# Establishing Child and Youth Health Indicators Workshop "Part Deux"

**November 10, 2004 from 2:30 – 8:30pm**
**The Grand Salon at the Fairmont Queen Elizabeth Hotel, Montreal, Quebec**

## Expert Panel Presentation of Recommendations

## 1. Name of the Expert Panel: ***Efficiency Expert Panel***

## We would like to thank the following Expert Panel members for their time and support:

*Co-Chairs*: Anita McGowan (McMaster Children's Hospital)
Joe Reisman (Children's Hospital of Eastern Ontario)

*Panelists:*
Cindy Bruce Barrett *(The Hospital of Sick Children)*
Sharon Beynon *(British Columbia Children's Hospital)*
Irene Blais *(The Hospital of Sick Children)*
Cori Chapman *(Credit Valley Hospital)*
Ladan Dadgar *(Credit Valley Hospital)*
Geoffrey Dougherty *(Montreal Children's Hospital)*
Karyn Epp *(BC Provincial Health Services Authority)*
Murray Glendining *(Hamilton Health Sciences)*
Daniel Guindon *(Centre Hospitalier Universitaire mère-enfant)*
Chris Heylar *(Hay Health Care Consulting Group)*
Ferne Mardlin-Smith *(IWK Health Centre)*
Ian McKillop *(University of Waterloo)*
Pat Overholt *(Credit Valley Hospital)*
Gary Pekeles *(Montreal Children's Hospital)*
George Pink *(Health Policy and Administration, University of North Carolina at Chapel Hill)*
Susan Richardson *(Children's Hospital of Eastern Ontario)*
Ellen Schwalenstocker *(National Association of Children's Hospitals and Related Institutions (NACHRI))*
Debi Senger *(The Hospital for Sick Children)*
Donna Shelton *(National Association of Children's Hospitals and Related Institutions (NACHRI))*
Fatma Taha *(British Columbia Children's Hospital)*
Ginette Theriault *(Montreal Children's Hospital)*
Ian Wilson *(Grand River Hospital)*

## A. Review of Process

### 1. Definition

- Canadian Institute of Health Information [CIHI] defines efficiency within the health indicator framework as achieving the desired results with the most cost-effective use of resources.

### 2. Expert Consultation

- How are we currently measuring efficiency in Canada, United States, etc?
- What are the methodological and data challenges/barriers with efficiency measurement?
- NACRHI measurement and reporting system review

### 3. Literature Review

- Examination of existing measures of efficiency [methodologies and literature review]
- International system evaluation [e.g. UK, Australia, United States, Canada]

### 4. Balanced Scorecard Framework

- Four quadrants within Ontario Report Card-Acute Care
  - Clinical Conditions and Outcomes/ Financial Performance and Conditions/ System Integration and Change / Patient Satisfaction

### 5. Scope Refinement

- Rigby et al criteria for indicator selection
- Preliminary phase considerations
  - Principle question
  - Relevant and significant clinical conditions
    - Respiratory conditions of asthma, bronchiolitis, and croup
  - Template considerations
    - Generalizable to other clinical conditions
    - Reliable data
    - Identifying marker of performance vs performance measurement
    - Create a picture with five to seven indicators [psychology research]

## B. Key Deliverables

### 1. Principal Question

- What are the current health care resources being expended on children and youth across the continuum of care? Are we making the best use of these resources?

### 2. Preliminary Scope

- *Population*: Canadian children and youth up to 18$^{th}$ birthday
- *Question*: What are the measures of efficiency in pediatric health service delivery? The initial phase will attempt to establish and understand national utilization rates.
- *Focus*: Clinical conditions and outcomes quadrant within balanced scorecard framework modeling with asthma. The template may then be applied to other respiratory conditions such as bronchiolitis and croup.

### 3. Key Resources


- Kaplan RS, Norton DP. The balanced scorecard—measures that drive performance. Harv Bus Rev. 1992 Jan-Feb;70(1):71-9
- Pink G H et al. Creating a balanced scorecard for a hospital system. J Health Care Finance. 2001 Spring;27(3):1-20
- Ontario Hospital Report Card: Acute Care, (2002), Ontario Hospital Association and the Government of Ontario
- Priority area asthma indicators and data source. Australian Center For Asthma Monitoring, February 2004. www.aihw.gov.au/publications/title/9912

- Burden of Childhood Asthma. T To et al. Institute of Clinical Evaluative Studies, May 2004. www.ices.on.ca/file/ACF77.pdf

## 4. Existing/Available/Potential Indicators and Data Sources/Resources and Tools

| Continuum of Care | Indicator Description | Data Source/Resources/ Tools |
|---|---|---|
| **Primary Care** | • Total medical office visits and consultations with presenting problem of asthma related condition per 1,000 population. | CIHI, National Physician Database and Alternate Funding Database/Quebec RAMQ |
| **Acute Care Hospital Ambulatory Care- Emergency Room (ER)** | • ER visits, presenting with a most responsible diagnosis of asthma, per 1,000 population.<br>• Total ER visits trended over time<br>• ER visit within 72 hours of hospital discharge or previous ER presentation per 1, 000 population.<br>• Inpatient asthma admission via the ER as percent of all ER asthma presentations. | Canadian Institute of Health Information [CIHI], National Ambulatory Care Reporting System [NACRS]<br>Statistics Canada, Census Database<br>*Currently all hospitals in Ontario are mandated while some facilities in British Columbia, Yukon, Prince Edward Island, and Nova Scotia voluntarily submit data to CIHI.* |
| **Acute Care Hospital – Inpatient Care** | • Acute care inpatient separations for children and youth discharged with a most responsible diagnosis of asthma per 1,000 population.<br>• Average length of inpatient stay comparisons by most responsible diagnosis<br>• Readmission to hospital within 7 or 30 days with a related condition | CIHI, Discharge Abstract Database [DAD] including Med Echo submission for Quebec<br>Statistics Canada, Census Database |
| **Across the Continuum** | • Medical practitioner profile for provision of care to children and youth diagnosed with childhood asthma | CIHI, National Physician Database and Alternate Funding Database/Quebec RAMQ |

## C. Next Steps

### 1. Recommended Validation Process

- Explore partnership with CIHR, Health Canada, CIHI, CPDSN, CCHSA, NACRHI
- Tapping into respective expertise to develop an RFA

### 2. Short Term Recommended Indicators and Resources/Tools to Support Development

| Continuum of Care | Recommended Indicators | Potential Resources/Tools |
|---|---|---|
| **Primary Care** | • Expand analysis of medical office utilization considering visit type [consult or follow up] and scheduled or urgent classification | CIHI, National Physician Database and Alternate Funding Database |
| **Acute Care Hospital – Inpatient Care** | • Expand analysis of inpatient utilization rates considering data elements such as weighted cases, patient days, intensive care unit days, number of intensive care cases, level of care, and age, gender, and geographic distribution profiles<br>• Expand LOS comparisons considering relevant CMGs, best practice performance levels [percent days saved]*, co-existing conditions, and complexity level | CIHI, Discharge Abstract Database [DAD]<br>Statistics Canada, Census Database<br>*Quebec Issues:*<br>*Med Echo Collection/Reporting/ DRG Grouper/ Procedure Code/ ICD9 coding vs 1CD10 [Mapping?]*<br>Differences in Coding of ICUs and availability of pediatric ICU<br>Co-existing conditions aware of typing code variances across the country |
| **Acute Care Hospital Ambulatory Care- Emergency Room (ER)** | • Expand utilization analysis considering data elements such as total visits and age, gender, geographic and triage level profiles | Canadian Institute of Health Information [CIHI], National Ambulatory Care Reporting System [NACRS] |
| **Across the Continuum of Care** | • Utilization of broncho-dilator and anti-inflammatory drugs | CIHI, National Prescription Drug Utilization Reporting System Database |

### 3. Long Term Recommended Indicators and Resources/Tools to Support Development

| Continuum of Care | Recommended Indicator | Potential Resources/Tools to Support New Indicator |
|---|---|---|
| **Acute Care Hospital Ambulatory Care- Clinics** | ▪ Clinic utilization rate per 1,000 population considering total visits, specialty clinics [respirology, allergy, etc.], case weights<br>• Percent scheduled care [clinic visit] to emergent [ER] in an attempt to develop a ratio | CIHI, National Ambulatory Care Reporting System [NACRS]<br>*Note: Requires abstracting and reporting mandate from CIHI and provincial MOHs* |
| **Walk-In Clinic or Urgent Care Center** | • Walk-In Clinic Utilization rates per 1,000 population as measured by total visits | CIHI, National Ambulatory Care Reporting System [NACRS]<br>CIHI, National Physician Database and Alternate Funding Database<br>*Note: Walk-In Clinic delivery system variances [i.e. some walk in clinics are operated by physicians while others are integrated into hospital ambulatory structures]* |
| **Acute Care Hospital Ambulatory Care- Emergency Room (ER)** | • Percent of ER cases where appropriate follow up is scheduled before patient leaves ER | Canadian Institute of Health Information [CIHI], National Ambulatory Care Reporting System [NACRS]<br>"Review of Proposed National Health Priority Area Asthma Indicators and Data Sources" from the Australian Centre for Asthma Monitoring<br>Asthma Education Program Databases |

## 4. Process for Validation for Recommendations for Developing New Indicators

- Build on existing partnerships with CIHI, CPDSN, CIHR, CCHSA, and Health Canada
- Engage the content and methodological experts to develop new indicators