ENHANCING INTERDISCIPLINARY COLLABORATION IN PRIMARY HEALTH CARE

AMÉLIORATION DE LA COLLABORATION INTERDISCIPLINAIRE DANS LES SOINS DE SANTÉ PRIMAIRES

Enhancing Interdisciplinary Collaboration in Primary Health Care in Canada

EICP

PRIMARY HEALTH CARE
A Framework That Fits

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

ACIS

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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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 is comprised of 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 web site.

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Executive Summary

The Enhancing Interdisciplinary Collaboration in Primary Health Care (EICP) Initiative (funded by Health Canada's Primary Health Care Transition Fund) commissioned this report to develop an in-depth understanding of the theory and practice of interdisciplinary collaboration in primary health care in Canada. The report is intended as a user-friendly primer that defines interdisciplinary collaboration, reviews its underlying principles, explores the enabling factors and the barriers to interdisciplinary practice, and assesses the results of interdisciplinary care. It also identifies what practices work best, highlights successful examples, and suggests ways to build more effective interdisciplinary practice.

This study is based on a review of the literature and on consultations with Canadian health care providers and patients/clients. In addition, the report findings are informed by consultations the EICP Initiative has conducted with approximately 300 health-care providers and patients/clients through 13 provider and three patient forums in rural and urban communities across the country.

This report offers the following findings:

1. The Trends

Collaboration is growing. The literature often posits that interdisciplinary collaboration is the best way to provide health services. Evidence of this is the fact that each generation of health care providers rediscovers interdisciplinary collaboration for itself. Studies show that collaborative practice will likely continue to grow, with an increased focus on community and home-based services. More and more, interdisciplinary collaboration is being viewed as a key strategy to providing the best quality and most effective care for people who require multiple services, or who use both acute and primary health care services.

Alternative, flexible funding models are possible. Examples include the English National Health Service's primary care trusts and autonomous foundation trusts.

2. The Path to Success

Clear, shared definitions of the terms that describe interdisciplinary collaboration in primary health care must be developed, so that all players can communicate effectively.

Institutional culture must support collaboration. This includes endorsement and leadership from heads of organizations, having an amenable regulatory and legislative system (e.g., legislation that clearly articulates the role of nurse-practitioners), administrative support, removal of ideological differences and turf wars among types of practitioners, and recognition and reward of interdisciplinary collaboration. For example, achievements are most often recognized by individual disciplines, rather than among disciplines. Accrediting agencies and licensing systems actively, if not deliberately, discourage interdisciplinary collaboration.

Funding systems must be flexible enough to provide incentive to collaborate, willing to wait to see the results of interdisciplinary collaboration, and capable of providing funding to reduce the turnover of health-care professionals (which slows the development of collaboration). The current fee-for-service system of reimbursing physicians discourages collaboration among health providers and fails to recognize preventive care efforts, such as telephone consultations with patients/clients. Because funding for interdisciplinary teamwork is often project-based, it is unusual for these initiatives to become institutionalized, adequately resourced and formally evaluated. Furthermore, funding agencies' increasing expectations and documentation requirements are a burden to providers.

The foremost delivery goal of high quality health care is collaborative care that centres on patients/clients; it improves services through quality control (such as periodic revalidation of practitioners' certification and improved methods of conduct review); educates, empowers and involves patients; and invests funding sufficient to carry out this level of care.

Interdisciplinary collaboration requires teamwork. To function well, a team must be supported by a strong team leader and involved organizations. This requires time, a supportive environment and training of leaders and team members. Members need to share a common vision and goals (clear definitions related to interdisciplinary collaboration in primary health care will help), communicate clearly with the other members of their team, understand each other's roles, trust one another, and make decisions as a group. Having members from diverse professions is valuable, as long as their mandates and processes are aligned. Ideological differences or competitive attitudes among members must be resolved. (Clarification about team members' roles is one way to reduce competition.)

Teams are not static in primary health care. The composition of a team depends on the client being served and the environment in which the team is working. Teams can include nurses, physicians, dietitians, nurse-practitioners, physiotherapists, occupational therapists, social workers, mental health workers, psychologists, pharmacists, speech therapists, family service workers and other practitioners.

All players need to be educated about this model of care. Health care professionals need to be trained to work in teams and must be given the opportunity to learn from successes and failures. Patients/clients need to be educated, so they can be involved in decisions about their health care and benefit from that care, and so that they can assess the quality of the service they receive. For example, D.J. Reese and M. Sontag's 2001 study on hospices showed that problems can arise when clients do not understand the interdisciplinary approach to care. When clients are unclear about various team members' roles, they may resist working with some members of the team.

Some models of collaborative care have been shown to benefit from the use of up-to-date tools, particularly information and communication technologies. These can be used in the education of health care professionals and patients/clients, and in booking patient appointments and keeping detailed, accurate and easily accessible records of patient care.

Collaboration is expected to lead to more co-ordination and co-operation, resulting in better care for patients/clients—but teamwork has not proven to be an easy fix. Individual teams, as well as organizations as a whole, require leadership. These leaders are people who can engage other players with their vision and commitment.

Teams only flourish with leadership and the right environment, characterized by:

- Organizational structures, supports, philosophies and values that encourage new ways of working together; and
- Interpersonal skills and attitudes of team members, including a willingness to collaborate, trust and respect each other, and to communicate effectively.

But collaboration cannot rely solely on partnerships among service providers. Interdisciplinary teams must be part of a constellation that promotes improved health outcomes and supports interdisciplinary teams through service funding, professional compensation, information systems, education, regulatory systems and governance practices.

3. The Results

Evaluation is lacking, due to the speed of developments, the newness of this approach, and the difficulty of defining the start and end dates of interdisciplinary collaboration projects. These factors have so far limited the number of studies that have

been published on the outcomes of interdisciplinary collaborative care.

Meanwhile, funding that is currently allocated to individual disciplines must be reallocated into interdisciplinary projects and funders must be willing to wait for assessment results.

Nevertheless, based on existing assessments, clients/patients of interdisciplinary collaborative care show significant satisfaction with the results of this care. For example, the 2001 study, *The Effectiveness of Health Care Teams in the National Health Service*, concluded: "Teams have been reported to reduce hospitalization time and costs, improve service provision and enhance patient satisfaction, staff motivation and team innovation." A review for Alberta Health and Wellness echoes this sentiment, adding that this model of care improves access to a range of services and reduces gaps in service. Reports on cancer care in the United Kingdom noted that, when patients/clients knew they were being looked after by a multidisciplinary team, they developed a sense of confidence, similar to the effect of getting a second opinion.

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Studies in various countries show positive results in quality of life and care with a range of patient/client types, including veterans with complex needs, children with special needs, geriatric patients and users of mental health services, as well as people in the general patient population.

4. Models of Successful Interdisciplinary Collaboration

The type of team-oriented health care model to choose depends on the patient and the situation. A 2004 study defined a continuum of seven models that range from non-integrative to a fully integrative approach to patient care. Care developers can use this continuum, as well as a 2004 review of collaborative models, to structure effective team care.

This report includes useful sketches of collaborative care experiments and experiences in Canada, the United States, the United Kingdom, Europe and Australia.

Introduction

Many activities in today's workplace involve working in a team.[1] Virtually all sectors of society and the economy are increasing their emphasis on teamwork, reflecting growing evidence that when individuals with differing knowledge, training, experience and attitudes find new ways of working together, the result is increased innovation, productivity and synergy.

The need to define teamwork and encourage its use in health care is not new. However, a series of developments in the primary health care field has highlighted just how important it is to co-ordinate working practices.[2] These include:

- An unprecedented flow of scientific and technical information that has provided evidence about the important roles various health care providers play;
- Greater levels of awareness and knowledge among patients/clients, with a concomitant demand for more and better services;
- A growing focus on prevention and population health;
- A shift to a more client-centred approach;
- Patients/clients with increasingly complex needs being treated in the community, primarily as a result of early discharge from hospital; and
- Greater recognition of the need for 24/7 care to ensure timely access to appropriate health care providers for all Canadians, no matter where they live.

It has been proposed that teams that collaborate will be better equipped to deal with the increasing complexity of needs and care of the population, keep abreast of new developments and respond to the demands of institutions, taxpayers and governments.[3] Working in teams may lead to more co-ordination and co-operation among providers, and possibly to enhanced care for individuals and communities.

However, teamwork has not proven to be the "easy fix" that was anticipated. Both research and experience on the ground show that working together "does not a team make." Without leadership and the right environment, teams do not flourish.

Effective teams are built on strong relationships, with trust and co-operation at their core. Team members need to respect each other, communicate well and make decisions as a group to be able to coalesce around a common goal. They also need processes and organizational structures that support their work.

Even though there are many outstanding examples of effective teamwork in many environments, they have been the exception rather than the rule. There are many barriers to effective teamwork, including legislative and funding issues, an inability to integrate professionals from other disciplines into a team, and lack of clarity about what an interdisciplinary team looks like and how it works.[4]

Another problematic issue identified by practitioners, researchers and policy analysts alike is the lack of a clear definition of interdisciplinary collaboration or teams. *Multidisciplinary*, *interdisciplinary*, *transdisciplinary* and *transprofessional* are all terms that appear in the literature, but it is not always clear whether the terms can be used interchangeably, or whether, in fact, there are subtle differences in their meanings.

Because the practice of interdisciplinary collaboration is not clearly defined and the settings for its practice are so varied, it is not being evaluated in a consistent, coherent way that facilitates learning about what works. While some studies do extol the value of interdisciplinary teamwork, critics maintain that there are too few examples of in-depth research to demonstrate its effectiveness.[5]

Nonetheless, there is a widespread belief in Canada and other countries that interdisciplinary collaboration in primary health care is the way of the future. While they acknowledge the challenges inherent in implementing and maintaining new ways of working together, proponents say that the very fact that each new generation of health care providers rediscovers interdisciplinary collaboration is one of the strongest arguments in its favour.

This report was commissioned by the Enhancing Interdisciplinary Collaboration in Primary Health Care Initiative from the Primary Health Care Transition Fund of Health Canada to synthesize background information on interdisciplinary collaboration in primary health care. The literature was reviewed to develop a "user-friendly primer" on interdisciplinary collaboration.

Despite the brief time frame and the magnitude of the subject area, this review is intended to add to the ongoing discussion of this timely issue, present useful lessons to anyone interested in researching, implementing or comparing data in this area and highlight the best practices of examples of successful collaboration.

The following sections define interdisciplinary collaboration, explore its underlying principles, consider enablers and barriers to interdisciplinary practice, and examine the outcomes of interdisciplinary care. They will also suggest ways to build more effective interdisciplinary practice.

Defining Interdisciplinary Collaboration

One of the things people face when they first begin meeting as a group is the task of developing a common language. A series of studies has shown that primary health care practitioners, consumers, researchers and policy analysts all have their own vocabulary, as well as different concepts of what interdisciplinary collaboration means.[6]

A 2004 Health Canada report, *Interdisciplinary Education for Collaborative Patient-Centered Practice*,[7] found that participants in interdisciplinary groups had a strong need to develop common terminology. The study's authors found that terms such as "multidisciplinary," "interdisciplinary," "transdisciplinary" and "inter/transprofessional" appear frequently in the literature and are often used interchangeably. They devoted a full chapter of the report to examining definitions and clarifying concepts related to collaboration.

D'Amour and her team[8] analyzed more than 500 abstracts and, after applying screening criteria to these articles, identified 17 papers with a focus on definitions and determinants of interdisciplinary collaboration, 10 of which looked at collaborative models. The authors defined collaboration as a "dynamic, interactive, transforming interpersonal process."[9] The authors found that it is also a concept that has become a *sine qua non* for effective practice in health care—one where professional boundaries are transcended to allow all team members to work together to improve client care, while respecting the qualities and skills of each professional.

Defining the Main Terms

The authors concluded that the main terms (multidisciplinary, interdisciplinary and transdisciplinary) conveyed different degrees of collaboration within a team. At one end of the spectrum (multidisciplinary teams), professionals intervene on an autonomous, or parallel, basis. At the other end of the spectrum (transdisciplinary), professionals have a narrower margin of autonomy, the team as a whole is more autonomous and its members are better integrated. Here are some of the definitions provided by the authors:

- **Multidisciplinarity** refers to situations where several participants representing several disciplines work on the same project on a limited and transient basis. While they may not necessarily meet, the members of a multidisciplinary team work in a co-ordinated fashion.

- **Interdisciplinarity** implies a deeper degree of collaboration among team members. It implies an integration of the knowledge and expertise of several disciplines to develop solutions to complex problems in a flexible and open-minded way. This type of team is characterized by ownership of common goals and a shared decision-making process. Members of interdisciplinary teams must open territorial boundaries to provide more flexibility in professional responsibilities in order to meet clients' needs.
- **Transdisciplinarity** refers to professional practice that seeks consensus. It is more open and sometimes results in vanishing professional boundaries. Transdisciplinarity is characterized by a deliberate exchange of information, knowledge, skills and expertise that transcend traditional discipline boundaries.[10]

The literature review also identified the client as the focus of the interdisciplinary team and noted that, when the client is a focus around which all members coalesce, professional paternalism and traditional methods of intervention are minimized. However, the authors caution, it is unrealistic to expect that all clients can participate on the same footing as other members of the team.[11]

Defining Collaboration

The authors discussed both the concept of *collaboration* (the type of relations/interactions occurring among co-workers) and the concept of *team* (the human context in which collaboration takes place). They described collaboration as a dynamic process that focuses on the following related key elements:

Sharing includes shared responsibilities, health care philosophy, values, planning and interventions. Some authors also speak of sharing professional perspectives.

Partnership implies that two or more people join together in a collegial, authentic and productive relationship, characterized by open and honest communication, mutual trust and respect. Each partner must value the work and perspectives of the other professionals and work toward a common goal or goals and specific outcomes.

Interdependency refers to the fact that professionals are interdependent, rather than autonomous, because of a common desire to fulfill patients'/clients' needs. When teamwork is successful, synergy occurs and the output of the whole is much larger than the sum of the individuals involved. Sometimes this leads to collective action.

Power is shared among team members, with empowerment accorded to all participants. It should be based on knowledge and experience, rather than on functions or titles.[12]

In *Implementing Primary Care Reform*, Cathy Fooks[13] reviewed provincial reforms and highlighted several aspects of interdisciplinary collaboration in primary health care. She found that, while the terms were used somewhat interchangeably, common elements of collaboration surfaced in policy documents. These included:

- A team approach to service delivery;
- Increased emphasis on health promotion and prevention;
- Access (24/7);
- Mixed funding formulas for services and programs; and
- A shared roster of patients/clients.

In *Collaboration in Primary Care—Family Doctors and Nurse Practitioners Delivering Shared Care*, collaborative practice was defined as, "an inter-professional process of communication and decision-making that enables the separate and shared knowledge and skills of care providers to synergistically influence the client/patient care provided." [14]

The authors also stressed the importance of a common value system in creating a shared vision for collaborative health, which in itself, "would enhance collaborative practice."

Health Canada describes collaborative practice as patient-centred and calls it "a new direction for professional practice where health care professionals work together with their patients:"

> It involves the continuous interaction of two or more professionals or disciplines, organized into a common effort to solve or explore common issues, with the best possible participation of the patient. Collaborative practice is designed to promote the active participation of each discipline in patient care. It enhances patient and family-centred goals and values, provides mechanisms for continuous communication among caregivers, optimizes staff participation in clinical decision-making within and across disciplines, and fosters respect for disciplinary contributions of all professionals.[15]

The above discussion demonstrates that client-centred care is a basic tenet of interdisciplinary care. Research also underscores other universal observations about interdisciplinary collaboration:

- Interdisciplinary teams working in primary health need to provide services that are accessible to clients and use a population health and evidence-based approach.
- Effective teams are the result of strong relationships and are built on trust and co-operation.
- Team members need to respect each other, communicate well and make decisions as a group.
- Teams need organizational support and structures to enable them to function. Funding, legislation and regulation are critical to promoting and supporting interdisciplinary collaboration.

A comprehensive definition of interdisciplinary collaboration must build on what is known and recognize the following key components:

- Optimum involvement of the client (and his/her family);
- A multi-faceted strategy to ensure quality of care and client/community responsibility for health;
- Support and structures to implement and maintain interdisciplinary collaboration;
- Training for health care providers/students to learn about interdisciplinary collaboration and their ability to practise it; and
- Ongoing assessment to ensure that future work builds on lessons learned.

The following quote from one practitioner in Calgary[16] illustrates how this theoretical definition translates into daily practice:

> …[It] emphasizes the fact that each professional has special skills that he or she is good at. So you put a group of professionals together who work as a team. The patient gets the advantage of all that special intuitive group knowledge and the professionals learn from each other as they work together as a unit.

Composition of Interdisciplinary Teams

As discussed, interdisciplinary teams in primary health care are dynamic, rather than static. Teams change and evolve to meet the needs of patients/clients and groups of patients/clients in different environments.

To find current information on various models of teams involved in interdisciplinary collaboration in a wide range of environments, a search of the Internet was conducted for this report on PubMed, CINAHL, ABI/Inform, ERIC, Sociological Abstracts and Social Services Abstracts. Key words included: collaboration, community-based care, interdisciplinary collaboration in primary health care + patient satisfaction + patient outcomes + health outcomes + quality of care, quality of life, inter/trans/multidisciplinary teamwork, barriers, enablers, models, successes and failures. Related articles, key references and the bibliographies of a

number of articles were also checked. In addition, a search of the Internet was conducted to locate grey literature not indexed in these electronic databases. Although the focus was on literature published in the last 10 years, the majority was produced in the last five years and represented various disciplines and groupings.

One common feature identified in both the literature review and in a scan of various environments in which teams work is that the team's composition depends upon the kind of client being served and the environment in which care is provided. In addition, the most successful teams cross boundaries and work in a trusting and collaborative environment. Team members may change, depending on the needs of the client, but the experience of all team members is valued.

The following provides a snapshot of the range of professions that teams comprise today. The following examples were chosen from the literature reviewed for this project in order to demonstrate the range of disciplines present in teams that provide primary health care in a wide variety of environments.

Community-based Teams

Griffiths[17] described *a newly established community rehabilitation team* in the United Kingdom that was composed of physiotherapists, occupational therapists and nurses. The report identified four major challenges that need to be met when a new team and a new service are established at the same time. These include historical factors, such as varying philosophies, or practice and training, differences in status and pay, various employers and differences in education.

Brown[18] reported on the experiences of *newly established community mental health teams* in the United Kingdom, comprised of community mental health nurses, occupational therapists, clinical psychologists, psychiatrists and mental health support workers from integrated mental health teams. He noted that although policy-makers and managers may be genuinely interested in promoting flexible ways of working, some staff maintain a strong sense of boundaries. The author highlights the need to look at issues that may help to sustain boundaries in situations where the proposed intent is to erode them.

Hospice Services

Reese and Sontag[19] studied the relationship between *social workers* and *nurses* in the provision of hospice services and pointed to the need for clear roles among staff and clients. Fitzsimmons and White[20] explored *social service* and *community nurse* teams. They highlighted the importance of communication and respecting differences.

Lee[21] discussed teams that provide home health care to patients/clients with very complex needs. These teams included *social workers, nurses, physical therapists, occupational therapists, speech therapists* and *home health aides*. The study identified informational, organizational, inter-professional and system barriers and found that it is important for social workers to clarify their roles, if they are to enhance service delivery.

Aboriginal and Northern Communities

Interdisciplinary teams serving remote northern and Aboriginal communities comprise a wide range of professionals and paraprofessionals, including *local community health representatives, health and social service providers, family service workers, mental health workers* and *grief counsellors,* as well as *traditional healers, elders, band counsellors* and *police*. The authors discuss the personal, professional and situational issues that influence levels of respect and understanding within these diverse teams.[22]

General Practice

Ryan[23] examined *nurse-practitioner/physician teams* and found that collaboration does not occur automatically among providers—it needs to be learned and consciously approached and protected.

Bateman, Bailey and McLellan[24] provided a detailed description of a successful general practice team composed of *physicians, nurse-practitioners, a child/family nurse, pharmacists, a well family services co-ordinator* and various other operational support staff. The study demonstrates how research can document the experience of teams so that others can learn from these examples. Another study by Conner-Kerr et al.[25] examined the addition of *physiotherapists* and *occupational and speech-language pathologists* to the team. They concluded that it is important for all team members to understand the roles of their colleagues.

General Practice Units in Australia have a long history of working collaboratively.[26] There, teams consist of *general practitioners, psychiatrists, behaviour intervention specialists, educators, speech therapists, psychologists, case managers, paid caregivers* and *the patient's family.* Experience from these teams shows that efficiency, flexibility, a holistic view of the patient, clear communication and personal and professional characteristics are all elements that contribute to successful multi-disciplinary care.

Primary Health Care

One of the most comprehensive reports on teamwork in primary health care was written in the United Kingdom.[27] Representatives of pharmacy, medicine, nursing and the community identified family practice teams with compositions that differed, depending on the need of the client. To illustrate the complexity of care, a diagram illustrates how four patients/clients with different conditions interact with primary health care providers in a dynamic system that is centred on the needs of patients/clients and their caregivers. [28]

The composition of teams in primary health care is not static; the makeup of the team should be based on the needs of the client being served and the working environment. Teams change and evolve to meet the needs of patients/clients and groups of patients/clients; they can include nurses, physicians, dietitians, nurse-practitioners, physiotherapists, occupational therapists, social workers, mental health workers, psychologists, pharmacists, speech therapists, family service workers and others required to respond to the needs of the client. The most successful teams cross boundaries and work in a trusting and collaborative environment where the experience of all team members is valued.

Principles and Framework of Interdisciplinary Collaboration in Primary Health Care

It is clear from the research findings that a common understanding of the vision, the principles of interdisciplinary collaboration and a framework for action is vital to the success of interdisciplinary collaboration in primary health care; this vision needs to be developed within the health care system and within each interdisciplinary team. Better communication is the key to crystallizing that vision and to finding better ways of working together.

This section explores the goals, objectives and principles that enhance interdisciplinary collaboration in primary health care. For the purposes of this report, *principles* are defined as "shared values that all parties agree are critical to interdisciplinary collaboration." These principles are the foundation of disciplines working together in a broad range of settings; they are not intended to promote any specific model of primary health care.

An Alberta Health and Wellness study that reviewed Canadian and international documents on primary health care produced in the past five years provides some direction regarding these principles. The study analyzed the experiences of 27 Alberta primary health care projects funded by the federal government's Health Transition Fund since 1998. Findings from the literature survey were revised after they had been reviewed by stakeholders, including regional health authorities, service providers and professional associations. These efforts resulted in the distillation of the goals and objectives of primary health care found in Exhibit 1.

Exhibit 1

GOALS AND OBJECTIVES OF PRIMARY HEALTH CARE

- To encourage and facilitate individuals and communities to become as healthy as possible, recognizing the central importance of the broad determinants of health;
- To promote and facilitate the participation of individuals and communities to take greater responsibility for health;
- To focus on the specific needs, strengths, resources and issues facing a community in determining the service mix and how, when and where to offer services;
- To deliver affordable, reliable and timely services accessible by community members according to their needs;
- To respond to the priority health needs of the population, systematically identifying those at risk, and to reduce inequities in health status;
- To use multiple strategies in addressing individual and population health issues; this includes community development approaches, interdisciplinary teams in collaboration with volunteers and other agencies, and the use of non-traditional and alternative health workers as appropriate; and
- To provide seamless transition and integrated care delivery by effectively linking primary health care and secondary care.

Source: *Alberta Health and Wellness 2000,* p. 9

To explore the principles being used within the Canadian context more deeply, an analysis of 16 reports, articles and policy statements from organizations involved in the provision of interdisciplinary collaboration in primary health care in Canada was undertaken for this report.

Documents reviewed include those from:

- Canadian Association of Occupational Therapists
- Dietitians of Canada
- Canadian Physiotherapy Association
- College of Family Physicians in Canada
- Canadian Association of Social Workers
- Canadian Psychological Association
- Canadian Medical Association
- Canadian Nurses Association
- Canadian Pharmacists Association
- Working Group on Interdisciplinary Primary Care Models
- Coalition for Primary Health Care
- Canadian Health Services Research Foundation
- Coalition of Health Professions for Preventive Practice
- Quebec community health care centres (by Claude Sicotte et al.)

The following synthesis highlights those principles identified as important in a significant number of reports. A complete list of the reports reviewed for this section is provided in the endnotes.[29] The letters in parentheses at the end of each subsection below correspond to the reports listed in endnote 29; they indicate in which reports the principle was identified.

1. Focus on the Client(s)

A primary principle shared by many is to focus on the people being served and the quality of care they receive.

A focus on the patient/client was described explicitly in several reports, while it was implicit in many others. There are three aspects to this principle, and each was given significant emphasis:

i) A focus on the individual **patient/client,** including respect for the patient's decisions and

choices, and an approach in which decisions and service delivery are closely connected with the client. The patient was seen to benefit from, and to merit, an integrated approach to his or her care. Continuity of care, particularly through primary, secondary and tertiary care, was mentioned frequently. (A, B, C, F, G, M, O)

ii) A focus on the needs of the wider community, which is often referred to as a **population health approach**. Thus, the services offered need to be broad, encompassing all determinants of health, including social, economic and environmental factors, and linking them to primary health care. (F, I, J, K, L, M, O)

iii) There was widespread support for an **evidence-based approach** to care that applies the best knowledge available to ensure that quality of care is provided. (B, C, G, I, N, P)

2. Elements Needed for Effective Team--building and Functioning

Several themes emerged related to patient-centred care:

i) Care providers must **share a vision, values and philosophy.** They also need to share a belief in the value of collaboration and a co-ordinated approach to care. (A, B, C, D, E, F, J, K, K, O, P)

ii) They cultivate **trust and mutual support.** (A, D, E)

iii) **Decision-making** needs to be shared among all care providers. (A, O)

iv) Effective **communication** among team members is essential to success and can be facilitated through electronic record-keeping that is made accessible to all providers. (A, B, O)

v) It was acknowledged that current primary health care reform is a departure for most practitioners and that, therefore, **education and professional development** is needed to enable them to work effectively in a collaborative environment. (L, N)

vi) There needs to be a shared clear understanding of **team members' roles and responsibilities**; respect for particular areas of competence and for personal judgment is also essential. (A, D, E)

vii) There needs to be enough **flexibility** to allow each provider to practise to the full extent of his or her education, skill, competence and judgment. (A, B)

viii) There was also a belief, though less widely articulated, that care providers need to be **accountable**, as does the overall leadership, for the provision of primary health care. (C, I)

ix) As well, there was a belief (again, less widely articulated) that **adequate resources** are essential for the provision of quality care. (C)

The need for a common understanding of the vision and goals underlying interdisciplinary collaboration in primary health care was emphasized in these reports. The goals and key principles identified include:

- A client-centred focus that encourages patients/clients and communities to assume more responsibility for health;
- A multi-faceted approach that ensures quality of care and builds on existing strengths and evidence;
- Structures which facilitate teams learning new ways of working together in a trusting environment; and
- A clear but flexible structure that promotes enhanced communication and respect for the role of personal judgment and encourages each team member to bring his/her unique skills to bear.

Patient-Centred Care

The concept of patient or client-centred care stands out in the literature reviewed and thus, warrants further exploration. Patient-centred care is shaped around the convenience and concerns of patients. To bring this about, patients must have more say in their own treatment and more influence over the way the health care system works—an approach that allows patients to feel listened to rather than "talked at."

The "Patient Centreometer,"[30] developed by the Trent Region in the United Kingdom, proposes that the following common factors are indicative of a patient-centred National Health Service (NHS):

- Patients in control of their care

- Services integrated throughout agencies and professions
- Services that do the "small things that matter" well
- Services that are sensitive, equal and fair, and that listen first and then act

The ways that health care workers organize their clinical practices is determined by the extent to which they deliver a personalized service to the patient. Team-working, for instance, is important. Various approaches, such as the NHS Patient Centreometer, have been developed to help organizations achieve these objectives.

Perhaps not as well appreciated is that the meaning of this patient-centredness is driven by the patients themselves, and not by professionals interpreting what they think such a service should to be like. Change toward this type of approach must be supported from the top, with leadership from ministries of health articulating a policy direction that supports patient choice.

The experience of the NHS patient-centred plan provides some useful lessons. The following mechanisms can facilitate putting the patient's perspective first:

- Patients/clients can be more involved in decision-making and system planning (such as through patient forums); more involved in governance; consulted more on health care priorities; and have more access to independent health information.
- Patients/clients can plan their own care packages; for example, building on the lessons learned from the National Health Service's Expert Patient Programme in England.
- Patients/clients should have a central role regarding quality control in the health care system, with greater emphasis on patient satisfaction with service quality, and through exercising personal choice.

Two ways that patients/clients can be engaged in decision-making at the system and provider levels are:

1. Participation in institutional governance. An appointments commission can identify, in a non-political manner, candidates to sit on the governing boards of health care institutions. This is best supported through training of individuals in effective and responsible board membership.
2. Participation in patient forums. The health service system can set up and fund "patient and public involvement forums" comprising people from each institution's local community. In England, these are similar to Patient Relations Councils or similar bodies that many hospitals have to improve communication between patients and the hospital, but differ to the extent that they embrace the wider community and its interests in the hospital. Advocacy on behalf of patients in National Health Service facilities is undertaken by the Patient Advocacy and Liaison Service.

As part of assuring continued quality of health care, governments can consider introducing mandatory periodic revalidation and relicensure of practitioners in self-regulating professions (such as doctors). Along with this, they can improve the systems for reviewing professional conduct.

Lessons Learned from Other Environments

The experiences of other countries can also provide insight into how successful interdisciplinary collaborative practices work. We reviewed studies from the United Kingdom, Australia, the United States, Switzerland, Sweden and Spain.

United Kingdom

A study conducted in the United Kingdom by British researchers Borrill et al.[31] over a three-year period reported on consultations with more than 7,000 National Health Service (NHS) personnel and a

large number of NHS clients. More than 400 teams provided quantitative and qualitative data that revealed the following wisdom:

- The clearer the team's objectives, the higher the level of participation in the team.
- The higher the level of commitment to quality, the higher the support for innovation.
- Greater role clarity increased peer support and the mental health and satisfaction of care providers.
- Professional diversity increased innovation.
- A lack of team leadership was associated with low levels of effectiveness and innovation.

Another U.K. study of clinical governance in the National Health Service[32] noted that the architects of clinical governance have long argued that achieving the right culture is a crucial element. Other key elements identified by this study include:

- Good leadership at all levels;
- Open and participative style;
- Good internal communication;
- Education and research;
- Patient and user focus;
- Feedback on performance routine;
- Good use of information;
- Systematic learning from good practice and failure; and
- Strong external partnerships.

England's National Health Service has reformed its approach to primary care in recent years. These are the factors of success that the NHS has learned through its experiences in interprofessional collaboration and patient-centred care:

- Remember that the goal is delivery of effective health care. Collaboration is a factor for achieving that goal; it is not the goal in itself.
- Reform the governance of institutions to increase public scrutiny, periodically revalidate the licences of doctors and improve the system of review of professional conduct. This will contribute to delivery of better service.
- Educate, empower and involve patients ("the expert patients' initiative") so they can effectively participate in the management of their health care.
- Increase the flexibility of funding. Move funds to suit patient choices. Use public funding to pay privately owned service providers, Autonomous Foundation Trusts (which are public interest companies), and Primary Care Trusts (organizations comprising whole communities of general practitioners, responsible for setting and paying for service contracts with acute service providers).
- Fund extra nursing positions for case management of older patients (particularly in the growing provision of home care).
- Spend more money on health care. This boosts the country's productivity through improved health and through health industries' innovations.
- Use a health risk model to align resources to patients' levels of risk.
- Create self-care models that help individuals living with long-term conditions to better manage their care, outside acute or long-term care settings.
- Use information technology for patient records and bookings, and to educate health professionals.

Australia

Interdisciplinary collaboration has been the focus of Australian federal initiatives and policies for the past 25 years. A new government directive has challenged general practitioners to develop new relationships to address the needs of patients/clients with complex, chronic medical conditions in a wide range of settings.[33]

To prepare for this new initiative, the experiences of general practice units with a long history of working in collaborative care were studied. The teams involved general practitioners, psychiatrists, behavioural intervention specialists, educators, speech therapists, psychologists, case managers, paid caregivers and the patient's family.[34]

This study identified the benefits and complexity of interdisciplinary practice. The report identified the essential components of teams as: efficiency, flexibility, shared goals, a holistic view of the patient, good communication, minimal structure, parallel approaches, and the personal and professional characteristics of participants.

United States

In a U.S. physicians/system alignment study, Gillies et al.[35] underscored the importance of placing more emphasis on integrative processes. Effective relationships, built on trust and commitment, are crucial. Site visits conducted for the study revealed the importance of the following factors to success: improved information systems, alignment of incentives, equity and fairness in compensation programs, and the ongoing development and implementation of care management processes. But, above all, the report emphasized that it is vital to "keep score" in order to demonstrate that the return is worth the investment in interdisciplinary collaboration.

Switzerland, Sweden and Spain

In a recent Conference Board of Canada report, *Challenging Health Care System Sustainability: Understanding Health System Performance of Leading Countries*, Switzerland, Sweden and Spain were top performers in providing health care to their citizens. While the study looked at the health care systems of these countries from a broad perspective, it also reviewed primary health care delivery and found that countries that focus on the determinants of health seem to have better health protection status. With the exception of Switzerland, these top performers have less expensive systems than Canada. The study also found that when the health care workforce is able to use tools, such as information and communication technologies (ICTs), and to participate in continuing education, the result is substantial enhancement to patient care and productivity.[36]

Internal and external communication supports are also crucial to an integrated approach to services. Currently, Swedish hospitals spend double that of Canadian hospitals on ICTs. This investment permits every health care provider who deals with a patient to have access to health records, which, in turn, enhances co-ordination and quality of care.[37]

Sweden shows exceptional support for continuing education programs. Physicians are allocated up to 15 per cent of their working time for continuing education and are encouraged to undertake post-graduate programs and research. These factors contribute to staff motivation and give them a sense of pride and social responsibility.[38]

Switzerland, Spain and Sweden also focus on the broad determinants of health. By pursuing targeted federal strategies, coupled with efficient regulator measures, these countries have shown declines in environmental pollutants and increases in controlling communicable diseases through education and immunization.[39]

Common Features of International Studies

Articles from the United Kingdom, United States and Australia stressed the importance of a culture that supports interdisciplinary collaboration. The success and duration of collaborative relationships appear to be directly related to the amount of time invested in establishing a firm foundation among the participating individuals and their respective agencies. Taking the time to establish this foundation fosters a higher level of team development, which in turn, enables the team to work more effectively towards its collective goals.[40]

Experiences in these countries also demonstrated the importance of information systems, as well as the importance of investing in technology and information technology in order to share records and information about clients, and to track drugs. They also stressed the importance of a funding system that covers the cost of other professionals (e.g., nurses,

occupational therapists), as a way of encouraging the formation of interdisciplinary teams.

Redefining Barriers

Interdisciplinary teamwork is considered by many to be the most effective way to deliver services.[41] The previous section explored what is generally seen to enhance interdisciplinary collaboration in primary health care. Yet, as shown in practice and in the literature, there are many teams that do not function as well as they might.

The barriers to interdisciplinary collaboration have been studied extensively. In fact, the list of barriers to interdisciplinary collaboration found in the literature can be daunting to any organization wanting to embark on this approach.

In this section, barriers are redefined as a series of challenges, each with its own set of issues and strategies. Taking this approach, these challenges can be grouped under the following categories:

i) The need for a long-term commitment to interdisciplinary collaboration by all levels within an organization;
ii) A common understanding of organizational structures and processes within an organization;
iii) The need to redefine roles and understand resistance to change;
iv) The need to build clients' awareness and understanding of interdisciplinary approaches;
v) Recognizing and addressing structural problems that may make interdisciplinary teamwork difficult, including adequate resources to support the team; and
vi) Committing to ongoing evaluation and adjustment of the team approach.

Long-term Commitment to Interdisciplinary Collaboration by All Levels within an Organization

Interdisciplinary collaboration requires, at its core, a commitment by an organization to restructuring. Breaking from "the silo approach" is not a simple matter; it takes vision and a leadership that is committed to change and to working through the challenges associated with change.

Strong leadership is required to motivate staff to change and to see the change through in the long term. Several studies[42] stressed the importance of having managers or senior staff on the team. They believe that having team members from higher levels demonstrates an institutional commitment to collaboration and gives the message that this is not just a passing phase.

Griffiths[43] studied a newly established community rehabilitation team composed of physiotherapists, occupational therapists and nurses. She found that when a new team and a new service were being established at the same time, one of the first barriers was what she called "historical" factors (i.e., different philosophies of practice and lack of common goals and objectives). The findings suggest that when recognized barriers to teamwork (such as geographical separation and different employers) are eradicated, teams can achieve higher levels of teamwork.

An evaluation of physician–system relationships in 14 health care systems in the United States[44] found that the most common barriers are culture, a lack of information and evaluation systems, and a lack of clear leadership by physicians.

Similarly, a study undertaken by Alberta Health and Wellness[45] summarized the experience of 27 Alberta primary health care projects developed with the Health Transition Fund. It found that one of the great flaws in the move to an interdisciplinary team was the fact that both the time and the effort needed to build a team were often underestimated. Instead of

an "if you build it, they will come" approach, teamwork requires a common goal. Then individuals need to commit to that goal, trust one another, learn how to communicate effectively, and make decisions as a group. Processes must be in place to support their work.

Ensure Common Understanding of Organizational Structures and Processes within an Organization

Even when the commitment is there, organizations must ensure that their structures and processes support collaboration. In his study of a community mental health team in the United Kingdom, Brown[46] noted that even in cases where managers and policy-makers were genuinely interested in promoting flexible ways of working, other staff maintained a strong sense of their boundaries.

The U.K. report *Teamworking in Primary Healthcare*[47] found that while significant moves have been made to adapt education and continuing education to train professionals for an interdisciplinary approach, most practicing health professionals have not been exposed to interdisciplinary practice.

As Griffiths[48] points out, difficulties often arise because of the lack of common goals and objectives; he adds that there is a need for team members to learn about each other's roles and responsibilities. If an organization wants to establish an interdisciplinary collaborative model and does not take the time to establish common goals, objectives and processes, problems inevitably result.

Carletta[49] explored the relationship between communication and interdisciplinary effectiveness within the context of a large study funded by the department of health, involving more than 7,000 National Health Service team members. Based on interviews with practice managers about team practice and observation of cross-disciplinary team meetings, she outlined the barriers that are created when information is not effectively shared. She emphasized the importance of sharing information both in formal settings (e.g., meetings) and informally among team members.

Redefining Roles and Understanding Resistance to Change

The success of the interdisciplinary team approach depends on having knowledge of the role of one's own profession, as well as the roles of other disciplines that serve on the team.[50] While "boundary-blurring" across disciplines is often thought of as a remnant of another era, some literature shows that interdisciplinary practice can actually create boundaries. When Bridges[51] examined the newly introduced inter-professional care co-ordinators within the National Health Service, he found that the very characteristics of flexibility, autonomy and informality that led to the development of a new role in acute care were also a source of tension with inter-professional colleagues.

Even in areas held up as examples of holistic collaboration, tension, competition and role confusion can occur. When Reese and Sontag[52] examined hospice services, they found that a lack of knowledge of the expertise, skills, training, values and theoretical orientation of other professionals can lead to resistance. A perception of overlapping roles, or "role-blurring" (in this particular case, between nurses and social workers), can lead to competition, which can have a negative effect on service quality.

In some cases, serious problems arise that need to be addressed, firmly and systematically. In their study on mental health care service providers in primary health care services in the United Kingdom, Nolan and Badger[53] found that disputes over professional boundaries and responsibilities (also called "turf wars" and "tribalism") should have been addressed. In other cases, deep ideological differences held by different professionals created barriers.

Build Clients' Awareness and Understanding of Interdisciplinary Approaches

The Reese and Sontag study on hospices also shows that barriers can be created when clients do not understand the interdisciplinary approach to care. When clients are unclear about the role of team members, they may resist working with some members of the team.[54]

Lee[55] looked at home health care—a field that is growing rapidly because hospitals discharge patients/clients too early. Teams providing services to these patients/clients with complex needs often include: social workers; nurses; physical, occupational and speech therapists; and home health aides. Team members need to clarify roles with clients and ensure that there are open lines of communication, both among themselves and with their clients.

Similar findings were evident in a study by Sicotte et al.,[56] who surveyed more than 150 community health care centres in Quebec to assess the degree of interdisciplinary collaboration among professionals working in these centres. Overall, the study found that collaboration was closely linked with the type of client being served (i.e., there was more collaboration among those working with elderly patients/clients with complex needs) and with intra-group processes, shared values and beliefs.

Recognize and Address Structural Problems, Including the Need for Adequate Resources

Long[57] found that entrenched organizational practices can prevent successful teamwork. She observed that throughout the health care system, interdisciplinary work is rarely recognized or rewarded. Achievements are most often recognized by individual disciplines, rather than among disciplines. Accrediting agencies and licensing systems actively, if not deliberately, discourage interdisciplinary collaboration.

An Alberta[58] study also found that there are few incentives (particularly financial) to participate in teams. This situation is further complicated by the existence of a variety of reporting structures and unaligned mandates among participating professions. The study found that one of the major challenges to an interdisciplinary approach is the current structure of the health care system itself. It observed that many funding models do not support or fund interdisciplinary practice. Where they exist, legislative frameworks often limit the scope of professional practice.

Commit to Ongoing Evaluation and Adjustment of the Team Approach

Another barrier to successful interdisciplinary collaboration is the lack of evidence about its effectiveness. Gillies[59] notes that without this evidence, it is difficult to convince physicians to be part of the team.

Other authors highlight the lag between active collaborative models and publication of program results. Long[60] also states that because funding for interdisciplinary teamwork is often project-based, it is unusual for these initiatives to become institutionalized, adequately resourced and formally evaluated.

Even when an organization makes a commitment to interdisciplinary collaboration, results are not immediate. The U.K. study showed that this can lead to pressure from funders. Lack of progress or uneven progress can lead to cynicism and frustration.

Summary of Challenges to Interdisciplinary Collaboration

Interdisciplinary teamwork is considered by many to be the most effective way to deliver services. Yet many barriers to interdisciplinary collaboration have been identified that could be daunting to any organization embarking on this approach. Extensive studies have found that many teams that do not

function as well as they could, even when organizational structures and processes are in place. These challenges may be amplified when professionals seek to collaborate without this organizational structure. In this context communication mechanisms become all the more critical.

Patient/Client Outcomes

As demonstrated, the current literature often posits that interdisciplinary collaboration is the best way to provide health services. As well, studies conclude that this model will likely continue to grow with the increased focus on community and home-based services.

More and more, interdisciplinary collaboration is being viewed as a key strategy to provide the best quality and most effective care for people who require multiple services, or who use both acute and primary health care services.

Finding data on the outcomes of patients/clients served by interdisciplinary teams is a challenge. The following section summarizes what is known about outcomes of patients/clients served through interdisciplinary practice in primary health care. However, interpretation of this data should be undertaken, bearing in mind that developing mechanisms to effectively assess outcomes is challenging. This section looks at:

- Challenges of measuring outcomes;
- Outcomes related to user satisfaction;
- Positive outcomes related to improved health and quality of life; and
- Adverse outcomes.

Challenges of Measuring Outcomes

A 2001 study by Schmitt[61] showed that progress in converting decades of inter-professional delivery of primary health care into an evidence-based practice has been slow to develop. Schmitt posits that one of the primary reasons for this situation is a lack of awareness of the merit of teams.

Schmitt[62] reviewed research undertaken in the United States during the past few decades to assess whether interdisciplinary care improved the quality of care. She concluded that outcome measurement research has been limited by the lack of a clear definition of interdisciplinary collaboration, making it difficult to measure the effectiveness of teams or the impact of their work on clients.

In 1999, Schofield and Faulkner[63] conducted a literature search on the effectiveness of interdisciplinary teams in health care and social services. They read more than 2,200 abstracts and analyzed 224 articles. They, too, found that the lack of a clear definition made it difficult to assess the effectiveness of interdisciplinary collaboration. They noted that in the literature, interdisciplinary collaboration is considered a fixed entity, while in reality, teams vary greatly.

Schofield and Faulkner also found that because the conceptualization of teams was so poor, reliable conclusions could not be drawn. They questioned the enormous time, energy and resources that have been spent exploring this issue and recommended that more sophisticated research be undertaken in the future, framed by a clear definition of interdisciplinary collaboration and documentation by practitioners.

Some studies argue that the assumption that primary health care teams provide more effective quality of service to patients/clients needs to be tested. They emphasized the need for more research to be undertaken to prove that team-building improves effectiveness in delivering patient care and achieving health promotion targets.

A 1993 study by Poulton and West[64] identified key challenges to measuring the effectiveness of interdisciplinary collaboration in primary health care:

- The fact that primary health care includes not only medical care but also health promotion and

illness prevention makes it more difficult to measure team effectiveness by outcomes.
- Even if teams have targets and achieve them, their success could be attributed to their environment and the make-up of their practice populations, rather than the intervention itself.

Zwarenstein et al.[65] conducted a systematic review of interventions promoting collaboration between nurses and doctors. They, too, found a lack of rigorous evidence to support the use or abandonment of strategies to improve inter-professional collaboration. They also did not find evidence of its direct effects on collaboration, or the consequences of collaboration for patients/clients.

A 2003 study by Carter[66] examined the extensive use of teams in the National Health Service (NHS) and underscored the need to do research on outcomes. The authors felt that this would help "harness the energy in the NHS" and find new ways for effective and functional teams to deliver health care, including the organization of health care staff and the measurement of the quality of care.

Another study found that the short-term focus of much of the research mitigated against seeing those benefits that take longer to accrue.[67]

Increased User Satisfaction

Despite the many challenges inherent in measuring outcomes, several recent reviews of the international literature on the effectiveness of interdisciplinary collaboration in primary health highlighted *increased user satisfaction.*

In a 2001 study, the authors of *The Effectiveness of Health Care Teams in the National Health Service* concluded: "Teams have been reported to reduce hospitalization time and costs, improve service provision and enhance patient satisfaction, staff motivation and team innovation."[68]

These findings are supported in a review undertaken for Alberta Health and Wellness, which noted that one of the positive outcomes of interdisciplinary collaboration is increased user satisfaction, achieved by improving access to a range of services and ensuring fewer gaps in service.[69]

A 2003 study analyzed findings from the U.K. department of health on the development of service frameworks for cancer.[70] Reports noted that when patients/clients knew they were being looked after by a multidisciplinary team, they developed a sense of confidence. They described this confidence as being similar to the effect of getting a second opinion—it reduced their fear that their treatment was based on the knowledge of just one clinician.

Increased user satisfaction was especially noteworthy in several target populations:
- ***Veterans with complex needs****:* In one of the larger studies done in recent years, Hughes[71] reported on a multi-site, randomized, controlled trial in 16 Veterans' Affairs medical centres. The study compared team-based home care with customary home care for nearly 2,000 older patients/clients who had two or more activities related to daily living impairments, or a terminal illness. An interdisciplinary team composed of social workers, dietitians, therapists and pharmacists concluded that by working together, they were able to improve patient satisfaction. Collaboration also improved caregiver quality of life and satisfaction with care. Caregiver burden and hospital re-admissions at six months were reduced. This study also argued for the need to take a long-term perspective in order to see the benefits that accrue as patients/clients adapt to the new team.
- ***Children with special needs:*** Interdisciplinary collaboration was especially positive for children with special needs. A study done by Naar-King et al.[72] in 2002 assessed consumer satisfaction with a collaborative, interdisciplinary health care program. The program served children under the age of 21 who have complex medical conditions (e.g., severe, chronic or handicapping conditions

requiring complex assessment and co-ordination). The team comprised specialty doctors, nurses, dietitians, social workers and psychologists who brought in occupational or physical therapists, as needed. Five hours of non-medical intervention services were provided as required.

The evaluation showed that clients and their parents/caregivers were very satisfied with this collaborative family-centred approach. They reported feeling well-informed and confident about managing their child's condition at home. While core team members found the program provided quality care, the authors found a need to undertake a comprehensive evaluation of the program that links program processes to program outcomes.

Positive Outcomes Related to Quality of Life, Quality of Care and Health

Positive outcomes for quality of life, quality of care and health have been shown in a significant number of studies:

- In their evaluation in a 2000 study of two-year outcomes of ***geriatric primary care***, Burns et al.[73] found that a primary care approach that combines an initial interdisciplinary comprehensive assessment with long-term interdisciplinary management can, over time, significantly improve outcomes for older adults. Areas of improvement included better health perception, the use of fewer medications, greater social activity, life satisfaction and general well-being. The authors stressed the importance of a long-term view and noted that effectiveness may seem limited initially (eight months) but increases over time.
- ***Chronically ill seniors:*** In a 2000[74] study, Sommers et al. discussed an 18-month intervention with physicians in private practice who collaborate with specially trained nurses and social workers to care for chronically ill seniors. The study's authors found that the differences between the control and intervention groups did not surface until a year into the study, when the intervention groups reported fewer symptoms, slightly improved overall health status and a higher level of social activity. The authors noted that this should not be surprising, as participants said the first 12 months were spent developing relationships.
- ***Patients/clients with complex social and medical needs:*** A 2003 study by Carter[75] recounts that, in the past several years, there has been considerable development in multidisciplinary work throughout the NHS. This development has been most beneficial for managing care for patients/clients with cancer, diabetes and complex medical and social needs, such as stroke rehabilitation. He concludes that, "It is widely held that teams deliver better care than individuals working in isolation."
- ***General patient population:*** Isetts et al., in a 2003[76] study, investigated collaboration between physicians and pharmacists in Minneapolis–St. Paul. After resolving more than 5,000 drug therapies for 2,500 patients/clients, they found that drug-related morbidity was reduced, therapeutic goals increased and the quality of care provided by pharmacists was enhanced when working with physicians to provide drug therapy management services.

Sharma et al. reported in 2001[77] on the evaluation of the Liverpool Primary Mental Health Project. Data were collected on all patients/clients who had contact with the team during a three-year period. The findings were compared with the data available from five neighbouring conventional practices. The results were dramatic: both patients/clients and practitioners were very satisfied with the care. In-patient use of beds dropped by 38 per cent, while use in neighbouring practices that lacked an interdisciplinary approach increased. Waiting times for new patients/clients decreased from six weeks to one to two weeks.

In 2004, D'Amour et al.[78] discussed several studies that looked at the outcomes of clients who participated in the decision-making process and

found that these clients have more positive outcomes. The authors hypothesize that involvement of the client can minimize professional paternalism and traditional methods of intervention and can make them the focus around which all members coalesce.

- ***Patients/clients with specific medical needs:*** In 2003, Hultberg et al.[79] described intervention centres in Sweden that brought workers from primary health care, social service and social insurance together to respond to the needs of patients/clients with musculoskeletal diseases. The control centres reported increased effectiveness and reduced cost as a result of collaboration among rehabilitation partners. The successes were also likely to be facilitated by co-financing and co-location of agencies, as well as the joint political steering of the authorities involved.
- ***Mental health services:*** An older study by Jackson et al.[80] in 1993 described the introduction of service provision before and 12 months after the introduction of a multidisciplinary mental health team into a U.K. community. They found that more patients/clients received care, had access to specialized services when needed, and reduced their use of hospital outpatient services.
- ***Health maintenance in complex cases:*** In 2004, Farris et al.[81] reported on a "dispersed," community-based team model that included collaborative, community-based care among family physicians, pharmacists and a home care case manager (nurse) in Alberta. The focus of the project was on the use of medication and involved team members *not* working in the same location. Most of the 182 patients/clients were quite ill, so maintaining the health of these high-risk, older (their average age was 66), community-dwelling patients/clients was considered a positive outcome. A preliminary evaluation indicated that compliance with treatment improved after three months and again after six months. Patients/clients also had fewer visits to physicians, emergency departments and hospital admissions. Team members developed a greater understanding of the role of other team members.

Adverse Outcomes

Adverse outcomes were not reported as often in the literature. It is not known whether or not this is because there is a research bias that influences the number of cases discussed. There is little information on the adverse outcomes of patients/clients seen by interdisciplinary teams in primary health care; therefore, information from other segments of the health care system (e.g., tertiary care) is also discussed here.

Schmitt[82] discussed a 1997 study linking organizational variables in care delivery systems to adverse outcomes (including morbidity, mortality and other adverse effects) over the past 30 years. One study of outcomes in intensive care units in 13 tertiary care hospitals found that the differences in mortality among the units could be attributed to differences in interaction and co-ordination among intensive care staff, particularly among physicians and nurses.

The 2004 literature review by D'Amour[83] referenced two articles with adverse outcomes. In *Choices for Change: The Path for Restructuring Primary Health Care Services in Canada*, P.A., Lamarche et al. also found that clients of some community models (that relied on multidisciplinary teams, among other features) have poorer outcomes, in terms of accessibility and responsiveness, than clients served in other models of care. This view was supported by Safran,[84] who studied the evolution of patients'/clients' perception of primary care accessibility, continuity and co-ordination.

Sicotte et al.[85] surveyed more that 150 community health centres in Quebec and found less than ideal levels of interdisciplinary collaboration in them. This study also found that some types of patients/clients were better served by collaborative practice. Clients with complex, long-term chronic conditions (often the elderly) benefit from interdisciplinary practice,

whereas clients with acute, limited issues benefit from one-on-one consultation.

The literature tying outcomes to patient satisfaction, quality of care and interdisciplinary collaboration in primary health care is evolving. While much remains to be done to develop clear terms of reference that define outcomes related to task and function in teams, there is evidence to support the use of interdisciplinary collaboration. This section looked at the findings of more than 20 studies that measure outcomes related to increased user satisfaction; positive outcomes related to quality of life, quality of care and health status; and adverse outcomes.

Mariott and Mable proposed a rationale to explain why there is no clear evidence base in primary health care.[86] The authors suggest that one of the reasons the evidence base does not yet exist could be the dynamic pace of innovation in the delivery of primary health care. They point out the lag between innovation and documentation, and an even greater gap between innovative projects and the ability to publish results. They also noted that there is rarely one distinct innovation with a definite start or finish. Instead, constant systemic reform makes it difficult to trace the reasons why things evolve as they do.

Findings of Small Group Consultations with Canadian Health Providers and Patients/Clients

In addition to the analysis of the literature discussed in previous sections, cross-country consultations were organized by the Enhancing Interdisciplinary Collaboration in Primary Health Care Initiative in rural and urban communities in northern, eastern and western regions during August and September 2004.

The purpose of holding 13 provider and three patient forums was to gather timely provider and patient data on the state of interdisciplinary collaboration in primary health care in Canada. In particular, input was sought on issues related to primary health care reform.

Two hundred and sixty-one health providers and 65 patients/clients participated in 16 day-long forums. To gather a broad range of views from Canadians, providers and policy-makers, forums were held in Vancouver, Prince George, Yellowknife, Calgary, Regina, North Battleford, Winnipeg, Cochrane, Toronto, Montréal, St. John's, Halifax and St. John. A wealth of information was gleaned from each session with engaged participants.

The data collected from the sessions revealed that the state of Canadian primary health care and the views of providers and patients/clients reflect those in other countries. While there is a worldwide trend toward promoting interdisciplinary collaboration in primary health care as the way of the future, many factors actively discourage it from becoming a reality.

Challenges

Participants confirmed that many of the challenges identified in the literature are also present in Canada today. These include the lack of a clear definition of primary health care and issues related to access, waiting lists and referral processes.

Participants emphasized that:

- The lack of investment in information technology hinders information-sharing;
- Issues related to public versus private care create barriers;
- Current methods of remuneration of health care providers discourage collaboration;
- Increasing expectations and documentation requirements from funding agencies and insurance companies create a burden on providers;
- Regulatory and liability issues place an increasing strain on providers; and
- Unrealistic patient expectations add increased stress on the system.

Participants also explained how human resource issues have a negative effect on the provision of primary health care. They noted that:

- Turf protection among health providers is a major barrier;
- Providers need to change their ways of working and improve communication; and
- A shortage of providers in some communities and other frustrations with the current primary health care structure result in burnout and high turnover among providers.

Solutions

The solutions to enhancing interdisciplinary collaboration proposed in sessions across the country also reflect themes found in the literature. These include the need for:

- Leadership from national and provincial associations, and all levels of government;
- An effective administrative structure that supports collaboration;
- Increased use of technology;
- Shared physical space to encourage collaboration;
- Regulatory and liability provisions for new scopes-of-practice;
- Identification of optimal conditions for collaboration; and
- Projects that are evaluated as demonstrating effectiveness.

Principles to Guide Interdisciplinary Collaboration

Finally, participants identified the principles required to guide interdisciplinary collaboration:

- Defined leadership;
- Co-ordinated accountability;
- Clearly defined roles and responsibilities among team members;
- Skills and processes that support effective functioning of teams (e.g., trust, respect, communication, problem-solving ability);
- Holistic, accessible, seamless, evidence-based, patient-centred care, provided 24/7.

Best and Promising Examples of Practice

One of the challenges in singling out any one "best or promising practice" is the fact that effectiveness in innovative projects has not always been measured in a consistent manner.

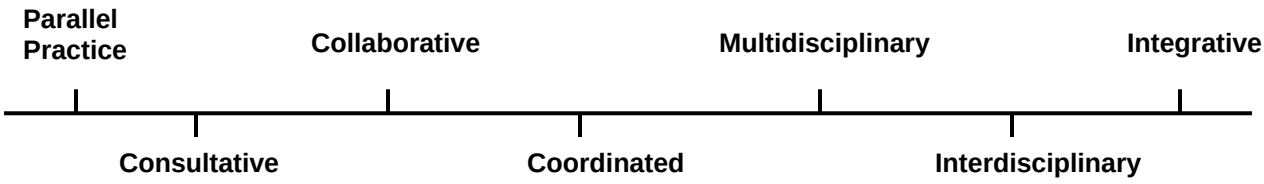
Information about the success of many projects is anecdotal, since the (often) unstable funding of innovative projects means that evaluation is glossed over, or there is a gap between when the project is being implemented, when an evaluation is conducted, and when the results are published. In addition, innovative projects often have "confounding variables"—meaning that exact cause and effect are hard to prove.

Yet, despite these challenges, there is a growing commitment to establishing evidence-based primary health care. Work is underway to explore the theoretical underpinnings of models that work (or are promising). At the same time, an increasing number of projects include an evaluation component.

This section discusses models of collaboration, the types of clients and environments that foster interdisciplinary collaboration, and the components of successful models. Examples of successful collaboration in Canada and other countries are presented to illustrate the variety of models in use and to demonstrate that no one model fits all situations.

Theoretical Models

A recent study by Boon et al. found that the ability to determine which model is best for each kind of patient has proven to be somewhat elusive.[87] In an effort to develop a starting point for researchers, practitioners and evaluators working in primary health care, the authors studied models that have been developed in health care systems in industrialized countries.



Source: H. Boon et al., "From Parallel Practice to Integrative Health Care: A Conceptual Framework"

The authors identified seven different models of team-oriented health care that can be situated on a continuum from the *non-integrative* to the *fully integrative* approach to patient care—with greater collaboration and a focus on the broader determinants of health more highly utilized, moving toward the right along the grid.

The framework is based on four key components, including philosophy/values, structure, process and outcome.

Philosophy/Values

- The emphasis is on the whole person, diversity of health care philosophies and consideration of determinants of health (increases moving to the right along the grid).
- There is reliance on the biomedical scientific model (decreases moving toward the right along the grid).

Structure

- Service structure is complex (increases moving to the right along the grid).
- There is reliance on hierarchy and clearly defined roles (decreases moving to the right along the grid).

Process

- The process highlights communication, a number of participants on the team, individualization, synergy and the importance of consensus (increases moving to the right along the grid).
- Practitioners have autonomy (decreases moving to the right along the grid).

Outcomes

- There is complexity and diversity of outcome (increases moving to the right along the grid).

Boon stated that the rationale for teams and the make-up of teams varies greatly, depending on the client being served and the environment in which care is provided. As the following section discusses, the teams that are most successful cross boundaries, in a trusting and collaborative environment. Team members may change, depending on the needs of the client, but the experience of all team members is valued.

An extensive review of collaboration models was undertaken by D'Amour et al. in 2004. The authors assessed models identified in the literature review by reliance on three criteria:

i) Empirical data;
ii) An explicit strategy of literature review; and/or
iii) An explicit theory.

Using these criteria, the authors identified seven models of successful interdisciplinary collaboration. Three of the models are based on empirical data and explicit theory, two on explicit theory, and two on empirical data. Two of them come from organizational theory, one is based on the sociology of organizations, and the other is based on social exchange theory.[88]

Analysis of the models showed that the most complete models are:

- Based on a strong theoretical background either in organizational theory or in organizational sociology;
- Take into account both the structural and process dimensions of collaboration and their correlation;
- Recognize several structural levels;

- Lead to a process theory that sheds light on behaviour in collaborative practice; and
- Rely on empirical data.

The authors highlighted three interrelated elements of successful collaboration within health care teams.

Elements Outside of the Organization

These include the following systems:

- ***Social:*** includes power differences among professionals;
- ***Cultural:*** fosters individualism, specialization or collaborative practice;
- ***Professional:*** fosters autonomy and control, rather than collegiality and trust; and
- ***Educational:*** vital to educating providers about the practices, expertise, responsibilities, skills, values and theoretical perspectives of professionals in other disciplines.

Organizational Determinants within Teams

- ***Organizational structures*** range from horizontal to hierarchical and have a strong influence on the development of collaborative practice in health care teams.
- ***Philosophy and values*** have an impact on the degree of collaboration. A philosophy that values openness, participation, fairness, freedom of expression and interdependence is essential for the development of collaboration within heath care teams.
- ***Administrative support*** is required to convey the new vision of collaborative practice, motivate professionals into collaborative practice and enhance an organizational setting o foster collaboration.
- ***Team resources*** are a pre-condition for a successful collaborative practice. The availability of time and space to interact is critical, as is adequate financial investment in the development of collaborative practice.
- ***Co-ordination and communication*** of standards, policies and interdisciplinary protocol enhance collaboration, as do standardized documentation, training sessions and formal meetings.

Interpersonal Determinants of Team Members

Key elements include:

- ***Willingness to collaborate*** and be part of a team; this is an important indicator of cohesion.
- ***Building trust*** requires time, effort and patience, and is based on positive experience.
- ***Communication*** influences the degree of collaboration present in relationships among team members.
- ***Mutual respect*** implies knowledge and recognition of the interdependence of various professionals and how they complement each other's roles within the team.

Appendix 1 includes two checklists developed in the United Kingdom to guide stakeholders who are working to enhance interdisciplinary collaboration in primary health care. One checklist was designed to guide the work of teams and team members, and the second was designed to guide the work of national associations. The list of stakeholders involved in developing these tools is also included in the appendix.

Best and Promising Examples from Canada

There has been a great deal of learning about interdisciplinary collaboration in primary health care in Canada in recent years. Many projects (some of which were supported by the Primary Health Care Transition Fund) use innovative models of practice in a wide range of settings and environments.

Evaluations of these projects and other national and provincial reports[89] stress that the interdisciplinary team is part of a larger constellation of care that promotes improved outcomes, including service funding modalities, professional compensation,

information systems and governance. When collaboration relies only on the partnership between service providers, its success will be limited. Local, regional and provincial/territorial stakeholders have important roles to play. Key findings from these reports highlight the need for:

- Access to key structural levers, including funding;
- Managerial leadership and expertise;
- Human resource management;
- Participation of managers on the team to facilitate co-ordination and integration;
- Training for service providers in team functioning and productive team behaviour;
- Clarification of the roles of each team member; and
- Organizational support, including administrative structures and resources for the team (e.g., time, space, administrative support).

The following examples illustrate findings about interdisciplinary work in several provinces.

Alberta

Twenty-seven projects were selected for the Alberta Primary Health Care Project, including four research, eight evaluation, and 15 demonstration projects (three of which involved major evaluation components). Each project featured one or more of the following approaches: system restructuring; system utilization; illness/injury prevention, health promotion and wellness; community health centre models; building capacity for healthy communities; multi-disciplinary teams; and information technology.[90]

The following are some of the overarching themes and trends that emerged from these projects:

- Integrating service delivery improves continuity of care. It requires collaborative planning among health professionals, partnerships between agencies and sectors, and consultation with stakeholders. Physicians can play a leadership role by promoting the participation of other health care providers.
- Collaboration among health care providers can result in improved access and other benefits to patients/clients.
- Information-sharing among care providers is essential to an integrated and effective primary health care system. It requires the use of electronic health records, clinically integrated databases and standardized communication mechanisms.
- The current fee-for-service system of reimbursing physicians discourages collaboration among health providers and fails to recognize preventive care efforts, such as telephone consultations with patients/clients. A different payment scheme needs to be developed and implemented in order to achieve a more integrated system.
- Programs to promote health and prevent illness and injury are effective elements of primary health care.
- Community capacity-building contributes to the overall well-being of the community.
- Certain aspects of primary health care could be improved, including accessibility, quality, effectiveness, continuity and cost-efficiency.
- The biggest predictors of success are integrating services and promoting collaboration among primary health care providers.

Quebec

An analysis of 40 Quebec projects supported by the Health Transition Fund[91] showed that:

- Straightforward projects that target a single disease or condition are the simplest to implement and demonstrate results fairly rapidly. However, these projects are limited in addressing the fundamental structural issues of the health care system.
- Three determining factors encourage a greater capacity for change:
  i) Targeting those who are receptive to change by building on professional expertise and engaging more stakeholders;

ii) Encouraging a variety of initiatives and acknowledging that there is no one right model; and
iii) Implementing flexible structures to increase inter-professional and inter-organizational collaboration.

In addition to these, the following factors were identified as predicting success:

- Recognized leaders who are able to engage other stakeholders in collaboration and hold a vision;
- Qualified human resource managers who receive ongoing training;
- Sufficient financial resources allocated for transitional activities;
- Departmental and regional authorities that are willing to actively participate in meeting challenges; and
- Adequate time allocated to demonstrating potential.

Saskatchewan

The Final Report to the Primary Services Branch of Saskatchewan Health highlighted the experiences of four pilot Regional Health Authorities, whose staff were trained in facilitation techniques and team effectiveness. Reports from these communities indicated that taking the time to train these local primary health teams was a key element in both team development and service delivery. Teams and their communities benefited from the opportunity to clarify their mandates and identify new skills and practices that would help them to provide more effective primary health care.[92]

Nova Scotia

Through the Strengthening Primary Care Initiative in Nova Scotia, practitioners learned a great deal about the introduction of nurse-practitioners in four communities over a three-year period. Experience and ongoing evaluation identified several important issues. These included:

- Remuneration of family physicians with methods other than a solely fee-for-service arrangement;
- The introduction and use of a computerized patient medical record;
- The importance of involving pharmacists early in these projects;
- Malpractice and liability insurance; and
- The need for clearly articulated nurse-practitioner legislation.

The importance of all disciplines co-ordinating regulations was illustrated by the government of Nova Scotia when it modified the *Pharmacy Act* to allow nurse-practitioners to write prescriptions.[93]

Currently, the concept of "health co-operatives" is being explored in several communities. In Annapolis Royal, four family physicians have launched a regularly scheduled clinic for patients/clients who have no doctor. Each doctor manages half a day in the clinic. There are plans to add a nurse-practitioner to the team. The Annapolis Valley District Health Authority provides free space for the clinic. Records are housed at the Annapolis Royal Health Centre. While the physicians acknowledge that this is a temporary fix, they are working to reduce pressure on the emergency system and to provide continuity of care.[94]

Ontario

Ontario has introduced both Family Health Groups and Family Health Networks in some communities across the province. The 15 Family Health Networks emphasize illness prevention and comprehensive primary care. They promote stronger doctor–patient relationships through a blend of fee-for-service, capitation payments and incentives for performing disease prevention measures. This model calls on physicians to work with a nurse-staffed, after-hours telephone advisory service to make primary care treatment or advice available to patients/clients 24/7.[95]

Examples from Other Environments

Seven models have been selected to highlight best or promising practices. These examples are meant to

illustrate a variety of models in different environments and to demonstrate that no one model fits all situations.

It is a challenge to single out one "best or promising practice," since effectiveness has not always been measured in a consistent manner. Innovative projects often have "confounding variables"—meaning that the exact cause and effect is hard to prove. Unstable funding can mean that evaluation is glossed over or that there is a gap between when the project is implemented, when an evaluation is conducted and when the results are published. However, while information about the success of many projects is anecdotal, there is a growing commitment to establish evidence-based primary health care, which would see more projects include an evaluation component.

The following seven examples have been chosen to demonstrate best and promising practices. Appendix 2 provides further information on each program, its history, the people involved, the practices that make it useful, as well as limitations arising from, for example, shortcomings in evaluation or lack of widespread applicability.

1. The McHugh School in Ottawa is an example of interdisciplinary collaboration outside of primary health care. It shows how collaboration among the fields of education, juvenile justice, mental health and hospitals ensures that children with serious issues can have access to education.
2. Getting team members who are not in one location to work together has enhanced primary health care for older patients/clients living in high-risk community housing in Alberta.
3. In Sweden, co-funding and co-location of health, social and social insurance services greatly improve outcomes for patients/clients with musculoskeletal diseases.
4. A virtual integrated practice in Chicago serves elderly out-patients/clients who live with chronic diseases by using technology to pull nurse-practitioners, social workers, pharmacists, physicians, and physical and occupational therapists together.
5. The Pinecrest Queensway Community Health Centre (CHC) in Ottawa shows how an interdisciplinary model with multiple service providers meets the needs of a very diverse clientele. It also demonstrates how this collaborative model leads to more collaboration, as the CHC also runs two other major interdisciplinary initiatives: the Early Years Centre and the First Words project.
6. Patients/clients with significant psychiatric problems benefit from a program seamlessly linking health and social and community services in Buffalo.
7. Six Nations of the Grand River runs a holistic, community-based, primary health care service (including education and programs to address the broader determinants of health) to respond to the needs of its clients on this reserve near Hamilton, Ontario. Six Nations has recently been accredited by the Canadian Council on Health Services Accreditation. Its birthing program is being used as a model by Aboriginal Healing and Wellness.

These examples are not intended to be, in any way, representative or exhaustive. Nonetheless, collectively, they reveal that there are many ways to successfully undertake interdisciplinary primary health care with a positive impact for patients/clients.

Summary of What Is Known about Best and Promising Practices

It can be difficult to identify a "best or promising practice," since information about the success of many projects is anecdotal in nature and the effectiveness of innovative projects has not always been measured in a consistent manner. Evaluation of projects is often ignored because of unstable funding, competing priorities or complexities that make cause and effect hard to prove.

Yet, despite these challenges, there is a growing commitment to establishing evidence-based primary health care. Work has been undertaken to explore the theoretical underpinnings of models that work (or are

promising) and an increasing number of projects include an evaluation component.

The research discussed in this report highlighted environments in which collaboration thrives and outlined three components of successful models:

- The social, cultural, professional and educational elements;
- The organizational structures, supports, philosophies and values that encourage new ways of working together; and
- The interpersonal traits of team members, including a willingness to collaborate, trust and respect each other, and to communicate effectively.

Examples of successful collaboration in Canada and from other countries were presented to highlight a variety of models in different environments and to demonstrate that no one model fits all situations.

Conclusion

What This Study Tells Us

The interdisciplinary collaboration approach is being used more and more in primary health care. Patients/clients are pleased with this approach and are well served by it, and many innovative examples exist in various parts of Canada and the world. Therefore, providers of health care should work to develop and improve its use.

This study has described how health professions and funders can pursue this in a fashion that will improve the chances of success. They can carefully develop teams and train health professionals to be members of these teams; successful collaboration is an interpersonal process that requires both willingness and skills on the part of participants.

But individual attributes are not enough—individual professionals alone cannot create all the conditions necessary for success. Organizational determinants play a crucial role, especially in providing adequate resources to support teamwork, human resource management and leadership.

Patients/clients must also be involved in their own care and, for some patients/clients, in monitoring the quality of service. For this, they must be informed of the process of the interdisciplinary collaboration approach, and of the role each person plays on the care team. The health system also requires channels through which patients/clients and their families can be involved in the planning, delivery and assessment of health care.

The use of interdisciplinary collaboration in primary health care must be assessed and evaluated, so that health care professionals may learn from experience and so that evidence can be gathered as a basis for requests for resources and other support.

The Next Steps

Interdisciplinary collaboration is hampered by a lack of commonly understood language and definitions. When health professionals begin meeting as a group, clarity and understanding can be enhanced through the development of a common language. In primary health care, practitioners, consumers, researchers and policy analysts all have their own vocabularies, and their understanding of "interdisciplinary collaboration" varies. Many related terms (multidisciplinary, interdisciplinary, transdisciplinary and transprofessional) appear in the literature, and it is not clear whether the terms can be used interchangeably. Leaders in this field should draft common definitions and language for interdisciplinary teams to use, get approval from the eventual users, and then disseminate this terminology.

People in decision-making positions in related government departments, as well as professional organizations, need to be informed of the benefits of interdisciplinary collaboration in primary health care, if they are to be committed to the idea and motivated as leaders. This is the level at which resources can be allocated, and recognition and incentives for

teamwork can be created. Innovative funding methods that will lead to the best service delivery should be considered. Valuable lessons about funding models can be learned from experiences like that of the National Health Service in England.

Professionals from all disciplines need to learn about collaboration, the roles of other professionals, and how they can work together effectively. Individuals need to be trained as team leaders, and then rewarded for this work. Time, resources and training must be invested in team-building. Clear communication, as well as proof of the benefits of team care for patients/clients, will help to lessen professional rivalries and mistrust that sometimes occur within health care teams. In addition, teams will benefit from the development of clear terms of reference that tie outcomes to tasks and functions.

As the teams go to work, they will need to inform and involve their patients/clients. They must also adapt to a greater degree of collaboration and adjust team composition to suit each patient's situation. The literature points to a variety of models with varying degrees of collaboration that can be used.

Information and communications technologies can assist in interdisciplinary collaboration in primary health care. For example, they can be used to deliver information and training to patients/clients, health professionals and teams. They also make patient record-keeping and care scheduling more efficient.

The effectiveness of interdisciplinary collaboration in primary health care needs to be measured, evidence needs to be collected that could lead to increased support for interdisciplinary care and improved service delivery through learning from experience.

APPENDIX 1

U.K. Forum on Teamwork in Primary Health Care

ROLES FOR TEAMS AND TEAM MEMBERS

The forum was convened as a joint initiative between the Royal Pharmaceutical Society, the British Medical Association, the Royal College of Nursing, the National Pharmaceutical Association and the Royal College of General Practitioners.

The forum was also supported by the Patients' Association, British Dental Association, Institute of Health Care Management, Association of Directors of Social Services, Association of Community Health Councils for England and Wales, Doctor–Patient Partnership, and Community Practitioners' and Health Visitors' Association.

These recommendations are intended to represent the principles for establishing a primary health care team and to describe what a team member should expect as the basis for successful teamwork.

THE TEAM SHOULD:

1. Recognize and include the patient, caregiver or their representative as an essential member of the primary health care team at the individual, patient-centred team level or at the practice level.
2. Establish a common, agreed-upon purpose, setting out what team members understand by teamwork, what they aim to achieve as a team, and how they propose to do this.
3. Agree on a set of objectives and monitor progress towards them. Build into its practice opportunities to reflect, as a team, on the care provided and how it could be improved. All team members are to be actively involved in the delivery of the agreed-upon objectives and in the decision-making process.
4. Agree to teamwork conditions, including a process for resolving conflict. Identify predictable problems that the team might encounter and plan ways of managing these.
5. Ensure that each team member understands and acknowledges the skills and knowledge of team colleagues and regularly reaffirms what each member contributes.
6. Pay particular attention to the importance of communication between its members, including the patient and off-site members, and use, to the full, technological developments to assist this, as they become available, where co-location is not practical.
7. Take active steps to ensure that the practice population understands and accepts the way in which the team works within the community.
8. Select the leader of the team for his or her leadership skills, rather than on the basis of status, hierarchy or availability, and include in the membership of the team all the relevant professions serving a practice population.
9. Promote teamwork in health and social care for patients who can benefit from it, using team members' joint efforts to help to reduce both ill health and social exclusion.
10. Evaluate all its teamwork initiatives and, as a result, develop its practice on the basis of sound evidence.
11. Ensure that the sharing of patient information within the team is in accordance with current legal and professional requirements.

U.K. Forum on Teamwork in Primary Health Care

ROLES FOR NATIONAL ORGANIZATIONS

SUPPORT NATIONAL PRIORITIES

12. Promote and publicize inter-professional national initiatives designed to address health priorities.
13. Impress upon government the potential for primary health care teamwork in modernizing the National Health Service (NHS) and the importance that government guidance is seen to support such teamwork, whenever appropriate.
14. Seek opportunities to discuss with government the cost-effective potential offered by the provision of appropriate resources in IT for facilitating teamwork in primary health care.
15. Take full advantage of the opportunities offered by National Service Frameworks (NSFs) and national guidelines, and give positive guidance to their members on developing teamwork to achieve the objectives of the frameworks.
16. Seek to ensure that the knowledge gained from effective teamwork is incorporated into the design of future public policy and NSFs.

EDUCATION

17. Take active steps to facilitate inter-professional collaboration and understanding through joint conferences, education and training initiatives.
18. Establish an overarching structure to help provide continuing support and education for teamwork among the primary health care professions.
19. Discuss with government the resourcing of facilitation and education on teamwork to ensure the most effective use of professionals in primary health care.
20. Within the responsibility of national bodies for, and their capacity to influence, undergraduate and/or post-graduate education of primary health care professionals, recognize that teamwork is a skill that needs to be taught and learned, and build opportunities to develop this into relevant basic curricula and post-basic training.
21. Highlight in their educational and service development initiatives the importance of organizational factors to the effectiveness of teamwork, including the provision of protected time and resources.

RESEARCH

22. Take positive steps to secure investment in research on teamwork and its impact on primary health care.
23. Promote the evaluation of all new initiatives in teamwork by having an evaluation component built into their design. Track these initiatives, collate and publicize evaluation results, and disseminate information on good practice to their members.
24. Give some priority to evaluating teamwork initiatives that include health and social care staff.

GUIDANCE

25. When defining primary health care teams, include patients and, where appropriate, caregivers, as full team members.
26. Promote the development of information for the public on the skills and knowledge of different health and social care professions, what they do and the links that exist between them. Also, explore ways of empowering people to care for themselves, when appropriate, to access primary health care services at the most appropriate point, and to make effective and responsible use of services.
27. Publicize the value of teamwork and the factors that facilitate good practice in teamwork in their communications to their members.
28. Acknowledge and promote the existence and value of various team compositions in primary health care, while accepting the importance of the general practice-based primary health care team.
29. Promote primary health care teamwork in partnership with social care, when appropriate, for the benefit of patients.
30. Take necessary steps to explore with the NHS executives the issues of confidentiality and sharing of information, as they relate to teams in primary health care, so enabling the provision of clear guidance to their members on these important and sensitive issues.
31. Provide guidance to primary health care professionals on legal and ethical aspects of sharing patient information among team members.

APPENDIX 2

Case Studies

CASE STUDY 1: **M.F. McHugh Education Centre**

Program location: Ottawa, Ontario

Program Description:
The M.F. McHugh Education Centre is a partnership of local boards of education and correctional, treatment and care agencies. Under the provisions of the *Education Act* in Ontario, the Ministry of Education provides full funding for teachers for the therapeutic education component of programs offered in partnership with community care/treatment organizations in a wide variety of settings.

Program Clients:
Children and youth in all grades, who, for a variety of reasons (including mental health needs, illness, substance abuse, or placement in a correctional facility), cannot be served in the regular school system.

Team Members:
- Though teams vary, each would have a teacher and a child and youth worker.
- Depending on the nature of the program partnership, other team members may include psychiatrists, social workers, speech-language pathologists, psychologists, occupational therapists and nurses.
- Team members work in an interdisciplinary model to assess the needs of the children and youth served, and to develop and implement a treatment and education plan that is carried out jointly.
- To create a seamless transition, team members also plan for discharge from the programs and work closely with the schools that will receive the children and youth upon discharge.

Successes/Best Practices
- McHugh School has been in existence for more than 30 years. Originating with the Ottawa Board of Education, McHugh is now a collaborative initiative for all local English-language boards of education, with a designated board taking the administrative lead on behalf of the others and linking with its French-language counterpart, *Le Transit.*
- Partnerships have evolved over time and have resulted in the delivery of therapeutic education programs in partnership with hospitals, residential treatment programs, children's mental health agencies, correctional facilities, programs for young single parents and substance abuse treatment programs.
- Over the past 10 years, McHugh and *Le Transit* have worked with community partners to design a continuum of day treatment services for the full age range of children/youth in Ottawa.
- To further enhance collaboration as a multi-partner, multi-disciplinary body, the Cross-Sectoral Children's Mental Health and Education Committee was formed and meets on a regular basis.
- To ensure that children and youth are matched with the most appropriate service, admission is co-ordinated and centralized through a community-based, co-ordinated access and referral committee.
- The continued successful delivery of programs requires interdisciplinary collaboration, not only at the service level and system level, but also with the ministries responsible for education, health, social services and corrections actively participating in local planning initiatives.

Evaluation:
- While the Ottawa model has not been specifically evaluated, a review of the literature underscores that positive outcomes are associated with programs characterized by joint mental health and education sponsorship; interdisciplinary teams involving both educators and mental health professionals; small class sizes; services to families; and a goal of reintegrating students in schools.

Applicability to Other Environments:
- The model of collaboration across ministries, local boards of education and multiple community partners has great applicability to other sectors with multiple service providers in multiple settings for a given population.
- The lessons learned from the long history of planning, co-ordinating and delivering a range of interdisciplinary programs in many settings to address the complex educational and therapeutic needs of children and youth will be of benefit to other sectors.

CASE STUDY 2: Enhancing Primary Health Care for Complex Patients

Program Location: University of Alberta

Program Clients:
High-risk community housing patients, with a focus on medication use.

Program Structure:
- This program aimed to implement collaborative, community-based care among providers not located at the same clinic.
- Six teams were formed who were not located in the same office and did not share a patient roster; teams received training and decided on processes of care, including home visits, medication history and weekly face-to-face team meetings.

Team Members:
- Family physician;
- Pharmacist;
- Home care case manager (nurse); and
- Physicians' office nurse (in three of six teams).

Successes/Best Practices:
- Team meetings were considered useful; participants strongly agreed that working with other professionals was helpful.
- The program helped to clarify providers' respective roles in the health care system.
- The "dispersed" community-based team model is promising; participants met in a convenient location and were paid for their travel and time for collaboration.
- Advantages over other models include:
  - Providers don't have to change work sites to engage in team care;
  - Centralized information systems were unnecessary;
  - The current fee-for-service model can accommodate such arrangements; and
  - The model combines services from the private and public sectors.

Evaluation:
- Care providers held 151 team conferences, at which they identified 705 medication or health issues for 182 patients over six months.
- Medication adherence among patients had improved at both three-month and six-month levels.
- After six months, all providers had a greater understanding of the roles of other providers.
- Positive outcomes indicate the value of this type of care for high-risk patients living in the community.
- Limitations include the short project period and evaluation time frame; a longer period might be required to observe other changes. The sample size was small and some patients were lost to follow-up, affecting the degree to which the findings are statistically significant.

Applicability to Other Environments:
- Primary health care teams developed in this study require few structural changes to existing health care systems, but they will require more reimbursement options, as few providers working in the community have the financial resources to work in teams.

CASE STUDY 3: Collaboration among Rehabilitation Partners

Program Location: Sweden

Program Clients:
Patients with musculoskeletal diseases attending primary care centres in Göteborg, Sweden.

Program Structure:
- "Intervention" centres brought together primary health care, social services and social insurance services (including a social insurance worker) to provide interdisciplinary services to patients with musculoskeletal diseases.
- Control centres consisted only of physicians and nurses, with rehabilitation services located at another site.
- The program was facilitated by special legislation permitting co-funding and joint political leadership by the three areas, which had previously been administered by separate regions.

Team Members:
- Primary health care workers;
- Social services and social insurance services, including physicians, nurses, occupational therapists, physiotherapists and social workers; and
- Social insurance officers.

Successes/Best Practices:
- Co-financing projects with federal/state government and municipal authorities improved interdisciplinary collaboration in health centres, compared to centres that had not entered into such co-financing arrangements.
- Co-financing legitimizes the formation of common long-term goals while emphasizing mutual benefits.
- Key factors in the project's success were: the team process, including formal team meetings, as well as informal interactions; co-location, which played a significant role in enhancing collaboration, because of the opportunities for informal collaboration; and broadened personnel resources (such as occupational therapists and social workers).
- Lack of physician involvement in teamwork, likely due to a shortage of physicians, meant that the roles of other team members shifted and became more central.

Evaluation:
- Qualitative evaluation used focus groups with staff to compare differences in goal formulation, collaboration and communication in health centres that had implemented co-financing projects and those that had not.

Applicability to Other Environments:
- Could be a model for overcoming jurisdictional boundary issues.
- Cultural differences among environments can affect collaboration.

CASE STUDY 4: **Virtual Integrated Practice**

Program Location: Rush-Presbyterian-St. Luke's Medical Centre, Chicago

Program Clients: Primary care out-patients, particularly elderly persons and those with chronic illnesses

Program History:
- It responded to three developments: growth in medical informatics (electronic medical records); growth in communications technology (e.g., cell phones, fax); and growth in elderly patient population with chronic illnesses;
- Physicians call upon a "virtual team" of professionals from other disciplines, as required; and
- This model is not based on one-to-one, in-person interaction; the Medical Centre is affiliated with the Geriatric Interdisciplinary Team Training Program (GITT).

Team Members:
- Nurse-practitioners;
- Social workers;
- Pharmacists;
- Physicians;
- Physical therapists;
- Occupational therapists; and
- Dietitians.

Structure:
- The function of team members is to communicate, exchange information, make decisions and delegate clinical tasks.

Successes/Best Practices:
- Relies on communications technology to link clinicians from different locations to co-ordinate and manage the care of patients, particularly those with chronic disease.
- Takes the team approach, acknowledged as the best way to care for geriatric patients and those with chronic illnesses, a step further.
- Overcomes the difficulty of gathering all team members together in one place, including scheduling conflicts, logistical barriers and time constraints, as well as the time-consuming nature of in-person team meetings, which can take clinicians away from other obligations and responsibilities.
- Information is shared among all team members, as opposed to a traditional model, where a physician may make a referral (for instance, to a dietitian), but there is no further follow-up and the dietitian is not linked to other members of the team.
- Patients have a greater sense of empowerment and control over the management of their health problems, and they have access to assistance and resources they might not have had before.
- Physicians remain central to the care of the patient, delegating tasks that other, less costly, professionals can handle.

Evaluation:
Evaluation ongoing

Applicability to Other Environments:
- Easily replicable in other environments;
- Requires assembling a team;
- Agreement on roles and responsibilities; and
- Willingness to use the appropriate technology to ensure information flow.

CASE STUDY 5: **Pinecrest-Queensway Community Health Centre**

Program Location: Ottawa, Ontario

Program Clients: Community members, particularly those who have difficulty accessing the health care system.

Program Structure:
- Non-profit organization, with voluntary board of directors that draws on local community representation.
- Provides primary health care and social services.

Team Members:
- Nurses;
- Nurse-practitioners;
- Physicians;
- Dietitians;
- Social workers;
- Community developers; and
- Early childhood educators.

Successes/Best Practices:
- Focus on holistic approach, wellness and health promotion empowers individuals to take responsibility for their own health and well-being.
- Provision of multiple services under the same roof, including cross-sectoral services, enhances access and the potential for flexibility, innovation and responsiveness to community needs.
- Collaboration leads to further collaboration: The centre runs the Early Years Centre (one of six in Ottawa) and the First Words projects, both of which are interdisciplinary and collaborative.

Evaluation:
- The need for evaluation has been identified but is considered difficult because clientele is often high-need and not easily comparable to the clientele of a typical primary care physician's practice. As well, the diversity of services offered from one centre to another (in response to community needs) makes comparisons difficult.

Applicability to Other Environments:
- Community health centres are recognized as a model for integrating primary health care and a range of social services at the community level.
- Funding arrangements may make the establishment of such centres difficult.

CASE STUDY 6: **Collaborative Mental Health Care Initiatives in Primary Care**

Program Location: Buffalo, New York

Program Clients: Patients with significant psychiatric problems

Program Structure:
- Program linked community psychiatric services with primary health care.
- Linkage includes helping patients to make connections according to their preference, empowering them, supporting providers, and reducing transportation and insurance barriers.

Team Members:
- Family physician;
- Family nurse-practitioner;
- Social worker;
- Registered nurse;
- Research associates;
- Data manager/statistician;
- Project manager; and
- Mental health peer advocates.

Successes/Best Practices:
- Developing collaborative relationships among primary care and behavioural health service providers and agencies was originally a challenge; information-sharing in-services held on site and developing a provider brochure helped to overcome those barriers.
- Patients with a community care manager were significantly more likely to make a successful connection to primary medical care after a psychiatric crisis.

Evaluation:
- An ongoing four-year study was conducted, comparing the impact of a community case-management team linking patients to primary care with a control group receiving treatment as usual. Patients were followed for a 12-month period.
- The overall general health of patients in the intervention group was significantly better than the health of those in the control group, and satisfaction with social functioning was significantly improved.

Applicability to Other Environments:
- Could be replicated.
- Appropriate connections between community mental health care and primary care physicians would need to be facilitated.

CASE STUDY 7: **Six Nations of the Grand River: Holistic Community-Based Health and Social Services**

Program Location: Southern Ontario

Program Clients: Band Members of Six Nations of the Grand River Reserve
(12,000 members live on reserve; there are 22,000 on the Band list)

Program Structure:
- Holistic health care for all Band members;
- Life stage appropriate care for women and children;
- Birthing Centre;
- Canada Pre-Natal Program;
- Healthy Baby/Healthy Children;
- Teen health: education–prevention service;
- Health clinics for men, including sexual health information and services;
- Addiction education–prevention services;
- Long-term care, home and day care, nurses, dietitians and medical transportation;
- Traditional wellness programs;
- Building healthy communities;
- School nurse program;
- Dental program, hygienist, prevention and education;
- Mental health/social development programs;
- Immunization programs;
- Infectious diseases, contact tracing; and
- Ongoing community assessments, research and evaluation.

Team Members:
- Nurses;
- Physicians;
- Psychologists;
- Mental health workers;
- Community care workers;
- Social workers;
- Dietitians;
- Nutritionists;
- Dentists, hygienists;
- Psychiatrists;
- Addictions workers; and
- Home care workers.

Successes/Best Practices:
- Population health approach, addressing the broad determinants of health;
- Holistic service plan, responding to the life cycle of the community;
- Involvement of staff, elders and community in program planning, delivery and evaluation;
- Community and staff involvement in community assessment;
- Range of funding/mix of funding sources;
- Accreditation by the Canadian Council on Health Services; and
- Recognition of the birthing program as a model for Aboriginal Healing and Wellness.

Evaluation:
- Ongoing community assessments, on which to base programs;
- Partnership with McMaster University for ongoing evaluation and planning;
- Birthing program designated as a model for Aboriginal Healing and Wellness; and
- Full accreditation by the Canadian Council on Health Services Accreditation.

Applicability to Other Environments:
- Holistic approach to health and social services responds to the broad determinants of health and is responsive to the full life cycle.
- Co-ordination of the complete range of services is a challenge, as is the wide mix of funding sources.

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- Dietitians of Canada
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