

Home and Community Care Highlights

A digest produced quarterly at the University of Toronto
by the CHSRF/CIHR Health Services Chair in
Health Care Settings and Canadians

Volume 6, Number 3: September 2007

In this issue:

- patient safety, both in the area of bath transfers and in nursing homes more generally;
- factors affecting the retention of home care workers in Northern Ireland, from the perspective of home care workers themselves;
- trends in the supply of and demand for personal support workers over a 15-year period;
- the impact of increasing public spending on both home care utilisation and the supply of unpaid caregiving;
- whether family involvement in care for stroke patients complements or substitutes formal care provision;
- a decision aid for assisting Community Care Access Centres manage waiting lists;
- a performance scorecard for community health centres.

Contact: Peter C. Coyte

peter.coyte@utoronto.ca

Department of Health Policy, Management and Evaluation,
Faculty of Medicine, University of Toronto,

155 College Street, Suite 425,

Toronto, Ontario M5T 3M6

<http://www.hcerc.utoronto.ca>



Canadian Health Services Research Foundation
Fondation canadienne de la recherche sur les services de santé

Home and Community Care Highlights

Volume 6, Number 3: September 2007

Topic	Headlines & Conclusions (page no.)	Thumbnail Summary (page no.)
Safety issues during bath transfers of older adults	2	4
Patient safety beyond hospitals: A look at patient safety culture in nursing homes	2	5
Retaining home care workers: The perspective of home care workers in Northern Ireland	2	6
Trends in the supply of and demand for personal support labour between 1989 and 2004	2	7
The impact of increasing public spending on home care	2	8
Family involvement in care for stroke patients – Complements or Substitutes?	3	9
A decision aid helps to manage CCAC waiting lists	3	10
From development to implementation: A performance scorecard for community health agencies	3	11

About Home and Community Care Highlights:

Home and Community Care Highlights responds to decision-makers' needs for timely and relevant evidence by providing accessible synopses of recent research pertaining to the financing, delivery, and organization of home and community-based health care activities.

This digest is produced quarterly at the University of Toronto by the CHSRF/CIHR Health Services Chair in Health Care Settings and Canadians and remains the property of the Chair.

The Chair is supported by the Canadian Health Services Research Foundation in partnership with the Canadian Institutes of Health Research, and by the regional co-sponsor, the Ontario Ministry of Health and Long Term Care.

Synopses are provided in two formats: **Headlines & Conclusions** crystallize the take-home messages of the research in a few sentences; **Thumbnail Summaries** condense the background, methods, findings, and conclusions of the research into quick-to-use, single-page overviews that include reference information.

Please see Page 12 for information on Review Team and list of Journals Reviewed.

For subscription information, please contact:

Peter C. Coyte

Email: peter.coyte@utoronto.ca

Telephone: 416.978.8369
Fax: 416.978.7350

Courier address:
155 College St, Suite 425,
Toronto, Ontario M5T 3M6

<http://www.hcerc.utoronto.ca>



CHSRF/CIHR Chair: Health Care Settings & Canadians

Department of Health Policy, Management & Evaluation

Faculty of Medicine, University of Toronto



Headlines & Conclusions

Safety issues during bath transfers of older adults

This study aims to identify safety issues for older adults during transfers in and out of the bath and shower. Participants were assessed for physical functioning and observed during a bath transfer. Researchers identified the types of supports (e.g. grab bars, towel bar, side of tub) that older adults use during bath transfers, and determined the level of safety of the supports. The study results call attention to the need to design bathroom environments that promote safe transferring into the tub or shower. Useful interventions from health care professionals might include removing sliding glass doors and other bathroom hazards as well as providing training to older adults on how to safely transfer in and out of the bath and shower.

Patient safety beyond hospitals: A look at patient safety culture in nursing homes

Patient safety has featured prominently on the health care agenda in recent years, but the majority of research has focused on the hospital setting rather than nursing homes. Using survey responses from a nationally representative sample of 2,840 nursing homes in the United States, this study examines patient safety culture in nursing homes, compares nursing home safety scores against hospital benchmark scores, and ascertains if and how the safety culture of nursing homes varies according to facility and market characteristics.

Retaining home care workers: The perspective of home care workers in Northern Ireland

Retention of home care workers is a major obstacle to the delivery of home care services. The purpose of this study was to explore issues relevant to the retention of home care workers, from their perspective. Main concerns included unstable and inadequate working hours, lack of management support, and heavy workloads. In order to provide effective, efficient, and quality home care services, attention needs to be focused on ways to retain skilled home care workers. The concerns identified here allow decision-makers to gain insight from the perspective of home care workers themselves and identify ways to improve retention.

Trends in the supply of and demand for personal support labour between 1989 and 2004

An aging population is expected to generate increased demand for home and community services. While the vast majority of assistance continues to be provided by unpaid family members, paid workers now provide 16% of total personal support hours in the United States. This US study uses national data to examine trends in the supply of and demand for paid personal assistance labour force between 1989 and 2004. Findings indicate that the supply of personal assistance workers increased dramatically over this period. Increased Medicaid spending for personal support work was the primary driver behind this growth, rather than increases in demand due to either increasing care recipient needs or shifts out of long-term care and hospital settings. Low wages, short job tenure and lack of benefits for this category of workers create substantial challenges in recruiting and retaining skilled caregivers in the future.

The impact of increasing public spending on home care

In many countries over the past decade, there has been a shift in the setting of care from the hospital to the home. In Canada, public expenditures on home care have increased at an average annual compound rate of 17.4% from \$62 million in 1975 to \$2096 million in 1997, while total public health spending has only increased at a rate of 8.3%. Increased public spending on home care leads to an increase in publicly funded home care service use. This study suggests that household members may decrease their unpaid care contributions when public services increase; however, the results are not based on individual level data. Further research is needed because some studies have suggested that when the amount of public services provided increases, the amount of unpaid care is often not affected, thereby resulting in an increase in the total amount of care provided.

Headlines & Conclusions

Family involvement in care for stroke patients – Complements or Substitutes?

Stroke survivors and survivors of other serious brain injuries are often faced with a lengthy recovery lasting from months to several years. The purpose of this study was to determine the division of labour between family and paid caregivers before and after home care agency involvement. The study found that families substituted their care for paid care, such that the patient received the same amount of care over time.

A decision aid helps to manage CCAC waiting lists

In recent years, Community Care Access Centres (CCACs) in Ontario have not been able to provide home care services to all eligible clients and some CCACs have chosen to utilize wait lists to manage their resources. This article describes the development of an aid designed to help the Simcoe County CCAC manage the wait lists for occupational therapy, physiotherapy, speech language pathology, nutritional services and social work. The aid may be used to: 1) quantify waiting times; 2) determine the impact of budget changes on wait times; 3) predict the impact of changing the number of visits per client on waiting times; 4) produce quantitative data to support requests for additional funds from the provincial government; and 5) to estimate waiting times for clients. Similar aids may be useful to the new Local Health Integration Networks and the realigned CCACs in Ontario.

From development to implementation: A performance scorecard for community health agencies

This study describes the development, implementation and evaluation of a standardized measure of the performance of federally funded community health centers in North Carolina. Relevance and usefulness of this measure were evaluated at the end of the study. As a result of this 6-month project, a one-page performance scorecard was developed to provide a timely measure of each community health center's organizational viability and mission fulfillment. The scorecard also enabled these centers to compare their performance with that of their peers. When considering developing similar performance measures, the comparative performance scorecard sets a viable example for other health care administrations including the Local Health Integration Networks in Ontario.

Thumbnail Summaries

Safety issues during bath transfers of older adults

Background: Older adults who have difficulties bathing independently have an increased risk of hospitalization, nursing home admission, bone fractures and death. Transferring into and out of the bathtub or shower is one of the most difficult bathing activities for older adults. When transferring into the bathtub or shower, it is common for older adults to require some kind of support, such as a grab bar, to hold onto during the transfer. This study evaluates the different ways that older adults transfer into and out of the tub or shower, and attempts to determine the characteristics of individuals who have difficulties with the transfer as well as the supports available in their bathrooms. The goal of this study is to identify safety issues and problems with physical functioning, the bathroom environment, and/or individual bathing strategies that could be improved in order to increase the safety of older adults' bath transfers.

Methods: Participants in the study were 89 adults over the age of 60 living in congregate housing in Michigan who did not have any cognitive impairment. All participants reported that they bathe independently. Participants were asked to undertake two observation sessions: one in their home and one in a laboratory space. During the first session, researchers observed the bathroom environment of the participant and video-taped the participant as they performed a bath transfer. Researchers then observed the video tapes and assessed the level of difficulty the participant had during the transfer. Researchers looked for the types of supports the participant used during the transfer, such as grab bars, towel bars, shower curtains, glass doors, tub seats, parts of the tub and walls, and assistive devices. Researchers also looked for the participant's ease of movement and ability to negotiate their environment. The tape recordings were then coded based on the participant's performance difficulties. Coding categories included the following: falling onto the tub seat; hitting a bath surface with a lower extremity; making more than one attempt at getting into or out of the tub; physically lifting lower extremities over the tub side; and leaning against the tub surface while getting in and/or out of the tub. The second session held in a laboratory assessed the physical abilities of the participant based on self-report and a series of performance measurements. Physical ability was determined based on range of motion, lower extremity strength, functional mobility, and fear of falling.

Findings: The average age of participants was 83 years. Twenty-three percent of participants had a history of joint replacement, 45% used a cane or walker at least some of the time, and 12% reported having difficulties with bath transfers. Approximately half of the participants used a shower stall and half used a tub-shower. Roughly a quarter of participants regularly used a tub-seat in their shower or tub. Throw rugs and towels on the floor were the most commonly observed environmental hazards in the participants' bathroom. On average, participants used two supports to help them transfer in and out of the tub. Grab bars were the most common support used, and also the safest of the observed supports. The most prevalent unsafe support was the sliding glass door followed by the towel bar. One-third of the participants experienced at least one difficulty during the transfer. The most common difficulty was falling or positioning into the tub or tub-seat. Participants with range of motion impairments and fear of falling had a higher likelihood of experiencing a difficulty during the bath transfer. Lower extremity strength was not associated with bath transfer difficulties.

Conclusions: This study revealed important challenges about the bath transfers of older adults that may not be obvious from simply observing their bathroom environments. Results call attention to the need to design bathroom environments that promote safe transferring into the tub or shower. Useful interventions from health care professionals might include removing sliding glass doors and other bathroom hazards, as well as providing training to older adults about how to safely transfer into and out of the bath and shower.

Reference: Murphy SL, Nyquist L, Strasburg D, Alexander N. Bath transfers in older adult congregate housing residents: Assessing the person-environment interaction. *Journal of the American Geriatric Society*. 2006; 54: 1265–70.

Thumbnail Summaries

Patient safety beyond hospitals: A look at patient safety culture in nursing homes

Background: Patient safety has featured prominently on the health care agenda in recent years. A key component of patient safety is the patient safety culture of the health care organization itself. Patient safety culture has been defined as, “the product of individual and group values, attitudes, perceptions, competencies, and patterns of behaviour that determine the commitment to, and the style and proficiency of, an organization’s health and safety management” and is regarded by some as a proxy measure for quality of care. Most patient safety research has focused on the hospital setting and less is known about this critical area in nursing homes. This study examines patient safety culture in nursing homes and ascertains if and how the safety culture of nursing homes varies according to facility and market characteristics (described below).

Methods: Data for the study came from a representative national survey of 2,840 (out of a potential 4,000, yielding a 71% response rate) nursing homes across the United States. Nursing home administrators completed the Hospital Survey on Patient Safety Culture (HSOPSC) instrument, which was developed by the Agency for Health Care Research and Quality and has been previously validated for assessing safety culture in hospitals. The HSOPSC contains 12 patient safety subscales: overall perceptions of safety, frequency of event reporting, manager expectations and actions promoting safety, organizational learning, teamwork within units, communication openness, feedback and communication about errors, non-punitive response to errors, staffing, management support for patient safety, teamwork across units, and handoffs and transitions. Nursing home scores from this survey were compared against hospital benchmark scores. Twelve facility and market characteristics of the nursing home were identified to enable an examination of relationships between patient safety and these characteristics. Facility characteristics included staffing levels, number of beds (to proxy facility size), case mix (a proxy measure of activities of daily living was used), ownership (for-profit vs. not-for-profit), chain membership (chain vs. non-chain), private-pay occupancy rates, and overall resident census (number of residents divided by number of beds). Market characteristics included rural location and number of nursing homes in the county (a proxy measure for competition). Relationships between the 12 patient safety subscales and the 12 facility and market characteristics were analysed.

Findings: Fifty-two percent of nursing homes in the sample belonged to chains and 59% were for-profit. A comparison of nursing home and hospital patient safety scores revealed that nursing homes scored lower in all subscales except for teamwork across units. The authors interpret this as suggesting patient safety culture is lower in nursing homes than hospitals. Facility characteristics associated with high patient safety scores include high staffing levels of registered nurses (RNs) (in 10/12 patient safety subscales), high licensed practical nurse (LPN) staffing (2/12 subscales), and high nursing aid staffing (7/12 subscales). Facility characteristics associated with low patient safety include for-profit ownership (in 9/12 subscales), chain membership (10/12 subscales), and lower than average private-pay occupancy (11/12 subscales). Both market characteristics (rural location and number of nursing homes) were associated with low patient safety scores.

Conclusions: The results suggest that patient safety culture in nursing homes may lag behind hospitals. The authors suggest that improvement in patient safety culture in nursing homes is critical to improving the care provided by this industry. From a policy perspective, the most striking findings pertain to the importance of high RN staffing levels in ensuring patient safety and the strong relationships between for-profit ownership, chain membership, and low patient safety culture. It should be noted that because researchers examined only the views of nursing home administrators as opposed to multiple levels of management, a partial view of patient safety culture in nursing homes is provided.

Reference:

Castle NG, Handler S, Engberg J, Sonon K. Nursing home administrators’ opinions of the resident safety culture in nursing homes. *Health Care Management Review*. 2007; 32: 66-76.

Thumbnail Summaries

Retaining home care workers: The perspective of home care workers in Northern Ireland

Background: The provision of home care services is a key component in preventing inappropriate admission of the elderly to long term care facilities, and in supporting independent living. Providing effective, efficient, and quality home care services requires skilled home care workers and involves a number of complicated issues. For example, workers must perform increasingly complex tasks requiring considerable skill and knowledge. The purpose of this study was to explore retention issues among home care workers in Northern Ireland as described from their perspective.

Methods: One hundred and forty-seven self-report questionnaires were mailed to home care workers in a community centre in Northern Ireland. Two focus group sessions were completed to obtain more detail about commonly raised concerns. Workers were asked about the following issues: reasons for considering leaving home care; working hours; supervision and support, and qualifications and training; workload pressures; client attitudes; pay; and job satisfaction.

Findings: Forty-five workers completed questionnaires and 12 participated in the focus groups. All participants were female; however, they ranged in age, experience, and qualification. Almost half of the participants had considered leaving their jobs in home care. The following reasons were given, in order of importance. *Working hours:* Dissatisfaction with working hours was one of the key reasons given by home care workers who had considered leaving, particularly those who did not have guaranteed hours (both quantity and timing). *Supervision and support:* A significant minority felt that more regular supervision and support would be useful on a day-to-day basis, but also outside of regular business hours, in times of crisis (e.g., death of a client), and during emergencies. *Workload:* About two-thirds of the participants reported that they 'sometimes' or 'never' had enough time to complete their tasks, and half felt that this was regularly the case. *Client attitude:* Some home care workers felt taken for granted by their clients and their clients' families. *Pay:* Less than half were dissatisfied with their pay, however, many felt that traveling expenses were poorly compensated. *Job satisfaction:* The majority reported high level of job satisfaction and felt that their jobs were worthwhile.

Conclusions: The retention of home care workers is a major challenge that must be addressed in Northern Ireland and other countries with home care programs, including Canada. The increasing complexity of health needs has caused a substantial change in the type of work and hours required of home care workers to perform tasks. Providing staff with guaranteed hours (and by extension, stable incomes) was considered critical to retention, and the improvement of supervision during certain circumstances such as emergencies was also suggested. The concerns identified here allow policy-makers and managers to gain insight into the perspective of home care workers and identify ways to improve retention.

Reference: Fleming G, Taylor BJ. Battle on the home care front: perceptions of home care workers of factors influencing staff retention in Northern Ireland. *Health & Social Care in the Community*. 2007; 15: 67-76.

Thumbnail Summaries

Trends in the supply of and demand for personal support labour between 1989 and 2004

Background: An aging population is expected to generate increased demand for home care and personal assistance services (help with such activities as bathing, eating, dressing, shopping, housework and meal preparation). While only 16% of total personal support hours are provided by paid personal assistance workers (versus unpaid caregivers) in the US, studies have found extensive unmet need for such services. Because most of the literature focuses on the institutional labour force, this study provides added insight by examining trends in the supply of, and demand for, paid personal assistance workers in non-institutional settings in the US.

Methods: Two US national surveys were used to examine the supply of personal assistance workers, Medicaid (i.e., public insurance for low-income individuals) spending and demand for services, and job characteristics such as wages, tenure and benefits. The monthly Current Population Survey (n=60,000), which focuses on labour force issues, provided national data on the supply of workers. The National Health Interview Survey (n=45,000), which provides estimates of the population needing assistance with both activities of daily living (ADLs) and instrumental activities of daily living (IADLs), provided national data on those individuals who had a need for paid personal support services. Individuals were defined as personal assistance workers if they met both occupational and non-institutional setting criteria.

Findings: The supply of personal assistance workers increased steadily over the study period, more than tripling between 1989 and 2004. Similar trends were found in Medicaid spending, suggesting that expanded funding for personal support work was the primary driver for growth in this labour force. In addition, labour force growth was most pronounced in states with the largest Medicaid increases for these services. While increasing demand for services (53% increase in individuals with ADL needs) is also a driver, evidence does not support the suggestion that growth in this labour force can be attributed to shifting patients out of institutions.

Personal assistance worker wages remain among the lowest of all occupations. Wages increased by 55% over this 15 year period (from \$5.41/hr to \$8.40/hr), barely keeping pace with inflation (52%). In contrast, nursing home aides experienced a 79% wage increase over the same period, while individuals working in entry-level positions in the fast-food industry received an 85% increase. Eighty percent of personal assistance workers had been in their job for less than 2.5 years, compared to 57% of workers in the general labour force. Finally, only 30% of caregivers receive health benefits from employment-based coverage, which can be largely attributed to their part-time/casual/contract status.

Conclusions: Trends in the rising demand for paid personal support services are expected to persist, but attracting and retaining skilled workers will become increasingly challenging if employment conditions remain poor. While this study examines the US labour force, many of the trends and issues are of relevance to Canada, where Personal Support Workers in home settings continue to receive lower wages than institution-based workers. One notable difference between the two markets is that many home-based Personal Support Workers are certified in Canada, a move the authors of this article recommend for the US. Decision-makers charged with the task of planning for an aging population may wish to consider strategies to improve job tenure, wages and other job characteristics that may aid in the recruitment and retention of paid caregivers.

Reference:

Kaye HS, Chapman S, Newcomer RJ, Harrington C. The Personal Assistance Workforce: Trends in Supply and Demand. *Health Affairs*. 2006; 25: 1113-20.

Thumbnail Summaries

The impact of increasing public spending on home care

Background: In many countries over the past decade there has been a shift in the setting of care from the hospital to the home. In Canada, public expenditures on home care have increased at an average annual compound rate of 17.4% from \$62 million in 1975 to \$2096 million in 1997, while total publicly-funded health spending has only increased by 8.3%. This study examines the impact that this funding increase has had on household decision-making regarding the amount of publicly-funded home care service use versus unpaid caregiving.

Methods: The authors conducted analyses of data from multiple years of two national surveys for this research project. Data from the 1994/95, 1996/97, and 1998/99 National Population Health Survey (NPHS) were used to determine the care needs of respondents and the amount of publicly-funded home care received over a 12-month period. The analysis first determined the self-perceived need for home care services among individuals aged 55 years and over across all provinces between 1994 and 1998. The authors then examined whether individuals with self-perceived need for home care actually received any publicly-funded services. Data from the 1992, 1994, and 1996 General Social Survey (GSS) were used to determine the amount of unpaid care provided to respondents from family members and friends. The authors used this information to determine the extent to which increases in public funding influenced the amount of unpaid care provided.

Findings: Analysis of the NPHS demonstrated that need for care always exceeded the amount of publicly-funded care provided, with some variation amongst provinces. Overall, 20% of respondents aged 55+ perceived a need for home care while 6% reported receiving publicly-funded services. The probability of receiving services was higher for women than men, older compared to younger individuals, and those with lower health status. Those with higher incomes were less likely to use publicly-funded care and this may be due to the income cut-offs in many of the provinces. Those with more education were more likely to access publicly-funded care, which might reflect a greater awareness of services. Individuals were more likely to receive services when public spending on these services increased. Perceived need for home care was not affected by the level of public spending on home care. A second set of analyses were conducted with the subset of individuals who self-reported a need for care. Amongst those reporting a perceived need for home care, men and those with lower incomes were more likely to receive publicly-funded care. Again, increased public spending resulted in an increase in home care service use among those with self-perceived need.

The analysis of the GSS demonstrated large differences in unpaid care provision amongst provinces. In 1992, 7.9% of Quebecers, 13.3% of Ontarians and 22.4% of Newfoundlanders reported providing unpaid care. Women, individuals with more than a high school education, and those with fewer labour market hours were more likely to provide care. As public spending on home care increased, unpaid caregiving decreased modestly, suggesting that individuals may substitute unpaid caregiving for publicly funded services.

Conclusions: Increased public spending on home care leads to an increase in publicly-funded home care use. Further research is needed to determine the impact of increased spending on the overall amount of care provided to individuals. This study suggests that household members may decrease their unpaid care contributions when public services increase. Further research is needed because some studies have suggested that when the amount of public services provided increases, the amount of unpaid care is often not affected, thereby resulting in an increase in the total amount of care provided.

Reference: Stabile M, Laporte A, Coyte PC. Household responses to public home care programs. *Journal of Health Economics*, 2006; 25: 674 – 701.

Thumbnail Summaries

Family involvement in care for stroke patients – Complements or Substitutes?

Background: Stroke survivors and survivors of other serious brain injuries are often faced with a lengthy recovery lasting from months to several years. Home care services provide access to skilled services such as physical therapy and nursing, but only for a limited duration. Families are faced with the difficult task of assuming full control for care when home care agencies close the case. Little is known about total levels of patient care during home care provision and after discharge. The purpose of this study was to understand the patient and family experience of the transition period after paid home care services ends.

Methods: This study enrolled 99 family caregivers looking after stroke and brain injury patients in New York City. Eligible patients were discharged from hospital or nursing home to a certified home health agency. Family caregivers were interviewed several times – both while the case was open and after it was closed. Almost half of the study volunteers had dropped out of the study by ten months. Family caregivers were asked to estimate how much patient care was provided on a typical day (unpaid family and paid care). Care provided by volunteers and friends was less than one hour per day and, therefore, was not included in any analyses. Study authors assumed that most paid care was provided by the home care agency while the case was open. They also assumed that after the case was closed, families purchased paid care privately.

Findings: Three-quarters of the family caregivers were women and about half lived with the care recipient. The average duration of paid home care services was 40 days. Patients with greater mobility impairments received more paid home care on average compared to those with no impairment (59 versus 28 days). The home health agency provided a range of services. All but one patient received skilled nursing care, and the majority also received physical therapy from the home health agency. Half had assistance from personal aides who assisted with activities of daily living such as dressing, grooming, and toileting. One-third of patients were visited by social workers and one-fifth received speech therapy. Approximately half of the patients were covered by Medicaid insurance and half were not.

(Note: The results that follow refer to the patients without Medicaid insurance. Results are limited by the fact that severity of illness was not controlled for in this study. Because Medicaid status can be viewed as a substitute measure for increasing dependency, Medicaid patients may have required more hours of care). When the case was open, patients received approximately 40 hours of care on average with the home care agency. Approximately 75% of this care was provided by family members. After the home care agency closed the case, total care for patients remained the same – families provided more care but the amount of paid care decreased from 12 to 3 hours per week. At nine months, families were providing approximately 40 hours of patient care per week.

Conclusions: This study suggests that in New York City, families of patients without Medicaid insurance substitute their care for paid services such that the patient receives the same amount of care throughout the involvement of formal home care services.

Reference:

Levine C, Albert SM, Hokenstad A, Halper DE, Hart AY, Gould DA. This Case Is Closed: Family caregivers and the termination of home health care services for stroke patients. *The Milbank Quarterly*. 2006; 84: 305-31.

Thumbnail Summaries

A decision aid helps to manage CCAC waiting lists

Background: Community Care Access Centres (CCAC) in Ontario employ case managers who determine the type and frequency of service required by individuals and then contract to independent agencies to provide these services. In recent years, CCACs have not been able to provide service to all eligible clients and some have chosen to use wait lists to manage their resources. This article describes the development of an aid designed to help the Simcoe County CCAC manage the wait lists for occupational therapy, physiotherapy, speech language pathology, nutritional services and social work.

Methods: The researchers designed an aid using queuing theory, which enabled calculation of expected wait times based on a set of inputs that represented demand for and capacity to provide services. More specifically, the aid was to be used to: 1) quantify waiting times; 2) determine the impact of budget changes on wait times; 3) predict the impact of changing the number of visits per client on waiting time; 4) produce quantitative data to support requests for additional funds from the provincial government; and 5) estimate waiting times for clients. For each type of therapy or provided care, the wait list was further controlled by age (adult vs. child) and geographical region (5 regions of Simcoe County).

Findings: The following pieces of information were required as inputs: 1) the average number of new referrals per week; 2) the average number of clients who receive service (the average number of visits budgeted per week/ the average visits per client per week); and 3) the average number of patients completing therapy per week per therapist. Historical data from the CCAC were used to account for missing data on these factors (default input). This aid was also able to accommodate the Simcoe County CCAC's system for prioritizing clients to receive service. The actual aid was designed using input and output screens on a computer, facilitating use of the aid by individuals unfamiliar with the mathematics. The default inputs could be replaced by the user in order to conduct "what if" analyses to estimate the impact of moving funding between waiting lists or obtaining new funding from the provincial government. Validation using historical data showed that the aid worked well for adult waiting lists but poorly predicted waiting times for children due to the fact that children spent significantly longer time on service than adults.

Conclusions: Aids similar to the one described here may be useful to the new Local Health Integration Networks and the realigned CCACs in Ontario. Clients can be informed of their expected waiting time for service and may be better able to decide whether to wait for public service or to purchase it privately. Furthermore, having accessible quantitative data may strengthen requests for additional funding from the provincial government and help operators understand the factors that lead to long wait times. Alternatively, the provincial government could hold CCACs accountable for achieving the waiting times predicted by such an aid.

Reference: Busby CR, Carter MW. A decision tool for negotiating home care funding levels in Ontario. *Home Health Care Services Quarterly*. 2006; 25: 91-106.

Thumbnail Summaries

From development to implementation: A performance scorecard for community health agencies

Background: In the face of increasing service demands and funding restraints, health care decision-makers require timely and accurate information about their organization's performance and comparative information about their peers. Tools currently used in the US to measure and evaluate the performance of federally funded community health centres (i.e. safety net providers for the 45 million uninsured Americans) are regarded as inadequate insofar as they do not provide timely or concise information to decision-makers. This study describes the development, implementation and evaluation of a standardized measure of the performance of federally funded community health centers in North Carolina. The objectives of the scorecard were to provide timely information about each center's performance and to allow comparison with their peers. The study also sought to assess the perceived usefulness of and interest in the continuation of the scorecard.

Methods: Of the 22 community health centers in North Carolina, 14 participated in the 6-month project of developing a performance measure scorecard. Facilities were both single-site and multi-site and were located in both rural and urban areas. A representative of each participating center identified performance areas and indicators based on their perception of how each area contributed to mission fulfillment and organizational sustainability. Final selection of performance areas and indicators was based on group consensus. Four performance areas and 19 indicators within these areas were identified for the scorecard. The four areas included access to care, utilization and productivity, human resources, and financial performance. Data sources for performance measurement within these areas came from existing performance review protocols, audit reports, internal records and a data set that collects information on consumers, diagnoses and financial indicators of the centers. Based on these data, a one-page comparative scorecard (containing the minimum, maximum, median value, and their organization's calculated value for each indicator) and detailed summary report were provided to each center. Centers were surveyed for their views on the scorecard development process as well as its overall usefulness and relevance (1 = not relevant/useful to 5 = highly relevant/useful). Most scorecard development work was achieved via conference calls and emails.

Findings: A one-page comparative scorecard and companion report were created and disseminated to all participating centers. Based on center ratings, each scorecard indicator was given an average score of over 4 (out of a possible 5) for relevance. The four performance measurement areas were rated as being highly relevant with mean scores ranging from 4.7 for both Utilization and Productivity and Human Resources, to 4.9 for both Financial Performance and Access to Care. All respondents gave a rating of 5 for the usefulness of the scorecard, and indicated it was highly useful to managers for decision-making. They also indicated their scorecards could be shared with managers, department heads, finance committees and other key stakeholders, and that these scorecards could be used for board education, service planning, modifying operations, benchmarking and quality improvement.

Conclusions: Overall, the performance scorecard provided community health centers with information in four key performance areas common to all health service providers. Despite their diversity, it enabled centers to compare their performance with their peers in terms of mission fulfillment and organizational viability. This comparative scorecard serves as a time-efficient method for evaluating organizational performance, and for providing information that is essential for decision-making, planning, and quality improvement. Because all participating centers viewed the scorecard as acceptable, relevant, timely and easy to use, this performance measurement tool may set an example for other health care administrations, such as the Local Health Integration Networks in Ontario, as they develop performance measurement systems.

Reference:

Radford A, Pink G, Ricketts T, Spade J. A Comparative Performance Scorecard for Federally Funded Community Health Centers in North Carolina. *Journal of Healthcare Management*. 2007; 52: 20 – 33.

Why is *Home and Community Care Highlights* important?

Under the supervision of Drs. Peter C. Coyte, Tita Ang-Angco, and Patricia M. Baranek, graduate researchers review academic publications (both peer-reviewed and grey literature) on an ongoing basis and summarize a range of studies that are of immediate or potential interest to industry and policy communities. This mentorship initiative of the CHSRF/CIHR Chair cultivates knowledge translation skills and promotes researchers' awareness of the perspectives of decision-makers. Subscription revenues are used to fund graduate trainees.

Review Team:

Meghan McMahon (Editor); Peter C. Coyte, Tita Ang-Angco, Patricia Baranek, Michael Hillmer, Wanrudee Isaranuwachai, Michele Kohli, Veronica Law, Meredith Lilly, Hans Oh, Greg Payne, and Jillian Watkins

Further information and subscription forms can be found at:

<http://www.hcerc.utoronto.ca/Knw/TrnsTraining.html>

Comments on this and subsequent issues are welcome. Write to:

peter.coyte@utoronto.ca

Journals Reviewed:

American Journal of Public Health	Int'l Journal of Technology Assessment
Archives of Internal Medicine	Journal of Healthcare Management
Arthritis Care and Research	Journal of Aging and Health
BMC Health Services Research	Journal of Clinical Oncology
British Medical Journal	Journal of Community Health
Canadian Journal of Cardiology	Journal of Community Health Nursing
Canadian Journal of Cardiovascular Nursing	Journal of Gerontology: Social Sciences
Canadian Journal of Policy Research	Journals of Gerontology Series B:
Canadian Medical Association Journal	Psychological Sciences and Social Sciences
Canadian Nurse Journal	Journal of Health Care Management
Canadian Public Health Journal Caregiving	Journal of Health Economics
Cochrane Database of Systematic Reviews	Journal of Health Politics, Policy and Law
Disability and Society	Journal of Health Services Research and Policy
Health Affairs	Journal of Human Resources
Health and Social Care in Community	Journal of Infection
Health and Social Work	Journal of Obstetrics and Gynecology
Health Care Financial Review	Journal of Pain and Symptom Management
Health Care Management Review	Journal of Pediatrics
Health Economics	Journal of the American Medical Association
Health Policy	Journal of the American Geriatrics Society
Health Services Management	Medical Decision Making
Health Services Research	Milbank Quarterly
Healthcare Forum	New England Journal of Medicine
Healthcare Papers	Nursing Administration Quarterly
Home Care Provider	Nursing Research
Home Health Care Services Journal	Pain
Home Healthcare Nurse	Pediatrics
Human Resource Development Quarterly	Pharmacoeconomics
Image: Journal of Nursing Scholarship	Social Science and Medicine
Industrial and Labor Relations Review	Supportive Care in Cancer
Int'l Journal for Quality in Health Care	Value in Health
Int'l Journal of Medical Informatics	

To respect copyright restrictions, the Chair does not provide copies of the articles reviewed