Child and Youth Health and Well-Being Indicators Initiative

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Bernie Paillé – Special Projects Lead - CIHI
Michael Egilson – Chair, Child Death Review Unit
Presentation Overview

• Project rationale
• Roles and responsibilities
• Collaborations – examples from project stages
  – Background work
  – Validation exercise
  – Indicator assessments
  – Evidence assessments & indicator selection
  – Documentation
• Final Recommended Suite of Indicators
A Report On the Health of British Columbians

Provincial Health Officer’s Annual Report

1997

Feature Report: The Health and Well-being of British Columbia’s Children

1998
Ministry of Health and Ministry Responsible for Seniors
Victoria, British Columbia
Project Rationale

• Update PHO report on Child Health and Well-Being

• Evidence informed
  – Focus on contributing factors, modifiable conditions and actions that make the most difference to both positive and negative child and youth health and well-being outcomes

• Goal
  – a sustainable, solid measurement system that will support consistent and ongoing reporting over many years
Indicator Selection

Evidence based and expert supported:
Magnitude
Significance / Impact
Modifiability
Data availability / quality

Government Priorities
Governance and Roles

• Three levels of governance
  – Advisory Committee: advice on policy implications and comprehensiveness
  – Technical Committee: advice on methods and data
  – Project Working Group: day to day operations

• Intersectoral
  – Ministries with responsibility for child and youth issues
  – Post project reporting “ownership”

• Interdisciplinary
  – Content experts involved throughout the process
Advisory Committee Role in the Project

- Develop Health & Well-Being Framework
- Identify, Vet & Select Indicators
  Technical Report

Indicator Project

- Development of PHO Report on Child Health & Well-Being
- Suggest Recommendations

Advisory Committee to provide advice & expertise
# Advisory Committee

<table>
<thead>
<tr>
<th>Chair</th>
<th>Marilee Allerdings</th>
<th>Dr. Clyde Hertzman</th>
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<tr>
<td><strong>Dr. Eric Young</strong></td>
<td>Manager, Research &amp; Analytical Projects CIHI</td>
<td>Human Early Learning Program</td>
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<td>Dr. Richard Stanwick</td>
<td>Andrew Hazlewood</td>
<td>Sandra Griffin</td>
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<td>Dr. Maureen O’Donnell</td>
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<td>Dr. Ian Pike</td>
<td>Dr. Malcolm Ogborn</td>
<td>Jeremy Berland</td>
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Office of the Provincial Health Officer
Project Phases

1. Framework Development
2. Indicator Relevance Review (Delphi)
3. Indicator Evidence Review (systematic)
4. Indicator Recommendation & Selection
Health and Well-Being – A Dynamic Balance
The difference data makes

www.cihi.ca
CIHI – Office of the PHO Partnership

• CIHI wants to work on indicators and data development that are important to its stakeholders
• Public reporting of data and using data to identify areas for improvement inevitably leads to better data (more standardized, more comparable)
• Pushing the boundaries of health reporting beyond “health services” is where we need to be heading
• Leveraging the work (and leadership) of one jurisdiction to inform the work of CIHI and other jurisdictions benefits us all
Collaboration 1 – Background Paper

Key Highlights

• Framework
• Criteria
  – Structure
  – Guards against single interest

Collaboration

> Academics
  – Local
  – International
> CIHI
> Ministry of Health
> Other Ministries
## BC Child and Youth Health and Well-Being Framework

<table>
<thead>
<tr>
<th>DIMENSIONS</th>
<th>Individual</th>
<th>Family &amp; Peers</th>
<th>Schools</th>
<th>Community</th>
<th>Society &amp; Culture</th>
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<tbody>
<tr>
<td>Physical Health</td>
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<td>Mental/Emotional Health</td>
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<td>Cognitive Development</td>
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<td>Economic and Material well-being</td>
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**Age Span:**
- Infancy
- Preschool
- Childhood
- Adolescence
- Emerging Adults
Collaboration 2 – Workshop

Key Highlights
• Refine framework
• Obtain buy-in

Collaboration
> First meeting of Advisory Committee
  – Participate in process
> Applying theoretical to local context
> Required broader representation
Indicators Workshop November 2009

Health Authorities

PHAC

Aboriginal Health

Academics

Ministries & Agencies

Researchers

Hospitals
Collaboration 3 – Relevance Survey

Key Highlights

• Relevance vs. evidence
• Application of theory to real situation
  – Why track issues that constituents don’t think are relevant

Collaboration

> Constituent collective wisdom
Relevance Assessment Ranking Example

BC Child Health & Well-Being Indicator Evaluation

59. Please rank the ten (10) MOST important MENTAL/EMOTIONAL HEALTH DIMENSION indicators. For the most important indicator, rank it using a 1, for the tenth most important indicator, rank it using a 10. Only one ranking is allowed per column.

If there are indicators that are not included here, but you think are important and should be included in the report, please enter them in the space provided at the bottom of this list.

<table>
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<tr>
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<tr>
<td>Mental Health Disorders</td>
<td>Emotional Health</td>
<td>Self-rated Mental Health</td>
<td>Self-rated Emotional Health</td>
<td>Self-esteem</td>
<td>Self-efficacy</td>
<td>Optimism</td>
<td>Life Satisfaction</td>
<td>Spirituality</td>
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<td>Family Functioning</td>
<td>Parenting Style &amp; Practices</td>
<td>Parental Mental Health Status</td>
<td>Parental Depression</td>
<td>Parental Criminal Records</td>
<td>Mental Health System Utilization</td>
<td>Anti-psychotic Prescription Drug Utilization</td>
<td>Methylphenidate Utilization</td>
<td>Other (please specify)</td>
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If there are indicators that are not included here, but you think are important and should be included in the report, please enter them in the space provided at the bottom of this list.
Collaboration 4 – Evidence Reviews & Indicator Selection Process

Key Highlights

• Degrees and quality of evidence
• Definitional challenges
• Context matters

Collaboration

> Advisory Committee
  – Government context vs Academic evidence

> Reviewer content expertise

> Working group cohesiveness
Evidence Reviews 805 pages total
## Evidence Review Indicator Summary Template

<table>
<thead>
<tr>
<th>Concept / Indicator</th>
<th>Magnitude</th>
<th>Significance / Impact</th>
<th>Modiﬁability</th>
<th>Data Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Proportion of B.C. child/youth population to which concept applies (include # and/or %)</td>
<td>Association between concept and health/well-being dimension</td>
<td>Can the concept/indicator(s) be reasonably changed through public policy or other intervention</td>
<td>Existence and quality of information for the component indicator(s) for each concept</td>
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Collaboration 5 – Documentation

Key Highlights
• Required significant input on technical details from data providers

Collaboration
> Data source providers
  – Understand data requirements and measures
> Understand that people who do the work understand what matters
> Respect the intelligence and expertise of people in “the field”
## Data Dictionary:

<table>
<thead>
<tr>
<th>Description</th>
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<tbody>
<tr>
<td>Definition</td>
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<td>Data source</td>
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<td>Coding</td>
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<td>Method of calculation</td>
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<td>Sample Size</td>
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<td>Reference Population</td>
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<td>Data Availability</td>
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<td>Comprehensiveness</td>
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<td>Treatment of Missing Values</td>
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<td>Risk Adjustment</td>
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<td>Rationale for Inclusion</td>
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<td>Standards/Benchmarks</td>
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<tr>
<td>Limitations</td>
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<tr>
<td>Comments</td>
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</tbody>
</table>
## Definition
Incidence of Chlamydia incidence among youth age 15 – 19 years of age, expressed as a rate per 100,000 population by gender.

## Data source
BC Centre for Disease Control

## Coding
n/a

## Method of calculation
(Number of new cases of Chlamydia reported annually / total population aged 15 – 19, by gender) * 100,000

## Sample Size
n/a

## Reference Population
Youth aged 15 – 19 years of age.

## Data Availability
Annually

## Comprehensiveness
Covers all youth aged 15 – 19, whether sexually active or not.

## Treatment of Missing Values
n/a

## Risk Adjustment
n/a

## Rationale for Inclusion
Chlamydia is one of the most common sexually transmitted infections, and also one of the most preventable through the use of condoms. Rates have been increasing steadily since 1998, and it is important to monitor the incidence to assess the impact of prevention and treatment programs.

## Standards/Benchmarks
In 2010, the rate for females was 1,556.2, compared to 1,028.8 in 2001 (peaking at 1652.2 in 2009). Over the same time period, the rate for males increased from 151.4 to 297.0 (but peaked at 317.8 in 2009).

## Limitations
Many genital Chlamydia infections are asymptomatic and thus diagnosed infections reflect only a fraction of the total population burden.

## Comments
Chlamydia infection rates are highest among females aged 20 – 24 and 15 – 19 and among males aged 20 – 24.
Indicator Selection
Recommended

Physical Health

- Low Birth Weight
- Alcohol use during pregnancy
- Smoking during pregnancy
- Breastfeeding
- Self-rated health
- Physical Activity
- Tobacco Use
- Binge Drinking
- Healthy Weight
- Marijuana Use

- Healthy eating – fruit & vegetable consumption
- Oral Health – Dental Caries
- Immunization Rates
- STIs
- Asthma
- Major Childhood Injuries
- Teen births
- Vision Screening
- Hearing Screening
Recommended

**Mental/Emotional Well-being**
- Mental Health Disorders
- Self-rated mental health
- Life satisfaction
- Suicide
- Suicidal ideation
- Self-esteem
- Prescription Drug Use

**Economic & Material Well-being**
- Children in families living below LICO
- Parental Employment
- Children in Families with Core Housing Need
- Food Security
- Idle Youth
<table>
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<tr>
<th>Social Relationships</th>
<th>Cognitive Development</th>
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<td>Relationship with Parents</td>
<td>Personal Social Behavioural Skills</td>
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<td>School Connectedness</td>
<td>Communication Skills</td>
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<td>Physical Abuse/Neglect</td>
<td>High School Completion</td>
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<td>Sexual Abuse</td>
<td>Motor Skills</td>
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<td>Community Connectedness</td>
<td>Grade 10 Literacy</td>
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<td>Relationship with Adults</td>
<td>Reading/ Writing FSA Gr 4 &amp; 7</td>
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<td>Discrimination</td>
<td>Math FSA Gr 4 &amp; 7</td>
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<td>Children in Care</td>
<td>Grade 10 numeracy</td>
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<td>Bullying</td>
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<td>Youth Justice Convictions</td>
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<td>Constructive Use of Time</td>
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Gap Indicators

- Evidence based and expert supported
- Issues with defining the indicator
- Issues with measuring the data
Gap Indicators

Physical Health

- Cause specific disability
- Cause Specific Emergency Department use
- FASD
- Sleep Levels

Mental/Emotional W-B

- Family Functioning
- Parental Mental Health Status
- Spirituality
- Stress
Gap Indicators

Social Relationships

- Parental alcohol/substance misuse
- Children who witness domestic violence
- Neighbourhood safety

Economic & Material

13. Homelessness
14. Recreation Program Registrations
15. Adequate Child Care

Cognitive Development

15. Early Childhood Education
16. Reading by an Adult
17. School Attendance
Indicators not Recommended

- Not supported by Evidence
- Doesn’t meet the criteria set out
- Better indicator exists
<table>
<thead>
<tr>
<th>Indicators Not Recommended</th>
<th>1.</th>
<th>Sexual behaviour</th>
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<td>Parenting style and practice</td>
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<td>At-risk children and youth supported to stay at home</td>
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<td>Social support of parents</td>
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<td>Prenatal parental alcohol/substance abuse</td>
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<td>Children SES circumstances</td>
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<td>English language skills</td>
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Acknowledgements

• Core Organizations
  – Office of the BC Provincial Health Officer
  – Canadian Institute for Health Information
  – BC Ministry of Health
  – Office of the Representative for Children & Youth

• Supporting Organizations
  – Ministries of Education, Children and Family Development, Housing and Social Development, Citizen Services
  – Advisory Committee and Technical Committee members
  – Workshop participants
Questions