

About the Data: Disability

Introduction

The census has a screening question about difficulties and/or limited activity due to physical, mental or health problems (as noted below) that is used to identify people for the follow-up, in-depth survey: the Participation and Activity Limitations Survey (PALS). PALS data has not been published at the municipal or small area level. These census questions are being used as an indicator of disability/activity limitation by some organizations such as the Canadian Council of Social Development (series of reports) and this organization (CCSD) also includes this disability indicator in their poverty analysis. Statistics Canada doesn't publish this indicator in its standard census profiles but provides it as a custom tabulation.

Mobility disabilities (and others as well) increase with age and the difference in rates between geographic groups and income groups narrow in older age groups, so this indicator may be most useful as a partial proxy for "health" among younger adult groups.

Reference Question:

Census 2006 Q7 Does this person have any difficulty hearing, seeing, communicating, walking, climbing stairs, bending, learning or doing any similar activities?
<input type="radio"/> Yes, sometimes <input type="radio"/> Yes, often <input type="radio"/> No
Census 2006 Q8 Does a physical condition or mental condition or health problem reduce the amount or the kind of activity this person can do:
(a) at home? <input type="radio"/> Yes, sometimes <input type="radio"/> Yes, often <input type="radio"/> No
(b) at work or at school? <input type="radio"/> Yes, sometimes <input type="radio"/> Yes, often <input type="radio"/> No <input type="radio"/> not applicable
(c) in other activities, for example, transportation or leisure? <input type="radio"/> Yes, sometimes <input type="radio"/> Yes, often <input type="radio"/> No

In 2006, the following instructions were provided to respondents when answering the above questions:

- These questions refer to conditions or health problems that have lasted or are expected to last six months or more.
- For young children, include only those conditions or problems that have been diagnosed by a professional.

Uses and Advantages:

To identify areas with a greater concentration or larger number of people with disabilities, activity limitations or chronic health problems. These may be identified as priority areas for services, prevention, outreach, site visits and onsite assistance during emergencies where mobility or ability level may affect capacity to maintain health, or to escape unsafe conditions.

In the absence of neighbourhood level data on general health status, this indicator can serve as a proxy for functional health, at least among younger age groups where conditions other than aging-related disabilities may account for differences in rates.

The census-based variable may be a useful indicator of age, gender and geographic differences in activity limitations and a proxy for functional health status.

Because the indicator comes from the census and includes the 20% of households that complete the long form of the census, it is based on a much larger sample than surveys such as the CCHS. Combining many cycles of the CCHS may enable reporting on functional health and disability at the neighbourhood level in the future.

Limitations and Cautions

The census question does not identify the severity of disability or type of disability. This variable excludes people in institutions – a group likely to have a higher rate than the same age group in the household population (People in institutions are also excluded from the CCHS).

The “unstated” response to this question is small and it has not been subtracted from the total when calculating the percent with activity limitations/difficulties. It is possible that some people in the unstated response could have a disability so the rates may slightly under-represent actual rates.

Other limitations of self-reported rates apply to this variable as well (e.g. perception, desirability, memory, etc.). Other limitations of the census coverage also apply to this variables (e.g among the groups most under-represented in the census include people with a non-official Mother Tongue).

Slight changes in the wording of the questions in the census affects comparability across census years. A wording change in the 2001 census (Yes includes “sometimes” in addition to “often”) captures a larger population so the 1996 and 2001 percents census are not comparable. Rates in 2006 are slightly higher across the board than rates in 2001. Possible reasons for this are being explored.

The census questions have not been edited by Statistics Canada and so require a more cautious use than other census variables.

Other Surveys and Sources that Measure Disability

Disability questions from other surveys are also listed below including the Canadian Community Health Survey, the Toronto Teen Survey (2007) and the Toronto District School Board Student Census Grades 7-12 (2006-07). This information is not available at the small area level so rates are not included in the Toronto Health Profiles. Addictions are recognized in human rights legislation as a disability but are not specifically mentioned in the census, CCHS or student survey question. the Survey of Labour and Income Dynamics (SLID), also includes disability but this is also not available at the small area level,

Other potential sources of information on disability are persons on Ontario Disability Support Program (social assistance), federal disability pensions (income from disability support government transfer programs in tax-filing data files), clients of home support (Community Care Access Centres), Wheel Trans users, documented use of sign language interpreters, workers compensation cases, etc. These reflect different aspects of disability that may be useful in different contexts.

Methods To Accompany Disability Data

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Disability/Activity Limitation definition:

Disability/activity limitation refers to difficulties with daily activities and the reduction in the amount or kind of activities due to physical or mental conditions or health problems.

Overall methods:

Proportion with disability/activity limitation/reduction was calculated for Toronto LHINs, subLHINs, CPAs and neighbourhoods. All data was aggregated from census tract level data. For 2 neighbourhoods (N73-Moss Park and N79-University) neighbourhood level data replaced the CT data due to suppressed data of 1 or more census tracts within the neighbourhoods. Proportions were calculated for the following age groups (<15, 15-24, 25-44, 45-64, 65-74, 75+). For neighbourhoods, CPAs and subLHINs, rate ratios were calculated using the City of Toronto as the base rate. Data for the 25-64 age group was age and sex standardized. The data source was the 2006 Census from Statistics Canada.

Methods for age-specific confidence intervals:

The 95% confidence interval was given as:

Proportion with disability $\pm 1.96 * \sqrt{\text{variance}}$,

where the variance= (proportion with disability*(1-proportion with disability))/population

Methods for age and sex standardizing:

The direct method was used with the 1991 Canada population as the standard. The standard population was aggregated to 10 year age groups (25-34, 35-44, 45-54, 55-64) in order for the age groups to match the disability data from the census.

Methods for age and sex standardized confidence intervals:

The Binomial Approximation/Spiegelman method/Lilienfeld formula (Armitage and Berry) was used to calculate the 95% confidence intervals,

where the variance= $\sum (\text{crude rate}_A(1- \text{crude rate}_A))/\text{study pop}'n_A) * (\text{stdn pop}'n_A/ \text{stdn pop}'n_{\text{TOTAL}})^2$

Reference material

<http://www12.statcan.gc.ca/census-recensement/2006/ref/dict/pop024a-eng.cfm>

<http://www.statcan.gc.ca/pub/81-004-x/2006005/9588-eng.htm#a>

http://www.apheo.ca/resources/indicators/Standardization report_NamBains_FINALMarch16.pdf

http://www.apheo.ca/resources/indicators/Standardization of Rates_sample calculations.xls