

SUBSTUDY 8

ELIGIBILITY FOR COMMUNITY, HOSPITAL AND INSTITUTIONAL SERVICES IN CANADA: A PRELIMINARY STUDY OF CASE MANAGERS IN SEVEN PROVINCES

**A Report Prepared for the Health Transition Fund,
Health Canada**

April 2001



National Evaluation of the Cost-Effectiveness of Home Care



and

**Department of Health Studies & Gerontology, University of Waterloo,
Waterloo ON**

**Canadian Collaborating Centre – interRAI, Providence Centre, Toronto ON
St. Mary's Hospital, Kitchener ON**

**Institute of Gerontology, University of Michigan, Ann Arbor MI
Ann Arbor VA Medical Center**

To obtain additional copies of this report, please contact the National Evaluation of the Cost-Effectiveness of Home Care:

National Evaluation of the Cost-Effectiveness of Home Care

308 - 895 Fort Street
Victoria, BC
V8W 1H7
Canada

Tel: (250) 389-0123
Fax: (250) 389-0105

info@homecarestudy.com
www.homecarestudy.com

or

John P. Hirdes, PhD

Department of Health Studies and Gerontology
University of Waterloo
Waterloo, ON
N2L 3G1
Canada

Tel: (519) 888-4567 ext. 2007
Fax: (519) 746-2510

hirdes@uwaterloo.ca
www.interrai.org

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**A Report Prepared for the Health Transition Fund,
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**by John P. Hirdes, PhD^{1,2}
Erin Y. Tjam, PhD^{1,3}
Brant E. Fries, PhD^{4,5}**

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and

- 1. Department of Health Studies & Gerontology, University of Waterloo,
Waterloo ON**
- 2. Canadian Collaborating Centre – interRAI, Providence Centre, Toronto
ON**
- 3. St. Mary's Hospital, Kitchener ON**
- 4. Institute of Gerontology, University of Michigan, Ann Arbor MI**
- 5. Ann Arbor VA Medical Center**

PREFACE

The National Evaluation of the Cost-Effectiveness of Home Care is an integrated program of research with 15 studies being conducted across Canada. There is an overall strategy for the program of research to make it as useful to administrators and decision makers as possible. The program of research is designed to determine whether or not home care is a cost-effective alternative to institutional care, that is care in long term care facilities and acute care hospitals. However, the program of research is also designed to provide an educational function to inform decision makers and the public about home care, and to provide advice about issues related to implementing new and cost-effective home care initiatives. Thus, the overall strategy has the following components:

- Conduct studies to determine whether or not home care is a cost-effective alternative to institutional care, and if so, under what conditions it is cost-effective.
- Conduct studies to inform decision makers about the nature and scope of home care services across Canada. These studies provide a baseline of information about home care clients, costs, and utilization. This baseline is important because there is currently no national database on home care in Canada.
- Conduct studies to explore opportunities for potential savings in the hospital sector by substituting home care services. At present there are relatively few areas noted in the literature where home care has been shown to be a cost-effective alternative to hospital care.
- Conduct studies to provide decision makers with information about some of the issues they may face if they try to implement new initiatives to enhance the cost-effectiveness of the health care system.
- Conduct studies of eligibility and access to community, hospital and institutional services in Canada based on case manager's responses to standardized clinical vignettes.

Substudy 8: *Eligibility for Community, Hospital and Institutional Services in Canada: A Preliminary Study of Case Managers in Seven Provinces* analyses eligibility and access to community, hospital, and institutional services in Canada based on case manager's responses to standardized clinical vignettes.

Neena Chappell, PhD
Co-Director
National Evaluation of the
Cost-Effectiveness of Home Care

Marcus Hollander, PhD
Co-Director
National Evaluation of the
Cost-Effectiveness of Home Care

EXECUTIVE SUMMARY

In light of the challenges facing health care in Canada, many provinces have begun work to create eligibility systems for community, hospital and institutional services. Such eligibility systems have the potential to increase both the cost-effectiveness and equity of health care. However, eligibility for services is often a value-based decision reflecting policy choices about who should get what services. Therefore, one might expect to see regional differences in eligibility and access to services across Canada.

The present study involves 60 case managers from seven provinces responding to a series of questions about the types of services persons in their jurisdiction would be eligible for. Each case manager evaluated 16 different standardized vignettes describing persons in the community with different social, psychological, medical and environmental characteristics. For each vignette, the case managers indicated the level of care the person would be eligible for in that jurisdiction when blinded or not blinded to informal support. In addition, they also reported on waiting times, duration of services, types of professionals involved, co-payments and availability of services.

The analysis of this data illustrated regional differences in eligibility and access to services. In some regions, (e.g. Manitoba) there was a somewhat greater emphasis on community-based care, whereas other provinces (i.e. Ontario, Alberta, British Columbia) tended to have a somewhat higher level of resource intensity based the types of professionals likely to be involved in care. British Columbia and Ontario were more likely to have admissions to institutions or hospital settings recommended. Clients in Nova Scotia were much less likely than other provinces to be eligible for rehabilitation services.

The differences noted between provinces were not radical, but were sufficiently important to warrant careful consideration within each jurisdiction as to what approach their eligibility system should employ. That is, one cannot assume that an eligibility system designed for one jurisdiction necessarily applies fully to another.

The results also suggest that the role of informal support in any eligibility system requires careful evaluation. The present eligibility results differed when blinded and not blinded to informal support. However, the direction of change was not uniform, suggesting that informal support is best considered on a case by case rather than as part of an automated eligibility system. In all cases, the precise services needed by a given client should remain to be a clinical decision by a health professional in consultation with the client and family.

Future research in this area should use data from actual home care clients in different provinces to determine what services are provided across Canada. Such comparisons must be based on standardized assessment systems like the MDS-Home Care.

ACKNOWLEDGEMENTS

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The vignettes employed in this study were developed by Brant E. Fries, Ph.D., R. Knight Steel, M.D., Pauline Belleville Taylor, R.N., Nancy Curtin Telegdi, R.N., M.A. and Margaret Riddell, R.N., B.A.

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INTRODUCTION

The rapid changes occurring in Canada's health care system are being driven by a variety of factors including the expected consequences of population aging, fiscal pressures, changing models of care, increased community versus institutional care and a greater emphasis on evidence-based decision-making. One response to these pressures has been to establish guidelines for eligibility for the types of services to which individuals with different characteristics should have access. This can be useful for at least two reasons: 1) it can increase the cost-effectiveness of service delivery by ensuring that levels of care are appropriately matched to levels of need; and 2) it can increase equity in service delivery when persons with similar needs can access similar levels of services regardless of their geographic location. An important modifier to this latter point, however, is that regional differences may reflect not so much unbeknownst differences in access to services as much as true differences in value systems regarding service eligibility.

Research on eligibility systems and access to services has been limited to a small number of studies that were mainly done outside of Canada. Moreover, the dearth of valid and reliable standardized data has made it difficult to compare responses to health care needs in different parts of Canada. The present study aims to examine regional differences in Canada with respect to eligibility for community, hospital and institutional services.

There has been Canadian research done on approaches to case-mix classification in Canada (e.g., Botz, et al. 1993; Charles and Schalm, 1992a; Charles and Schalm, 1992b; Hirdes et al., 1996; Hirdes, 1997), but case-mix systems should not be confused with eligibility systems (Hirdes et al., 1999). As Shapiro and Beland (1994) note, case mix systems like the Alberta Resident Classification System (ARCS) are "designed more to determine payment to facilities not to direct the aged towards the appropriate services". Case mix systems like ARCS and Resource Utilization Groups/Home Care (RUG-III/HC; Bjorkgren et al., 2000) are used to describe the relative resource intensity of nursing home residents and home care clients, respectively, based on individual characteristics like Instrumental Activities of Daily Living (IADL), cognition and clinical complexity. Case mix systems can identify home care clients who are relatively more expensive to care for compared with other clients in the case load. In contrast, eligibility systems are intended to address the question of what specific set of services the person should be eligible for or where that care should be received.

This distinction between case mix and eligibility can be illustrated by cases involving palliative care. The case mix classification system would likely show that persons with end-stage disease would tend to have higher levels of resource intensity than a person with mild dementia who has no further serious medical problems. However, the higher relative cost compared with other home care clients does not, by definition, mean the person with end-stage disease *needs* to be cared for in a hospital or institutional setting. The person may well be best cared for in home, and s/he would have higher costs of care relative to the person with mild dementia regardless of the setting of care. The

setting of care that yields the best outcomes, is the most preferred by the client or has the best resources to meet the client's needs is an eligibility or service needs question, whereas the relative costs of care is a case-mix question.

A study by Miller (1997) examined eligibility systems in numerous jurisdictions including Ontario, Newfoundland, Japan and the US. This study showed that eligibility criteria vary dramatically in terms of who might be deemed as requiring services. This is particularly true for admission to long-term care facilities. Moreover, eligibility guidelines are sometimes so vague that they might include the overwhelming majority of individuals seen by a typical case manager. One consequence of the lack of clear, precise guidelines is that there may be considerable variability in who gains access to community, hospital and institutional services. In Canada, this possibility is magnified by the fact that home care and long-term care services are not regulated under the Canada Health Act, potentially resulting in substantial differences in practice patterns between provinces (Hirdes and Berg, 1994).

After a review of structure and functioning of continuing care in Ontario, the Health Services Restructuring Commission (1998) recommended that the province should develop an eligibility and placement system for long-term care, chronic hospitals/units, and Community Care Access Centres (CCACs) based on the MDS instruments. One study that aims to standardize eligibility systems using the Minimum Data Set – Home Care (MDS-HC; Morris et al., 1997, 1999), is based on the MI-CHOICE program in Michigan (Fries et al., *in review*). This initiative targets home care clients in Michigan who are perceived to be at heightened risk of institutionalization with the aim of reducing nursing home admissions.

The MDS-HC is used as the basis for the MI-CHOICE program's intake assessment, and an eligibility algorithm using data from that assessment recommends the appropriate level of care for that individual, with options that include: information and referral; homemaking; personal care; skilled home nursing services; and nursing home placement. The algorithm for this system was developed by training case managers to incorporate Michigan-specific rules into their decision-making regarding eligibility for services. The case managers were presented with a series of case vignettes, describing different types of home care clients and identifying the appropriate types of services for those individuals. They completed MDS-HC assessments on their own clients and made recommendations about the level of care based on their understanding of Michigan's guidelines. These recommendations by case managers were then incorporated into statistical analyses that were used to create clinical algorithms differentiating these clients into the five levels of service delivery.

It should be emphasized that MI-CHOICE is an *eligibility* algorithm and not an *entitlement* system. That is, the algorithm is intended to match the individual's needs to services provided by the state. Individuals in this program are not entitled to higher-level services if they do not need them.

Any Michigan case managers employing the MDS-HC in the course of an eligibility assessment can now derive this MI-CHOICE algorithm from the instrument. This algorithm can then be used as a general guideline to support service need determination. However, the ultimate decision about the appropriate services for a given case remains in the hands of the case manager, because it must incorporate factors like the availability of informal support, client and family preferences, availability of services in that location, and financial considerations. The MI-CHOICE authors suggest that informal care should *not* be directly incorporated into the placement algorithm. Clearly, the availability of informal care can make particular options – such as home care instead of nursing home care – more (or less) appropriate. However, considerable detail is needed about the type of care needed and available (e.g., weight-bearing) and its timing (e.g., available only in the afternoon, but care is needed in the morning). It would simply be inappropriate to make assumptions about informal support in a way that automates this decision in a level of care/placement algorithm and takes it out of the hands of the case manager.

The primary objective of the present study is to conduct an exploratory analysis of the extent to which regional differences in access to and eligibility for community, hospital and institutional services are evident in Canada. The vignettes used in the original MI-CHOICE study, along with new vignettes created specifically for this research are used to define a standardized population against which the decisions of different case managers can be compared. This information would be useful for provinces interested in developing eligibility systems (e.g., based on the MDS-HC), because it can provide some information on the extent to which such systems are likely to be transferable from jurisdiction to jurisdiction. It also provides a preliminary glance into the question of how equitable or variable entitlements to services are between Canadian provinces.

METHODS

Sample

The respondents in this study were 60 case managers associated with home care programs in British Columbia (Capital Health District and North Shore Health District), Alberta (Calgary Health Authority), Saskatchewan (Prince Albert Health Region), Manitoba (Winnipeg Health Authority), Ontario (Waterloo and Etobicoke Community Care Access Centres), Nova Scotia (Halifax home care program) and Prince Edward Island (Charlottetown home care program). This was a purposeful sample, which aimed to include respondents from the major regions of the country. However, it cannot be assumed that the individuals responding are necessarily a representative sample of case managers. The present study was intended only to provide an exploratory examination of eligibility, and subsequent research can build on this by expanding the case manager sample size, ensuring a nationally-representative sample, and employing a more detailed data collection method with actual cases of home care clients.

Respondents were enrolled in the study by key contacts from each jurisdiction. After recruiting participants, these contact persons gathered and returned completed surveys to the study team.

Data Collection

Participating case managers responded to a self-administered survey on access to and eligibility for community, hospital and institutional services in their regions (see Appendix A) Each survey consisted of a set of 16 case study vignettes describing different types of older persons living in the community. The vignettes and a table summarizing the cases described are provided in Appendix A. The aim was to provide a mixture of scenarios including persons with varying: complexity of health problems; access to informal support; acuity of illness; and presence of mental health concerns, including cognitive impairment. The first 10 vignettes were developed by researchers at the University of Michigan as case examples to be used in training for the MI-CHOICE study on eligibility for levels of care. These were modified to incorporate Canadian terminology, and an additional 6 vignettes were created by members of the research team to illustrate cases likely be short-stay, post-acute clients. It is important to emphasize that the types of clients being considered by the participating case managers are entirely based on the vignettes chosen for use in this study. Therefore, the present results should not be taken to represent the actual distribution of client characteristics in the participating home care programs. Instead, they reflect a hypothetical set of types of cases intended to reflect, at least to some extent, the diversity of home care clients.

All respondents received the same set of vignettes and identical instructions. They were requested to select the most appropriate level of care for each vignette, using local norms and their own best opinions. This approach allows one to examine what individual differences may be associated with access to different levels of care and provides a standardized population of clients that can be used in regional comparisons. Data were available for a total of 960 vignette responses (16 vignettes X 60 case managers).

For each vignette, the respondent was asked to consider the range of services available in his/her region and, on that basis, recommend the most appropriate level or type of service to respond to the needs of the individual described in the vignette. Respondents were first asked to make this rating blind to (i.e., ignoring) the informal support described in the vignette. They were then asked to repeat that evaluation but to take into account the informal support system that was evident in the case description. This differs somewhat from the MI-CHOICE methodology in which blinded cases were to be treated as if they had *no* informal support. The list of services proposed was intended to be hierarchical in nature; however, in many instances case managers responded by selecting multiple service categories. For some analyses, these data were recoded in a way that slotted each individual into the highest level of service selected by the respondent.

There were about 120 vignette-responses that did not have a service level checked, even though there was a category provided for persons eligible for no services.

These cases were examined to determine if there were any systematic patterns of non-response, and it was found that four case managers did not complete these items for any of the vignettes. Therefore, all these responses were considered validly missing. On the other hand, the remaining cases were among respondents who did not respond for only a sub-set of vignettes. Those individuals were designated as being ineligible for services given that the case managers had identified appropriate services for the other vignettes.

In addition to suggesting the appropriate level of care, the respondents were asked to report on the expected waiting time to the initiation of the services they recommended for the case, and the expected duration of those services once they were initiated. Also, they were asked to identify the types of health professionals likely to be involved in the individual's care, including physicians, nurse practitioners, registered nurses, registered practical nurses, nursing or health care aides, rehabilitation professionals (e.g., physical therapy, occupational therapy, speech pathology), and social workers and other psychosocial service providers

Finally, respondents were asked to comment in two open ended questions on the general availability of services appropriate to the individual's need in his/her region. These responses were transcribed for future qualitative analyses.

ANALYSES

Two levels of analysis are employed for the quantitative data in this study. The vignettes were first analysed at the case manager level to determine what vignettes are associated with each level of care and each type of health professional considered. This then is based on the sample of 60 responding case managers with useable data.

A second type of analysis involves the use of all 16 vignettes completed by the 60 responding case managers to serve as a sample of 960 observations that can be examined at the provincial level. It is important to note the caveat that this sample is not comprised of 960 distinct individuals with independent observations. However, one can make the argument that this sample is comprised of a standardized population of types of individuals. Therefore, it is possible, for example, to compare rates of eligibility for nursing home placement because one can be certain that case managers from different regions were examining exactly the same set of clients.

It should again be emphasized that this type of study addresses a different kind of question related to eligibility for services than a study based on clinical reviews of actual cases of home care clients. Therefore, one should be cautious in interpreting these analyses, because they reflect hypothetical responses to hypothetical cases based on substantially less information than case managers would normally have at their disposal.

RESULTS

Tables 1 and 2 show the proportion of case managers rating the individual in each vignette to be eligible for a given type of services when they were blinded and not

blinded to informal support, respectively. These tables allow for multiple responses for each level and do not impose an hierarchical order on those services as will be done in later analyses. Thus the total for each vignette across all the categories in both tables typically exceeds 60 observations, respectively, because most case managers chose more than one category of services. For each type of service, a chi-square test was used to evaluate the question of whether different vignettes were more or less likely to be linked with that particular type of service. These vignettes were clearly associated with different care requirements according to the case managers' responses. In fact, only the cases eligible for psychiatric hospital services (blinded) and for specialized housing with no services (blinded) did not have statistically significant differences in the probability of being selected by vignette. Each vignette was associated with different patterns of services and most of the services were more likely to be identified with specific vignettes. It was also evident that consideration of the available social support did not have a uniform effect on rating eligibility of services for each vignette. In some cases, the proportion deemed eligible declined, whereas others stayed the same or increased. This, of course, is entirely consistent with what one might expect in actual practice.

Based on the set of vignettes presented to case managers, the services most commonly identified as appropriate for the individual's care needs were home care with minimal or intensive skilled nursing, home care with intensive personal care, nursing home and homemaker services. The services least likely to be identified as appropriate for a given vignette were psychiatric hospitals and specialized housing with no services. Interestingly, about 10 percent of all vignettes were rated as eligible for no services blinded to informal support, and this declined to below 5% when not blinded to informal support. However, if a different set of vignettes had been presented, one cannot assume these proportions would have been identical.

Table 1. Percentage (number) of case managers selecting various types of services as most appropriate to the individual’s care needs when *blinded* to informal support by vignette

Vignette Number	Acute Care	Psychiatric Hospital	Nursing Home	Congregate Living with Care Services	Home Care Intensive Skilled Nursing	Home Care Minimal Skilled Nursing	Home Care Intensive Personal Care
1	12.7 (7)	7.3 (4)	7.3 (4)	40.0 (22)	16.4 (9)	43.6 (24)	9.1 (5)
2	9.1 (5)	7.3 (4)	14.6 (8)	29.1 (16)	23.6 (13)	49.1 (27)	27.3 (15)
3	9.1 (5)	10.9 (6)	7.3 (4)	16.4 (9)	14.6 (8)	20.0 (11)	16.4 (9)
4	12.7 (7)	7.3 (4)	29.1 (16)	36.4 (20)	41.8 (23)	38.2 (21)	54.6 (30)
5	35.2 (19)	24.1 (13)	68.5 (37)	9.3 (5)	18.5 (10)	16.7 (9)	29.6 (16)
6	7.3 (4)	7.3 (4)	47.3 (26)	14.6 (8)	58.2 (32)	12.7 (7)	30.9 (17)
7	63.6 (35)	7.3 (4)	36.4 (20)	12.7 (7)	27.3 (15)	5.5 (3)	25.5 (14)
8	36.4 (20)	9.1 (5)	50.9 (28)	21.8 (12)	14.6 (8)	10.9 (6)	25.5 (14)
9	7.3 (4)	7.3 (4)	7.3 (4)	27.3 (15)	12.7 (7)	38.2 (21)	10.9 (6)
10	9.1 (5)	7.3 (4)	63.6 (35)	14.6 (8)	18.2 (10)	20.0 (11)	32.7 (18)
11	7.3 (4)	7.3 (4)	38.2 (21)	32.7 (18)	12.7 (7)	14.6 (8)	52.7 (29)
12	12.7 (7)	7.3 (4)	54.6 (30)	12.7 (7)	16.4 (9)	16.4 (9)	34.6 (19)
13	7.3 (4)	7.3 (4)	7.3 (4)	20.0 (11)	21.8 (12)	52.7 (29)	10.9 (6)
14	7.4 (4)	7.3 (4)	9.3 (5)	18.5 (10)	72.2 (39)	7.4 (4)	7.4 (4)
15	9.1 (5)	7.3 (4)	7.3 (4)	7.3 (4)	25.5 (14)	41.8 (23)	18.2 (10)
16	7.3 (4)	7.3 (4)	7.3 (4)	7.3 (4)	21.8 (12)	36.4 (20)	29.1 (16)
All Vignettes	15.8 (139)	8.7 (76)	28.5 (250)	20.1 (176)	26.0 (228)	26.5 (233)	25.0 (228)
Chi-square	153.6	18.3	209.5	54.4	124.2	105.9	83.9
p value	.0001	0.25	.0001	.0001	.0001	.0001	.0001

Note: Each vignette was rated by 55 or 56 case managers (depending on the number of item non-respondents). The “all vignettes” row combines all vignettes rated by all case managers. Rows do not total 100% because some case managers chose multiple types of services for some vignettes.

Table 1. cont'd

Vignette Number	Home Care Minimal Personal Care	Home Care Homemaker Services	Respite Care (In-home or Facility)	Adult Day Program	Specialized Housing with No Services	No Services	Other Services
1	16.4 (9)	41.8 (23)	9.1 (5)	25.5 (14)	5.5 (3)	7.3 (4)	56.4 (31)
2	47.3 (26)	40.0 (22)	49.1 (27)	25.5 (14)	3.6 (2)	7.3 (4)	56.4 (31)
3	12.7 (7)	18.2 (10)	7.3 (4)	10.9 (6)	3.6 (2)	23.6 (13)	74.6 (41)
4	7.3 (4)	14.6 (8)	10.9 (6)	10.9 (6)	20.0 (11)	7.3 (4)	43.6 (24)
5	9.3 (5)	9.3 (5)	35.2 (19)	14.8 (8)	7.4 (4)	5.6 (3)	35.2 (19)
6	14.6 (8)	7.3 (4)	18.1 (10)	30.9 (17)	9.1 (5)	7.3 (4)	20.0 (11)
7	9.1 (5)	12.7 (7)	10.9 (6)	7.3 (4)	7.3 (4)	5.5 (3)	47.3 (26)
8	10.9 (6)	12.7 (7)	5.5 (3)	9.1 (5)	7.3 (4)	7.3 (4)	52.7 (29)
9	20.0 (11)	32.7 (18)	7.3 (4)	10.9 (6)	5.5 (3)	14.6 (8)	74.6 (41)
10	10.9 (6)	16.4 (9)	32.7 (18)	14.6 (8)	9.1 (5)	7.3 (4)	23.6 (13)
11	10.9 (6)	30.9 (17)	1.8 (1)	12.7 (7)	3.6 (2)	9.1 (5)	32.7 (18)
12	7.3 (4)	9.1 (5)	10.9 (6)	9.1 (5)	5.5 (3)	9.1 (5)	20.0 (11)
13	47.3 (26)	30.9 (17)	7.3 (4)	30.9 (17)	7.3 (4)	12.7 (7)	60.0 (33)
14	20.4 (11)	22.2 (12)	9.3 (5)	18.5 (10)	7.4 (4)	7.4 (4)	38.9 (21)
15	20.0 (11)	20.0 (11)	7.3 (4)	7.3 (4)	7.3 (4)	21.8 (12)	25.5 (14)
16	18.2 (10)	30.9 (17)	36.4 (20)	14.6 (8)	7.3 (4)	12.7 (7)	36.4 (20)
All Vignettes	17.7 (155)	21.9 (192)	16.2 (143)	15.8 (139)	7.3 (64)	10.4 (91)	43.6 (383)
Chi-square	87.1	60.9	119.4	40.1	17.8	26.8	105.3
p value	.0001	.0001	.0001	.0004	0.28	0.03	.0001

Table 2. Percentage (number) of case managers selecting various types of services as most appropriate to the individual’s care needs when *not blinded* to informal support by vignette

Vignette Number	Acute Care	Psychiatric Hospital	Nursing Home	Congregate Living with Care Services	Home Care Intensive Skilled Nursing	Home Care Minimal Skilled Nursing	Home Care Intensive Personal Care
1	3.6 (2)	0.0 (0)	5.5 (3)	27.3 (15)	16.4 (9)	50.9 (28)	7.3 (4)
2	1.8 (1)	0.0 (0)	7.3 (4)	25.5 (14)	16.4 (9)	34.6 (19)	21.8 (12)
3	3.6 (2)	9.1 (5)	7.3 (4)	10.9 (6)	5.5 (3)	14.6 (8)	5.5 (3)
4	7.3 (4)	0.0 (0)	23.6 (13)	25.5 (14)	38.2 (21)	43.6 (26)	54.6 (30)
5	24.1 (13)	14.8 (8)	53.7 (29)	1.9 (1)	22.2 (12)	29.6 (16)	40.7 (22)
6	0.0 (0)	0.0 (0)	3.6 (2)	9.1 (5)	74.6 (41)	25.5 (14)	43.6 (24)
7	70.9 (39)	1.8 (1)	34.6 (19)	5.5 (3)	45.5 (25)	0.0 (0)	40.0 (22)
8	27.3 (15)	14.6 (8)	47.3 (26)	18.2 (10)	14.6 (8)	12.7 (7)	23.6 (13)
9	0.0 (0)	0.0 (0)	0.0 (0)	18.2 (10)	3.6 (2)	36.4 (20)	1.8 (1)
10	0.0 (0)	0.0 (0)	38.2 (21)	18.2 (10)	20.0 (11)	20.0 (11)	52.7 (29)
11	0.0 (0)	0.0 (0)	30.9 (17)	21.8 (12)	5.5 (3)	20.0 (11)	65.5 (36)
12	3.6 (2)	0.0 (0)	38.2 (21)	12.7 (7)	27.3 (15)	25.5 (14)	47.3 (26)
13	1.8 (1)	0.0 (0)	0.0 (0)	14.6 (8)	14.6 (8)	54.6 (30)	3.6 (2)
14	0.0 (0)	0.0 (0)	0.0 (0)	9.3 (5)	85.2 (46)	5.6 (3)	11.1 (6)
15	1.8 (1)	0.0 (0)	0.0 (0)	0.0 (0)	23.6 (13)	41.8 (25)	9.1 (5)
16	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	20.0 (11)	32.7 (18)	32.7 (18)
All Vignettes	9.1 (80)	2.5 (22)	18.1 (159)	13.7 (120)	27.0 (237)	28.0 (246)	28.8 (253)
Chi-square	339.9	92.9	207.8	56.8	228.7	99.2	175.9
p value	.0001	.0001	.0001	.0001	.0001	.0001	.0001

Note: Each vignette was rated by 55 or 56 case managers (depending on the number of item non-respondents). The “all vignettes” row combines all vignettes rated by all case managers. Rows do not total 100% because some case managers chose multiple types of services for some vignettes.

Table 2 cont'd

Vignette	Home Care Minimal Personal Care	Home Care Homemaker Services	Respite Care (In-home or Facility)	Adult Day Program	Specialized Housing with No Services	No Services	Other Services
1	14.6 (8)	45.5 (25)	1.8 (1)	25.5 (14)	1.8 (1)	0.0 (0)	45.5 (25)
2	52.7 (30)	38.2 (21)	47.3 (26)	23.6 (13)	3.6 (2)	1.8 (1)	56.4 (31)
3	3.6 (2)	10.9 (6)	1.8 (1)	3.6 (2)	0.0 (0)	16.4 (9)	67.3 (37)
4	10.9 (6)	16.4 (9)	1.8 (1)	9.1 (5)	10.9 (6)	0.0 (0)	45.5 (25)
5	11.1 (6)	11.1 (6)	72.2 (39)	31.5 (17)	0.0 (0)	0.0 (0)	37.0 (20)
6	25.5 (14)	9.1 (5)	50.9 (28)	30.9 (17)	0.0 (0)	0.0 (0)	23.6 (13)
7	1.8 (1)	9.1 (5)	3.6 (2)	3.6 (2)	0.0 (0)	0.0 (0)	49.1 (27)
8	10.9 (6)	16.4 (9)	7.3 (4)	10.9 (6)	0.0 (0)	0.0 (0)	50.9 (28)
9	21.8 (12)	27.3 (15)	0.0 (0)	3.6 (2)	1.8 (1)	7.3 (4)	60.0 (33)
10	3.6 (2)	27.3 (15)	65.5 (36)	16.4 (9)	1.8 (1)	0.0 (0)	16.4 (9)
11	5.5 (3)	32.7 (18)	5.5 (3)	5.5 (3)	3.6 (2)	1.8 (1)	27.3 (15)
12	3.6 (2)	20.0 (11)	23.6 (13)	12.7 (7)	0.0 (0)	3.6 (2)	32.7 (18)
13	52.7 (29)	14.6 (8)	1.8 (1)	34.6 (19)	7.3 (4)	3.6 (2)	47.3 (26)
14	13.0 (7)	16.7 (9)	1.9 (1)	18.5 (10)	3.7 (2)	0.0 (0)	31.5 (17)
15	18.2 (10)	7.3 (4)	0.0 (0)	0.0 (0)	0.0 (0)	18.2 (10)	14.6 (8)
16	16.4 (9)	27.3 (15)	34.6 (19)	9.1 (5)	0.0 (0)	5.5 (3)	27.3 (15)
All Vignettes	16.6 (146)	20.6 (181)	19.9 (175)	14.9 (131)	2.2 (19)	3.6 (32)	39.5 (347)
Chi-square	145.9	64.5	336.2	82.1	38.2	78.6	84.1
p value	.0001	.0001	.0001	.0001	.0008	.0001	.0001

The overall effect of informal support tended to differ by the type of services considered. For example, when all vignettes are combined, the percentage of cases for whom nursing home care was rated as most appropriate declined from 28.5% when blinded to 18.1% when not blinded to informal support. A decline of similar magnitude was evident for congregate housing with specialized services available (e.g., assisted living). However, eligibility for intensive personal care and for respite care both showed modest increases when informal support was taken into account. Also, the proportion deemed eligible for no services declined from 10% to about one third of that value when considering informal supports. While this might initially seem counter-intuitive, it indicates that case managers may have expanded eligibility for services because their blinded ratings were based on some presumptions about the adequacy and availability of informal support. If the MI-CHOICE definition of “blinded” (i.e., assuming no informal support) had been used this rate would not likely have increased.

Table 3 shows the relationship between the level of care deemed appropriate for the individual’s needs when blinded and not blinded to informal support. Unlike the previous table, this analysis imposed an hierarchical order to place the individual at the highest level of services for which s/he could be eligible. Also, the unit of analysis here is based on the vignette, rather than case managers; hence the total sample size of about 860 (about 100 vignettes had missing values for the items used to create the hierarchy). The levels of care were regrouped to be consistent with the levels used in the MI-CHOICE placement system. However, this analysis also included community programs (e.g., day programs), congregate living with services, and hospital based care, which are not part of the MI-CHOICE algorithm. There was a reasonably high level of agreement between the service eligibility when informal support was considered (weighted kappa= 0.51). However, among persons deemed eligible for no services when case managers were blinded to informal support, about half were considered to be eligible for services when their informal supports were considered. Ratings were unchanged in about half of those for whom nursing home care seemed appropriate, but about 28% were rated as requiring skilled nursing care rather than nursing home placement when informal support was examined. Among those rated as requiring hospital based care, about two thirds were still considered to need that level or nursing home care given the available supports.

Table 4 involves a similar analysis as the previous table, except it considers the setting of service provision in the context of informal support (i.e., no services versus community-based services versus institutional or hospital services). Again a weighted kappa of 0.50 suggests moderate agreement when blinded or not blinded to informal support. The primary changes that occur when informal support is taken into account is that fewer cases are deemed eligible for no services and fewer cases are deemed to require institutional or hospital based care.

Table 5 examines regional differences using vignettes as the unit of analysis. In this case, provincial differences in the proportion of vignettes rated eligible for different kinds of services are examined in the context of informal support. The value of chi-square was statistically significant ($p < .0001$) providing evidence of inter-provincial

Table 3. Percentage of vignettes deemed appropriate for various levels of care when not blinded to informal support by level of care selected when blinded to informal support

Level of Care (Blinded)	Level of Care (Not Blinded)								
	N	None	Community Programs	Homemaker	Personal Care	Skilled Nursing	Congregate Living	Nursing Home	Hospital
None	85	52.9	0.0	1.2	3.5	24.7	5.9	8.2	3.5
Community Programs	9	11.1	78.8	0.0	0.0	0.0	11.1	0.0	0.0
Homemaker	18	16.7	5.6	55.6	0.0	16.7	0.0	5.6	0.0
Personal Care	49	12.2	2.0	6.1	69.4	6.1	0.0	0.0	4.1
Skilled Nursing/Therapy	263	9.5	1.5	1.9	4.2	79.9	1.5	0.8	0.8
Congregate Living	103	7.8	0.0	5.8	6.8	23.3	55.3	0.0	1.0
Nursing Home	171	6.4	1.8	0.0	9.9	28.1	1.2	50.9	1.8
Hospital	159	5.0	2.5	1.9	1.9	12.6	8.8	15.7	51.6
Weighted Kappa – 0.51									

Note: All values represent row percentages (except first column)

Table 4. Percentage of vignettes deemed appropriate for various settings of care when not blinded to informal support by setting of care selected when blinded to informal support

Setting of Care (Blinded)	Setting of Care (Not Blinded)			
	N	No Services	Community	Institution or Hospital
No Services	80	48.8	32.5	18.8
Community	379	10.8	85.5	3.7
Institution or hospital	437	6.2	31.8	62.0
Weighted kappa – 0.50				

Note: All values represent now percentages (except first column)

Table 5. Percentage of vignettes deemed appropriate for various levels of care when blinded or not blinded to informal support by province

Province (Blinded)	N	None	Community Programs	Homemaker	Personal Care	Skilled Nursing	Congregate Living	Nursing Home	Hospital
British Columbia	169	8.2	1.2	3.0	5.9	26.6	10.7	23.1	21.3
Alberta	63	7.9	0.0	1.6	1.6	30.2	25.4	17.5	15.9
Saskatchewan	139	3.6	0.7	2.2	5.8	30.2	20.9	21.6	15.1
Manitoba	150	0.7	2.7	0.7	9.3	43.3	10.0	15.3	18.0
Ontario	159	15.1	0.0	1.3	1.9	24.5	8.8	18.9	29.6
Nova Scotia	152	22.4	0.7	3.3	6.6	29.0	6.6	21.7	9.9
Prince Edward Island	32	9.4	3.1	3.1	9.4	34.4	12.5	15.6	12.5
Chi-square 126.6, p value <.0001									

Province (Not Blinded)	N	None	Community Programs	Homemaker	Personal Care	Skilled Nursing	Congregate Living	Nursing Home	Hospital
British Columbia	168	14.9	2.4	3.0	5.4	33.3	7.7	19.6	13.7
Alberta	62	8.1	0.0	3.2	3.2	45.2	12.9	11.3	16.1
Saskatchewan	139	9.4	2.9	7.2	7.9	38.1	10.8	13.7	10.1
Manitoba	152	4.0	4.6	1.3	21.1	48.0	9.2	7.2	4.6
Ontario	159	11.3	1.3	1.3	4.4	39.6	12.6	17.0	13.1
Nova Scotia	153	21.6	2.0	4.6	9.2	29.4	6.5	15.0	11.8
Prince Edward Island	32	37.5	0.0	0.0	0.0	37.5	9.4	6.3	9.4
Chi-square 126.7, p value <.0001									

differences in the types of services selected. In all provinces, the proportion deemed eligible for no services was generally below 20% of vignettes when blinded to informal support. In British Columbia, Saskatchewan and Manitoba the proportion rated as not requiring services increases modestly when not blinded to informal support, whereas this decreased slightly in Ontario. There is a substantial increase in the proportion eligible for no services in Prince Edward Island when not blinded, but this may be due to the small sample size for that jurisdiction. Case managers in Ontario and Nova Scotia were most likely to score vignettes as not eligible for services when blinded to informal support, but only in Nova Scotia did this high value persist when not blinded. Skilled nursing services were the modal category – the level of care most likely to be identified as appropriate across all the vignettes, and Manitoban case managers were most likely to make this choice. The vignettes were most likely to be rated as appropriate for nursing home placement in Nova Scotia, Saskatchewan and British Columbia blinded to informal support, and British Columbian case managers remained most likely to select nursing home care when not blinded to informal support. It was also interesting to note that, when not blinded to informal support, Manitoban case managers were more than twice as likely to select personal care as the appropriate level of care compared with other regions, and they were the least likely to select nursing homes or hospitals as the appropriate level of care. Conversely, Ontario was most likely to select hospital based care (blinded to informal support), perhaps reflecting the availability of hospital-based complex continuing care in that province.

Table 6 examines the case manager's perception of the expected wait-times for persons deemed to require community-based care and for those requiring nursing home care. Short wait-times are defined as those of 7 days or less whereas long wait-times are expected waits of more than 90 days. There were no significant provincial differences in the proportion of vignettes expected to have long wait-times for either community or institutional services. However, Nova Scotia, British Columbia and Ontario had the smallest proportion of community-based cases expected to have short wait-times. The provinces least likely to have short wait-times for institutional services were Nova Scotia, British Columbia and Saskatchewan.

Table 7 deals with the expected duration of services among all vignettes deemed eligible for community-based services by province. Services with short durations are those lasting 7 days or less, and those with long duration are those expected to be received for more than 90 days. In both cases, significant differences were evident between the provinces. Nova Scotian case managers were substantially more likely to select short duration community services, whereas case managers in Manitoba were more likely to expect those services to be of a long duration. Nova Scotian case managers were least likely to have the expectation of a long duration of services.

Table 8 compares the types of health professionals expected to be involved in the individual's care by vignette. It was again possible to select more than one discipline as being involved in an individual's care. As was seen in Table 1, different vignettes are associated with different patterns of involvement with health professionals. The only type of health professional whose involvement did not differ significantly by vignette was

Table 6. Percentage (and number) of vignettes with short and long expected wait times among clients deemed eligible for community-based services and for nursing home admission by province

Province	Community-based Services		Nursing Home	
	Short ¹ Wait-time	Long ² Wait-time	Short Wait-time	Long Wait-time
British Columbia	59.4 (41)	1.5 (1)	33.3 (13)	7.7 (3)
Alberta	79.2 (19)	0.0 (0)	54.6 (6)	0.0 (0)
Saskatchewan	80.0 (48)	0.0 (0)	46.7 (14)	3.3 (1)
Manitoba	75.8 (72)	2.1 (2)	65.2 (15)	13.0 (3)
Ontario	59.6(28)	0.0 (0)	73.3 (22)	3.3 (1)
Nova Scotia	50.0 (34)	0.0 (0)	27.3 (9)	15.2 (5)
Prince Edward Island	93.8 (15)	0.0 (0)	100.0 (5)	0.0 (0)
All Provinces	67.8 (257)	0.8 (3)	49.2 (84)	7.6 (13)
Chi-square	26.8	4.2	25.0	6.5
p value	.0002	.65	.0003	.37

¹ – Short wait-time is defined as 7 days or less

² – Long wait-time is defined as more than 90 days

Table 7. Percentage (and number) of vignettes with short and long expected durations of care among those deemed eligible for community services by province

Province	N	Short Duration	Long Duration
British Columbia	69	10.1 (7)	56.5 (39)
Alberta	24	8.3 (2)	54.2 (13)
Saskatchewan	60	5.0 (3)	41.7 (25)
Manitoba	95	6.3 (6)	64.2 (61)
Ontario	47	2.1 (1)	55.3 (26)
Nova Scotia	68	26.5 (18)	25.0 (17)
Prince Edward Island	16	0.0 (0)	43.8 (7)
All Provinces	379	9.8 (37)	49.6 (188)
Chi-square		29.3	28.6
p value		.0001	.0001

Table 8. Percentage (and number) of vignettes expected to have various types of professionals involved in the provision of care by vignette

Vignette Number	MD	Nurse Practitioner	RN	RPN	Nursing Aide	Rehabilitation	Social Work Psychologist	Other
1	36.7 (22)	11.7 (7)	68.3 (41)	26.7 (16)	55.0 (33)	40.0 (24)	16.7 (10)	40.0 (24)
2	16.7 (10)	6.7 (4)	66.7 (40)	25.0 (15)	63.3 (38)	53.3 (32)	10.0 (6)	39.0 (23)
3	45.0 (27)	13.3 (8)	35.0 (21)	11.7 (7)	20.0 (12)	18.3 (11)	81.7 (49)	16.7 (10)
4	15.3 (9)	6.8 (4)	83.1 (49)	22.0 (13)	62.7 (37)	69.5 (41)	20.3 (12)	15.3 (9)
5	64.4 (38)	11.9 (7)	86.4 (51)	23.7 (14)	57.6 (34)	39.0 (23)	42.4 (25)	18.6 (11)
6	30.0 (18)	6.7 (4)	100.0 (60)	26.7 (16)	66.7 (40)	51.7 (31)	23.3 (14)	20.0 (12)
7	88.3 (53)	16.7 (10)	93.3 (56)	20.0 (12)	48.3 (29)	21.7 (13)	41.7 (25)	18.3 (11)
8	73.3 (44)	8.3 (5)	70.0 (42)	18.3 (11)	48.3 (29)	36.7 (22)	58.3 (35)	15.0 (9)
9	21.7 (13)	1.7 (1)	30.0 (18)	6.7 (4)	26.7 (16)	78.3 (47)	6.7 (4)	31.7 (19)
10	15.0 (9)	5.0 (3)	66.7 (40)	18.3 (11)	76.7 (46)	31.7 (19)	11.7 (7)	16.7 (10)
11	11.7 (7)	5.0 (3)	31.7 (19)	13.3 (8)	71.7 (43)	35.0 (21)	10.0 (6)	13.3 (8)
12	21.7 (13)	5.0 (3)	65.0 (39)	13.3 (8)	71.7 (43)	58.3 (35)	31.7 (19)	15.0 (9)
13	10.0 (6)	5.0 (3)	70.0 (42)	23.3 (14)	58.3 (35)	53.3 (32)	11.7 (7)	38.3 (23)
14	15.3 (9)	5.1 (3)	91.5 (54)	27.1 (16)	42.4 (25)	11.9 (7)	5.1 (3)	23.7 (14)
15	8.3 (5)	1.7(1)	60.0 (36)	20.0 (12)	25.0 (15)	43.3 (26)	1.7 (1)	11.7 (7)
16	5.1 (3)	3.4 (2)	66.1 (39)	13.6 (8)	49.2 (29)	13.6 (8)	15.3 (9)	10.2 (6)
All Vignettes	29.9 (286)	7.1 (68)	67.7 (647)	19.4 (185)	52.7 (504)	41.0 (392)	24.3 (232)	21.6 (207)
Chi-square	271.8	24.5	184.0	21.8	106.7	137.0	234.9	55.6
p value	.0001	.06	.0001	.11	.0001	.0001	.0001	.0001

RPNs. By far the professionals most likely to be involved in the individual's care were RN's and nursing/health care aides. Nurse practitioners were the least common health professional associated with these cases. A somewhat surprising finding was that an average of about 30% of cases were expected to involve physicians, with almost 90% of case managers selecting MD's for the care of vignette 7. It is likely that the respondents were considering the involvement of family physicians and physicians based in acute care settings for this group. It was also surprising that RPNs were expected to be much less likely involved in the person's care than RNs or health care aides, given the comparatively prominent involvement of RPNs in long term care facilities. As with previous tables, the mix of health professionals involved could reasonably be expected to change if different vignettes were used.

Table 9 examines regional differences in the involvement of selected health professionals among cases deemed to be appropriate for community-based services. Only the involvement of social workers/mental health professionals did not differ significantly between provinces. RPNs were most likely to be involved in the case's care in Ontario, Nova Scotia and Prince Edward Island, whereas case managers in British Columbia, Alberta, Manitoba and Saskatchewan were most likely to expect the involvement of health care aides compared with other provinces. In Alberta, Ontario and British Columbia, case managers were about three times more likely to expect the involvement of rehabilitation professionals compared with their counterparts in Nova Scotia.

DISCUSSION

The present study provides evidence of regional differences in the types and intensity of community, hospital and institutional services for which individual Canadians might be eligible depending on the province in which they live. In some provinces (e.g., Manitoba), the participating case managers would appear to put a somewhat greater emphasis on community-based care than might be noted for others. In other provinces such as Alberta, British Columbia and Ontario, the recommended services and settings tend to have a somewhat higher level of resource intensity (based on greater involvement of higher paid professionals). There is also some evidence of somewhat higher likelihood of admission to long term care facilities or to hospital settings (e.g., British Columbia and Ontario). One particularly striking finding was that clients in Nova Scotia were considerably less likely to be expected to have access to rehabilitation professionals compared with other jurisdictions.

As has been noted by others (Greb et al., 1994), these differences demonstrate that Canada's health care system should not be seen as a homogeneous model of care, particularly with respect to community based services. Beland and Shapiro (1994) analysed policy documents from Canada's 10 provinces with the aim of examining differences in values, organizational principles, management of the LTC system and allocation of resources. On the issue of values, their work showed that most provinces state their commitment to independence, autonomy, well-being, dignity and the right to choose services. However, such statements are sufficiently vague as to applicable to a

broad range of policy options, and they are all of little utility in differentiating what services will or will not be provided to individuals in different provinces.

The important issue underlying these differences, is what impact they have on the clients being served by the health care systems in these various provinces. It is worth noting that very few of these differences were so large as to suggest *radically* different models of care across provinces. Instead, they suggested varying degrees of emphasis on or availability of different services or types of health professionals. One cannot conclude from these data that these differences translate to differences in the quality of care available or to the outcomes of care in these jurisdictions. For example, although one can see that the case managers from Manitoba are more likely to select a community-based intervention in a hypothetical case example, we do not know whether that actually occurs in day-to-day practice nor what might be the effects of that difference in services, if it does occur in reality.

Table 9. Percentage of vignettes with expected involvement of selected health professional among cases deemed eligible for community-based services by province

Province	N	RN	RPN	Nursing/Health Care Aid	Rehabilitation	Social Work/Mental Health
British Columbia	69	62.3	0.0	65.2	49.3	23.2
Alberta	24	87.5	4.2	62.5	54.2	29.2
Saskatchewan	60	65.0	3.3	51.7	36.7	10.0
Manitoba	95	59.0	7.4	54.7	32.6	23.2
Ontario	47	74.5	48.9	44.7	53.2	29.8
Nova Scotia	68	54.4	51.5	16.2	16.2	16.2
Prince Edward Island	16	93.8	50.0	37.5	37.5	6.3
All Provinces	379	64.9	20.1	47.8	37.5	20.3
Chi-square		18.1	116.4	40.8	26.0	11.2
p value		.006	.0001	.0001	.002	.08

This study suggests that case managers tend to differentiate service “packages” based on the characteristics of their clients, at least when presented with a hypothetical case. A reasonable policy direction then is to attempt to standardize the understanding of “who is eligible for what,” so that needs are responded to in an effective and an equitable manner. One approach to doing this is to create predictive algorithms based on comprehensive assessment data, which can be used as guidelines describing the general levels of services for which specific kinds of clients are eligible. This approach is used by Michigan in its MI-CHOICE program, and it is the subject of newly initiated research in Nova Scotia known as the Single Entry Agency – Levels of Ability and Need Evaluation System (SEA-LANES).

Case managers can use these guidelines as a general framework for determining eligibility, but the final decision about what set of services are appropriate for the individual should ultimately remain a decision to be made by the case manager in negotiation with the client and family members. Policy makers may also find such

guidelines to be useful, because they can provide standardized markers against which one might evaluate regional variations in resource allocation and service provision. At the national level, such a grouping system allows one to compare populations who have known levels of eligibility in one jurisdiction with the same type of individuals in another.

This is not to say that the algorithms for service eligibility are necessarily transferable from one region to another. Indeed, this study provides some preliminary evidence that regional differences in eligibility exist with respect to the types of services considered here. For example, when evaluating the same standardized population, case managers in Ontario were more than twice as likely to recommend no services compared to their counterparts in Manitoba considering the same population. Therefore, it may be possible to compare differences in access to services for two populations using the rules created in one jurisdiction.

Indeed, the expectation of regional differences in values suggests it is unwarranted to impose a “gold standard” of eligibility for a given type of client. The type of evidence presented here may inform us about inequities between the health care systems of two provinces. However, it does not tell us whether those inequities are necessarily at odds with the value system of the second province. Given that eligibility is at its roots a value-based decision about who should receive what services, we cannot assume that eligibility rules are necessarily transportable unless we know that the underlying value systems are the same. The present research suggests that there are at least modest differences in these systems from province to province. Therefore, local validation of the appropriateness of eligibility systems is paramount prior to their implementation.

This study also yielded several interesting findings related to informal support. It is clear that consideration of informal support did modify the views of case managers with respect to the need for institutionalization and the withholding of services. In the former case, case managers were less likely to recommend nursing home placement once informal support was taken into account. On the other hand, they were also less likely to recommend withholding services when they considered the informal resources presented in these vignettes.

While this suggests that day-to-day practice in eligibility determination clearly involves consideration of informal support, a key consideration is *how* should informal support be incorporated into an eligibility system. The most reasonable approach seems to be one where the decision about the extent to which family and friends provide care that offsets formal services should remain a point of discussion between the case manager, client and family members at the level of individual cases. Indeed, this research suggests that considering family resources may in some instances raise the level of services for which the individual is eligible. Given the substantial variance in the complexity of family relations and differences in the capacity of caregivers to provide effective care, it would seem ill advised to automate this aspect of decision-making related to eligibility for services.

The vignettes used here may have considerable promise for future research related to eligibility in Canada and elsewhere. These case examples performed the desired function of illustrating different kinds of clients that case managers were able to rate differently with respect to the services they need. Moreover, the collective use of these vignettes allows for the comparison of standardized populations that reflect many, if not all, the types of patients encountered by case managers. The vignettes can therefore be useful for training purposes to teach case managers about proposed eligibility rules for a given jurisdiction. They may also be used to enhance assessment skills by highlighting different clinical profiles likely to be encountered in day-to-day practice. However, it would be helpful to add some additional vignettes related to psychiatry and unequivocally healthy case examples.

There are, of course, some important limitations to this research. First, this cannot be regarded as definitive evidence of regional differences in entitlements or eligibility for services in Canada. These vignettes are not actual cases, and the expected response in a simulated case may differ substantially from the response undertaken for an actual case. It is entirely possible that case managers would over-state the access to services given that the simulated cases do not require that decisions be made in the context of fiscal or other administrative constraints. It is also true that it is impossible to relay all the subtleties of the experience of an individual and his/her family through a single paragraph narrative description. These vignettes simply cannot capture all the complexities and interactions between the medical, social, psychological and environmental variables that case managers encounter each working day. A second limitation is that the standardized populations relied on the same 16 vignettes considered by the same 60 case managers. A more helpful approach would be to have many more actual cases to be examined by many more case managers. In this way, it would be possible to disentangle specific traits that may be differential determinants of eligibility in different regions.

With respect to future research, one appropriate next step is to conduct comparisons of access to services in actual home care clients in different regions of Canada. Assuming that one can apply a consistent eligibility framework (e.g., MI-CHOICE levels of care) one could evaluate the extent to which real home care clients in Canada with similar clinical profiles have access to the same services between provinces. Several Canadian provinces have now pilot tested the MDS-HC, and it is now possible to begin to conduct comparisons of the needs and services delivered to the individuals who have been assessed. A second type of research to be undertaken in Canada is the development of eligibility guidelines using clinical characteristics to predict service needs. In both Nova Scotia and British Columbia, work is now underway to evaluate and refine the MI-CHOICE algorithm for use in those provinces. As other provinces begin to adopt the MDS-HC, it will be possible to test eligibility algorithms developed in numerous jurisdictions to determine their local applicability. When this type of standardized information becomes available, it is then possible to enter a policy debate in which one can examine the extent to which service delivery reflects a given region's value system.

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Appendix A:
Study Vignettes

Table A-1 Summary of characteristics of cases described in vignettes

Case #	Environmental Problems	Disability	Cognitive Impairment	Medical Complexity	Acute Health Service Use	Problems with Informal Support	Lives Alone	Risk of Injury	Mental Health Problems
1		*	*		*		*	**	
2		**		*	*	*		*	
3	*		*	*	***	*		**	*
4		*		*	*		*		
5		**	**	**				**	**
6		**	**	*	*	*			*
7		*		***		*	*		
8	*		**	**	*	**	*	***	**
9		*		*			*		
10		***		***		*			
11		**		*		*		**	
12		***	*	**	*	*			
13			*		*	*		*	*
14				**	*	*	*	*	
15						*		*	*
16					*	*			

Note: Asterisks refer to the severity of a given problem, except for the “Lives alone” column, which indicates only the presence of the problem. Absence of asterisks indicates that the problem is not present. The number of asterisks indicates low (*), moderate (**), or high severity (***).

Vignette # 1

Mary lives by herself and has been a widow for several years. She has arthritis in her hip that makes it difficult for her to leave her apartment. Mary is able to perform her ADLs and is still safe in bathing herself. Her only other medical problem is a history of hypertension. Mary does not prepare her own meals. Instead, Meals-on-Wheels staff delivers two meals each morning except Sunday. On Sunday, her church group brings her two home-cooked meals. A neighbour shops for her once a week and her only child, a daughter, who lives a thousand miles away, calls her every Saturday night. She has fallen twice in the last six months with no serious consequences. Over the past six months, the church visitor has noticed that the Mary is more forgetful. The church visitor noted the gas stove was left on once when she visited the apartment. The apartment has also been messier than it was previously.

Mary spends most of her time knitting and says she is happy where she is and “doesn’t mind” not being able to go out and see other people much. She does not want any further evaluation or treatment for her hip pain. She is taking one anti-hypertensive medication tablet daily. Her prescription was most recently filled with sixty pills three months ago, and the bottle is half-full. Her last medical contact was at the emergency room after one of her falls. At that time she was told her blood pressure was a “little high.”

Vignette #2

Sarah is an eighty-year-old married white female. Three days earlier she visited the emergency room for the suturing of a laceration on her left leg following a fall at her home. Sarah has a history of hypertension, diabetes mellitus, cataracts, and coronary disease with occasional angina. Sarah cares for her eighty-five year old husband, John. He has multiple disabilities requiring help with any ambulating that is more than a few steps. Sarah needs to cut up John’s food for him.

Sarah is competent and understands and is able to follow her complicated medication schedule. Due to her failing eyesight, a friend sorts her pills into boxes to be taken at four-hour intervals during the day. She has found her housework to be increasingly difficult to accomplish because of her angina. She is also having pain in her lower extremities that sometimes interferes with her being able to stand long enough to prepare the family meals. Sarah does need some help with bathing; due to her multiple disabilities, she has trouble with her balance getting in and out of the tub.

Vignette #3

Sophie is an eighty-year-old woman who lives with her husband of fifty years. Both Sophie and her husband have a long history of alcoholism. Sophie has reported that her husband has been violent and abusive to her. Sophie has been hospitalized three times over the past year, once for gastric bleeding, once for multiple traumatic injuries sustained after a fall (including a

fractured right wrist requiring internal fixation), and a third time for delirium attributed to alcohol withdrawal. Sophie also has cirrhosis of the liver.

The apartment is filthy with many liquor bottles on the floor, and half-eaten food left on the counters. They have a dog with fleas, and that is not friendly to visitors. Both Sophia and her husband state that they are “doing just fine.” The manager of their senior housing states that neighbours have reported violent arguments to the police on a number of occasions over the past year.

Vignette #4

Harry is a seventy-five year old man who has been living alone for the past 30 years. He has diabetes mellitus and bilateral below the knee amputations. His only medication is insulin, which he self-administers. He manages to get around the house with a wheelchair and can get outside once a week, when his neighbour helps him up and down the three steps into the apartment complex. He prepares his own meals.

While he is up in his wheelchair, Harry urinates into a jar attached to his wheelchair. He is able to empty the jar into the toilet himself. He enjoys his solitude and loves to watch sports on TV. Last month, Harry had an episode of dizziness, and was hospitalized for evaluation, which was inconclusive. During the stay in hospital, staff observed Harry had trouble measuring his insulin dose accurately and had trouble getting in and out of the wheelchair. Harry now needs help with his transfers to and from the wheelchair.

Vignette #5

A family physician requested a home evaluation for a 68 year old man with a 10 year history of Parkinson’s Disease. Bill, a retired engineer, lives with his wife in their home of the last 35 years. He has been maintained on a complex regimen of anti-Parkinsonism medications over the years. Bill’s wife, Mary, reports a marked decline in her husband’s status over the past year.

Bill also has the following problems: coronary artery disease, history of aspiration pneumonia, colitis, and ileostomy. Up to one year ago, Bill walked independently with his cane. At that time, Mary had to become more involved and now is assisting Bill with most of his care needs.

Recent titration of the Parkinsonism medications did not improve Bill’s status and he recently developed hallucinations. Bill was once found out in the middle of a busy street at 2 am. He has also called the police on numerous occasions reporting home invaders and trespassers. Recently the fire department was called to help get Bill off the roof of the garage. Bill climbed a ladder when his anti-Parkinsonism medications kept him “on”, but after reaching the roof, he froze “off” and was unable to get down. A neighbour saw him and called the police. Bill now has marked functional and cognitive deficits, both which fluctuate over the day as his anti-

Parkinsonism medications are metabolized. Precipitated by another pneumonia, a home evaluation was requested of Bill's needs and possible placement in a nursing facility.

Vignette #6

Jack is a 70 year-old male who lives with his adult son. His estranged wife lives in a home on joint property. His problems include bilateral amputations below his knee, CVA, IDDM, blindness in his right eye, left side paralysis, dementia, incontinence of bladder and bowel. He is dependent on a wheelchair.

He was hospitalized for an episode of hypoglycemia. Within 2 weeks of hospitalization, his diabetic status had stabilized but arrangements were made for admission to a nursing home because of his increased level of dependence and the need for monitoring of an ulcerated area on his left leg. He did not want to go to the home and while there, he became increasingly depressed and was unhappy with being around "old people". The son was continually in conflict with staff at the home because he did not feel father was getting adequate attention. After a month in the nursing home, Jack's family decided to take him home and provide care. The family claims that no information was offered to them regarding discharge planning needs (dressing of open wound, medical equipment, physical therapy).

The son now takes Jack to work with him every day at his business, a welding shop. Jack performs some tasks at the shop and is happy to be out of the nursing home. Jack's family members have requested an evaluation of home services as they are concerned about wound care, medication regime, and the level of personal care Jack needs. The family is especially concerned about wound care, as the wound is open, and they state they have received no instructions on how to do the dressing.

Vignette #7

George is a seventy-four year old widower. He has been living alone in a trailer for the past 15 years. His problems include lung cancer with metastasis to the spine and CHF.

George receives home care services for medication supervision as well as daily personal care assistance for bathing, etc. He also receives hot, home delivered meals Monday through Friday and frozen meals on the weekends. He has recently been experiencing nausea and dizziness. His medications have been changed and now include MS Contin as well as Compazine suppositories. He receives nutritional supplements. George has refused to accept assistive equipment such as a commode, wheelchair, and transfer bench. He has been ambulating with a small-based quad cane.

The visiting nurse is concerned about his ability to stay alone any longer. George does not know why the nurse is in his home, and complains of pain but states he does not know what is the matter with him. Family members live in the area but state they are unable to provide regular visits, shopping, or phone calls to prompt for medication administration. The family has convinced George he should enter a nursing home to "get help".

George is experiencing severe pain, and is not able to manage his pain medication schedule. He requires administration of Compazine PRn every four hours and MS Contin via PCA pump. In the past 10 days, George has had two seizures requiring IV Dilantin.

Vignette #8

Alice is an 88 year old female who lives alone in her apartment with little help from her family. She fell at home for the third time this month and was taken to the Emergency Room via ambulance. X-ray revealed no new fractures but there was evidence of numerous old fractures. Alice was discharge home and a request for a home evaluation was made.

The client's apartment was cluttered and dirty. The food that remained in the refrigerator was spoiled. Alice was smoking, and the nurse noted numerous burn holes in the carpet. Alice stated "the man downstairs helps me, he does my shopping." Alice's daughter was contacted but refused to become involved. The daughter stated her mother was an abusive alcoholic and she had distanced herself from her mother several years earlier.

Alice's problems include COPD, CAD, hypertension, and NIDDM. Her primary physician was contacted and she reported that she had not seen Alice in the past year but felt that on her last visit, she had significant cognitive deficits.

The neighbours report that Alice is up all night and talks to her husband and son, both of whom are dead. On two occasions neighbours found Alice outside at night in her nightgown. Frank, the neighbour who helps Alice, stated that she no longer recognizes him and often seems very confused. She mistakes him for a childhood neighbour.

Vignette #9

Virginia is a 79 year old woman who lives alone. She has the following medical conditions: coronary heart disease, diabetes mellitus, hypertension, cataracts, severe osteoarthritis in her knees and hips and pernicious anaemia. She is able to safely administer the multiple medications prescribed for her. She receives a monthly Vitamin B12 shot from a visiting nurse. She uses a walker to get around. Once a week she walks to the supermarket and does her own shopping, hanging her groceries on her walker. However, when it rains she cannot manage this. She recently began developing arthritic pain in her right wrist that makes it difficult for her to use her walker.

Vignette #10 & #11

Edwin and Harriet are a husband and wife who are both clients. The following information describes each of their cases.

Edwin (Vignette #10)

Edwin has a history of CVA, prostate cancer, hypertension, Parkinson's Disease, and CHF. He needs to be bathed, walks short distances with a walker and maximum assist of one person. He uses a wheelchair but is unable to propel himself. He transfers with a maximum assist of one person. He is incontinent of bowel and bladder and is unable to change incontinent briefs. He requires total assistance with dressing and cannot be left alone. He has partial blindness in his right eye and has right-sided weakness. He needs cuing while eating, and has difficulty swallowing. Medications need to be crushed and administered. He is oriented to person and place, and responds to questions slowly, but is appropriate.

Harriet is the primary caregiver, and she has multiple health problems. She is able to cue and supervise the client but is unable to give any hands-on care. A brother and cousin live nearby and assist with shopping and finances.

At present Edwin is receiving home care services that includes 1 hour daily for homemaking services and 2 hours daily for personal care. He has a hand held shower, tub rails and shower chair for bathing. He receives home delivered meals (liquid). He needs transportation to doctor's office that is provided by wheels transit.

Harriet (Vignette #11)

Harriet has angina, rheumatoid arthritis, gastric ulcers, anemia, an old right hip fracture with a right hip replacement. She needs help of one person for her bathing. She is incontinent of urine and is able to change her incontinence pads independently. She needs help with toileting at times; she needs the help of one person for dressing and is unable to put on or take off her TED stockings.

Her gait is slow and steady and she uses a walker. Due to the arthritic pain and hip pain she is unable to stand for long periods of time. She understands and adheres to safety precautions. She transfers with a standby assist and walker. She uses a bedside commode at night but is unable to empty the bucket herself. Harriet has fallen numerous times in the past few years; her most recent fall, 15 months ago, resulted in the hip fracture.

There is no primary caregiver for Harriet. The brother and cousin assist with shopping and finances when they are able. She gets home delivered meals 7 days a week, and home help two hours a day. She has a transfer bench, a reacher, and a cordless phone.

Vignette #12

Josephine is an 82 year old woman with a history of Parkinson's, hypertension and coronary heart disease. Two months ago, Josephine had a CVA with right hemiplegia. Two weeks later she was transferred to a post-acute care unit for rehabilitation.

After an intensive course of therapy, the team decided the patient had reached the maximum level of function. She had significant contractures of both upper extremities and was unable to feed herself or perform ADLs. She could only make some occasional guttural sounds. The team arranged a meeting with Josephine's only relative, a niece. The niece had not been involved with her aunt in the past. During the meeting, the niece expressed her aunt's wish to "never go into a nursing home." The discharge planning team then put in a plan to discharge Josephine to her home.

Vignette #13

George, a 78 year-old male, was admitted to hospital for observation with unstable angina. He has a 10-year history of angina, hypertension controlled with diet and medication and is blind in his left eye as a result of a chemical accident at work 30 years ago. He sees his family doctor every 6 months for routine blood pressure checks.

George says that everything is "fine"; he just had a little pain, and his daughter "got all panicky". However, the daughter told staff that he has been experiencing an increased number of episodes of pain over the past few weeks and she is wondering if he is taking his medication as prescribed. She also mentioned to staff that her dad has complained of having difficulty getting in and out of the tub lately and is concerned that he might slip and fall and no one would be there to help him.

He has lived alone for the past 20 years and has been self-sufficient in all ADLs and IADLs although the daughter and son-in law help with heavier household chores and transportation. George eats many of his meals at fast food restaurants because he "needs an excuse to go out and be with other people." He has friends and neighbours that visit frequently. Once stabilized, George was discharged home.

Vignette #14

Madeline is a 75-year-old who lives alone. She has been widowed for 7 years and her only daughter moved to the United States several years ago but maintains regular contact by phone. Madeline has been independent with minimal support from friends and neighbours to assist her with shopping and transportation.

On the evening of admission to hospital, Madeline's daughter had phoned a neighbour to check on her mom because she was concerned after a phone conversation with her. The neighbour took Madeline to the hospital emergency room where she was admitted for a clinical picture consisting of confusion, agitation, and incoherent speech.

Shortly after admission, Madeline was diagnosed with dehydration and a urinary tract infection. She was also diagnosed with non-insulin dependant diabetes mellitus and treated for a stasis ulcer on her lower left leg that she reports has been present for approximately 3 months.

Once she was stabilized and re-hydrated, she was discharged with orders to continue antibiotic treatment for the UTI, dressings for the stasis ulcer and monitoring of blood glucose levels. Her daughter planned on visiting with her mother as soon as she could arrange coverage for her private practice.

Vignette #15

Mike, a 56 year old parcel deliverer, slipped and fell on ice while on duty. He was taken to emergency and admitted with multiple fractures to his tibia and fibula of his right leg; surgery was scheduled for the following day. Mike has no known past medical history other than an appendectomy when he was a child. He has no family physician.

He had a significant amount of pain post surgery and was given regular analgesics. He was instructed on the use of crutches and felt that he could manage them with no difficulty, but was reluctant to ambulate because of the pain. He had no apparent post surgical complications.

He was instructed on cast care, how to check for circulation in his leg and advised to watch for constipation. However, from comments that he made during these teaching sessions and drowsiness due to the amount of analgesic he was taking for pain management, staff members were concerned that he would have difficulty adhering to his post hospital self care. He was discharged from the orthopedics unit four days post surgery.

Mike was divorced 5 years ago and has since lived on his own. His daughter, who is currently living in residence at university, will be able to return home during her holidays the following week to assist him in his recovery.

Vignette #16

Mary is a 65 year old admitted to hospital for a right-sided mastectomy. There were no post surgical complications and she was discharged from hospital the day following the surgery. She was instructed on drain care and how to monitor her surgical site. Mary was advised that she should contact the cancer clinic to arrange follow-up. She was provided with a pamphlet for exercise protocols and support group information. She was diagnosed with hypertension 5 years ago and her blood pressure had been controlled with a medication since that time.

Mary lives with her husband who has Parkinson's and she is the primary care-giver for him. They have one daughter who helps Mary on occasion with his care but she is scheduled to leave on a business trip two days following her mother's surgery. Hospital staff noted that Mary seemed highly anxious during post-surgery teaching sessions. She verbalized concerns about being able to care for her husband and attend to the house when she got home.