Opportunities for Practice-Based Research and Learning and Clinician Involvement in Research Using EMRs

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Speaker Disclosure

- Professor Emeritus - University of Alberta
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Relationships with commercial interests:

- Grants/Research Support
  - CIHR
  - Alberta Physician Learning Program, University of Alberta

Conflicts of interest:

- None to disclose

My two favorite pastimes – most important for my work/life balance & fitness of mind and body

Glossary of Terms

EMRs =
Electronic Medical Records

Electronic patient charts used in a single practice

- Med Access
- Accuro

EHRs =
Electronic Health Records

Electronic records used to share information across different healthcare organizations

- Oracle Health (NS)
- Epic (Alberta)

Primary Care

First point of contact for personal medical care

PCPs = Primary Care Providers

Health care providers that provide first point of contact care

Primary Health Care

Broader health care that included population level health

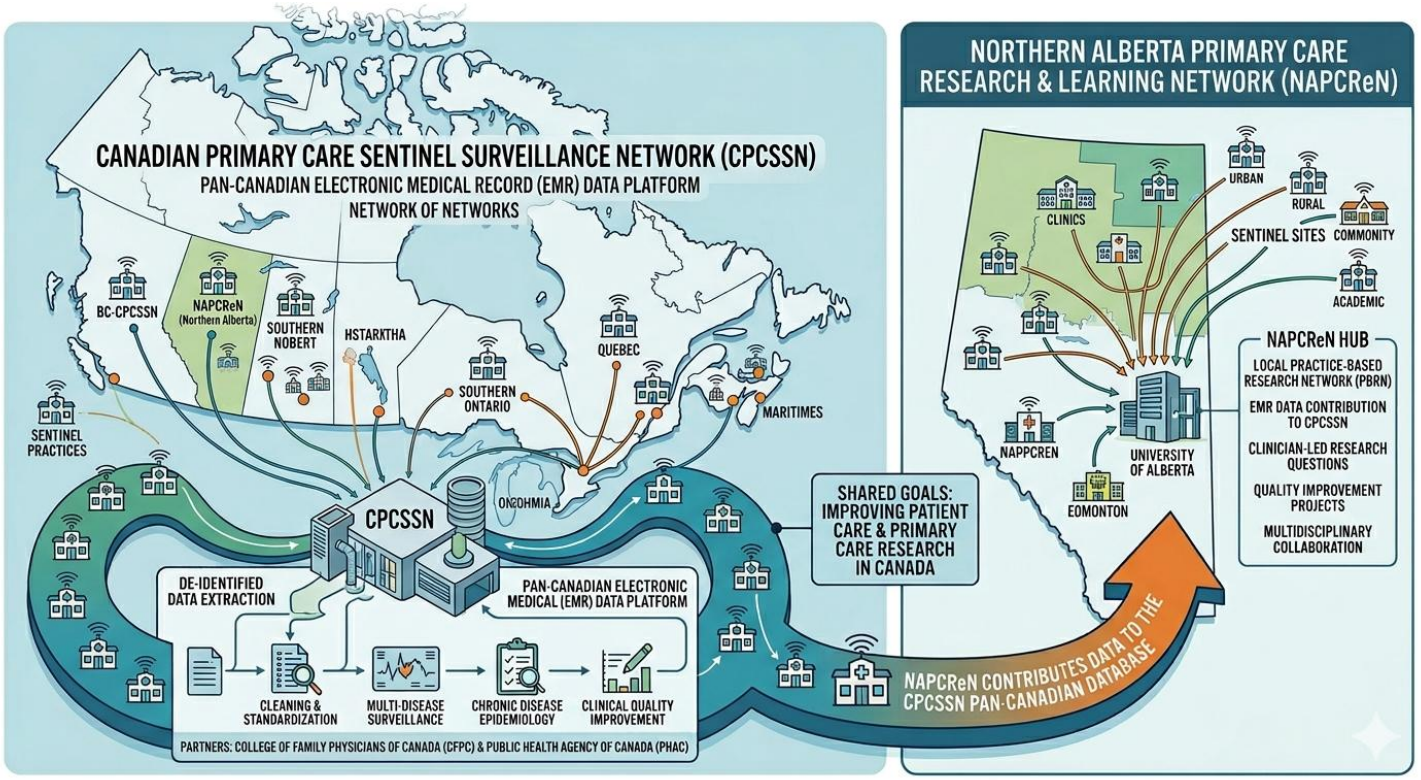
PBRLNs=
Practice-Based Research and Learning Networks

A group of primary care practices affiliated to study real-world patient care, improve clinical quality, and translate research into practice

The Canadian Primary Care Sentinel Surveillance Network (CPCSSN)

- Mission - improve primary healthcare delivery outcomes across the country, while also facilitating innovation and excellence in primary healthcare research

- 14 Practice Based Research and Learning Networks (PBRLNs) contribute EMR data to CPCSSN



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PBRLNs: the “Laboratory” of Primary Care

Opportunities for Clinician Involvement

Examples: Turning Data into Discovery

Overcoming Challenges and Future Directions

Q&A and Interactive Discussion

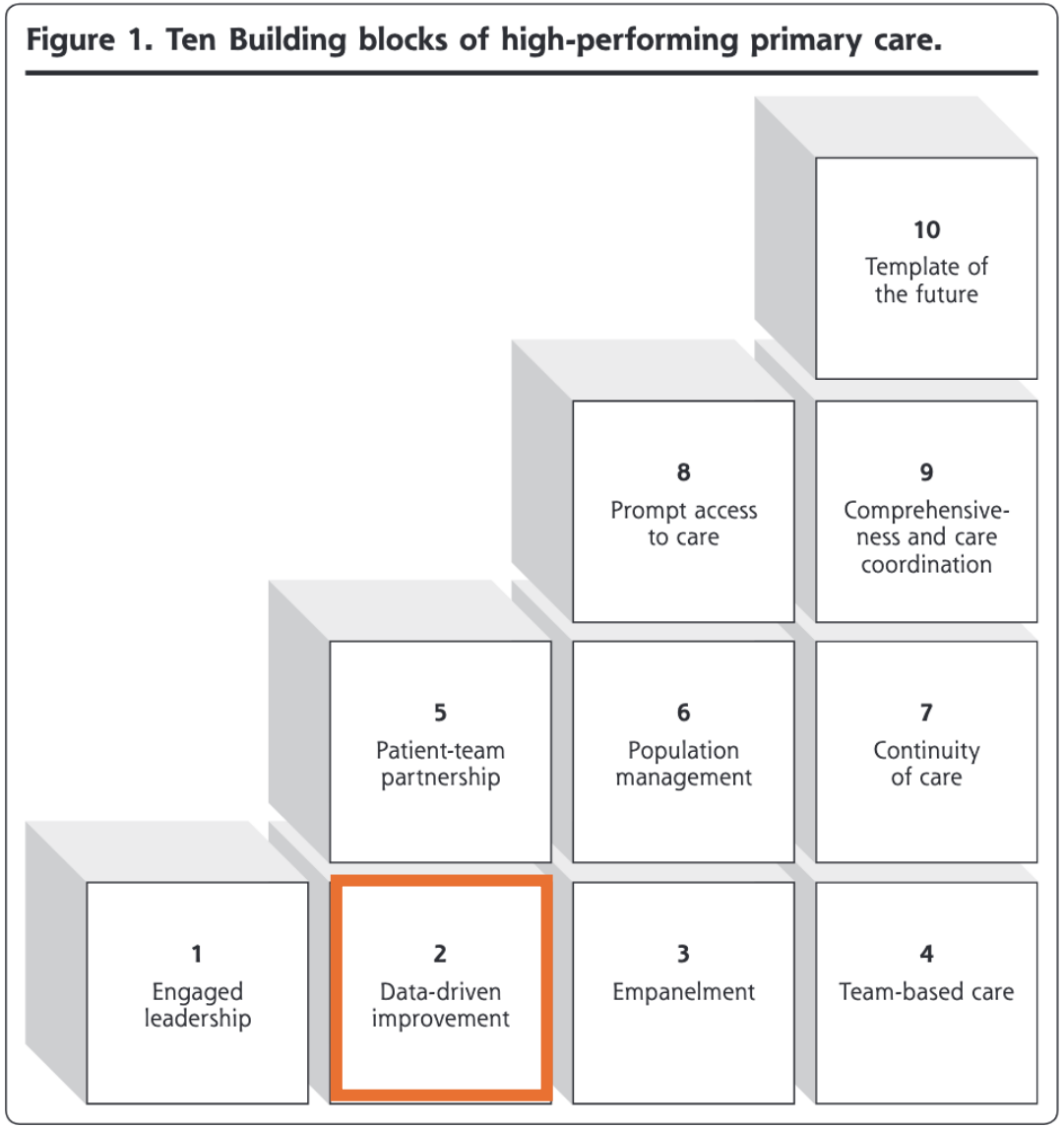
We need DATA for QI and Research

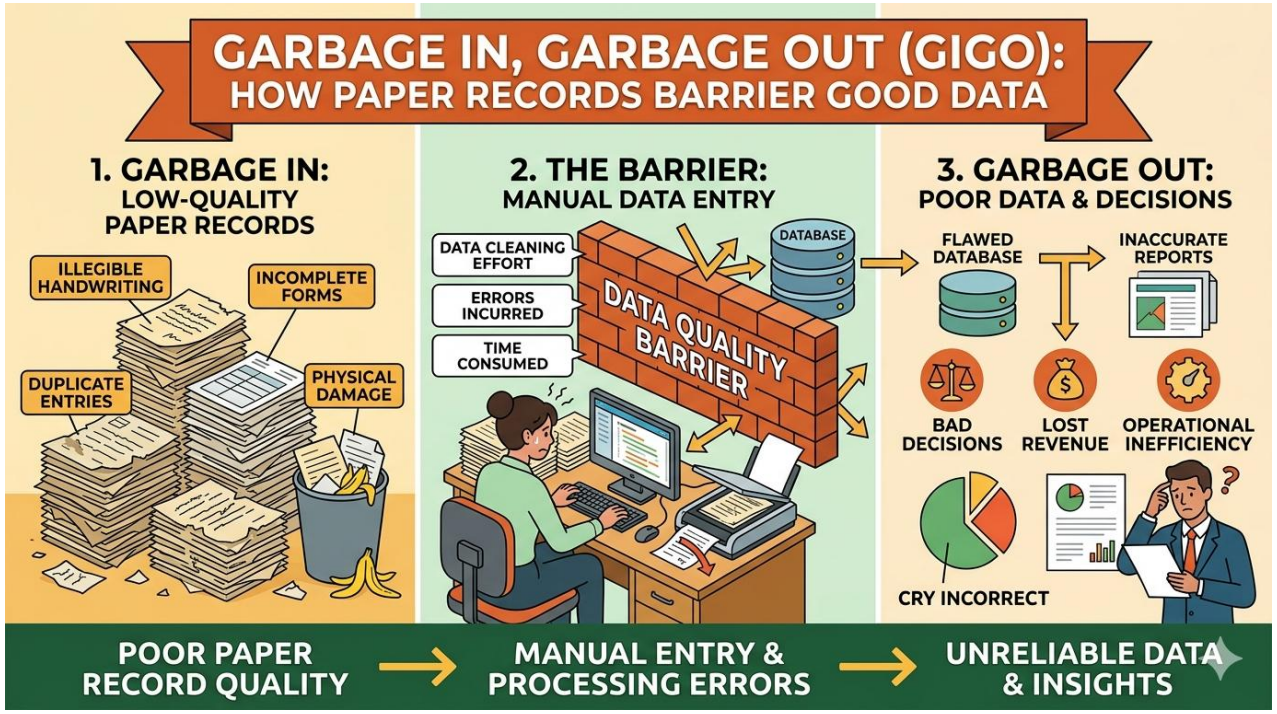
Four foundational elements

for high-performing primary care:

1. Engaged leadership
2. **Data-driven improvement**
3. Empanelment
4. Team-based care

Bodenheimer T, Ghorob A, Willard-Grace R, Grumbach K. The 10 Building Blocks of High-Performing Primary Care. Ann Fam Med. 2014;12:166–71. https://doi.org/10.1370/afm.1616.





BEFORE EMRs

The quality of paper records was the primary barrier to QI and research

Paper Chart Limitations

- Extract data one chart at a time
- No disease registries
- Lack of Standard formatting

Attempts made to improve paper data for clinical care, QI, & Research

Organize paper charts

1. Standard fields
2. Standard format

What is the difference between an EMR salesman and a used car salesman?

Cumulative Patient Profile — sample forms

CUMULATIVE PATIENT PROFILE

Computer Generated
Patient Identification Label

Allergies

Social & Environmental History (e.g., Lifestyle, Hobbies, Occupation)	Dates
Reg. Exercise ☐Y ☐N	
Drugs ☐Y ☐N	
Smoking ☐Y ☐N	
Etoh ☐Y ☐N	
Medical / Surgical / OBS History	**Dates**

Significant Family History		
Problem List	Date Recorded	Date Resolved /Controlled

Preventative Health Records	Indicate Dates
General Assess.	
Mammogram	
PAP / PSA	
Td / TdPolio	
Flu Vaccine	
TB	
Hepatitis A / B	
Step Test	
Living Will	

Maintenance Medication	Date Started	Date Discontinued
Date	M.D.	

Courtesy: Hamilton Academy of Medicine

The used care salesman knows when he is lying?

EMRs

- 2000's: EMRs became widespread
- 2001: Health Infoway created
- Provincial support programs:
  - 2003 – Alberta (Physician Office System)
  - 2005 – Ontario & Nova Scotia
  - 2008 – British Columbia

EHRs in Alberta began in 1999

Alberta Netcare portal - a basic EHR for every Albertan

- 2006 piloted – health care providers could access lab and drug information (PIN)
- 2008 – expanded to include diagnostic images and reports

Connect Care – launched in 2019

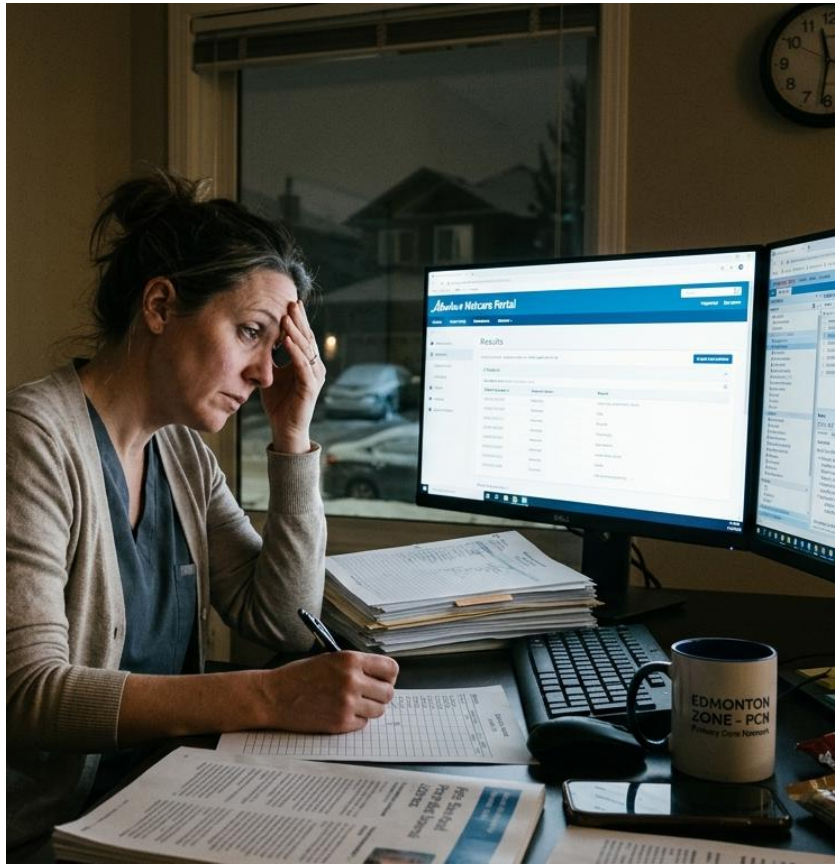
- Based on the Epic platform
- Unified clinical information system
  - Collects clinical, administrative, and patient generated data

Alberta’s vision - One Health Record, One Health System

Feature	Alberta's "Connect Care" Reality
The Goal	To replace hundreds of independent systems in hospitals and clinics with **one** single platform.
Status	**Complete.** As of late 2024, Connect Care has finished its final "launch" (Launch 9). It is now live in all Alberta Health Services (AHS) hospitals, clinics, and pharmacies. (AHS clinics are not community Family Physician clinics)
The Patient Tool	**MyChart** (accessible via MyHealth Records). This is your portal into the Connect Care system.
Integrated Care	If you see a specialist in Edmonton and then go to the ER in Calgary, the ER doctor sees the *exact* same chart, notes, and medication list in real-time.

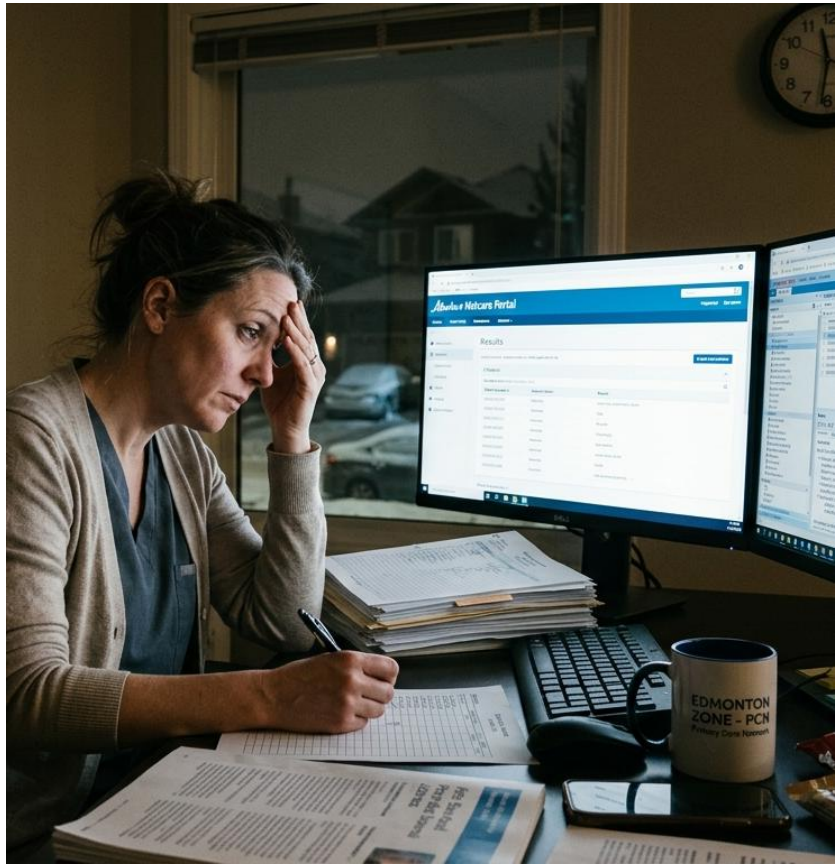
EHR friction points with Family Physicians

1. **Increased workload**
   - Marked increase in administrative workload – sifting through multiple detailed reports
   - Learning protocols to access systems and where to find information in each system (EMR, netcare, and connect care)
2. **Increased legal & regulatory risk**
   - Duty to know – Family physician expected to know all the information in netcare even when they did not order it, etc.
   - Privacy stewardship & expensive technical resources
     - Need to comply with HIA – PIAs, netcare & connect care protocols, etc.



EHR friction points with Family Physicians

3. **Patient expectations & shadow work**
   - Patients often received results in their MyHealth record before the physician
   - Family physicians spend more time explaining test results ordered by other providers
4. **Erosion of referral loop**
   - Specialists think that family physician can easily access their noted in connect care
   - More after hour time sifting to track down referral information patients
5. **Other**
   - Netcare portal – initially could not accommodate the number of people signing on
   - Missing lab & xray results - ?problem with mapping



EHRs in NS began in 2000's

Secure Health Access Record (SHARE)

mid 2000's – central clinical data repository for clinicians to access lab & hospital reports across the province

EMR Expansion – province focus on subsidizing EMR's to ensure they could communicate with SHARE

One Person One Record (OPOR) – 2023

Based on the Oracle (previous Cerner) platform

EHR rollout
Alberta & NS

Feature	Alberta (Connect Care)	Nova Scotia (OPOR)
System Name	**Connect Care**	**One Person One Record (OPOR)**
Primary Platform	**Epic**	**Oracle Health** (formerly Cerner)
Current Status	**Complete - Maintenance & Optimization**	**Active Rollout**
Key Milestones	Concluded in 2024. Currently undergoing 2026 system upgrades.	Launched at IWK Health (Dec 2025); **Central Zone launch May 9, 2026.**
System Scope	Consolidates 1,300+ legacy systems into one provincial clinical record	Replacing ~80 legacy systems
Patient Access	**MyAHS Connect** (Epic's MyChart): Real-time access to labs, notes, and scheduling.	**YourHealthNS:** A unified app integrating Oracle Health data for patient access.

The community gap in both provinces

VISION

NS = OPOR “One Person One Record”

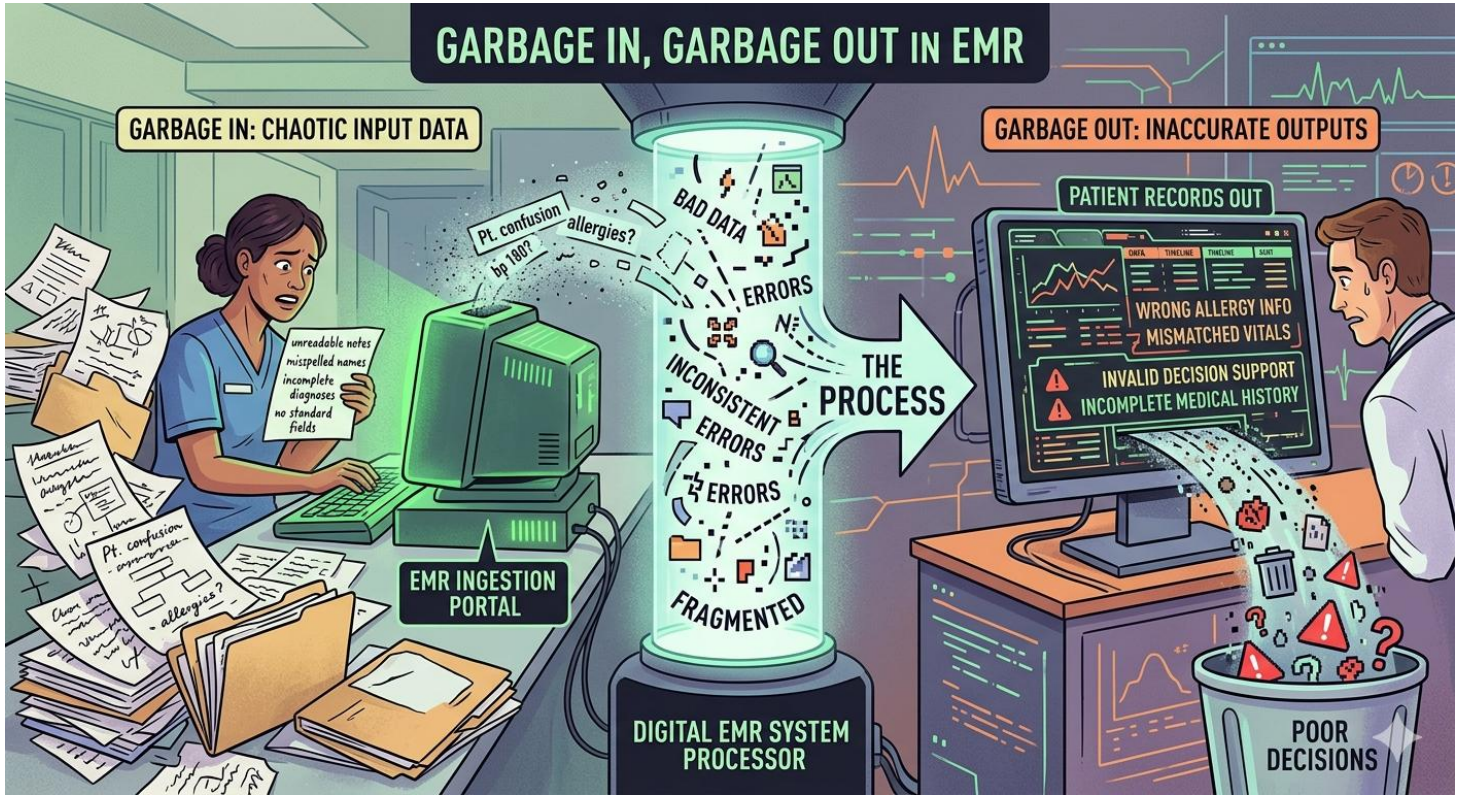
Alberta = Connect Care - “One System for One Province”

- **Biggest Hurdle** = PCP (Family physicians)
  - Run their own business
  - Own their own software
    - Alberta - has more than 10 conformed EMR vendors
    - NS – rule of two – Med Access & Accuro

EMRs – Longitudinal Point-of-care Data

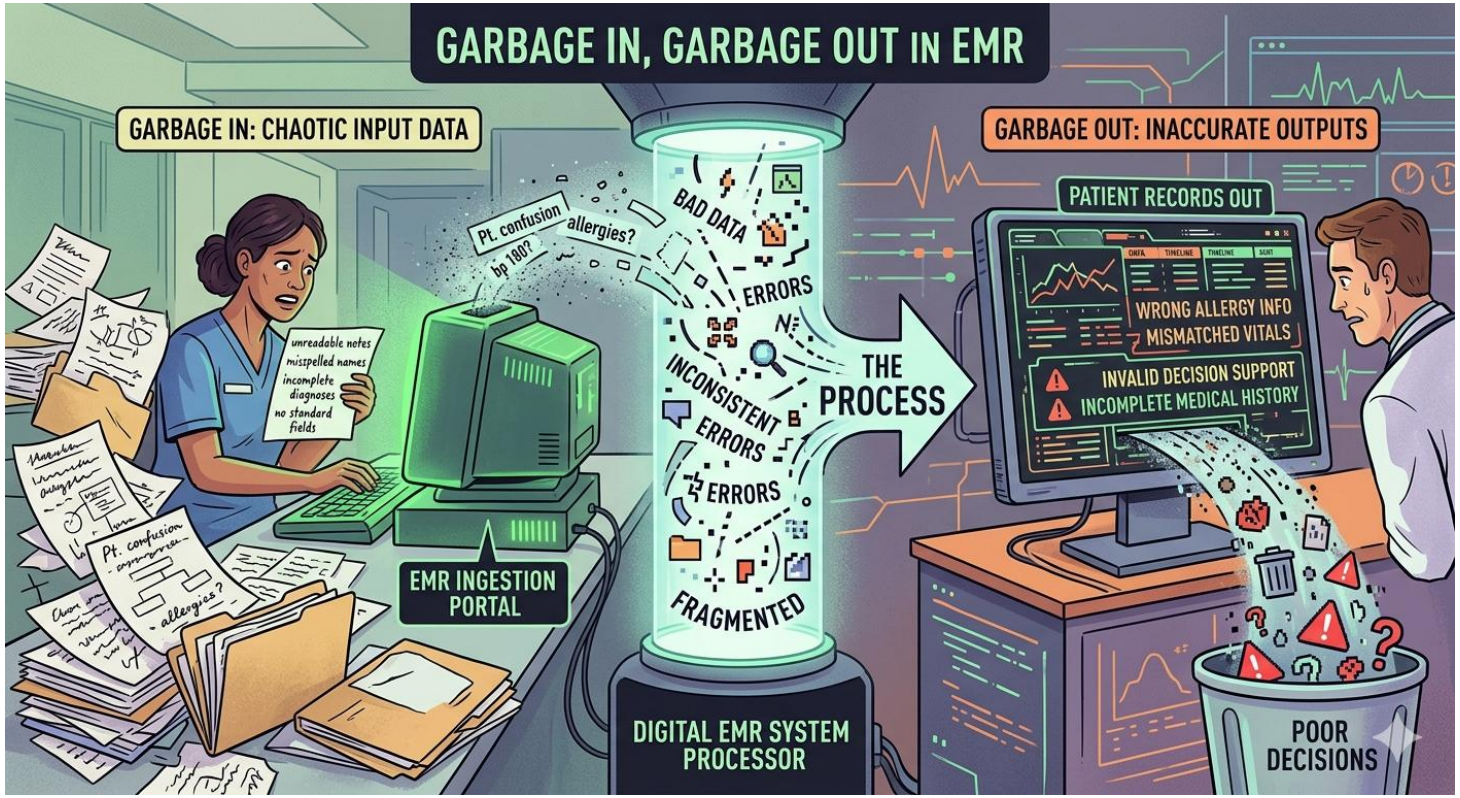
EMR Data Limitations

- Data not entered in a standard format
- Data not entered in a standard field (place)
- Lack of disease registries



Alcohol Data Case Study

- **1,178 unique text strings characterized use**
- Of 62,727 patient EMR data
- 20% – Alcohol use documented
- 75% were documented in risk factor fields



Torti J, Duerksen K, Forst B, Salvalaggio G, Jackson D, Manca D. Documenting alcohol use in primary care in Alberta. Can Fam Physician. 2013;59:1128–1128.

EMR Data – “clean” data is a myth without algorithms

Lack of Standard Format, Standard Fields, and Disease Registries

Example from a 2012 AFPRN extraction

Diabetes

177 unique entries out of 1466 in the profile

diabetes mellitus*
Diabetes mellitus
diabetes mellitus* (250)
NIDDM
diabetes
DM II
Diabetic nephropathy
Diabetes Mellitus -Type 2- Non Insulin Dependent
Diabetes Mellitus Non Insulin Dependent (Type 2)
Diabetes Type 2
Diabetes Mellitus type 2
T2DM
type 2 diabetes
type 2 DM
Type II Diabetes
(DM) Diabetes Mellitus -Type 2
diabetes type 1
IDDM
Diabetic retinopathy
dm 2
Glucose Intolerance
Type II DM
dm
Diabetes Mellitus Insulin Dependent

Hypertension

117 unique entries out of 3190 in the profile

essential hypertension*
hypertension
htn
hypertension nos (401.9)
essential hypertension
Hypertension - Query
hypertension-white coat
essential hypertension* (401)
Benign essential hypertension
hypertension nos
Hypertension - Borderline
hypertension ,
Hypertensive Disease
benign hypertension
Essential HTN
Hypertension Labile
Arterial hypertension
Arterial Hypertension (HTN)
diastolic hypertension
hypertension (401.9)
Hypertension Acute
hypertension, hypercholesterolemia
malignant hypertension
watch bp
?hypertension

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PBRLNs: the “Laboratory” of Primary Care

Opportunities for Clinician Involvement

Examples: Turning Data into Discovery

Overcoming Challenges and Future Directions

Q&A and Interactive Discussion

Community Laboratory

Benefits of PBRLNs for Primary Care Providers

- **Collaborative communities aimed to improve practice through QI and research**
  - **Reduce isolation & provide a sense of community**
  - **Data-driven care**
    - Actionable insights help clinicians identify areas to improve
  - Facilitate **translation of research** into practice
  - **Filter research** and scholarly activities ensuring that they are:
    - Meaningful and sensitive to the busy PCP
    - Have met ethical and privacy conditions

Benefits of PBRLNs – for our research

- **Research spans the whole system**
  - Micro (practice), Meso (network), Macro (national)
- **Large denominators** allow the study of:
  - Uncommon or rare conditions
  - Specific circumstances in common conditions
  - Common conditions with uncommon outcomes
- **Access** to a variety of:
  - Practices (solo, urban, rural)
  - Patients
- **Increase research capacity**
  - Enhance skills and knowledge

Funding Challenges

- Funders pay for results, not the infrastructure
    - *“We are not in the business of building bridges (funder)”*

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PBRLN approaches

Top Down

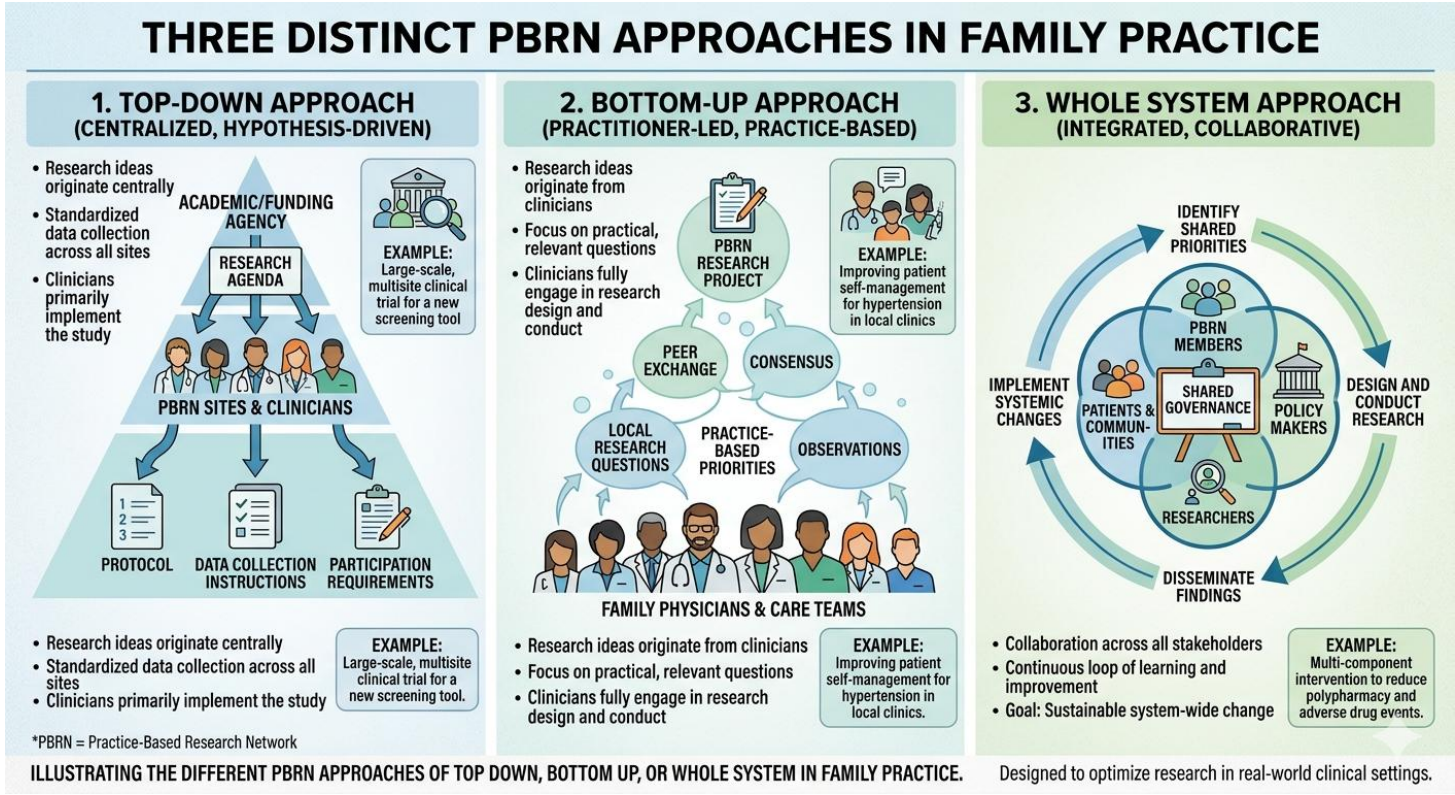
- Driven by researchers & agencies
- Better funding

Bottom Up

- Driven by frontline workers focus on practical questions

Whole System

- Blends academic expertise with clinician-identified needs



What do you call an EMR that works perfectly?

The EMR Data Opportunity
Lack of point-of-care data in administrative datasets

A fairy tale

Medical care of people with chronic conditions

- Mostly managed by PCPs
  - **Rich clinical data is "locked away" in the EMR**
- Administrative data sets is **limited**

Chronic disease registries from EMR data

- Whole system approach CFPC & Public Health Agency Canada
  - PHAC - infrastructure funding to develop our community laboratory
  - Develop chronic disease registries (BP, DM, COPD, depression, OA)

Comparison Administrative Health data vs CPCSSN (EMR data)

FEATURE	ADMINISTRATIVE HEALTH DATA	CPCSSN (EMR) DATA
Primary Purpose	Billing and Administration	Clinical Care and Management
Diagnostic Detail	Limited (often 1 code per visit)	Deep (Problem lists, multiple codes)
Clinical Vitals	Generally absent	**Included (BP, Weight, BMI)**
Lab data	Record of test occurrence	**Actual lab values/results**
Prescriptions	Claims for payment (dispensed)	Intent to treat (prescribed)
Population	Near-universal (provincial)	Sentinel-based (participating clinics)

CPCSSN started with 7 PBRLNs

2008 PHAC funded - feasibility of chronic disease registries for surveillance and research from EMR data

1. **Atlantic Practice Based Research Network (APBRN)**
   - Memorial University of NFL, Director: Marshall Godwin
2. **Q-NET**
   - The Centre santé et des services sociaus de Laval
3. **The Centre for Studies In Primary Care Network**
   - Queen's University, Director: Richard V. Birtwhistle
4. **North Toronto Primary Care Research Network (NorTren)**
   - University of Toronto, Director: Michelle Greiver
5. **The DELPHI Network (Thames Valley Research Unit)**
   - University of Western Ontario, Director: Moira Stewart
6. **Alberta Family Practice Research Network (AFPRN)**
   - Alberta College of Family Medicine, Director: Donna Manca
7. **Southern Primary Care Research Network (SAPCReN)**
   - University of Calgary, Director: Neil Drummond

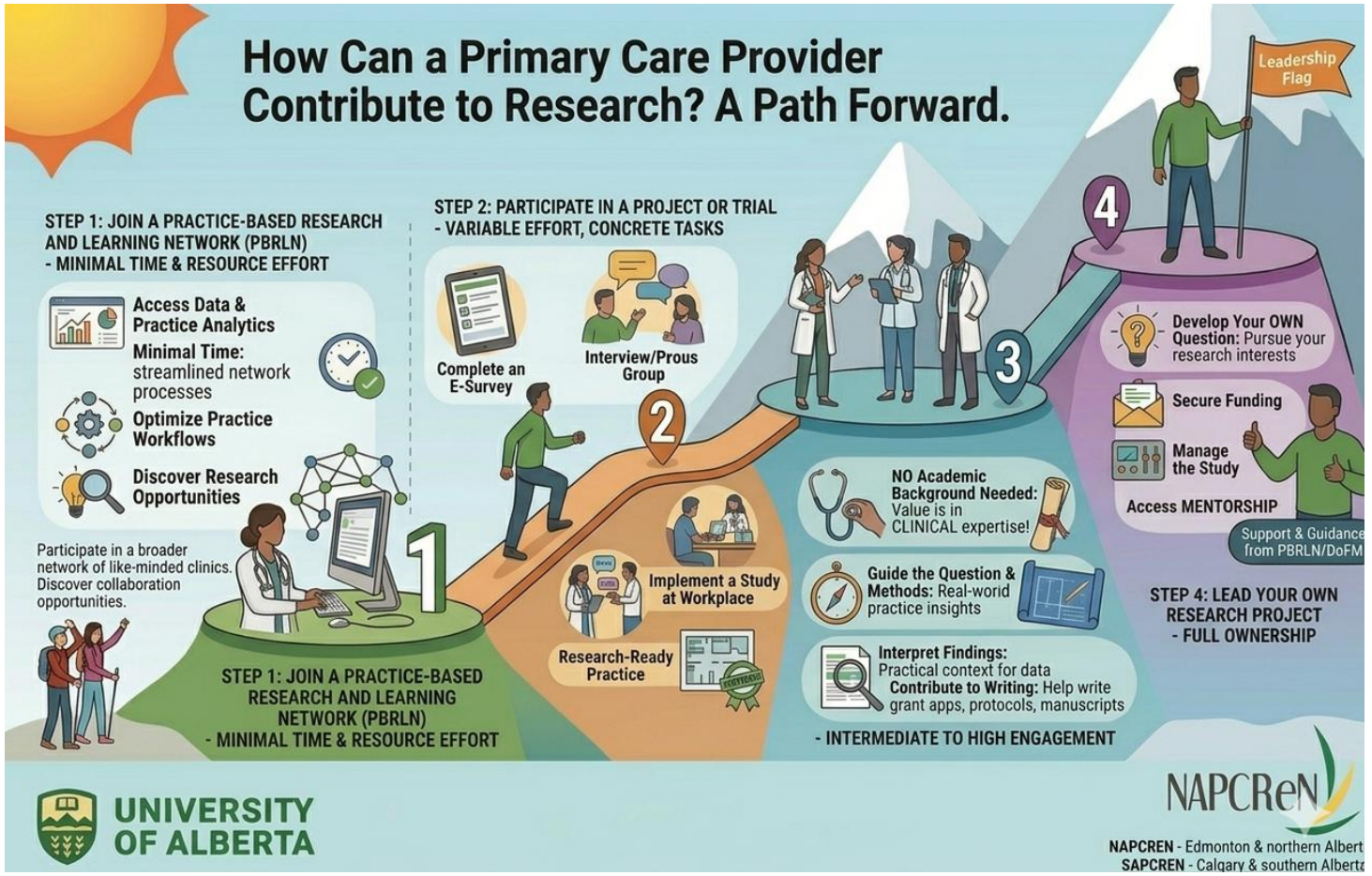
Birtwhistle R, Keshavjee K, Lambert-Lanning A, Godwin M, Greiver M, Manca D, et al. Building a Pan-Canadian Primary Care Sentinel Surveillance Network: Initial Development and Moving Forward. J Am Board Fam Med. 2009;22:412–22. https://doi.org/10.3122/jabfm.2009.04.090081.

De-identified EMR data collected at the point of care and organized within a relational database

- **Patient demographics**
- **Encounters & Diagnoses** (text & ICD-9 codes)
- **Health conditions**
- **Laboratory** cleaned results often not in LOINC codes (HbA1C, fasting glucose, glucose tolerance, HDL, LDL, total cholesterol, triglycerides, microalbumin, creatinine, urine albumin creatinine ratio, INR, hemoglobin, eGFR/GFR, TSH)
- **Procedures**
- **Allergies**
- **Medications** (ATC)
- **Physical exam** results (height, weight, waist circumference, hip to waist ratio, BMI, blood pressure, PEFR)
- **Risk factors** (smoking, alcohol)
- **Referrals**
- **Billing** (codes & diagnoses)
- **Vaccines**
- **Family History**
- **Socio-economic deprivation scores** – (derived from postal code)

How PCPs can engage

1. Receive information
2. Contribute data
3. Participate in projects or trials
4. Join a team - active contributor on the QI/research team
5. Lead the QI/Research



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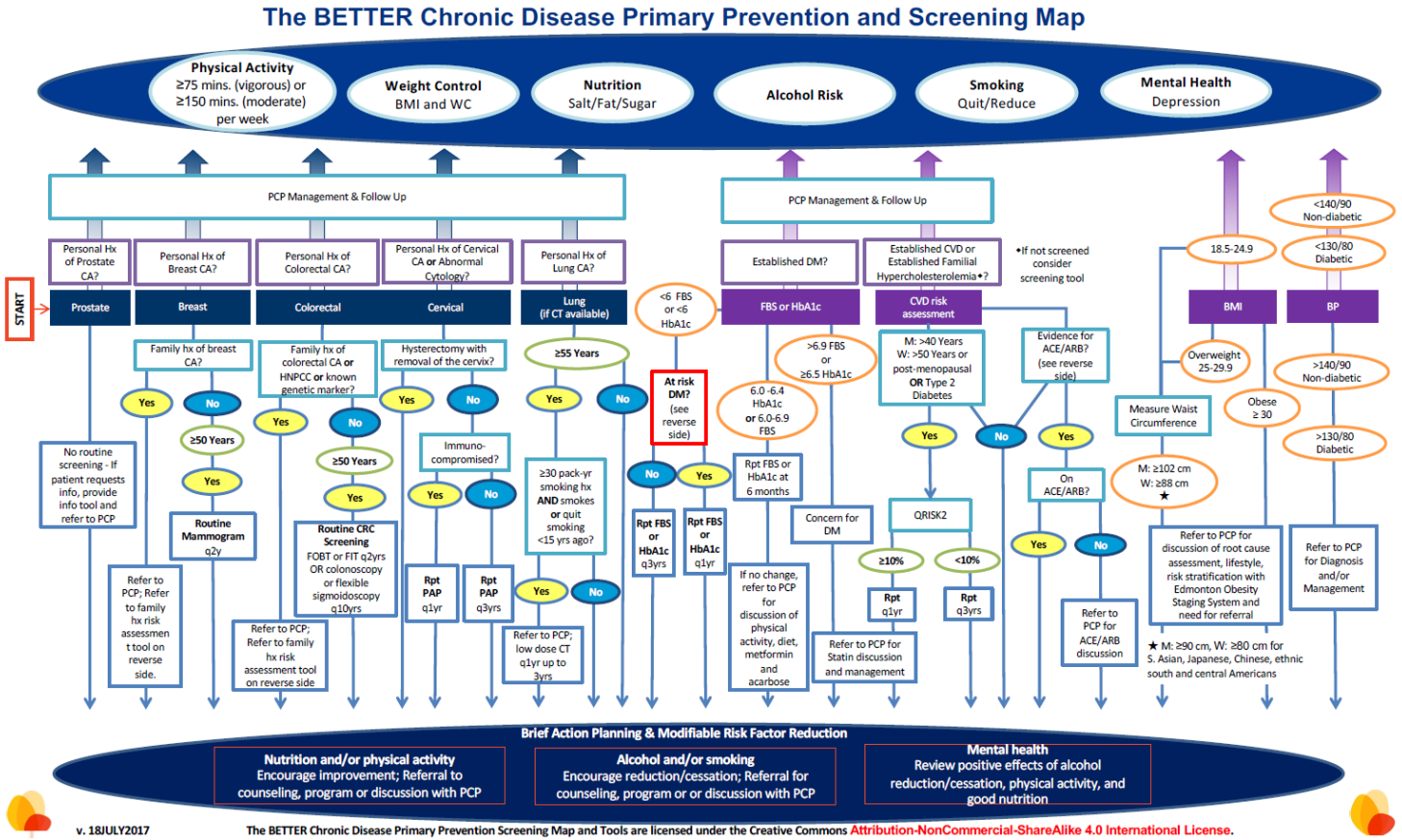
Algorithms can improve care

Example: the BETTER Program chronic disease prevention & screening

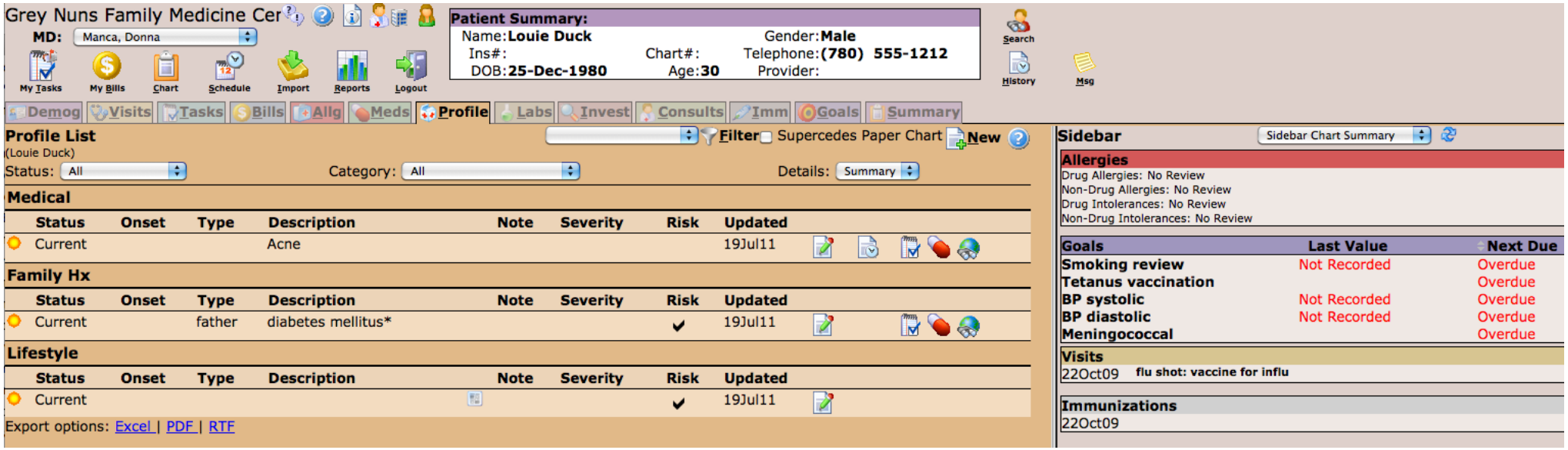


2011 BETTER program

Grey nuns family medicine centre – Med Access EMR

Improved chronic disease prevention and screening at our site

- BETTER identified high level prevention and screening goals
  - We programed the targets into our EMR



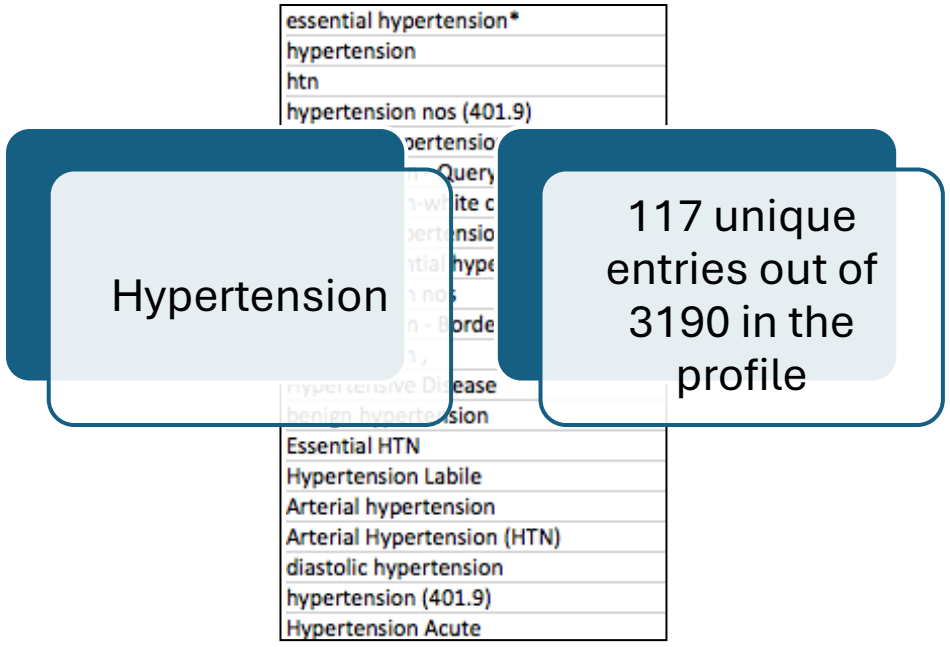
The side bar indicates the status of the goals

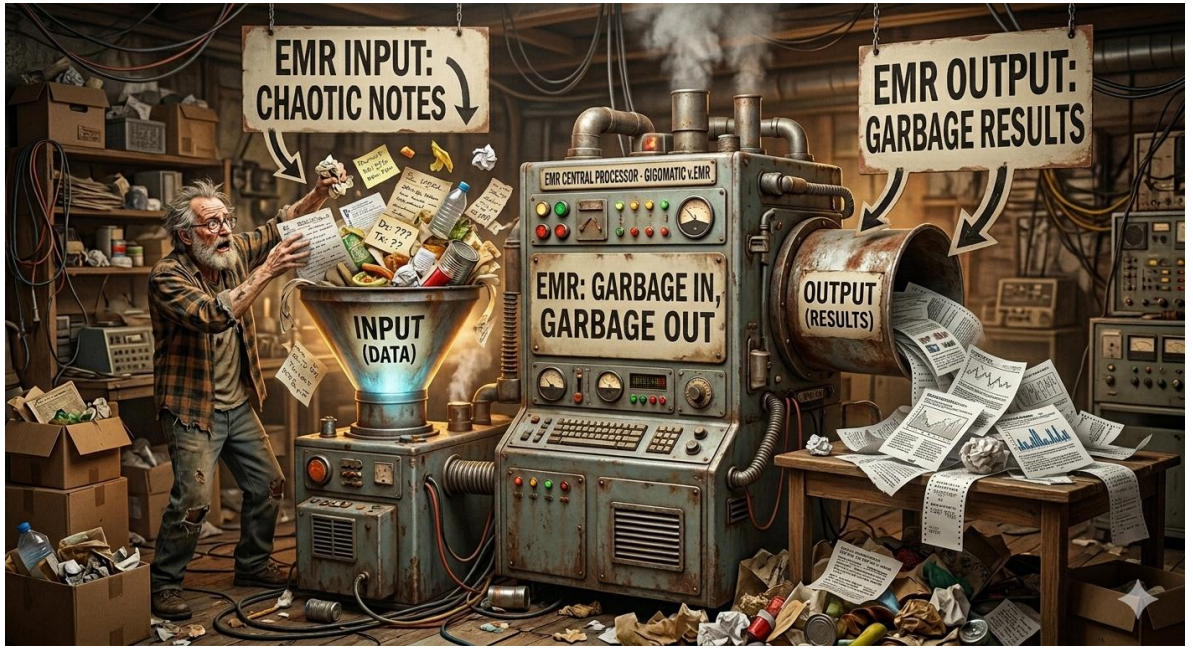
EMRs programed to improve data quality

Unique entries for chronic conditions have been identified so that when an incorrect format entry is used a drop-down menu lists the correct data format (e.g. hypertension 401)

EMRs could assist clinicians to improve data quality

What is the difference between a new EMR rollout and a disaster movie?





In a disaster movie the expert usually survives

CPCSSN developed 29 case definitions validated on a reference dataset

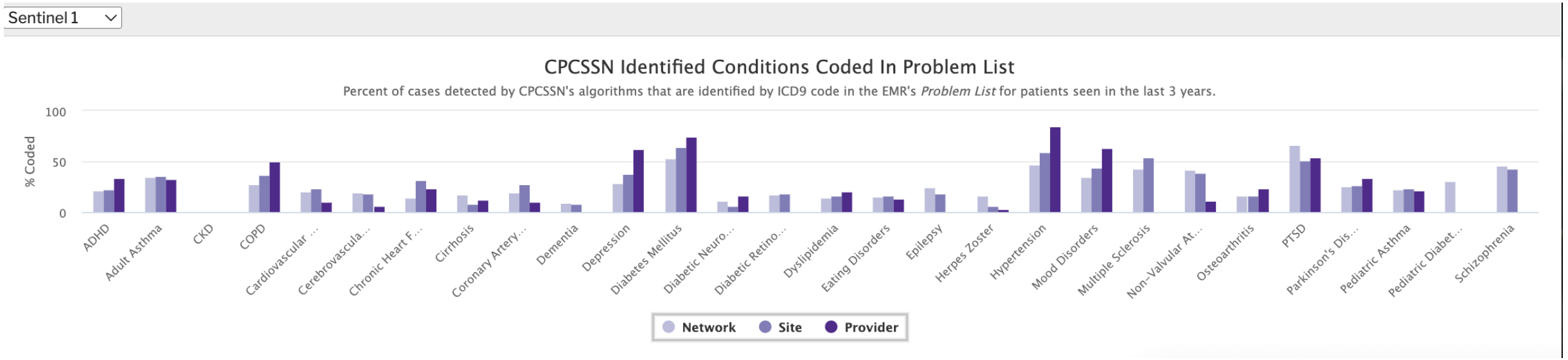
See https://cpcssn.ca/case-definitions/

Chronic Disease Cases

Case Definition	Version	Method of Creation	Sensitivity % (95% CI)	Specificity % (95% CI)	PPV % (95% CI)	NPV % (95% CI)	Page
ADHD[12]	1	Expert panel	70.8 (48.9-87.4)	99.5 (98.9-99.8)	70.8 (52.6-84.2)	99.5 (99.0-99.7)	6
Adult Asthma[13‡]	1	Expert panel	80.6 (69.5-88.9)	96.4 (94.7-97.7)	70.7 (59.7-80.3)	97.9 (96.5-98.8)	8
Cardiovascular Disease[10]	1	Expert panel	76.9 (70.4-82.5)	97.2 (96.3-97.9)	75.4 (69.8-80.2)	97.4 (96.7-98.0)	9
Cerebrovascular Disease[10]	1	Expert panel	77.6 (65.8-86.9)	98.6 (97.9-99.0)	65.0 (55.7-73.3)	99.2 (98.8-99.5)	10
Chronic Heart Failure[7‡]	1	Expert panel	99.3 (98.4-99.8)	98.8 (98.2-99.2)	96.1 (94.6-97.3)	99.8 (99.5-99.9)	11
Cirrhosis[11]	1	Expert panel	84.6 (83.1-86.0)	99.3 (99.1-99.4)	94.8 (93.9-95.7)	97.5 (97.3-97.7)	12
CKD[*]	1	Expert panel	-	-	-	-	13
COPD[1#]	2	Expert panel	82.1 (76.0-88.2)	97.3 (96.5-98.0)	72.1 (65.4-78.8)	98.4 (97.9-99.0)	14
Coronary Artery Disease[10]	1	Expert panel	91.6 (84.6-96.1)	98.3 (97.6-98.8)	74.8 (67.8-80.7)	99.5 (99.1-99.7)	15
Dementia[1]	1	Expert panel	96.8 (93.3-100.0)	98.1 (97.5-98.7)	72.8 (65.0-80.6)	99.8 (99.6-100.0)	16
Depression[1#]	2	Expert panel	81.1 (77.2-85.0)	94.8 (93.7-95.9)	79.6 (75.7-83.6)	95.2 (94.1-96.3)	17

Condition coding in EMR problem list

Chronic Disease Registry – physicians can clean up their problem list



Feasibility of identifying and describing metabolic syndrome in young adults in northern Alberta

- Cross-sectional NAPCReN data
  - 3-year contact group
  - patients aged 18-40
- Case-definition developed (Table 1)
  - Feasible in identifying metabolic syndrome
- Assessing prevalence was not feasible
  - **Large amount of missing lab data**
    - **4% prevalence**

Boisvenue JJ, Oliva CU, Manca DP, Johnson JA, Yeung RO. Feasibility of identifying and describing the burden of early-onset metabolic syndrome in primary care electronic medical record data: a cross-sectional analysis. CMAJ Open. 2020;8:E779–87. https://doi.org/10.9778/cmajo.20200007.

Table 1: Harmonized criteria for defining metabolic syndrome: 3 or more factors to make a diagnosis

Metabolic syndrome criteria	Cut-off point*
Overweight and obese	BMI ≥ 25†
Elevated BP‡	CPCSSN diagnosis of hypertension or systolic BP ≥ 130 mm Hg or diastolic BP ≥ 85 mm Hg
Dysglycemia	CPCSSN diagnosis of diabetes or HbA_{1c} ≥ 6.0% or FBG ≥ 5.6 mmol/L
Hypertriglyceridemia	Triglycerides ≥ 1.7 mmol/L
Low HDL cholesterol	HDL cholesterol ≥ 1.0 mmol/L in men, ≥ 1.3 mmol/L in women

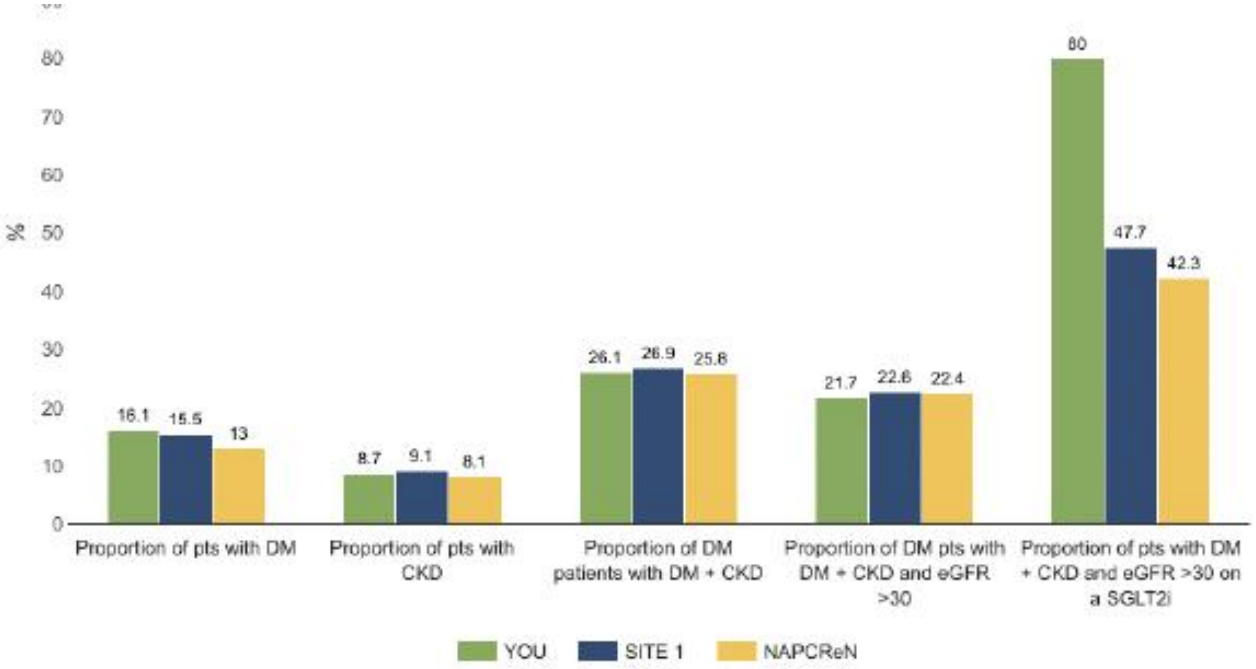
NAPCReN & Physician Learning Program(PLP) sentinel report topics

ASTHMA	SABA without inhaled steroid, > 1 SABA inhaler/year, Rxed oral steroids
COPD	Smoking status documented, smokers
DIABETES	HbA1c ≤ 7, BP in previous year, BP ≤ 130/80, weight, BMI, Rxed a statin
HYPERTENSION	BP ≤ 140/90, BP documented < 7 mo, BP > 12mo, undiagnosed hypertensive patients
RENAL FAILURE	Diabetics & renal failure Rxed SGLT2i
CARDIOVASCULAR DISEASE	Rxed a statin
PRESCRIBING	Patients ≥ 65 yo: on 10+ medications, Rxed sedatives

Sentinel feedback reports

Diabetes & Chronic Kidney Disease Feedback Report

The Northern Alberta Primary Care Research Network (NAPCReN) and the Physician Learning Program (PLP) have collaborated to provide you with some resources that can help you better evaluate and manage your patients with diabetes (DM) and chronic kidney disease (CKD).



The following report provides you with personal feedback on your patients living with diabetes and chronic kidney disease (CKD). It is focused on SGLT2 inhibitors, as they have the best evidence in these conditions. You can compare your numbers to those of your site and all the practices in NAPCReN. These numbers are not "good" or "bad;" they are information provided to help you better understand your practice.

1. You can see the proportion of patients ≥ over 18 years old with DM in your practice compared to your site and the network (NAPCReN). Your practice demographics may be different from those of your site or the network. Perhaps if you have younger patients, you may have fewer patients with DM. If your practice is focused on geriatric patients, you may have more patients with DM than others.

2. You can see the proportion of patients ≥ over 18 years old with a CPCSSN diagnosis of CKD in your practice compared to your site and the network (NAPCReN). Your practice may have fewer or more patients with CKD than your site or the network.

3. DM is a chronic disease that can lead to CKD. You can see the proportion of your patients with DM who have CKD as compared to your site and the network. This could indicate how well your patients with DM are being managed to prevent CKD. For example, you may have a lower proportion of patients with DM and a higher proportion of patients with DM and CKD than your network. A higher proportion of your patients with DM may be developing CKD. This could be due to any number of factors that you could explore further. Maybe your management of diabetes could be improved to prevent progression to CKD. Or maybe your management is ideal, but you are dealing with a difficult patient population (e.g., inner city).

4. SGLT2 inhibitors have the best evidence, Grade A, for use in patients with DM who also have CKD and an eGFR > 30. (see last page for 2020 CDA guideline information). You can see the proportion of your patients with DM, CKD and an eGFR > 30. Prescribing an SGLT2i could benefit these patients. In this report, you can see the proportion of patients with and without CKD who are being prescribed SGLT2i's compared to your site and the network.

Meso level research on Alberta "Underuse of cardiorenal protective agents in high-risk diabetes patients"

- Cross-sectional NAPCReN data
  - Data from January 2018–June 2019
  - 7168 adult patients with diabetes
- **Contrary to current evidence and recommendations, SGLT2i and GLP1-RA were less likely to be prescribed to patients with pre-existing CVD, HF, and/or CKD**

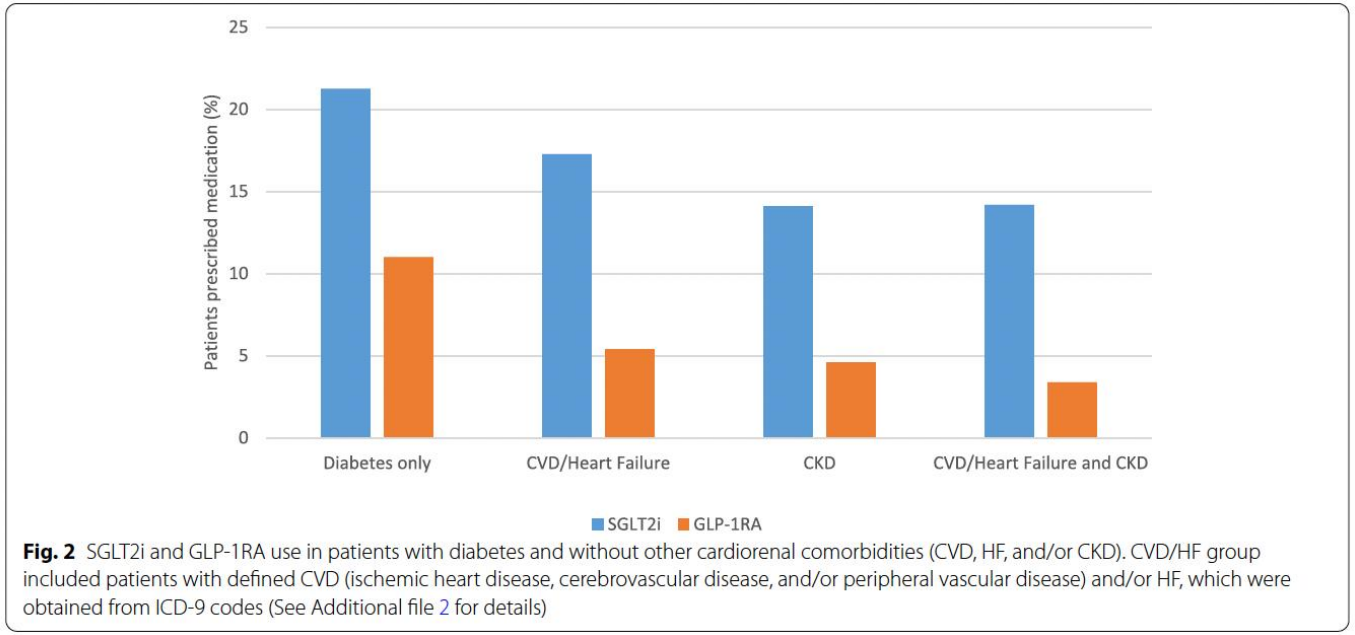


Fig. 2 SGLT2i and GLP-1RA use in patients with diabetes and without other cardiorenal comorbidities (CVD, HF, and/or CKD). CVD/HF group included patients with defined CVD (ischemic heart disease, cerebrovascular disease, and/or peripheral vascular disease) and/or HF, which were obtained from ICD-9 codes (See Additional file 2 for details)

Hao R, Myroniuk T, McGuckin T, Manca D, Campbell-Scherer D, Lau D, et al. Underuse of cardiorenal protective agents in high-risk diabetes patients in primary care: a cross-sectional study. BMC Prim Care. 2022;23:124. https://doi.org/10.1186/s12875-022-01731-w.

Macro level research "Use of SGLT-2 Inhibitors in Adults (Age ≥ 65) with Type 2 Diabetes and Cardiovascular Disease is Lower in Alberta and Manitoba than in Ontario (2018-2020)" – **Funding policies impact patient care**

Cross-sectional CPCSSN data set - 3191 adults

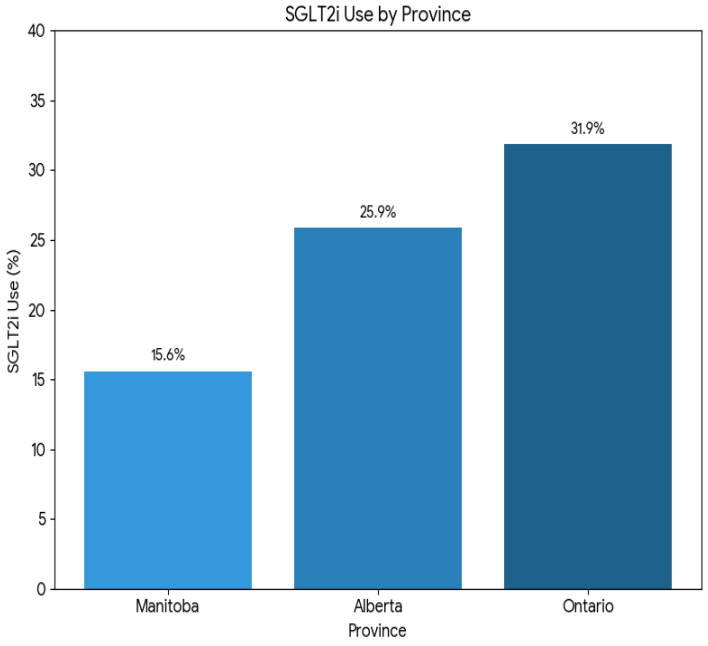
- July 1, 2019, to June 30, 2020
  - Follows the 2018 Diabetes Canada guideline
  - Avoids impact of COVID

Provincial benefit plans for SGLT2i

- Ontario – covered as a regular benefit
- Alberta - restricted via prior authorization and step therapy
- Manitoba - restricted via prior authorization, step therapy, and an income-based deductible

Conclusion

- ***"cost-sharing policies should be flexible and responsive to changing evidence of clinical benefit"***



McCreary ML, Yeung RO, Manca DP, Greiver M, Singer AG, Lau D. Use of SGLT-2 Inhibitors in Adults (Age ≥ 65) with Type 2 Diabetes and Cardiovascular Disease is Lower in Alberta and Manitoba than in Ontario (2018-2020): A Cross-Sectional Study of Different Drug Funding Policies. Can J Diabetes. 2024;0. https://doi.org/10.1016/j.jcjd.2024.09.003.

Achievement of treatment targets among patients with type 2 diabetes in 2015 and 2020 in Canadian primary care

CPCSSN data on individuals living with diabetes

- Cross-sectional study of 32,503 and 44,930 adults with diabetes June 2015, and 2020

- **Target achievement for blood pressure and use of statins and of ACE inhibitors and ARBs declined between 2015 and 2020 and was suboptimal in all patient groups**

Nandiwada S, Manca DP, Yeung RO, Lau D. Achievement of treatment targets among patients with type 2 diabetes in 2015 and 2020 in Canadian primary care. CMAJ. 2023;195:E1–9. https://doi.org/10.1503/cmaj.220673.

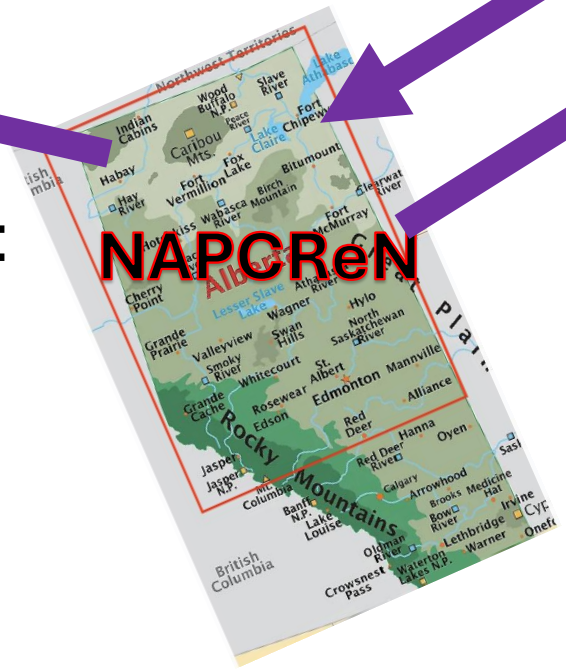
CIHR funded QI project – SPIDER-NET

PIs - Greiver M, OBrien PA, Twohig M. Burge FI, Dahrouge S, Drummond NA, Ivers NM, Lussier M-T, Manca DP, Singer AG

- A **macro-level project** focused on **deprescribing** in complex patients
  - **A PERFECT EXAMPLE OF HOW A DIGITAL FOUNDATION (VIA FEEDBACK LOOPS) CAN HELP PCP IMPROVE CARE**
- RCT of Family practices contributing EMR data to CPCSSN in Nova Scotia, Quebec, Ontario, Manitoba and Alberta.
- Intervention – practice specific prescribing feedback derived from EMR data, coaches, and learning collaboratives
- Primary outcome – cumulative prevalence of four classes of potentially inappropriate medication prescribed to older adults $\geq$ 65 yrs

Physician Learning Program

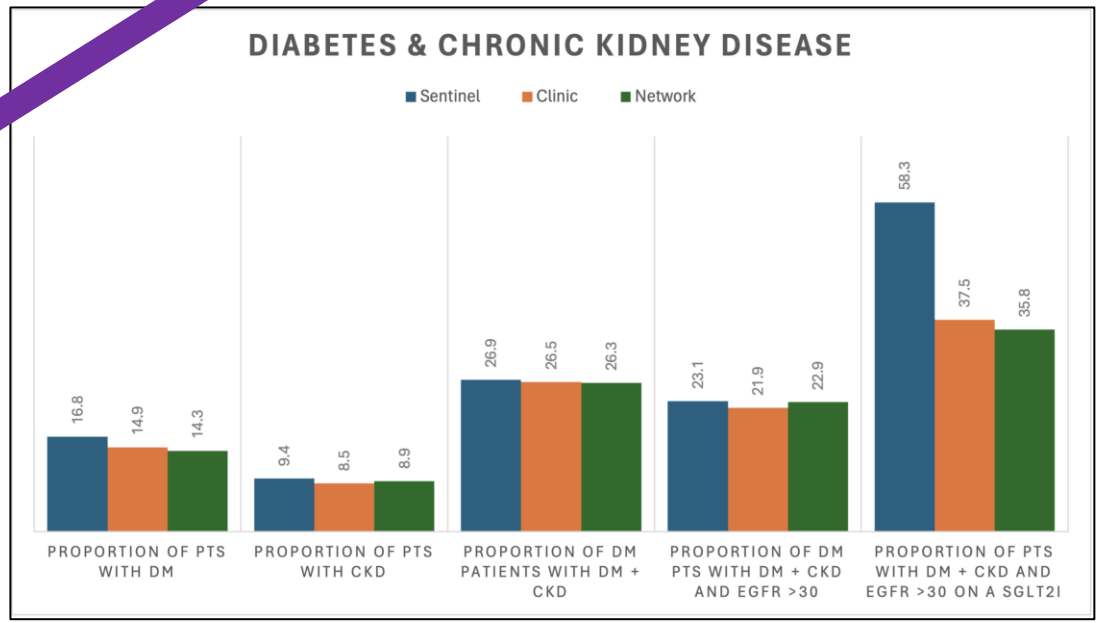
University of Alberta



QI & research at different levels

- **Mico** – (practice)
- **Meso** – (network/provincial)
- **Macro** – (national)

Improvement activities - practice/physician/patient



Agenda

The Digital Foundation

PBRLNs: the “Laboratory” of Primary Care

Opportunities for Clinician Involvement

Examples: Turning Data into Discovery

Overcoming Challenges and Future Directions

Q&A and Interactive Discussion

ENGAGED LEADERSHIP

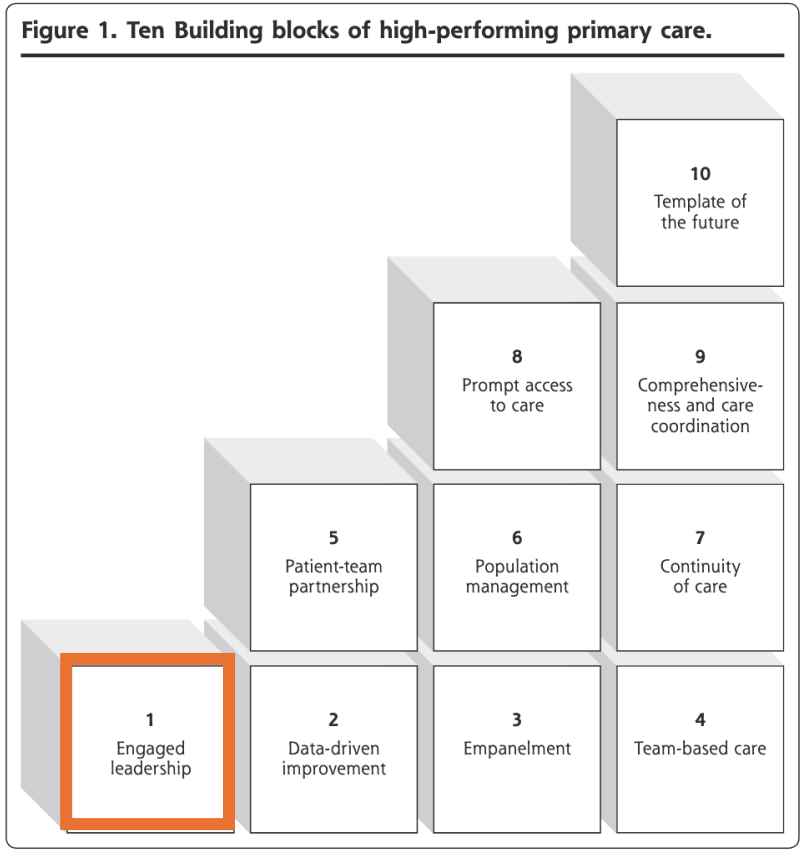
"If you want to go fast, go alone. If you want to go far, go together"

TOP-DOWN APPROACHs = silos

- Alberta Health
- Alberta Health Services
- Public Health
- Primary Care

We do not have a health care system

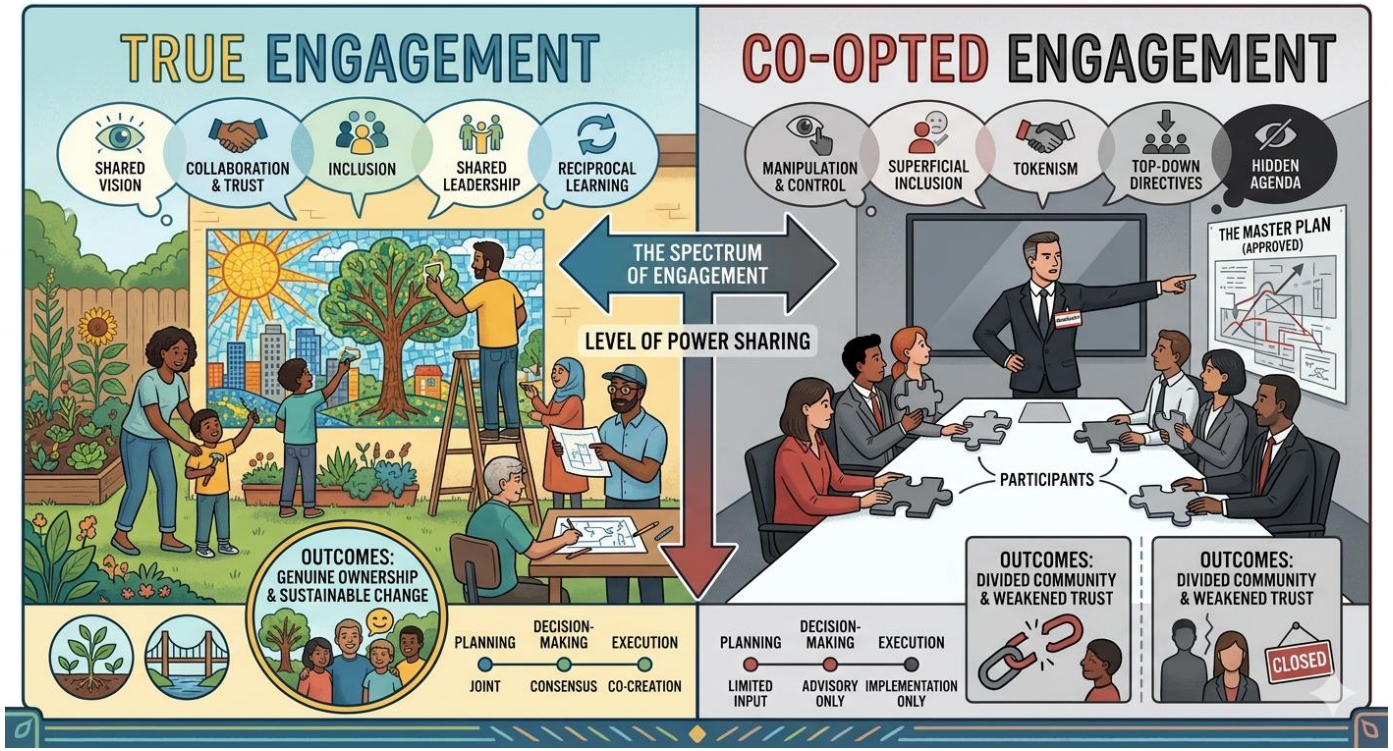
See Larry saves the Canadian Healthcare System
https://www.youtube.com/watch?v=U_7weVo2qV0



WHOLE SYSTEM APPROACH

Avoid a co-opted approach

Co-opted Engagement can look like True engagement

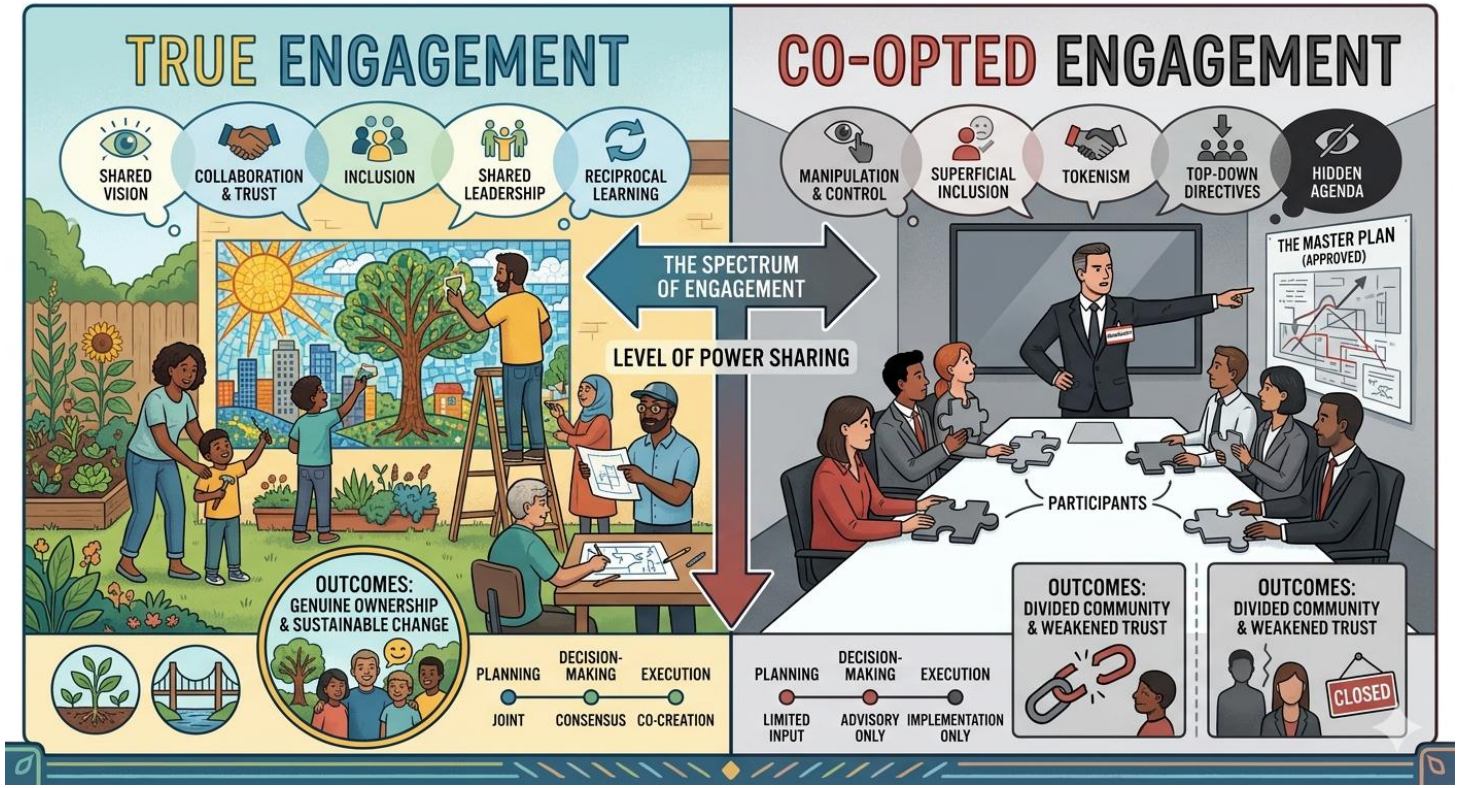


WHOLE SYSTEM DATA APPROACH

"If you want to go fast, go alone. If you want to go far, go together"

Care happens when the clicks are linked across patient, EMRs, and administrative data

- Use EMR patient messaging
- Link admin & EMR data
- Address ethics & HIA (REB approval, data sharing agreement, patient consent)



Data driven system

Optimize electronic records

Interoperability

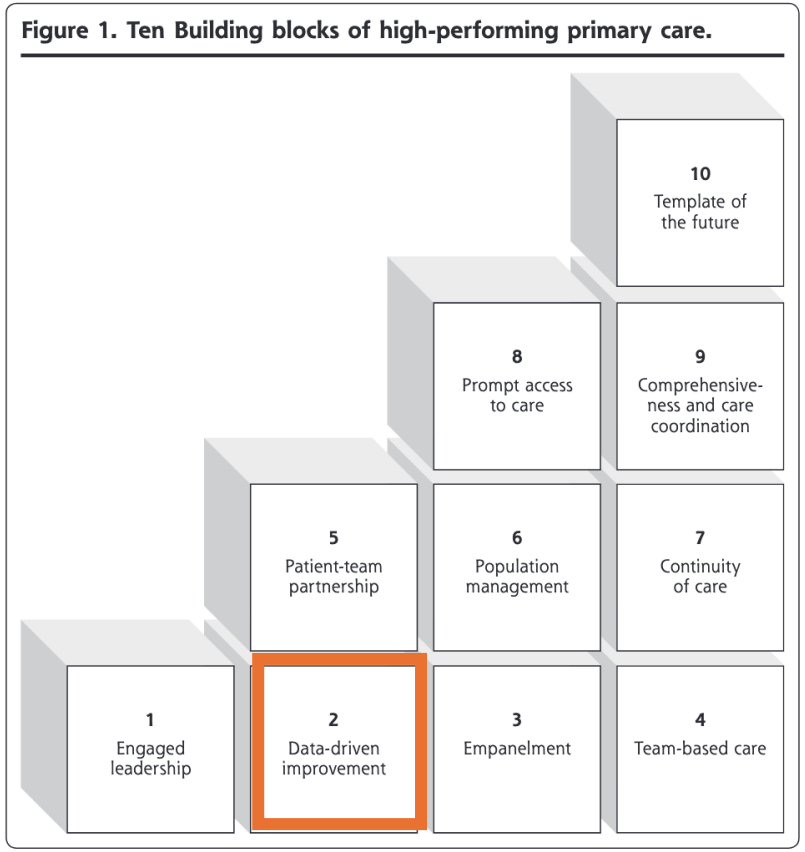
- Bill S-5 - An Act regarding interoperability of health information & the prohibition of data blocking
- Ensure systems can communicate with each other (patient data results to EMR, EMR & EHRs, etc.)

Standard Fields & Standard Entry

- EMR data standards & programing (e.g. labs – LOINC)

Update outdated coding systems

- ICD9 s/b updated (ICD11 or international classification of primary care)



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THE END