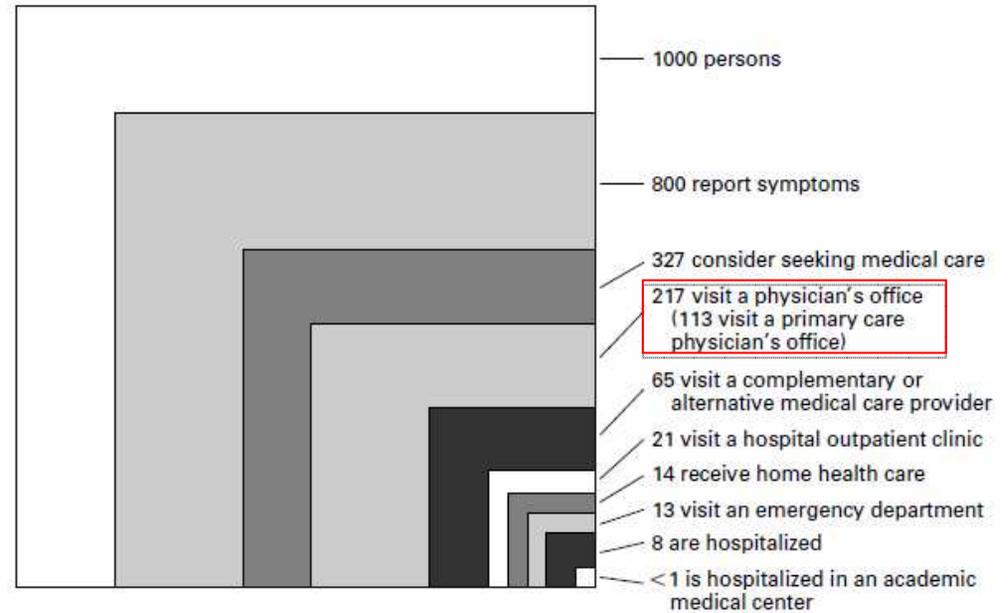


# A Practice-Based Research Network

“... is the living lab of primary care.”

-- Meyers D, Parchman M:  
JABFM, 2011, 24:493

And the EMR data produced in practice every day are a ‘game changing’ research resource.



Ecology of Medical care Revisited Green et al NEJM 2012

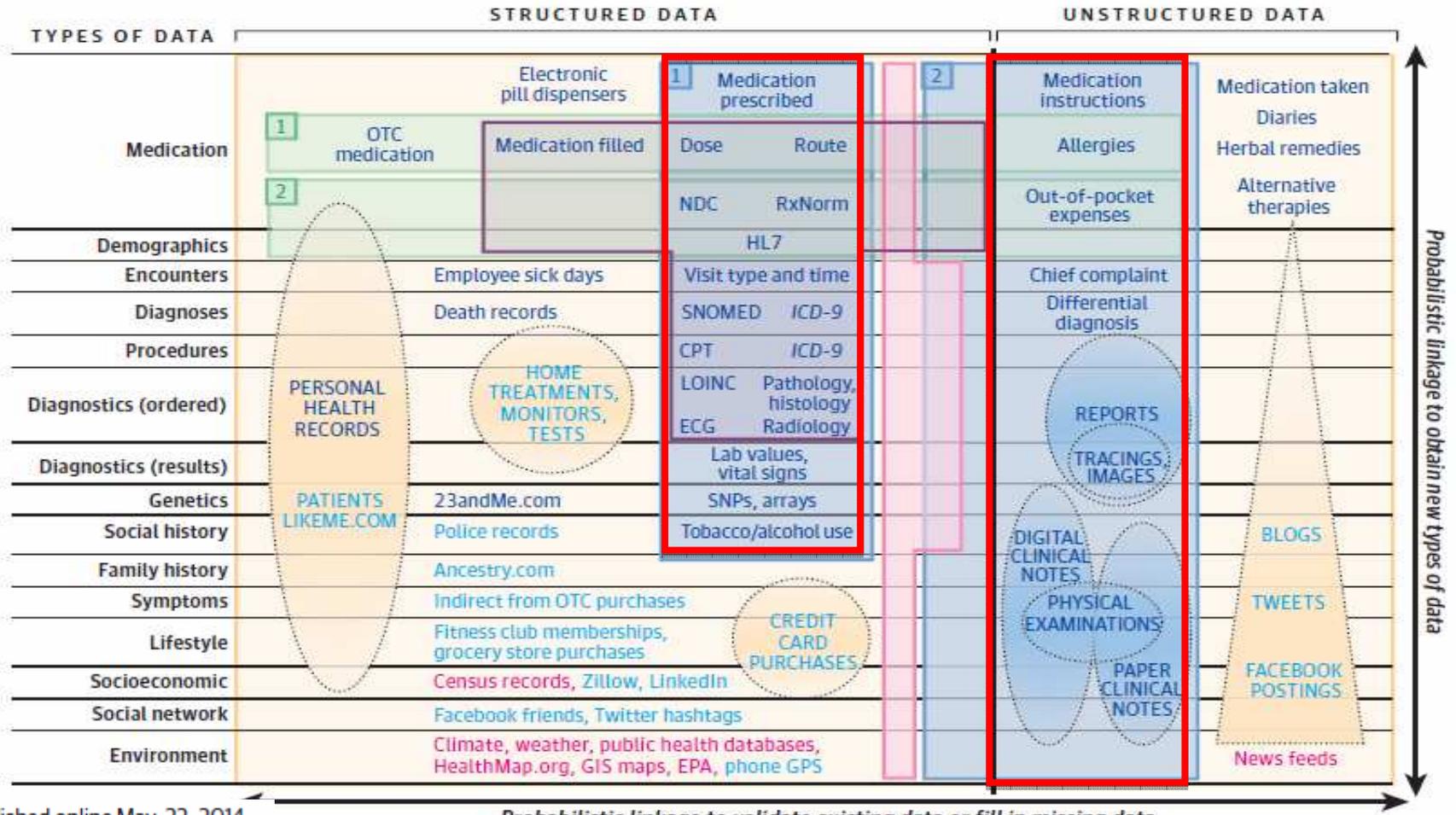
# Primary Care Data in Ontario

- Demographics
- Prescribing
- Diagnoses
- Tests & Procedures
- Free Text

85% recorded on EMRs

The screenshot displays a medical EMR interface for Dr. Francis Michael Sullivan - PSS. The patient is identified as PSS, Mommy, age 36 yr, 105. The interface is divided into several sections:

- Family History:** Father: COPD; Mother: Breast CA...; Father: CHD age 55.
- Diagnoses:** Bilateral carpal tunnel syndrome, Diabetes, hypertension, migraine...
- Medications:** sertraline hydrochloride 200 mg qd for 10 d, Amoxil 250 mg tid for 10 d with food, Inderal-La 120 mg capsule Sa 1 puff bid, PRN for 30 d as needed, Cough Syrup 10 mL bid for 30 d, Accupril 20 mg Tablet 1 tab qd for 90 d, massage therapy, Materna Tablet 1 tab qd for 90 d, Lipitor 20 mg Tablet 1 tab qd for 90 d 1 QHS, Tylenol 500 mg Caplet Various, All Purpose Nipple Ointment 1 appln qd, PRN for 30 d APNOINS.
- Immunizations:** ? Penicillin G Sodium, flu vaccine (2) latest: Nov 12, 2007, MMR latest: Oct 17, 2012, OPT (3) latest: Oct 17, 2012.
- Other Data:** diabetic eye exam, HgA1C, Pre-conception folate advice, Order Mammogram, Preventive Care Female.
- Recent Messages:**
  - Mar 21, 2014: Letter DS (Needs Printing)
  - Mar 21, 2014: 2010 Lab Requisition with MRN (Click to expand) DS
  - Mar 24, 2014: Did not attend for blood test - reminded to do so DS
  - Jun 12, 2014: Hamilton Depression Score: 15 Mild depression DS
  - Aug 26, 2014: Start: All Purpose Nipple Ointment 1 Application(s) Once daily, PRN for 30 Day(s) APNOINS Quantity: 30 Application(s) (Topical treatment assumed not to have any interactions) No interactions guaranteed by user. Change To and Renew: All Purpose Nipple Ointment 1 Application(s) Once daily, PRN for 30 Day(s) APNOINS Quantity: 30 Application(s) Printed. No interactions guaranteed by user.
  - Special Note: INR Flowsheet 2 (Click to expand) KK



JAMA Published online May 22, 2014

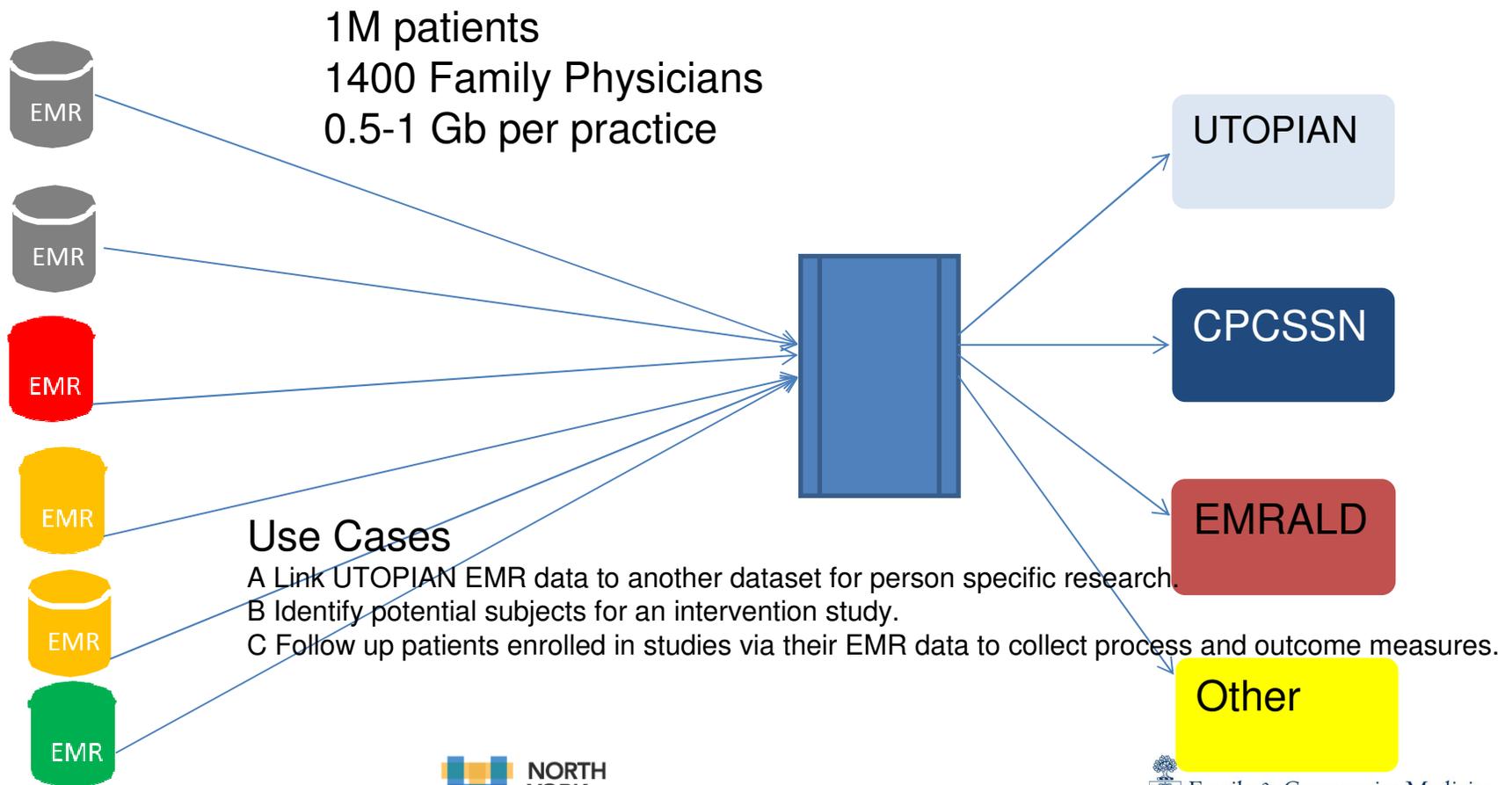
Examples of biomedical data		Ability to link data to an individual	Data quantity
Pharmacy data	Health care center (electronic health record) data	Easier to link to individuals	More
Claims data	Registry or clinical trial data	Harder to link to individuals	Less
Data outside of health care system		Only aggregate data exists	

# Primary care EMR data safe Haven for 1M patients in GTA from ICES EMERALD & CPCSSN & RCSSSP

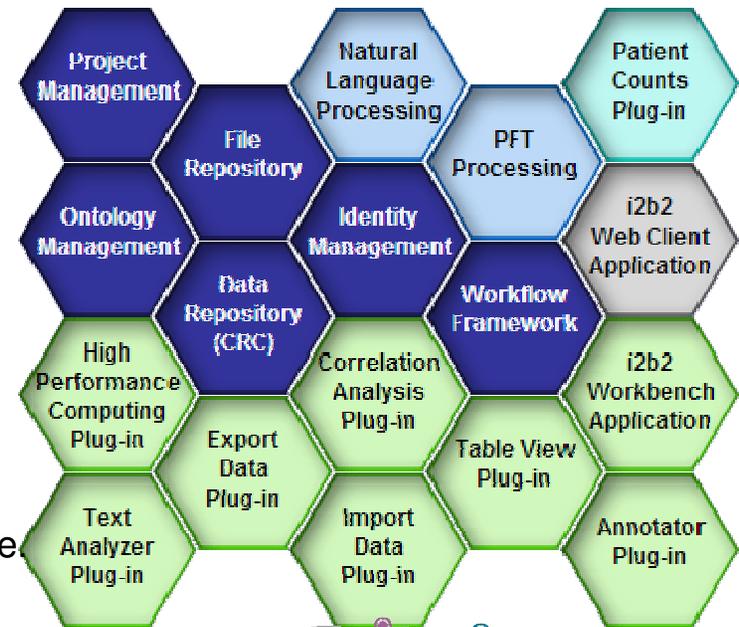
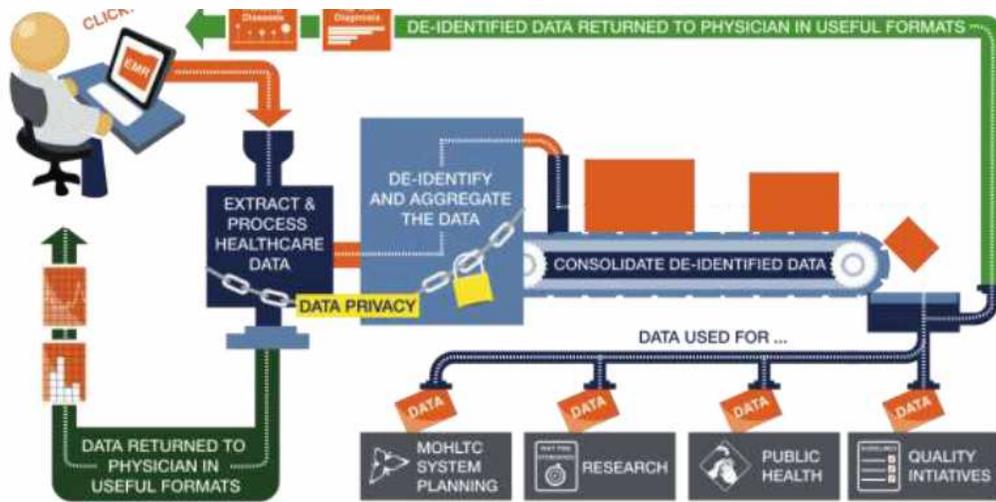
EMRs

Data Extraction Safe Haven

Uses



# From UTOPIAN to Ontario and beyond.....



AMIA Annu Symp Proc. 2007;;548-52.  
 Architecture of the open-source clinical research  
 chart from Informatics for Integrating Biology and the Bedside  
 Murphy SN1 et al.

