



Briefing **October 2012**

Improving Primary Health Care Through Collaboration

Briefing 2—Barriers to Successful Interprofessional Teams

At a Glance

- ◆ Barriers to collaboration impede the optimization of interprofessional primary care teams.
- ◆ Individual-level barriers include lack of role clarity and trust, and hierarchical roles and relationships.
- ◆ Practice-level barriers include lack of strong governance and leadership; difficulties in establishing appropriate skill mix and team size; and inadequate tools for communication.
- ◆ System-level barriers include inadequate interprofessional education and training, sub-optimal funding models, and lack of appropriate monitoring and evaluation.

INTRODUCTION

Countries with robust primary care systems have residents in better health at a lower cost.¹ One factor in achieving a more robust primary health care system is to optimize the use of interprofessional primary care (IPC) teams. IPC teams can improve health outcomes for patients with chronic and complex conditions.² They can develop care plans, address the medical and social needs of these patients, and provide better

1 Starfield, "Refocusing the System."

2 Jacobson, *Evidence Synthesis for the Effectiveness of Interprofessional Teams in Primary Care*; Chen and others, "Using the Teamlet Model to Improve Chronic Care in an Academic Primary Care Practice"; Zwar, "Do Multidisciplinary Care Plans Result in Better Care for Patients With Type 2 Diabetes?"; Katon and others, "Collaborative Care for Patients With Depression and Chronic Illnesses."



coordination of care.³ When chronic diseases are well managed, health system, economic, and societal benefits result in the form of reduced emergency department visits and hospitalizations, increased productivity, and lower premature mortality.⁴ Although significant reforms to primary care have been implemented over the past decade, barriers to optimizing IPC teams in Canada remain.

Based on a review of the literature, this second briefing of the series *Improving Primary Health Care Through Collaboration* highlights some of the important barriers to interprofessional collaboration in IPC teams. There is emphasis on those barriers to optimize what can be changed at the individual, practice, and system levels, and that are relevant to the Canadian context. Although there is abundant literature on the barriers to IPC team optimization, it remains unclear as to how these barriers can be overcome.

The content presented in this briefing is based on a review of the literature on interprofessional collaboration in primary care published in the past decade.

The first briefing in this series provided an overview of what is currently known about IPC teams in Canada.⁵ The main findings were that IPC teams vary across and within jurisdictions in terms of structure, function, funding, governance, and maturity. This, in turn, influences the quantity and quality of interprofessional collaboration in primary care. The third briefing will examine the health and economic impacts of IPC teams and the implications of improved access to them for the chronically ill, using the examples of diabetes and depression. The fourth and final briefing will provide recommendations for policy changes that can lead to more successful interprofessional collaboration in primary care.

3 Goldman and others, "Inter-Professional Collaboration in Family Health Teams."

4 Thériault, Stonebridge, and Browarski, *The Canadian Heart Health Strategy*; Hermus and others, *Cost Risk Analysis for Chronic Lung Disease in Canada*; Ohinmaa and others, "The Projection of Prevalence and Cost of Diabetes in Canada."

5 Dinh, *Improving Primary Health Care Through Collaboration. Briefing 1.*

What Is an Interprofessional Primary Care Team?

Interprofessional primary care (IPC) teams come in the form of physician-led practices, nurse practitioner-led practices, community-led practices, and integrated networks. An IPC team is a group of professionals from different disciplines who communicate and work together in a formal arrangement to care for a patient population in a primary care setting. Examples of common primary care settings are family physicians' offices or practices and community health centres. IPC teams often comprise family physicians or general practitioners; nurse practitioners; other nurses; and other professionals, including dietitians, nutritionists, social workers, mental health counsellors, psychologists, pharmacists, exercise physiologists, physical therapists, chiropractors, and physician assistants.

BARRIERS TO INTERPROFESSIONAL COLLABORATION IN PRIMARY CARE

The content presented in this briefing is based on a review of the literature on interprofessional collaboration in primary care published in the past decade. During that time, significant primary care reforms were implemented in Canada and comparable countries such as Australia, England, and the Netherlands.⁶ We identified relevant literature using electronic databases (Medline and Allied and Complementary Medicine); reports published by selected organizations and initiatives, (including Enhancing Interdisciplinary Collaboration in Primary Health Care (EICP), the Canadian Health Services Research Foundation (CHSRF), the Health Council of Canada, and Health Canada); and selected bibliographies. The review included traditional qualitative and intervention studies, systematic reviews, and commissioned reports.

INDIVIDUAL-LEVEL BARRIERS TO INTERPROFESSIONAL COLLABORATION

This section highlights some of the important individual-level barriers to interprofessional collaboration in IPC teams. They include a lack of role clarity and trust, and a perceived and projected professional hierarchy within the team.

6 The Commonwealth Fund, *Strengthening Primary Care.*

LACK OF ROLE CLARITY AND TRUST

Role clarity and trust are crucial in the development and optimization of interprofessional collaboration, especially within teams where professional silos previously existed.⁷ Barriers that inhibit role clarity and trust can, in part, be attributable to limited knowledge and understanding of other team members' knowledge, skills, and scopes of practice, making it difficult to manage and optimize roles within the team.^{8,9} The roles of individual team members in relation to the traditional physician-led model can be looked at in two ways: 1) task substitution and 2) supplementation.¹⁰ Task substitution occurs when one health professional assumes specific tasks of another health professional, with the intention of meeting the needs of clients (patients) and alleviating workload, workforce shortages, and costs.¹¹ Supplementation describes the working and shared-role relationship between physicians and other health professionals within a team as complementary, interdependent, and aimed at improving quality of care, as opposed to focusing on process efficiency or cost reduction.¹² Supplementation seems to be more acceptable among professional groups and is most commonly practiced in high-collaborating IPC teams.¹³

Some professional groups have overlapping competencies or variations of similar competencies. The first briefing in this series examined similar services provided across IPC team models that were sometimes delivered by different providers. For example, depending on the jurisdiction, physicians and nurse practitioners can make

primary diagnoses, make referrals to specialists, and prescribe medications. Similarly, various providers, including dietitians, nutritionists, and nurses, can provide education such as nutrition counselling to support self-management of chronic diseases. Mental health counselling may be offered by social workers, mental health counsellors, or psychologists. Overlapping skills can create difficulties in formally establishing defined roles within an IPC team. For IPC teams to be effective in team functioning and improving patient outcomes, team member roles in the planning and delivery of care must be clearly expressed and negotiated.¹⁴ This process is often overlooked during team development and transformation. A lack of role clarity when care is shared creates confusion within the team, and can cause conflict and sub-optimal care for patients.¹⁵

PERCEIVED AND PROJECTED HIERARCHICAL ROLES AND RELATIONSHIPS

Team effectiveness and collaboration can be compromised when team members perceive and/or project a professional hierarchical order of importance or power.¹⁶ A study by Gotlibb Conn and others suggests that it is very difficult to eliminate hierarchy in a primary care team. Because of the medico-legal responsibilities that they hold, physicians often assume important medical decision-making.¹⁷ Nonetheless, non-physician team members can feel disappointment and reduced job satisfaction when their involvement in decision-making is limited.¹⁸ In their study of a family health team in Ontario, Gotlibb Conn and others found that language was critical in creating a work environment where both providers and patients understand and value the unique roles and contributions of all members of the team.¹⁹ They noted that, after two years of implementing an appreciative inquiry intervention to promote and support interprofessional

7 Gotlibb Conn and others, "Creating Sustainable Change in the Interprofessional Academic Family Practice Setting."

8 *Scope of practice* "[is] the range of activities that a qualified practitioner of an occupation may undertake; establishes the boundaries of an occupation, especially in relation to other occupations where similar activities may be performed; may be established through governing legislation or through internal regulations adopted by a regulatory body."

9 The College of Family Physicians of Canada, *CFPC Vision Statement on Inter-Professional Care*.

10 Hefford and others, *Practice Nurse Cost Benefit Analysis*.

11 Ibid.

12 Ibid.

13 The College of Family Physicians of Canada, *CFPC Vision Statement on Inter-Professional Care*; Dinh, *Improving Primary Health Care Through Collaboration. Briefing 1*.

14 Mitchell, Tieman, and Shelby-James, "Multidisciplinary Care Planning and Teamwork in Primary Care."

15 Ibid.

16 Gotlibb Conn and others, "Creating Sustainable Change in the Interprofessional Academic Family Practice Setting."

17 Ibid.

18 Shaw, de Lusignan, and Rowlands, "Do Primary Care Professionals Work as a Team."

19 Gotlibb Conn and others, "Creating Sustainable Change in the Interprofessional Academic Family Practice Setting."

collaboration within the family health team, for some study participants “language use, in addition to communication skill, continued to reflect and reinforce the perceived importance and centrality of physicians by other team members, despite deliberate efforts on the part of physicians to create and participate in a collaborative environment.”²⁰ They found that the hierarchical roles that remained, even after two years of implementing the intervention, were probably a result of historical relationships—particularly between physicians and nurses—that were still deeply embedded in the culture of the practice. This hierarchical relationship continued to impact how team members perceived each other and their role on the team. Whether this hierarchical structure, either real or perceived, should or could be eliminated is uncertain. Nevertheless, factors that perpetuate hierarchy, such as language and decision-making processes, could be modified in order to reduce their potential negative impact on interprofessional collaboration.

PRACTICE-LEVEL BARRIERS TO INTERPROFESSIONAL COLLABORATION

This section will examine the factors at the practice level that pose barriers to IPC team optimization. These barriers include lack of strong governance structure and leadership to manage complex practices; difficulties in establishing appropriate skill mix and team size; insufficient space and time for communication and collaboration; and inadequate communication mechanisms and tools.

LACK OF STRONG GOVERNANCE STRUCTURE AND LEADERSHIP TO MANAGE COMPLEX PRACTICES

As previously mentioned, there have been significant reforms in primary care over the past decade, which has resulted in the rapid advent and evolution of IPC teams. Unfortunately, many of these teams have been ill equipped to develop, implement, and adapt to these transformative changes.²¹ A number of the current IPC teams have faced difficulties in sustaining transformative change. Many of the newer IPC teams in Canada evolved from fee-for-service, physician-led practices to complex practices.

These involved the inclusion and expanded roles of other health professionals and administrative staff, new governance and leadership structures, integrated quality improvement processes, electronic medical record systems, etc. The lack of strong governance and leadership structures and the capacity to manage these complex practices can be a significant barrier to optimizing the IPC team.

This section of the briefing examines the factors at the practice level that pose barriers to interprofessional primary care team optimization.

Governance involves structures, policies, and procedures that ensure an organization’s value to the people who fund it and who expect to receive quality care from the organization.²² Governing bodies are responsible for planning, resource allocation, performance monitoring, and accountability. The majority of community health centres, family health teams, and nurse practitioner-led clinics are governed by a board that is represented by provider groups and/or community members.²³ Not all governing boards are the same, and some are better equipped than others to manage the challenges faced by complex IPC teams. According to Bateman, Bailey, and McLellan, the complex primary care team practices require effective supports to help management, clerical staff, and health providers address the inevitable difficulties the team will experience.²⁴

Clinical and/or team leader physicians and nurses are challenged to recreate themselves as facilitators of collaboration, in which they often have little or no training or experience.²⁵ As a result, lack of leadership in managing and facilitating collaboration and team operations can be a significant barrier. Some IPC team models have established leadership teams that include a president/corporate executive board/executive director, team

20 Gotlib Conn and others, “Creating Sustainable Change in the Interprofessional Academic Family Practice Setting.”

21 Ibid.

22 Working Group on Primary Care Governance and Organization, *Strengthening Primary Care Organization & Governance*.

23 Ibid.

24 Bateman, Bailey, and McLellan, “Of Rocks and Safe Channels.”

25 Howard and others, “Physicians as Inclusive Leaders.”

directors, coordinators, clinical and administrative leads, and administrative assistants who act as the interface between the body to which the IPC team is accountable (e.g., governing board, regional health authority, Ministry of Health, etc.) and the IPC team.²⁶ These leadership teams play a role in establishing a strategic direction, policies, guidelines, and terms of reference that guide the operations of the IPC team. According to a recent study by Drummond and others, there is “no study that clearly examines the role and effect of clinic organizational leadership and managerial decision-making on the implementation and development of interprofessional practice.” This suggests that a lack of strong organizational leadership is an underestimated barrier to the implementation of effective IPC teams.²⁷

DIFFICULTIES IN ESTABLISHING APPROPRIATE SKILL MIX AND TEAM SIZE

One of the challenges for IPC team managers is deciding which types of and how many health professionals are appropriate for the team. A systematic review by Tieman and others observed that the more disciplines and services included in integrated, coordinated, and multidisciplinary care, the greater the improvement in patient outcomes.²⁸ However, health human resources adequacy is difficult to assess because it relates to other factors, including patient needs and preferences, the availability of personnel, cost, and quality.²⁹

Skill Mix

There is no one-size-fits-all model in terms of appropriate staff mix. Staff mix is highly reliant on the professional competencies or skills and experience required to address the health needs of the patient population. For example, smoking cessation programs may be managed by nurse practitioners, registered nurses, or pharmacists. These considerations are related to the issues around managing and optimizing professional scopes of practice discussed earlier in this briefing. The current discussions about

primary care reform have placed increased emphasis on a “whole system” approach to caring for patients that takes into account the need to involve other non-clinical staff on teams, such as human resources from disciplines like social services and community workers.³⁰ Clerical staff are also an essential part of the team, as they deal with scheduling, oversee clinic operations, ensure data collection and reporting of patient information, conduct telephone follow-up with patients, and perform other administrative tasks crucial to the effectiveness of the team.³¹ Inadequate approaches to human resources management in primary care may result in the overuse, underuse, or misuse of existing health personnel.³² Canadian data on the health and economic impacts of task substitution and supplementation between physicians and other health professionals are sparse, which adds to the challenge of identifying appropriate staff or skill mix.

Team Size

There is a gap in knowledge regarding the optimal size of the IPC team. Smaller team sizes may reduce accessibility, continuity, and quality of care, thus shifting the burden to other parts of the health care system (e.g., the acute care system).³³ On the other hand, more is not necessarily better: too many team members can reduce effectiveness.³⁴ The appropriate number of primary care physicians depends on the size and health needs of the serviced population, the number of hours the physician works, the number and roles of non-physician providers, and the funds available.³⁵ Some research exists on the optimal number of patients under the care of a full-time equivalent physician (optimal panel size).³⁶ However, several contextual factors influence appropriate size, including patient population characteristics, place of

26 Dinh, *Improving Primary Health Care Through Collaboration. Briefing 1.*

27 Drummond and others, “Interprofessional Primary Care in Academic Family Medicine Clinics.”

28 Tieman and others, “Integration, Coordination and Multidisciplinary Care.”

29 Dubois and Singh, “From Staff-Mix to Skill-Mix and Beyond.”

30 Sommers and others, “Physician, Nurse, and Social Worker Collaboration in Primary Care for Chronically Ill Seniors.”

31 Gotlib Conn and others, “Creating Sustainable Change in the Interprofessional Academic Family Practice Setting.”

32 Dubois and Singh, “From Staff-Mix to Skill-Mix and Beyond.”

33 Muldoon and others, “How Many Patients Should a Family Physician Have?”

34 Cohen and Bailey, “What Makes Teams Work.”

35 Muldoon and others, “How Many Patients Should a Family Physician Have?”

36 Ibid.

practice (rural versus urban area), availability of specialty practice and other health resources, and scope of practice of team members.³⁷ Little research has been carried out on the optimal panel size for other health professionals on an IPC team.

INSUFFICIENT SPACE AND TIME FOR COMMUNICATION AND COLLABORATION

This section describes how the lack of physical space and time are significant barriers to IPC team optimization. The quantity and quality of interprofessional collaboration is related to the design of the physical space, whether there is co-location of team members, and the amount of time available for team members to formally communicate.

Physical Space

Lack of space has been reported as a barrier to collaboration in IPC teams. Gotlib Conn and others noted the challenges faced by health care providers (HCPs) in an Ontario family health team who were physically separated from other team members: “The physical separation of the majority of physicians, nurses, clerical staff, and administrators from the HCPs created a new symbolic barrier that reinforced the perceived division between the professions.”³⁸ An Ontario study by Oandasan and others on the nature of interprofessional teamwork in three academic family health centres that were evolving into family health teams found that both the quantity and quality of collaboration were strongly associated with space and time.³⁹ The researchers noted that although physicians, nurses, and clerical staff worked in physical proximity in the study sites, some of the interprofessional staff (dietitians, behavioural science educators, social workers, occupational therapists, physiotherapists, pharmacists, and addiction counsellors) worked at a distance from one another. This distance presented a spatial imped-

ment to communication and collaboration.⁴⁰ The study participants noted that lack of co-location was the main barrier to interprofessional collaboration and that it further aggravated professional silos and the sense of exclusion from the core team. Lack of shared physical spaces that are conducive to communication and collaboration were also found to contribute to a lack of knowledge about the other professionals’ roles. As teams mature, co-location may not be as important as in the early stages, when there is a need to build team relationships and trust and to establish roles and responsibilities.

This section describes how the lack of physical space and time are significant barriers to interprofessional primary care team optimization.

Another barrier in terms of physical space is design and layout of the space. Some participants in the study by Oandasan and others believed that the informal, non-clinical design of the space in which they were working would lead to greater cohesion and connectedness of the team, regardless of their professions.⁴¹

Time

Oandasan and others also found that the way in which clinical time was organized played an important role in the quantity and quality of interprofessional collaboration.⁴² A prevalent observation across study sites, and one that is most probably the same experience across most IPC teams, was that time pressures and constraints resulting from patient care schedules make meaningful communication between team members extremely difficult. The most common form of communication between team members is informal, unstructured, and unplanned. The following section will further elaborate on the challenge of inadequate communication in IPC team optimization.

37 Muldoon and others, “How Many Patients Should a Family Physician Have?”

38 Gotlib Conn and others, “Creating Sustainable Change in the Interprofessional Academic Family Practice Setting.”

39 Oandasan and others, “The Impact of Space and Time on Interprofessional Teamwork in Canadian Primary Health Care Settings.”

40 Ibid.

41 Ibid.

42 Ibid.

INADEQUATE COMMUNICATION MECHANISMS AND TECHNOLOGY

Inadequate time for mechanisms of communication between IPC team members remain a significant barrier to interprofessional collaboration and team effectiveness. This section describes the need for more formal communication mechanisms and technological supports to enhance IPC team effectiveness.

Informal Versus Formal Mechanisms of Communication

An important barrier to communication and collaboration in IPC teams is the insufficient uptake of more formal modes of communication and information sharing between team members. Informal modes of communication (most common), such as “hallway consultations,” “sticky notes” placed on patient charts or computer monitors, and paper referrals, are not enough. The uptake of formal mechanisms of communication is required for more effective interaction between team members.⁴³ Formal mechanisms of communication and information sharing include regularly scheduled and documented meetings, as well as plans with specific tasks for team members to accomplish before, during, and after a meeting.⁴⁴ Other formal modes that seem to have been beneficial are “interprofessional case conferences” that provide an opportunity for team members to discuss complicated cases together.⁴⁵ There are also “clinic huddles,” the time a few minutes before clinics when the team members discuss the day’s schedule, plans, and any foreseeable operational challenges.⁴⁶ IPC teams could be optimized by ensuring enough time is allocated for more formal modes of communication, in addition to benefitting from the flexibility of informal communication.

Information and Communication Technology

Communication is further challenged when information and communication technologies are not used or optimized in a practice. Communication between team members and

with patients can be enhanced through the appropriate use of information and communication technology supports, including electronic medical records, computerized messaging systems, telehealth, etc.⁴⁷ Electronic medical records that can be used by all members of the team to access, track, and update patient information are key not only to improve monitoring of patients and ensuring appropriate care, but also to prevent duplication of tasks among team members. Reviews by the Canadian Agency for Drugs and Technologies in Health (CADTH) and Canadian Policy Research Networks (CPRN) reported that electronic medical records, video-conferences, and real-time telehealth^{48,49} are useful mechanisms of provider-provider and patient-provider communication.⁵⁰ These technologies have been found to be effective in monitoring and managing chronic conditions such as heart disease and diabetes, as well as mental health issues, especially for patients in hard-to-reach and underserved communities.

SYSTEM-LEVEL BARRIERS TO INTERPROFESSIONAL COLLABORATION

Barriers to successful IPC teams exist at the system level, specifically within the provincial and territorial jurisdictions that are responsible for the majority of health care delivery in Canada. These barriers include inadequate interprofessional education and training, sub-optimal funding models, and lack of appropriate monitoring and evaluation to inform change.

43 Ellingson, “Interdisciplinary Health Care Teamwork in the Clinic Backstage”; Gotlib Conn and others, “Creating Sustainable Change in the Interprofessional Academic Family Practice Setting.”

44 Drinka and Clark, *Health Care Teamwork*.

45 Gotlib Conn and others, “Creating Sustainable Change in the Interprofessional Academic Family Practice Setting.”

46 Ibid.

47 Molyneux, “Interprofessional Teamworking.”

48 *Telehealth* “involves the use of information and communication technologies (e.g., a minimum set of video cameras, computer displays, and a secure high-speed Internet connection) to enable individuals to communicate live (or synchronously) over long and short distances.”

49 Canadian Agency for Drugs and Technologies in Health, *Real-Time (Synchronous) Telehealth in Primary Care*.

50 Canadian Agency for Drugs and Technologies in Health, *Real-Time (Synchronous) Telehealth in Primary Care*; Grimes and Toll, *Toward Building a Better Business Case for Team-Based Health Care in Canada*.

INADEQUATE INTERPROFESSIONAL EDUCATION AND TRAINING

One of the barriers to effective interprofessional collaboration is team members' lack of competency in interprofessional collaboration due to lack of or inadequate interprofessional education and training.⁵¹ According to Drummond and others, the primary goal of interprofessional education and training⁵² is “to help students become collaborative practitioners in an effective fashion.”⁵³ They reported that the available evidence around interprofessional education is mostly not of high quality, resulting in uncertainty about its value and the key features for training professionals to work together effectively.⁵⁴ A 2008 systematic review by Reeves and others found mixed results on the effectiveness of interprofessional education interventions, especially within a primary care setting; however, due to small sample sizes and number of studies, the results may not be reliable.⁵⁵ Drummond and others recently examined the status and processes of interprofessional work environments and implications for interprofessional education in a sample of family medicine teaching clinics in Alberta.⁵⁶ They found that not one teaching clinic in the study had a clear and explicit focus on providing interprofessional education and training.⁵⁷ They note that “to ensure future collaborations in the health care workplace are effective, opportunities for students to engage with students from other professionals are required.”⁵⁸ The implications of inadequate interprofessional education and training are reduced quality of collaboration and team effectiveness.⁵⁹

51 Drummond and others, “Interprofessional Primary Care in Academic Family Medicine Clinics.”

52 Educational, training, teaching or learning sessions where two or more health and social care professions are learning and training together interactively.

53 Drummond and others, “Interprofessional Primary Care in Academic Family Medicine Clinics.”

54 Reeves and others, *Inter-Professional Education*.

55 *Ibid.*

56 Drummond and others, “Interprofessional Primary Care in Academic Family Medicine Clinics.”

57 *Ibid.*

58 *Ibid.*

59 *Ibid.*

SUB-OPTIMAL FUNDING MODELS

A significant operational challenge for IPC teams is getting the mechanism of payment right for health providers and teams in order to promote greater team effectiveness and better health outcomes for patients. The challenge is to determine the appropriate remuneration model and financial incentives to promote increased and improved interprofessional collaboration, optimize individual scopes of practice, and improve recruitment and retention of health human resources.

One interprofessional collaboration barrier is team members' lack of interprofessional competency due to inadequate interprofessional education and training.

Remuneration

Payment mechanisms for physicians vary across IPC team models and between and within provincial/territorial jurisdictions. The works by Wranick and Durier-Copp⁶⁰ and Léger⁶¹ provide good overviews of the advantages and disadvantages of the different alternative physician payment models. Physicians in alternative payment models (salary, capitation, blended) may be more incentivised to participate in team meetings than physicians in fee-for-service models. Most of the current IPC team models employ a blended payment model of capitation or salary with fee-for-service for physicians. Non-physician IPC team members are paid in different ways, depending on the type of IPC team model; however, for the most part they are paid on salary. In some jurisdictions, such as Ontario, extra funds are available from the Ministry of Health to pay salaries for non-physician IPC team members in the family health team model. Community health centres are often provided line budgets to remunerate staff in all disciplines by salary, sessional fees, or capitation.⁶² There is little research on the impact of funding and remuneration schemes for non-physician IPC team members. Documentation shows that when compensation rates and benefits are non-competitive for

60 Wranick and Durier-Copp. “Physician Remuneration Methods for Family Physicians in Canada.”

61 Léger, *Physician Payment Mechanisms*.

62 Canadian Alliance of Community Health Centre Associations, *Characteristics of CHCs*.

IPC team members, compared with other employment settings, including hospitals and the private sector, the challenge lies in recruitment and retention.⁶³

Referral policies create another barrier in interprofessional collaboration that can be misaligned with the goals of interprofessional primary care to improve access and better health outcomes. For example, as in other parts of Canada, Ontario's nurse practitioners have an expanded scope of practice that allows them to screen for and diagnose diseases and refer patients to medical specialists and for diagnostic tests. One of the challenges of optimizing the role of the nurse practitioner within IPC models is that there is a higher rate of remuneration paid to physician specialists for patient referrals made by a physician.⁶⁴ Without a referral from another physician, the specialist is allowed to claim only the medical-specific assessment fee, and not the consultation, which results in a 24 to 39 per cent lower payment.⁶⁵ Since specialists are not obligated to accept referrals from nurse practitioners, there is a financial disincentive to see patients referred by non-physician providers. Even if specialists do take a referral from a nurse practitioner, they are not required to provide a care plan to the referring provider without a consultative fee, thus limiting optimal coordination of care.⁶⁶ The nurse practitioner-led clinics in Ontario currently deal with this challenge by including a collaborating physician on the team in order to facilitate specialist referrals.⁶⁷ Ultimately, this strategy does not contribute to an efficient use of the health care system.

LACK OF APPROPRIATE MONITORING AND EVALUATION TO INFORM CHANGE

One of the greatest and most important challenges in the optimization of IPC teams is the lack of consistently collected, reported, and meaningful performance data.

63 Silversides and Laupacis, *Lower Pay Hampers Nurse Practitioner Recruitment in Primary Care*, Osmond, *Policy Barriers to Recruitment and Retention of Health Professionals in Rural Areas of Nova Scotia*, Grosso, *Meeting the Demographic and Retirement Challenge*.

64 Donald and others, "The Primary Healthcare Nurse Practitioner Role in Canada."

65 Nurse Practitioners' Association of Ontario, *Position Statement*.

66 Ibid.

67 Donald and others, "The Primary Healthcare Nurse Practitioner Role in Canada."

As a result of limited monitoring and evaluation, we know little about the health and economic impacts of past and current reforms to the primary health care system. A preliminary review of the literature around the effectiveness and cost-effectiveness of IPC teams in Canada was conducted to inform the subsequent briefing in this report series. The majority of published evidence on IPC teams describes changes in practices, as opposed to impacts on health outcomes. This finding is similar to the conclusions drawn in the systematic review by Tieman and others.⁶⁸

The Canadian Institute for Health Information has stated that "the effectiveness of primary care remains largely a black box."⁶⁹ In terms of indicators for interprofessional collaboration, there is a need to capture more comprehensive primary care provider and organizational data. The development and consistent implementation of rigorous evaluation processes for current IPC team models is needed to assess team functioning and its direct impact on clinical/health and economic outcomes. Without evidence of effectiveness and efficiency, it is difficult to assess the trade-off between the costs of IPC teams and their benefits—such as improved health, increased productivity, and reduced costs to the acute care system. It is equally important that the evaluation indicators are meaningful in that they can provide insights on what works, what doesn't, and why, in order to inform changes required for improving performance.

CONCLUSION

The previous briefing established that IPC team models vary in terms of structure, function, funding, governance, and level of maturity, which influences the quantity and quality of interprofessional collaboration within these teams. IPC teams can be optimized, in that opportunities and resources can be better used to promote and support interprofessional collaboration that can increase access

68 Tieman and others, "Integration, Coordination and Multidisciplinary Care."

69 Canadian Institute for Health Information, *Health Care in Canada 2009*.

to primary care, improve health outcomes, and potentially produce cost-savings for the broader health system and for society.

Due to barriers to interprofessional collaboration that occur at the individual, practice, and system levels, the current IPC team models are not optimized. Individual-level barriers include the lack of role clarity and trust and the perceived and projected professional hierarchy within the team. Practice-level barriers include lack of strong governance and leadership to manage complex practices, difficulties in establishing appropriate skill mix and team size, lack of physical space and time for communication and collaboration, and inadequate communication mechanisms and tools. System-level barriers include inadequate interprofessional education and training, sub-optimal funding models, and lack of appropriate monitoring and evaluation to inform change.

In the subsequent briefing we will synthesize the evidence on the effectiveness of current IPC team models, and estimate the potential health and economic impacts of optimizing IPC teams in the management of chronic conditions, using the examples of diabetes and depression. The barriers to interprofessional collaboration identified in this second briefing can be overcome to enhance IPC teams and maximize effectiveness. The fourth and final briefing will propose recommendations on how to address these barriers to interprofessional collaboration and establish guidelines for optimizing and sustaining IPC teams. Acknowledging that there is no one-size-fits-all solution, these guidelines will take into account the commonalities within successful models and other factors that impact IPC team effectiveness and efficiency.

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