The Physician Integrated Network Evaluation Plan:

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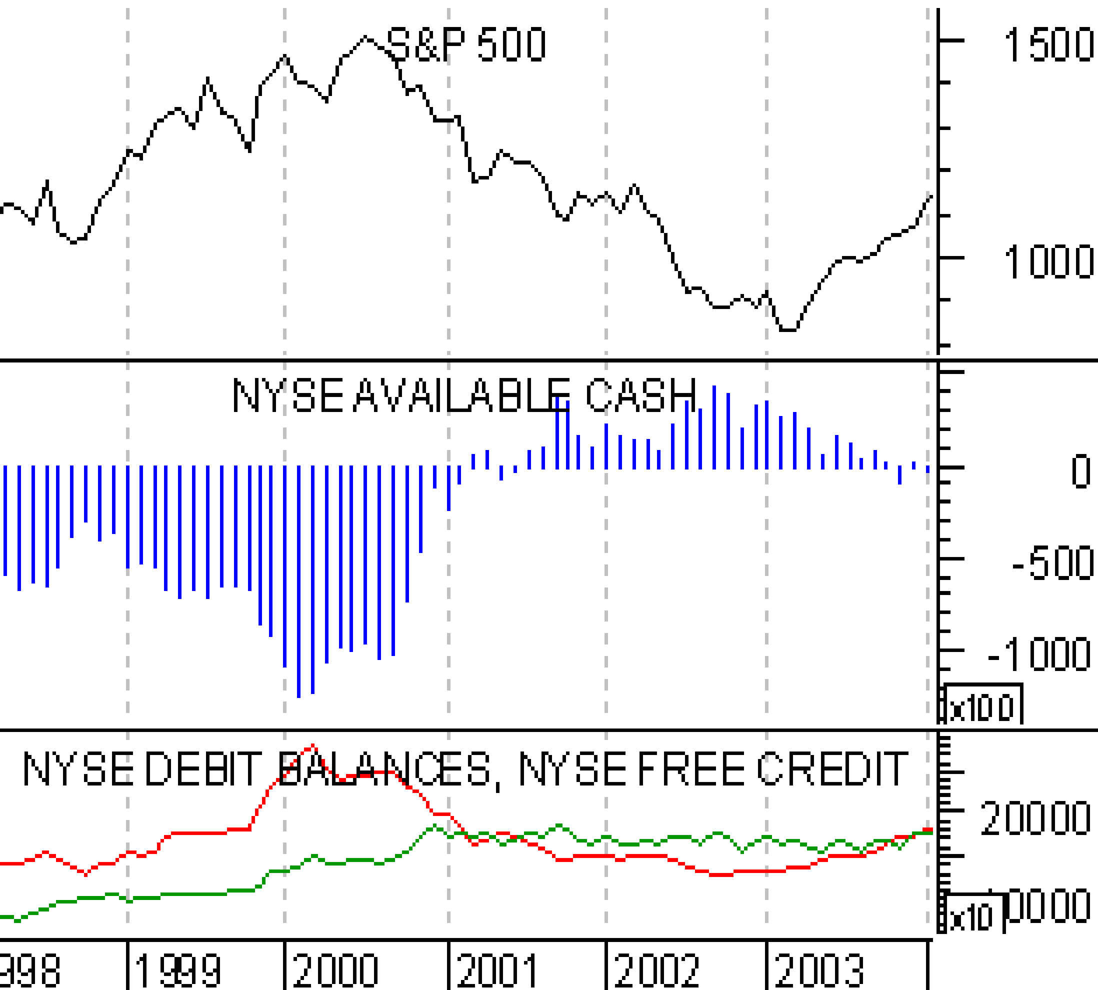
Outline

- Indicators 101
- CIHI Primary Health Care Indicator Development Project
- Quality indicators in primary care
- Evaluating the PIN project


S&P 500
1500
1000
NYSE AVAILABLE CASH
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-500
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NYSE DEBIT BALANCES, NYSE FREE CREDIT
20000
10000
x10
1998
1999
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2002
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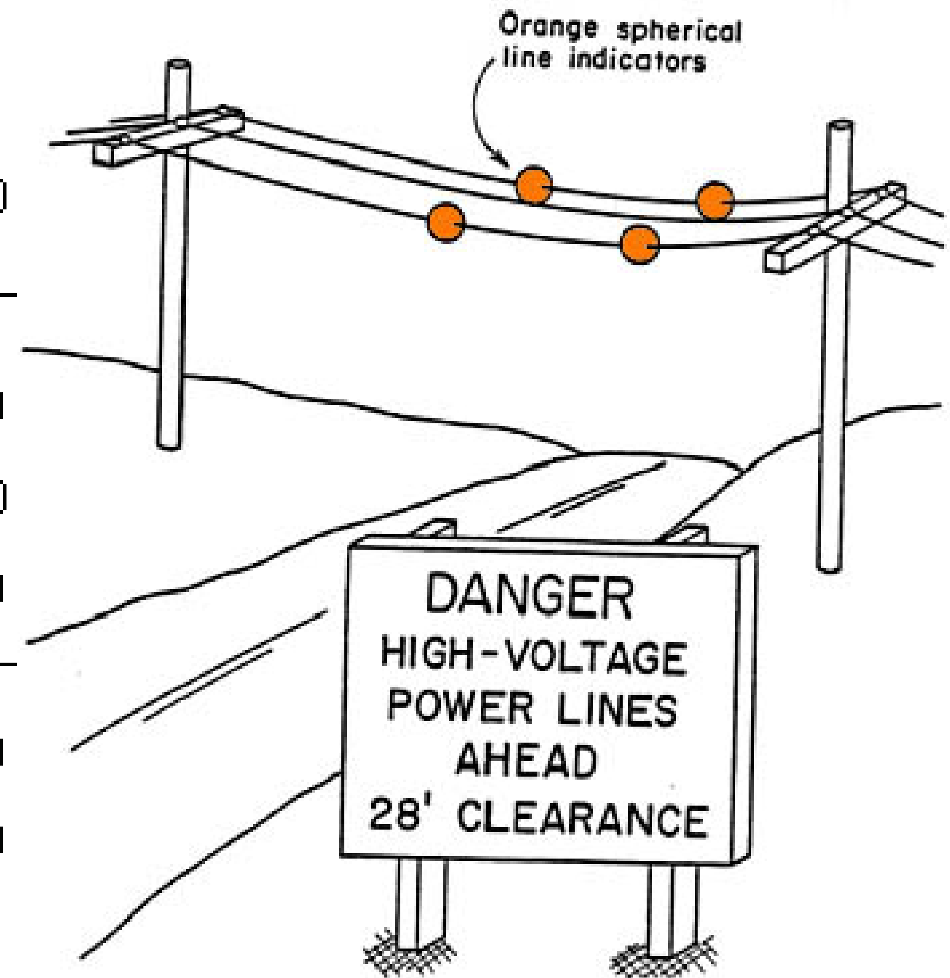

Orange spherical line indicators
DANGER
HIGH-VOLTAGE
POWER LINES
AHEAD
28' CLEARANCE

What is an indicator?

- Single summary measure, expressed in quantitative terms
- Represents a key dimension of health status, the health care system or related factors
- Indicators for clinics need to be relevant to what is most important to their work.
- Relevant to the goals of the project

Why develop indicators?

- Supports monitoring and research
  - Change over time
  - Comparison between jurisdictions
- Identify areas of interest - indicators generate questions for investigation (‘What is Happening’) not detailed answers (‘Why It Is Happening’)

Reminder

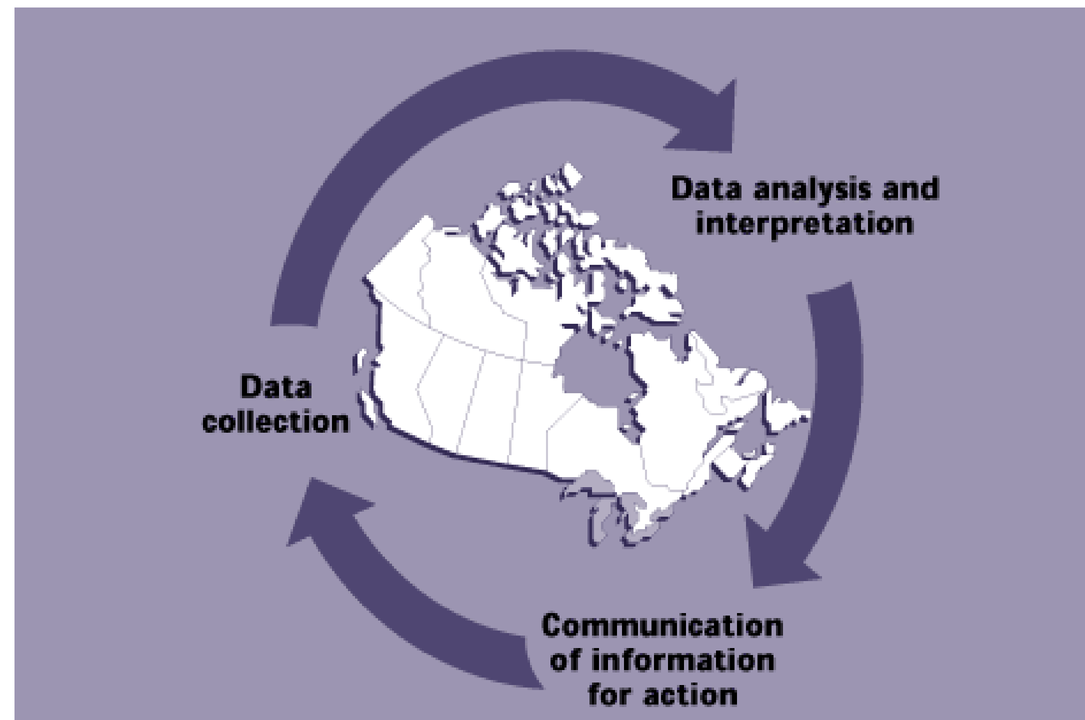
- Indicators cannot be used to inform every type of question!
- They cannot:
  - Explain disparities, variations or change
  - Be interpreted without further analysis
  - Be used where precise definitions cannot be ascertained
- They are not the purpose of the exercise!

Populating the indicators

- Surveys
- Interviews
- Chart audit/Extraction
- Administrative data
  - MCHP data repository: Deliverable

Using indicators

- Quality improvement
- Accountability
- Report card (public)
- Funding



Limitations

- May not be able to measure the most important aspects of what you do
- Measurement can interfere with service delivery
- Playing to the evaluation
- Measuring it because you can, not because it is important (objectives!)

Potential Measures:

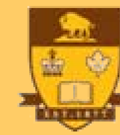
- **Process** - actual care given
  - Preventative
  - Chronic
  - Acute
- **Structure** - the system
- **Outcome** - consequences of care
  - Health status
  - User evaluation

Quality in Primary Care

- Access – **structure** of system
- Clinical effectiveness
- Interpersonal effectiveness

(Clinical effectiveness and Interpersonal effectiveness:) **Process**

Effectiveness: the extent to which care delivers its intended outcome, or results in a desired process in response to need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PIN Goals

1. To demonstrate high quality primary care with a specific focus on Chronic Disease management.
2. To improve access to primary care.
3. To improve the working environment for all primary care providers.
4. To improve Primary Care providers' access to and use of information

PIN Evaluation Outline

- Two goals: Evaluate this project and establish potential on-going process
- Four components:

1. Process measures from EMR
2. Patient and provider surveys: PCAT
3. Qualitative interviews: managers, providers, patients
4. Deliverable: Administrative data

Experimental model

- When measuring the effect of an intervention it is useful to have something to compare to: change over time or a control
- Control needs to have same measures available to be able compare results on the indicators: Steinbach

Step 1: Population of interest

- Who do we include in the measurement of the indicators?
- "Core patients – a patient whose principal primary care provider is one of the physicians within this clinic"
- Algorithm for administrative data exits

Step 2: Determining indicators

- What are the project goals?
- What validated indicators exist?
  - CIHI: 105 indicators: www.cihi.ca
  - Environmental scan
  - Two consensus conferences
  - Working groups
  - International consultations
  - Delphi process (70 individuals)
- What validated indicators can we measure?

CIHI Indicators

- Access through a regular provider
- Comprehensive care
- Continuity of care through integration and coordination
- Patient centered care
- Quality care: Prevention, CDM, Safety

Indicator clusters chosen

- Hypertension
- Diabetes
- Coronary Artery Disease
- Prevention

Hypertension

- Definition of dx of hypertension = [condition 1] at least two visits where billing was submitted with a dx of hypertension AND [condition 2] at least one prescription given for an antihypertensive drug OR Hypertension in EMR problem list

Hypertension (cont)

- % of patients who received testing within the past 12 months
  - Fasting blood sugar
  - Full fasting lipid profile screening
  - Test to detect renal dysfunction (e.g. serum creatinine)
  - BP measurement
  - Obesity/overweight screening

Diabetes

- Definition of diagnosis of diabetes = [condition 1] at least two visits where a billing for Diabetes was submitted AND [condition 2] at least one diabetes-related drug prescription OR an entry of diabetes in the EMR's problem list.

Diabetes (cont)

- Hgb Alc
- Nephropathy screening (e.g. albumin/creatinine ratio, microalbuminuria)
- Foot exams
- Full fasting lipid profile screening
- BP measurement
- Obesity/overweight screening
- Fundoscopic exams – 24 months

Coronary Artery Disease

- Definition of diagnosis of coronary artery disease = [condition 1] at least one prescription given for a drug related to treatment of coronary artery disease AND [condition 2] either a billing submitted for CAD OR an entry of CAD in the EMR's problem list

Coronary Artery Disease (cont)

- % of patients who received testing within the past 12 months
  - Fasting blood sugar
  - Full fasting lipid profile screening
  - BP measurement
  - Obesity/overweight screening
- Lipid reduction counseling: % of patients with LDL > 2.5mmol/L who were offered advice on lifestyle and/or lipid-lowering medication

Prevention

- Screening: Pap every 2-3 years (3 years)
- FOBT annually over 50 years (2 years)
- Mammography (2 years)
- Lipid screening (M >40; F>55 – 2 years)
- Blood sugar annually (2 years)
- BP measured (2 years)

Prevention

- Childhood immunizations (age 7)
- Influenza vaccination rates (1 year)
- Pneumococcal vaccinations
- Breast feeding support/counseling
- Weight/exercise activity advice given (1 year)
- Smoking cessation advice given to smokers

Step 3

- Measure the indicators for the populations of interest
- Repeat the measurement to monitor change

Survey tools

- **PCAT**: components on:
  - strength of affiliation,
  - first-contact access,
  - ongoing-care
  - coordination
- compares well with other instruments like Safran's PCAS and Flocke's Components of Primary Care.

PIN Goals

1. To demonstrate high quality primary care with a specific focus on Chronic Disease management: Quality Indicators
2. To improve access to primary care: PCAT
3. To improve the working environment for all primary care providers: Interviews
4. To improve Primary Care providers' access to and use of information: Process

Deliverable Questions:

- How comparable are the EMR and administrative data for data fields that are common to both data sources?
- What are the feasible process and outcome indicators to track, given the information available in the administrative and EMR data? This will involve work to assess the reliability, validity and completeness of the EMR data and may result in suggestions for improvements to EMR data collection.

Deliverable (cont)

- What other indicators are desirable? What additional mechanisms over and above the current administrative (and EMR) data will be required to track these indicators?
- Over what timeframes must indicators be measured to demonstrate meaningful change?
- How can other variables (other than the planned change in practice) be factored out?