Résumé

Profil sur six mois de personnes âgées coordonnées recevant des services en milieu communautaire

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Cette étude visait à évaluer les besoins de clients âgés coordonnés recevant des services de santé communautaire par l'examen des changements survenus dans l'état cognitif, l'état de santé physique et mentale, le soutien social, le risque de placement en établissement, et l'utilisation des services sur six mois, de l'accueil initial jusqu'aux soins à domicile. Elle a également comporté l'examen d'indicateurs prévisionnels importants des soins de santé professionnels et des soins à domicile, ainsi que du recours aux urgences et des journées d'hospitalisation. Des entrevues dirigées ont été menées auprès de 234 clients au moment de l'orientation; des entrevues de suivi ont été menées auprès de 179 de ces clients après une coordination de cas de six mois. Selon les résultats, une amélioration de la santé physique et mentale a été notée, tandis que l'état cognitif est demeuré stable. Bien que l'interaction sociale et le soutien instrumental aient diminué, le soutien subjectif est demeuré stable. Le risque de placement en établissement a diminué. Les services les plus fréquemment utilisés ont été l'ergothérapie, les soins infirmiers et l'aide familiale. Le barème de risque de placement en établissement a constitué le meilleur indicateur prévisionnel des soins professionnels et des soins de soutien à domicile. Les besoins de cette population de personnes âgées ont changé, même au cours d'une période aussi relativement courte que six mois. Il pourrait être justifié de mettre en place un système d'évaluation fréquente des besoins pour pouvoir maintenir des plans de services efficaces.

Mots clés : Personnes âgées, coordination de cas, état de santé, risque de placement en établissement, utilisation de services

A Six–Month Profile of Community Case Coordinated Older Adults

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The purpose of this study was to assess the needs of older case coordinated clients receiving community health services, by examining changes in cognitive status, physical and mental health status, social support, risk for institutionalization, and service use over a 6-month period from initial intake into home care. Significant predictors of professional and supportive home care, as well as emergency room use and hospital days, were also examined. Standardized interviews were conducted with 234 clients at the time of referral; follow-up interviews were conducted with 179 of these clients after 6 months of case coordination. Results reveal that physical and mental health improved, while cognitive status remained stable. Although social interaction and instrumental support decreased, subjective support remained stable. Risk of institutionalization decreased. Occupational therapy, nursing, and homemaking were the most frequently used services. The best predictor of professional and supportive home care was a risk of institutionalization score. The needs of this older adult population changed even within the relatively short span of 6 months. Frequent review of needs in some form may be warranted in order to maintain effective service plans.

Keywords: Older adults, case coordination, health profile, risk of institutionalization, service use

The needs of older clients need to be examined and understood given that this population is growing and at risk for chronic illness and functional limitations (Lee, Kovner, Mezey, & Ko, 2001). With the trend towards reduced acute and long-term care (Shapiro, 2000), frequent monitoring of needs within this population is critical. Decision-makers, service providers, and case coordinators must understand the profiles of the clients they serve. Comprehensive aggregate information collected from clients can provide essential information for program planning and resource allocation. Diwan, Ivy, Merino, and Brower (2001), for instance, demonstrate how analysis of case-managed client characteristics can assist with understanding client needs and can inform case managers about required health-care resources. By reviewing clients in a home- and community-based services program, Diwan and colleagues identified a number of issues that predicted the need for intensive case management (e.g., dementia, non-compliance, poor informal caregiver health and

mental health). This type of information, in turn, assisted with allocation of case manager time and expertise.

Different measures and approaches can be used to obtain a portrait of the needs of community care clients. The purpose of this study was to better understand this older case coordinated population through an exploration of the changes that occur in clients over a 6-month period and an examination of the best predictors of health service use. More specifically, we examined changes over time in physical and mental health status, cognitive status, availability of social support, risk of institutional-ization, and predictors of use of professional and supportive home care, emergency room (ER) visits, and hospital days.

Few previous studies have addressed change in health status over a short period, such as 6 months, within this older population. This is a unique group of clients, who are typically assigned to case coordinators because they require multiple community health services that are expected to last for an extended period and because they are believed to be at more than minimal risk for institutionalization. Reassessment of the need for case coordination and home care typically takes place on a case-by-case basis — whenever there is a significant change in the client's status — and services and resources are discontinued or intensified as required. A better understanding of trends among case coordinated clients has the potential to result in useful information for coordinators and managers who are attempting to plan and anticipate health-care needs and resources.

Change in Health Measures over Time

It is widely known that a proportion of seniors experience some change in cognitive function as they age (Huppert, 1994). Relatively few studies, however, have examined how cognitive function changes over a relatively short period, such as 6 months, especially in a vulnerable patient group (Brayne, Gill, Paykel, Huppert, & O'Connor, 1995). In order to measure real decline, repeat measures of cognition, using tests sensitive to change, must be administered on more than one occasion so that change between interviews can be recorded (Brayne et al., 1995). Brayne and colleagues (1995) found a median drop of one point in the Mini-Mental State Examination (MMSE) over a period of 2.4 years.

Both physical and emotional functioning are also important measures, as they are essential to maintaining independence (Cress et al., 1995). Many studies have addressed changes in physical health by analyzing activities of daily living (ADL) and instrumental activities of daily living (IADL) over time (e.g., Han, 2002). Others have used measures of self-reported health such as the Short Form-36 (SF-36; Wolinksy, Wan, &

Tierney, 1998), finding both improvements and decline over a 1-year period in subscales for a sample of adults (aged 50 to 99) at risk for acute deterioration in their clinical condition. Measurements of emotional health usually address levels of depression. Bruce and colleagues (2002) report that 13.5% of elderly home care clients exhibited Major Depressive Disorder (MDD). Raue and colleagues (2003), in publishing follow-up data to those presented by Bruce and colleagues (2002), report that 42% of the participants who met MDD criteria on initial interview continued to do so at follow-up.

Because social support plays such a large role in how clients adapt to the difficulties of aging (Martire, Schulz, Mittelmark, & Newsom, 1999), it is important for us to understand the changes that occur in these supportive relationships even over a short period. Martire and colleagues observed a significant average increase in tangible support over a 5-year period as well as the perception that one had individuals to talk to when needed, but no significant changes in contacts with family or close friends. Van Tilburg (1998) noted that instrumental support (degree of help from others) and emotional support increased for older respondents over several years.

Risk profiles relating to a client's risk for institutionalization can also provide helpful information about health changes (Steeman, Abraham, & Godderis, 1997). Our literature review, however, revealed no studies measuring a change in risk of institutionalization in community-dwelling seniors receiving case coordination services.

Previous research shows that the above variables, along with demographic variables, can distinguish between high and low users of health services. In a retrospective study of home care use over a 3-month period, Stoddart, Whitley, Harvey, and Sharp (2002) found that increasing age and unmarried status (separated/divorced, widowed, single), reduced physical functioning, poor emotional health, and cognitive impairment were associated with greater use of home care. In a cross-sectional study, Tennstedt, Sullivan, McKinlay, and D'Agostino (1990) found certain social factors, such as living alone, to be associated with greater use of home care. In terms of acute care, again using cross-sectional data, high users of acute health services (e.g., hospital admissions and ER visits) were more likely to have lower social support, poor self-rated health, and greater functional dependency. While some studies such as those described above have researched service use, the studies have not been prospective in nature.

The purpose of the present study was to better understand the needs of older case coordinated clients receiving community health services, by examining changes in cognitive status, physical and mental health status, social support, risk for institutionalization, and service use over a 6-

month period beginning at initial intake into home care. We hypothe-sized that over the 6 months clients would experience improvements in physical and mental health status, cognitive status, and risk of institution-alization, and would show decreased need for social support. The study was not designed to attribute changes in health status to case manage-ment alone, as this would require the random assignment of participants to either a control group or a case management group, which is not feasible with this population. The purpose, rather, was to gain a better understanding of the degree of change that occurs over time, as well as to examine predictors of service use over a 6-month period. We hypoth-esized that demographics (older age, unmarried status), health (reduced physical, mental, cognitive health; higher risk for institutionalization), and social variables (lower subjective support, instrumental support, social interaction) would predict increased hours of professional and supportive home care, number of ER admissions, and hospital days.

Design and Methods

The study was approved by the research ethics boards of the University of Regina and the Regina Qu'Appelle Health Region. Data were collected from 234 people (of 527 referrals) over the age of 65 referred consecutively for community case coordination of health services in the city of Regina, Saskatchewan, Canada, over a period of 8 months. Clients were eligible for this service if they were expected to need multiple community health services for more than 1 month, were considered at risk for institutionalization, and were not receiving palliative care.

After giving their consent, the participants were interviewed by a research assistant in their home an average of 12 days after starting home care. Most participants ($n = 140$) also took part in a follow-up interview 6 months later. In some cases this second interview was held before the end of 6 months, at the time of termination of services ($n = 39$). A total of 55 participants (23% of the sample) did not have a follow-up interview: six had received less than 1 month of care, six had moved out of the health region, 12 had died, four had transferred to palliative care, and 27 (11.5%) refused to participate. During both interviews, the partic-ipants were asked a variety of questions regarding their cognitive status, emotional status, physical health, and social support (the measures are described below). In addition to demographic and clinical data, informa-tion was obtained (with the participant's consent) from health region databases on use of home care, hospital admissions, long-term–care admissions, and related community long-term care over the 6-month period.

Mini–Mental State Examination

The MMSE (Folstein, Folstein, & McHugh, 1975) consists of 30 items measuring factors such as orientation to time and place, recall, and visuo-spatial construction, with scores ranging from 0 to 30 (Folstein, Robins, & Helzer, 1983). The normal range of scores on the MMSE for persons aged 65 and over is 22 to 28 (Crum, Anthony, Bassett, & Folstein, 1993). The MMSE has been widely used in longitudinal studies and clinical trials to track cognitive change (Brayne et al., 1995; Brayne et al., 1999). There is evidence that the MMSE has good test–retest and interrater reliability and a high degree of internal consistency (Tombaugh & McIntyre, 1992).

Short Form–8

The SF-8 (Ware, Kosinski, Dewey, & Gandek, 2001) is an eight-item version of the Short Form–36 (SF–36), which yields a comparable eight-dimension health profile and comparable estimates of summary scores for the physical and mental components of health. The instrument has good internal consistency, good test–retest and interrater reliability, and known groups validity (Ware et al.). It has been used to measure change in health status over time (Hemingway, Stafford, Stansfield, Shipley, & Marmot, 1997).

Duke Social Support Index: Abbreviated

The DSSI (Hughes, Blazer, & Hybels, 1990) consists of 23 items that measure three major dimensions of social support: social interaction, subjective support, and instrumental support (Koenig et al, 1993). Abbreviated versions have been found to have good test–retest and inter-rater reliability as well as construct validity (Goodger, Byles, Higganbotham, & Mishra, 1999) and concurrent validity (Goodger et al.; Koenig et al., 1993). The DSSI has been used to measure change in social support over time (Lynch et al., 1999).

Regina Risk of Institutionalization Tool

The RRIT (Neville, 2001) is a 23-item screening tool used primarily as an aid in assessing risk of institutionalization and/or utilization of health services. Points are assigned based on the presence of attributes known to be associated with risk of institutionalization. Previous research has indicated that the RRIT has good interrater reliability, test–retest reliability, and predictive validity (Gillis, Parsons, Neville, & Stein, 2004; Hadjistavropoulos, Bierlein, Neville, White, & Sagan, in press). The RRIT is divided into five risk categories — Minimal, Low, Some, At, and High — with scores ranging from 0 to 54.

Table 1 *Repeated Measures ANOVA Examining Changes in Scores from Time 1 to Time 2*

Measure	Range	Time 1 M	Time 1 SD	Time 2 M	Time 2 SD	F	Scores Obtained in Other Samples M (SD)
MMSE[a]	8–30	25.09	4.38	24.99	5.01	.17	22.00–28.00[1]
PCS-8[b]	12.14–62.18	34.47	11.55	38.89	11.11	19.19**	45.46–47.13 (9.75–9.97)[2]
MCS-8[b]	13.12–65.80	47.35	11.10	51.11	8.71	18.95**	51.98–52.33 (7.95–8.91)[2]
DSSI social interaction[c]	4–12	8.17	1.66	7.91	1.62	4.53*	6.30 (2.69)[3]
DSSI subjective support[d]	10–21	18.58	2.24	18.60	2.54	.02	10.30 (2.50)[3]
DSSI instrumental support[e]	13–24	21.25	1.77	20.72	2.18	10.48***	26.10 (2.70)[3]
RRIT[f]	0–32	14.70	4.50	13.99	5.69	4.95*	———

[a]$n = 172.$ [b]$n = 170.$ [c]$n = 178.$ [d]$n = 177.$ [e]$n = 176.$ [f]$n = 179.$

★$p < .05$, ★★$p < .01$, ★★★$p < .001$

[1]Crum et al. (1993). [2]Ware et al. (2001). [3]Hughes et al. (1990).

Note: Numbers vary due to missing data on some measures. Higher scores on a measure are indicative of a better or more positive score, with the exception of the RRIT. *p* based on repeated measures ANOVA.

Service Use

Units of service for home care refers to time used in 1-hour increments, whereas units of service for long-term care and hospitalization refers to days used.

Data Analysis

Descriptive statistics, including means and standard deviations, frequencies, and percentages, were computed for all variables studied. Repeated measures ANOVA was used to analyze the changes in physical and mental health status, cognitive status, risk of institutionalization, and social support over the 6-month period. Correlations (and *t* tests where appropriate) were calculated to examine the relationships between client background variables (age, sex, education, marital status) and the measures employed in this study at the first interview. Multiple regression analysis was used to examine predictors of home care use (professional and support services) as well as ER admissions and days of hospitalization.

Results

Preliminary Data Analysis

The average age of participants was 80 years (*SD* = 7.38) and there was a higher percentage of women (65%) than men. Of the 234 participants interviewed at time 1, 48% were widowed, 40% married or living common law, 6% single, and 5% separated/divorced. Over half (55%) of the participants reported less than high school education. Most participants (86%) lived at home, although the percentage dropped slightly (to 77%) by the second interview. The majority of participants (84%) exhibited stable support, while 16% reported unstable or no significant support.

In total, 55 clients (23%) did not take part in the second interview. To determine whether our sample at time 2 was different from that at time 1, chi-square and *t* tests were used to examine differences between the participants and non-participants in the second interview. The two groups did not differ significantly on any of the variables.

Change in Cognitive Status, Physical and Mental Health Status, Social Support, and Risk of Institutionalization

Repeated measures ANOVA was used to examine changes in cognitive status, physical and mental health status, social support, and risk of institutionalization during the 6-month period (Table 1). Cognitive status scores (MMSE) at the first interview were not significantly different from those at the second interview ($F (1, 172) = .17$, $p = .68$), with a mean

change of -.01. At both interviews, most participants scored in a range indicating few cognitive difficulties (24–30) and had scores comparable to those of others their age (Crum et al., 1993). Approximately 22% of participants scored below 24 points at the first and second interview, indicating possible cognitive decline.

In contrast to MMSE scores, participants showed improved scores, from the first interview to the second, on the SF-8 on the subscales for both physical health (F (1, 169) = 19.19, $p < .001$) and mental health (F (1, 169) = 18.95, $p < .001$). At the first interview, over half of the participants (57.3%) scored in the poor physical health range (35 or less), with average scores (M = 34.47, SD = 11.55) significantly below the norms for their age group (M = 45.46–47.13, SD = 9.75–9.97; Ware et al., 2001). By the second interview, only 35% scored in the poor physical health range and the overall mean of 38.89 (SD = 11.11) was closer to the age-adjusted norm. At the first interview, about one third of participants (31%) scored in the poor mental health range (43 or less), with average scores (M = 47.35, SD = 11.10) significantly below the norms for their age group (M = 51.98–52.33, SD = 7.95–8.91; Ware et al.). By the second interview, however, only 18% scored in the poor mental health range and mental health scores were improved (M = 51.11, SD = 8.71), becoming similar to the norms for their age (Ware et al.).

Measures for social support showed a statistically significant decrease in the mean score for social interaction (F (1, 177) = 4.53, $p < .04$) and instrumental support (F (1, 175) = 10.48, $p < .001$), indicating that social interaction and instrumental support decreased over the 6 months. However, subjective support (perception of support) did not significantly change (F (1, 176) = .02, $p = .88$) during the same period.

Risk of institutionalization (RRIT) significantly decreased, on average, by the 6-month interview (F (1, 179) = 4.95, $p < .03$). However, case-by-case analysis for the period revealed that 21% of the participants advanced to a higher risk category, 54% stayed in the same risk category, and 25% went into a lower risk category. The majority remained in the low and some risk categories at both interviews.

Correlations (and t tests where appropriate) were calculated to examine the relationship among client background variables (age, sex, education, marital status) and the scores obtained on measures at the first interview. Due to the number of correlations calculated, a Bonferroni correction was employed, such that p was set at .002 to ensure a conservative approach to interpretation. Most of the health measures were not significantly correlated with participant background variables, although a few significant relationships were found. Specifically, education level (r = .30, n = 227, $p < .001$) was significantly correlated with cognitive status at the first interview, indicating higher cognitive status in those

participants with higher education levels. Sex (t (228) = –84.42, p < .001) was related to cognitive status as women exhibited higher cognitive scores than men (M = 25.82, *SD* = 3.91 versus M = 23.63, *SD* = 5.01). Sex was also related to social support (Duke Social Interaction Subscale t (234) = –72.25, p <.001, Duke Subjective Support Subscale t (232) = –127.00, p <.001). Women reported higher social interaction (M = 8.46, *SD* = 1.52 versus M = 7.65, *SD* = 1.73) and slightly higher subjective support scores than men (M = 18.89, *SD* = 2.02 versus M = 18.11, *SD* = 2.39).

Service Use

Table 2 includes units of varying service use over the 6-month period for home care, long-term care, and hospitalizations for all 234 participants; since these data were available through health region administrative databases, data for all participants were available. The most frequently used home care services were occupational therapy (68%), which typically involved an assessment of the home along with recommendations for improving safety and activities, nursing (41%), and homemaking (40%). However, the largest average numbers of hours used over the 6 months were for homemaking (31.65 hours, n = 94) and nursing (19.84 hours, n = 38). Use of services was greatest in the first month and then stabilized over the 6 months, with the exception of an increase in homemaking and a decrease in physical therapy. Only a small number of long-term-care programs were used, with convalescent beds being used most frequently (9%), averaging 31 days per admission. About 26% of participants were hospitalized at some time over the 6 months, with an average stay of 23 days (*SD* = 21.92). Further analysis of the hospital days revealed that 34% of those hospitalized were waiting for long-term-care beds, which can inflate lengths of stay unrelated to medical status. Twenty-seven percent of participants accessed the ER at some point during the 6 months.

Regression was used to examine whether demographics (age, marital status, sex, education), health (physical, mental, cognitive health status, risk for institutionalization), and social variables (subjective support, instrumental support, social interaction) predicted hours of professional home care, hours of supportive home care, number of ER admissions, and number of hospital days. We conducted four regression analyses; in each case all variables were entered and examined for their ability to uniquely predict service use while controlling for the other variables (see Table 3).

The results show that the variables together contributed significantly to the prediction of supportive home care: F (10, 212) = 5.35, p = .0001, R^2 = .45. In particular, however, the RRIT uniquely predicted the amount of supportive home care: t = 4.14, p = .0001 (*Beta* = .33).

Table 2 *Service Use*

Service	% Who Used Service	Mean over 6 Months	SD
Home Care			
All service units (hours)	86.3	28.64	42.98
Professional home care (hours)*	84.2	13.33	16.43
Supportive home care (hours)**	41.5	31.81	44.48
Nursing (hours)	41.0	19.84	22.75
Physical therapy (hours)	16.2	7.72	7.32
Occupational therapy (hours)	68.8	2.83	2.27
Social work (hours)	7.3	4.59	4.31
Intravenous therapy (hours)	.4	39.50	—
Homemaking (hours)	40.2	31.65	44.82
Community support (hours)	4.7	5.05	3.16
Volunteer service (hours)	1.3	16.50	23.88
Meals (hours)	6.4	43.87	27.84
Laboratory (hours)	12.5	3.74	3.11
Long–Term Care			
Respite approvals	9.83	1.09	.29
Respite days used	3.42	15.50	8.26
Convalescent bed days	8.55	30.45	13.90
Quick response placements	6.84	1.19	.40
Quick response bed days used	6.84	14.06	10.33
Hospital/ER			
Hospital admissions	25.64	1.50	.72
Hospital days	25.64	23.42	21.92
ER visits	27.35	1.70	1.09
ER days	27.35	1.89	1.26

*Nursing, occupational therapy, physical therapy, social work, intravenous therapy.
**Home-health aide, community support, volunteer services.
Note: Data on use of home care, long-term care, hospital, and ER were available for all 234 clients, as consent was obtained to access this information from health region administrative databases.

Table 3 *Predictors of Supportive and Professional Home Care and ER Visits*

Service	β	t	p
Supportive Home Care			
Regina Risk for Institutionalization	.33	4.14	.0001
Professional Home Care			
Regina Risk for Institutionalization	.25	3.14	.002
ER Visits			
Instrumental support	–.18	–2.51	.01

Similar results were obtained when predicting hours of professional home care, but much less variance was explained: $F (10, 212) = 1.85$, $p = .05$, $R^2 = .08$. Again, the RRIT was found to be the best predictor of amount of professional home care: $t = 3.14$, $p = .002$ (*Beta* = .25). Finally, while the variables did not significantly predict number of days in hospital, they predicted number of ER visits: $F (10, 212) = 1.91$, $p = .05$, $R^2 = .08$. In this case, however, it was found that lower perceptions of instrumental support uniquely predicted ER use: $t = -2.51$, $p = .01$ (*Beta* = -.18).

Discussion

Although case coordination of seniors requiring multiple community health services is increasingly common, the needs of these clients over a short period are not well understood. This limitation in knowledge acts as a barrier to our ability to anticipate the needs of these clients. The results of the present study suggest that change in physical and mental health can occur over a relatively short period among older clients receiving community case coordinated services. On average, the community seniors as a group had significantly improved scores over 6 months in physical and mental health status.

In contrast to physical and mental health, cognitive status remained stable, although approximately one quarter of participants were experiencing cognitive difficulties and were potentially at risk for developing dementia (Braekus, Laake, & Engedal, 1995). Overall, however, cognitive decline was not observed, and this finding is consistent with published results showing that clients show very slow cognitive decline over time (Brayne et al, 1995).

Clients' subjective perception of the support they received from relatives or friends did not change over the 6 months, reflecting previous findings on stability of family support over time (Martire et al., 1999). As hypothesized, indicators of amount of social interaction and instrumental support declined. This may indicate that although social support and interactions declined, the level of social support was still perceived by clients to be sufficient. The decline in social interaction and instrumental support is possibly explained by both an average increase in health status (e.g., less support is needed) and community health services taking the place of informal social network supports.

Risk of institutionalization slightly decreased, on average, over the 6 months. Of particular note is the fact that the risk category distributions for this population were skewed towards the low and some risk categories. This distribution is consistent with observations that case coordi-

nation should be offered to individuals who are at low to some risk of institutionalization.

Compared to all services provided to clients, a large amount of homemaking and nursing care was required over the 6-month period, with homemaking being the greatest need. A low number of long-term-care programs were used for these new referrals to case coordination, which is consistent with their level of risk, as noted above.

The findings of the present study are not free from limitations. Because the sample consisted of seniors who received community case coordination, the results apply only to this client group and not to the general population of seniors. In addition, the assessment of mental health could have been improved with a more thorough measure of mental health status and/or depression (e.g., Sickness Impact Profile or with a diagnostic interview). Although the SF-8 health questionnaire is a widely employed tool for measuring different dimensions of health (and like other self-report tools is an efficient and convenient way to acquire knowledge about symptoms; Molarius & Janson, 2002), a more comprehensive tool may have elicited further information.

Even though most clients maintained stability over the 6 months, the variability in this population cannot be overlooked. During the study, 5% of participants died and 2% were transferred to palliative care. Although the majority of participants improved in health status, a small proportion of the sample that completed both interviews declined over the 6-month period. For example, 5% had a decrease of five points or more in their MMSE score and 31% had a decrease of 10 points (one standard deviation) or more in their SF-8 physical health score. Additionally, 27% had a decrease of 10 points (one standard deviation) or more in their mental health score and 21% had an increase in their risk of institutionalization. This information is important, because not all clients improve in health status and the ability to anticipate trends can serve to ensure that program planners are aware of diversity among clients. Interestingly, the best predictor of supportive and professional home care over the 6-month period was the risk for institutionalization score, and the best predictor of number of ER visits was client perception of instrumental social support when services first began.

Implications

Given the significant improvements in the participants' physical and mental health status over a relatively short period, it is important that case coordinators give consideration to frequent service reviews during the initial 6 months of care. Many clients will not necessarily need the same degree of services after 6 months, due to either stabilization of their

condition or, conversely, a change in health or functional status warranting the use of additional resources. When case coordinators act as brokers of services, it is imperative that those providing services stay in touch with coordinators, to ensure that services continue to be appropriate. The findings of this study led to the development of a Professional Service Feedback Form (see Appendix 1), which is now being sent by providers to coordinators every 3 months (or more frequently in the case of specified triggers such as completion of care plan, ER visit, or hospital admission, or if there is a change in behavioural, cognitive, emotional, social, or functional status of sufficient concern to warrant the involvement of a coordinator). This allows for improved yet efficient monitoring of clients that is need-based rather than time-based.

The results show that a significant number of clients improved in health status and may have been in a position to have services reduced. However, a large number (31%) declined in health status, warranting an increase in services. Additional attention could be directed towards those clients whose health status declines, in order to target resources to their care. Program planners should also note that most new referrals to community case coordination fell within the low and some risk of institutionalization categories and were maintained in the community with few admissions to long-term care over the 6 months. Higher risk for institutionalization and lower instrumental social support are particularly promising as predictors of service needs and may prove to be useful indicators for case coordinators to gauge when attempting to anticipate client needs.

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Authors' Note

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Appendix 1 *Professional Service Provider Review Form*

Client Name	Client Number
Service Provider Name	Date Sent
Coordinator	Date Received

NURSING

CURRENT CONDITION _____

NEW ISSUES _____

CURRENT SERVICES / TASKS _____

☐ General Monitoring _____

☐ Hypertension Monitoring_____

☐ Med Monitoring / IV therapy _____

☐ Pathway_____

☐ Catheter Change / Bladder Irrigation _____

☐ Diabetic Management _____

☐ Dressing Change _____

☐ Respite _____

☐ Other _____

VISITS   Frequency _____   Duration _____

PLAN / GOAL   ☐ Maintain Current Service   ☐ Increase Independence

☐ Projected Discharge _____

GENERAL STATUS

☐ Improving   ☐ Deteriorating   ☐ No Change

COMMENTS AND CONCERNS _____

THERAPIES

CURRENT CONDITION _____

NEW ISSUES _____

CURRENT SERVICES / TASKS _____

☐ Bath Assessment _____

☐ Chest Physiotherapy _____

☐ Equipment _____

☐ Exercise program _____

☐ Mobility _____

☐ Other _____

VISITS   Frequency _____   Duration _____

PLAN / GOAL   ☐ Maintain Current Service   ☐ Increase Independence
☐ Projected Discharge _____

GENERAL STATUS
☐ Improving   ☐ Deteriorating   ☐ No Change

COMMENTS AND CONCERNS _____

SOCIAL WORK
CURRENT CONDITION _____
NEW ISSUES _____
CURRENT SERVICES / TASKS _____
☐ Advocacy _____

☐ Counselling _____

☐ Financial _____

☐ Psycho Social Assessment _____

☐ Relocation _____

☐ Other _____

PLAN / GOAL   ☐ Maintain Current Service   ☐ Increase Independence
☐ Projected Discharge _____

GENERAL STATUS
☐ Improving   ☐ Deteriorating   ☐ No Change

COMMENTS AND CONCERNS _____