

The percentage of older Canadians requiring assistance with health-related tasks due to a long-term health condition increases sharply with age (Chen & Wilkins, 1998). As the first of the Boomers reach age 65 in 2011, it is of great interest to identify trends in disability and support network usage, to better predict future needs and resources within community care. This project used data from five national datasets to investigate the global disability rate and examine socio-demographic characteristics associated with disability and the use of informal and formal support networks to assist older adults with a health problem in performing everyday activities. No significant trend in levels of disability was identified for the period 1994/95-2000/01 when controlling for socio-demographic variables (age, sex, education, marital status, region of residence, and country of origin), suggesting stability in disability rates over time. Analysis of support network utilization revealed socio-demographic characteristics associated with need and receipt of formal and informal support; strong correlations were found for age and disability level.

Key Findings

Disability

- Nearly 1/3 of Canadians 65 and over were disabled between 1994/95 and 2000/01, with nearly half of these reporting mild disability. While the global disability rate decreased over time, the level of severity increased. Indeed, moderate disability assumed more importance, while mild disability decreased. This suggests that disabilities tend to appear later, but seem to be more severe.
- The overall decrease in disability mitigates the impact of aging on the number of disabled people, but is not strong enough to offset its effect.
- While it is difficult to establish a trend over a short period, there is no significant trend in levels of disability over time between 1994/95 and 2000/01, when controlling for socio-demographic variables and these variables are not significantly related to level of disability. However, the results indicate that disability rates are stable over time (e.g., no improvement or worsening of morbidity).

Support networks

- The likelihood of needing assistance increases with age and among women, and is strongly correlated to the level of disability.
- The characteristics associated with older Canadians' receipt of assistance are age, region of residence and disability level, while education has a weak negative effect.
- The probability of receiving formal assistance increases with age, education level and living alone. The probability of receiving assistance from both formal and informal sources increases with higher disability levels, whereas the probability of receiving "formal only" decreases.

Implications

- If the decrease in mild disability and the increase in moderate disability holds true in the future, there may be an increase in the intensity of assistance needed by older people.
- The utilization of formal and informal support networks by older Canadians is likely to change as the socio-demographic characteristics of tomorrow's older people will differ. The increasing volume of older people will require more informal and formal support.
- Health care planners and human resource policymakers will need to prepare for the future home care needs of the aging Canadian population. In addition to requiring more paid (formal) caregivers, these workers will need to be trained to work with much older adults and greater levels of disability.
- Continuity and consistency in survey methodology is necessary in order to have strong and significant results on disability trends. Unless current challenges with survey data are redressed in the future, the capacity to understand disability trends in Canada will be further diminished.

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Disability and Support Networks

Background

Canadian studies (Chen & Millar, 2000; Wilkins et al., 1994) have noted an improvement in the global health of Canadians in the latter part of the 20th century. Once indicators are controlled for the age effect and for some other social determinants of health like income and education, disability levels of older Canadians remain nonetheless stable over the period 1996 to 2003 (Lafortune et al., 2007). However, Canada, like other developed countries, is reliant on informal sources of assistance for older individuals. As the availability of informal sources declines due to changing demographics, a major focus has been placed on the expense that will result from replacing them with formal sources, as well as the provision of long-term care (Pickard et al., 2007).

Objectives

The purpose of this research is to:

- look for a trend over time in the levels of disability of older Canadians living in private households, and
- examine the characteristics associated with different levels of disability and use of formal and/or informal support networks, from the perspective of the care receiver.

The study

This study analyzed data from five Statistics Canada national datasets: the 1994/95, 1996/97, and 1998/99 National Population Health Survey (NPHS), the 2000/01 Canadian Community Health Survey (CCHS), and the 2002 General Social Survey (GSS).

Investigating a trend in disability involves several points in time obtained with data from the NPHS and the CCHS. However, a significant change in the mode of interview between the NPHS and CCHS cycles constitutes a limitation in the comparability of the estimates. Indeed, the global disability rate was higher for the survey with the most face-to-face interviews (1994/95 NPHS), and lower for the survey with more phone interviews (1996/97 NPHS).

Methods

NPHS and CCHS data were used to estimate changes in disability and the characteristics associated with different levels of disability. This research used a sub-sample of respondents age 65 and older living in private households. Their levels of disability (no, mild, moderate or severe) were established by the highest level declared in one of the following dimensions:

- mobility (ability to get around);
- dexterity (use of hands and fingers);
- cognition (memory and thinking);
- vision; and
- pain and discomfort.

The GSS data were used to estimate the parameters of formal and/or informal support network use. The first refers to the assistance provided by a paid employee or volunteer from a private or public agency, the second to the assistance provided by family, friends, and/or neighbours. "Mixed" assistance refers to support from both networks.

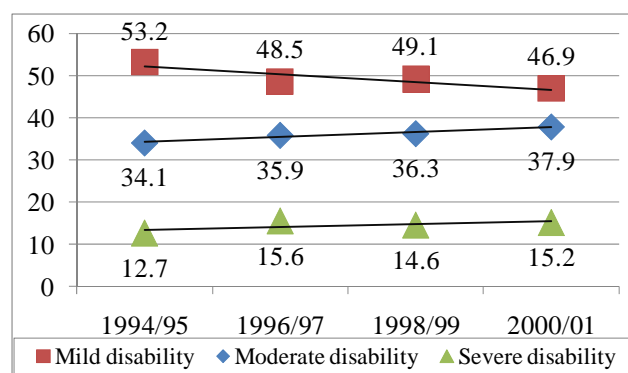
Findings

Global disability rate: The global disability rate in Canada between 1994/95 and 2000/01 was 34.4%, with survey data revealing that nearly one in three persons aged 65 years and over was disabled regardless of severity. Among these, 49.4% reported a mild disability, 36.0% a moderate disability and 14.5% a severe disability. This means that 17.4% of all Canadians 65 and over living in a private household were either moderately or severely disabled during the given time period.

Descriptive evolution of disability levels over time:

In relative terms, the global disability rate was approximately 20% higher in 1994/95 than in 1996/97, and 13% higher than the average for the period 1994/95 to 2000/01. Since we cannot trust the result of a 20% decrease in disability over a two-year period, controls for the impacts of changes in the survey methodology were inserted in the trend analysis.

Figure 1: Distribution (%) of disabled Canadians aged 65 and older living in private households by severity levels, 1994/95 to 2000/01





Disability and Support Networks

As it constitutes almost half of the global disability, mild disability was also exceptionally high in 1994/95, 10% higher than in 1996/97 and 8% higher compared to the average for the period 1994/95 to 2000/01.

Given the declining rate of global disability over the period studied (37.7% to 33.9%), improvement in the overall functional health of older persons appears to have occurred. However, the severity of the disability seems to have worsened due to the decrease of the proportion of individuals with mild disabilities and the increase of moderate disabilities. The decrease of overall disability is due mainly to improved health among men and women 65-74 years old, and among women aged 75-84 years old.

The decrease observed in disability rates reduced the gross impact of the increasing number of older persons on the number of disabled older persons. Indeed, the population aged 65 and over increased by 12% (Statistics Canada, 2010), while the number of disabled older persons has increased by only 1%, from 1,308,400 in 1994/95 to 1,317,700 in 2000/01.

Trend analysis: When controlling for socio-demographic variables, no evidence of a clear trend in disability was observed. In terms of significance, this implies that the disability rate is not getting better or worse; morbidity within the population is remaining stable over time. The covariates included age, sex, education, marital status, region of residence, and country of birth; we also included two variables to control for the impacts of changes in the survey methodology: the data collection mode (by phone or in person) and the proxy interview (i.e., whether the interview was completed by proxy).

Characteristics associated with the different levels of disability: Regression analysis revealed that the independent variables, while not significant of the risk to be disabled, were in the expected direction. For example, the risk is higher among older and less educated Canadians for the three levels of severity. Only the effect of age was found significant, for moderate and severe disability.

Description of support networks utilization: More than a quarter of Canadians aged 65 and over reported needing assistance due to a long-term health problem. Most of them (93%) declared receiving some assistance related to their care needs. Of these, the "informal only" network was the most common source of support (43.9%). Approximately one out of four older Canadians receiving assistance received all of

their help from the formal network only. Finally, 26.2% received assistance from both networks.

An estimated 45.1% of the population receiving assistance was between 75 and 84 years old in 2002. Those 85 years and over represent the largest share of people receiving assistance from both formal and informal sources, and almost three quarters of these receivers were women.

Characteristics associated with the utilization of support networks:

Needing and receiving help: Analysis of the 2002 GSS revealed that age, gender, region of residence and disability level affect the *need* for assistance. The risk of needing help increases with age and with the severity of the disability. Data suggest that men are less likely than women to need assistance and residents of Quebec have the lowest risk, whereas those from the Atlantic provinces have the highest.

The analysis showed that *receiving* assistance is correlated with age, region and disability level in the same way as need for help. Here, gender does not show a significant effect, while schooling level seems to have a weak negative effect. Compared to less educated older people, more educated individuals have a reduced probability of receiving help.

Use of formal and informal support networks: Age, living arrangements, education and disability levels are variables that have generally significant effects on the use of support networks for those needing and receiving assistance, but this varies according to the source.

Age, living alone, and higher education decrease the probability of receiving assistance from informal sources only, compared to formal only or "mixed". However, a higher degree of disability decreases the probability of receiving only formal assistance, while it increases the probability of receiving from both networks.

Number of children and place of birth do not seem to have a significant impact on the source of assistance received by the older Canadian population. There is one exception: the likelihood of receiving formal assistance is double for older women without any surviving children compared to women with two or more children. This finding suggests that at some point, the weight of an increasing disability becomes too heavy for the informal network, therefore some formal support is required to allow the older person to continue living in the community.



Conclusion

This study found that the trends in the global disability rate and the levels of severity between 1994/95 and 2000/01 that were observed in the descriptive analyses were not significant, when controlling for socio-demographic variables (age, sex, education, marital status, region of residence, and country of birth). In other words, morbidity neither decreased nor increased, but remained stable over time.

Characteristics associated with need and receipt of assistance include age, living arrangement, education and disability level. Given the inevitable impact of

population aging on the increasing need for home support human resources, it is important to work on developing comprehensive measures to quantify the need for future home care services.

This research forms the basis for a second study projecting future support needs of older Canadians, specifically, which networks will provide support, and how much support they will provide in terms of weekly hours of assistance. This will contribute to framing the policies that will be needed to support the older population and its formal and informal caregivers.

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About the study

This brief summarizes a research study, entitled "Trends and characteristics affecting disability and the receipt of support by older Canadians living in private households" commissioned by the Policy Research Directorate of Human Resources and Skills Development Canada (HRSDC). The views expressed do not necessarily reflect the opinions of HRSDC or the federal government. The study was written by Janice Keefe and Samuel Vézina of Mount Saint Vincent University; and Jacques Légaré, Yann Décarie and Guillaume Lefrançois of the Université de Montréal. For more information, contact Dr. Janice Keefe at janice.keefe@msvu.ca. This research brief was written by Anne Binette Charbonneau and Lucy Knight.