ENHANCING INTERDISCIPLINARY COLLABORATION IN PRIMARY HEALTH CARE

AMÉLIORATION DE LA COLLABORATION INTERDISCIPLINAIRE DANS LES SOINS DE SANTÉ PRIMAIRES

Individual Providers and Health Care Organizations in Canada

PRIMARY HEALTH CARE
A Framework That Fits

LES SOINS DE SANTÉ PRIMAIRES
Un cadre qui réunit tous les morceaux

Professionals: Working Together to Strengthen Primary Health Care

The Enhancing Interdisciplinary Collaboration in Primary Health Care (EICP) Initiative focuses on how to create the conditions for health care providers everywhere in Canada to work together in the most effective and efficient way so they produce the best health outcomes for their patients and clients.

Canadians know that health care providers on the front line are there to respond with care and skill to their health care needs. Primary health care providers are not only committed to caring for their patients directly, they also facilitate access for patients to other specialized services. But, more and more Canadians are expecting better co-ordination between those providers and they want to optimize their access to the skills and competencies of a range of health care professionals. As much as they want to be treated for illness, they want health promotion advice and information about preventing disease and illness, too.

The EICP Initiative, funded through Health Canada's Primary Health Care Transition Fund, is designed to follow-up on the research evidence that interdisciplinary collaboration in primary health care has significant benefits for both patients and health care professionals. The Initiative spotlights the best practices and examples that show that collaboration is "value-added" for our health care system. The Initiative's legacy will be a body of research, a consultation process that will engage health care providers and get them thinking more about working together, and a framework for collaboration that encourages change and more co-operation.

The EICP Initiative will deliver:

- A set of principles and a framework that will enhance the prospects and options for more collaborative care in settings across the country;
- Research about best practices and the state of collaborative care in Canada;
- A toolkit to help primary health care providers work together more effectively; and
- Recommendations that will help the public, provincial/territorial governments, regional health authorities, regulators, private insurers and educators embrace and implement the principles and framework. With the leadership of some of the key players in primary health care in Canada, the EICP Initiative will capture the very best of what is being achieved in interdisciplinary collaboration in this country and will help us learn from it.

EICP Partners include:

- Canadian Association of Occupational Therapists
- Canadian Association of Social Workers
- Canadian Association of Speech-Language Pathologists and Audiologists
- Canadian Medical Association
- Canadian Nurses Association
- Canadian Pharmacists Association
- Canadian Physiotherapy Association
- Canadian Psychological Association
- College of Family Physicians of Canada
- Dietitians of Canada
- Canadian Coalition on Enhancing Preventative Practices of Health Professionals

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Acknowledgements

Team for the preparation of *Individual Providers and Health Care Organizations*

Author
Carole Stonebridge

External Challenger
Dianne Parker-Taillon

Internal Challenger
Judith MacBride-King

EICP Secretariat Reviewers
Charles Barrett
Linda Hunter
Gilles Rhéaume
Glen Roberts

Production Management
Ruth Coward
Nicholas Dike
Alison Hill
Jennifer Milks
Darlene Murray
Lori Walker

Editing
Margot Andresen
Sandra Garland
Mary Jean McAleer

Project Management
Valerie Balderson

Team Lead
Glen Roberts

Foreword

Research is at the heart of the Enhancing Interdisciplinary Collaboration in Primary Health Care (EICP) Initiative. The Initiative has a mandate to take a hard look at the trend toward collaboration and teamwork in primary health care, both through a broad consultation process with key stakeholders in primary health care and through commissioned research reports that target elements critical to the implementation and sustainability of interdisciplinary collaboration in primary health care.

The EICP Initiative research plan is designed to:

- Provide an overview of interdisciplinary collaboration in primary health care in Canada, including a literature review;
- Examine the three core elements that affect interdisciplinary collaboration in primary health care nationally:
  - the policy context
  - the responsibilities, capacity and attitudes of individual providers and health service organizations
  - public health and social context;
- Build a case for interdisciplinary collaboration in primary health care;
- Assess readiness for interdisciplinary collaboration in primary health care in Canada; and
- Develop recommendations to enhance interdisciplinary collaboration in primary health care.

The First Wave of EICP Research

The first wave of EICP research comprises four distinct research reports and captures domestic and international data about the workable options associated with collaboration.

The reports are:

1. Enhancing Interdisciplinary Collaboration in Primary Health Care in Canada
2. Individual Providers and Health Care Organizations in Canada
3. Canadian Policy Context: Interdisciplinary Collaboration in Primary Health Care
4. Public Health and the Social Context for Interdisciplinary Collaboration

The research findings from these reports, along with input from the extensive EICP consultation sessions, will lead to a more complete understanding of the gap between the current state of primary health care in Canada and a possible future where interdisciplinary collaboration is encouraged and well-managed, so that it delivers benefits to patients, clients and health care providers.

These research reports are posted on the EICP website.

For more information:

EICP Initiative
EICP Secretariat: 613-526-3090 ext. 460
E-mail: info@eicp-acis.ca
Website: www.eicp-acis.ca

Executive Summary

Efforts to enhance collaboration among primary health care providers are currently underway in most regions of Canada. In the quest for improved quality and increased efficiency in Canadian health care, numerous reports and commissions have singled out primary health care teams and teamwork as an important means to achieving better health outcomes.

As one of four reports that examine different aspects of interdisciplinary collaboration, this paper examines what factors advance collaboration at the individual and organizational levels of primary health care. Collaborative arrangements or teams—both formal and informal—are a relatively recent phenomenon in Canada. Therefore, research literature in this field is somewhat limited and primarily medically based, especially when it comes to individual attitudes and perceptions. The following key findings should be interpreted with this in mind.

The attitudes and perceptions of providers who have worked in interdisciplinary teams can provide insight into the values and principles that are most relevant to collaborative behaviour. The following observations were common among experienced providers:

- Personal motivation and commitment are critical; reflecting on one's attitudes, approaches and expectations is an important component.
- Interdisciplinary collaboration requires providers to demonstrate significant altruism and goodwill.
- Trust is vital and develops mainly through conscious and directed action to learn about the colleagues with whom one is working.
- Practising in collaboration with providers in both similar and different disciplines can lead to greater work satisfaction.
- Inter-professional tension is a reality that stems, in part, from lack of understanding of the professional identity of the people with whom one works. Recognizing why these tensions exist, discussing them openly and taking educated action to resolve conflict can improve collaboration.
- Team effectiveness is enhanced when discrepancies in status and power are minimized.
- When providers feel that their contributions and views are not being heard, their attitude toward new practice mechanisms may be less positive.
- Professional autonomy is highly valued in all disciplines and must be taken into consideration when planning collaborative ventures.

The literature highlights experiences with various organizational models of teamwork and approaches to collaboration; these provide insight into operational factors that surface. For example:

- When providers share the same philosophy, it can contribute to successful collaboration.
- Case management is interpreted and practised differently in the various disciplines and this can be a source of tension. True interdisciplinary models of case management are rare. Results have been mixed in cases where the models have been tried.
- Co-location appears to offer significant benefits and is seen as an advantage by providers. Although virtual teams or networks have met with some success, the value of face-to-face contact is irreplaceable, especially in the initial stage of team development.

Most of the experience recorded on interdisciplinary collaboration refers to the team approach. Structured team activities and education have successfully enhanced

collaboration among a wide variety of providers. When professional diversity is present, factors such as team membership and participation become particularly important.

When carefully planned and executed, meetings are a successful way for providers to communicate and share information, although geography and compensation for time spent present challenges for some.

- Electronic health records are a critical piece of the collaborative agenda, but the cost of instituting an electronic system and issues related to patient confidentiality are concerns. Electronic decision-support tools have been used successfully in conjunction with face-to-face discussions.
- For organizations, it is critical to accountability that mechanisms be in place to measure collaboration. Some tools have been used to measure team functioning and more broad-based measurements have been proposed.

Several strategies have been proposed to address the challenges of collaborative working arrangements.

- Exposure to systematic methods of education and teaching of interdisciplinary collaboration is required at the pre- and post-licensure level. Joint curricula and clinical placements in team settings must be standardized. Post-licensure opportunities for interdisciplinary training need to be further developed.
- Targeted training in communication styles and techniques, as well as conflict resolution, can improve practitioners' collaborative skills.
- Training in group work, team processes and leadership theory has been used successfully to address the development needs of teams and should be developed further.
- Grassroots involvement in the planning of collaborative ventures has resulted in successful outcomes.

Successful collaborative teams typically begin with a small group of positive, motivated providers. Recognition and sharing of their success stories can help build momentum for more widespread collaborative partnerships.

Introduction

Since the launch of the Health Transition Fund in 1997, every province and territory in Canada has analyzed its primary health care system. Although there are regional variations in how primary health care reform has manifested, there has been a consistent drive toward a more collaborative focus among care providers and the organizations in which they work. In practice, collaboration can be formal or informal, taking forms from co-location to virtual networks, with varying degrees of intensity. The implications of an acceleration of this kind of practice are significant for individual primary health care providers, regardless of their professional designation. As systems move toward team-based practice, the accompanying need for changes in management and process structures within organizations is considerable. The overarching concept of interdisciplinary collaboration in primary health care is explored in a parallel EICP report, *Enhancing Interdisciplinary Collaboration in Primary Health Care in Canada*.[1]

Individual Providers and Health Care Organizations in Canada complements the research undertaken for the EICP Initiative by providing a more targeted focus at the provider level. This report looks at individuals who have experience with collaborative arrangements, as well as those who anticipate movement toward this type of arrangement in their work environment. Specifically this report explores:

- *Health provider attitudes and perceptions of interdisciplinary collaboration and strategies that affect these attitudes:* A variety of documents that provide insight into the attitudes of people who work in teams is reviewed. Specifically, the report discusses literature about pilot projects and experimental research, highlighting strategies that are used to shape attitudes when a group of health care providers is brought together as a team. The results of the September 2004 EICP provider consultation sessions are used to illustrate prevailing viewpoints at the grassroots level across Canada.
- *Health providers' opinions of their quality of life and work satisfaction:* The literature provides some insight into differences in quality of life and work satisfaction among primary health care providers as they have shifted toward models of interdisciplinary collaboration. The challenge of recruitment and retention of primary health care professionals, particularly in rural settings, is well documented. The interplay between interdisciplinary collaboration, work satisfaction and recruitment and retention will be illustrated by examples gleaned from the consultations and existing literature.
- *Interdisciplinary continuing education:* This topic was the subject of a major review in 2003 by a team of Canadian health researchers with extensive experience in the field of interdisciplinary education and collaboration. Key findings from the final report of this work, *Interdisciplinary Education for Collaborative Patient-Centred Practice: Research and Findings Report*[2] will be discussed and additional Canadian initiatives are featured. Providers who took part in the consultation sessions raised the issue of the role that education and training play in collaboration, and the resulting themes are described.
- *Organizational factors that affect interdisciplinary collaboration:* Because organizational factors are at the heart of each provider's day-to-day reality, this section is a particular focus of this report. Formal and informal collaborative arrangements are discussed with reference to literature from regional, national and international experiences. Management

processes, as they pertain to both direct client care and organizational performance and operations, are also examined. This includes an overview of the use of technology and electronic health records (EHRs) and their impact. The information presented is based on key operational issues raised in the EICP consultation sessions and semi-structured interviews with administrative personnel working in primary health care sites.

Research Strategy

The literature review process is detailed in the appendix.

There is an important limitation to this report, particularly with respect to the section on provider attitudes and perceptions. The material presented should be construed as a selection of *some* provider and association views, based on the review process described. Formal and informal collaborative arrangements in primary health care are not widely established in Canada, and comprehensive research is scant. The national and international literature is based primarily on team-oriented collaboration among two or three primary care providers, with a predominantly medical focus. Although the vision for interdisciplinary collaboration may be more comprehensive than this, insights can be gained from these experiences, particularly when combined with providers' input from the EICP consultation sessions.

Attitudes and Perceptions of Interdisciplinary Collaboration

In recent years, the call for primary health care providers to embrace interdisciplinary collaboration in their practice has become increasingly pressing. However, a consistent message in the consultation sessions was that the time for further discussion is long past; the time has come for action and moving forward to *turn the concept into a reality*. Much of the literature in this field has focused on the general benefits of interdisciplinary collaboration in a broad, theoretical sense. A select body of research moves beyond this to explore collaboration at the level of the individual; it reveals what providers actually think of working collaboratively—in other words, *their attitudes and perceptions.* A review of the literature on interdisciplinary teams in the primary health care sector, which was prepared for Saskatchewan Health, found that team attitudes and behaviours support co-operation and interpersonal communication and reduce barriers to improved quality of service.[3] Providers' beliefs, values, judgments and sense of commitment shape their attitudes. Indications are that, collectively, they stem from a combination of personal characteristics and professional identity developed through training, socialization and experience.[4] Some attitudes have shifted, both in Canada and internationally, as a result of direct experience with collaborative arrangements that have developed through reform of the primary health care system.

Personal Characteristics

Collaboration is a way of both thinking and behaving. How these two elements manifest is intimately tied to the values, perceptions and motivations developed through the maturing process, as well as to outside influences. Pilot projects in interdisciplinary collaboration show that, to be successful, team members must *want* to collaborate.[5] For example, the willingness of all team members to participate was key to the successful adoption of new roles and processes in a Calgary primary health care project.[6] Additional studies highlight the significance of personal factors in collaborative endeavours. A number of strategies successfully shape these factors.

- A study by Molyneux in the United Kingdom examined the functioning of an

inter-professional rehabilitation team composed of occupational therapists, physiotherapists, social workers and speech-language pathologists.[7] The research determined that the team's success might have been related to the fact that its members had chosen to be part of the group. This resulted in a high level of motivation and commitment. Team members said that flexibility, openness and a willingness to share contributed to the team's success. Compared with their experiences in other teams, members perceived a higher level of equality among members and felt that no one member sought to dominate activities. Molyneux suggests that, to facilitate collaborative participation, providers need to consciously reflect on how their personal attitudes, approaches and expectations affect work processes and the power balance within the team. She also concluded that management must empower staff to find innovative ways of working together.

- Research into collaborative relations in Quebec looked at organizations that provide perinatal services. D'Amour et al. found that none of the regions studied was able to completely reconcile the allegiances of stakeholders.[8] The authors suggest that the missing link is the need for providers to acquire the knowledge of each other, both personally and professionally, which leads to mutual trust.
- Coeling and Cukrs' literature review on collaboration among nurses identifies several key elements: recognition of alternative perspectives (valuing insights from different disciplines); the nature of the relations between providers (caring about, trusting and respecting others); and the concept of power (the need for all participants to assume their own power and contribute it to shared goals).[9] Regarding the effect of communication style, nurses were more likely to experience a sense of collaboration and satisfaction when communication was attentive and contentious issues were avoided. Similarly, not having a dominating communication style contributed to their positive perception of the level of collaboration within the team. The authors suggest that systematically teaching and encouraging the use of appropriate communication styles improves collaborative skills among health care providers.[10]
- A study by Dieleman et al. of six primary health care teams composed of pharmacists, physicians and nurses determined that providers believe that a team approach is very useful when the required care is complex.[11] They identified personal qualities that facilitate participation in the team: open communication, respect for other team members and an openness to learning.
- A survey of critical care physicians and nurses examined their perceptions of teamwork and collaboration in their units.[12] Nurses reported high levels of collaboration with their peers but much lower levels with physicians. Nurses had difficulty speaking up and voicing concerns because they believed that their input would not be well received. Physicians, on the other hand, reported high levels of collaboration with both groups. These differences could be related to gender, status, authority or training. The study concluded that, at a minimum, these professions have distinct views of teamwork and that this, in itself, has an impact on team performance.

In the EICP provider consultation sessions, the predominant attitude toward interdisciplinary collaboration was overwhelmingly favourable. Providers from all professions extolled the virtues of collaboration. For example, one participant suggested that it "enriches and profoundly informs my practice," while another said that it is "the only avenue for holistic care." Most felt they were among "the converted" in terms of their belief in collaboration. Many said

that it is important to keep the focus foremost on the individual client and his or her needs. The need for trust among team members was mentioned at every session. When participants were probed further, there was cautious optimism, in part, because:

- There is a belief that talent and skills are underused among primary health care providers. Many alluded to "turf" protection as an underlying cause, as well as lack of understanding of the potential contribution and roles of individual disciplines. Many providers said that, simply by participating in the session, they had learned a good deal about what other professions do.
- Some providers, who have taken on new roles in a collaborative arrangement, were struggling to feel valued in some practice settings, while others found the fact that all disciplines were not necessarily located under the same roof was an impediment.
- Fear of change is a limiting force in many team situations. Fears are often related to loss of autonomy and independence—qualities that are valued by many providers, particularly those in private practice. Providers are tired of enduring constant change (within the health system) and expressed skepticism about yet another exercise in reform.

Professional Identity

In a paper discussing professional cultures as barriers to inter-professional teamwork, Hall suggests that each health profession has developed its own identity, attitudes, values and role in patient care, and that these qualities are passed along within the profession through education, experience and socialization. This process of "professionalization" results in differing interpretations of client needs and care, but it also has an impact on perceptions that relate to collaboration.[13] Additional research highlights the effect of professional identity on attitudes toward collaboration:

- King and Ross's research on interdisciplinary work of health and social service providers in the United Kingdom found that teamwork is slow and complex.[14] Tensions persisted between the co-operative values needed for collaboration and the competitive values encouraged through professionalization. Conflicts over power and status developed and, as boundaries shifted, providers were left with a sense of ambiguity as to what was expected of them. The study results led researchers to conclude that rigid traditional identities can result from excessive ambiguity—to the detriment of collaborative initiatives. One of the strategies proposed to combat this phenomenon was to define new and changed roles well in advance of implementation: both the content and the proposed interactions with patients. Also, as conflict often stems from perceived inequities, they stressed the importance of building equity into team projects.
- Thomas et al. found that there are distinct differences in the cultures of physicians and nurses—differences that shape their attitudes toward teamwork.[15] They found that physicians were more satisfied with their collaboration with nurses; nurses reported difficulty speaking up, unsatisfactory resolution of difficulties and inadequate input into decision-making. The authors suggested that nurses and physicians could benefit from training in conflict resolution and assertiveness training.
- In a review of the literature, Scottish researchers found that the attitudes of team members and, in particular, ones that reinforce traditional professional hierarchies and stereotypes, inhibit multi-disciplinary teamwork.[16]
- Molyneux's work suggests that the lack of a medical professional on a team may allow team members to be more creative.[17] Collectively, the team she studied felt free to set the focus and direction of activities.

- Gair and Hartery examined the discharge decision-making process in a geriatric assessment unit in a Scottish city, with a specific focus on medical dominance.[18] The team of professionals included physicians, nurses, social workers, occupational therapists, physiotherapists and speech-language pathologists. When medical dominance was reduced, all team members were more committed to being involved in the decision-making process. Teams have been found to be most effective when they are free of major discrepancies in status and power.[19] The authors recommended that government policy commit to meeting the developmental needs of clinical teams and, in particular, to provide them with training in group work and theories of leadership.
- Research by Wells et al. on collaboration among a variety of professionals in a hospital setting in the United States found that the perceived level of physician involvement had an effect on interdisciplinary collaboration.[20] Numerous strategies were used to enhance collaboration, with varying results. However, type of strategy did not affect collaboration when physician involvement was not perceived to be high. Based on these findings, the researchers concluded that "perceived physician involvement is essential to collaboration in the acute care setting."[21]
- In a study by Howard et al. of the collaboration between an expanded-role pharmacist (ERP) and family physicians, perceptions of appropriate roles for ERPs differed.[22] Physicians appreciated the exchange they had with these providers about individual care and medication adherence, but they did not want ERPs to counsel their patients directly. Both groups of providers identified the need to refine their roles and relations when working together.
- Abramson and Mizrahi's exploration of physicians' and social workers' best and worst experiences collaborating on cases highlighted the need to understand the distinct socialization process that occurs with each profession.[23] The researchers suggest that social workers should attempt to understand the professional outlook and perspectives of physicians when seeking to build relations with them. A significant subset of the physician population studied was found to be open to greater reciprocity in their collaboration with social workers.
- Sicotte et al. analyzed the prevalence of a sense of professional autonomy as a restriction to collaborative behaviour.[24] They refer to observations by Abbott that revealed how professions grow to create protective monopolies for their field of expertise. They concluded that their research into Quebec's community health centres confirmed the presence of this dynamic. The researchers found that there was a tension between competitive and collaborative logics among the providers—conflicting sets of values and beliefs that both enhanced and limited collaboration. Although team members shared a positive view of interdisciplinary collaboration, they tended to revert to their traditional professional identity when feeling threatened about jurisdiction. The end result was that the health centres achieved only modest results in interdisciplinary collaboration. The researchers stressed that professional training programs need to emphasize collaborative relations among professions.
- Occupational therapists have experienced a growing disparity between the demands of professional practice and their work environment.[25] Increasingly, they find that the nature of their relationship with other professions can be hierarchical and limiting, with role confusion and competing priorities affecting their relations. Von Zweck discusses the concept of "magnet hospitals"

in the United States and suggests that the strategy used in these settings is to foster a work environment that emphasizes both autonomy and interdisciplinary teamwork. She suggests that, among other things, workplaces should focus on enhancing teamwork built on mutual trust, respect and recognition. Strong and visionary leadership is seen as crucial.

The theme of professional identity figured in most of the EICP consultation sessions.

- Some participants commented that differing approaches among professional groups are a challenge to providers working together effectively. For example, physiotherapists and dietitians felt restricted by the gatekeeping role of physicians. Many found change difficult in a milieu pervaded by the entrenched perceptions and values associated with the traditional medical model of care. Hierarchy within teams and turf protection were identified in sessions across the country. Many participants expressed the belief that teams should not be hierarchical; rather, they should be inclusive of all professional groups.
- Some participants thought that traditional approaches were outdated. A comment was made on the distinct professional jargon of each discipline and the need for plain language discussions that centre on the patient, not the profession.

The Evolution of Attitudes

In recent years, primary health care reform has been on political and health care sector agendas across Canada and internationally. There has been a proliferation of pilot projects, task force groups and policy initiatives. Collectively, these have shaped the attitudes and perceptions of grassroots providers. In many cases, the experiences they describe provide lessons that can be applied to new collaboration.

- In the United Kingdom, King and Ross found that national forces within primary care reform were at play and influenced the perspective of the social service providers they studied.[26] Specifically, the social service providers' willingness to embrace collaborative values was tempered by a feeling that health service providers were in a more dominant financial and political position. In essence, they felt undervalued.
- Reform initiatives have also focused on the difficulties experienced in rural settings, as well as on the role of technology in health care teams. Cornish et al. studied the role of tele-health in providing interdisciplinary mental health training and support to health professionals in rural Canada.[27] Representatives from a broad range of disciplines participated in this project, including physicians, nurses, nurse-practitioners, physiotherapists, police, psychologists, school guidance counsellors, social workers, teachers and community youth leaders. After the training and support program, participants felt that collaboration had improved and they were more aware of cross-disciplinary roles. However, the group also felt that a more community-driven focus, using local leadership to support initiatives, was needed.
- Shortt et al.'s report on the decline of family medicine as a career in Ontario suggests that physicians in that province have become sensitive to the competitive forces brought to bear by other professionals whose scope-of-practice overlaps with some areas of family medicine.[28] Feelings of exhaustion and burnout, and a perception of declining respect from the public and from some specialist colleagues have added to the decline of family medicine as a career. The authors suggest that there is a need to create a working environment where providers, such as nurse-practitioners, complement the role of the family physician, rather than having to act as substitutes for them.

- A 2002 *Medical Post* article delves into the turmoil that emerged during primary care reform and discussions about collaborative practice in Prince Edward Island.[29] Fear and concern was the predominant feeling reported at the annual meeting of the Medical Society of Prince Edward Island. Concerns centred on fear of a loss of autonomy (clinical and personal) as a result of reform and team development initiatives. In particular, there was a fear that change would be instituted without adequate input from those who were directly affected.
- Another *Medical Post* article (2003) had a similar tone, but this report was about the Society of General Practitioners of British Columbia.[30] In essence, the article suggests that when local physicians are not involved in the planning and decision-making process, the end result is anxiety. The Society's members were not against working in teams, but their concerns with implementation were not being heard ("We want to be part of the solution—we don't want it foisted on us").
- In a report on the lessons learned in 27 primary health care projects in Alberta, some of the key barriers to the multi-disciplinary approach included a prevailing focus on professional autonomy and lack of trust among professions.[31]

Providers who participated in the EICP consultations said they have experienced significant change and upheaval over the years as health care reform unfolded. The physicians who participated often felt stressed and unsupported, while other professionals felt underutilized. In one session, the formal relations between providers of differing professional backgrounds were discussed in terms of some of the models of delivery that have emerged. The notion of "different, but equal" was raised when some participants expressed displeasure at the suggestion of being an "employee" of another provider. Some participants said that there is no infrastructure to support and implement collaborative teamwork and that, until now, reform has been based only on small pilot projects where time and budgets are limited. Most participants agreed that, based on their experience with teamwork, collaboration is a very time-consuming venture. They qualified this view by saying that when it is done well, collaboration is highly rewarding and reduces a sense of isolation.

Grady's research[32] into the development of interdisciplinary teams at a hospital in Texas summarized many of the *personal* and *professional* considerations discussed in this report. Managers were asked to establish interdisciplinary teams. They noted three important principles:

1. Change is a slow, time-consuming process; changing attitudes and behaviours is especially difficult.
2. The loudest reaction will likely arise from the people with the most power in the current system.
3. Typically, group attitudes toward change follow a normal distribution curve, in which most will be uncertain and minorities will be positioned in the tail ends of the curve.

Managers selected members from the leading "tail" within each provider group; these people were in favour of the change and acted as champions of the process. Typically, these were interdisciplinary providers who "embodied collaborative practice philosophies and an open mind to new practice strategies."[33] Simply recognizing and acknowledging that these personal and professional dynamics existed helped managers proceed in the manner most conducive to reaching their goals.

Quality of Life and Work Satisfaction

Interdisciplinary collaboration can have a significant impact on the quality of life and work satisfaction of primary health care providers. In Canada, where formal collaborative working arrangements are limited, the literature is primarily devoted to anecdotal descriptions. Where there is more studied research, it often takes the form of surveys of physician–nurse-practitioner arrangements. Some provinces have surveyed providers who are part of primary care pilot projects.

- Research by Lowe and O'Hara[34] indicates a positive correlation between job satisfaction and good team functioning. This study focused on multi-disciplinary teams intended to integrate the care of young, disabled adults and elderly persons as they moved from institutional to community care settings. The team was composed of occupational therapists and physiotherapists, a speech-language pathologist and a nurse. Each team developed its own method for achieving goals (action plans) and was commited to seeing them through. A follow-up survey of team members found that their level of satisfaction was related to elements such as better communication, effective goal-setting procedures and less repetition in their practice.
- Dieleman et al.'s work[35] supports these results. It demonstrates that the level of satisfaction experienced by providers increases in a team environment.
- In British Columbia, a survey measured the impact of the Primary Care Demonstration Project on the quality of the work–life balance at eight pilot sites.[36] At each of these sites a group of physicians worked (as a team) with primary care nurses, medical office assistants and non-physician, regulated health professionals. The survey examined five dimensions: abilities and initiative, patient care, roles and responsibilities, working as part of a team and participation in the demonstration project. The preliminary results were positive for all types of providers, while results for "job demands and stress" were somewhat negative. Further plans for longitudinal surveying of primary care network staff satisfaction over a two- to five-year period are outlined on the Vancouver Coastal Health Authority website.[37]
- In a report by Borrill et al.[38] on the effectiveness of health care teams in the United Kingdom, providers who worked in teams were found to have much better mental health than those who worked in looser groups or individually. The benefits were related to role clarity and better peer support. Those working in well-functioning teams were more likely to remain in their health care setting than people working in poorly functioning teams.
- Bodenheimer[39] examined the trend toward greater emphasis on primary care and the resulting physician satisfaction. He found a significant decrease in satisfaction levels; only 36 per cent of primary care physicians were very satisfied with their work in 1996, compared with 48 per cent in 1991. Medical students were found to be less interested in primary care because of the perceived stress, long hours and low pay.[40] Bodenheimer suggests that when primary care physicians look at the list of "innovations" (for example, teamwork and technology), they feel overwhelmed because of the time commitment required.
- A *Medical Post* article from 2003[41] described the results of a survey that was mailed to 558 family physicians across Canada. Half of those surveyed supported the concept of family doctors joining networks or groups and working with other providers. In addition, doctors who described themselves as "dissatisfied" with their current practice were far less likely to

be supportive of networks, suggesting that "the cynical don't believe that joining a network will improve their practice conditions."[42] Only 34 per cent of those in solo practice were satisfied with their situation, versus 56 per cent of those in group practices.

- Williams et al.[43] found that solo physicians were the least satisfied with key aspects of their practice (compared with their counterparts in walk-in clinics). Solo physicians worked longer hours, had less access to peer support, carried heavier economic and administrative burdens and had to stretch farther to provide continuity of care.
- Laurant et al.[44] examined general practitioners' perceptions of the impact that adding nurse-practitioners to the work site had on their stress level and workload. Although the physicians were reportedly enthusiastic about this addition to the team, it did not have an influence on their subjective assessment of "job satisfaction" and "work stress." Part of the explanation seemed to be their reluctance to stop providing the type of care that was being delegated to nurses.
- Williams et al.[45] studied primary care physicians' job satisfaction. Feeling under time pressure seemed to translate into greater dissatisfaction and anticipation of stress.
- A survey of registered psychologists in Canada found that among those in *public* practice, collegiality (contact with colleagues and an interdisciplinary environment) was rated as the most satisfying aspect of their work life.[46] Dealing with bureaucracy, including interdisciplinary conflict, was rated as one of the most dissatisfying aspects of their work. For those in *private* practice, autonomy was rated as the most satisfying aspect, while one of the more dissatisfying aspects was the sense of isolation and the accompanying lack of an interdisciplinary milieu.

EICP consultation sessions substantiated the mixed findings from the literature. Many providers described their job satisfaction level as "good," but when it came to quality-of-life issues, they were frustrated with long waiting lists, heavy workloads and "not being able to deliver the quality of care that one wants to." The demands that "24/7" access creates should not be underestimated in terms of their impact on the quality of life of primary health care providers. Some felt that private practice allows better control of workload and higher job satisfaction, but agreed that it also creates a sense of isolation. In most sessions, people expressed the belief that working in a network or team leads to higher satisfaction, but others thought that collaboration adds an extra layer of accountability, which increases time pressures.

Interdisciplinary Continuing Education

The pervasiveness of professionalization and increased specialization has limited opportunities for collaborative interaction among disciplines.[47] Education has been identified as a critical tool to enhance interdisciplinary collaboration. As research suggests, providers not only need to learn about the roles and culture of their colleagues in other professions, but they also want to learn how to collaborate in their organizations and practice settings. Based on previous research, Freeth and Reeves[48] outlined a range of competencies that providers need to work effectively with others. They must be able to:

- Describe their own role and responsibilities to others;
- Recognize and respect the roles, responsibilities and capabilities of other professions;
- Cope with uncertainty and ambiguity;

- Facilitate interdisciplinary case conferences and meetings;
- Handle conflict with other professions; and
- Work with other professions to assess, plan and provide care.

The authors suggest that, in most cases, providers benefit from planned educational experiences where they can learn about the skills described. At the pre-graduate level, the traditional fragmented structure of separate faculties for each health discipline presents a particular challenge. Whether through curriculum content and/or shared experiential course work, collaborative learning aims to develop attitudes, skills and competencies that will serve as a foundation for future collaborative practice.[49] However, training together at the pre-licensure level may not be enough. Team-training and team-building opportunities in practice settings are needed to reinforce education and overcome the inertia that develops with independent delivery of services.[50]

At the post-graduate level, when providers are in the field, the focus is on skills that can be adopted individually in the practice setting. At this level, the lack of opportunity for collaborative training is coupled with a predominant focus on discipline-specific clinical continuing education.

The February 2004 *Interdisciplinary Education for Collaborative Patient-Centred Practice: Research and Findings Report*[51] explored trends and evidence related to interdisciplinary education and the implications for greater collaboration among providers in Canada. As is the case with many areas of research into primary health care, the report found that there are limited data, particularly with respect to pre-licensure training initiatives. The report found that post-licensure collaborative practice initiatives improve quality of care and patient outcomes in *specific populations*, while the evidence for improved outcomes at the pre-licensure level is lacking.[52] Most available evidence stems from hospital-based research, where the challenges and opportunities are quite distinct from those in the primary health care setting. The report emphasizes the strong link between interdisciplinary education and collaboration in the work setting and advocates the conscious promotion of collaboration in educational and practice settings.

The research outlines the following specific strategies:

- King and Ross[53] propose that when new team-based services are being implemented, at least some training should be cross-disciplinary. This could take the form of a team-training seminar or workshop. Interdisciplinary learning should make the link to the day-to-day reality of joint working arrangements, rather than remain at an abstract level; this could be done through working visits and shadowing opportunities.
- Crow and Smith[54] examine the benefits of co-teaching interdisciplinary collaboration, based on their experiences with a multi-disciplinary group of undergraduates. The researchers, who are from separate health and social service disciplines, found that this method of instruction created an active learning environment that facilitated teaching of this subject matter. Interestingly, one of the EICP consultation participants highlighted this as a method of instruction that is not being used enough in Canada.
- The Interprofessional Rural Program of BC[55] was designed to model inter-professional learning among health professionals to enhance health care services in rural communities. Under this program, students in rural communities are organized into teams of four or more members from a range of disciplines. Students are able to share and engage in team activities beyond the scope of their discipline-specific training.

A consistent theme of the EICP consultation sessions was that all providers should be educated about the scope of practice, skills and competenices of their counterparts if collaboration is to be successful. Participants noted that, particularly in rural areas, this is already happening at the pre-licensure level in some institutions through common course work and clinical placements. One recent graduate suggested that training prepares individuals for collaboration, but the theory is not always borne out in practice. Many providers were grateful for even limited sharing of information about roles and skills at the EICP session. Most thought that many more educational opportunities were needed at both pre- and post-licensure levels to enhance interdisciplinary collaboration.

Organizational Issues That Affect Interdisciplinary Collaboration

Interdisciplinary collaboration as a mode of practice and service delivery is "made operational" through many different models and arrangements in the primary health care field, some of which have been highlighted in Nolte's report.[56] Many models, both in Canada and internationally, are based on long-standing experience with collaborative service delivery. Others, such as recent physician, nurse and pharmacist models or interdisciplinary models for chronic care management, are more recent arrangements in the primary health care landscape, and related operational issues and experiences are still evolving and, therefore, have yet to be recorded.

Watson et al.[57] developed a results-based logic model for primary health care and describe an array of inputs that will be needed to provide structure for primary health care services. Using this model,[58] operational issues would include material resources, health care management and clinical level activities and decisions. A review of research literature and the dominant operational issues identified through the EICP consultation process clearly reveals significant factors that arise when moving beyond the theoretical into the actual implementation of collaborative delivery systems. These factors include the processes that affect direct care of the individual and family, as well as the structural and functional elements that have an impact on how providers work together to provide this care.

Care of the Individual and the Family

Research confirms that people want client-centred care to be the *norm* of care delivery and that this type of care can have a positive impact on outcomes and the use of health care.[59] Many professions receive training in this approach and it becomes part of the professionals' identity. For example, at one of the EICP provider consultation sessions, one participant said that, according to her professional vision, a client-centred approach would first see goals set with an individual and, depending on what those needs and goals were, service would be provided through the appropriate team member. From this perspective, the practice of interdisciplinary collaboration is a natural fit. In fact, participants at the EICP public consultations reiterated that they want holistic team care that is based on their own needs or their family's needs. Patient-centred care demands that the provider have a particular approach, as "to be patient-centred, the practitioner must be able to empower the patient, share the power in the relationship, and this means renouncing control."[60] To practise *collaboratively* with other disciplines in the delivery of patient-centred care requires a further release of control as complementary providers step forward to offer their skills and expertise. Belle Brown suggests that a patient-centred approach provides the team with a common method and language with which to interact, both among the team members and with the client.[61]

Ideally, management processes that focus on collaborative interdisciplinary care for individuals and their families are designed to provide the right service by the right provider. This requires an expanded view of primary health care teams and consideration of new and evolving roles for providers. The power of this expanded view is clear from the literature.

The Right Provider

- The experience of 27 pilot projects in Alberta linked successful collaboration with selecting providers who had the right mix of skills and attitudes to meet the needs of the client population.[62] Primary health care teams that include *many* different provider groups have been shown to provide higher quality and more innovative care.[63]
- As collaborative initiatives evolve, new or expanded roles may develop. The Assertive Community Treatment team of occupational therapists, nurses, recreational therapists, social workers, psychometrists, psychiatrists and a peer support specialist provides service to a targeted group of individuals in Northern Ontario.[64] The role of the peer support specialist in this team is that of an advocate, sharing the client's perspective with team members.

How service-related processes develop in collaborative arrangements is unique to each setting, organization and delivery model.

The Right Service

- Molyneux asserts that "no team gets a how-to manual when starting out," but a process of constant reflection fosters creativity and, ultimately, enhanced effectiveness.[65]
- Teams that have a vested authority to self-manage their work processes and practices in a primary health care setting were able to "step outside their traditional professional boundaries."[66] Group processes can be strengthened through collaborative activities, such as joint education and training and discussions on how to resolve conflicts that arise.[67]
- Research into primary health care sites in the United Kingdom revealed that teamwork is dynamic—not static. It needs to be flexible and focus on the needs of the individual and his or her family.[68]

In summary, client-centred teams that reflect on the service they provide, engage in self-management and operate in a flexible, dynamic manner can be creative *and* effective in their delivery of service.

Further to this notion of the *right* service, a recurrent message heard in the EICP consultation sessions was that collaborative arrangements must have a system of prioritization and co-ordination of service delivery. This was sometimes referred to as a *triage system* or a *case management system*, and related discussions touched on referral systems and gate-keeping. There was no consensus as to what this should be like, although it was felt that it should be adapted to the model or organizational structure.

- The Saskatchewan report on teams found that suitable triage of visits can improve an organization's productivity.[69]
- In a primary health care pilot site in the Northwest Territories, an administrative decision was made to centralize the booking and triage of all appointments. This significantly increased the amount of time available for direct care by the most appropriate provider.[70] In this setting, where there are shortages of key professionals, this approach is particularly beneficial, as it helps to ensure that all providers' services are used appropriately.
- Case management can be defined in a number of discipline-specific ways, but Huber has identified several core functions specific to the role: assessment, planning, linking, monitoring, advocacy and

outreach.[71] The various interpretations and perspectives that develop from discipline-specific definitions and models of case management can create confusion and misunderstandings in interdisciplinary work.[72] Huber suggests that a nursing model tends to focus on the management of health and illness, disease or rehabilitation, while social casework emphasizes new resources, links, co-ordination and advocacy.

- Interdisciplinary models of case management are rare, or at least not widely published.[73] Inter-professional tensions can stem from attitudes and perspectives, and this is certainly a factor in how case management is viewed and approached.
- In a study by Bridges et al., the newly created role of an inter-professional case co-ordinator at a hospital in the United Kingdom was explored to find out what the impact was on the team's inter-professional work.[74] The co-ordinators were people with an administrative background, whose role was to operate at the crossroads of health and social care—prompting early identification of barriers to patients' well-being.[75] Findings suggest that while there were some benefits, tensions developed between the care co-ordinators and their professional colleagues. These responses related to the three main characteristics of the role: flexibility, autonomy and informality. Specifically, flexibility was associated with some uncertainty about the scope and boundaries of the role, while autonomy enabled responsiveness but created tension related to quality issues. The research indicates that when collaborative arrangements create new or revised roles for case management, these should be introduced carefully and with facilitation.
- A case management role is critical for some populations. The Geriatric Outreach Program in Vancouver comprises a pharmacist, dietitian, nurse, physiotherapist, recreational therapist, social worker, geriatrician and occupational therapist; collectively, they provide short-term intensive service for frail elderly people with complex conditions.[76] In this model, one of the therapists acts as the case manager. In this population, some clients are overwhelmed at the idea of interacting with many team members. The case manager's role has been found to be critical in this setting. For providers, this means that they occasionally need to engage in tasks outside their specialty areas.[77]

Activities such as triage and case management are important in any collaborative model or arrangement among providers. This was a clear message during the consultation sessions. Many providers also seemed to be aware of the challenges that have been identified in the literature. Frustration with the traditional referral system that has typified sole practice were echoed in the EICP public sessions. Participants indicated that they would prefer a single co-ordinated point-of-entry for service delivery, possibly in one location, where services are provided by a full complement of providers who work collaboratively.

Romanow and Marchildon suggest that, in future, primary health care teams will need to "Go beyond the current referral system that is at the heart of the curative medical model, toward a proactive preventative approach integrating public health services and health promotion through education." [78] To achieve this ideal level of integration, the inter-relatedness of primary, secondary and tertiary care must be recognized as part of the collaborative landscape. Hospital bed shortages are tied to shortages in community-based services and placements in long-term care, which, in turn, creates a more acute population at the primary health care level. This precludes the advancement of collaboration, as providers lack both the time to interact with others and the time to provide more targeted, preventative services. In addition, there are

missed opportunities if collaboration does not cross sectors of service delivery. Team-based collaboration has a long-standing history in hospital settings, and the lessons learned there can be readily transferred to the primary health care system.

Enhanced collaboration throughout social, educational and health sectors has the potential to improve the joint strategic planning of cross-sectoral service delivery from a population health perspective. In Mitchell and Shortell's work on U.S.-based community health partnerships (CHPs), these arrangements are defined as "Voluntary collaborations of diverse community organizations, which have joined forces in order to pursue a shared interest in improving community health."[79] The researchers indicate that these arrangements have developed out of recognition of the interplay between social determinants of health and the health and medical fields. Their work reveals that CHPs frequently fail to achieve measurable results.[80] Related issues include a lack of alignment of member interests, lack of domain consensus, difficulty managing conflict and turf, and a lack of evidence in terms of targeted health outcomes.[81] According to the research, one way to minimize division is to identify mutually valued goals that are directly tied to partners' individual objectives. The report also found that the use of a facilitator to moderate discussion helped to resolve conflicts. Interestingly, the researchers propose that conflict can, in fact, benefit CHP arrangements by "sharpening discussion on issues, leading to creative approaches, and enhancing leadership."[82]

Structural and Functional Issues

Boon et al. highlight the need for responsive management structures and processes in health system design and operation, in light of the trend toward less hierarchical structures and increased emphasis on processes that enhance communication and co-ordination.[83] The literature examines the experience of various formal and informal collaborative arrangements, as well as the influence of structural and process factors. The following represent some of the more dominant factors identified in the reviewed literature and the EICP consultation sessions.

Structure: Co-location and Virtual Arrangements

Co-location Arrangements: The range of avenues through which primary health care is delivered has influenced how collaboration between providers has evolved. The introduction of business principles in the health services sector, seen in particular with managed care organizations in the United States, fostered the adoption of more formalized, horizontally managed team structures as a strategy to co-ordinate quality services in a more efficient manner.[84] Nationally, community health centre settings have provided most of the history and experience providers have had with co-located delivery of services. Many of the pilot projects that have been developed at the regional level have been based on a formal arrangement in which providers were co-located to improve communication, co-ordination and collaboration. This need for closer physical proximity of providers was echoed in the EICP consultation sessions.

King and Ross found that, at an organizational level, co-location of primary health care providers is an effective model for encouraging positive contact.[85] They found that it also led to more effective joint action and, ultimately, a

more co-ordinated approach to care. Cook et al. conducted evaluation studies of collaborative arrangements between health and social care providers in a community mental health team.[86] They found that shared geographic location created ease and timeliness of both inter-professional and inter-agency communication and was a catalyst for joint decision-making. Co-location facilitated frequent encounters among team members and also provided a milieu for sharing information and perspectives informally.[87]

The particular challenges of developing a collaborative arrangement among geographically disparate school health, mental health and educational professionals is discussed by Flaherty et al.[88] Similar challenges were identified by Brown et al.; a community mental health team of nurses, occupational therapists, mental health support workers, clinical psychologists and psychiatrists was questioned about its work and the organizational context.[89] Team members were working with separate geographic boundaries and different client populations, and the new team structure operated in parallel with these previous working arrangements and organizational affiliations. Collectively, these factors created a sense of fragmentation and uncertainty about working relations and allegiances.

Virtual Arrangements: Co-location of providers or agencies is not always possible or desirable. Providers at the EICP consultations highlighted some of the challenges associated with co-location, particularly in rural and isolated communities. Virtual teams were suggested as a very relevant alternative.

A report on teams in primary health care prepared for the Saskatchewan government indicates that although co-location of services can facilitate collaboration, modern electronic communication technology can bridge the gap by creating virtual interdisciplinary teams.[90] Conner and Finnemore refer to a definition of virtual teams developed by Lepnack and Stamps: "Unlike conventional teams, a virtual team works across space, time and organizational boundaries with links strengthened by webs of communications technologies."[91] The costliness of same-time, same-place communication, the need to travel and the effect on providers, whose skills and expertise were already scarce, led to an experiment in virtual arrangements for National Health Service (NHS) primary care teams. The *Learning Alliance Team* successfully used digital technology to support the service provided by NHS teams in England. Rothschild and Lapidos examined a primary health care team that focused on chronic care in Chicago.[92] The "virtual integrated practice" was a successful venture in interdisciplinary collaboration that used communication and information technologies. The lessons learned report from Alberta cautions that before a virtual communication environment can be used optimally, face-to-face team communication must be established.[93]

In the *Canadian Policy Context: Interdisciplinary Collaboration in Primary Health Care* report prepared for the EICP Initiative, Watson and Wong indicate that funding of future interdisciplinary collaborative teams in the primary health care setting will likely require the creation of intermediary organizations to liaise between providers and governments or health authorities.[94] The variety of service delivery models, past and present, speaks to the need for a flexible approach within organized structural systems. While co-location offers benefits in some settings, virtual or less formal arrangements are more appropriate to others, and the geographic challenges encountered in regional service delivery cannot be underestimated.

Function

As mentioned, much of the literature on interdisciplinary collaboration in primary health care is based on research into teams and team functioning. Some of the pertinent operational factors that have been identified include leadership and team development, communication processes, use of technology and documentation, the role of meetings, physical logistics and performance measurement. Although these factors are discussed here, others, such as compensation and human resource issues, are discussed in the other EICP research reports.

Teams and Teamwork: Various connotations are associated with the word "team." A U.K. report on teamwork in primary health care suggests that there are various levels of teams, ranging from networks that include health and social care staff, and formally structured teams based on general practices, to small teams that may be task-based or time-limited.[95] Effective communication, optimum team size, adequate time and resources were found to promote teamwork. Teamwork can also be facilitated by a shared learning process and team development activities.

- Higgins and Routhieaux found that the use of interdisciplinary teams is a common approach to achieving superior results in health care delivery.[96] They cite quality improvement teams and process redesign teams as two common types of teams that have been widely used in various health care organizations. Based on the experience of such teams, the researchers indicate that when collaborative teams are being formed, key multi-level changes need to be considered. At the team level, goals must be specific and the team leader must have the right attitude and skills. At the individual level, there must be personal commitment to change and a willingness to learn new skills.
- Cook et al. found that the introduction of team self-management affected the power base of decision-making and fostered an increased sense of empowerment among team members.[97] As team experience developed, members became increasingly intolerant of autocratic modes of working. Shared goals and beliefs facilitated team effectiveness, while the collective sense of autonomy experienced by team members allowed for decision-making to actively focus on the needs of service users.
- "Collaborative inertia" is an idea discussed by Huxham and Vangen.[98] This is a descriptor for the problems that teams experience as they strive to work toward a common purpose. For example, they can encounter problems negotiating the joint goal because of differing motivations, problems communicating because of professional and organizational differences, problems agreeing on how to operate because of the organizational history members bring with them and problems managing power imbalances. The researchers caution that deciding on membership structure is difficult without alienation. A lack of clarity about membership can stall efforts to build trust and resolve power differences.
- Grumbach and Bodenheimer studied two systems of primary care teams in Kaiser-Permanente's Georgia region to investigate how team members worked together.[99] The model included clinicians (physicians, nurses, nurse-practitioners and physician assistants) and administrative staff (receptionists, clerks, licensed practical nurses and medical assistants). A few of the key factors in the success of the systems include the following:
  1. The team had well-defined systems and protocols for all clinical processes, including prioritizing telephone calls, reviewing and informing patients of

laboratory and x-ray results, and making referrals.

2. Each team received a quarterly report on team functioning, patient satisfaction, staff satisfaction and clinical quality measures, which allowed the leadership to assess team functioning.[100]

Additional research of Kaiser-Permanente primary health care teams found that regional training increased team effectiveness.[101] This support included training guides, short flexible modules for addressing common problems, and a "readiness mix tool" to evaluate how effectively teams were functioning. A health care tool kit was developed for distribution to team leaders and each team was assigned a consultant who facilitated the development of the team. Based on their findings, the researchers cautioned that larger team size might not fit with clients' preferences for continuity of service from a single provider.

- The Thames Valley Family Practice Research Unit examined the experience of providers and staff in an Ontario family health network, both before and after a team-building exercise. Participants felt that the main obstacles to effective teamwork related to difficulties with conflict resolution, time constraints and adapting to change.[102] Participants believed that team composition should be decided based on the setting, the population being served and the key disciplines that can "locate, motivate and promote change." The report concluded that team-building is gradual and experiential; it happens through the daily sharing and interactions that occur when providers are working collaboratively. Howkins and Allison's work with an experiential workshop included a facilitated simulation of collaborative teamwork; this is cited as a potentially beneficial exercise.[103] The EICP facilitators used a similar exercise during the provider consultations. Participants felt that this experience allowed them to learn about the roles and contributions of complementary disciplines.
- An evaluation of a primary health care demonstration project in Calgary provides further insight into the dynamics of team development and operation.[104] The project brought together community-based health care providers working for the Calgary Regional Health Authority in a structured approach to improving the prevention and treatment of diabetes and osteoarthritis. Working groups were composed of physical therapists, nutritionists, nurses, physicians and the director of a community-based education centre. Groups were formed, trained and empowered with Internet-based tools to support decision-making. The goal was to implement team care plans in six primary health practices. The evaluation found that team interaction facilitated health professionals learning about each other's roles. However, changes in membership had a negative impact on team momentum and the evaluation concluded that consistency in team composition is important to maintain trust in a team. It took three full workshops for team *personae* to develop. In addition, the evaluation found that role clarity was critical and that team-building activities, the presence of a workshop facilitator and a consultant's expertise in team planning, were all critical factors in team development and success.
- Further to this point, the lessons learned report from Alberta recommends that team-building begin before the team tries to provide care as a unit.[105] Team-building exercises helped providers in the Alberta pilot projects to develop a sense of ownership in the processes they developed collectively and to clarify and negotiate what the team needed to do to meet the goals they had established.

In the complementary EICP report *Canadian Policy Context: Interdisciplinary Collaboration in Primary Health Care,* Watson and Wong discuss the implications of team-based care in terms of liability issues.[106] They found that the broadening of the scope of liability among team members is a likely consequence of the role and boundary blurring that can transpire in collaborative-based practice. In addition, at the institutional level, it is necessary to have proper assurance of appropriate policies and procedures when team-based service delivery is planned.

Leadership: Leadership comes from many sources. At a regional level, formal leadership structures and interventions have emerged to advance primary health care reform and, more particularly, collaborative practice. In some provinces and territories, roles such as team facilitator, primary health care co-ordinator and champion have helped to foster the establishment and development of primary health care teams or collaborative arrangements. Participants at the EICP consultations said that leadership is critical and that it needs to be defined. In some sessions, participants said that leadership should be flexible and that it should not be tied to any one individual position or profession.

- The Saskatchewan document on primary health care teams found that teams without clear leadership reported lower levels of participation, a lack of clarity about objectives, low commitment to quality of care and overall low support for innovation in quality of care.[107] D'Amour et al. found that regions that display a high level of collaboration show stronger leadership, both regionally and locally.[108] Physician champions have been used successfully in Ontario to encourage the use of new models of primary care.
- Davoli and Fine examined the role of a facilitator when providers from the health, education and social services sectors come together in collaborative groups.[109] Typically, these providers meet monthly or bimonthly, and the research investigated how these collaborative groups move along, so that they are productive and effective. The authors found that the early stages of a team's development are crucial and that the leader or facilitator must possess basic skills in communication, team-building, conflict resolution and negotiation.[110] They suggest that a team facilitator or leader could introduce clear and tangible activities to provide some of the structure for joint problem-solving and case discussions.

Meetings: Some providers believe that collaboration can end up as an exercise in endless meetings and many are concerned that the time and cost involved in meeting will outweigh the benefits.[111] Farris et al. concluded that it is unlikely that providers would have the financial resources to meet as part of a team without important changes in the method of compensation.[112] However, providers also recognize the need for regular meetings, whether the collaboration is based on a formal, informal, co-located or virtual arrangement.

The literature related to primary health care teams supports the need for, benefits of and challenges associated with team meetings.

- Experience from the United Kingdom has shown that primary health care teams that have at least one meeting a week have introduced a greater number of innovations into the care they deliver.[113]
- A B.C. Primary Health Care newsletter provides "lessons from the front line," which include suggestions to facilitate the development of a strong, cohesive team, such as regular formal meetings of all team members.[114] The time and place are less important than making sure the meetings are held regularly and everyone attends.
- A study of care planning and case conferencing in Australia examines the impact of the introduction of physician reimbursement for taking an active role in

an interdisciplinary team, including compensation for time spent planning and discussing patient management with other providers.[115] The case discussed was the Centre for Developmental Disability Health Victoria, a general practice unit with physicians, psychiatrists, case managers, behaviour intervention therapists, educators, speech therapists, psychologists, paid caregivers and family. The research found that there were definite areas where efficiency could be improved, including having well-planned and goal-focused meetings, matching treatment goals with team members and ensuring that all team members attend the meetings. The need for shared goals among team members was also found to be essential.

- In Brown et al.'s research, the interdisciplinary team that was studied conducted weekly meetings to discuss business and clinical matters.[116] Although the team structure was designed to reduce hierarchy, problems did evolve as the meetings unfolded. The concept of having a "rolling" chair was appreciated, but it led to operational difficulties when some members were not prepared for the task. In essence, the lack of formal structures led to the feeling that there should be structure.
- Weekly case conferences were held with the team Molyneux examined, and members appeared to give high priority to attending.[117] Although providers found conferences time-consuming, they agreed that they were valuable and assisted with goal-setting. The report concluded that meetings of primary health care teams aid communication and facilitate the understanding of differences among professions.
- Farris et al. suggest that communication among community providers is often sporadic and problem-focused—not the targeted sharing and discussion that collaborative relations enjoy.[118] In this research, teams were formed, but they did not necessarily share a patient roster, nor were they co-located. Members met in a convenient location and were compensated for this activity; outcomes were generally positive.
- In the work of Carletta, data on the topic of team meetings from 100 primary health care teams in the United Kingdom revealed that "whole team meetings," billed for all to attend, had relatively little impact on team effectiveness, mainly because of poor attendance by those who had the fewest other opportunities to communicate with the team.[119] Further, meetings were found to be unplanned and unstructured, partly due to ineffective leadership, but also because key members were not present to assist with the necessary decision-making. Carletta suggested that current theories on teams find that the more explicit and agreed upon the goals and processes of the team, the better the group performs when measured against these standards.

Structured team-building activities and team maintenance processes, such as regular meetings (whether in-person or virtual), have been used successfully for collaborative arrangements in primary health care. Compensation related to participation in these activities is a concern and, as mentioned in Watson and Wong's report on policy context, will likely require that new funds be directed to primary health care organizations and providers.[120]

Communication: Communication has been described by Ryan as the very foundation for the success of interdisciplinary collaboration.[121] Although communication has been alluded to in the discussion on teamwork and meetings, some additional findings from the literature are worth mentioning.

- In her research, Ryan found that communication should be clear, open and timely, and that providers need to have the

insight to clarify expectations in discussions with their team members. One team of providers at the EICP consultation sessions indicated that they had developed written materials to outline how their group works, the roles of the various providers and what individuals can expect when they use services at this clinic. Additional research indicates that providers should not underestimate the time and effort that must be invested at the outset to understand others' "world views."[122] Teams that take the time to be comfortable with each other ultimately enhance the communication patterns and processes that they use.[123] A team approach was found by Cook et al. to result in better communication among providers.[124] Service delivery became better co-ordinated, with prompt referrals and less likelihood of clients "falling through the cracks."

- King and Ross found that good relations and communication between professional groups is "very important in encouraging flexible attitudes toward new collaborative work and breaking down the stereotypes of other professionals."[125] They suggest that to facilitate this dynamic, managers should build on established relations that have been successful and concentrate on a democratic style through regular interaction and information-sharing.
- Abramson and Mizrahi found that communication difficulties are often attributed to personal characteristics, rather than being seen as stemming from professional identity.[126] In a study of perspectives of collaboration among social workers and physicians, communication was the only universal aspect of collaboration that was rated as equally important, in both positive and negative circumstances, by both professions. The conclusion was that there must be more emphasis on training that focuses on collegial relations and interpersonal skills with other professionals.

Documentation—Technology and Electronic Health Records: Cross-disciplinary communication and documentation that focuses on client care and service delivery has historically been problematic in primary health care organizations. When factoring in the breadth and range of providers and organizations that may be involved in concurrent service delivery at any given time for any one person, it is clear why electronic health records are believed to be one of the most critical factors in enhancing the collaborative efforts of providers. The Canada Health Infoway has a mandate to foster the adoption of electronic health information systems at the national level, while provincial organizations are engaged in regional activities and solutions to facilitate the use of this technology in all sectors. The magnitude and costs of implementing an electronic health records system is daunting. As the complexity of the issue increases, individual providers are forced to consider whether they can afford the cost and, then, whether their concerns about confidentiality will be addressed, especially as collaborative care settings become more widespread.

The use of technology is associated not only with electronic health records. The e-Therapeutics project funded by Health Canada's Primary Health Care Transition Fund is a venture designed to enhance collaboration among primary health care providers by improving communication and decision-making in medication management through the use of electronic decision support tools.[127] The use of a variety of technological mechanisms has the potential to significantly facilitate the development of teamwork among geographically isolated providers.[128] In one Calgary pilot project, electronic decision support tools and on-line access to information were found to support multi-disciplinary involvement in care plans.[129] Specifically, the anonymous exchange of information, using on-line tools, helped to bring areas of disagreement among team members to

the surface. These issues could then be jointly discussed in face-to-face sessions.

Integrated documentation, electronic or not, has been found to be a necessity for collaboration, and it can ensure that care is co-ordinated if everyone involved adheres to the same set of protocols.[130] Standardized information and communication tools have been found to be critical to support multi-disciplinary involvement and co-ordination.[131] In one setting in Alberta, a standardized consultation note helped promote collaboration among providers in the health and school systems. Common records and "passports" were used successfully to aid communication.

Participants at both the provider and public EICP consultation sessions identified electronic health records as important, but both groups had similar concerns about confidentiality issues and "who needs to know" when several providers are involved in service delivery. Providers were especially concerned about the burden of initial investment, ongoing administrative overhead and the training that is required when these systems are implemented. Participants identified the primary benefits for interdisciplinary collaboration as: the potential for a more holistic view of the patient or client, better evidence-based care, enhanced safety and reduced administration.

In discussing issues related to liability, Watson and Wong suggest that record-keeping in collaborative arrangements must be thorough and stringent and that it should also convey the role and functions of various providers as well as the decision-making process that has been agreed on.[132]

Physical Logistics: Whether providers are co-located or have informal arrangements, physical logistics can have a tangible effect on developing a collaborative milieu. In the research on teams in Alberta, the barriers to collaborative interaction among such services as home care, dietary services, rehabilitation and medical services, each of which has its own distinct organizational structures and geographic location, were described as "considerable."[133] The simple question of how and where collaboration would transpire is not easily resolved.

At a micro level, when collaboration occurs in a co-located setting, seemingly small decisions about physical logistics can have a significant impact on the operations of the team and its success. One community health centre in Alberta found that "by moving staff offices around to mix up different providers and service groups, it evolved into a natural state of sharing information and perspectives."[134] One primary health care pilot site in the Northwest Territories took a similar approach by mixing up the office space of the providers who offered services at the clinic.[135] In this example, desks were grouped to facilitate cross-disciplinary informal communication. As new providers, such as nurse-practitioners, were introduced into the team, consideration was given to the type of space required for clinics.

Accountability—Measuring Collaboration: A final operational concern related to interdisciplinary collaboration is the question of how to evaluate and measure performance in this context. Experience from the Alberta pilot projects indicates that, to assess how a team is functioning, there must be an ongoing monitoring and evaluation process that looks at both the outcomes for individuals and how providers function as a team compared with the goals and objectives that were set originally.[136] The literature points mainly toward inventories and tools related to team performance and functioning for measurement of collaboration. "Team climate inventory" and "team dynamics" measurement tools have been identified in the research.[137] Whorley describes one measure, the "team problem-solving model," as a tool that

evaluates team performance in tackling interdisciplinary problems and that provides a continuous measurement of the effectiveness of team collaboration.[138] This tool is described as "A step toward developing outcome measures by which team leaders may evaluate the performance of their client systems [interdisciplinary teams] in meeting problem-solving goals."[139]

In Saskatchewan, the Primary Health Services Branch of Saskatchewan Health is targeting teamwork as part of its evaluation of its primary health care sites. The "teamwork effectiveness tool" has been developed to provide an assessment of several key elements of teams and it will be used several times during the evaluation period.

In a broad-based initiative, D'Amour et al. used their research as a backdrop for the development of an assessment framework to measure the level of collaboration among professionals from different organizations.[140] The researchers proposed that collaboration be measured and mapped against a pre-set ideal that would indicate whether collaboration is "in action," "under construction" or "in inertia." A framework such as this can be used in a wider range of collaborative arrangements, where numerous organizations are involved.

Clearly, collaboration, in whatever form, introduces many issues and considerations at the operational and organizational levels. These issues are no less complex when collaboration is an informal partnering between agencies. Experience from the many settings described indicates that targeted activities are needed, whether through physical layout in a co-located clinic or through planned, structured, team-building exercises designed to realize the full benefits of collaborative action.

Conclusion

When considering interdisciplinary collaboration as a goal or objective, the immediate barriers and facilitators quickly surface—factors such as changes to the regulatory environment or funding systems. And yet, the literature shows that some of the less tangible and perhaps unarticulated elements first emerge when collaboration is put into action. These factors can have a substantive impact on the outcome and effectiveness of the endeavour. Many of the studies presented in this report indicate that the interplay of individual and organizational characteristics can have a major influence on whether interdisciplinary collaboration succeeds.

In terms of individual provider attitudes and perceptions, personal motivation and the commitment to engage in collaborative practice are critical. Significant goodwill and the trust of other professionals are necessary and emanate from knowledge of the skills and abilities of other providers. In general, providers have a positive impression of interdisciplinary collaboration, but they need to balance this view with the professional autonomy to which they have become accustomed.

Structural and functional systems of organizations create opportunities *and* challenges. A client-centred approach to service delivery provides a common framework and language for many providers who work together to meet the broad-based needs of the individual client. A team-based approach has proved to be successful in providing collaborative care, both in physically co-located settings and in virtual structures. Team training and targeted activities have been applied in a variety of settings with positive results. Attention to joint record-keeping is necessary, no matter what method is used. The use of technology to achieve this goal is viewed positively.

The challenges of interdisciplinary collaboration are significant—much of the literature focuses on the difficulties that can arise. Successes occur as a result of clear intentions and planned action, at both the individual and the organizational levels. Team attitudes and behaviours in primary health care teams do not evolve naturally, or in isolation.[141] Davis and Thurecht suggest that, at the individual level, the following qualities are necessary: openness, a sense of humour, generosity with knowledge, confidence without being domineering, and professional curiosity.[142] At the operational level, elements such as training in leadership, communication processes, structured meetings and team-building activities have all been shown to affect the outcome of collaborative partnerships.

Huxam et al. propose that policy-makers and providers alike need to understand the challenges presented by collaborative arrangements; indefinite nurturing is the reality of this structure.[143] However, as highlighted in the research and confirmed by the sentiments of many participants at the EICP consultations, interdisciplinary collaboration can result in substantial gains for clients, families and providers. Clearly, there is motivation at the grassroots level to move toward interdisciplinary collaboration. As these practices evolve, the lessons gleaned can provide insight and direction for future developments.

Appendix—Literature Review Process

A literature review for the EICP Initiative was initiated in June 2004 in preparation for steering committee meetings and activities conducted over the summer. A database review was done through PubMed, using the search terms "interdisciplinary" and "collaboration," and further MeSH subject headings were explored. Articles were selected through a manual review of the search results; applicable articles from this initial search were reviewed for this report.

In addition, several major reports discussing interdisciplinary collaboration were reviewed, as well as grey literature provided by steering committee members. Additional material found through these sources was retrieved and explored.

In preparation for writing this report, an additional database search of Medline was performed, using the terms "interdisciplinary collaboration in primary health care," "organizational elements in collaborative practice in primary health care," and "attitudes and perceptions of interdisciplinary collaboration in primary health care." Through this process, further articles were identified and selected for review, based on the themes of this report. Particular emphasis was given to collaborative themes in the primary health care setting, as well as to research based on a broad array of professions. Additional grey literature specific to practitioners' attitudes and perceptions, quality of life and job satisfaction was solicited from the steering committee.

A manual review of key websites and journals of interest was completed and this resulted in additional material. A provincial review of primary health care reform activities was conducted, and several team-focused reports and newsletters were identified as relevant to the subject. The author initiated significant sharing of literature search findings with the authors of complementary EICP reports.

Finally, the September 2004 EICP practitioner consultation process yielded invaluable data for the report. Qualitative analysis of the sessions and workbook analysis provided a snapshot of the topics relevant to this report. In addition, some participants in these sessions were kind enough to share further literature and provide contact information for key informant interviews with administrative personnel.

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The Enhancing Interdisciplinary Collaboration
in Primary Health Care (EICP) Initiative
c/o The Conference Board of Canada
255 Smyth Road
Ottawa (ON) K1H 8M7 Canada
Tel: 613-526-3090 ext. 460
Fax: 613-526-4857
info@eicp-acis.ca
www.eicp-acis.ca

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