Comparing Agencies’ Reports of Consistency of Provider to be Achieved in Home Care Service Delivery Under Managed Competition: A Case Report from Ontario

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Acknowledgments

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Abstract

This study examined the components of the benchmarks used to monitor consistency of provider by home care agencies that competed for nursing and homemaking contracts in the Hamilton-Wentworth Community Care Access Centre. Comparisons of the impact of varying components of the benchmarks on provider consistency demonstrated that current benchmarks reveal very little about the extent to which consistency of provider will be achieved. Uniform standards must be adopted to allow for comparisons across the agencies.
Introduction

Health care reform in all provinces across Canada has recognized the importance of home care. It is considered a necessary part of an appropriate and integrated health care system.\textsuperscript{1,2} Reform in the hospital sector has lead to earlier discharge of patients. More procedures are being done as day surgery as the hospital sector strives for greater efficiency. As well, the population is aging and there is a limited supply of long-term care beds.\textsuperscript{3} Given these circumstances, all provinces are struggling to find new ways to reallocate funds within home care programs to reduce costs without sacrificing the quality of care, while increasing the number of persons served.

Across Canada, home care models vary in the ways in which these goals are met.\textsuperscript{1} Ontario is the only province which has introduced managed competition for home care service run by local Community Care Access Centres (CCACs), which were created in 1996. CCACs replaced the services formerly provided by 38 home care programs and 36 placement coordination services. They differ from previous home care programs in that they have little or no direct responsibility for the actual delivery of services.\textsuperscript{4} Instead, after assessing a client’s need for services, the CCAC contracts with agencies who provide the services which are delivered. CCACs issue requests for proposals (RFPs) for home care services and purchase services from for-profit and not-for-profit agencies who have competed for contracts. This RFP process has created an internal market, such that competition among home care agencies is encouraged. Contracts are to be awarded to agencies providing services for the “highest quality, best price”, allowing for cost-efficiency while maintaining or improving quality of care. By
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1998, 43 CCACs across Ontario were established, each governed locally by their own volunteer board of directors, providing a single access point to community-based in-home services in Ontario.

Williams et al. identified two main concerns with the establishment of CCACs and the RFP process in Ontario. First, there is the possibility that due to increasing demands for services and insufficient funds, CCACs may be at risk of seeking contracts with the lowest cost, regardless of quality. Second, CCACs purchase contracts from a wide range of for-profit and not-for-profit agencies employing many types of home care professionals, serving clients with diverse needs. Defining service quality is difficult when the diversity of client needs must be taken into account. Studies in the literature that have examined the components of “quality” for home care services have not arrived at a standard definition, nor is there agreement upon the components of quality or the factors affecting it. Without establishing the construct validity of “quality” in home care, measuring and monitoring quality is problematic.

Another concern with the RFP process is that it has contributed to discontinuity in service provider, which may threaten the quality of care provided to clients. Many clients have experienced numerous provider and/or agency changes during transition periods when agencies compete for contracts. Continuity, particularly staff continuity, is an important quality attribute perceived by clients of home care services. Staff continuity is a necessary precondition for the home care worker and the client to build a relationship of trust and is important to allow people whose health is compromised to feel secure in their home. It also reduces the time spent on negotiations and discussions about what should be done.
CCACs have acknowledged discontinuity of service provider as a major concern. A requirement of the RFP process of the Hamilton-Wentworth CCAC (HWCCAC) is that each home care agency applying for a service contract is to describe how consistency of provider will be benchmarked. A benchmark acts as a standard against which services and practices can be compared. The requirement in the RFP states that each agency must indicate “the level of consistency of service provider and continuity of service according to client situations, and the process for providing continuity / consistency in staffing to meet the needs of clients served and how it will be / is measured, monitored, and reported. Include action taken when benchmarks are not met”. This requirement is quite broad, leaving room for interpretation by each individual agency competing for contracts.

Donabedian divided quality into three components: structure, process and outcome. Although agency request for proposal responses do not provide information on quality outcomes, they do provide information on the structure and process of home care delivery. The level of consistency of service provider (i.e. the benchmark) can be conceptualized as a structure indicator of quality. Agency descriptions of the methods used to achieve continuity of service provider can be seen as a process indicator of quality.

The purpose of this paper is to describe the components of the benchmarks used by the home care agencies that competed for contracts in one of the largest Ontario CCACs, the Hamilton-Wentworth CCAC (HWCCAC), for nursing and homemaking services. Comparisons will be made of the impact of varying components of the benchmark on consistency of service provider. We will examine the extent to which the
information contained in agency benchmarks allow CCACs to assess how well each agency will provide consistency of personnel. Recommendations for an appropriate benchmark, or perhaps multiple benchmarks to meet clients’ varying needs, will be discussed.

**Methods and Data Sources**

A number of sources were used to obtain data for our analysis. Directors of the five nursing and seven homemaking agencies who had competed for contracts in Hamilton-Wentworth were mailed a brief definition survey. Questions pertained to agencies’ working definitions of two key concepts: “team” and “continuity of care”. They were also asked to describe how they defined “primary nurse”, if their agency used that term. Agency directors were encouraged to append internal documents pertaining to how these concepts are defined by the agency, if possible. We contacted the directors by telephone in order to obtain the benchmarks these agencies currently use to monitor consistency of service provider.

Agencies also consented to the HWCCAC’s release of a section of their response to the last request for proposal (RFP), which allowed us to access the text of their answer to the question in the RFP about how they would ensure continuity of provider. Information contained in their answer, the definition surveys and the telephone follow-ups were analyzed. We searched for commonalities and differences in the information that described the benchmarks used among the agencies in order to develop a set of criteria, which could be used to examine provision for consistency of provider. Home care agencies and HWCCAC managers confirmed that the information
obtained from the agency responses pertaining to consistency of provider were not further addressed in other sections of their proposals, which had not been released for this study.

To further explore the impact of the different components of the benchmarks used to assess consistency of provider, we varied each component and examined its effect on the number of different providers that could care for a client in a given time period.
Results

What are the components of the current benchmarks for nursing and homemaking agencies?

The factors considered in developing benchmarks for consistency of provider by the nursing and homemaking agencies that submitted bids are presented in Table 1. First, the commonalities among these benchmarks should be noted. Each benchmark describes the type of service provided and that a team will be used. However, the way in which teams are defined and their size varies from agency to agency. Nursing agencies report teams as large as twelve nurses to as small as three nurses per team. The proportion of care provided by teams varied from 80% to 100% of total client care. Some agencies described having a primary nurse or homemaker but very few mentioned the proportion of services provided by the primary provider. Most agencies did not alter their benchmarks to reflect differences in clients’ service frequency needs (high frequency versus low frequency). The use of a back-up team rather than any available worker to provide replacement staffing for the primary team is another component found in some benchmarks. Most agencies did not provide a time interval over which their benchmark was to be measured or the expected compliance with the benchmark. It is unclear how often agencies were able to fully comply with their respective benchmarks. No information was provided on how and how often achievement of benchmarks was assessed and reviewed. How difficulties in meeting benchmarks were to be handled by the agency was also not clear in the descriptions.

How does the number of possible service providers change by varying specific factors that are components of the benchmark?
The number of nurses or homemakers providing care for an individual client depends on (1) the type and (2) frequency of service required, (3) the time interval over which the benchmark is measured, (4) the size of the team, (5) whether there is a primary provider, (6) the proportion of care provided by that primary provider or team, (7) the existence and (8) size of a back-up team, (7) the time period over which the benchmark is to be measured, and (9) the expected compliance rate to the benchmark. Table 2 shows the values used when we varied each factor in two or three ways. The values selected to vary a factor were the ones most frequently used in the descriptions we examined. The range of values in each factor was modeled to determine the maximum number of possible service providers who could care for a client under these varied conditions.

We first compared a client requiring daily visits (high frequency client) to a client requiring only weekly visits (low frequency client). The formula presented (see notes) was used to calculate the maximum number of providers that could enter a client’s home according to an 80% benchmark with a team size of 3. Using nursing services as an illustration, an 80% benchmark means, “no more than 3 nurses would care for a client 80% of the time”. This benchmark was measured over a 90-day period and compliance was set at 100%. Table 3 illustrates the maximum number of providers a client could encounter under this benchmark. We calculated the number of possible providers that may be required when there is a back-up team present and when no back-up team exists. (A back-up team ensures that when the primary team is unavailable, a consistent group of providers will care for the client). Both a back-up team of 3 providers and 5 providers were used in the model. As can be seen, the
existence of a back-up team has no effect on the number of providers caring for a client requiring only weekly visits. It appears that weekly visits are too infrequent to warrant a back-up team. However, a client requiring daily visits may have up to 17 different service providers during the 90 days when no back-up team is present, even if 100% compliance with the benchmarks occurs.

Table 3 illustrates that with a 90% compliance rate, a client requiring daily visits could be seen by up to 28 different providers over a 90-day period. High frequency clients were much more affected by a reduced compliance rate. They saw far more different providers than low frequency clients. However, the existence of a small back-up team appeared to eliminate the effects of the decreased compliance rate to the benchmark for high frequency clients.

We used the same approach described above to understand the contribution of type of service (visits versus shifts) to the total number of providers a client may see. We compared clients requiring visits once a day to clients requiring shifts three times a day. The same pattern was identified (not illustrated). Again, the existence of a back-up team for clients requiring shifts greatly reduced the number of possible providers, particularly when the compliance rate to the benchmark was reduced.

The time period over which the benchmark is to be measured affected the number of providers a client may see for high frequency clients only. Table 4 demonstrates that when the benchmark was measured over 90 days, the existence of a back-up team greatly reduced the maximum number of providers. When the benchmark was measured over 30 days, the back-up team had a limited effect. We found that a back-up team had no effect on low frequency clients over a 30 or 90-day
period. The size of the primary team affected the number of providers a client may see. As the primary team increased, the maximum number of providers also increased. This was particularly problematic for low frequency clients. Low frequency clients require smaller teams to avoid a different worker caring for them each week.

Another way to reduce the number of providers is to use a primary provider. A primary provider works with a team. However, the primary provider does the majority of the visits or shifts for the client. The team then acts similarly to the back-up team we previously described. When the primary provider is unavailable, the team replaces him or her, thus providing a consistent team of providers caring for the client.

**What methods are used for communication among providers and coordination of services?**

As part of the RFP process, each agency competing for contracts is not only asked to describe the level of consistency of service provider, but also the process for providing consistency in provider. Agencies responded to this section of the RFP by describing methods of communication among personnel to enhance coordination of services. Many nursing agencies described the primary nurse as the key contact for the team and all other health care professionals. The primary nurse may be responsible for identifying treatment goals, then developing, scheduling and monitoring the care plan accordingly. The primary nurse is responsible for ensuring that the team is aware of the client’s goals and progress towards achievement of the care plan. Homemaking teams were less likely to use a primary provider.

Some nursing and homemaking agencies described communication systems, including technology to improve communication among personnel. For example,
information about a client’s special needs was entered into a database accessible to all members of the team. This system allowed nurses to be aware of current client needs and any changes in scheduling. Some agencies provided voice mail boxes for their nurses or homemakers so that client information could be forwarded to team members quickly and efficiently.

Some agencies tried to enhance continuity of provider through geographically-defined teams. These teams worked in a smaller geographic area to allow members to be more accessible to one another and to promote better communication between team members. Geographic teams may make coverage easier, as a nurse or homemaker can be replaced by the team member in the same location much more quickly if she/he is already present in the vicinity.

**Was client need specific training provided?**

Some agencies described client-specific training, which they saw as important to ensure service consistency. For instance, when an alternate nurse provides care for a client (e.g. receiving home dialysis, IV, special medication administration), the provider may require specific training to ensure that the client receives consistent care. If the care is complex, the alternate worker must have the necessary skills and experience to adequately provide service to the client and be able to adhere to the care plan. Limited information is available as to whether or how often agencies provide such training, as this is not included in the benchmarks.
Discussion

The implications of these findings are several. Our analysis indicates a need for multiple benchmarks to meet clients' varying needs. High frequency clients requiring daily visits or more may experience a succession of providers in their homes when the compliance to a benchmark decreases or when the time period over which the benchmark is measured increases. Clients requiring one visit per week are least affected by these factors.

A primary provider (who does the majority of visits) or a specific back-up team provides greater consistency than teams that do not have a primary provider or specific back-up team. Smaller team sizes promote continuity of personnel for all client types. However, low frequency clients (requiring only weekly visits) are particularly vulnerable to discontinuity in personnel with large team sizes; it puts them at risk of seeing a different provider each week. These factors should be taken into consideration when developing benchmarks for different client groups.

Accountability is currently lacking in this managed competition model. Most agencies do not indicate how well they are able to comply with their own benchmarks. Those agencies that do measure compliance represent it in terms of total number of visits, which may hide the variability among clients groups with different needs. Only client-based measures will reveal that an agency is not complying with its benchmark for a specific client group. Also, each agency should be able to describe the process used to measure compliance and how often compliance with the benchmark is generated and used. What happens when compliance is falling below the indicated standards should be indicated.
Methods to increase communication among personnel and coordination of service are important as they affect the ability of nurses and homemakers to understand client needs, to see changes in the client’s condition, and to monitor the extent of goal achievement. Some agencies described geographic teams, communication systems and staff training as methods to enhance communication and service coordination. The influence of these factors on continuity of provider and service has not been formally studied. However, they have face validity as tools to enhance communication among providers and coordination of care. Agencies must describe the methods used to enhance communication among personnel and service coordination in their responses to the RFP so that the effectiveness and frequency of communication and coordination methods can be compared across agencies.

Although all of the benchmarks studied were from agencies in one regional municipality of Ontario, most, if not all, of the agencies participating were also involved in delivering home nursing care in other communities in Ontario and even nationally. Thus, proposed changes in the RFP by the local CCACs in how reporting of consistency of personnel will be achieved and monitored for proposals submitted may potentially have impact in a wider sphere.

CCACs may wish to adopt uniform guidelines on requests for proposals, which include the following information:

1. The type of service provided (broken down by client type)
2. The existence of a team, or primary provider and size of team
3. The proportion of care provided by the team / primary provider
4. Any arrangements for back-up services / back-up team size
5. Any differences in team size by frequency of service delivery / type of client
6. The time span over which the benchmark is to be measured
7. The expected compliance with the benchmark
8. The methods used to enhance communication and service coordination
9. The methods used to monitor benchmarks
10. What actions are taken if benchmarks fall below expected levels

Current descriptions of benchmarks provided to CCACs by nursing and homemaking agencies tell us very little about the extent to which consistency of personnel will be achieved in home care. Although the number of service providers can vary depending on a number of factors, agencies' benchmarks are often silent about one or more important factors. They do not allow comparisons across agencies. Even when benchmarks use many factors, little or no information is available about the methods used to monitor benchmarks and the actions to be taken when benchmarks fall below planned levels. Contracting for home care services is a fairly new process. Thus, it is not surprising that there is little uniformity in the information provided by nursing agencies about how consistency of personnel will be measured. Without a move to greater uniformity, CCACs reviewing proposals for service delivery will have difficulty comparing the extent of consistency of providers across agencies.

Quality in community-based long-term care is difficult to define and measure. The majority of the literature on outcomes is focused on institutional settings where outcomes are easily defined as treating a clinical condition. Such indicators are often not as useful in community-based long-term care. Further research is required to link the structure and process of care delivered to outcomes for home care clients. Establishing uniform standards for the information contained in agencies' descriptions of how consistency of provider is achieved is a first step in monitoring the structure and process of care delivered.
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References


Notes

Formula to Calculate Maximum Number of Providers

\[ f = \text{frequency of visit} \]
\[ T = \text{time period} \]
\[ B = \text{proportion of care delivered by primary team} \]
\[ B' = \text{proportion of care delivered by backup team} \]
\[ C = \text{compliance of primary team (or primary provider)} \]
\[ C' = \text{compliance of back-up team} \]

\[ N_t = \text{team size} \quad (N_t \leq fTBC) \]
\[ N_{bt} = \text{back-up team size} \quad (N_{bt} \leq fT(1-BC) \times B'C') \]

To obtain maximum number of providers, assume for visits not covered by either team, each visit has a different provider.

\[ N_t + N_{bt} + fT(1-BC)(1-B'C') \leq N_{\text{total}} \leq fT(1-BC) + N_t \]
Table 1: Factors Considered in Developing Benchmarks to Monitor Consistency of Service Provider for Nursing and Homemaking Agencies

<table>
<thead>
<tr>
<th>Factors</th>
<th>Nursing Agency</th>
<th>Homemaking Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of service provided</td>
<td>x x x x x x x</td>
<td>x x x x x x x</td>
</tr>
<tr>
<td>Team mentioned</td>
<td>x x x x x x x</td>
<td>x x x x x x x</td>
</tr>
<tr>
<td>Size of team given</td>
<td>x x x x x x x</td>
<td>x x x x x x x</td>
</tr>
<tr>
<td>Proportion of care delivered by team</td>
<td>x x x x x x x</td>
<td>x x x x x x x</td>
</tr>
<tr>
<td>Primary provider used?</td>
<td>x x x x x x x</td>
<td></td>
</tr>
<tr>
<td>Proportion of service delivered by primary provider</td>
<td>x x x x x x x</td>
<td>x x x x x x x</td>
</tr>
<tr>
<td>Arrangement for back-up services</td>
<td></td>
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<tr>
<td>Time span over which benchmark is to be measured</td>
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<td>x x x x x x x</td>
</tr>
<tr>
<td>Any differences in team size by frequency of service delivery?</td>
<td></td>
<td>x x x x x x x</td>
</tr>
<tr>
<td>Expected compliance with benchmark</td>
<td>x x x x x x x</td>
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Table 2: Factors varied to understand their contribution to consistency of service provider personnel

<table>
<thead>
<tr>
<th>Factor</th>
<th>Type of Variation</th>
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<tbody>
<tr>
<td>Type of service</td>
<td>Visits</td>
</tr>
<tr>
<td>Frequency of client visit</td>
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<tr>
<td>Time interval over which benchmark measured</td>
<td>90 days</td>
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<tr>
<td>Size of team</td>
<td>5</td>
</tr>
<tr>
<td>Primary provider used</td>
<td>Yes</td>
</tr>
<tr>
<td>Proportion of service provided by primary provider</td>
<td>80%</td>
</tr>
<tr>
<td>Existence of back-up team</td>
<td>Yes</td>
</tr>
<tr>
<td>Size of back-up team</td>
<td>5</td>
</tr>
<tr>
<td>Expected compliance with benchmark</td>
<td>90%</td>
</tr>
</tbody>
</table>
Table 3: The effects of frequency of client visit and existence of back-up team on maximum number of possible providers. Some illustrations:

80% benchmark, team size of 3, measured over 90 days, 100% compliance

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<th></th>
<th>Weekly Visits</th>
<th>Daily Visits</th>
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<tbody>
<tr>
<td></td>
<td>Unlimited</td>
<td>Back-up = 3</td>
</tr>
<tr>
<td>Team</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>6</td>
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</table>

80% benchmark, team size of 3, measured over 90 days, 90% compliance

<table>
<thead>
<tr>
<th></th>
<th>Weekly Visits</th>
<th>Daily Visits</th>
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<tbody>
<tr>
<td></td>
<td>Unlimited</td>
<td>Back-up = 3</td>
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<tr>
<td>Team</td>
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<td>3</td>
</tr>
<tr>
<td>Others</td>
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<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>6</td>
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Table 4: Effect of a back-up team and time period over which compliance is measured on maximum number of providers.

An illustration using an 80% benchmark, team size of 3, daily visits, 100% compliance

<table>
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<tr>
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<th>90 days</th>
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<td>Unlimited</td>
<td>Back-up = 3</td>
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<tr>
<td>Team</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Others</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>