

Canadian Experts' Views on the Importance of Attributes within Professional and Community-oriented Primary Healthcare Models

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Abstract

Purpose: The aim of this study was to rate the importance of different attributes in evaluations of organizational models of primary healthcare (PHC) in Canada.

Methods: Using an electronic Delphi process, a consensus consultation was conducted with 20 persons recognized by peers as Canadian PHC experts, who rated the importance of PHC attributes within professional and community-oriented models of PHC.

Results: Attributes unanimously rated as essential to all models were designated core attributes: first-contact accessibility, clinical information management, technical quality of clinical care, comprehensiveness of services, continuity–coordination, relational continuity, interpersonal communications. Overall, while all were important, attributes were rated as more important in community-oriented than in professional models. Attributes rated as essential for community-oriented models were: equity, client/community participation, population orientation, cultural sensitivity and multi-disciplinary teams, and, for professional models, efficiency/productivity.

Conclusion: Core attributes need to be evaluated in all PHC initiatives. Evaluations of specific models may reflect differential performance expectations.

Introduction

Primary healthcare (PHC) has recently received substantial attention in many industrialized countries. In Canada, national and provincial commissions have identified problems in how PHC is organized (Romanow 2002; Kirby and LeBreton 2002; Clair 2000; Government of Ontario 2000; Government of Saskatchewan 2001; Government of Alberta 2001) and have suggested reform of the PHC system as a means of solving problems affecting the healthcare system as a whole. In particular, the accessibility and comprehensiveness of PHC services should be strengthened to better fulfill their mandate and maximize their contribution to the health of Canadians.

Most Canadian provinces have undertaken PHC reforms. Although most efforts focus on encouraging physicians and other health professionals to work collaboratively, in various jurisdictions reforms have involved specific organizational innovations in PHC models. It is thus crucial to develop frameworks and tools for ongoing evaluation of reforms that take into account the heterogeneity of organizational forms present in the health system.

This is part of a series of studies aimed at providing such a framework and tools, one of which was a consultation with Canadian PHC experts to establish operational (i.e., measurable) definitions of the attributes that should be evaluated in current and proposed models in Canada (Haggerty et al. 2007). In addition, experts rated the importance of different attributes within different models of PHC. In this paper, we report the results of this process.

We use “primary healthcare” to refer minimally both to services serving as first contact with the healthcare system and to the place where a broad range of health-related needs are diagnosed and managed. We consider PHC organizational models to be those which at least provide general medical services by family physicians or generalists, who may or may not work with other health and social service professionals. Furthermore, we use the taxonomy of Lamarche and colleagues (2003) to classify PHC models as either professional or community-oriented. These two classes emerge based on an analysis of the vision, resources, governance structures and practices of PHC models worldwide, and they correspond roughly to what are often identified as “primary care” and “primary healthcare,” respectively.

Professional models are generally managed autonomously by physicians, funded as small businesses through physician compensation. They provide general medical services and their aim is to respond to medical needs of patients who present to, or have registered with, the PHC provider. This is the predominant model in Canada, but it encompasses a variety of sub-models such as single-physician practices, walk-in clinics and family medicine group practices. Recent reforms saw many innovations in this model, including Family Health Teams (Ontario), Primary Care Networks (Alberta) and the Primary Healthcare Organizations (British Columbia).

Community-oriented PHC models aim at improving the health of populations and are organized to meet health needs in the broader sense than just medical care. They are generally managed by public or community administrations and usually include a wide range of professionals who deliver a broad spectrum of health and social services. This model is less prevalent in Canada, although there is a long history with Local Community Service Centres (CLSC) in Quebec and

Community Health Centres in Ontario and British Columbia. Recent reforms saw the establishment of similar models in New Brunswick and Saskatchewan.

Methods

We used a Delphi method for our consensus-building process. In this iterative process, documents pass through a series of revisions by a small group of experts, whose feedback each time is incorporated into successive rounds until sufficient consensus is achieved. This has been described extensively elsewhere (Haggerty et al. 2007) and is summarized here.

We used a snowball technique to identify Canadian PHC experts. These were persons identified by at least two persons as having accumulated significant knowledge about PHC through clinical, managerial or academic activities. We identified 26 such experts, equally balanced among clinicians, academics and decision-makers from all regions in the country, of whom 20 were successfully contacted and 17 participated in at least two rounds. Our goal was to have 12 to 15 participants for each Delphi round; the four rounds – between June and October 2004 – averaged 13 participants each.

In addition to identifying attributes and proposing operational definitions for them, the experts were asked to rank each attribute's importance for PHC models. In the first round, they were asked to score the importance of attributes as: 1, essential to core functions of PHC; 2, important but not essential; or 3, relevant only to some forms of PHC organization. Attributes unanimously scored as 1 were designated core attributes and were no longer submitted to discussion. Throughout this paper, lower score values represent higher importance.

In subsequent rounds, we asked experts to rank the importance of remaining attributes, this time within professional models and community-oriented PHC models. They were asked to score the importance of attributes for each model type as: 1, essential to its core function; 2, important but not essential to its core function; or 3, not relevant to this model. Again, attributes unanimously scored as 1 were considered core attributes for that model.

For all attributes not scored unanimously as core attributes by the fourth round, we calculated the means and standard deviations of the scores. These were used to rank attributes within organizational models. In this way, we identified attributes that were essential (scores of 1.0–1.1), essential–important (1.2–1.3), very important (1.4–1.8), important (1.9) and somewhat important (2.0–).

Results

The Delphi process identified and defined 24 attributes of primary care (Haggerty et al. 2007). In the first round, seven attributes were scored unanimously as essential to core function and were thus identified as core attributes for all types of primary care organization. These are: accessible first-contact care; continuity (continuity–relational; continuity–coordination; clinical information management); comprehensiveness of services; technical quality of clinical care; and interpersonal communication. Table 1 presents the 24 attributes and their operational definitions; core attributes are grouped together and listed first. The remaining attributes are grouped within person-oriented, community-oriented, structural and system performance categories.

Table 1: Operational definitions of attributes of primary healthcare to be evaluated

CORE ATTRIBUTES

First-contact accessibility: The ease with which a person can obtain needed care (including advice and support) from the practitioner of choice within a time frame appropriate to the urgency of the problem.

Comprehensiveness of services: The provision, either directly or indirectly, of a full range of services to meet patients' healthcare needs. This includes health promotion, prevention, diagnosis and treatment of common conditions, referral to other providers, management of chronic conditions, rehabilitation, palliative care and, in some models, social services.

Continuity–relational: A therapeutic relationship between a patient and one or more providers that spans various healthcare events and results in accumulated knowledge of the patient and care consistent with the patient's needs.

Coordination [management] continuity: The delivery of services by different providers in a timely and complementary manner such that care is connected and coherent.

Interpersonal communication: The ability of the provider to elicit and understand patient concerns, to explain healthcare issues and engage in shared decision-making, if desired.

Technical quality of clinical care: The degree to which clinical procedures reflect current research evidence and/or meet commonly accepted standards for technical content or skill.

Clinical information management: The adequacy of methods and systems to capture, update, retrieve and monitor patient data in a timely, pertinent and confidential manner.

PERSON-ORIENTED DIMENSIONS

Advocacy: The extent to which providers represent the best interests of individual patients and patient groups in matters of health (including broad determinants) and healthcare.

Cultural sensitivity: The extent to which a provider integrates cultural considerations into communication, assessment, diagnosis and treatment planning.

Family-centred Care: The extent to which the provider considers the family (in all its expressions), understands its influence on a person's health and engages it as a partner in ongoing healthcare.

Respectfulness: The extent to which health professionals and support staff meet users' expectations about interpersonal treatment, demonstrate respect for the dignity of patients and provide adequate privacy.

Whole-person Care: The extent to which a provider elicits and considers the physical, emotional and social aspects of a patient's health and considers the community context in the patient's care.

COMMUNITY-ORIENTED DIMENSIONS

Client/community participation: The involvement of clients and community members in decisions regarding the structure of the practice and services provided (e.g. advisory committees, community governance).

Equity: The extent to which access to healthcare and good quality services are provided on the basis

of health needs, without systematic differences on the basis of individual or social characteristics.

Inter-sectoral team: The extent to which the primary care provider collaborates with practitioners from non-health sectors in providing services that influence health. (Note: this is only relevant to community models of primary care.)

Population orientation: The extent to which primary care providers assess and respond to the health needs of the population they serve. [In professional models, the population is the patient population served; in community models, it is defined by geography or social characteristics.]

STRUCTURAL DIMENSIONS

Accessibility–accommodation: The way primary healthcare resources are organized to accommodate a wide range of patients' abilities to contact healthcare providers and reach healthcare services. [The organization of characteristics such as telephone services, flexible appointment systems, hours of operation and walk-in periods.]

Informational continuity: The extent to which information about past care is used to make current care appropriate to the patient.

Multidisciplinary team: Practitioners from various health disciplines collaborate in providing ongoing healthcare.

Quality improvement process: The institutionalization of policies and procedures that provide feedback about structures and practices and that lead to improvements in clinical quality of care and provide assurance of safety.

System integration: The extent to which the healthcare unit organization has established and maintains linkages with other parts of the healthcare and social service system to facilitate transfer of care and coordinate concurrent care among different healthcare organizations.

SYSTEM PERFORMANCE

Accountability: The extent to which the responsibilities of professionals, management and governance structures are defined, their performance is monitored and appropriate information on results is made available to stakeholders.

Availability: The fit between the number and type of human and physical resources and the volume and types of care required by the catchment population served in a defined period of time.

Efficiency/productivity: Achieving the desired results with the most cost-effective use of resources. (*This definition is non-operational.)

Table 2 shows the mean importance scores and standard deviations for the non-core attributes. Two attributes (accessibility–accommodation and informational continuity) were added at the final face-to-face meeting with a subgroup of experts and consequently were not scored for importance within organizational models of PHC. The others are ranked in order of importance first in the community-oriented model, then in the professional model. Three – population orientation, client/community participation and equity – were unanimously ranked as essential in the community-oriented model. These would be considered core attributes of this model, with equity being very important also in professional models.

Table 2 Mean importance scores of non-core attributes in community-oriented and professional primary healthcare models, with attributes ranked first in order of importance within community-oriented models, then within professional models

Attribute (dimension grouping)	Community model mean score (SD), Importance label	Professional model mean score (SD), Importance label
Equity (community-oriented)	1.0 (0) Essential - Core	1.6 (0.69) Very Important
Population orientation (community-oriented)	1.0 (0) Essential - Core	1.9 (0.62) Important
Client/community participation (community-oriented)	1.0 (0) Essential - Core	2.2 (0.58) Somewhat Important
Cultural sensitivity (person-centred)	1.1 (0.27) Essential	1.4 (0.50) Very Important
Multidisciplinary team (structural)	1.1 (0.27) Essential	1.8 (0.70) Very Important
Whole-person care (person-centred)	1.2 (0.43) Essential – Important	1.5 (0.63) Very Important
Family-centred care (person-centred)	1.3 (0.47) Essential - Important	1.4 (0.51) Very Important
Respectfulness (person-centred)	1.3 (0.47) Essential – Important	1.4 (0.51) Very Important
Availability (structure)	1.3 (0.66) Essential – Important	1.7 (0.78) Very Important
Accountability	1.3 (0.78) Essential – Important	1.6 (0.65) Very Important
Efficiency/productivity	1.5 (0.52) Very Important	1.3 (0.47) Essential - Important
Quality improvement process	1.5 (0.52) Very Important	1.4 (0.51) Very Important
Advocacy (person-centred)	1.5 (0.65) Important	2.0 (0.78) Somewhat Important
System integration (system performance)	1.6 (0.50) Very Important	1.9 (0.53) Important
Inter-sectoral team (structural)	1.7 (0.61) Very Important	2.3 (0.83) Somewhat Important

Figure 1 represents schematically these mean importance scores on non-core attributes for professional and community-oriented models, showing that, overall, attributes are assigned greater importance in the community-oriented than in the professional model. Ten attributes are classified as at least essential in the community-oriented model, compared to only one in the professional model (efficiency/productivity). No attributes ranked below important in community-oriented models, while three were judged only somewhat important for professional models (advocacy, inter-sectoral team, and client/community participation). This is not to say attributes did not rank high in the professional model. Nine were considered very important; but even those were rated as more important or essential to community models' performance.

Figure 1 Synthesis of ranking (scores reversed) of non-core attributes across models

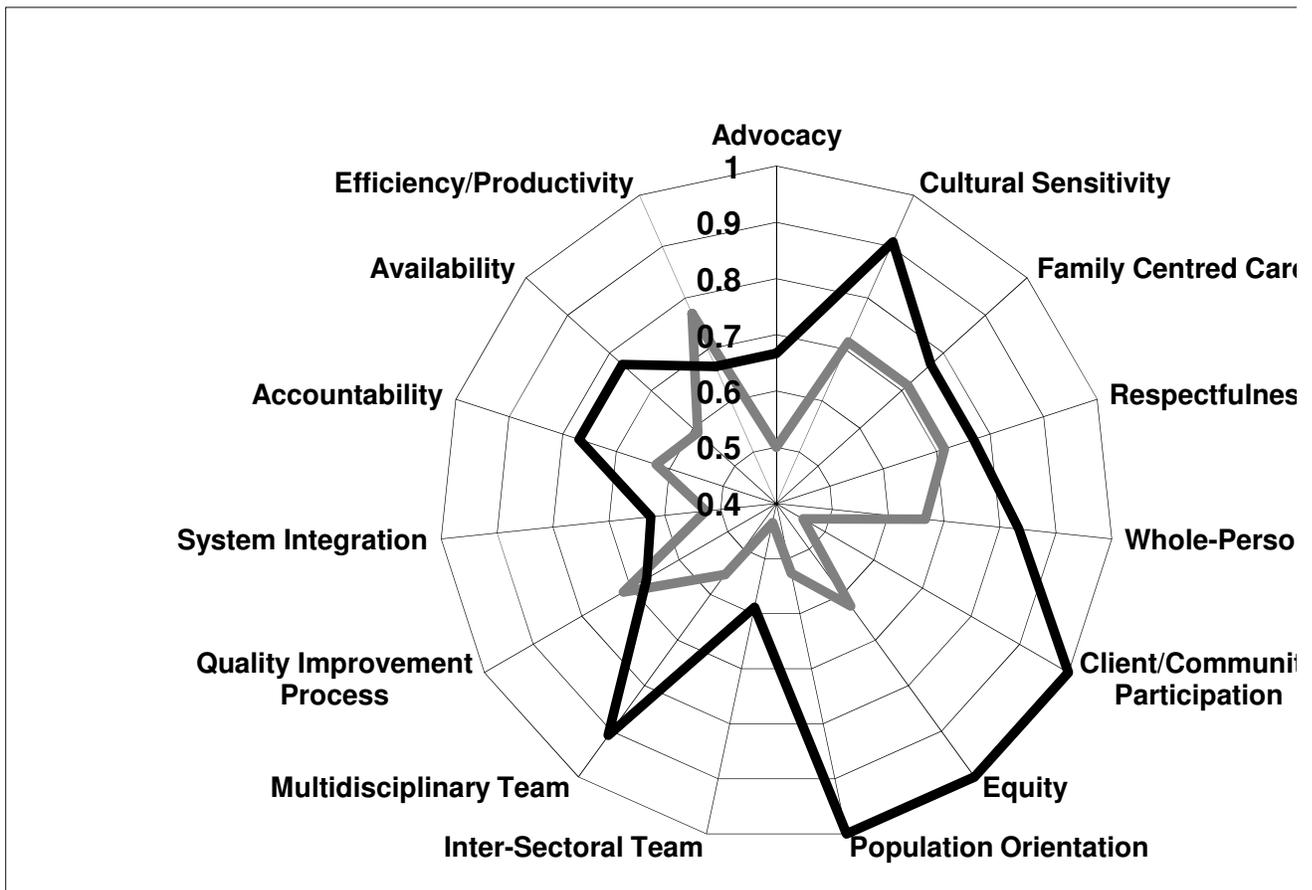


Table 3 highlights, for each of the attributes, the difference in importance between community-oriented and professional models. Attributes are ordered by the extent to which each was considered more important in the community-oriented model (determined by simple subtraction of the mean importance scores). This also allows us to infer the extent to which an attribute is relevant to both models. A larger positive difference indicates that an attribute is relevant principally in community-oriented models, while negative values identify those more relevant in professional models; a score of zero indicates equal relevance in both (e.g. core attributes). From this table, we see that some attributes (such as client/community participation, population orientation, multidisciplinary team, equity, inter-sectoral team and advocacy) are relevant and of utmost importance in community-oriented models and others (efficiency/productivity, quality

improvement process), in professional models. Other attributes (such as system integration) are equally important in both.

Table 3 Clustering of attributes according to discriminating power and relevance to both organizational models

	Ranking difference between models	Relevance to both models
Client/community participation	1.1	-
Population orientation	0.9	-
Multidisciplinary team	0.7	+
Equity	0.6	+
Inter-sectoral team	0.6	-
Advocacy	0.5	--
Availability	0.4	+
Cultural sensitivity	0.3	++
Accountability	0.3	++
Whole-person care	0.3	++
System integration	0.3	-
Efficiency/productivity	- 0.2	++
Family-centred care	0.1	++
Respectfulness	0.1	++
Quality improvement process	- 0.1	+
First-contact accessibility	0	+++
Clinical information management	0	+++
Technical quality of clinical care	0	+++
Comprehensiveness of services	0	+++
Continuity–coordination	0	+++
Continuity–relational	0	+++
Interpersonal communication	0	+++

Discussion

The experts identified seven core attributes that must be present in any model of primary care: accessible first-contact care, relational continuity, coordination–continuity, clinical information management comprehensiveness of services, technical quality of clinical care, and interpersonal communication. There was ongoing discussion as to whether informational continuity overlapped completely with clinical information management and coordination–continuity, and it was finally included as a separate attribute for evaluation purposes. From an evaluation standpoint, it is critical to ensure we have appropriate tools to assess PHC performance in these core dimensions, which should always be assessed whatever model is under study or attribute is of interest. If an intervention's focus is, say, on multidisciplinary teams or accessibility–accommodation, then, in addition to examining improvement in that attribute, the evaluation process must ensure this improvement does not occur at the expense of core attributes.

Our findings on the scoring of non-core attributes suggest more is expected of community-oriented than professional models. Community-oriented models are expected to provide both a large scope of services and care that addresses health determinants and equity. Some person-oriented attributes (such as cultural sensitivity and whole-person care) and community-oriented attributes (such as equity and population orientation) ranked as truly essential to this model.

Interestingly, efficiency was not considered an essential attribute of community-oriented models. This is interesting because “[Services] provided at a cost that communities can afford” – one of the most-repeated phrases from the Alma Ata Declaration on Primary Health Care (World Health Organization, 1978) – is the inspiration for the community-oriented model. This result may reflect the Canadian experience with community health centres, which is that, whatever they may achieve in community-oriented attributes, their productivity with respect to medical services is generally much lower than that of professional models (Pineault et al. 2009). On the other hand, a direct efficiency comparison with professional models may be inappropriate, given the community-oriented models' fundamentally different driving vision of achieving population health benefits rather than focusing on general medical services.

System performance attributes are very important in both models. Interestingly, accountability and availability of resources are seen as essential to community-oriented models, while efficiency/productivity and quality improvement process are more important in professional models.

The implication for evaluation of community-oriented PHC organizations is that a broad scope of measures is required in order the full array of functions considered essential. Evaluation of professional models can address a narrower spectrum of attributes. This would provide the basis for targeted measurement of crucial attributes more specific to each model. This further suggests that while all PHC models can, and probably should, be compared with respect to core attributes, different standards of performance might be expected from community-oriented and professional models, and evaluative efforts should compare similar models on specific attributes that are most relevant to the model family, using specifically tailored measures.

Our study results advocate for using the largest array of indicators and performance assessment tools to compare community-oriented and professional models and to assess the overall contribution of PHC organizations in health systems. Using specific measures would better target

the expected achievements of distinct organizational models (comparing clinics of one model), and precious resources would not be wasted assessing functions not considered essential for this type of organization. Measuring achieved outcomes for expected attributes – and not measuring non-expected attributes – would provide an appropriate evaluation of performance. More specific attributes should be better at discriminating among organizations within each model, while attributes with similar rankings of relevance should be better at discriminating among models.

This work also highlights attributes that can be monitored as indicators of change during the process of shifting from one PHC model to another, as is currently occurring in many jurisdictions. This suggests that the aims of PHC reforms should inform the choice of attributes to measure. Attributes not traditionally seen as relevant to an organizational model should be measured if reforms involve moving away from traditional ways of organizing PHC.

This study is based on experts' judgments on the importance of PHC attributes in the Canadian context. To what extent similar rankings would be obtained in other countries is uncertain. Yet this limitation in external validity (generalization) also, to some extent, proves to be a strength for internal validity, since desirable attributes of care should reflect social and cultural factors. Comparison with other countries' rankings could point out interesting differences as well as similarities in what should be expected from PHC models.

Clinicians (mostly physicians and nurses) participated in our study. However, the consensus-building process could have benefited from involvement of a broader array of clinicians. This is a limitation of this study. In addition, one bias for which we cannot control is the fact that the clinicians who were part of our sample tended to be involved in academic-based institutions. A further step would be to test these rankings of attributes among a wider range of clinicians practising in various PHC models.

Conclusion

Our study presents the results of a Delphi process using Canadian experts to rank the importance of different attributes of PHC for evaluation purposes. We have identified relevant attributes and their operational definitions that can guide future evaluation strategies. We offer insights on the relevance of specific attributes to the two main types of PHC organization, to guide the development of evaluation strategies aimed at both specific and core attributes. Attributes, and consequently indicators, are not equally relevant in different organizational models. Evaluation efforts should be targeted at operational attributes of PHC that are core to all models, as well as at those that are specific to some models or that are the focus of model transformations or innovations. These could provide needed insights into the effects of PHC reforms.

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