ABSTRACT
As the proportion of older adults increases within the Canadian population, health-care systems across the country are facing increased demands for home-based services, including home care nursing, rehabilitation, case management, adult day programs, respite, meal programs and home support. Home support is one of the core care services required in the community to enable older adults to remain at home as long as possible.

In 2006, Vancouver Community introduced a new home support delivery and performance management model: the Accountability, Responsiveness and Quality for Clients Model of Home Support (ARQ Model) (VCH 2006). The main components of the ARQ Model are an expanded use of “cluster care” along with stable monthly funding for high-density buildings and neighbourhoods; the introduction of specific monthly and quarterly quality performance reporting; and the implementation of performance-based funding for home support.

This article discusses the setup of the ARQ model, its ongoing evaluation and results achieved thus far.
As the proportion of older adults increases within the Canadian population, healthcare systems across the country are facing increased demands for home-based services, including home care nursing, rehabilitation, case management, adult day programs, respite, meal programs and home support. People are living longer, many with multiple chronic diseases, and requiring higher levels of care and support in order to live independently in their homes (Cohen et al. 2006).

Home support is one of the core care services required in the community to enable older adults to remain at home as long as possible. This typically involves a community health worker (CHW) attending a client’s home to provide a range of health services, such as help with bathing, dressing, mobility and medications.

The city of Vancouver has a population of 646,495, with adults over 75 years comprising 5.8% of the total population (Service BC 2009). Vancouver Community, within Vancouver Coastal Health (VCH), has approximately 4,500 people who receive ongoing home support monthly totaling 1.24 million hours of service per year, with over 50% of these people being above 75 years of age. In addition, others receive short-term post-hospital care, palliative care or convalescent home support services. There are five home support providers contracted to deliver home support to clients of adult and older adult community health and mental health services within the city. The providers are designated primary areas aligned with the six community health areas within Vancouver.

Historically, home support has been provided to individuals on an hourly basis, with time allotted within those hours for travel between clients. We wanted to use existing funding and resources more efficiently, while striving to be more effective in supporting clients at home. To realize these goals, we saw the following as necessary changes to home support:

- A greater focus on quality performance measures, including client feedback
- Financial incentives for providers for higher-quality care, innovation and care complexity
- Improved partnerships with providers in achieving common outcomes
- Increased safety, job satisfaction and recognition of the role of CHWs in home care to promote recruitment, retention and well-being
- Improved cost-effectiveness and sustainability of home support

After a considerable literature review, consultation and planning, in 2006, Vancouver Community introduced a new home support delivery and performance management model: the Accountability, Responsiveness and Quality for Clients Model of Home Support (ARQ Model) (VCH 2006). The main components of the ARQ Model are an expanded use of “cluster care” along with stable monthly funding (block funding) for high-density buildings and neighbourhoods; the introduction of specific monthly and quarterly quality performance reporting; and the implementation of performance-based funding for home support.

Cluster Care for High-Density Housing and Neighbourhoods

The VCH Cluster Care Model is a modified approach to providing home support within buildings or neighbourhoods with a high density of clients (VCH 2009). The goal of cluster care is to meet fluctuating client needs with a consistent team of CHWs who are able to respond quickly and organize their
work around these changing needs. The key elements of cluster care are as follows:

• Switching from hourly time allotments per client to a shared model where a client’s care is dictated by needs and provided by a consistent team of CHWs
• Moving from cumbersome and delayed service authorization to a more responsive system with a shared responsibility between the provider and VCH clinicians
• Shifting funding for providers from fluctuating hourly invoicing to stable monthly funding amounts known as “block funding” for each cluster
• Shifting scheduling of CHWs from client-by-client hourly based assignments to a consistent time within a building or neighbourhood, promoting the stability of staffing and working hours for the CHW teams
• Promoting education and skill development for CHWs and improving the communication between all members of the care team

Quality Performance Management
In order to create more shared accountability for the home support provided in Vancouver, clear indicators and expectations for reporting were outlined in the quality performance agreement built into the five-year contracts in 2006. Indicators and targets established for reporting and measurement were derived, where available and possible, from research, anecdotal practice and consultation with the providers. These indicators were designed to align with Canadian Council of Health Services Association (CCHSA) Achieving Improved Measurement (AIM) dimensions of quality. The relevant AIM dimensions and descriptors of quality that informed the development of our performance measures were responsiveness (availability, accessibility and continuity), system competency (competence and effectiveness), client and community focus (communication, participation and partnership), work life (well-being), innovation and learning (learning environment and training) and resource management and quantity (efficiency). Some of the key indicators developed for our performance management system were the following:

• The percentage of palliative care client visits matched with appropriately trained CHWs (as per specific performance, competency and training expectations developed with providers)
• The percentage of cognitively impaired client visits matched with appropriately trained CHWs (as per specific performance, competency and training expectations developed with providers)
• The percentage of delegable personal assistance guideline (delegated functions) referrals accepted
• The percentage of field staff and inside staff illness and field staff injury (per productive hours)
• The percentage of community health area clients in clusters
• The percentage of clients with continuity with CHWs (indicator defined by the ratio of CHWs to client visits over a 90-day time period or in a cluster by the ratio of consistent CHW team size to client numbers)
• The rating on the client satisfaction survey (the continuous client survey system is a series of 12 Likert scale questions with comment sections; the questions are based on the CCHSA goals and descriptors)
• The rating on the clinician satisfaction survey (the clinician survey is also a Likert-based scale survey and is administered electronically to all VCH clinicians who use home support)
For all the home support performance measures, explicit measurement definition documents were developed to guide the providers and VCH to accurately measure and report all indicator data consistently across providers and time.

**Performance Funding Model**

Performance funding was another key component of the ARQ Model. Traditionally, home support in British Columbia was authorized, delivered and invoiced based on hours provided per client, with no connection between performance and billing rates. With the implementation of select funded performance indicators, our aim was to have a clearer linkage between the payment for home support and performance outcomes.

With performance funding, there is a base hourly rate with additional dollar amounts assigned to indicators for meeting and exceeding performance targets. Performance data from key indicators are used on a quarterly basis to adjust billing rates for the providers. From the very beginning, it was an expectation that all providers would achieve, at minimum, the rate for meeting indicator targets. Therefore, additional amounts for exceeding performance targets are the true incentive funding.

**ARQ Model Evaluation**

After more than a year and a half of using the ARQ Model, a comprehensive evaluation of the model was undertaken. The evaluation data were gathered and reviewed from November 2007 to February 2008 and aimed at identifying whether the implementation of the ARQ Model had achieved the following objectives: responsiveness in meeting the needs of clients and their caregivers, higher quality and efficiency of home support and improved accountability reporting of home support within the system.

In order to evaluate the ARQ Model in a comprehensive manner, a number of both quantitative and qualitative measures and methodologies were employed. Quantitative home support use and client profile data were drawn from VCH and Provider electronic information systems. Both quantitative and qualitative data were gathered from the following sources:

- Client and clinician satisfaction survey data that are an ongoing part of the ARQ Model
- Performance-based funding indicators that are part of the ARQ Model
- CHW focus group evaluation data
- Provider supervisor, scheduler and administrator evaluation survey data

All data for the evaluation were analyzed according to the original logic model developed in accordance with the CCHSA goals and descriptors.

**Evaluation Highlights**

The implementation of the ARQ Model in Vancouver was, overall, very successful (Table 1). The evaluation of the model provided evidence that home support had become more accountable, responsive and quality focused to meet the complex needs of the client population.
Table 1. Highlights of the ARQ Model evaluation

<table>
<thead>
<tr>
<th>Dimension of Quality</th>
<th>Descriptor</th>
<th>Goal</th>
<th>Indicator</th>
<th>Result Highlights</th>
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<tbody>
<tr>
<td>Responsiveness</td>
<td>Availability and accessibility</td>
<td>Service requests and service changes are fulfilled to meet the needs of clients</td>
<td>Percentage of home support referrals accepted by provider</td>
<td>Target was 95%; rating low of 99.1 and high of 99.35%</td>
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<tr>
<td></td>
<td>Continuity</td>
<td>Staffing and scheduling practices support consistency and continuity of care for clients</td>
<td>Percentage of clients with continuity in CHW</td>
<td>Initial target was 80%; average rating low of 86% to average high of 92.5%</td>
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<td>Average no. of CHWs per area pre-clustering was 21; post-cluster average was 6 CHWs per cluster</td>
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<td>System competency</td>
<td>Competence and effectiveness</td>
<td>Providers have an appropriate composite of staff to meet client service needs; clients with specialized needs are assigned to CHWs with appropriate training</td>
<td>Percentage of palliative client visits matched with appropriately trained CHW</td>
<td>Target was 90%; average rating low of 51% and high of 96%</td>
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<td>Percentage of cognitively impaired client visits matched with appropriately trained CHW</td>
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<td>CHW training and transfer of function (delegated tasks) requirements are met in a timely and responsive manner</td>
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<td>Client and community focus</td>
<td>Communication and participation and partnership</td>
<td>Client and clinician feedback are obtained to improve quality of care for service delivery</td>
<td>Rating on client satisfaction survey</td>
<td>Initial target 82%; average overall rating low of 90% to high of 93.5%</td>
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<td>Rating on clinician satisfaction survey</td>
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<td>Work life</td>
<td>Well-being</td>
<td>Providers provide a safe, healthy and supportive working environment for staff</td>
<td>Percentage of field staff and inside staff illness and field staff injury (per productive hours)</td>
<td>All providers showed an improvement in illness and injury rates – all were below the 3.5% target</td>
</tr>
<tr>
<td>Resource management and quantity</td>
<td>Efficiency</td>
<td>Resources are used to achieve optimal results and minimize waste, creating efficient use of available hours and staff time</td>
<td>Percentage of primary CHA clients in cluster care models</td>
<td>Percentage of primary CHA cluster clients target for 2006–2007 was 15%; rating low of 8.7% to high of 32.5%</td>
</tr>
</tbody>
</table>

CHA = community health area; CHW = community health worker.
Performance Indicators

The performance indicator development involved consultation with providers to define indicators, reporting templates and targets. The initial performance indicator benchmarks were established based on existing research relating to home support and home care, where available, and have since been adjusted. Anecdotal practice, knowledge and consultation with providers were extensively used where no research information was available. Clearly, data submitted by the providers have shown a steady rise in meeting and exceeding indicator targets.

Quality Improvement Surveys

A key component of the performance management model was the introduction of client and clinician satisfaction surveys, which offer regular ongoing measurement of the level of satisfaction with the home support provided in Vancouver. Significant work went into the ethics review, creation of the client survey, sampling methodology and development of a survey process that reached as wide a client population base as possible.

The client survey is administered via telephone, mail or in-person depending on the communication needs, health condition and location of the client. Additionally, language interpretation of the client survey is available for the telephone and mailed surveys. The client survey in all its forms has proven to be a very effective quality measure, with an overall average client satisfaction rating of 93.5% based on 15% of our client population (sample size of 27% of the client population with a 56% rate of return).

Clinician survey questions were also based on the CCHSA dimensions of quality and were similar to questions on the client survey. The administration of the clinician survey was one of the most controversial and challenging pieces of the ARQ Model to manage and reach agreement on. Some providers expressed concern with the validity of some survey questions as well as the volume of feedback for representation. Despite concerns, there was an overall clinician satisfaction rating of 87% based on a 33% rate of return, which is statistically representative since our sample is the total clinician population.

Performance Funding Process

Anecdotally and through the provider staff survey, providers have expressed that the performance funding is clearly an incentive to work on increasing the quality of service. Working within the model, providers thoroughly engaged to meet and exceed the indicator targets. In January 2007, only one provider exceeded all of the performance targets. By October 2008, the indicator targets had increased, and yet all providers were generally exceeding targets for all indicators.

Cluster Care and Block Funding

Although the initial organization of clusters is labour intensive and challenging, it is clear through client and clinician survey comments, CHW focus groups and utilization data that cluster service delivery is able to respond to changing client needs more quickly and efficiently. It also generally improves the quality of work life for CHWs by reducing travel...
Accountability, Responsiveness and Quality for Clients Model of Home Support

and providing a stable team and pay, and it promotes safer care as two CHWs can be available more readily if needed.

In the first year, all providers were able to exceed the initial target for clients in cluster care by achieving an overall average of 33% of clients incorporated into a cluster, with the 06/07 and 07/08 targets having been 15% and 30% in succession. Additional efficiencies gained with cluster care have also helped to offset increasing demands for home support, with the overall growth in demand of 5–6% per year decreasing to 2–3% per year.

**Into the Future of Home Support**

It is evident that the ARQ Model and cluster development will continue to be a focus for Vancouver to better respond to client needs and complexities and to meet growing demands with limited resources. VCH is continuing to set new goals to expand clusters and set new targets. For example, the Vancouver target for clusters for 2009–2010 is to have 45% of clients in clusters across Vancouver. Successful expansion will require continued collaboration and communication between all participants. It is essential that we continue to work with clients and caregivers in these changes so that people know whom to contact and have confidence that the services will be responsive to their needs.

Future improvements will need to include client and caregiver feedback to monitor the impact of changes; ensuring the availability of a workforce through enhancing the profile and working conditions of CHWs; improved integration with the broader healthcare team; and improved electronic scheduling, billing and reporting systems to ensure an efficient management structure. We also recognize that some clusters can be enhanced to include other supported living elements such as meal programs, volunteer programs and transporta-

**Bibliography**


Vancouver Coastal Health. 2009. *Cluster Care Model (Description of Cluster Care).* Vancouver, BC: Author.