type="checkbox"/>	RN027A INR phone management	0.00
<input type="checkbox"/>	RN002A flu shot	0.00				<input type="checkbox"/>	RN015A Phone med alt/concerns	0.00
<input type="checkbox"/>	RN018A Injection	0.00						
<input type="checkbox"/>	RN019A INR POC testing	00.00						
<input type="checkbox"/>	RN026A wound care / suture removal	0.00						
<input type="checkbox"/>	RN009A MOCA	0.00						
<input type="checkbox"/>	RN021A Ear Syringe	0.00						

MEL TEST - Billing History (last 5 records) Last 365 days Go

Serial No.	Billing Date	Appt/Adm Date	Service Code	Dx	Create Date
207064	2015-10-05	2015-10-05	OT009A x 1		2015-10-05
183041	2015-05-20	2015-05-20	RN009A x 1		2015-05-20
183036	2015-05-20	2015-05-20	RN009A x 1		2015-05-20
183034	2015-05-20	2015-05-20	RN002A x 1, RN007A x 1		2015-05-20
179021	2015-04-28	2015-04-28	NP001A x 1		2015-04-28

RN Billing Sheet

# What does it take to sustain and how does it impact patients?

## \* Sustain:

- \* Updating codes as program needs change QI measures are adjusted, workload changes
- \* Staff compliance

## \* Impact:

- \* Indirect impact through program planning and development eg. DM Management, INR

# WILD CARD

No more chasing,  
no more books,  
no more ED's dirty  
looks!!!

# Thank you!

\* Questions?!?!

# Leading Edge Custom Queries and their Applications Across Ontario

Hope Latam, QIDS Specialist

AFHTO Conference

Toronto, ON

Oct 28<sup>th</sup> – 29<sup>th</sup> 2015



# Presenter Disclosure

APHO 2015 Conference

- **Presenters:** Hope Latam
- **Relationships with commercial interests:**
  - Not Applicable

# Disclosure of Commercial Support

AFHTS 2015 Conference

- No Commercial Support
- **Potential for conflict(s) of interest:**
  - None

# Mitigating Potential Bias

- Not Applicable



# Custom Forms

Entering data in PS:

- Free text
- Stamps
- Encounter Assistants
- **Custom Forms**



Structured and organized data input

User Hope Latam **Patient Encounter Tracker - EWFHT v5.3** [Reset Form](#)

**Inter-Professional Health Provider (IHP) \***

Chiroprodist/Podiatrists  Kines iologis t  Outreach Worker  Physi cian Ass is tant  RPN  
 Dietitian  NP  Pharmaci s t  SMHW  Other IHP  
 Health Promoter  Occupational Therapist  Psychologis t  RN

**Type of Contact \***

Email/Internet  Home vis it  Lab  Office vis it  OTN  Telephone  Other

**Initial/Follow-up Encounter \***

Initial  Follow -up  Not applicable

**Clinic Specific Program /Service \***

**Primary Presenting Health Concern**

Procedure(s)

**Follow-up Plan \***

Dis charge  Returning for follow -up  Not applicable

**Direct Patient Care Time**

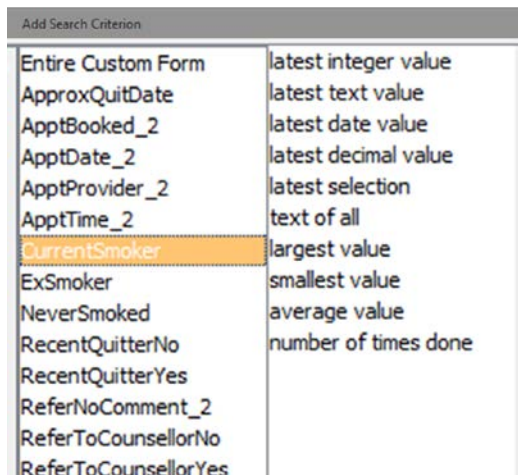
Encounter Time (min)  \*  0  5  10  15  20  30  45  60  
+  
Non-Encounter Time (min)  \*  0  5  10  15  20  30  45  60

**Comments**

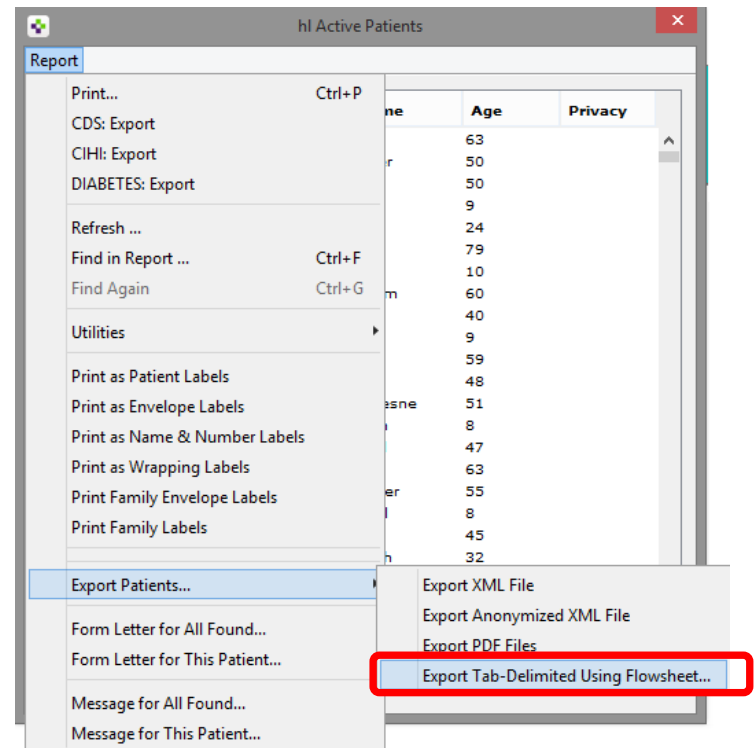
12:15PM **\*Please click the button to validate the form before finishing: [Validate Form](#)**

# Extracting Data from Custom Forms

Basic searches don't work...

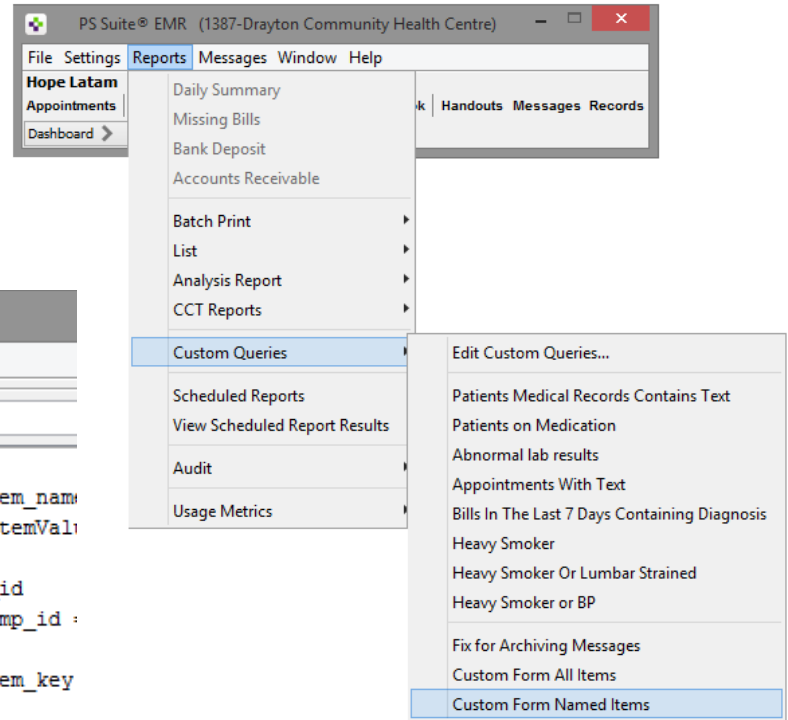


Tried exporting search results using flowsheets...



# Custom Queries

Worked with TELUS and Cognisant MD to develop a set of custom queries



```

Edit Custom Queries

Custom Form Named Items

SELECT
iv.patient_piece_id, pp.patient_id, pp.patient_piece_date, si.item_name
iv.stamp_item_key, DBMS_LOB.substr(iv.stamp_item_value,256) AS ItemValue
FROM STRUCTURED_STAMP_ITEM_VALUE iv
JOIN PATIENT_PIECE pp ON pp.patient_piece_id = iv.patient_piece_id
JOIN STRUCTURED_STAMP_VERSION sv ON pp.structured_stamp_note_stamp_id =
sv.structured_stamp_version_id
JOIN STRUCTURED_STAMP_ITEM si ON si.stamp_item_key = iv.stamp_item_key
si.structured_stamp_version_id = sv.structured_stamp_version_id
JOIN STRUCTURED_STAMP ss ON sv.structured_stamp_master_id =
ss.structured_stamp_master_id
```

# Deployment

Input

Please enter an advanced permission code:

OK Cancel

Edit Custom Queries

Custom Form Named Items

```
SELECT
iv.patient_piece_id, pp.patient_id, pp.patient_piece_date, si.item_name
iv.stamp_item_key, DBMS_LOB.substr(iv.stamp_item_value,256) AS ItemValue
FROM STRUCTURED_STAMP_ITEM_VALUE iv
JOIN PATIENT_PIECE pp ON pp.patient_piece_id = iv.patient_piece_id
JOIN STRUCTURED_STAMP_VERSION sv ON pp.structured_stamp_note_stamp_id =
sv.structured_stamp_version_id
JOIN STRUCTURED_STAMP_ITEM si ON si.stamp_item_key = iv.stamp_item_key
si.structured_stamp_version_id = sv.structured_stamp_version_id
JOIN STRUCTURED_STAMP ss ON sv.structured_stamp_master_id =
```



# Custom Query Converter



Custom Query Converter - EWFHT v4.xlsm

**Custom Query Converter** EWFHT 4.0

Path and filename:

	A	B	C	D	E	F	G
1	PATIENT_PIECE_ID	PATIENT_ID	PATIENT_PIECE_DATE	Smoker	Ex Smoker	Referred	Quit Date
2	Form 1	123	1-Apr-15	TRUE	FALSE	TRUE	1-May-15
3	Form 2	345	20-Apr-15	FALSE	TRUE	FALSE	1-Jan-14
4							
5							
6							
7							

# Example

The image shows a screenshot of the PS Suite EMR software interface. The main window is titled "Edit Smoking Cessation Ask Advise Assess (ksV6)". The form is divided into three main sections: ASK, ADVISE, and ASSESS. The ASK section includes fields for patient information (Last Name, First Name, Address, City, Postal Code, Tel, Date of Birth, Physician) and checkboxes for smoking status (Tobacco use in the last 7 days, Ex-smoker, No tobacco use). The ADVISE section includes a question about the patient's wish to quit in the next 30 days and a "Provide self-help box" button. The ASSESS section includes a question about referring to a smoking cessation counsellor and a "Message sent to OMSC Coordinator" checkbox. A "Report" button is visible in the ASK section. A "Reports" menu is open, showing options like Daily Summary, Missing Bills, Bank Deposit, Accounts Receivable, Batch Print, List, Analysis Report, CCT Reports, Custom Queries, Scheduled Reports, View Scheduled Report Results, Audit, and Usage Metrics. The "Custom Queries" option is selected, opening a sub-menu with options like "Patients Medical Records Contains Text", "Patients on Medication", "Abnormal lab results", "Appointments With Text", "Bills In The Last 7 Days Containing Diagnosis", "Heavy Smoker", "Heavy Smoker Or Lumbar Strained", "Heavy Smoker or BP", "Fix for Archiving Messages", and "Custom Form All Items". The "Custom Form Named Items" option is selected, opening a dialog box with the following fields: Custom Form Name: Smoking Cessation Ask Advise Assess (ksV6), Start Date (yyyy-mm-dd): 2015-03-01, and Stop Date (yyyy-mm-dd): 2015-03-31. A table of items is visible in the background, with columns for Item Name, Item ID, and Item Value.

**Smoking Cessation Ask Advise Assess Form**

**ASK**

**ADVISE**

**ASSESS**

Readiness to Quit

Reports

Custom Form Named Items

Item Name	Item ID	Item Value
RecentQuitterNo	item9	false
ApptBooked_2	item119	false
ApproxQuitDate	item12	.
ApptDate_2	item123	<input type="checkbox"/>
ApptTime_2	item124	<input type="checkbox"/>
ApptProvider_2	item125	<input type="checkbox"/>
ReferNoComment_2	item127	<input type="checkbox"/>
WantQuitYes	item27	false
WantQuitNo	item28	false
WantQuitNA	item29	false
CurrentSmoker	item3	false
ReferToCounsellorYes	item31	false
ReferToCounsellorNo	item32	false
ExSmoker	item4	true
NeverSmoked	item5	false
RecentQuitterYes	item8	false
RecentQuitterNo	item9	true







# Success Stories

Prior to the Custom Query, I would spend hours creating searches in the EMR. This was very time consuming and I was not always confident in the accuracy of these searches. With the Custom Query, I can enter the name of the custom form and exact date range I want to search. **Within seconds I have all of the data fields extracted and ready to be analyzed.** The Custom Query Converter is like the cherry on top! It takes out all the manual work of sorting the columns, which allows for the data to be analyzed even faster. **All of our custom form searching needs can be accomplished using this handy tool.** I am very grateful to be able to have the Custom Query in our EMR and be able to provide my team with true, relevant data.

*-Desiree Leslie, New Vision FHT*

# Success Stories

Thank you EWFHT for developing the custom queries and the excel converter! We have just recently completed our quarter 4 IHP stats and used these new tools quite extensively. **Previously, it would take the better part of a week to tabulate quarterly IHP stats but with the help of these queries and some custom form development we have managed to reduce the time to just a few hours. AMAZING!**

*-Joe Szeplaki, Garden City FHT*



