

Comparison of rural and urban users and non-users of home care in Canada

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Introduction: Geography is considered a determinant of health because people living in rural and remote areas, compared with those in urban areas, have poorer health status and more difficulty accessing health care.
Purpose: To examine the characteristics associated with the use of publicly funded home care services among rural and urban Canadians 18 years of age and over.
Methods: The Andersen and Newman Behavioural Model of Health Services Use guided the selection of variables, analyses and interpretation of the findings. Descriptive, correlation and multiple logistic regression analyses were completed on 2 cross-sectional cycles of Statistics Canada's National Population Health Surveys.
Results and Conclusion: This research revealed that rural residents are increasingly less likely to receive personal care assistance, and rural home care users appear to have more resources (e.g., higher levels of education, sense of coherence) that likely influence their ability to access and receive home care services, than their urban counterparts. Rural residents without these resources may be less likely to receive home care services.

Introduction : On considère la géographie comme un déterminant de la santé parce que les populations des régions rurales et éloignées sont en moins bonne santé et ont plus de difficulté à avoir accès aux soins de santé que celles des régions urbaines.
Objet : Étudier les caractéristiques associées à l'utilisation de services de soins à domicile financés par l'État chez les Canadiens urbains et ruraux de 18 ans et plus.
Méthodes : Le modèle comportemental Andersen et Newman d'utilisation des services de santé a guidé la sélection des variables, les analyses et l'interprétation des résultats. On a procédé à des analyses de régression logistiques multiples, de corrélation et descriptives portant sur deux cycles transversaux des enquêtes nationales sur la santé de la population de Statistique Canada.
Résultats et conclusion : Cette recherche a révélé que les habitants des régions rurales, par rapport à ceux des régions urbaines, sont de moins en moins susceptibles de recevoir de l'aide sous forme de soins personnels et que les utilisateurs de foyers de soins en milieu rural semblent avoir plus de ressources personnelles que leurs homologues urbains (p. ex., plus d'instruction, plus grand sentiment de cohérence), ce qui influence probablement leur capacité à recevoir des services de soins à domicile et à y avoir accès. Les habitants des régions rurales qui n'ont pas ces ressources risquent d'être moins susceptibles de bénéficier des services de soins à domicile.

INTRODUCTION

It is estimated that 21.7% (6 665 926) of Canadians live in rural and remote areas.[1] Geography is considered a determinant of health because people living in rural and remote areas have poorer health status and more difficulty accessing health care.[2] Indeed, the health of a community appears to be inversely related to the remoteness of its location.[2] Compared to urban older adults, rural older adults have a lower life expectancy by one year, greater proportions of old-old seniors (over the age of 85 years), lower income, less education, higher levels of impairment in some basic activities of daily living,

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lack of formal services such as hospitals, home care, physicians and other health care providers, and greater distances to travel to access health services.[3–10]

There is a shift in health care philosophy favouring community-based care over institutionalized care. Health care restructuring from 1992 to 1999 resulted in a 4% decrease in per capita spending on Canadian hospitals and an approximate 30% decrease in acute care beds per capita.[11] The proportion of the population over the age of 65 will grow from the current 13% to 21% by the year 2026,[12] with the greatest growth occurring in old-old seniors.[13] Currently, 93% of Canadians over the age of 65 live in their own homes, and 65% of old-old seniors live within their communities.[14] Given continued advances in treatments, medications and technology, continuing trends for early discharge from hospital, along with the aging of the population and the growing number of old-old seniors, the demand for home care services will increase.[2]

Previous research has demonstrated the importance of home care in supporting older adults to remain in their homes, especially old-old seniors.[15–19] Forbes and colleagues[15] demonstrated a strong negative association between health status and use of home care for older Canadians, suggesting that those in poorer health relied on home care to be able to remain in their homes. There is strong evidence that home care enhances clients' quality of life and is a cost-effective alternative to recovery in hospital[19] and to residential long-term care.[17] Hollander and Tessaro[18] compared individuals in British Columbia who received housekeeping home support services with those who had their services cut. Clients who no longer received this service cost the health system significantly more and had higher mortality rates.[10] Unfortunately, due to increased pressure on Canadian home care programs to service the post-acute clients, many programs have reduced or eliminated the support services. Frail and disabled elderly without family, friends or financial resources do without.[18] Little is known about how the restructuring of the health care system had an impact on the use of home care services among Canadians and whether there are differences between rural and urban users.

The purpose of the present study was to examine the demographic, economic, psychosocial and physical correlates of publicly funded home care use by rural and urban Canadians 18 years of age and over. The research questions were as follows.

- What are the similarities and differences between Canadian rural and urban users and non-users of publicly funded home care?
- Do the characteristics most strongly predictive of home care use vary as a function of rural and urban status?
- Among rural and urban residents, did the use of home care services, or characteristics associated with home care use, change between 1996/97 and 1998/99?

Methods

Conceptual framework

Over the past 25 years the Andersen and Newman[20,21] Behavioural Model of Health Services Use has been used almost exclusively to conceptually organize health services utilization research. Health services utilization is conceptualized as factors predisposing individuals to make use of services (e.g., age, gender, marital status); factors enabling or limiting individuals' abilities to access services (e.g., knowledge of the service, income, social relationships, area of residence); and need factors (e.g., acute and chronic illness, functional disability, perceived health). This model was used as a framework for the current study to provide a structure for the organization of the variables and analyses.

Design

This study examined the predictive value of the predisposing, enabling and need variables in relation to use of home care for rural and urban Canadians. Currently, home care data provided by home care programs are not collected at a national level. Statistics Canada's National Population Health Surveys (NPHSs)[22,23] provided an opportunity to examine home care use from a national perspective. The NPHSs collect information related to the health of the Canadian population. The questionnaires included components on health status, use of health services, risk factors, and demographic and socioeconomic characteristics. The NPHSs collect information from a core panel of individuals at 2-year intervals for up to 20 years.[24] The research described in this paper focuses on deriving estimates from 2 cycles of cross-sectional data collected in 1996/97 and 1998/99. Data from the 1998/99 cycle are used to answer the first 2 research questions, and data from both cycles are used to answer the third question.

Sample

The target population of the NPHS included household residents in all provinces excluding populations on Indian Reserves, Canadian Forces Bases, and some remote areas in Quebec and Ontario. A multi-stage stratified sample design developed for the Labour Force Survey was used and has been described elsewhere.[25] Essentially it weights respondents to obtain population estimates for all of Canada. Most of the information was collected from a single household member. For the longitudinal follow-up, the single household member was re-surveyed and the same basic health-related information was collected from all members of the household in which he or she was currently living. The sample sizes for the cross-sectional components were 13 070* in 1996/97 and 14 148 in 1998/99. The selected person-response rates were 98.7% in 1996/97 and 98.5% in 1998/99.[22,23]

Indicators

There are many ways to define "rural."[26,27] The definition used in this study is known as the "census rural" and is defined as the population living outside places of 1000 people or more, or a population living outside places with densities of 400 or more people per square kilometre based on the previous census.[26] To be considered as continuous, the built-up area must not have a discontinuity exceeding 2 km.[23] In response to the question related to living in a rural or urban area, Statistics Canada's Public Use Microdata File did not include respondents living in Vancouver, Montréal or Toronto, thus the non-applicable responses were very high. To address this problem, all participants' responses to the rural and urban question were obtained through remote access to the survey master file at Statistics Canada.

Our dependent variable was use of home care. Respondents were read the following definition: "Home care services are health care or homemaker services received at home, with the cost being entirely or partially covered by government (e.g., nursing care, help with bathing, help around the home, physiotherapy, counselling and meal delivery)." Respondents were then asked: "Have you received any home care services in the past 12 months? What type of services have you received: nursing care (e.g., dressing changes, VON)? housework (e.g., cleaning, laundry)?" Analyses of the specific types of services were not conducted because the sample sizes were often less than 30 and the results cannot be released.[25]

We examined 13 independent variables, based on the Andersen and Newman[20,21] Behavioural Model of Health Services Use. The predisposing variables included age (<65 and ≥65); gender; and living arrangement (alone or with at least one other person). The enabling variables included education (less than secondary education or secondary); income adequacy based on household size (lowest, lower-middle, middle, upper-middle or highest); sense of coherence (13 items of a scale developed by Antonovsky[28] measured the extent to which respondents perceive events as comprehensible, manageable and meaningful); and social support index. Internal consistency testing of the Sense of Coherence Scale in the NPHS was reported to be 0.83.[29]

In 1998/99, social support was measured by the Tangible Social Support Medical Outcomes Study (MOS) subscale (e.g., availability of someone to help if confined to bed, to take to the doctor, to prepare meals, and to help with daily chores when sick) and the Emotional or Informational Support MOS subscale (e.g., someone to count on to listen to you, to give advice, to give you information, to confide in, and who understands your problems). In the current study, internal consistency testing of the Tangible Social Support and Emotional or Informational Support subscales produced Cronbach's alphas of 0.87 and 0.95 respectively.

The need variables included restriction of activities (because of a long-term [>6 mo] physical or mental condition or a health problem respondents were limited in the kind or amount of activity they could do at home, school, work and other); need for help with normal everyday housework or with personal care such as washing, dressing or eating; presence and type of chronic conditions (e.g., arthritis/rheumatism, chronic bronchitis, cancer, cataracts, diabetes, heart disease, effects of stroke, urinary incontinence) that have lasted or were expected to last 6 months or more and have been diagnosed by a health professional; perceived health (self-report measure of general health: excellent-good or fair-poor); and overnight hospitalizations in the past 12 months.

*The sample size in 1996/97 was originally 81 804 due to the buy-ins from Ontario, Manitoba and Alberta. The core sample (n = 13 070) that excluded the buy-ins was obtained through remote access to the survey master file at Statistics Canada.

Data analyses

The planned data analyses entailed a multi-stage process consisting of data description, bivariate, and multivariate analyses using SPSS 11.0 for Windows. Tabulations of the predisposing, enabling and need variables were used to describe rural and urban recipients and non-users of home care. Descriptive statistics included frequencies, percents, ranges, means and standard deviations of the population estimates. Differences between the cohorts were tested using the chi-squared analysis of contingency tables, Mann–Whitney *U* test, or one-way analysis of variance.[30,31]

Pearson product-moment correlations were used to determine the strength and association between the independent and dependent variables. Potential confounders were also revealed by these analyses so that appropriate control could be exercised in subsequent analyses. Variables that were marginally significant (i.e., <0.25)[32] and theoretically appropriate were retained for inclusion in multivariate analyses.

For each NPHS cycle, multiple logistic regression analyses were performed to examine the associations of the independent variables with home care use for rural and urban respondents. Based on the Andersen and Newman model,[20,21] independent variables were entered into the regression in 3 blocks: 1) predisposing factors; 2) enabling factors; and 3) need factors. Only the final models are presented in our Results for each question. To account for design effects, odds ratios (ORs) were considered statistically significant if the values of the lower and upper bounds of their 95% confidence intervals were not in the range 0.945 to 1.055. Because all Canadians did not have an equal probability of participating, sampling weights were calculated for each respondent. Sample weighting permits generalizability to the Canadian population. An average sampling weight was used in the multivariate analyses.[25] Given that the research conducted analyses on Statistics Canada data that were released following certain procedures that guarantee the anonymity of the respondents, ethical issues were not a concern.

Results

Canadians living in rural and urban areas differed in several important attributes. In rural areas (using 1998/99 data) there were greater proportions of males (χ^2 = 12.95, p = 0.000); people living with others (χ^2 = 42.83, p = 0.000); and people with lower levels of income (χ^2 = 45.51, p = 0.000), lower levels of education (χ^2 = 74.74, p = 0.000), greater tangible social support $F(1, 17511) = 36.71$, p = 0.000, greater emotional and informational support $F(1, 17409) = 26.05$, p = 0.000 and higher sense of coherence (χ^2 = 22.29, p = 0.000). There were no differences between rural and urban residents in terms of age, perceived health, overnight hospitalizations, activity restriction, needing help with housework or needing help with personal care.

Question 1: What are the similarities and differences between Canadian rural and urban users and non-users of publicly funded home care?

Predisposing variables

The percentage of rural and urban home care users and non-users in relation to each independent variable can be found in Table 1. The results are reported as estimates of the Canadian population aged 18 or older. Nearly twice as many women as men received home care services in rural and urban areas (rural: χ^2 = 13.68, p = 0.000). Use of home care sharply increased with age in both the rural and urban populations (rural: χ^2 = 280.34, p = 0.000). Both urban and rural home care recipients were more likely than non-users to be living alone (rural: χ^2 = 82.68, p = 0.000).

Enabling variables

Home care users in both rural and urban areas tended to fall within the lowest and lower-middle income brackets, and the majority of non-users reported higher levels of income (rural: χ^2 = 66.10, p = 0.000). In urban areas, home care users were significantly more likely than non-users to report lower education levels (χ^2 = 54.08, p = 0.000). However this was not the case in rural areas: the rural population showed no significant educational differences between users and non-users.

In both rural and urban areas, home care users were more likely than non-users to report lower emotional and informational support (χ^2 = 5.72, p = 0.02). However, only in rural areas did home care users report lower tangible support than non-users (χ^2 = 6.64, p = 0.01). While urban home care users were more likely than non-users to report lower levels of sense of coherence (1998/99: χ^2 = 19.04, p = 0.000), no statistically significant differences in sense of coherence emerged between rural users and non-users.

Need variables

Both rural and urban users were more likely than non-users to report their health as "poor" (rural: $\chi^2 = 213.77$, $p = 0.000$). As one might expect, persons receiving home care services in both geographic areas were hospitalized overnight in the past 12 months more frequently than were non-users (rural: $\chi^2 = 136.60$, $p = 0.000$). As well, urban home care users were more likely than rural users to have been hospitalized overnight ($\chi^2 = 4.03$, $p = 0.045$).

Compared to non-users, both rural and urban

Table 1. Characteristics of users and non-users of home care, by rural/urban status in 1998/99

	Rural		Urban	
Independent variable	Home care users, % *n** = 104 703	Non-users, % *n** = 4 048 142	Home care users, % *n** = 508 165	Non-users, % *n** = 17 897 657
Predisposing variables				
Gender				
Male	1.8	98.2	2.0	98.0
Female	3.3	96.7	3.5	96.5
Age				
<65	1.0	99.0	1.1	98.9
≥65	11.1	88.9	12.0	88.0
Living arrangement				
With others	1.8	98.2	2.1	97.9
Alone	7.8	92.2	6.2	93.8
Enabling variables				
Income				
High	0.9	99.1	1.4	98.6
Low	4.4	95.6	5.1	94.9
Education				
High	3.1	96.9	1.5	98.5
Low	2.3	97.7	3.5	96.5
Social support				
High	1.8	98.2	2.2	97.8
Low	2.9	97.1	2.5	97.5
Sense of coherence				
High	2.1	97.9	2.1	97.9
Low	3.3	96.7	4.3	95.7
Needs variables				
Perceived health				
Good	1.5	98.5	1.5	98.5
Poor	11.8	88.2	14.3	85.7
Overnight hospitalization				
No	1.8	98.2	1.6	98.4
Yes	10.9	89.1	16.9	83.1
Activity restriction				
No	1.0	99.0	0.8	99.2
Yes	8.7	91.3	11.4	88.6
Chronic condition				
No	0.6	99.4	0.7	99.3
Yes	3.8	96.2	4.1	95.9
Needs help with housework				
No	1.2	98.8	1.3	98.7
Yes	28.6	71.4	30.4	69.6
Needs help with personal care				
No	2.0	98.0	1.9	98.1
Yes	37.3	62.7	53.5	46.5

*n = population estimates of home care users and non-users.

users were much more likely to be restricted in their daily activities (rural: $\chi^2 = 206.75$, $p = 0.000$) and to report a long-term condition (rural: $\chi^2 = 53.04$, $p = 0.000$). The most commonly reported chronic conditions for home care users were arthritis or rheumatism, high blood pressure, back problems, heart disease, cataracts and diabetes.

Rural and urban users were more likely than non-users to report that they needed help with housework (rural: $\chi^2 = 760.78$, $p = 0.000$). Similarly, home care users were more likely than non-users to report a need for personal care assistance, especially those in urban areas. It is important to note that 3.5%–3.8% of rural and urban non-users reported needing assistance with housework. There were very few urban or rural non-users who reported needing personal care assistance (0.8%–1.0%).

Question 2: Do the characteristics most strongly predictive of home care use vary as a function of rural and urban status?

Predisposing variables

The multivariate analyses incorporated an average weight of the population estimates — thus the sample sizes are much smaller. The results are in Table 2. In the multivariate analyses, similar predisposing variables were associated with use of home care in rural and urban areas. Individuals over the age of 65 were over 4 times as likely as those under 65 to receive home care services. Women were 1.5 to 2.5 times as likely as men to receive home care, and those living alone, nearly 2 to 3 times as likely as those living with others to receive home care, especially those in rural areas.

Enabling variables

Different enabling variables predicted use of home care in rural and urban areas. In rural areas, those with a higher level of education were over 4 times more likely than those with a lower education to receive home care, and those with a higher sense of coherence were nearly 4 times as likely as those with a lower sense of coherence to receive home care. In both areas, those with lower levels of income were 1.6 to 2.5 times as likely as higher income residents to receive home care services (Table 2).

Need variables

The need variables associated with use of home care tended to be similar in rural and urban areas. In urban areas, those who were restricted in their activities of daily living were over 3 times as likely as those without a restriction to receive home care. The need for help with normal housework and personal care had strong associations with use of home

Table 2. Predictors of home care use by rural/urban status in 1998/99

	Rural, $n = 2944$			Urban, $n = 9679$		
Independent variable	Odds ratio	95% CI	p value	Odds ratio	95% CI	p value
Predisposing variables						
Older adult	4.29	2.44–7.55	< 0.001	4.08	2.94–5.65	< 0.001
Woman	2.54	1.42–4.53	< 0.01	1.46	1.06–2.02	< 0.05
Lives alone	3.26	1.81–5.88	< 0.001	1.78	1.25–2.52	< 0.01
Enabling variables						
Higher education	4.57	2.59–8.06	< 0.001	–	–	–
Lower income	2.48	1.34–4.60	< 0.01	1.56	1.10–2.20	< 0.05
Lower social support	–	–	–	–	–	–
Higher sense of coherence	3.65	1.16–11.49	< 0.05	–	–	–
Needs variables						
Restricted activities	–	–	–	3.12	2.15–4.53	< 0.001
Chronic condition	–	–	–	–	–	–
Needs housework assistance	5.60	2.73–11.50	< 0.001	2.49	1.69–3.65	< 0.001
Needs personal care	4.39	1.78–10.78	< 0.01	6.24	3.82–10.20	< 0.001
Hospitalizations	3.11	1.74–5.57	< 0.001	5.06	3.70–6.91	< 0.001
Poor perceived health	2.03	1.05–3.92	< 0.05	1.68	1.18–2.39	< 0.01

n = sample size of home care users
CI = confidence interval

care. Compared to individuals who did not require these services, rural residents needing housework services were almost 6 times as likely to receive home care, and urban residents were 2.5 times as likely to receive home care. Those in urban areas who needed personal care assistance were over 6 times as likely, and those in rural areas over 4 times as likely to receive home care as those not needing assistance. Overnight hospitalization was an important predictor, especially in urban areas: those who experienced an acute care episode (compared to those who did not) were nearly 3 to over 5 times as likely to receive home care, and those with poor perceived health (compared to those with good perceived health) were nearly twice as likely to receive home care (Table 2).

Question 3: Among rural and urban residents has the use of home care services, or characteristics associated with home care use, changed between 1996/97 and 1998/99?

Although there was only a 2-year span between the 2 cycles of data, some possible trends were apparent. Only a small proportion of Canadians received publicly funded home care in the years studied (2.5% in rural areas in both cycles, and 2.3% and 2.8% in urban areas in 1996/97 and 1998/99 respectively). Few respondents claimed they needed care but did not receive it. The percentages increased slightly from 1996/97 to 1998/99. In 1996/97, 4.2% of rural respondents and 4.6% of urban respondents did not receive needed care, and in 1998/99 this percent had risen to 6.4% and 6.7%, respectively. Urban users (14.6%) were more likely to report that needed care was not received compared to 2.9% of rural users in 1996/97. In 1998/99 the rates were 5.7% and 11.3%, respectively.

An examination of the individual services (e.g., nursing, housework, personal care) offered by home care programs revealed interesting trends. The percentage of home care users who received nursing services was comparable in rural and urban areas and remained fairly stable over time (e.g., rural 39.6% in 1996/97 to 40.9% in 1998/99). However, trends in relation to receiving housework services appear to differ between rural and urban users and also differed over time. In 1998/99, a greater proportion of rural users (50.9%) than urban users (39.9%) received housework services, although this difference was not statistically significant ($\chi^2 = 3.34$, $p = 0.07$). In urban areas, the proportion of users who received housework services decreased from 46.5% in 1996/97 to 39.9% in 1998/99, but the proportion did not decrease in rural areas (47.4% in 1996/97 to 50.9% in 1998/99). In 1998/99, urban users (39.7%) were much more likely than rural users (11.5%) to receive personal care assistance ($\chi^2 = 6.72$, $p = 0.01$). As well, there were apparent differences over time: the proportion of home care users who received personal care assistance decreased in rural areas (24.1% in 1996/97 to 11.5% in 1998/99) but increased in urban areas (23.8% in 1996/97 to 39.7% in 1998/99).

The logistic regression analyses revealed that, over time, the need for housework assistance appears to becoming less important in predicting home care use (in 1996/97 ORs = 3.1–6.4, in 1998/99 ORs = 2.5–5.6), most likely due to rationing of housework services. In contrast, the need for personal care assistance appears to be increasing in importance over time, as is the strength of association between need for personal care and receiving home care (in 1996/97 ORs = 3.1–3.4, in 1997/98 ORs = 4.4–6.2). That is, those who needed help with personal care were 3 to over 6 times more likely to receive home care.

Discussion

The results of the present study broaden our understanding of the similarities and differences between rural and urban Canadians. Rural residents have lower levels of income and education, thus placing them at a disadvantage in comparison to their urban counterparts. These findings are consistent with the work of Rupnik and colleagues.[8] There is widespread evidence that those who are economically better off tend to live longer and healthier lives.

On the other hand, compared to urban residents, rural residents were more likely to be living with others and to report greater tangible, emotional and information support. These attributes have demonstrated a positive affect on health status.[33,34] In addition, having an informal support network that provides emotional and/or tangible support will result in less use of home care.[35] Although there appears to be greater informal support networks within rural communities, research also reveals that, over time, these informal networks cannot sustain high levels of care.[36] As the burden of care becomes too physically or emotionally demanding or too technically complex, the informal networks may then assume the role of advocate and mobilize the formal support system such as home care.[37]

Surprisingly, the results demonstrated no rural/urban differences in activity restrictions or rates of hospitalization. These findings are contrary to other research that has found rural residents to have greater restrictions in basic activities of daily living and greater hospital use.[9,38] A measure of the average length of stay in hospital may be a better indicator of hospital use than rate of overnight hospitalization because rural residents may access hospital services as frequently as urban residents but remain in hospital longer because of the greater travel distances to access needed health care.

Consistent with previous research,[16] the bivariate and multivariate analyses revealed that both rural and urban home care users were more likely than non-users to be women, older adults and living alone. Rural and urban home care recipients were also more likely than non-users to report lower levels of income, lower emotional and informational support, greater overnight hospitalizations, greater restrictions in activity, at least one chronic condition, and that they needed help with housework and personal care assistance.

There were some important differences between rural and urban home care users. Urban users were more likely than urban non-users to have lower levels of education and sense of coherence. These differences were not observed between rural users and non-users. These findings may imply that, compared with urban residents, rural residents must be more resourceful (e.g., higher education, greater sense of coherence) and have actual lower levels of support (i.e., tangible support) in order to secure home care services. Higher levels of education and sense of coherence will contribute to one's ability to achieve and maintain a healthy lifestyle, and to access and/or to navigate the health care system. The strongest predictors of home care use among urban residents were (in descending order): need of personal care assistance, hospitalizations, older age, and restricted activities. The strongest predictors of home care use in rural areas were somewhat different: need of help with housework, higher education, older age, need of help with personal care, higher sense of coherence, living alone, and hospitalizations.

In the present study, similar proportions of rural and urban respondents reported receiving home care. Previous research has found that those living in urban areas are more likely to receive home care.[38,39] The current findings may reflect the fact that the NPHS excluded populations on Indian Reserves and some remote areas in Quebec and Ontario, thus preventing the examination of those who are perhaps most at risk for not having access to home care services. Although challenging, including these most vulnerable populations in research studies is essential in order to capture a more accurate understanding of their health and service needs.

Home care users in rural areas are more likely than those in urban areas to receive housework services and less likely to receive personal care assistance. These findings are difficult to explain. Perhaps rural home care programs have lagged behind their urban counterparts in reducing or eliminating the housework services due to the more pressing demands to service post-acute clients. The lower proportion of personal care services may reflect the stoic and independent nature of rural residents and greater availability of informal support networks in rural areas. The trend of decreasing personal care services offered through home care for rural areas is a concern and requires further research.

Although most rural and urban residents (93%–95%) were satisfied with health care services received, 11%–15% of urban dwelling residents who received home care reported that needed care was not received. On the other hand, few (3%–6%) rural users reported this to be the case. Perhaps, this is once again a reflection of the personalities of the rural residents, as their needs were similar to their urban counterparts.

Conclusion

This research reveals that rural residents are increasingly less likely to receive personal care assistance, and rural home care users appear to have more resources (e.g., higher levels of education, sense of coherence) that likely influence their ability to access and receive home care services than their urban counterparts. Rural residents without these resources may be less likely to receive home care services. Health care practitioners in rural communities are in an ideal position to ensure that rural residents who need home care services are encouraged to accept the services that will assist them to remain living in their own homes and communities.

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