A Brief Overview of Statistics
Canada’s Health Data

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Delivering insight through data for a better Canada
Webinar Overview

Objectives/Structure of Webinar

1. Provide users with an understanding of Statistics Canada’s main sources of health data
   - 3 main sources of health data
     - Canadian Community Health Survey (CCHS)
     - Canadian Health Measures Survey (CHMS)
     - Canadian Survey on Disability (CSD)
   - Other data sources

2. Demonstrate how to use the Statistics Canada website to find health data
   - Using the Statistics Canada website to find health-related data
The Canadian Community Health Survey (CCHS) (Annual Component)
The Canadian Community Health Survey (CCHS)

• Objectives
  o Gather health-related data at sub-provincial levels of geography (health region or combined health regions)
  o Support health surveillance programs by providing health data at national, provincial and intra-provincial levels
  o Provide a single data source for health research on small populations and rare characteristics
  o Provide timely release of information easily accessible to a diverse community of users
  o Create a flexible survey instrument that includes a rapid response option to address emerging issues related to the health of the population
The Canadian Community Health Survey (CCHS)

• **Collection Period**
  o First collection in 2001 and collected every two years until 2005
  o Collected annually starting in 2007
  o Collection runs January-December each year (3 month waves)
  o 2015 redesign

• **Target Population**
  o Population 12 years of age and over, living in the ten provinces and three territories

• **Sampling**
  o Sample survey, cross-sectional design
  o Two frames: Area frame (120,000 respondents) and Canadian Child Tax Benefit (CCTB) frame (10,000 respondents)
The Canadian Community Health Survey (CCHS)

• **Subjects**
  - Diseases and health conditions
  - Health care services
  - Lifestyle and social conditions
  - Mental health and well-being

• **Components**
  - Core content
  - Theme content
  - Optional content
  - Rapid response modules
The Canadian Community Health Survey (CCHS)

• **Collection Method**
  - Computer-assisted interviewing (CAI) primarily by telephone but also in person

• **Data Linkage**
  - For the 2017 CCHS, data was linked to personal tax records (T1, T1FF or T4) of respondents and tax records of all household members
  - Income information obtained from income tax records were shared with federal, provincial and territorial share partners with respondents’ consent
The CCHS – Highlights of Available Products

The Daily (Analyses)

Flu vaccination rates in Canada

- Flu vaccination rates increased in all provinces and territories except Ontario between 2003 and 2013–2014
- Nova Scotia had the highest provincial flu vaccination rate (45%), while Quebec had the lowest (24%) in 2013–2014

Primary health care providers, 2017

- Significantly more males (19%) than females (12%) reported they were without a regular health care provider
- 36% of Canadians aged 12 and older with a regular health care provider reported getting the seasonal flu shot in the past 12 months, compared with 15% of those who did not have a regular provider
The CCHS – Highlights of Available Products

Infographic excerpt:
Home care needs in Canada
The CCHS – Highlights of Available Products

Data Tables

Heavy Drinking, by age group
- 4% of Canadians between the ages of 12-17 reported having engaged in heavy drinking at least once a month in the past year
- Among those between the ages of 18-34, this rate jumps to 30%

Health Characteristics, annual estimates
- 22% of Canadians aged 12 and over reported perceiving that most days in their life were quite a bit or extremely stressful
- 70% perceived their mental health status as being very good or excellent
# The CCHS – Highlights of Available Products

## Health Characteristics, annual estimates (Canada excluding territories, ages 12 years and over, both sexes)

<table>
<thead>
<tr>
<th>Indicators</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body mass index, adjusted self-reported, adult (18 years and over), overweight</td>
<td>36.0</td>
</tr>
<tr>
<td>Body mass index, adjusted self-reported, adult (18 years and over), obese</td>
<td>26.9</td>
</tr>
<tr>
<td>Body mass index, self-reported, youth (12 to 17 years old), overweight or obese</td>
<td>27.9</td>
</tr>
<tr>
<td>Arthritis (15 years and over)</td>
<td>19.3</td>
</tr>
<tr>
<td>Diabetes</td>
<td>7.3</td>
</tr>
<tr>
<td>Asthma</td>
<td>7.8</td>
</tr>
<tr>
<td>Chronic obstructive pulmonary disease (COPD; 35 years and over)</td>
<td>4.3</td>
</tr>
<tr>
<td>High blood pressure</td>
<td>17.8</td>
</tr>
<tr>
<td>Mood disorder</td>
<td>8.6</td>
</tr>
<tr>
<td>Current smoker, daily or occasional</td>
<td>16.2</td>
</tr>
</tbody>
</table>
The Canadian Health Measures Survey (CHMS)
The Canadian Health Measures Survey (CHMS)

• Objectives
  o Create national baseline data on the extent of major health concerns such as obesity, hypertension, cardiovascular disease, exposure to infectious diseases, and exposure to environmental contaminants
  o Provide clues about illness and the extent to which many diseases may be undiagnosed among Canadians
  o Determine relationships between disease risk factors and health status, and explore emerging public health issues

• Collection period
  o First collection in 2007 and collected every two years
  o Collection runs January-December each year
The Canadian Health Measures Survey (CHMS)

• **Target Population**
  o Population 3 to 79 years of age living in the ten provinces

• **Sampling**
  o Sample survey, cross-sectional design
  o First step: personal interview at household
  o Second step: visit to the Mobile Examination Clinic (MEC) for physical measures
  o Several subsamples
    o Fasted
    o acrylamide
    o methyl and inorganic mercury
    o chromium and perfluoroalkyl substances subsample
    o environmental contaminants in urine
    o volatile organic compounds
    o NNK metabolites
The Canadian Health Measures Survey (CHMS)

• **Subjects**
  o General health
  o Diseases and health conditions
  o Environmental factors
  o Lifestyle and social conditions

• **Questionnaires**
  o Household questionnaire
  o Clinic questionnaire
The Canadian Health Measures Survey (CHMS)

**Measures**

**Physical measures**
- Anthropometry
- Cardiovascular health and fitness
- Musculoskeletal health and fitness
- Physical activity (accelerometry)
- Vision

**Saliva measures**
- DNA extraction for future health research projects

**Hair measures**
- 25 metals and trace elements (e.g. lead, cadmium, mercury)

**Blood measures**
- Nutritional status
- Diabetes
- Cardiovascular health
- Musculoskeletal health
- Environmental exposure
- Infection marker

**Urine measures**
- Environmental exposure
- Nutritional status
- Infection marker
The Canadian Health Measures Survey (CHMS)

The Daily (Analyses)

Health Reports: Canadians vulnerable to workplace noise
  o An estimated 11 million Canadians (43%) have worked in noisy environments, and over 6 million of them (56%) were classified as vulnerable to workplace noise because hearing protection was neither required nor routinely used
  o A larger percentage of women (72%) are vulnerable to noise than men (48%)

Health Reports: Prevalence of insomnia for Canadians aged 6 to 79
  o The economic burden of insomnia is estimated at $5,010 per person per year, with nearly 90% of this amount attributed to indirect costs such as work absenteeism and reduced productivity
  o Nighttime insomnia symptoms are more prevalent in:
    • Older age groups
    • Women
    • Those from lower socioeconomic backgrounds
    • Persons with poor health and quality of life
The CHMS – Highlights of Available Products

Infographic excerpt:
Hypertension: Prevalence and leading risk factors
The CCHS & The CHMS – Highlights of Available Products

Infographic excerpt
Obesity in Canadian Adults, 2016 and 2017

Obesity Prevalence by Province Compared to Canadian Average (27%), 2017

British Columbia had the lowest prevalence of obesity in Canada.
Data Tables

Average time spent being physically active

- Average minutes spent on moderate to vigorous physical activity per day decreases with age

<table>
<thead>
<tr>
<th>Measures</th>
<th>Age group</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minutes per day</td>
<td></td>
</tr>
<tr>
<td>Moderate to vigorous physical activity time</td>
<td>Ages 3 to 5.7</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>Ages 6 to 11</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>Ages 12 to 17</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>Ages 18 to 39</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Ages 40 to 59</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Ages 60 to 79</td>
<td>16</td>
</tr>
</tbody>
</table>

Distribution of the household population by blood pressure classification

- 82% of Canadians between the ages of 18-79 have a blood pressure within the acceptable range

82% of Canadians between the ages of 18-79 have a blood pressure within the acceptable range
# The CCHS vs. The CHMS

<table>
<thead>
<tr>
<th></th>
<th>CCHS</th>
<th>CHMS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sampling</strong></td>
<td>Sample survey; cross-sectional design</td>
<td>Sample survey; cross-sectional design</td>
</tr>
<tr>
<td><strong>Collection period</strong></td>
<td>• 2001, 2003, 2005, 2007-present&lt;br&gt;• January-December</td>
<td>• 2007-present&lt;br&gt;• January-December</td>
</tr>
<tr>
<td><strong>Frequency</strong></td>
<td>• Bi-annual 2001-2005&lt;br&gt;• Annual 2007 onwards</td>
<td>Bi-annual 2007 onwards</td>
</tr>
<tr>
<td><strong>Target population</strong></td>
<td>Ages 12 and older in the provinces and territories</td>
<td>Ages 3-79 in the provinces</td>
</tr>
<tr>
<td><strong>Target population exclusions</strong></td>
<td>• Persons living on reserves and other Aboriginal settlements&lt;br&gt;• Full time CAF members&lt;br&gt;• Institutionalized persons&lt;br&gt;• Children 12-17 living in foster care&lt;br&gt;• Persons living in the Quebec health regions of Région du Nunavik and Région des Terres-Cries-de-la-Baie-James</td>
<td>• Persons living on reserves and other Aboriginal settlements&lt;br&gt;• Full time CAF members&lt;br&gt;• Institutionalized persons&lt;br&gt;• Residents of certain remote regions</td>
</tr>
<tr>
<td><strong>Methodology</strong></td>
<td>• Computer-assisted interviewing (CAI) in person or via telephone&lt;br&gt;• One interview</td>
<td>• CAI in person + direct physical measures at MEC&lt;br&gt;• Household interview followed by MEC visit</td>
</tr>
</tbody>
</table>
The Canadian Survey on Disability (CSD)
The Canadian Survey on Disability (CSD)

- **Objectives**
  - Provide information about Canadian youth and adults whose everyday activities are limited due to a long-term condition or health-related problem.
  - Provide data to assist in planning and evaluating services, programs and policies for Canadians living with disabilities to help enable their full participation in society.

- **Collection period**
  - First collected in 2012
  - Conducted every 5 years
  - In 2017, data was collected from March until August

- **Replaces**
  - Health and Activity Limitation Survey (HALS) and Participation Activity Limitation Survey (PALS)
The Canadian Survey on Disability (CSD)

• **Target population**
  - All adults aged 15 and over (as of Census day 2016) who reported having difficulty “sometimes”, “often” or “always” to one of the Activities of Daily Living questions on the 2016 Census of Population long form
  - The Aboriginal Peoples Survey (APS), not the CSD, is considered the official source of disability rates for Aboriginal persons

• **Sampling**
  - Sample survey; cross-sectional design
  - Stratified two-phase design based on the 2016 Census
  - Sample size = 50,000 persons
The Canadian Survey on Disability (CSD)

• **Subjects**
  o Disability
  o Equity and inclusion
  o Health
  o Society and community
  o Work, income and spending

• **New Modules for 2017**
  o Episodic disabilities
  o General health
  o Use of various therapies and social services supports
  o The experience of being housebound
  o Veterans of the Canadian Armed Forces
  o Internet Use
  o Accessibility of Government Services
The Canadian Survey on Disability (CSD)

• **Collection Method**
  o Internet-based electronic questionnaire (EQ) via:
    • Self-report method where questionnaire was completed directly on-line by the respondent (rEQ – 40% of respondents)
    • Interviewer-assisted method conducted by telephone (iEQ – 60% of respondents)

• **Data Linkage**
  o To reduce interview time, information from the CSD was combined with selected data from the 2016 Census
  o It is possible that data from other surveys or administrative data sources may be added at a later date
The CSD – Highlights of Available Products

The Daily (Analyses)

Canadian Survey on Disability, 2017

- Most Canadians with a disability had more than one type of disability. Of all Canadians with disabilities aged 15 years and over, 71% had two types or more.
- Among working age adults, those with no disabilities had a higher median after-tax personal income ($39,000) than those with milder disabilities ($34,300) and those with more severe disabilities ($19,200).

A demographic, employment and income profile of Canadians with disabilities aged 15 years and over, 2017

- Among those aged 25 to 64 years, persons with disabilities were less likely to be employed (59%) than those without disabilities (80%)
- Among youth (aged 15 to 24 years), mental health-related disabilities were the most prevalent type of disability.
The Canadian Survey on Disability covers Canadians aged 15 years and over whose everyday activities are limited because of a long-term condition or health-related problem.

22% of Canadians had at least one disability. This represents 6.2 million people.
The CSD – Highlights of Available Products

Data Tables

Type of disability for persons with disabilities aged 15 years and over, for those 15 years of age and over, both sexes, Canada, provinces and territories

<table>
<thead>
<tr>
<th>Estimates</th>
<th>Total population with disabilities 6</th>
<th>Pain-related 7</th>
<th>Flexibility 8</th>
<th>Mobility 9</th>
<th>Mental health-related 10</th>
<th>Seeing 11</th>
<th>Hearing 12</th>
<th>Dexterity 13</th>
<th>Learning 14</th>
<th>Memory 15</th>
<th>Developmental 16</th>
<th>Unknown 17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of persons</td>
<td>100.0</td>
<td>65.0</td>
<td>44.7</td>
<td>42.8</td>
<td>32.5</td>
<td>24.3</td>
<td>21.4</td>
<td>20.4</td>
<td>17.7</td>
<td>16.8</td>
<td>5.1</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Limitations and barriers to employment for adults with disabilities

- Among 10% of those 15-64 years of age with a disability, accessibility issues are a barrier to employment
- For 23% of this population, a lack of available local jobs is a barrier to employment
Other Sources of Health Data

• **Continuous/Administrative**
  - Vital Statistics - Birth Database
  - Vital Statistics - Death Database
  - Vital Statistics - Stillbirth Database
  - Canadian Coroner and Medical Examiner Database
  - Canadian Cancer Register

• **All Active Health Surveys**

• **All Inactive Health Surveys**
Using the Statistics Canada Website to find Health Data

- The Daily
- Infographics
- Subjects Tab
- Surveys and Statistical Programs Tab
About the Data Service Centre

The Data Service Centre (DSC) offers to data users a complete range of services. The DSC assists data users:

- With simple and free data requests, technical and methodological questions;
- With complex requests requiring research, extraction or customization of data from multiple sources;
- By producing customized reports, analyses and maps;
- By offering standard and customized workshops for data users of all levels of expertise;
- Through various outreach activities such as webinars, newsletters, presentations, information sessions and open houses.

For any questions, contact us:

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