

Socio-Demographic Factors Associated with the Use of Formal and/or Informal Care in Canada

Yves Carrière, Statistics Canada

Laurent Martel, Statistics Canada

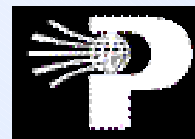
Lucie Morin, University of Montreal

Jacques Légaré, Statistics Canada and University of Montreal

Session S-55

XXIV General Conference, IUSSP

Salvador, Brazil, August 2001



Context

- Increasing number and proportion of older persons in Canada due to :
 - higher life expectancy
 - “papy-boom” effect (starting in 2011)
- Home-care based services preferred to institutionnalisation
- Budget constraints in health-care system
- Nature, extent and availability of the informal support network will change with new cohorts entering very old age.



Objectives

- Identify the socio-demographic factors associated with the use of formal and/or informal support networks.
- Who is using both ?
- Special attention to the nature, extent and availability of the family network : spouse, children and siblings.
- Further analysis following a bivariate analysis :
 - Martel, L. and J. Légaré (2001). “Avec ou sans famille proche à la vieillesse : une description du réseau de soutien informel des personnes âgées selon la présence du conjoint et des enfants”, Cahiers québécois de démographie, Vol. 30, no 1, pp. 89-114.



Data

- Statistics Canada 1996 General Social Survey on Social and Community Support
- Design to provide and understand the dynamic between an individual's social network and the help received and provided.
- Sample : 12 752 respondents living in private households
 - 5 952 respondents aged 65 years and over



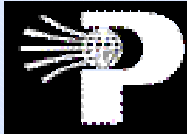
Universe and Dependent Variable

- Are included in the analysis respondents having received help because of a long-term health problem for the following activities :
 - preparing meals
 - shopping for groceries
 - everyday housework
 - personal care
 - n = 1 162 respondents (19,5%)
- Categories of the dependent variable :
 - formal help only
 - informal help only
 - formal and informal help (mixed)



Independent Variables

- **Control variables :**
 - Age and sex
- **Socio-demographic variables :**
 - living arrangement
 - education
 - income (Garanteed Income Supplement - GIS - as a proxy for low income)
- **Social network variables :**
 - number of children
 - number of siblings



Methodology

- Multinomial logistic model
- Weights are normalized
- Odds ratios
- Probabilities (calculated using β)



Populations

	No assistance	With assistance	TOTAL
Age (mean)	72.6	77.4	73.5
Health (mean)	0.87	0.66	0.83
% of women	54.2	67.0	56.7
Living arrangements			
Living alone	28.7	41.0	31.1
Living with spouse	62.0	41.0	57.9
Living with others	9.2	18.0	10.9
TOTAL	100.0	100.0	100.0
Education levels			
No or elem. school	22.7	30.6	24.1
Secondary school	43.6	43.9	43.6
Post-sec. school	33.7	25.6	32.2
TOTAL	100.0	100.0	100.0
Income (having GIS)			
Yes	22.7	32.9	24.7
No	77.3	67.1	75.3
TOTAL	100.0	100.0	100.0
Number of children			
0	11.3	13.8	11.8
1	10.7	13.5	11.3
2+	78.0	72.7	76.9
TOTAL	100.0	100.0	100.0
Number of siblings			
0	14.9	22.4	16.3
1	20.4	19.0	20.1
2+	64.7	58.6	63.5
TOTAL	100.0	100.0	100.0

62%

18%

33%



Bivariate Analysis

		Informal only	Formal only	Mixed	TOTAL
Age	65-69	65.3	24.0	10.7	100,0
	70-74	41.1	43.8	15.1	100,0
	75-79	39.7	36.2	24.0	100,0
	80-84	34.0	36.7	29.3	100,0
	85 +	46.3	26.9	26.9	100,0
	65 +	42.1	34.1	23.8	100,0
	Sex	Men		34.0	15.7
Women			34.9	24.1	100,0
Living arrangements	Living alone	30.5	40.7	28.8	100,0
	Living with family	47.8	37.5	14.8	100,0
	Living with friends	64.6	14.9	20.6	100,0
Educational attainment	No or elem. school	56.1	24.4	19.5	100,0
	Secondary school	41.6	37.2	21.3	100,0
	Post-sec. school	34.4	42.0	23.6	100,0
Income (having GIS)	1000+		28.7	27.1	100,0
	1000-		37.6	18.4	100,0
Number of children	0	38.1	50.0	11.9	100,0
	1	48.3	27.1	24.6	100,0
	2+	44.4	33.1	22.5	100,0
Number of grandchildren	0	42.0	36.2	21.7	100,0
	1	35.7	37.8	26.5	100,0
	2+	47.7	32.9	19.4	100,0

65%

41%

65%

56%

50%

44%

48%



Results

- Multivariate analysis (all things being equal) :

Age : younger ages \Rightarrow have the greatest prob. of using **informal assistance only**

Living arrangements :

- living alone \Rightarrow **informal assistance only**
- living with a spouse (compared to living alone)
 - \Rightarrow 20% more chance of using **informal assistance only**
 - \Rightarrow 25% less chance of using mixed assistance
- living with others (excluding a spouse)
 - \Rightarrow **informal assistance only**



Results (continued)

Education : no or elem. school \Rightarrow increases by more than 40% the prob. of using **informal assistance only**

Number of children :

- no children \Rightarrow little effect on the prob. of receiving **informal assistance only**

- 2 children or more \Rightarrow double the prob. of having mixed assistance

\Rightarrow reduce by about 60% the prob. of having

formal assistance only

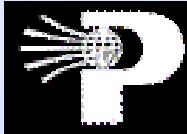
Sex, income and number of siblings

\Rightarrow no significant effects.



Conclusion

- The highest probability of receiving...
 - **mixed assistance** \Rightarrow the oldest old (80 years +), living alone and having 2 children or more
 - **informal assistance only** \Rightarrow youngest old (65-69 years) and living with others
 - **formal assistance only** \Rightarrow those living alone and having no children
 - Future cohorts of older persons :
 - greater proportion having no child
 - better educated
 - reducing gap between male and female life expectancy \rightarrow Might partially compensate
- } Might lead to increasing pressure on formal assistance



Multivariate Analysis (Odds Ratios)

	Informal / Mix	Formal / Mix	Formal / Informal
Age			
65-69	Ref.	Ref.	Ref.
70-74	0.49	1.40	2.86
75-79	0.38	0.79	2.08
80-84	0.25	0.71	2.84
85+	0.33	0.62	1.88
Sex			
Men	0.66	0.85	1.30
Women	Ref.	Ref.	Ref.
Living arrangements			
Living alone	0.47	0.67	1.43
Living with spouse	Ref.	Ref.	Ref.
Living with others	1.40	0.39	0.28
Education levels			
No or elem. school	2.26	0.96	0.42
Secondary school	1.57	1.16	0.74
Post-sec. school	Ref.	Ref.	Ref.
Income (having GIS)			
Yes	1.36	1.52	1.12
No	Ref.	Ref.	Ref.
Number of children			
0	1.98	3.23	1.63
1	1.09	0.87	0.80
2+	Ref.	Ref.	Ref.
Number of siblings			
0	1.03	1.19	1.16
1	0.56	0.85	1.52
2+	Ref.	Ref.	Ref.



Multivariate Analysis (Probabilities - 1)

Living alone	No child		
	Informal only (0.62)	Formal only (0.25)	Mixed (0.13)
65-69			
Less than 8 years	0.66	0.27	0.07
Post-sec. education	0.46	0.43	0.11
70-74			
Less than 8 years	0.42	0.49	0.09
Post-sec. education	0.24	0.64	0.12
75-79			
Less than 8 years	0.47	0.40	0.13
Post-sec. education	0.28	0.55	0.17
80-84			
Less than 8 years	0.39	0.45	0.16
Post-sec. education	0.22	0.58	0.21
	2 + children		
65-69			
Less than 8 years	0.69	0.17	0.14
Post-sec. education	0.49	0.28	0.23
70-74			
Less than 8 years	0.47	0.34	0.20
Post-sec. education	0.28	0.46	0.26
75-79			
Less than 8 years	0.48	0.26	0.26
Post-sec. education	0.29	0.35	0.36
80-84			
Less than 8 years	0.39	0.28	0.32
Post-sec. education	0.22	0.36	0.42



Multivariate Analysis (Probabilities - 2)

Living with spouse	No child		
	Informal only (0.62)	Formal only (0.25)	Mixed (0.13)
65-69			
Less than 8 years	0.75	0.22	0.04
Post-sec. education	0.57	0.37	0.06
70-74			
Less than 8 years	0.52	0.43	0.05
Post-sec. education	0.32	0.60	0.07
75-79			
Less than 8 years	0.58	0.35	0.07
Post-sec. education	0.38	0.51	0.11
80-84			
Less than 8 years	0.50	0.41	0.10
Post-sec. education	0.30	0.56	0.13
	2 + children		
65-69			
Less than 8 years	0.79	0.14	0.08
Post-sec. education	0.62	0.25	0.13
70-74			
Less than 8 years	0.59	0.30	0.12
Post-sec. education	0.39	0.44	0.17
75-79			
Less than 8 years	0.61	0.23	0.16
Post-sec. education	0.41	0.35	0.24
80-84			
Less than 8 years	0.53	0.27	0.20
Post-sec. education	0.33	0.38	0.29



Multivariate Analysis (Probabilities - 3)

Living with others	No child		
	Informal only (0.62)	Formal only (0.25)	Mixed (0.13)
65-69			
Less than 8 years	0.90	0.07	0.03
Post-sec. education	0.79	0.15	0.06
70-74			
Less than 8 years	0.77	0.18	0.05
Post-sec. education	0.59	0.31	0.10
75-79			
Less than 8 years	0.79	0.13	0.07
Post-sec. education	0.63	0.24	0.13
80-84			
Less than 8 years	0.73	0.17	0.10
Post-sec. education	0.54	0.28	0.17
	2 + children		
65-69			
Less than 8 years	0.89	0.04	0.06
Post-sec. education	0.79	0.09	0.12
70-74			
Less than 8 years	0.78	0.11	0.11
Post-sec. education	0.61	0.20	0.19
75-79			
Less than 8 years	0.78	0.08	0.14
Post-sec. education	0.61	0.14	0.25
80-84			
Less than 8 years	0.70	0.10	0.20
Post-sec. education	0.51	0.17	0.32

