PROJECTING THE AVAILABILITY OF INFORMAL SUPPORT AND ITS IMPACT ON CHRONIC HOME CARE SERVICES

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Please note: The results presented in this document are those of the researchers and do not necessarily reflect the positions or policies of Health Canada.

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Introduction

• The main objective of this research is to project the availability of informal support to meet the need for assistance in performing everyday activities among the population of disabled Canadians 65+, from 2001 to 2031. Future trends are analyzed in terms of demand for support, (that is, changes in the rates of disability among the elderly population), and supply of support, (that is, the extent and composition of the informal support network).

• Data from two national surveys are used to identify factors associated with source of assistance and disability among the elderly. These results are entered into Statistics Canada's *LifePaths* micro-simulation model to assess the use of informal and formal networks in the future. The model also incorporates three disability scenarios to project trends and their implications on the future need for chronic home care services.

Definitions

Disability:

• *No disability*

• *Mild disability:* Mobility problem but do not need any help; dexterity problem but do not need any help from someone else (may or may not use special equipment); somewhat forgetful and little difficulty in thinking; moderate and/or severe pain prevents performing some or few tasks.

• *Moderate disability:* Requires wheel chair or mechanical support to walk; dexterity problem and need help to perform some tasks; very forgetful and a lot of difficulty in thinking; severe pain prevents performing most tasks.

• *Severe disability:* Can not walk or need help from others to walk; dexterity problem and need help for most or all tasks; unable to remember or think.

Need for Assistance:

• Assistance needed (related to a disability), to perform everyday activities. Four activities are considered: everyday housework, grocery shopping, meal preparation and personal care.

Source of Assistance:

• Formal - Paid employee, private or public agency, volunteer organizations

• Informal - Family, friends, neighbours

• Mixed - Both formal and informal networks

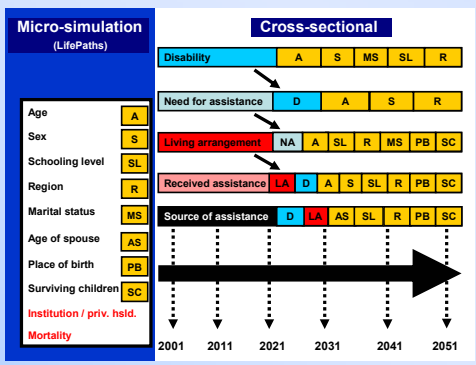
Project Objectives

1. Identify factors associated with disability among the elderly population.
2. Identify factors associated with the utilization of formal and informal networks for the disabled elderly population.
3. Assess the use of formal and informal support networks in the future considering changes in the structure of the informal network (supply) and in the need for chronic home care services (demand).

Methods

- Multinomial ordered logistic regressions using the 1996 National Population Health Survey to compute probabilities of having a disability (no disability, mild disability, moderate disability or severe disability).
- Multinomial logistic regressions using the 1996 General Social Survey to compute probabilities of using formal and/or informal networks given a specific set of socio-demographic characteristics.
- Statistics Canada's *LifePaths* micro-simulation model was used to project the family structure of tomorrow's elderly population, their disability status and their use of formal and/or informal networks based on the parameters estimated in the multinomial logistic regressions. This process made use of both transition analysis and cross-sectional analysis.

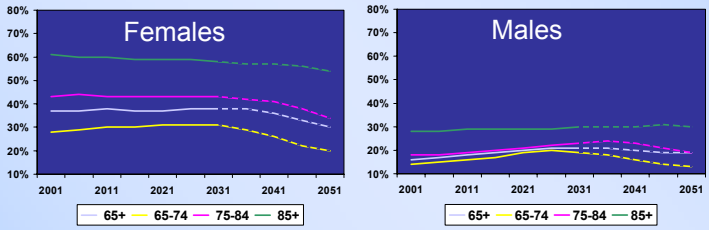
Figure 1. Overview of micro-simulation model using both transitional and cross-sectional analysis.



Supply of Informal Support

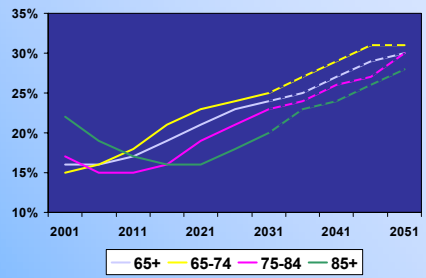
• Data suggest that the proportion of elderly persons living alone should be stable between 2001 and 2031 among females, while there will be a slight increase among males.

Figure 2. Proportion of persons 65+ living alone among those living in the community, by sex and age group, 2001-2051.



• It is expected that there will be a steady increase in the proportion of elderly women with no surviving children and by 2031 this proportion could increase by as much as 50%, compared to 2001.

Figure 3. Proportion of females 65+ with no surviving children among those living in the community, by age group, 2001-2051.



Disability Scenarios

Three scenarios regarding disability:

1. Disability held constant at 1996 levels (Base)

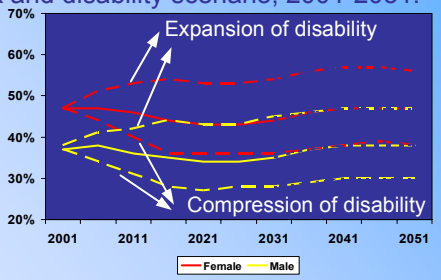
2. Compression of disability (age -5)
   - Level of disability at any given age is that of a person 5 years younger

3. Expansion of disability (age +5)
   - Level of disability at any given age is that of a person 5 years older

Disability & Demand

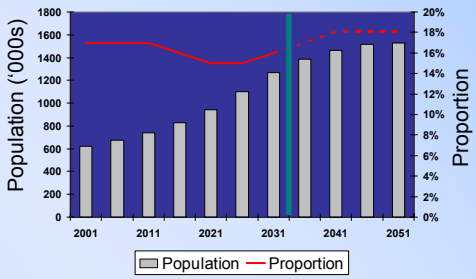
• An expansion of disability would increase the proportion of disabled persons. The scenario presented here shows that in 2031 it would increase this proportion to 54% and 45% for females and males respectively, compared to 36% and 28% in the compression scenario.

Figure 4. Proportion of disabled persons 65+ within the population living in the community, by sex and disability scenario, 2001-2051.



• The *proportion* of persons 65+ needing assistance is relatively stable throughout the whole period. However, the *number* of elderly persons needing assistance almost doubles between 2001 and 2031.

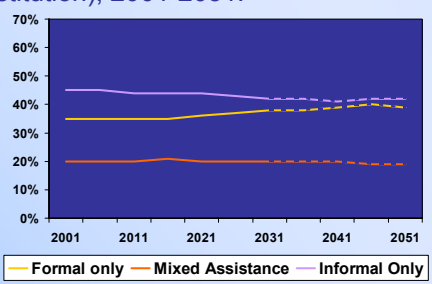
Figure 5. Number and proportion of persons 65+ needing assistance within the population living in the community, 2001-2051.



Source of Assistance

• Data suggest a relative and absolute increase in the use of formal support and a relative decrease in the use of informal support between 2001 and 2031.

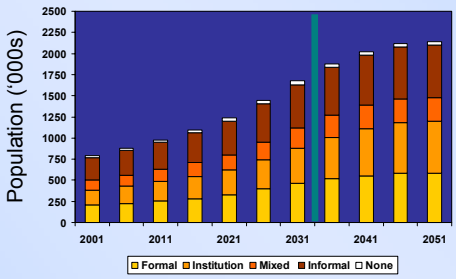
Figure 6. Proportion of persons 65+ receiving assistance by source of assistance (excluding those in an institution), 2001-2051.



Projected Demand

• The number of elderly persons receiving assistance increases for each source of assistance.

Figure 7. Population 65+ receiving assistance by source of assistance, with disability held constant (Base), 2001-2051.

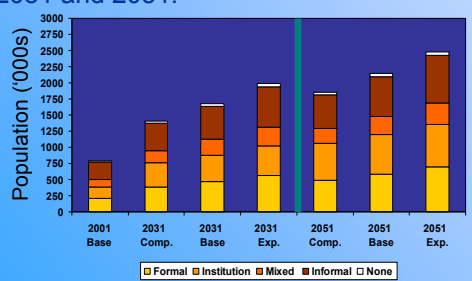


• An expansion of disability would increase significantly the annual growth rate of the number of disabled elderly receiving assistance between 2001 and 2031. The scenario presented here shows that it could increase from 2.7% to 3.4% for the formal network (excluding those using both networks) and from 2.2% to 2.8% for the informal network.

Table 1. Annual growth rate (2001-2031) of the population 65+ receiving assistance by source of assistance and disability scenario (Base, Compression, Expansion).

2001-2031	Base	Comp.	Exp.
Pop. In need	2.5	1.9	3.1
Formal	2.7	2.1	3.4
Institution	2.9	2.6	3.3
Informal	2.2	1.5	2.8
Pop. 65+	2.6	2.7	2.5

Figure 8. Population 65+ receiving assistance by source of assistance and disability scenario, 2001, 2031 and 2051.



Summary

• It is expected that a significant increase in the proportion of women aged 65+ with no surviving children between 2001 and 2031 will likely result in a reduction in the availability of informal support.

• The increased number of elderly persons needing assistance, combined with a relative decrease in the use of the informal support network, will result in a relative and absolute increase in the use of the formal support network.

• Characteristics of the elderly population, e.g. increasing levels of schooling, will likely have a significant effect on the increasing use of formal support over the next decades.

• An improvement in the health of the population (e.g. lower levels of disability) could have a major effect on the demand for services. The annual growth rate of the population in need of assistance could be as low as 1.9% in our compression of disability scenario as opposed to 2.5% if disability remains constant or 3.1% in our expansion of disability scenario.

Method Considerations

• The study does not take into consideration that some needs are not fully met.

• Continuing care policies are under provincial jurisdiction. Changes to these policies may have a significant impact on the use of formal and informal supports.

• Patterns of utilization are assumed to remain constant through the whole period.

• Health status and proximity of surviving children and siblings are not included but could make a significant difference in the availability of informal support.

• The analysis does not directly take into account the health status of the spouse, which could be a determining factor in receiving assistance or not from the spouse.

Next Steps

• Refine projections to incorporate hours of assistance (formal/ informal) in addition to source of assistance.

• Use the 2002 General Social Survey to observe changing patterns of utilization and apply them to the micro-simulations.

• Improve regional projections by incorporating regional models of disability and source of assistance using the 2002 General Social Survey.