Electronic Thesis and Dissertation Repository

7-19-2023 1:30 PM

Primary Care Physician Engagement in Health System Transformation: A case study

Atharv Joshi, *Western University*

Supervisor: Shannon L. Sibbald, *The University of Western Ontario*

A thesis submitted in partial fulfillment of the requirements for the Master of Science degree in Health and Rehabilitation Sciences
© Atharv Joshi 2023

Follow this and additional works at: https://ir.lib.uwo.ca/etd

Part of the Health Services Administration Commons, and the Health Services Research Commons

Abstract

Primary care physician engagement is essential in enhancing organizational performance, system efficacy, and provider collaboration; yet limited literature exists within health systems research. This thesis explored physician engagement throughout the development of an organization known as the London Middlesex Primary Care Alliance (LMPCA). This thesis used a qualitative case study approach guided by a constructivist paradigm. The findings revealed six themes which contributed to the development of the LMPCA and provided insight into how physicians were engaged within health systems work. Unique to this study were two facilitators for engagement: the role of a transformation lead and the use of a grassroots approach to physician engagement. This study may support other regional primary care provider alliances who want to effectively engage physicians within health systems related work. This research will contribute to enhancing the quality of health systems work, including the ongoing development of Ontario Health Teams, and support the improvement of stakeholder engagement within and across primary care settings.

Key Words

Physician Engagement, Primary Care, Health Systems, Ontario Health Teams, Grassroots Approach

Summary for Lay Audience

Physician engagement refers to a physician's motivation to actively contribute, commit, and be involved with their organization. While physician engagement is identified as a key principle in health system transformation, there is limited literature around effective approaches within health systems work. Currently, Ontario is undergoing a large health care system transformation with the introduction of Ontario Health Teams (OHTs). OHTs are a collaborative group of health care providers working together to improve patient care and coordination within a specific region. To address the need for a coordinated approach to the provincial health system transformation, a group of physicians in one region of Ontario formed the London Middlesex Primary Care Alliance (LMPCA), a grassroots alliance in primary care.

The study aimed to showcase the success and describe the critical points of the LMPCA as well as understand the strategies and approaches used for physician engagement within the London-Middlesex region. This study used multiple data collection methods including interviews with primary care physicians, health care administrators and administrative support personnel of the LMPCA and Middlesex-London Ontario Health Team. Other methods to collect data was document analysis and an environmental scan which was used to identify similar primary care alliances across Ontario.

The findings of this study demonstrate the LMPCA's success in contributing to the development of OHTs and effectively addressing approaches to physician engagement. Notable findings from the data include addressing the challenges during the COVID-19 pandemic, the role of the primary care transformation lead and utilizing a grassroots approach to physician engagement. The findings also outlined some of the drivers and barriers to physician engagement, such as strong communication methods and physician remuneration. Additionally, the findings demonstrate the importance of succession planning to ensure the sustainability of the LMPCA and that physicians do not burnout.

This research can provide an opportunity for other primary care alliances who wish to initiate, improve, or strategize physician engagement in their region. The findings of this study can be

beneficial for enhancing physician engagement and leadership, while also contributing to health system transformation, such as the ongoing development of OHTs.

Co-Authorship Statement

The primary researcher (AJ) and supervisor (SLS) co-designed the research project. Recruitment was completed by AJ with the support from SLS and the organization that was being researched (London Middlesex Primary Care Alliance). Data collection was completed by AJ with the support of SLS; AJ completed all interviews. Data was analyzed and reviewed by AJ, SLS and advisory committee (Judith Belle Brown and Marie Savundranayagam). AJ drafted the thesis with feedback from SLS and advisory committee.

Acknowledgements

everything you all have done for me to make this opportunity possible. Your motivation and encouragement mean the world to me, and I hope that this project will make you all proud.

Table of Contents

List of Tables

List of Appendices

List of Abbreviations

CHC: Community Health Centre

CHF: Congestive Heart Failure

COPD: Chronic Obstructive Pulmonary Disease

HCA: Health Care Administrator

FHG: Family Health Group

FHN: Family Health Network

FHO: Family Health Organization

FHT: Family Health Team

LHIN: Local Health Integration Network

LHSC: London Health Sciences Center

LMPCA: London Middlesex Primary Care Alliance

ML-OHT: Middlesex London Ontario Health Team

MOH: Ministry of Health

MOLTC: Ministry of Long-Term Care

NP: Nurse Practitioner

OHT: Ontario Health Team

OMA: Ontario Medical Association

PCA: Primary Care Alliance

PCP: Primary Care Physician

PPE: Personal Protective Equipment

PCN: Primary Care Network

RT: Respiratory Therapist

SP: Support Personnel

W-OHT: Western Ontario Health Team

Chapter 1

1 Introduction

1.1 Background

Physician engagement is a broad term that encompasses a physician's active and positive contribution in a clinical setting and the health care organization they work for, including their commitment and involvement with the organization (Gray et al., 2018; McMurchy, 2018). The term can refer to psychological presence, performance disposition, or a combination of these constructs (McMurchy, 2018). There is growing evidence that greater levels of physician engagement can lead to better performance in hospitals, improved patient outcomes, and enhanced quality and delivery of care (McMurchy, 2018; Whitlock et al., 2014). Health care systems where physicians are more engaged can achieve better patient outcomes and facilitate a more effective work environment (Clark, 2012). Spurgeon and colleagues (2008) state that engagement should be a two-directional process where the organization must reciprocate physician engagement by establishing conditions that motivate and enable physicians to participate. This can involve establishing an organizational culture that supports physicians taking on leadership and management roles, as well as fostering activities to increase confidence and empowerment, and improve efficacy when faced with health care challenges (Perreira et al., 2021; Spurgeon, 2011). Within the primary care setting, the use of physician engagement ensures the best patient outcomes, quality and safety but also prevents physician burnout (Kerrissey et al., 2022).

Primary care is seen as the foundation of all health systems and is a focus of Canada's health care system (Glazier, 2023). Primary care is often the first point of contact for individuals seeking medical attention. In Canada, primary care is usually provided through publicly funded healthcare systems that offer universal access to medical services. This type of health care is administered by nurse practitioners, family physicians, pharmacists and allied health care providers in primary care (Gocan et al., 2014; Ministry of Health & Ministry of Long-Term Care [MOH & MOLTC], n.d.). Ontario, Canada's most populous province, is currently undergoing

one of the largest health care system transformations in decades. Bills 41 (*Patient's First Act*) and 74 (*People's Health Care Act*) introduced in 2016 and 2019 respectively aimed to move towards a primary care-focused, and sustainable integrated care approach, designed around the needs of local populations (Ministry of Ontario Laws, n.d.; Sibbald et al., 2023). These bills collectively set the road for integrated care in Ontario, with Ontario Health Teams (OHTs) introduced as a model of integrated care delivery systems (Cronin et al., 2021; Lavin, 2019). OHTs aim to streamline patient connectivity through the health care system and improve outcomes aligned with the Quadruple Aim, which is better health outcomes for people in communities, better patient and healthcare provider experience, and better value per capita (Middlesex-London OHT, n.d.). OHTs will include providers of diverse areas such as primary care, acute care, long-term care, mental health, and social work (Ontario Health, n.d.). Thus, OHTs will serve a critical role in connecting and delivering care that is more connected in their local communities and improve overall health system coordination.

The involvement of primary care is crucial for the effective implementation of OHTs, and primary care physicians hold an important role as stakeholders in this process (Gocan et al., 2014; Everall et al., 2022). In Southwestern Ontario, primary care physicians worked to formalize their sector engagement through the development of the London Middlesex Primary Care Alliance (LMPCA). The LMPCA became a key partner in the development and implementation of the Middlesex-London Ontario Health Team (ML-OHT). The LMPCA is a grassroots network of primary care physicians, nurse practitioners, health care administrators and support personnel (i.e., communication specialist, transformation lead) which aims to represent the voice of primary care physicians across the region and engage physicians in leadership roles (London Middlesex Primary Care Alliance, n.d.). While there is research supporting the benefits of physician engagement, literature on physician engagement has focused on voices of hospital administrators, boards of directors, executives or leaders rather than the voices of physicians as well (McMurchy, 2018; Spaulding et al., 2014). There is limited empirical research on bottom-up or grassroots physician engagement and its impact on overall system integration. Current literature has focused physician engagement on quality improvement and safety initiatives, hospital settings (Taitz et al., 2014; Rabkin et al., 2019). Further research is necessary to explore physician engagement in primary care and health systems work.

1.2 Research Aim and Objectives

The goal of this study is to explore the development of a primary care alliance that can enhance co-design and engagement initiatives. In order to work towards the aim of the study, I examined past and current engagement activities by gathering first-hand perspectives from primary care physicians and stakeholders who were engaged with the LMPCA and the ML-OHT. I also examined key documents such monthly newsletters and communication e-Blasts of the LMPCA and ML-OHT to support data collection.

The research had the following aim: to describe the development of a primary care alliance and understand how physicians are engaged within the regional health system. Three objectives guided the study:

1) Describe context and foundation for LMPCA development;
2) Explore strategies for engagement at local and regional levels; and
3) Discuss the barriers and facilitators to primary care physician engagement in health system transformation.

While primary care encompasses several roles, including but not limited to primary care physicians, nurse practitioners (NPs), pharmacists, respiratory therapists (RTs), this study focuses on primary care physicians to examine physician engagement and understand the development and formation of the LMPCA.

1.3 Rationale and Significance of Research

The importance of studying physician engagement stems from its potential impact on patient outcomes, health care costs, physician satisfaction, and improving a healthcare organizations' sustainability (Milliken, 2014; Perreira et al., 2019; Rabkin et al., 2019; Spaulding et al., 2014). Literature suggests that physician engagement is critical to achieving sustained health system improvement (Perreira et al., 2021; Puri et al., 2006). This means that physician engagement is essential not only at the patient level, where care is delivered, but also at the organizational and system levels, where policies and processes are developed to improve health care delivery

(Perreira et al., 2019; Rabkin et al., 2019). Health systems work refers to the various activities and initiatives aimed at improving and optimizing the functioning of health care systems (Snell et al., 2011). It involves the design, organization, management, and delivery of health care services to ensure effective, efficient, and equitable health care for individuals and communities (Snell et al., 2011). By focusing on health systems work, for example, physician engagement can assist in implementing effective policy or process change, help patients avoid costly hospitalizations and procedures, leading to overall lower health care costs (Milliken, 2014, Monavvari, 2019).

Effective physician engagement is frequently impeded by lack of physician voice in decision-making roles, ineffective communication within organizations, administrative hurdles and insufficient compensation of physicians' time (Guo et al., 2021; Snell et al., 2011). Studying physician engagement can help identify areas for improvement within healthcare organizations and develop targeted interventions to improve engagement levels (McMurchy, 2018; Skillman et al., 2017). At present, the literature lacks clear guidance on the most effective ways to engage physicians specifically within health systems work. Current physician engagement literature has focused on larger teaching hospitals and quality improvement initiatives (Taitz et al., 2014; Rabkin et al., 2019). This study will contribute to the existing literature by exploring physician engagement within health systems setting, specifically through the London Middlesex Primary Care Alliance. By doing so, it will address the scarcity of research on physician engagement in systems work.

1.4 Structure of Thesis

The first chapter of this thesis was used to provide a brief introduction on physician engagement, primary care, and an introduction to the Ontario Health Teams. The second chapter provides a comprehensive review of the existing literature on physician engagement and primary care, positioning the thesis within the broader context of research and identifying current gaps. Chapter 3 describes my paradigm and chosen methodology. I will also describe the ethical considerations and methods that were used to conduct my research study including approaches to data collection, analysis, and trustworthiness. In the fourth chapter, I present the findings and the

six themes that were analyzed from the data. Chapter 5 is my discussion section, where I reflect on the findings in relation to the research aim, objectives, and current literature. I also discuss limitations of this study and methods used to mitigate potential bias. In the sixth chapter, I provide concluding remarks including future implications for primary care and health care systems, directions for future research, and a summary of my study.

Chapter 2

2 Literature Review

This chapter offers a comprehensive review of the existing literature concerning physician engagement and primary care alliances in Ontario, starting with an examination of primary care within the Ontario health care system. It further explores the role of primary care alliances and the recent introduction of Ontario Health Teams (OHTs) as integrated care groups within this context. Next, I focus on the topic of physician engagement exploring the various definitions, comprehensive factors, and strategies used. I finish this chapter by discussing the implications of physician engagement and the current gaps in the literature along with how my research aims to fill these gaps.

2.1 Primary Care

Primary care is an essential component of the health care system in Canada (Aggarwal & Williams, 2019). It is the first point of contact for most individuals seeking medical attention and is provided by nurse practitioners or family physicians in primary care (Gocan et al., 2014; Ministry of Health & Ministry of Long-Term Care [MOH & MOLTC], n.d). In Canada, primary care is delivered typically through publicly funded health care systems that provide universal access to medical services (MOH & MOLTC, n.d.). This means that individuals do not have to pay out-of-pocket for primary care services. The publicly funded system is often referred to as Medicare and is managed and delivered by each province and territory (MOH & MOLTC, n.d.).

Primary care is one of the foundations of Ontario's health system (Aggarwal & Williams, 2019). It encompasses several aspects of care including diagnosis, treatment, illness prevention, health promotion, and is responsible for providing ongoing care and management of patients with chronic conditions (Gocan et al.,2014; Government of Canada, 2012; MOH & MOLTC, n.d.). It also serves as an entry point to care for patients with acute or chronic conditions, and it is crucial in assisting the management of complex diseases (Gocan et al., 2014). Primary care is delivered through several different approaches (or models) in Ontario. Over the past 20 years, the Ministry of Health and Long-Term Care (now the Ministry of Health and Ministry of Ontario Long Term Care) has worked to reform Ontario's healthcare system from a system that is a hospital-centric

to a system with an emphasis on patient point of care (MOH & MOLTC, n.d.). To aid in this shift, Ontario expanded the delivery of primary health care, which traditionally was made up of solo-practice physicians, to include group-based and team-based models (Glazier et al., 2012; Marchildon & Hutchison, 2016).

Team-based care is a pillar in health systems with the aim to improve care delivery (Bodenheimer et al., 2014; Ghorob & Bodenheimer, 2015). The team usually comprises of physicians, nurses, social workers, educators, and other health care providers, all working together to address the various health needs of their patients (Marchildon & Hutchison, 2016; MOHLTC, n.d.). This approach to care delivery is aimed at improving access to care, enhancing care quality, and reducing health care costs (Marchildon & Hutchison, 2016). These efforts are designed to improve coordination of care, effectively mobilize resources, and help a patient navigate the health care system (Aggarwal & Williams, 2019).

With the transition from solo-physician practices to team-based models, the compensation structure for primary care shifted from the fee-for-service practice model to blended models with incentives for priority services (Hutchison et al., 2011; Laberge et al., 2016). Fee-for-service compensation is based on physician billing for services provided, without after-hours work obligations (Laberge et al., 2016). On the other hand, the blended capitation model provides physicians with most of their compensation from capitation, supplemented by additional payments for delivering specific health care services, such as chronic disease management, vaccinations, and cancer screening (Laberge et al., 2016). Physicians in capitation models are eligible for bonuses and premiums based on their patient enrolment (MOH & MOLTC, n.d.). There is evidence to suggest that blended practice models and incentives can improve physician productivity (Hutchison et al., 2011; Suter et al., 2009) which may lead to better patient care and experience (Ogundeji et al., 2021). Compensation structure may affect physicians engaging in activities or leadership positions outside of their clinical roles which will be later discussed in later sections (Dubinsky et al., 2008).

In 2003, the First Ministers Health Accord on Health Care Renewal set a target to shift the primary health care system towards team-based practice models (Motiwala et al., 2005). The

agreement aimed to achieve this goal by ensuring that a minimum of 50% of Canadians were able to have access and receive primary care from an interdisciplinary team (Motiwala et al., 2005). To meet this goal, Ontario's health care system introduced the Family Health Team (FHT) model in 2005 (Glazier et al., 2012; MOH & MOLTC, n.d.). FHTs include a diverse team of allied health care providers including but not limited to physicians, nurse practitioners, social workers, educators, and an executive director position (Glazier et al., 2012; Thames Valley Family Health Team, n.d.). Appendix A provides an overview of the different team-based models that were implemented in Ontario.

To date, there are 184 Family Health Teams serving over 3 million people in over 200 communities across Ontario (MOH & MOLTC, n.d.). Ontario's government has made several investments such as expanding the number of FHTs, investing in electronic health records, and digital health technologies (Ashcroft et al., 2021; MOH & MOLTC, n.d.). This has been Ontario's trend with making major changes to the health care system that build from previous reforms to provide quality care through improved access and accountability (Ontario Medical Association [OMA], n.d.).

2.2 Ontario Health Teams

In Ontario, 2016 and 2019 were pivotal years in the province's Health Care Acts in response to moving towards an integrated system (Sibbald et al., 2023). The introduction of Bill 41 – *Patients First Act* and then Bill 74 - *The People's Health Care Act* were intended to shift the system to more efficient integrated care and to provide a broader scope of services required to meet the needs of the local population (Gordon et al., 2020). When Bill 74 was introduced in February of 2019, it triggered the implementation of the *Connecting Care Act, 2019*, authorizing the Minister of Health and Long-Term Care to create 'Ontario Health' (a Crown agency) and to introduce the concept of integrated care delivery systems, known as Ontario Health Teams (OHTs) (OMA, n.d.). Bill 74 had a fundamental objective of establishing integrated care throughout Ontario, with the goal of enhancing the quality of care and user, caregiver, and provider experiences (Kiran et al., 2020). The bills were able to signal a shift from previous approaches by prioritizing and ensuring the broader health needs of the population, and by creating a system that is both effective and sustainable (Gordon et al., 2020). The goal of this

system reform is that at maturity, primary care providers and organizations will provide coordinated and patient-centered care (Sibbald et al., 2022).

The OHTs were designed to replace the existing Local Health Integration Networks (LHINs), which had been in place since 2006 (Grady et al., 2023). LHINs were described as "a critical part of the evolution of health care in Ontario from a collection of services to a true system that is patient-focused, results-driven, integrated, and sustainable" (Bhasin & Williams, 2007, p1). The LHINs aimed to move away from a fragmented and poorly coordinated "non-system" to an integrated and efficient system that offered continuous, cost-effective care across the care continuum as cited by Bhasin & Williams (2007). The LHINs were responsible for planning, funding, and integrating healthcare services in their respective regions (Ronson, 2006), but there were concerns that the LHINs were not delivering the level of coordination and integration that was needed for the province (Dong et al., 2022). Dong and colleagues (2022) explained the challenges of the LHINs included the lack of clarity around their mandate as they were responsible for a broad range of functions that were not always well-defined or understood. This ambiguity left room for hospitals and long-term care facilities to shape planning and implementation while working with the LHINs (Dong et al., 2022). Past research also stated the LHINs' high administrative costs and that they added another layer of bureaucracy to an already complex system, without further improving health care delivery performance based on target indicators (Bhasin & Williams, 2007; Huras et al., 2015). Not all LHINs faced these challenges, some LHINs in Ontario effectively fulfilled their intended purpose, particularly in engaging the primary care sector (Cheng, 2018). While LHINs are beyond the scope of this study, their operational methods are important to discuss within the context of OHTs and primary care alliances.

The provincially funded Health Links model, established in early 2012 with the assistance of the LHINs, is an example of a successful coordinated care model in Ontario (Health Quality Ontario, n.d.). The Health Links model was a strategy that aimed to address the gap in the health care system that prevented patients with complex health needs from receiving the care they need (i.e., patients with chronic diseases such as chronic obstructive pulmonary disease) (Evans et al., 2014). An advantage of the implementation of this model was the Ministry of Health and Long-

Term Care allowed the model to use 'low-rules' or 'simple-rules' with the growing complexities of the health care system (Angus & Greenberg, 2014). Low-rules meant using approaches that emerged from bottom-up that allowed for flexibility of creativity and innovation (Evans et al., 2014). To avoid creativity and innovation from being hindered while encouraging change in the desired direction, the Ministry used 'simple rules' as a facilitative leadership model for Health Links (Evans et al., 2014). This approach enabled the Health Links model to experiment and learn how best to achieve system goals (Evans et al., 2014).

OHTs are based on the premise that healthcare is best delivered when health care providers work collaboratively, share information within a region and bring patients closer together (Grady et al., 2023). OHTs use a 'low rules' approach much like Health Links but include a much broader population focus. OHTs are similar to LHINs, however while LHINs primarily focused on organization and administration in healthcare, OHTs aim to alleviate the burden on both providers and patients by facilitating resource sharing among various health care providers (Taylor, 2019). In 2019, there was a push by the OHTs to 'end hallway health care', the problem of patients waiting too long to receive care in overcrowded hospitals and ensuring they are provided with care in the appropriate setting (Ontario Government, 2019). OHTs bring together various health care providers, including primary care providers, home and community care providers, and mental health and addiction service providers, to form a single team that provides integrated care to patients (MOHLTC, 2019). This team-based approach to care delivery is intended to break down the silos that exist in the current health care system (Dong et al., 2022) and ensure that, "…patients receive the right care, at the right time, in the right place" (Ontario Health, n.d). Health care systems are often said to have silos because they are not connected, and health information does not flow easily between specialities or sectors (Ponko, 2017). This can lead to a lack of collaboration among physicians and other health care professionals or organizations (Pepler et al., 2018). The foundation of the OHT and their vision relate to the health-equity driven Quadruple Aim to improve health outcomes for people in communities, better patient, and health care provider experience, and provide better value per capita (Lavis, 2019; Middlesex-London OHT, n.d.).

The OHTs were introduced because of the Ontario government's commitment to remodel the health care system and improve access to quality care for Ontarians (Dong et al., 2022). The government recognized that the current fragmented system was not sustainable, and a new approach was needed to integrate care across the entire health system (Dong et al., 2022). To date, there are 54 OHTs that have been formed across Ontario, with plans of developing new teams in the coming years (MOH & MOHLTC, n.d.).

2.3 Primary Care Alliances

Primary care alliances have emerged as collaborative approaches where primary care providers and other stakeholders come together to identify opportunities for enhancing primary care services in their local regions (Southwest Primary Care Alliance, n.d.; Loban et al., 2021). These alliances often involve primary care providers such as physicians, nurse practitioners, and other health professionals, to share knowledge, coordinate care delivery and enhance patient outcomes (Nash et al., 2022). It is important to note that these organizations can be referred to as primary care alliances, networks, groups, or communities of practice. While they may be misunderstood as primary care models, their function aligns with the description of an alliance as mentioned above. To date, there is limited literature surrounding primary care alliances in the province of Ontario that are grassroots and use non-formalized or 'low rules' approaches.

Complexity science suggests that effective innovations and improvements in complex health systems are more likely to emerge from the bottom-up when conditions are favorable (Tsasis et al., 2012). Top-down control efforts tend to be intrusive and unproductive, slowing down the system's inherent capacity to adapt and evolve (McDaniel & Driebe, 2001). Health Links, as discussed in the previous section, excited early adopters who were health care leaders such as primary care physicians and provided an opportunity to engage them into achieving the shared goal of coordinated, patient-centred care (Evans et al., 2014). The Health Links model provides an example of a bottom-up approach. To date, there is very limited literature that explores the bottom-up approaches in primary care alliances and further empirical research is needed.

Grassroots initiatives are organizations that are built from ground up in a geographic area (Longley, 2022). The approach emphasizes the active participation of local community members

in planning, implementing, and evaluating the organization through bottom-up approaches, with a strong emphasis on community involvement and engagement (Mukamel et al., 2014). Grassroots approaches have been used in health care for various purposes from implementing a chronic disease model (Horowitz, 2015) to health promotion frameworks (Bottorff et al., 2021). The process involves identifying the needs of the community, developing strategies to address the needs, and working collaboratively with local organizations, community members, and interested stakeholders or primary care providers to establish an initiative that is sustainable and effective (Flores et al., 2019; Jackson et al., 2023). Grassroots development fosters a sense of ownership and investment in the organization among community members (Horowitz, 2015). In health care services, this can lead to increased participation and engagement for patients and providers building trust, patient empowerment, and provider decision-making (Flores et al., 2019; Horowitz, 2015). One identified disadvantages of grassroots development are the time and resources required which can lead to slower implementation and in some cases increased costs and limited sustainability (Warr et al., 2013).

Although multiple studies highlight the benefits of a grassroots approach (Flores et al., 2019; Horowitz, 2015; Jackson et al., 2022), there is limited research on grassroots approaches in primary care initiatives. To my knowledge, there has been no empirical study exploring the development and importance of a grassroots, bottom-up primary care alliance. Gaining a comprehensive understanding and exploring this aspect are imperative in order to successfully implement grassroots organizations, which is important for engaging physicians in primary care within the London-Middlesex sector. This thesis works to build the literature base in this area by focusing on the development of the London Middlesex Primary Care Alliance (LMPCA).

2.4 Physician Engagement

Physician engagement is an essential component of health systems, and it refers to a physician's level of active and positive contribution in a clinical setting to their commitment and involvement of the health care organization in which they work (Gray et al., 2018; McMurchy, 2018), including their participation in decision-making, clinical activities, and quality improvement initiatives (McMurchy, 2018). Physician engagement is critical to achieving sustained health system improvement (Perreira et al., 2021; Puri et al., 2006) and is important at

all levels; the patient level where care is provided, and organization and system levels where policies and processes are structured for health care delivery (Perreira et al., 2019; Rabkin et al., 2019). Physician engagement can be associated with improved organizational and health system efficiency, innovation, job and patient satisfaction which are one of many outcomes (Grady et al., 2021; Spurgeon, 2008; Ontario Hospital Association, 2020). Currently, within the context of Ontario, there is limited literature that demonstrates how to effectively engage physicians in health system transformation (Everall et al., 2022; Perreira, 2021).

Within Ontario's recent health system transformation, primary care physician engagement has been identified as one of the key principles in improving health system integration (Waddel & Lavis., 2022). One of the solutions to sustaining the health care system in Ontario has been integrating physicians effectively at the systems level and engaging them in leadership roles, design and evaluation, and overall operations of a health system (Baker & Axler, 2015; Waddel & Lavis, 2022). Physician engagement in with organizational leadership roles involves active participation in decision-making at local or regional levels (Perreira et al., 2021). This engagement aims to influence the organization's capacity to deliver high-quality care and achieve improved patient outcomes (Gray et al., 2018; McMurchy, 2016; Ontario Hospital Association, 2020).

There are several definitions and perspectives of physician engagement used in literature which causes ambiguity in research (McMurchy, 2018; Perreira et al., 2019). These factors encompass various aspects of physicians' engagement, including their personal sentiments, psychological presence, medical practice, interactions within their organization, and contributions to the healthcare system as a whole (McMurchy, 2018). Other terminologies, including 'medical engagement' or 'work engagement' are prominent in physician engagement literature, however, those terms are well-established in the context of organizational behaviour literature (Perreira et al., 2021; Spurgeon, 2008). Work engagement refers specifically to the positive, fulfilling, work-related state of mind characterized by vigour, dedication and absorption (Keller, 2010). While the scope of what defines physician engagement and its conceptual analysis is beyond this study, it is important to be mindful that researchers may identify physician engagement differently. This

study will refer to physician engagement as physician's level of active and positive contribution and involvement in health systems reform (Gray et al., 2018; McMurchy, 2018).

Physicians' contributions extend beyond healthcare delivery, and their engagement in health system integration can have an impact that goes beyond patient outcomes (Baker & Axler, 2015). There are multiple factors (i.e., individual, organizational, or environmental) that motivate their engagement in this process. (McMurchy, 2018). Health systems researchers suggest that some physicians are 'naturally engaged' (Guo et al., 2021) and involvement "…begins with the underlying character and values of the engaged physician" (Snell et al., 2011, p.3). Additionally, the extent of physician engagement can be determined by their experiences with the health care system and organizations (Puri, 2006). Physicians who have positive experiences with the health care system and organizations are more likely to be highly engaged and motivated to improve patient care (Kaissi, 2014; Snell et al., 2011). Alternatively, physicians who have negative experiences or feel disconnected from the health care system have demonstrated less engagement (Kaissi, 2014; Snell et al., 2011), resulting in a disruption in the relationship between the organization and the physicians (Rabkin et al., 2019). Characteristics of individual factors including, but not limited to, a physician's commitment and passion to their organization, ambition to make a difference, having a purpose or direction in their work, personal empowerment, self-efficacy and strive to achieve what is beyond their role (McMurchy, 2018; Puri, 2006; Snell et al., 2011; Spurgeon et al., 2008). Organizational or environmental factors for physician engagement include (but not limited to) a shared, positive and open culture, limited bureaucratic and administrative processes, and a balance of work-life responsibilities (Denis et al., 2013; McMurchy, 2018; Spurgeon et al., 2008). While all the factors appear simple, current factors in physician engagement in Ontario health systems have not been well explored (Everall et al., 2022).

The process of engaging physicians in health systems is complex and requires adaptability in response to the constantly changing health care environment and needs of both the population and the organization (Perreira et al., 2021; Waddel & Lavis, 2022) Therefore, it is important to identify the strategies or interventions that are useful for physician engagement as well as factors which have caused lower levels of physician engagement in health systems work.

2.4.1 Strategies for Engagement

Current physician engagement literature outlines physician strategies in the context of organizational behaviour literature (e.g., geared towards management, finance or corporate sectors) (Perreira et al., 2021) or in larger organizational and hospital settings (Denis et al., 2014; Snadden et., 2019; Spaulding et al., 2014). However, the limited literature available on the outcomes and sustainability of physician engagement strategies in primary care and health systems settings makes it challenging to integrate evidence-based practices effectively into health system work (Guo et al., 2021; Quinn & Manns, 2021). While there were several strategies in the literature for physician engagement, the prominent and recurring strategies in the literature were to create a positive organizational culture with good communication, providing incentives for physician engagement and opportunities for physicians to engage within the organization (McMurchy, 2018; Perreira et al., 2019). To date, there are limited frameworks for engaging physicians, particularly in systems-related work, as existing frameworks primarily focus on quality and safety improvements (Taitz et al., 2011). More research is needed for physician engagement in health systems to understand strategies that can be effective and sustainable.

One of the key foundations for physician engagement is a positive organizational culture with strong communication (Rosenstein, 2015). Several recent studies have shown the importance of understanding and support and the dynamics of the work environment as key components in enhancing physician engagement (Beckman, 2015; McMurchy, 2018; Milliken, 2014; Rabkin et al., 2019; Rosenstein, 2015). Successful organizations report a culture of engagement that implements mechanisms for open communication and feedback between physicians and the organization or administration (Kaissi, 2014; McMurchy, 2018; Perreira et al., 2019; Rabkin et al., 2019; Spaulding et al., 2014). Specifically, the communication between the physicians and the administration have been cited as mechanisms of this successful engagement (Perreira et al., 2019; Spurgeon et al., 2011). Establishing relationships between physicians and the organization can create a sense of ownership and responsibility among physicians towards their work and can be achieved through open forums, advisory committees, peer-to-peer round tables or structured meetings (Dingley et al., 2008; Grimes, 2012), (Rabkin et al., 2019; Spaulding et al., 2014). Strong relationships between physicians and the organization can contribute to a positive and

productive work environment that benefits both the physicians and the organization (Rabkin et al., 2019).

Incentives are another strategy discussed in the literature to encourage physician engagement (McMurchy, 2018; Perreira et al., 2019; Rabkin et al., 2019; Spaulding et al., 2014). For physician engagement to thrive, healthcare organizations should recognize and appreciate the efforts of their physicians (Perreira et al., 2019). Regardless of whether incentives are financial or non-financial, they should be made known to the physicians when discussing how to engage them in systems work (Skillman et al., 2017; Spaulding et al., 2014). One form of financial incentives could be remuneration for time or structured rewards, which incorporate funding or compensation to achieving quality and performance objectives (Taitz et al., 2011), thereby moving away from a payment system that emphasizes quantity to one that prioritizes value (Hebert et al., 2017). Connecting salaries or stipends to organizational objectives has been found to enhance physician engagement; however, capitation models (where payment is based on the number of patients treated) indicate that this effect may be disrupted when financial incentives prioritize individual productivity (Hebert et al., 2017). Providing incentives or renumeration values the physicians for their efforts and time continuing to motivate them to contribute towards achieving the overall organization's goals.

Another recurring strategy in the literature is for health care organizations to provide opportunities for physician engagement (Kaissi, 2014; Perreira et al., 2019; Rosenstein, 2015). This means the organization should ensure there are opportunities for physicians to be involved in decision-making or leadership roles or smaller scale initiatives such as being part of smaller committees focused on improving patient care (Perreira et al., 2019; Rosenstein, 2015; Shanafelt et al., 2012). Health care organizations can provide opportunities for education, training, and support to further physician engagement (Perreira et al., 2019; Rosenstein, 2015). This could be informative sessions or training that are offered through conferences, seminars, and in-house training sessions for improving delivery of care or providing physicians with the latest updates in primary care (Forsetlund et al., 2009; Rosenstein, 2015). For example, this could include training on how to use data effectively or ensuring safe practices in delivery of care (Gray et al., 2018; Guo et al., 2021). In addition to offering opportunities for engagement, organizations must

allocate time for these opportunities that do not interfere with physicians' regular clinical activities to reduce burnout or overloading of clinical schedules (Ontario Medical Association, 2021).

While the strategies for physician engagement presented in the literature may seem straightforward, organizations and health systems continue to face challenges in engaging physicians in health system work (Snadden et al., 2019). In addition to understanding effective strategies, it is also important to explore the factors that contribute to poor physician engagement.

2.4.2 Reasons for Poor Levels of Physician Engagement

Despite the benefits that are associated with physician engagement, there are several factors that can contribute to reported poor levels of physician engagement within organizations. Physicians report being under more stress than previous years in practice due to changes in the expectations from patients, and the healthcare system in which they operate (Patel et al., 2018). This scenario can occur when a physician wishes to examine a patient in a specific manner but is required to adhere to certain hospital guidelines, which may hinder their ability to provide necessary treatment, ultimately diminishing their engagement in their professional responsibilities (Milliken, 2014). The requirements of being adherent to health care and hospital protocols, guidelines, and regulations can create a reduction in autonomy, especially in circumstances when the physician voice may have been minimal or absent from the development of the protocols or policies (Rabkin et al., 2019). These factors may potentially affect in the delivery of patient care and the efficiency of an organization (Milliken, 2014; Rabkin et al., 2019). The primary role of a physician is providing patient care and their expectation is that the organization will provide sufficient resources for them to accomplish this goal (Milliken, 2014). However, in hospital or larger organizational settings, there is often the tension between administrative groups who are hired to manage health care costs efficiently and physicians who wish to provide effective treatment (Milliken, 2014). Physicians often face organizational barriers that prevent them from providing the best possible care to their patients, despite their best intentions (Milliken, 2014; Reinersten et al., 2007). This is just one of many ways physicians can experience frustration or dilemma in the work they do which can begin to affect their overall engagement in systems

17

work. While there were several factors in the literature that identified reasons why physicians would not want to engage within their organizational settings, there were three prominent themes identified in the literature review: lack of physician voice, insufficient renumeration and unsuitable strategies when trying to engage physicians.

Lack of physician voice in physician engagement refers to a situation where there are inadequate physicians on a decision-making committee or body (Rabkin et al., 2019). Physician voice in organizations and health systems is vital in improving physician work experience and delivery of care (Creese et al., 2021). Rabkin and colleagues (2019) reported that a lack of voice and buy-in from physicians can be viewed as an 'organizational failure'. When physicians do not have a say in these important aspects of health care organizations' decisions, they may feel disconnected from their work and caught between conflicts in providing patient care and following organizational policies (Milliken, 2014; Rabkin et al., 2019). Physicians are valued as key stakeholders and are empowered to contribute their expertise and insights to improve patient outcomes and organizational performance (Monavvari, 2019). While literature states physician voice is essential for creating a strong culture of physician engagement, only recently have organizations begun to learn from the past and seek early buy-in and support from physicians (Ontario Medical Association, 2021; Perreira et al., 2021; Waddel & Lavis, 2022). This has been one of the goals in developing the Ontario Health Teams (Dong et al., 2022; Ontario Medical Association, 2021)

Incentives or remuneration are strategies that enhance physician engagement; however, the absence of remuneration can pose barriers to physician engagement. Engaging physicians in leadership and decisions roles can support physician engagement (Perreira et al., 2019; Scott et al., 2012). Physicians who take part in the engagement initiatives should be provided with support, recognition and compensation for their time (Ontario Medical Association, 2021; Patel et al., 2018; Rabkin et al., 2019). However, it is common that the activities and roles the physicians take on are volunteer based (Grimes, 2018). This issue is complicated further by the type of compensation model for the physician (Ontario Medical Association, 2021). Compensation models that physicians are a part of can have an impact on their level of engagement (Monavvari, 2019; Perreira et al., 2019; Skillman et al., 2017). Physicians who want

to engage within health system initiatives but are part of a practice model such as fee-for-service may face a conflict between their work (which compensates them) versus the engagement initiative which is volunteer or community service (Grimes, 2018). As a result, payment models like fee-for-service or capitation models may result in lower levels of physician engagement as physicians are focused on patient care as they would not be compensated for their time outside of their clinical duties (Monavvari, 2019; Patel et al., 2018). Hence, it is important to compensate physicians for their time and acknowledge their clinical duties.

There are unsuitable strategies that can discourage and prevent physician engagement in health systems work. These include having meetings or sessions during a physician's clinical hours or having unnecessary, unstructured meetings where physicians may not benefit from attending or initiatives that may be involved during their time off such as weekends or post-clinical hours (Bleser et al., 2014; Ontario Medical Association, 2021). While Town Halls and organizational meetings have shown to facilitate physician input and collaboration (Etchegary et al., 2017; Rosenstein, 2015), a study by Guo and colleagues (2021) encouraged hospital administrators and the leadership team of Toronto General Hospital to be mindful and value the time the physician is allocating. Their study demonstrated the efficacy of bi-weekly meetings that were 15-minutes in length to discuss patient safety issues during the COVID-19 pandemic. This was one of the very few case studies that provided details to why their strategy was effective and sustainable (Guo et al., 2021). According to the authors, an important takeaway was to ensure that meetings were concise, which enabled greater flexibility and encouraged more physicians and providers in the hospital to attend (Guo et al., 2021). Initially, the meetings were attended by only three physicians, but eventually, the attendance grew eight times. The authors' case study provided one of the pragmatic examples in recent steps towards prioritizing physician engagement.

2.4.3 Implications for Physician Engagement

When physicians are engaged in the decision-making process, collaboration with their peers, they are more likely to feel invested in the success of the organization (Perreira, 2019; Skillman et al., 2017). As seen across the previous sections, one of the implications of physician engagement is related to improving patient outcomes (Gray et al., 2018; Milliken, 2014; McMurchy, 2018). When physicians are involved in decision-making, they have an input

regarding best practices, which can translate into better outcomes for patients (Milliken, 2014; Snell et al., 2011; Spaulding et al., 2014). Physicians who are engaged within organizational systems work more likely to adhere to new evidence-based protocols, share information with their colleagues, and help progress the organization's goal (Taitz et al., 2011; Rabkin et al, 2019). Another important implication of physician engagement is improved physician satisfaction which refers to the physician's experience with their work (Perreira et al., 2019). Physicians who are engaged in the organization's initiatives may feel a sense of purpose to help deliver high quality care (Dyrbye et al. 2014; McMurchy, 2016). Finally, physician engagement can have implications for the overall performance of healthcare organizations (Denis et al., 2013; McMurchy, 2018). Engaged physicians are more likely to be invested in the success of the organization and may be more willing to adopt new initiatives, participate in quality improvement efforts, and commit to leadership roles (Denis et al., 2013; Gray et al., 2018; Taitz et al., 2011). This means can lead to a more efficient health care system, with fewer errors, fewer delays, and more effective use of resources.

2.5 Gaps in the Literature

The current literature highlights the importance of physician engagement (Everall et al., 2022; Waddell & Lavis; 2022) and suggests that effective physician engagement is an essential factor for improving physician satisfaction, quality of care, patient safety, efficiency, and lowering health care costs (Milliken, 2014; Perreira et al., 2019). Despite an overall awareness of the value of physician engagement, it is undetermined which physician engagement strategies have positive effects and how to implement such strategies in a sustainable way. The strategies that are identified in the literature are largely based on quality improvement work within organizational and hospital settings rather than primary care and health systems work. The strategies used for physician engagement are not always implemented by the physicians themselves but instead by the organization's leaders and administrative members (McMurchy et al., 2018; Rabkin et al., 2019; Spaulding et al., 2014). The challenge to this is it may not effectively address the true concerns of the physician needs (Rabkin et al., 2019; Spaulding et al., 2014).

Ontario's health system transformation has provided a unique opportunity to the province for health care professionals, physicians, and researchers to enhance care delivery and that directly

involve physicians within health systems work. There is limited literature on grassroots alliances and bottom-up approaches to examine physician engagement in the Ontario health care context, however, models like Health Links have provided valuable insights for the healthcare community for what works best in primary care (Evans et al., 2014). Previous integrated care models such as the Local Health Integration Networks (LHINs) have demonstrated some of the shortcomings of top-down approaches in primary care (Dong et al., 2022). The position of the London-Middlesex region, along with its local primary care alliance, the London Middlesex Primary Care Alliance (LMPCA), is especially noteworthy because they were able to leverage this transformation through a grassroots initiative that engaged physicians in systems work. This study is timely and focuses on the novel development of the LMPCA and how it brought London-Middlesex to prominence by engaging primary care physicians in the region.

2.6 Summary

This chapter provided an overview of the current literature surrounding the important topics of this thesis. The topics included primary care in the context of the Ontario health care system, primary care alliances, an overview of Ontario Health Teams (OHTs), and past literature in physician engagement. This chapter demonstrated that there is a need to explore grassroots initiatives in primary care and strategies that can improve physician engagement within health system transformation in the context of Ontario's setting. The next chapter provides insight into the methodology and methods used to answer the research objectives and questions.

Chapter 3

3 Methodology and Methods

This chapter describes the methods and methodology used to explore the research aim: describe the development of a grassroots primary care alliance in response to a regional health system transformation and understand how physicians are engaged within the regional health system. I present an overview of the paradigm (Section 3.1) and methodology (Section 3.2) that I have chosen for my research project, detailing the necessary background information such as the setting and participant recruitment. I provide an in-depth account of the data collection (Section 3.3) and analysis (Section 3.4) methods employed. I also discuss ethical approval and funding (Section 3.5) and highlight the guiding quality criteria that underpinned my research project (Section 3.6).

3.1 Paradigm

Establishing one's paradigmatic perspective is important in qualitative research when selecting the methodology (Guba & Lincoln, 1994). The paradigm guides the researcher's methodological decisions and shapes how data is interpreted (Teherani et al., 2015; Guba & Lincoln, 1994). There are three main components to paradigms: (1) ontology; (2) epistemology; and (3) axiology (Ponterotto, 2005). Ontology is the nature of reality and what can be known about this nature (Guba & Lincoln, 1994). As a qualitative researcher, my view strongly aligns with a relativist ontology, which assumes the existence of multiple perspectives and realities of the world (Morrow, 2007). The second component of a paradigm, epistemology, is the nature of the reality between the researcher and the participants (Guba & Lincoln, 1994). I align with an epistemological approach that reality is subjective, and the research is transactional between the researcher and participants (Guba & Lincoln, 1994). The third component, the axiology, focuses on how the researcher's values influence the research process (Ponterotto, 2005). It is impossible to completely eliminate biases in research findings that are developed through collaboration between the researcher and the participants. Despite efforts to minimize biases, they are likely to have some impact on research outcomes (Haverkemp & Young, 2007). Hence, it is essential to understand my position as a qualitative researcher to comprehend the methodological framework of my research project.

My study will be guided by a constructivist paradigm. A constructivist paradigm acknowledges that there is no singular objective truth, accepting that the researcher and participants will work together to co-construct the knowledge (Ponterotto, 2005). A deeper understanding of knowledge is acquired through the relationship between the researcher and the participants (Golafshani, 2003). Constructivism aligns with the aim to explore the development of a primary care alliance from multiple perspectives to ensure a holistic narrative has been captured. The epistemology of constructivism states that the data is actively produced with the relationship of the researcher and participants and the phenomenon that is being studied (Guba, & Lincoln, 1994). The collaborative efforts of the research and participants are essential for this research to gain insight from multiple perspectives such as physicians, health care administrators and administrative support personnel to describe the context and foundation of the LMPCA. To understand the development of the primary care alliance and physician engagement, it was important to adopt a methodology that facilitated collaboration between the researcher and participants. Constructivism also holds a hermeneutical and dialectical methodology (Guba & Lincoln, 1994). This approach was effective because interviews have been shown to be beneficial to explore the phenomenon of physician engagement (Snadden et al., 2019). However, there have been limited studies that have interviewed physicians directly to understand the phenomenon of physician engagement in regional health systems, and how it can be effectively implemented.

3.2 Qualitative Methodology

As noted in Chapter 2, there can be ambiguity in the definition of 'physician engagement' and inconsistency in strategies for implementing it (McMurchy, 2018; Perreira et al., 2021; Spurgeon, 2008). A study by Snadden and colleagues (2019) noted the best way to understand physician engagement is from physicians themselves. This study used qualitative methods to explore the grassroots development of a primary care organization directly from the perspective of physicians. Despite numerous studies highlighting the advantages of grassroots approaches (Flores et al., 2019; Horowitz et al., 2010; Jackson et al., 2023), there is limited research examining the effectiveness of grassroots approaches in establishing primary care alliances. Qualitative methods are most effective to understand the phenomenon of physician engagement (Perreira et al., 2019; Snadden et al., 2019). Quantitative methods such as surveys are valuable

tools for measuring, gathering information and making informed decisions, however, quantitative methods often fall short in offering meaningful recommendations for physician engagement and cannot capture the 'lived experience' of this phenomenon (McMurchy, 2018; Spurgeon, 2011; Whitlock & Stark, 2014). Therefore, a qualitative approach was used to conduct semi-structured, in-depth interviews, discussion, and analysis to understand physician engagement.

3.2.1 Case Study Methodology

Case study methodology represents an effective research approach that enables in-depth exploration of issues within the context where the phenomenon of interest occurs (Crowe et al., 2011). Case study methodology presents a suitable choice for physician engagement research, allowing for a comprehensive understanding of the phenomenon of interest (Crowe et al., 2011; Rolfe et al., 2018). The case study approach allows researchers to examine complex phenomena in a real-world context (Baxter & Jack, 2008). Physician engagement involves multifaceted relationships between the primary care physician, the organization for which they work and ultimately the patients that they serve (McMurchy, 2018; Perreira et al., 2019). Case study methodology also enables the researchers to gain an in-depth understanding of the phenomena factors that influence physician engagement, such as organizational culture, leadership, and different layers of personal and environmental factors (Grady et al., 2021; Rabkin et al., 2019). Additionally, case study offers a comprehensive approach to exploring physician engagement as it enables the researcher to consider multiple perspectives (Baxter & Jack, 2008). This thesis study is unique in its approach, as it incorporates viewpoints and interviews with physicians, and comprehensively includes the perspectives of healthcare administrators and administrative support personnel, thereby bridging a critical gap in the existing literature. It is important to consider these relationships given that physician engagement occurs at multiple levels and is influenced by contextual factors (Marsden et al., 2012; McMurchy, 2018). Case study methodology provides a valuable and comprehensive approach to understanding physician engagement and can contribute to the development of strategies to enhance physician engagement in healthcare organizations.

Case study methodology requires a theoretical perspective that supports the study design (Crowe et al., 2011). There were three prominent authors with different paradigmatic perspectives who

contributed to the field of case study research: Stake, Merriam, and Yin (Sibbald et al., 2021). According to Stake (1995), the case study approach involves qualitatively exploring a complex function, with an emphasis on capturing a holistic perspective, grounded in empirical observations, and interpretive and empathetic towards the experiences of their participants (Yazan, 2015). Merriam (1998) asserts that case studies are useful in gaining a qualitative understanding of a single entity, focusing on its particularistic, descriptive, and heuristic characteristics (Sibbald et al., 2021; Yazan, 2015). Yin's (2002) approach aims to comprehend a concept in a real-life context, utilizing a combination of qualitative and quantitative methods (Sibbald et al., 2021).

I aligned with Stake's case study methodology because it was congruent with my paradigmatic position and utilized qualitative methods that were important to my research. Stake's case study methodology emphasizes the significance of a structured qualitative approach, and he identifies three types of case studies: intrinsic, instrumental, and collective (Crowe et al., 2011). An intrinsic case study is driven by the researcher's personal interest in the case, while an instrumental case study is conducted to answer a research question beyond mere understanding (Crowe et al., 2011). A collective case study involves multiple cases essential to answer the research question (Crowe et al., 2011). In my research, we conducted an instrumental case study to explore physician engagement and discuss barriers and facilitators to engagement for the regional primary care alliance. Stake (1995 as cited in Sibbald et al., 2021) also provides guidance on data validation, including data source triangulation (different methods of collecting data), investigator triangulation (multiple researchers involved during the research process), and methodological triangulation (use of two or more research methods) (Sibbald et al., 2021). To ensure rigor and establish triangulation in our study, we implemented these methods, such as member checking and incorporating multiple members during data analysis which is explained in Section 3.3.4 and Section 3.4, respectively. Stake's case study methodology offers flexibility and encourages multiple methods in data collection sources, even during the study (Stake, 1995, as cited in Sibbald et al., 2021). As a researcher, I used qualitative data collection methods, including key informant interviews as my primary source, to explore and understand the physician engagement comprehensively. This was further supported by document analysis and an environmental scan which will be discussed in Section 3.3. By selecting an instrumental case

study with Stake's theoretical foundation, I was able to holistically research the development of primary care alliance and physician engagement.

3.2.2 Setting

This study investigated how physicians engage with the health systems through the London Middlesex Primary Care Alliance (LMPCA) and understand the development of the alliance. The LMPCA is responsible for coordinating primary care activities in Middlesex County, located in Southwestern Ontario and home to over 500,000 residents (Middlesex London-Ontario Health Team [ML-OHT], n.d.). The major city in Middlesex County, London, has several health service organizations, such as Western University, Fanshawe College, London Health Sciences Center (LHSC), and St. Joseph's Health Care London, which have made it an important hub for health care innovation and education partnerships (London Health Sciences Center, n.d).

The Middlesex-London Ontario Health Team (ML-OHT); previously known as the Western Ontario Health Team (W-OHT), is a collaborative group of healthcare providers and community members dedicated to improving health outcomes and enhancing the patient experience for the residents of Middlesex County (ML-OHT, n.d.). The ML-OHT selected their year 1 priority population to be people living with advanced chronic obstructive pulmonary disease (COPD) and/or congestive heart failure (CHF) (ML-OHT, n.d.). It is estimated that approximately 34,900 individuals are living with COPD, while roughly 8,800 individuals are living with CHF within the Middlesex-London region (ML-OHT, n.d.). The ML-OHT has over 30 partner organizations, including hospitals, community health centers, mental health and addiction services, primary care providers, and social service agencies which focus on improving health outcomes through coordinated care and information sharing across the healthcare system (ML-OHT, n.d.). To ensure a comprehensive understanding of our research aim, we interviewed participants from both the LMPCA and ML-OHT.

3.2.3 Participant Recruitment

There were three main groups of participants in the study from both LMPCA and ML-OHT: 1) primary care physicians; 2) health care administrators; and 3) administrative support personnel. I

used convenience sampling to recruit the participants for my study. Convenience sampling is a type of non-probability sampling technique in which researchers select participants who are easily accessible or convenient to them, rather than using a random selection process (Sousa et al., 2004). I recruited participants from both organizations (LMPCA and ML-OHT) to provide their perspectives on the development of the LMPCA and physician engagement across the region. With the help of my supervisor, we reached out to the LMPCA's administrative support personnel who shared our study with their Executive Council Members and assisted in participant recruitment. The Letter of Information (LOI) and a recruitment email, containing a concise summary of our study (available in Appendix B and C, respectively), were emailed to the Executive Council members of the LMPCA. The email and recruitment communications contained the link to the LOI and the consent form. We had a broad recruitment approach where we shared our study on social media such as Twitter to gain the attraction of primary care individuals in the London-Middlesex region (recruitment poster can be found in Appendix D). We also shared our study and link to the LOI in the monthly ML-OHT and LMPCA newsletters and ML-OHT Townhall which increased interest of physicians and health care administrators. The participants were able to view the LOI and sign the consent form on Qualtrics if they agreed to participate in the study. The research team then reached out to participants who had filled out the consent form and scheduled an interview at a time of their convenience. Verbal consent was collected prior to the start of the interview.

3.3 Data Collection

Stake's (1995) case study design allows for diverse methods of data collection. This allowed me to explore physician engagement through different lenses to understand the multiple facets of the phenomenon (Baxter & Jack, 2008). This research used a variety of data collection methods such as key informant interviews, document analysis and an environmental scan. Interviews were used as the primary data collection method. Document analysis and the environmental scan were used to create the interview guide and support data analysis. Flexibility in data collection methods is a crucial aspect of Stake's (1995) case study methodology (as cited in Sibbald et al., 2021). Therefore, a semi-structured approach had been adopted for the data collection tools to enable this flexibility during the research study. These data collection tools were helpful in obtaining valuable insights from diverse participant groups, and also in identifying similarities in trends

among the documents obtained through document analysis and environmental scan. The process of data collection and analysis was iterative in accordance with methodological considerations (Creswell et al., 2007). The data was analyzed continuously throughout the collection process and was used to guide further data collection, ensuring that the questions asked were suitable and enabled the collection of relevant data as the interviews progressed (Baxter & Jack, 2008).

3.3.1 Interviews

I conducted semi-structured interviews with primary care physicians, health care administrators and administrative support personnel who worked with LMPCA and the ML-OHT to help understand the development of the LMPCA and how physicians are engaged in health systems. These interviews were approximately 45 minutes in length using the videoconferencing application Zoom and used to develop an understanding the perspective of primary care physicians, health care administrators and administrative support personnel who worked with both LMPCA and ML-OHT. The interviews were audio-recorded and transcribed verbatim. The interview guide can be found in Appendix E.

3.3.2 Document Analysis

I used document analysis to explore the major events of the LMPCA, which help to outline the development of the LMPCA and physician engagement activities within the Middlesex-London region. Document analysis is a method that involves systematically examining and interpreting documents or other forms of communication (e.g., PowerPoint Slides, letters, reports, policy documents) to extract meaning and gain insight into a particular phenomenon or topic of interest (Bowen, 2009). This approach enabled us to gain insights into the LMPCA's critical junctures, engagement in primary care activities, mutual support between the LMPCA and ML-OHT, and the general environment and structure of the organization. Furthermore, it facilitated an understanding of the organization's current state in the context of the research, including its starting point and current status. I conducted an extensive review of available documents on the LMPCA and ML-OHT websites, as well as the Ontario Medical Association website, which contained tools related to OHTs. I used publicly available resources, including monthly newsletters, weekly e-blasts, reports, and toolkits, to gain an understanding of the LMPCA's

governance structure, identify critical points, and gather insights into the development of the LMPCA and physician engagement within the region. Each document was systematically analyzed to determine its type, intention, and the outcomes it presented, including critical events related to the LMPCA or ML-OHT. The data collected from document analysis assisted in creating interview questions (Appendix E) and further support data analysis (i.e., the coding framework which can be found in Appendix F). Document analysis also supported in the creating a timeline of the critical events of the LMPCA and ML-OHT across the London-Middlesex region (Appendix H).

3.3.3 Environmental Scan

An environmental scan was used to identify if there were similar grassroots primary care alliances in Ontario. Environmental scans are used in health research to map quality improvement initiatives in the primary healthcare sector (Damberg et al., 2014) and to identify health literacy processes and initiatives (Scime, 2017). I conducted an internet search of primary care alliances in Ontario to determine if they were a formalized group or a volunteer initiative. Additionally, I examined their governance structure, including whether it was led by physicians, healthcare administrators, or other allied health professionals. To ensure a comprehensive search, I examined regions where OHTs had been implemented, as some alliances may have developed partnerships with their regional OHTs. I also checked to see if the OHTs were partners or contributed to the growth of a local primary care group, which is similar to the involvement of the LMPCA. The purpose of this environmental scan was to identify any volunteer or grassroots style groups similar to the LMPCA and to gather literature on their development and physician engagement information that could be beneficial to my study.

3.3.4 Member Checking

Member checking was conducted after completing data analysis and developing themes. This technique is commonly used in qualitative research to confirm the consistency of the data collection results with the experiences of the participants (Birt et al., 2016). As part of the member checking process, a summary of the overall study and themes were emailed to all

participants to review. After reviewing the summary, the participants provided feedback to clarify or confirm the study's results.

3.3.5 Reflexivity

Reflexivity is a process in qualitative research of reflecting on and acknowledging the researcher's own biases, assumptions, and preconceptions that may influence the research process and the interpretation of data (Guillemin & Gillam, 2004). It involves being aware of how one's own background, experiences, and values that may impact the research and how they may influence the data collection, analysis, and interpretation (Holmes, 2010). By being reflexive, the researcher can better understand the role they play in the research process and can strive to minimize any potential biases that may affect the study's results (Guillemin & Gillam, 2004).

To ensure that my thoughts and assumptions were considered during data collection and analysis, I created reflexive notes throughout the entire research process. These assumptions will be discussed in chapter five. Additionally, once a week, I documented my thoughts on thesis writing, data collection and analysis, and other aspects of the research process that I found noteworthy. I also documented any common trends I observed throughout the interviews. These notes were written at the end of each week and were typically about a paragraph long.

3.4 Data Analysis

Stake advocates for using the researcher's intuition and impression to guide analysis through a categorical aggregation and direct interpretation (Sibbald et al., 2021). To ensure the interview guide and questions asked were structured appropriate to our phenomenon, an ongoing iterative and inductive analysis was used. The data analysis process was iterative and began when data collection started, continuing throughout the research process. The analysis followed an inductive approach, with the findings emerging from the collected data. This approach is data-driven, in contrast to deductive coding methods that are more theoretically driven. Thematic analysis is a common approach used for data analysis in qualitative studies (Vaismoradi et al., 2013). Thematic analysis involves more interpretation of the data and may include minimal

description of the frequency of categories found in the data (Neuendorf, 2018; Vaismoradi et al., 2013). This research utilized inductive thematic analysis as a method for identifying, analyzing, organizing, describing, and reporting the themes that emerged from the data (Braun & Clarke, 2006).

Once the interviews were conducted, the audio-recorded data was transcribed. Each interview transcript and field note document were read multiple times with and without audio-recordings to ensure immersion in the data (Nowell et al., 2017). I initially read the data traditionally (i.e., using pen and paper), marking up the pages with notes and comments. After becoming familiar with the data, I uploaded interview transcripts to the qualitative data management and analysis software NVivo 14. The software assisted in organizing the codes and sorting the data, as well as re-categorizing the data as the data collection progressed. The data was organized multiple times in NVivo 14 to assist with different phases of data analysis and to increase the reliability of the entire case study (Braun & Clarke, 2006; Nowell et al., 2017).

The coding process simplifies and transforms data by breaking it down into chunks and rearranging the data (Braun & Clarke, 2006; Coffey & Atkinson, 1996). The first step of the coding process was to gain familiarity which meant reading the transcripts multiple times. The data was read by myself, my supervisor and a member from my thesis advisory committee. In the first round of coding, the primary researcher, my supervisor, and a thesis advisory member worked together to code the entire data set. The supervisor and advisory member each coded a third of the data set, with a transcript overlap to ensure consistency (Thomas, 2006). Following this round of coding, I met with my supervisor and my thesis committee member to discuss the codes and early findings and interpretations. During the meetings, we reviewed the codes and categories I developed and discussed their strengths and weaknesses. I also received feedback on how to tailor the themes to our context of physician engagement. From this meeting, I went back to the data to conduct coding again to ensure I was capturing a comprehensive overview of the development of the primary care alliance and physician engagement. This phase was repeated several times to ensure the accuracy of the codes grouped together and that no other codes were emerging from the data (Thomas, 2006). Potential themes and subthemes were created and the codes relevant to each theme were categorized. The potential themes and subthemes were

discussed during meetings with my supervisor and thesis committee. The data was read over one last time to confirm the data had been coded properly for the themes and subthemes. The final coding framework can be seen in Appendix F.

The ongoing analysis was supported by the field notes, which enabled the generation of new ideas or concepts that arose during the interviews. This approach ensured a holistic perspective of the development of primary care alliances and physician engagement within the regional health system was understood. Document analysis and the environmental scan were used to provide a comprehensive understanding of the research topic and identifying key patterns and themes which were spoken during the interviews. This enabled me to comprehend the timeline better and have prior knowledge of certain events that involved LMPCA or ML-OHT, as well as some background information on primary care alliance matters.

3.5 Ethics and Funding

This study received ethical approval from Western University's Health Sciences Research Ethics Board (Study ID 121041) prior to participant recruitment and data collection. The ethical approval letter can be found in Appendix G. All participants received a full explanation of the potential costs and benefits associated with the research project and were provided with the LOI for additional information prior to collecting informed consent. All interviews were audio-recorded with proper informed consent. This study also received funding from the Center of Studies for Family Medicine Schulich Research Trust Fund.

3.6 Quality Criteria

To ensure the quality of my research, I utilized Tracy's (2010) "Eight Big Tent Criteria," which establishes common indicators of high-quality qualitative research while accounting for different paradigms and methodologies. The eight criteria proposed by Tracy (2010) are: worthy topic, rich rigor, promoting sincerity, enhancing credibility, resonance, significant contribution, ethical quality and overall coherency. A worthy research topic should contribute to the existing literature by advancing knowledge, rather than simply confirming existing assumptions (Tracy, 2010). By identifying and addressing gaps in the current literature and obtaining firsthand perspectives

from physicians, this thesis has the potential to enhance empirical research and inform future physician engagement initiatives in regional health systems. To promote rich rigor in the study, it was essential to make informed decisions about the research design and case selection that align with the research question (Tracy, 2010). In my study, I maintained thoroughness and clarity by utilizing appropriate procedures and field notes. Field notes were particularly useful in determining data saturation, as repeated themes and ideas indicated when saturation had been achieved (Fusch & Ness, 2015). To enhance credibility in research, it is important to establish trustworthiness (Tracy, 2010). In my thesis, I utilized member checking as a means of allowing participants to reflect on the findings and ensure their accuracy (Birt et al., 2016). Research that resonates with an audience has the potential to directly impact people by utilizing strategies like transferability and generalization (Tracy, 2010). Although I recognize that case study methodology is not generalizable, the findings of the LMPCA and physician engagement strategies can serve as an exemplar and be highlighted across primary care sectors in Ontario to help interested stakeholders make informed decisions. To promote sincerity in research, it is important to be transparent and authentic in both research decisions and dissemination (Tracy, 2010). In my study, I utilized strategies like keeping a reflexive journal throughout the entire process to ensure transparency with myself, the research, and the audience. Adding a significant contribution is a criterion that involves introducing innovative research to support the current literature (Tracy, 2010). Promoting ethical quality is an important criterion to creating high-quality qualitative research as it ensures the study has been reviewed for any dangers or privacy breach opportunities (Tracy, 2010). This study received ethics approval from Western University's Health Sciences Research Ethics Board (Study ID 121041). it is important to align the research design, data collection methods, and analysis to promote meaningful coherence in the research (Tracy, 2010). In my study, I chose appropriate data collection (such as interviews and document analysis) and analysis approach that were aligned with physician engagement and health systems literature, ensuring coherence in the study (Grady et al., 2023; Snadden et al., 2019).

3.7 Summary

This chapter discussed the rationale behind the paradigm and methodology of this study. The most effective approach for this study was a qualitative case study methodology using Stake's

(1995) theoretical approach, as it provided flexibility during the research process and allowed for a holistic understanding of the physician engagement phenomenon. Next, I outlined the method used for participant recruitment from the LMPCA and ML-OHT, as well as the data collection methods. In addition to key informant interviews, document analysis and an environmental scan helped support the interviews and data analysis. I also describe how the data was analyzed, thoroughly outlining some of the foundational approaches used in Stake's qualitative case study methodology. These included the use of member checking, multiple data sources, and multiple researchers involved in the research process (Stake, 1995 as cited in Sibbald et al., 2021). The chapter concludes with a discussion of the strategies and techniques used to ensure quality and excellence in the research, which align with Tracy's (2010) Eight Big Tent Criteria.

Chapter 4

4 Results

In this chapter, I present the findings from the analysis of the data I collected from the interviews, document analysis and environmental scan. I begin this chapter by discussing the characteristics of the participants (Section 4.1). I then move into discussing the main findings of the analysis from the interviews and the document analysis (Section 4.2); themes are supported using verbatim quotations. I finish the chapter by discussing the findings from the environmental scan (Section 4.3) which outline similar primary care alliances across Ontario. The study results address the key research objectives aimed at describing the development of a grassroots primary care alliance in response to a regional health system transformation and understanding how physicians are engaged within the regional health system.

4.1 Participant Demographics

There were 13 participants that consented for the study. The participants included four primary care physicians specializing in family medicine, three health care administrators serving as executive directors from a family health team, a community health center, and an Ontario Health Team (OHT). Additionally, six administrative support personnel, including a transformation lead, communication lead, and practice and facilitation lead, were part of the London Middlesex Primary Care Alliance (LMPCA) or the Middlesex-London OHT (ML-OHT). It is important to note that this study employed a broad recruitment approach, utilizing advertisements in newsletters, social media, LMPCA and ML-OHT Townhalls, and Webinars. As a result, we are unable to estimate the number of people who viewed our study and calculate a response rate. However, among those who expressed interest and signed up on Qualtrics, we achieved a 100% response rate for participation in the interviews. The breakdown of the participant demographics can be found in Table 1. It is important to note that when referring to physicians in this chapter, they represent the specialty of family medicine.

Table 1.

Demographics and characteristics of the study participants (n=13).

Participant Characteristics	N (%)
Age (years)	
30 -39	4 (31%)
40-49	5 (39%)
50-59	2 (15%)
60-69	2 (15%)
Gender	
Male	5 (39%)
Female	8 (61%)
Participant Category	
Primary Care Physician	4 (31%)
Health Care Administrator	3 (23%)
Administrative Support Personnel	6 (46%)
Total	13

Document analysis and field notes were used to support data analysis and the development of the themes. I collected monthly newsletters, communication e-blasts, and reports released by the LMPCA and ML-OHT. This helped in understanding the background of the LMPCA as well as identifying the critical junctures that contributed to the LMCPA's development. Table 2 shows the type of documents that were collected for the analysis. A timeline has been created to illustrate critical moments and timeframes that accelerated the LMPCA's growth (Appendix H).

Table 2.

Type of data collection and the respective number of participants or documents collected.

Type of Data Collection	Number of Participants or Documents
Key Informant Interviews	13
Documents	43
Newsletter	22
Communication E-Blast	18

Reports	3
Field Notes	13

4.2 Results from Data Collection

This section presents the findings from the inductive coding and thematic analysis. The results are presented as six themes uncovered in the data with 15 subthemes. The themes were: 1) context for change; 2) branding; 3) response to COVID-19; 4) leadership development in the LMPCA; 5) drivers for engagement; and 6) barriers to engagement and sustainability. Table 3 shows the themes and subthemes that were uncovered from the interviews and data analysis. The themes are presented in aggregate across the three participant groups.

Table 3.

Table of themes and subthemes from uncovered from data analysis.

Theme	Subtheme
Context for Change	OHT Development
	Isolation and Fragmentation in Primary Care
	Unified Voice in Primary Care
Branding	Not applicable*
Response to COVID-19	Personal Protective Equipment (PPE) Hub
	Vaccination Clinics
Leadership Development in the LMPCA	Not applicable*
Drivers for Engagement	Recognizing Value
	Intrinsic Motivation
	Organized Procedures
	Strong Communication
	Grassroots Approach
	Primary Care Transformation Lead
	Lack of Funding or Resources for Remuneration

Barriers to Engagement and Sustainability	Inadequate Administrative Support
	Insufficient Acknowledgement and Representation of Physician Voice
	Succession Planning

*Note: * denotes that there was no subtheme for the corresponding theme.*

4.2.1 Context for Change

A dedicated group of physicians, health care administrators, and support personnel from primary care organizations collaborated to establish the LMPCA to provide an organized and united voice for primary care throughout the region. Within the theme of context for change, there were three subthemes: 1) OHT development; 2) isolation and fragmentation in primary care; and 3) unified voice of primary care.

OHT Development

The LMPCA was formed in response to the changing landscape of the health system and the need to adapt in the primary care sector. This change was driven by the introduction of OHTs. The goal was to engage physicians and bring more organization to the sector. The formation of an OHT in the London-Middlesex region was a driving factor behind the creation of the LMPCA. It was also noted that the lack of a unified voice for primary care in the Middlesex-London region posed a challenge to participating in OHT development. The introduction of OHTs was viewed as a critical juncture in the growth of the LMPCA. The development of the Middlesex-London OHT (previously known as Western OHT or W-OHT) served as a catalyst for organizing Middlesex-London's primary care sector and encouraging primary care physicians to engage in health systems work, including the drafting of the OHT application. Participants acknowledged the importance of the OHT in the development of the LMPCA and getting the primary care sector organized.

> *There was some value in terms of trying to get our sector organized… that was where things were when the OHTs started up and realizing we needed to coordinate our sector in order to participate successfully with the Ontario Health Team. (Physician, PCP_003, Interview).*

Remembering back that the knowledge that health system transformation was coming, there was a sense amongst some of the primary care leaders that we would need to organize ourselves to participate effectively in whatever that transformation looked like. So that really was the burning platform with the LHINs leaving and these new integrated care delivery systems coming (Health Care Administrator, HCA_002, Interview).

The primary care sector in the London-Middlesex region was unprepared with the introduction of the OHT, which had the potential to create an impact in the sector's work. Motivated by this, the LMPCA came together to collaborate and actively participate in the OHT's initiatives.

The OHT was really important in getting [the LMPCA] organized. So, it got the ball rolling right? Because 'oh no, this OHT thing is coming in. What is it?' (Support Personnel, SP_001, Interview).

Isolation and Fragmentation in Primary Care

Participants described the isolation and fragmentation across primary care as a push for change within the sector. Physicians often operated in silos, with little affiliation to any primary care entity other than hospitals or governing medical associations like the Ontario Medical Association or the College of Family Physicians of Canada.

I think just the traditional way of being in primary care, where you're all in silos and you're doing your own thing, and your affiliation is to a hospital, and to your regulatory body, you know the Ontario Medical Association…they wanted to bring that change (Support Personnel, SP_005, Interview).

Specifically in London-Middlesex region, participants noted a gap in the primary care sector and emphasized that physicians lacked support and felt isolated. They also highlighted the importance of primary care alliances, as there was no primary care specific entity or alliance in the region, further exacerbating the isolation among physician groups.

Over my 40 years, I have watched [primary care] be a very tight sector in terms of the physician groups. I practiced in smaller communities outside of [the city] in addition to [city] urban, I would say [city] urban was less tight than the smaller communities. From a community physician perspective, you were pretty isolated and pretty much on your

own unless you chose to join the London District Academy of Medicine but even that was not primary care specific (Physician, PCP_002, Interview). [1]

The idea of establishing primary care specific groups for physicians played a vital role in the formation of the LMPCA. This highlighted the importance of creating primary care groups within the region to involve physicians, establish better connections, and provide them with a network for engagement. The formation of the LMPCA also recognized the existence of similar networks like Health Links, which encompassed more roles than just family physicians such as specialists (i.e., respirologists, urologists), prior to the LMPCA's establishment.

> *The goal was that it would be a network of networks, so that individuals who sat on the London-Middlesex Primary Care Network had a responsibility to reach out to the people that they know, spread the word, bringing ideas back, but also spread the concepts back down (Physician, PCP_001, Interview)*

Unified Voice in Primary Care

Interviews and document analyses revealed that the LMPCA operates on a voluntary basis. The LMPCA, as stated in its newsletter (January 2020) and Terms of Reference document, serves as a forum for primary care providers to coordinate, collaborate, and implement activities in the London-Middlesex region, while establishing a collective voice for primary care. There was a common theme about addressing the missing physician voice in the primary care sector. Participants felt other organizations, such as hospitals, were speaking about primary care without consulting appropriate members, namely physicians themselves. This lack of consultation was perceived as diluting the representation of physicians across the sector. The need to address the missing voice of primary care was a concern shared by many participants.

> *LMPCA started because people were tired of other people, in other organizations speaking for primary care. There were a few meetings where people have shared with me that how does someone in the hospital know what's going on in primary care when they're not in primary care? (Support Personnel, SP_001, Interview).*

The LMPCA evolved into a prominent voice for the primary care sector, engaging physicians and partners throughout the region. Prior to the formation of LMPCA, there were no alliances or

---

[1] *London District Academy of Medicine is a professional medical association representing all physicians and specialties in London, Ontario.*

groups in Middlesex-London that could represent a unified voice for primary care as effectively as the LMPCA.

> *It's progressed to a place where it's really about trying to have primary care come together for one voice. To have a single voice to bring to the table to help inform some of the work. And to really advocate on behalf of primary care (Support Personnel, SP_006, Interview).*

Participants acknowledged that when the LMPCA was engaging with physicians and partners, it was ensuring its decisions were authentic and receiving feedback from physicians. If there was a voice missing, the LMPCA would go back and ensure to fill capture their representation.

> *When engaging with physicians and engaging with partners, we would say, we are here representing the voice of primary care, and that we always have more to learn and more to build on… And that's what made [LMPCA] authentic. If we were in a meeting, made a decision, or developed a project, and we got feedback from a family physician, or a group of doctors or a group of nurse practitioners that we weren't fully representing their voice, we would go back and change the position (Physician, PCP_004, Interview).*

4.2.2 Branding

The theme of branding was described in the context of portraying the LMPCA as different from other health care organizations in the London-Middlesex region such as the Southwest LHIN (i.e., Southwest LHIN is responsible for London-Middlesex region) and Health Links. Unlike the LMPCA, which centers on primary care, the LHINs and Health Links organizations encompass a wider scope of services, extending beyond primary care alone. Participants recognized the importance of acknowledging the history of the health care organizations (Southwest LHIN and Health Links), but they also emphasized the need to learn from the past to facilitate the growth and development of the LMPCA. Understanding the history of the London-Middlesex was essential for identifying and addressing the existing gaps within the region. This involved recognizing the challenges encountered by the Southwest LHIN, particularly in terms of effectively engaging primary care throughout the region of London-Middlesex.

Physicians in the region were hesitant to engage with health care system work due to previous ineffective approaches by the Southwest LHIN. However, the LMPCA aimed to move past this

history and encourage physician engagement and continue their goal of primary care systems work in the London-Middlesex region. Participants emphasized the importance of acknowledging the LHINs' history and creating a new identity and brand for the LMPCA.

> *I think it was also building the brand of the LMPCA, because it was being done away from the LHIN umbrella. The LMPCA was gaining its own identity outside of what the LHIN was supporting (Physician, PCP_001, Interview)*

Participants recognized that the LMPCA faced challenges in kickstarting its development in the London-Middlesex region and had to ensure that the primary care alliance spoke as a united front for physicians yet at the same time valuing the individual contribution of its members. This was the value and mission of the LMPCA, and it differentiated them from LHINs by speaking as one voice of primary care and operating with more independence. Participants expressed appreciation and highlighted the LMPCA's grassroots efforts in establishing a collective and united organization.

> *The history really took some effort to get past and really demonstrated a new, a truly new approach for primary care engagement, which is, as much as you can be independent but it's primary care providing supportive leadership for primary care providers and a great system collaborator if we can speak with one voice (Health Care Administrator, HCA_001, Interview).*

For the primary care alliance to operate effectively, it was important to move forward by building trust with the primary care sector which included physicians, health care executives and the administrative personnel of the region. This was a fundamental shift in LMPCA's branding, which aimed to differentiate itself from previous health care organizations and create a positive image in London-Middlesex.

> *Historically maybe there had been some trust breakdown in terms of primary care and other sectors in the healthcare system. But I think that was a good because we talked about it out loud. And I think we've learned to move forward in a really positive way since then building [the LMPCA]'s image (HCA_003, Interview).*

Further, the Terms of Reference document of the LMPCA highlighted the organization's governance structure, which emphasized the independence, inclusivity of physicians, and the

approach of the alliance. The LMPCA's approach was historically different from the Ministry-driven and top-down approaches of the past, and it facilitated building partnerships with organizations in the Middlesex-London region. This importance of branding helped the LMPCA build a positive image and move away from the previous approaches and health care organizations which created hesitancies within the region.

> You've got tradition and legacy of organizations that are there that say, "Well, we do this and don't need another organization to represent primary care". By being a self-governing organization, what it actually allowed [the LMPCA] to do is really remain and retain our independence so that we can move things forward. They helped us build authentic partnerships (Physician, PCP_004, Interview).

4.2.3 Response to COVID-19

The COVID-19 pandemic was a critical point in the development of the LMPCA which accelerated and galvanized its growth. The introduction of OHTs prompted organizational development within LMPCA. However, the pandemic provided an opportunity for LMPCA to further engage physicians, healthcare administrators, and support personnel to collaborate and work together. The LMPCA responded with two key initiatives: a personal protective equipment (PPE) hub and vaccination clinics. The progress of these initiatives was frequently featured in the monthly newsletters of LMCPA and ML-OHT, with the aim of encouraging physician engagement.

Personal Protective Equipment Hub

The LMPCA was instrumental in the establishment of a PPE hub, providing a vital response to the substantial shortage of PPE in the primary care sector during the pandemic. This initiative was acknowledged widely and appreciated by participants from both the LMPCA and the ML-OHT. The PPE hub showcased the importance of having an alliance in the community, as physicians and other primary care providers were able to turn to their local primary care organization for assistance and support during a critical time.

> It really did highlight that the need for like a group like the LMPCA. The LMPCA said they were able to provide to all these physicians who were looking for that information or

looking for PPE. They were able to create a name for themselves through that work too (Support Personnel, SP_002, Interview).

The participants acknowledged the importance of having access to the LMPCA and recognized the benefits it offered to the primary care sector, particularly for physicians.

> *I think initially that it was another way to show value for primary care providers of being in an alliance. We created like a PPE hub and so people saw immediate benefit in getting access to PPE that they may have had a hard time sourcing if they were on their own (Health Care Administrator, HCA_002, Interview).*

Vaccination Clinics

The LMPCA's participation in the COVID-19 vaccination clinics was an important initiative that brought primary care physicians together to work towards a common goal, exemplifying the LMPCA's successful efforts during the pandemic. The vaccination clinics not only allowed for physician engagement, but also saw many local physicians in the London region volunteering their time to assist with the vaccination rollout. The vaccine clinic facilitated partnerships between the LMPCA and community organizations, which aided in their growth and contributed to a more cohesive primary care sector. This partnership helped the LMPCA become more familiar with the sector and improved their ability to engage with the community.

> *We were able to connect with Middlesex London community partners and help work with them for the vaccination rollouts. That would obviously be of a high interest to our colleagues, so that all kind of helped us to get [the LMPCA] out there a bit more. I think that helped to make us feel like we were truly an entity that was able to be interactive with our medical community at large (Physician, PCP_003, Interview).*

4.2.4 Leadership Development in the LMPCA

Participants discussed leadership development and highlighted the importance of cohesiveness, trust, and relationships between physicians and the LMPCA. The LMPCA's Executive Council comprises of primary care physicians in varying payment models, nurse practitioners, healthcare administrators, and administrative support personnel from several primary care organizations throughout the London-Middlesex region. The COVID-19 pandemic brought the LMPCA members closer, promoting cohesiveness and collaboration with community organizations. As

described by participants, cohesiveness was facilitated during the PPE hub and vaccination clinics.

> *In the pandemic, there were multiple times where we worked together. We came together over PPE, we came together over vaccines at the Assessment Centre, the urgent COVID assessments, and at the clinical assessment centre's (Physician, PCP_004, Interview).*

Cohesiveness and leadership were explained further by how physicians can achieve better outcomes by working together in a collective manner, despite the common perception that they prefer to work independently. This promoted growth and development among physician leaders of the LMPCA.

> *As physicians, we do better in our collectives, people will say that physicians want to be out on their own, I don't believe for a minute that's true. [Physicians] want to provide leadership; they're trained to provide leadership in teams. I think the Primary Care Alliance, if we're looking at engagement, we need to have things that are clinically relevant that are going to affect practice and that are going to improve outcomes that are going to provide a collaborative community (Physician, PCP_002, Interview).*

The LMPCA also helped build trust and foster new ways of collaboration. Trust facilitated greater collaboration amongst physicians and further improved leadership with both the alliance and London-Middlesex region.

> *LMPCA created a container to engage other places such as the public health unit and providers where there had been misconceptions in the past. It created this ability to build trust and new ways of working together and the pandemic helped accelerate that because we worked differently together with those systems during the pandemic and continue to do so (Health Care Administrator, HCA_002, Interview)*

Building trust was also important in engaging physicians who were not yet involved in the LMPCA. Participants felt that the LMPCA helped build trust with physicians outside of the team-based models of care by showing them they were being supported. This realization helped reduce some of the perceived inequities within primary care (e.g., that team-based care physicians were more resourced and thus were better supported).

> *I think that was important too because it showed physicians who aren't working within a FHT or a CHC model that, "Oh wow, you know, those rich well-resourced models are*

about us and they're investing in supporting us even though we're not affiliated with their organizations." I think that started to build trust and started to erode some of the inequities within primary care. (Health Care Administrator, HCA_002, Interview).

Physicians noted that their relationships, particularly their access and connection with other healthcare providers, traditionally depended on individual relationships for access to primary care information, support and resources. However, participants believed that relationships facilitated through LMPCA in turn facilitated the growth and maturity of the primary care sector to engage and collaborate more effectively.

> *In terms of what you got access to, and what you had the ability to connect with, it was all organic, and based on just our individual relationships, more than any sort of structured approach to understanding how to engage. And I didn't even understand when I was a family doctor first starting that I was part of a sector. Because now that we've built trust that we can get it done (Physician, PCP_004, Interview).*

4.2.5 Drivers for Engagement

When asked about the best ways to engage physicians in leadership roles, organizational or systems work or primary care alliance initiatives, participants identified six drivers: recognizing value, intrinsic motivation, organized procedures, strong communication, grassroots approach, and the role of the primary care transformation lead.

Recognizing Value

Recognizing value meant acknowledging the inherent benefits that physicians would gain when engaging in primary care alliance activities and systems work. This required being clear about what was 'in it for them' if they engaged and what value they would gain because of their engagement.

> *[Physicians] really need to prioritize their time and attention so being clear at why this initiative is going to be a good use of their time. Even if it doesn't get immediate payoff, I think making it clear that, yes, what's in it for them is important. So really building engagement around the needs of the providers themselves (Health Care Administrator, HCA_002, Interview).*

One key example discussed by participants was the value-add of engaging with LMPCA during the pandemic. A physician participant shared their experience describing how engaging with the alliance during COVID-19 provided increased support for physicians in the London-Middlesex region and an opportunity for them to help treat their patients better.

> *Like what do I get out of it, what's in it for me. Earlier on, it was getting more confident and comfortable with COVID-19, the situation and what's happening. It's getting access to PPE and finding ways to get things that you need in your office. Now we can hopefully provide educational opportunities and help to run your practice more efficiently so you can take care of your patients better (Physician, PCP_003, Interview).*

Intrinsic Motivation

Participants noted that there was a personal investment, or internal motivation, that drove physicians to engage within the primary care alliance. Physicians who were engaged within the LMPCA were intrinsically motivated; they saw LMPCA as more than just an organization. The commitment to involvement exemplified the hard work and dedication of all individuals engaged in the LMPCA's endeavors.

> *All of those people really put in a lot of blood, sweat, and tears. And I think because there was a degree of personal investment, there was a value created because of that personal investment. Because people saw themselves in the organization. And it wasn't just an organization, it reflected all of our individual character and effort that really started to create the LMPCA (Physician, PCP_004, Interview).*

Participants explained that physicians who are passionate about the primary care activities across the region were more likely to commit to engage within health systems work.

> *Because it's their interest. These physicians find new things to be passionate about you know? Or they make you know personal commitments to themselves that they're going to get involved with volunteer activities (Support Personnel, SP_005, Interview).*

Participants acknowledged the importance of engaging physicians instead of 'hiring consultants'. The energy and sustainability of these efforts would not be the same as when engaging physicians who are invested genuinely in the systems work. Hence, intrinsic motivation brought more to engagement both now, and into the future of the LMPCA.

We can hire consultants. We can hire experts to do this stuff, who are really smart in clinical stuff. And if you can't get people together to do something together? And feel like it is theirs to own? I question the sustainability of it right? (Support Personnel, SP_001, Interview).

Organized Procedures

Participants discussed the benefits of having structured meetings and agendas that addressed their concerns and issues. These organized procedures ensured that the meetings were productive and respected the physician's time. Many participants, particularly physicians, acknowledged that regular, well-organized meetings were effective for continued and sustained engagement.

I think the strategies that worked well were the regular meetings, which sounds dumb, but like a regular, well-run meeting is really enjoyable. Poorly run meeting that's scheduled regularly, is awful… and nothing comes out of it. I think that's where many of us had ended up (Physician, PCP_004, Interview).

Organized procedures also acknowledged the importance of structuring engagement activities around physicians' schedules and accommodating clinical hours and preferences. This included clearly communicating the expectations of meetings and organizing how physicians' involvement would be structured which helped drive engagement.

We have adjusted meeting times to be at 7:30 a.m. so that we can accommodate a clinical voice or we've had meetings booked far enough in advance that people can block time out of clinic to be able to participate. Or the meeting expectation, timing, per month for example helped with engagement (Health Care Administrator, HCA_003, Interview).

Strong Communication

Strong communication ensured that the LMPCA's initiatives were effectively reaching the primary care sector and enabling physician engagement. This involved creating multiple opportunities for communication and establishing methods of constant contact with physicians through newsletters and e-Blasts that informed them of the LMPCA initiatives. Physicians were able to sign up for the LMPCA newsletter and learn about what was happening in the primary care sector. Participants mentioned that webinars were used to update the community about ongoing activities in the LMPCA and across the region.

Because we're able to have with like webinars and email lists the ability to send information out and provide opportunities to engage if people are interested. Rather than the OHT having to work with like 190 different entities, they see the LMPCA as their funnel to drive engagement (Health Care Administrator, HCA_002, Interview).

In addition to webinars, the LMPCA utilized newsletters and town hall meetings approximately five times a year and to share the activities that are occurring within London-Middlesex's primary care sector and promote physician engagement. The town hall meetings provided a forum for discussion and updates on the LMPCA's activities, while the newsletters offered information on how physicians could become involved and highlighted events and achievements.

We often will have those town halls and the purpose of them is to provide information but also to get more engagement. Each town hall we talk about the LMPCA, who we are, what we are, what we're trying to accomplish. We talk about our newsletters and trying to get people to sign up for the newsletters as well. I think all those things are all physician engagement activities and they've all been quite successful (Physician, PCP_003, Interview).

Grassroots Approach

The LMPCA's grassroots approach was important in facilitating physicians' participation in health system leadership work. It contributed to the LMPCA's initial success by bringing together individuals who shared the same drive and interest to generate a meaningful impact.

If you compare it to any other health system leadership structure provincially nothing exists like it. Like what grassroots organizations have doc's texting and setting up their own Zoom meetings actually turned into something that generated impact?... What we had initially to build that very strong engagement (Physician, PCP_004, Interview).

Further, participants believed that the LMPCA was a strong alliance because of its bottom-up approach. Instead of relying on top-down decision-making, LMPCA would reach out to individual doctors with specific skills or interests to work together in primary care initiatives. The whole process of grassroots engagement was to achieve a common goal of improving the delivery and efficacy of the primary care within the London-Middlesex region. The LMPCA's implementation of a grassroots approach further showcased its influence in reforming health care delivery in the region.

[Our initiatives] worked because it was grassroots, because it was bottom-up. It's like you had random doctors, and we would just do a callout to for example to say, "Who's really good at vaccinating?". Literally was what the LMPCA was about. And then we'll pull the group together. It's the approach I would say that worked. (Support Personnel, SP_001, Interview).

Primary Care Transformation Lead

The primary care transformation lead played an important role in driving physician engagement according to the participants and document analysis. This independent and dynamic position supported various health care providers (in particular, physicians) and aimed to improve the quality, efficiency, and effectiveness of the primary care alliance through evidence-based practices and patient-centered care. The unique introduction of this role within the LMPCA contributed to its development and success, and all participants highlighted its beneficial qualities for physician engagement.

Participants emphasized the primary care transformation lead's critical role in providing administrative support and organizing routine administrative tasks that would otherwise detract from physicians' clinical work.

> *I'll highlight that having a primary care transformation lead was a big jump for the organization, because we had someone who could be dedicated to the work of transforming primary care. Not just physicians trying to do that leadership work, especially off the side of their desks but there was a dedicated person hired for the LMPCA and that accountable to the LMPCA (Physician, PCP_001, Interview).*

The role also ensured continuity in the progress of the LMPCA. Participants highlighted the primary care transformation lead's role in ensuring the continuous momentum and ability to coordinate the LMPCA's progress.

> *[The] transformation lead really was the big gamechanger for us because often times we would have meetings in the past and nothing much would happen in between those meetings. Whereas [the transformation lead] was able to kind of really make sure we kept on point, that we had an agenda for the next meeting, set up the next meeting so there was momentum. [They] really helped speed up [LMPCA's] presence and our ability to make things happen (Physician, PCP_003, Interview).*

Participants also highlighted how the primary care transformation lead's approach to networking and operationalizing engagement benefited physician engagement. The transformation lead promoted engagement by building relationships and empowering physicians.

> *[The transformation lead] was very unique in [their] skillset in terms of being a networker and bringing engagement such as doing project management, as well as understanding how to develop teams and keep teams operational. [They] did enormous groundwork and built that network of physicians. (Physician, PCP_002, Interview).*

4.2.6 Barriers to Engagement and Sustainability

When asked about the challenges to physician engagement, participants identified lack of funding or remuneration to compensate physicians for their involvement, inadequate administrative support, and insufficient representation and acknowledgement of physician voice as key barriers. Participants also highlighted the need for succession planning for the sustainability of the LMPCA.

Lack of Funding or Resources for Remuneration

Participants identified remuneration as a barrier to physician engagement, as physicians were compensated less or sometimes not at all for their engagement in leadership and systems work. The LMPCA's physicians who are on Executive Council are all from different payment models across the London-Middlesex region. This presented a challenge, as physicians' primary responsibility (and method of compensation) was to their patients, and any time spent on systems work resulted in reduced compensation and possible negative impact on patient care.

> *If you are going to ask physicians to participate during times where they'd be seeing patients, they have to be compensated for that time. Right now, I'm paid to do leadership, it's part of my responsibility but a lot of physicians if they're at a meeting or doing system work, they're not in front of their patients so they're not billing and it's an economic impact to them (Health Care Administrator, HCA_002, Interview).*

Participants emphasized remuneration for physicians as a need to encourage and sustain them for their engagement in systems work. Appropriate remuneration was also noted to increase equity and accessibility for physician engagement across various salary models.

[Physicians] have the appetite for some volunteer work, but they cannot commit to all the time necessary to make this thing go. So, physician compensation, I think that's probably something that everybody's highlighted, but it is a barrier (Support Personnel, SP_005, Interview).

Inadequate Administrative Support

Lack of administrative support within a physician's practice was a barrier to physician engagement. Physicians emphasized the stress of having to handle administrative tasks in addition to their clinical responsibilities. Physicians noted that having administrative support to handle these tasks would allow them to engage more easily in the systems and leadership work they find valuable and avoid burnout.

I've hired a person in my practice that I call a practice facilitator. And I am lucky to have the support which not many do. Engagement dies when you get the doodle calendar at the end of your day at midnight and I have to find five times and look across my three calendars (Physician, PCP_004, Interview).

When the LMPCA was formed, it was primarily operated by physicians. Administrative support was also acknowledged to support physicians in tasks outside of their skillset (e.g., website development and maintenance of the LMPCA). Given their clinical responsibilities, physicians often face challenges when it comes to completing or prioritizing administrative tasks.

The administrative support we spoke about, is an issue that does create a barrier. We somewhat have administrative support, but it doesn't cover everything. We don't have an IT infrastructure support… Although, we have a website, you're probably not going to see us on the website development… So, there probably needs to be project plan management involved with it too (Physician, PCP_001, Interview).

Insufficient Acknowledgment and Representation of Physician Voice

Participants noted that organizations (i.e., hospital, teaching or government institutions) often dictate what physicians should do, and that physicians' clinical expertise does not seem to be valued. Participants felt this was a persistent issue across the London-Middlesex region, both in the present and the past.

Physicians are finding in particular that their clinical voice is not as valued. And so the government has done a good job with that one and I think it's a culture that's permeated down (Physician, PCP_002, Interview).

To engage physicians in health system transformation, participants described it as essential to coordinate engagement efforts as a means to acknowledge their voice. During the discussions, the importance of adequate representation of physician voice in sustaining the primary care alliance was emphasized. Participants expressed concerns about effectively including all types of physicians and ensuring that their perspectives were heard. They highlighted that proper representation of physician voices would facilitate the distribution of information across the primary care sector and be able to promote engagement with the primary care alliance.

We need all these voices. My biggest concern is how do we ensure that we have all those representatives? How do we ensure that we have ways to reach all those other physicians, and all those other primary care providers and their voices? [The city]'s very lucky to have a university with a med school. How does that link into systems research? Link into participating with the LMPCA? (Support Personnel, SP_001, Interview).

Succession Planning

Participants highlighted the importance of succession planning and the involvement of new leaders, to ensure the sustainability of the LMPCA. Participants described how the same group of physicians had been leading and engaging in leadership activities in the primary care sector for a long time. They emphasized the need to avoid burnout and maintain the well-being of these leaders. They also stressed the importance of identifying and developing new leaders to sustain LMPCA and future work. Many participants expressed concerns about physicians becoming increasingly fatigued.

I am worried that 20 percent of core physicians that we started with are still the same people that are involved today, and I notice that they're burning out. We need to get more leadership engaged; we can't have the 20 percent doing 80 percent of the work. So that looms large just because I don't want these people to lose faith and burn out (Health Care Administrator, HCA_002, Interview)

Consequently, there was a need to address succession planning to ensure the sustainability of the LMPCA by identifying and developing new leaders to assume leadership roles. It was noted by

participants that many physician leaders were reducing their involvement with the systems work in the LMPCA.

> *Many of the leaders that stepped up to do this are tired. And they're moving on, they're either stepping away, they are not attending the meetings as much as they used to, or they have other things that are going on in their lives. I think we're at the steps of succession planning and how do we make sure that this is sustainable, that two-to-three-year phase that we've gone through? (Physician, PCP_002, Interview).*

4.3 Results from the Environmental Scan

To support the understanding of the LMPCA and primary care alliances, an environmental scan was conducted through a comprehensive internet search to see if similar organizations such as the LMPCA existed across the province. The factors that were taken into consideration when conducting the environmental scan was whether the primary care alliance or network was self-governing or formalized by the Ministry of Ontario. It was also considered whether the primary care alliance had a large involvement of physicians, operated on a volunteer basis, and used a grassroots approach. Lastly, it was also seen that the primary care alliances had a partnership with their region's OHT. The environmental scan also included a brief analysis of whether the alliances conducted webinars or Town Halls to support their primary care sector and promote physician engagement. It was noted that primary care alliances across Ontario often use different terms such as network, entity, or association to refer to themselves, as described by one participant: "*I'm going to use entities because we call ourselves an alliance, some call it association, some call it a council, some call it a network*" (Physician, PCP_001, Interview).

The results of the environmental scan identified five primary care alliances that were very similar to the LMPCA. Those alliances were 1) Brant-Norfolk Primary Care Council; 2) Primary Care Network Mississauga-Halton; 3) Burlington Community Physicians Council; 4) East & West Toronto Primary Care Network; and 5) Mid-West Toronto Primary Care Network.

The alliances shared several similarities with the LMPCA, such as being physician-driven, volunteer-based, and having no formal associations with any organizations. They also united the voice of primary care physicians who reflected the demographics or regions they represented. Like the LMPCA, these groups were largely self-organized and self-governed, and hosted

frequent physician engagement opportunities. It was worth noting that some of these alliances were formed after the year 2020, which was after the LMPCA was established. Additionally, it was noticed that the role of a transformation lead was posted after the LMPCA's establishment. This highlights the LMPCA's foresight and leadership in the roadmap of primary care alliances in bringing primary care groups and physicians together in the London-Middlesex region. Future studies in primary care alliances can explore the effective approaches employed within their respective sectors, as well as the lessons learned, in order to share them with the primary care community. They can also investigate the feasibility of working in parallel with their region's OHT.

4.4 Summary

This chapter provided an overview of the findings from the data collection. The goal of this research was to answer the aim: describe the development of a grassroots primary care alliance in response to a regional health system transformation and understand how physicians are engaged within the regional health system. A total of 13 participants consented to participate in the study across three different participant groups (health care administrator, physician and support personnel). The findings from the case study suggested six themes which contributed to the development of the LMPCA and understand how physicians were engaged. The context of change and branding were crucial in providing the foundation to why the LMPCA had formed. The response to COVID-19 and leadership development in the LMPCA was able to explain the growth and development of the LMPCA. Drivers to engagement was able to provide an overview of approaches that worked well for physician engagement work in the LMPCA. Finally, barriers and sustainability were discussed in relation to what worked in physician engagement and how to ensure the LMPCA's long-term sustainability. I finish with the results of an environmental scan which looked at primary care alliances across the province which provided depth of knowledge across the region. The next chapter will discuss how these themes were important to answer the overall research objectives and aim and highlight the unique contributions to the literature.

Chapter 5

5 Discussion

The purpose of this research was to describe the development of a grassroots primary care alliance and to understand how physicians engage within a regional health system. The study objectives were to: 1) describe context and foundation for London Middlesex Primary Care Alliance (LMPCA) development; 2) explore strategies for engagement at local and regional levels; and 3) discuss the barriers and facilitators to primary care physician engagement in health system transformation.

This chapter begins by discussing the findings as they pertain to each of the research objectives (Section 5.1). Next, I explain how the findings presented in this study have worked towards exploring my overall research aim and some of the unique contributions (Section 5.2). I highlight and acknowledge the limitations and strengths of my study (Section 5.3). Lastly, I provide a reflexive account of my research process that is consistent with my constructivist perspective (Section 5.4).

The LMPCA is a grassroots primary care organization based in London, Ontario. The organization is comprised of primary care physicians, nurse practitioners, health care administrators, and administrative support personnel from various primary care organizations in the London-Middlesex region (LMPCA, n.d.). The LMPCA has demonstrated notable success and progress in addressing the need for a coordinated approach within the sector. A timeline has been created to illustrate critical moments and timeframes that accelerated the LMPCA's growth (see Appendix H). Through exploring the development of the LMPCA, we were able to share the success story of a grassroots primary care alliance and to understand effective approaches of physician engagement across the London-Middlesex region.

5.1 Findings as they pertain to the research objectives

The first research objective was to describe the context and foundation of the LMPCA. This focused on understanding the background of why the LMPCA formed and how the primary care

alliance facilitated physician engagement. The introduction of the OHTs required organization and coordination within the primary care sector in London-Middlesex, and arguably across the province. One critical factor that led to the formation of the LMPCA was the recognition among primary care physicians and healthcare administrators of the need for collaboration and engagement within the primary care sector to contribute to the work of the OHT. A study by Everall and colleagues (2022) looked at factors affecting engagement stated that when the researchers interviewed participants for OHTs, many of the physicians and administrators in their study expressed uncertainty regarding the process of establishing an OHT. While many participants in this thesis also shared the same uncertainty, the support of the LMPCA in London-Middlesex helped propel OHT development in London Middlesex; key members from the LMPCA, including physicians and health care administrators, helped draft the OHT application (Shah et al., 2020). This facilitated the growth of the LMPCA and provided physicians with an opportunity to actively engage in system-level work. The LMPCA served as a platform for physicians to actively participate in OHT work. The LMPCA also provided access to support, resources, and information to help providers (particularly physicians) in their work. Physicians often work in silos, indicating they operated independently without effective collaboration with other healthcare professionals or health care organizations (Pepler et al., 2018). The participants in this study felt 'siloed', and expressed a sense of isolation in London-Middlesex and emphasized the need for change. Although this finding is not emphasized in physician engagement and health systems literature, it further contributed to the understanding for the need of a primary care alliance like the LMPCA.

One of the reasons participants believed the LMPCA was successful in their formation was the nature of self-governance. While some Local Health Integration Networks (LHINs) across the province were successful in engaging the primary care sector (Dong et al., 2022), the Southwest LHIN had struggled to engage the primary care sector leading to hesitancies and a collaboration 'gap' within the region. Participants indicated that one of the main reasons why the Southwest LHIN was not successful in primary care physician engagement was due to the top-down approaches that were used. This was supported in literature on LHINs that highlighted their shortcomings of administrative barriers and the top-down approaches (Dong et al., 2022; Huras et al., 2015). The LMPCA's self-governing structure fostered independence and in turn establish

authentic partnerships across the region. In this way, LMPCA's success in physician engagement efforts was attributed to taking the time to acknowledge and reflect on previous challenges.

The LMPCA's response to the COVID-19 pandemic was described as a critical milestone in physician engagement. Systems work, such as the Personal Protective Equipment (PPE) hub and the vaccination clinics, were highlighted by participants as foundational to relationship and trust building. This is supported in the literature by Shah and colleagues (2020) who explain the PPE hub initiative. The authors described the initiative raised awareness and helped build buy-in and trust through the LMPCA's physician leaders and members. The response to the pandemic spurred leadership development within the LMPCA, as leaders collaborated and allocated resources. In this way, the pandemic provided an opportunity to engage physicians within the region to participate in systems and leadership work.

The second study objective was to explore strategies for engagement at local and regional levels. The physician engagement literature highlights the importance of using organized approaches, such as structured meetings, and strong communication methods to promote engagement (Guo et al., 2021; Perreira et al., 2019). Within the London-Middlesex region, two notable and unique drivers to physician engagement were found: the role of the primary care transformation lead and the grassroots approach to physician engagement. The primary care transformation lead was a unique role within the LMPCA that was integral in supporting physicians, nurse practitioners and health care administrators. While in-office administrative support has been highlighted in the literature as important in allowing physicians to focus on their clinical activities (Milliken, 2014), the primary care transformation lead was unique as it facilitated physician engagement in systems work. In addition, the dedicated role of the transformation lead ensured continuous progress and momentum of the LMPCA. Another key driver was the use of a grassroots approach by the LMPCA. Currently, there are limited studies in health systems literature that highlight the use of a grassroots approach to facilitate physician engagement. A quantitative study by Pariser et al. (2015) explored methods to recruit primary care physicians for quality improvement projects. Their survey results acknowledged that physicians can be effectively engaged in quality improvement initiatives through repeated and targeted engagement strategies that "incorporate an inclusive style of grassroots approach" (Pariser et al., 2015, p.7). It is

important to acknowledge that the perspectives presented in this study are from researchers, which some may argue are not truly representative of grassroots initiatives. Typically, grassroots initiatives are driven by consensus among members with the goal of achieving a specific objective, rather than focusing on researching and publishing findings (Horowitz, 2015). This research is unique as it retrospectively investigates a grassroots organization, aiming to understand its practicalities and the benefits it offers. It also serves as an example of how physicians can be engaged through a grassroots approach.

The last study objective was to discuss the barriers and facilitators to primary care physician engagement in health system transformation. One of the most frequently cited barriers to physician engagement in the literature has been lack of remuneration (McMurchy, 2018; Perreira et al., 2019). Participants shared that much of the LMPCA work done by physicians has been in addition to their clinical responsibilities. The physicians were not always compensated for their time in leadership roles (i.e., some initiatives provided remuneration for participant's engagement such as attending leadership meetings). This was identified as a challenge for physicians working in certain primary care models where they are not able to bill (i.e., be compensated) while they are involved in systems-related work. Different primary care models have distinct compensation structure for physicians (i.e., fee-for-service, capitation, or blended models). In fee-for-service primary care models, it is common for healthcare professionals to be engaged in systems work without receiving compensation for their clinical duties (i.e., billed per service performed by the physician) (Monavvari, 2019; Ontario Medical Forum, 2018). In comparison, some blended or capitation primary care models where physicians are paid on a salary basis can allow flexibility and room for physicians to use their non-clinical time for systems related activities which was seen amongst the participants in the study.

One key finding was the importance of succession planning and the sustainability of physician engagement. Succession planning is defined as the systemic, long-term process of determining goals, needs, and roles within an organization (Luna, 2012). Participants emphasized the importance of succession planning, describing that the current leaders have been in their roles for an extended period. They expressed concerns about leader fatigue and physician burnout, highlighting the need to prevent these by ensuring a smooth transition to new leadership.

Physician burnout relates to the fatigue, emotional exhaustion, and dissatisfaction in the physician's work (Rao et al., 2020). Participants highlighted that the COVID-19 pandemic added an additional layer of fatigue and overwhelm for physician leaders. Participants shared these concerns with the researchers; however, at present, they did not have specific strategies or suggestions in mind for next steps. Future research or initiatives can explore ways to mitigate physician fatigue or burnout in the post-pandemic period.

5.2 Findings as they pertain to the research aim

Research has shown the importance of physician engagement within health care organizations. Using the LMPCA as the case example, this research aimed to fill a gap in the literature around understanding physician engagement within a region in Southwestern Ontario. This study described the development of a grassroots primary care alliance and explored how physicians are engaged within a regional health system revealing unique contributions to the existing literature. Physician engagement in health systems requires adaptability to changing environments (College of Family Physicians of Canada, 2021). As seen in this study, a grassroots approach was important for the successful development of the LMPCA with Ontario's health system transformation. However, other factors were equally important in the LMPCA's development, for example, a focus on establishing trust and building relationships. The LMPCA's response to the COVID-19 pandemic exemplified its adaptability and the resources it could offer, for example through the establishment of the PPE hub and vaccination clinics (Shah et al., 2020). This was specifically recognized by research participants as a notable aspect attributed to LMPCA's leadership. Furthermore, the timing of the ML-OHT development was a critical moment which the LMPCA played a pivotal role in assisting with the drafting of the application to become an OHT. By doing so, this support facilitated greater physician engagement in leadership roles. A recently published manuscript by Sibbald et al (2023) highlights the lessons learned in the OHT development noted the LMPCA as a key component to providing support and primary care leadership help from physicians.[2] My thesis research presents a unique opportunity to investigate physician engagement through qualitative methods, focusing on primary care and systems perspectives. This approach contrasts with the predominantly quantitative methods employed in

---

[2] Note: I am a co-author on this publication.

the existing literature on quality improvement and hospital settings (McMurchy, 2018; Taitz et al., 2011).

This thesis offers valuable insights into effective approaches for engaging physicians in the context of health systems work. While existing literature supports the notion that factors such as physician remuneration and effective communication can promote physician engagement (McMurchy, 2018; Perreira et al., 2019; Spaulding et al., 2014), this thesis presents two other drivers that are otherwise not highlighted as prominently in the literature. First, the duality of recognizing the physician's value in engagement was a key driver. This meant being clear with both what the physician will gain from their participation as well as how their involvement will benefit the larger work. Within the literature, recognizing value is often understood from a psychological perspective as the sense of ownership that physicians experience in their work (Gray et al., 2020). This sense of ownership is vital in motivating physicians to actively participate and contribute their expertise to the larger work (Grimes, 2018). When physicians feel valued and recognized for their contributions, they are more likely to engage with enthusiasm, dedication, and a commitment to excellence (Grimes, 2018).

Second, the intrinsic motivation of physicians to actively engage in systems work was a key driver. Intrinsic motivation highlighted how physicians who were passionate for systems work were able to engage and provide value to the LMPCA's overall mission. This stemmed from their personal drive to make a difference in the primary care sector. While existing literature often focuses on effective strategies for engaging physicians within organizations, this thesis study's findings emphasized the importance of understanding the unique qualities of the physicians and how those qualities can influence engagement. A case study of physician engagement across hospitals in Toronto, Ontario by Guo et al. (2021) during the COVID-19 pandemic found that the physicians who actively participated in crisis response activities were driven by inherent satisfaction and personal motivation. Similar to the findings of Guo et al. (2021), the participants in my study described similar factors. An understanding of the qualities could enable physician engagement across other regions.

5.3 Limitations and Strengths

This research maintained high quality qualitative methodologies consistent with the current literature. However, there are a few limitations worth noting. One limitation is the difficulty in researching physician engagement due its varied terminology and definitions in the current literature (McMurchy, 2018; Perreira et al., 2019). Studies presented in Chapter 2 (Literature Review) used different terms to describe a similar process such as work engagement or medical engagement (Keller, 2010; Perreira et al., 2021). We defined physician engagement as a physician's active and positive contribution in a clinical setting and the health care organization they work for, including their commitment and involvement with the organization (Gray et al., 2018; McMurchy, 2018). During the interviews, participants also used terms such as physician involvement or participation to describe physician engagement in systems work. This variety of terms can cause ambiguity in data analysis and pose a challenge to accurately selecting sources (as well as avoiding missing sources) from the literature. To address this challenge, we adopted a comprehensive definition of physician engagement, encompassing aspects such as acknowledging that terms like 'participation' or 'involvement' referred to the physician's active engagement within the system's work. This standardization will help ensure clarity and consistency in data analysis and when selecting sources from the literature.

Another limitation in this study could have been the use of convenience sampling. Recruitment challenges are often prevalent in research. While snowball sampling may have provided a more diverse and larger sample (and sampling pool), it is not permitted by Western University's Research Ethics Board. Instead, we employed convenience sampling to recruit. This limitation presented difficulties as many physicians or healthcare administrators are often more likely to participate if they heard about the study through word-of-mouth or were encouraged by their trusted peers (Pauli et al., 2022). Consequently, the recruitment of participants for the study was minimized, which means that my findings may not be representative of the all the voices in the London-Middlesex region. To address this challenge, we implemented a comprehensive recruitment strategy consistently including information about our study in every monthly newsletter and communication e-Blast over a period of four months. However, it was not our goal to generalize the experience of LMPCA to all other physicians, instead, our goal was to

create a collective narrative that others could learn from. The timing of the research was another possible limitation for recruiting physician participants. Participant recruitment for the study commenced in late fall, coinciding with the aftermath of the waves of the pandemic which could have added to physician fatigue in participating in an interview. Additionally, when reaching out to schedule the interviews, the late fall period was characterized as the 'flu season,' which further added to the workload of physicians as they dealt with a higher number of patients seeking medical attention. Despite these challenges, we believe that the collected findings were appropriate as data saturation was reached (Saunders et al., 2017). Even if more participants were recruited, it would not have changed the results of the study. This was further verified through member checks with the participants and multi-pronged observation (such as attending Townhalls and webinars) where no new information was heard. The themes were consistent with the findings across the three participant groups, strengthening their validity.

One of the study's strengths lies in the inclusion of highly engaged participants who played a key role in the development of the LMPCA. The sample consisted of individuals with first-hand experience in the formation and development of the LMPCA, as well as the work that contributed to the establishment of OHTs. Moreover, the sample encompassed a diverse range of participants, including primary care physicians, healthcare administrators, and administrative support personnel. Together, these perspectives contributed to the rich description presented in this research. The perspectives from health care administrators and administrative support personnel further contributed to the comprehensive voice of the participants in the study. The voices were able to capture the systemic issues in engaging physicians that were occurring previously within the region. The work that has been conducted in London-Middlesex will enable other regions to learn and implement opportunities for engagement within their primary care sector.

5.4 Reflexivity

 I documented my journey during the research study through a reflexive journal, reflecting on my role in data collection, analysis and my interpretation of the results. I also explored my strengths and weaknesses while acknowledging external factors that were beyond my control such as the

COVID-19 pandemic and virtual research work. The reflexive journal provided me with an opportunity to understand the potential biases I had as well as the potential limitations to my study; I was also able to reflect on contributions this work would be adding to the literature. I began my graduate degree in September 2021 amidst the ongoing COVID-19 pandemic, I experienced a blend of remote work and in-person activities. Initially, I was unaware of the impact this would have on my studies, but I maintained an enthusiastic outlook and prepared myself to adapt to the global situation. As a researcher, I recognized the importance of the relationship between myself and the participants, particularly in the context of case study methodology and a constructivist paradigmatic perspective (Baxter & Jack, 2008; Stake, 2006). As someone who prefers meeting in-person, I was unable to interact with my participants in person which could have facilitated a stronger connection. Throughout my reflexive journal, I made note of the challenges I faced in establishing rapport and connection through virtual methods which made recruitment partially challenging. This was particularly noticeable during the recruitment of physicians, given their busy schedules, post-COVID fatigue, and the timing of the study, which presented challenges in their participation for interviews. I embraced the opportunity to explore and refine virtual methods for participant recruitment and data collection. I learned the importance of adaptability and creativity by leveraging technology to conduct my research. I utilized various platforms like social media, Townhalls, and webinars to advertise my study. Additionally, I had the opportunity to develop knowledge translation tools such as short summaries or research briefs, which I provided to participants during the recruitment and member check processes. This experience required me to be flexible and resourceful, ultimately enhancing my skills as a researcher.

My reflexive notes supported and considered multiple perspectives during data analysis. Throughout the analysis process as themes emerged, I initially encountered difficulties in explaining and connecting them. However, analyzing the data alongside my supervisor and thesis committee, enhanced my understanding of how participants expressed their views on voice and representation. This blend of data analysis, discussions with my supervisor and committee and reflexive journaling provided me with clarity regarding the role of physician voice and representation within my data.

5.5 Summary

This chapter discussed the findings from this research and how they align with the current literature.

This study was effective in reaching the overall research aim: describe the development of a grassroots primary care alliance and understand how physicians are engaged within the regional health system. Current research has emphasized the importance of physician engagement in healthcare organizations, specifically in quality improvement initiatives, and its broader impacts. The findings of this study suggest important implications for future research and guiding future implementation research on sustaining a primary care alliance.

This research makes a valuable contribution to the literature on physician engagement in systems work. It offers a unique insight by exploring engagement through a grassroots primary care alliance that effectively engaged physicians in systems transformation. The next chapter will discuss the implications of these findings in various contexts including future direction of the research and my concluding remarks.

Chapter 6

6 Conclusion

This chapter provides final considerations and conclusions in the exploration of the development of a grassroots primary care alliance and understand how physicians are engaged within the regional health system. This chapter begins by discussing the implications of the research (Section 6.1). I then discuss potential areas for future research (Section 6.2). I conclude this chapter with a summary of the contents of this research project (Section 6.3).

6.1 Implications of the Study

6.1.1 For Practice

The London Middlesex Primary Care Alliance (LMPCA) was formed during Ontario's health system transformation as a grassroots organization to address the need for a coordinated approach from primary care within the London-Middlesex region. The LMPCA supported the drafting of the initial OHT application, building the OHT governance structure, and creating opportunities within the OHT for physician engagement. The research findings demonstrate the LMPCA's successful collaboration as a new grassroots organization within primary care in the London-Middlesex region. The findings exemplify the LMPCA's success through its valuable contribution to the development of OHTs and proactive response to the challenges posed by the COVID-19 pandemic. When comparing my findings to the literature, I identified similar approaches as facilitators to physician engagement such as organized procedures, strong communication and recognizing value for why a physician should be engaged (Guo et al., 2021; Perreira et al., 2019). However, two specific findings set this study apart and could support physician engagement and alliance development in other regions. First, the implementation of the primary care transformation lead role. The independent and dynamic role of the primary care transformation lead was able to support physicians and help oversee and facilitate systems to improvement in the quality, efficiency, and effectiveness of healthcare delivery. Second, was the utilization of a grassroots approach to drive physician engagement. The implementation of a grassroots approach allowed the LMPCA to create an alliance with a unified voice and relationships that were able to do systems work with a collaborative approach across the sector.

Adaptations were made in the London-Middlesex region, such as creating a new brand and image for the primary care alliance. The adaptations were influenced partly by past experiences with the Southwest LHIN, which had shortcomings in engaging with primary care due to lack of trust and top-down approaches. The LMPCA worked to address these challenges and adopted a mission of being the voice of primary care across the region. They established trust and strong relationships with primary care physicians as well as health care administrators. The LMPCA used the OHT development and the COVID-19 pandemic as catalysts for enhanced collaboration, building trust, and fostering relationships across the region. The LMPCA aimed to address the gaps associated with isolation and fragmentation in primary care within the region, where engagement in primary care-specific groups had been limited. The organization served as a platform for physicians, to connect, network, and collaborate. The information provided in this thesis can be used by other primary care networks and alliances who wish to strengthen their sector and understand how to engage physicians. This research describes effective approaches, as reported by individuals who were engaged in the systems work including physicians, healthcare administrators, and administrative support personnel. These approaches build on the current literature by focusing on engaging intrinsically motivated individuals, recognizing their value, and utilizing strong communication methods.

6.1.2 For Policy and System

While qualitative research is not intended to be generalizable (Leung, 2015), this qualitative study offers valuable insights when engaging with physicians in health systems work. Individuals in primary care at systems levels can use these lessons to facilitate the engagement of physicians within their region. To better plan for physician engagement, researchers and policymakers should examine the key drivers presented in this thesis, including strong communication, organized procedures, and the presence of a primary care transformation lead against their current context. Similarly, stakeholders could look for barriers described in this thesis including lack of remuneration, administrative support, and the need for succession planning to improve current engagement practices.

This study contributes to existing literature by providing an empirical example of primary care physician engagement in health systems work in a Canadian context. The findings from our research offer valuable insights for regional health organizations to enhance physician engagement initiatives and successfully involve physicians in clinical leadership roles. Achieving this requires acknowledging the importance of compensating physicians for their roles and respecting their time and dedication to clinical responsibilities. Regions should consider allocating funding for physician compensation, as well as establishing roles similar to that of a transformation lead, which can complement the physicians' efforts. The implications of this research extend to organizations similar to the LMPCA, offering a deeper comprehension of physician engagement and providing insights to enhance its effectiveness and long-term sustainability.

6.2 Recommendations for Future Research

This study has the potential to support physician engagement within the health systems work in Canadian context. Future research should aim to understand the perspective of physicians who choose to not be engaged within health systems work. This study specifically interviewed participants who were engaged in the systems work within the LMPCA and the OHT development. Further perspectives from physicians who chose not to participate should be explored to gain a comprehensive understanding why they were not engaged. Provider engagement encompasses physicians, nurse practitioners and other health care providers who are involved in initiatives to improve the health care organization or system (Hess et al., 2015). This study looked specifically at physician engagement and did not encompass other providers such as nurse practitioners who also play an important role within primary care and health systems. To my knowledge, this study is unique in examining physician engagement through a grassroots approach in primary care in Ontario. Further research should explore the effectiveness and sustainability of physician engagement through grassroots initiatives in other regions, particularly with the introduction of the OHTs. Lastly, this study highlighted the unique role of a primary care transformation lead within the LMPCA during its initial formation. To my knowledge, the role of transformation leads began to gain prominence across the sector following the implementation of the LMPCA. Further exploration is necessary to gain a

comprehensive understanding of the effectiveness of the transformation lead's role and the grassroots approach in both the development of a primary alliance and physician engagement. Collectively, my work along with additional, similar studies will be able to contribute to the development of a framework that improves physician engagement and enhances the primary care sector across diverse regions of Ontario.

6.3 Conclusion

Sustaining health care systems requires integrating physicians effectively across all levels and engaging them in leadership roles, design and evaluation, and overall operations of a health system (Baker, 2015; Waddel & Lavis, 2022). While physician engagement is identified as a key principle in health system transformation, there is limited literature around effective approaches within health systems work (Everall et al., 2022). Physician engagement has primarily been seen in quality improvement work, safety, and hospital settings (Perreira et al., 2019). While important, the lessons learned in those contexts may not be directly applicable to primary care settings and systems-related work (Waddel & Lavis, 2022). This study addressed this gap in the research by exploring physician engagement through a grassroots primary care alliance called the LMPCA as a case example.

The findings emphasized the need for a coordinated approach in the London-Middlesex region and the development of the OHTs. The LMPCA effectively addressed the gaps in the region by providing a platform for physicians to participate in primary care. Moreover, the findings revealed how the LMPCA's response to the challenges posed by the COVID-19 pandemic helped in the alliance's growth in the primary care sector. In addition to the approaches found in the existing literature, my findings emphasized the unique drivers of utilizing a grassroots approach and the role of the primary care transformation lead when exploring engagement opportunities at the local and regional levels. Barriers to primary care physician engagement in health system transformation were also identified, including the lack of remuneration and administrative support, which aligns with previous research findings. Lastly, the sustainability of the LMPCA was addressed by acknowledging the potential burnout among current physician leaders and emphasizing the need for succession planning to ensure the continuity of physician engagement.

While case study methodology does not aim to be generalizable, the findings of this study may support other alliances throughout Ontario seeking to engage physicians in health system initiatives. This research can be beneficial for enhancing physician engagement and leadership, while also contributing to the ongoing development of the OHTs and providing support to interested stakeholders in primary care.

Physician engagement is a critical piece of improving our health system. Knowing how to do it well and effectively is even more important. It is my hope that the findings presented in this study will both increase and improve physician engagement in health systems transformation. This can ultimately improve our health system and the health of the patients we serve.

References

Aggarwal, M., & Williams, A. M. (2019). Tinkering at the margins: evaluating the pace and direction of primary care reform in Ontario, Canada. *BMC Family Practice*, *20*(1). https://doi.org/10.1186/s12875-019-1014-8

Andermann, A. (2016). Taking action on the social determinants of health in clinical practice: a framework for health professionals. *Canadian Medical Association Journal*, *188*(17–18), E474–E483. https://doi.org/10.1503/cmaj.160177

Angus, H., & Greenberg, A. (2014). Can Better Care for Complex Patients Transform the Health System? *HealthcarePapers*, *14*(2), 9–19. https://doi.org/10.12927/hcpap.2015.24103

Ashcroft, R., Donnelly, C., Gill, S. S., Dancey, M., Lam, S. W., Grill, A., & Mehta, K. (2021). The Delivery of Patient Care in Ontario's Family Health Teams during the First Wave of the COVID-19 Pandemic. *Healthcare Policy*, *17*(2), 72–89. https://doi.org/10.12927/hcpol.2021.26656

Baker, G., & Axler, R. (2015). Creating A High Performing Healthcare System for Ontario: Evidence Supporting Strategic Changes in Ontario. In *Ontario Hospital Association*. Ontario Hospital Association. https://www.oha.com/Documents/OHA%20High%20Performing%20Healthcare%20System%20Paper.pdf

Baxter, P., & Jack, S. M. (2015). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2008.1573

Beckman, H. (2015). The Role of Medical Culture in the Journey to Resilience. *Academic Medicine*, *90*(6), 710–712. https://doi.org/10.1097/acm.0000000000000711

Bhasin, K., & Williams, P. (2007). Understanding LHINs: A Review of the Health System

    Integration Act and the Integrated Health Services. In *Toronto Metropolitan University*.

    Toronto Metropolitan University.

    https://www.torontomu.ca/content/dam/crncc/knowledge/relatedreports/integratedcare/U

    nderstandingLHINs-FinalJuly5th.pdf

Birt, L., Scott, S. E., Cavers, D., Campbell, C., & Walter, F. M. (2016). Member Checking.

    Qualitative Health Research, *26*(13), 1802–1811.

    https://doi.org/10.1177/1049732316654870

Bleser, W. K., Miller-Day, M., Naughton, D., Bricker, P., Cronholm, P. F., & Gabbay, R. A.

    (2014). Strategies for Achieving Whole-Practice Engagement and Buy-in to the Patient-

    Centered Medical Home. *Annals of Family Medicine*, *12*(1), 37–45.

    https://doi.org/10.1370/afm.1564

Bodenheimer, T., & Sinsky, C. A. (2014). From Triple to Quadruple Aim: Care of the Patient

    Requires Care of the Provider. *Annals of Family Medicine*, *12*(6), 573–576.

    https://doi.org/10.1370/afm.1713

Bottorff, J. L., Huisken, A., Hopkins, M., & Friesen, L. (2021). Scaling up a community-led

    health promotion initiative: Lessons learned and promising practices from the Healthy

    Weights for Children Project. *Evaluation and Program Planning*, *87*, 101943.

    https://doi.org/10.1016/j.evalprogplan.2021.101943

Bowen, G. A. (2009). Document Analysis as a Qualitative Research Method. *Qualitative*

    Research Journal, *9*(2), 27–40. https://doi.org/10.3316/qrj0902027

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in*

    Psychology, *3*(2), 77–101.

Canadian Mental Health Association [CAMH]. (n.d.). *Health Systems Transformation*. Canadian

    Mental Health Association. https://ontario.cmha.ca/provincial-policy/health-systems-

    transformation/

Cheng, S. (2018). Study of the Local Health Integration Network: impact of Ontario's

    Regionalization Policy. *Journal of Integrated Care*, *26*(4), 277–285.

    https://doi.org/10.1108/jica-02-2018-0009

Clark, J. (2012). Medical engagement: Too important to be left to chance. In *The King's Fund*.

    https://www.kingsfund.org.uk/sites/default/files/medical-engagement-nhs-john-clark-

    leadership-review2012-paper.pdf

Coffey, A., & Atkinson, P. (1995). *Making Sense of Qualitative Data: Concepts and coding*.

    Thousand Oaks: Sage.

Creese, J., Byrne, J., Conway, E., Barrett, E., Prihodova, L., & Humphries, N. (2021). "We All

    Really Need to just Take a Breath": Composite Narratives of Hospital Doctors' Well-

    Being during the COVID-19 Pandemic. *International Journal of Environmental Research

    and Public Health*, *18*(4), 2051. https://doi.org/10.3390/ijerph18042051

Creswell, J. W., Hanson, W. L., Plano, V. L. C., & Morales, A. G. (2007). Qualitative Research

    Designs. *The Counseling Psychologist*, *35*(2), 236–264.

    https://doi.org/10.1177/0011000006287390

Cronin, S., Tessier, L., Kadesha, J., & Wodchis, W. (2021). Approaches to Population Health

    Management: Informing Ontario's Health System Transformation. In *Health System

    Performance Network* (ISBN 978-1-7774610-5-8 (Online)). https://hspn.ca/wp-

    content/uploads/2021/03/HSPN_Population_Health_Management_Feb2021.pdf

Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A. J., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, *11*(1). https://doi.org/10.1186/1471-2288-11-100

Damberg, C., Sorbero, M., Lovejoy, S., Martsolf, G., Raeen, L., & Mandel, D. (2014). Measuring Success in Health Care Value-Based Purchasing Programs. *Rand Health Quarterly*, *4*(3).

Denis, J., Baker, G., Black, C., Langley, A., Lawless, B., Leblanc, D., Lusiani, M., Hepburn, C., Pomey, M., & Tre, G. (2013). Exploring the dynamics of physician engagement and leadership for health system improvement. In *Institute of Health Policy, Management and Evaluation, University of Toronto*. https://www.cps.sk.ca/iMIS/Documents/DocTalk/09.01/Expedited_Synthesis_CIHR_201 3-04-10-Final.pdf

Dhalla, I. A., & Tepper, J. (2018). Improving the quality of health care in Canada. *Canadian Medical Association Journal*, *190*(39), E1162–E1167. https://doi.org/10.1503/cmaj.171045

Dingley, C., Daugherty, K., Derieg, M., & Persing, R. (2006). Improving Patient Safety Through Provider Communication Strategy Enhancements. *Advances in Patient Safety: New Directions and Alternative Approaches*, *3*. https://www.ncbi.nlm.nih.gov/books/NBK43663/

Dong, L., Sahu, R., & Black, R. (2022). Governance in the transformational journey toward integrated healthcare: The case of Ontario. *Journal of Information Technology Teaching Cases*, 204388692211473. https://doi.org/10.1177/20438869221147313

Dubinsky, I., Greengarten, M., Grossman, L., Hundert, M., Sawatzky, D., & Whittaker, B. (2008). Implementing a Physician Leader Compensation Program at a Major Community Hospital. *Healthcare Quarterly*. https://doi.org/10.12927/hcq.2008.19617

Dyrbye, L. N., West, C. P., Satele, D., Boone, S., Tan, L., Sloan, J. A., & Shanafelt, T. D. (2014). Burnout Among U.S. Medical Students, Residents, and Early Career Physicians Relative to the General U.S. Population. *Academic Medicine*, *89*(3), 443–451. https://doi.org/10.1097/acm.0000000000000134

Embuldeniya, G., Gutberg, J., Sibbald, S. L., & Wodchis, W. P. (2021). The beginnings of health system transformation: How Ontario Health Teams are implementing change in the context of uncertainty. *Health Policy*, *125*(12), 1543–1549. https://doi.org/10.1016/j.healthpol.2021.10.005

Etchegary, H., Bishop, L., Street, C., Aubrey-Bassler, K., Humphries, D., Vat, L. E., & Barrett, B. J. (2017). Engaging patients in health research: identifying research priorities through community town halls. *BMC Health Services Research*, *17*(1). https://doi.org/10.1186/s12913-017-2138-y

Evans, J. M., Grudniewicz, A., Wodchis, W. P., & Baker, G. B. (2014). Leading the Implementation of Health Links in Ontario. *HealthcarePapers*. https://doi.org/10.12927/hcpap.2015.24104

Everall, A. C., Kokorelias, K. M., Sibbald, S. L., Wodchis, W. P., & Embuldeniya, G. (2022). Factors Impacting Primary Care Engagement in a New Approach to Integrating Care in Ontario, Canada. *International Journal of Integrated Care*, *22*(1). https://doi.org/10.5334/ijic.5704

Flores, W., & Samuel, J. (2019). Grassroots organisations and the sustainable development goals: no one left behind? *BMJ*, l2269. https://doi.org/10.1136/bmj.l2269

Forsetlund, L., Bjørndal, A., Rashidian, A., Jamtvedt, G., O'Brien, M., Wolf, F. M., Davis, D., Odgaard-Jensen, J., & Oxman, A. D. (2009). Continuing education meetings and workshops: effects on professional practice and health care outcomes. *The Cochrane Library*. https://doi.org/10.1002/14651858.cd003030.pub2

Fusch, P. I., PhD, & Ness, L. R. (2015). Are We There Yet? Data Saturation in Qualitative Research. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2015.2281

Ghorob, A., & Bodenheimer, T. (2015). Building teams in primary care: A practical guide. *Families, Systems, & Health*, *33*(3), 182–192. https://doi.org/10.1037/fsh0000120

Glazier, R. H. (2023). Our role in making the Canadian health care system one of the world's best. *Canadian Family Physician*, *69*(1), 11–16. https://doi.org/10.46747/cfp.690111

Glazier, R., Zagorski, B., & Rayner, J. (2012). Comparison of Primary Care Models In Ontario. In *Institute for Clinical Evaluative Sciences (ICES)* (ISBN 978-1-926850-30-6 (PDF)). ICES. https://www.ices.on.ca/~/media/Files/Atlases-Reports/2012/Comparison-of-primary-care-models-in-Ontario/Full%20report.ashx

Gocan, S., Laplante, M., & Woodend, K. (2014). Interprofessional Collaboration in Ontario's Family Health Teams: A Review of the Literature. *Journal of Research in Interprofessional Practice and Education*, *3*(3). https://doi.org/10.22230/jripe.2014v3n3a131

Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2003.1870

Gordon, D., McKay, S. L., Marchildon, G. P., Bhatia, R. S., & Shaw, J. (2020). Collaborative

    Governance for Integrated Care: Insights from a Policy Stakeholder Dialogue.

    International Journal of Integrated Care, *20*(1). https://doi.org/10.5334/ijic.4684

Government of Canada. (2012). *About Primary Health Care*. https://www.canada.ca/en/health-

    canada/services/primary-health-care/about-primaryhealth- care.html.

Grady, C., Chan-Nguyen, S., Mathies, D., & Alam, N. (2022). Family physicians partnering for

    system change: A multiple-case study of Ontario Health Teams in development.

    Research Square (Research Square). https://doi.org/10.21203/rs.3.rs-2231080/v1

Grady, C., Han, H., Kim, D. H., Coderre-Ball, A. M., & Alam, N. (2023). Family physicians

    collaborating for health system integration: a scoping review. *BMC Health Services*

    Research, *23*(1). https://doi.org/10.1186/s12913-023-09063-w

Grady, C., Han, H., Roberts, L., & Van Iersel, R. I. (2021). Effectively engaging physicians in

    system change. *Healthcare Management Forum*, *34*(3), 149–153.

    https://doi.org/10.1177/0840470420964240

Gray, C., Yakir, M., & Hung, D. (2018). Physician Engagement With Metrics in Lean Primary

    Care Transformation. *Quality Management in Health Care*, *27*(3), 117–122.

    https://doi.org/10.1097/qmh.0000000000000182

Gray, F., Parvataneni, H. K., & Bozic, K. J. (2020). Value-based Healthcare: "Physician

    Activation": Healthcare Transformation Requires Physician Engagement and Leadership.

    Clinical Orthopaedics and Related Research, *478*(5), 954–957.

    https://doi.org/10.1097/corr.0000000000001234

Grimes, K. (2012). Compass to Transformation: Barriers and Facilitators to Physician

 Engagement. In *Canadian Policy Network*. https://www.rqhealth.ca/service-

 lines/master/files/compass.pdf

Guba, E., & Lincoln, Y. (1994). *Handbook of qualitative research: Competing paradigms in*

 qualitative research (1st ed.). Sage.

Guillemin, M., & Gillam, L. (2004). Ethics, Reflexivity, and "Ethically Important Moments" in

 Research. *Qualitative Inquiry*, *10*(2), 261–280.

 https://doi.org/10.1177/1077800403262360

Guo, M., Dunbar-Yaffe, R., Bearss, E., Lim-Reinders, S., & Soong, C. (2021). Do Not Waste a

 Crisis: Physician Engagement during the COVID-19 Pandemic. *Healthcare Quarterly*,

 24(2), 33–37. https://doi.org/10.12927/hcq.2021.26549

Haverkamp, B. E., & Young, R. A. (2007). Paradigms, Purpose, and the Role of the Literature.

 The Counseling Psychologist, *35*(2), 265–294.

 https://doi.org/10.1177/0011000006292597

Health Quality Ontario. (n.d.). *Quality Improvement in Action: Health Links*.

 https://www.hqontario.ca/Quality-Improvement/Quality-Improvement-in-Action/health-

 links

Hébert, G., Colasante, C., Ilse, R., & Forster, A. J. (2017). Using structured incentives to

 increase value for money in an academic health sciences centre. *Healthcare Management*

 Forum. https://doi.org/10.1177/0840470417698716

Hess, D. T., Reed, V. A., Turco, M., Parboosingh, J. T., & Bernstein, H. H. (2015). Enhancing

 Provider Engagement in Practice Improvement: A Conceptual Framework. *Journal of*

Continuing Education in the Health Professions, *35*(1), 71–79.

https://doi.org/10.1002/chp.21260

Holmes, M. (2010). The Emotionalization of Reflexivity. *Sociology*, *44*(1), 139–154.

https://doi.org/10.1177/0038038509351616

Horowitz, A. (2015). Implementing the chronic care model: A grassroots approach. *Physician*

Leadership Journal, *2*(5), 12–15.

Huras, P., Switzer, G. L., & Eliasoph, H. (2015). The LHIN adventure. *Healthcare Management*

Forum. https://doi.org/10.1177/0840470415604773

Hutchison, B., Lévesque, J., Strumpf, E., & Coyle, N. (2011). Primary Health Care in Canada:

Systems in Motion. *Milbank Quarterly*, *89*(2), 256–288. https://doi.org/10.1111/j.1468-

0009.2011.00628.x

Jackson, S. F., Morgan, G., Gloger, A., Luca, S., Cerda, E., & Poland, B. (2022). Relationships

are everything: The underpinnings of grassroots community action in the COVID-19

pandemic in Toronto. *Cities*, *134*, 104163. https://doi.org/10.1016/j.cities.2022.104163

Kaissi, A. (2014). Enhancing Physician Engagement: An International Perspective. *International*

Journal of Health Services, *44*(3), 567–592. https://www.jstor.org/stable/45140457

Keller, E., Giafaglione, B., Chrisman, H. B., Collins, J. D., & Vogelzang, R. L. (2019). The

growing pains of physician-administration relationships in an academic medical center

and the effects on physician engagement. *PLOS ONE*, *14*(2), e0212014.

https://doi.org/10.1371/journal.pone.0212014

Kerrissey, M., Tietschert, M., Novikov, Z., Bahadurzada, H., Sinaiko, A. D., Martin, V., &

Singer, S. J. (2022). Social Features of Integration in Health Systems and Their

Relationship to Provider Experience, Care Quality and Clinical Integration. *Medical Care Research and Review*, *79*(3), 359–370. https://doi.org/10.1177/10775587211024796

Kiran, T., Tepper, J., & Gavin, F. S. B. (2020). Working with patients to improve care. *Canadian Medical Association Journal*, *192*(6), E125–E127. https://doi.org/10.1503/cmaj.190439

Laberge, M., Wodchis, W. P., Berta, W., & Laporte, A. (2016). Efficiency of Ontario primary care physicians across payment models: a stochastic frontier analysis. *Health Economics Review*, *6*(1). https://doi.org/10.1186/s13561-016-0101-y

Lavis, J. (2019). RISE brief 1: OHT building blocks. In *: McMaster Health Forum* (ISSN: 2562-7309 (online)). https://www.mcmasterforum.org/docs/default-source/rise-docs/rise-briefs/rb1_oht-building-blocks.pdf?sfvrsn=71b154d5_27

Leung, C., Bourbeau, J., Sin, D. D., Aaron, S. D., FitzGerald, J. M., Maltais, F., Marciniuk, D. D., O'Donnell, D. E., Hernandez, P., Chapman, K. R., Walker, B. L., Road, J., Zheng, L., Zou, C., Hogg, J., & Tan, W. C. (2021). The Prevalence of Chronic Obstructive Pulmonary Disease (COPD) and the Heterogeneity of Risk Factors in the Canadian Population: Results from the Canadian Obstructive Lung Disease (COLD) Study. *International Journal of Chronic Obstructive Pulmonary Disease*, *Volume 16*, 305–320. https://doi.org/10.2147/copd.s285338

Loban, E., Scott, C., Lewis, V., Law, S., & Haggerty, J. (2021). Improving primary health care through partnerships: Key insights from a cross-case analysis of multi-stakeholder partnerships in two Canadian provinces. *Health Science Reports*, *4*(4). https://doi.org/10.1002/hsr2.397

London Health Sciences Center. (n.d.). *Welcome to LHSC - About Us*. https://www.lhsc.on.ca/about-lhsc/welcome

London Middlesex Primary Care Alliance [LMPCA]. (n.d.). *All about the LMPCA*. London

      Middlesex Primary Care Alliance. https://lmprimarycare.ca/all-about-the-lmpca/

Longley, R. (2022). *What Is a Grassroots Movement? Definition and Examples*. ThoughtCo.

      https://www.thoughtco.com/grassroots-movement-definition-and-examples-5085222

Luna, G. (2012). Planning for an American higher education leadership crisis: The succession

      issue for administrators. *International Leadership Journal*, *4*(1), 56–79.

      https://issuu.com/aaua10/docs/1.jhem_37_1_final_8-23_/s/16712083

Marchildon, G. P., & Hutchison, B. (2016). Primary care in Ontario, Canada: New proposals

      after 15 years of reform. *Health Policy*, *120*(7), 732–738.

      https://doi.org/10.1016/j.healthpol.2016.04.010

Marsden, J., Van Dijk, M., Doris, P. A., Krause, C. M., & Cochrane, D. (2012). Improving Care

      for British Columbians: The Critical Role of Physician Engagement. *Healthcare

      Quarterly*, *15*(sp), 51–55. https://doi.org/10.12927/hcq.2012.23163

McDaniel, R. R., & Driebe, D. J. (2001). Complexity science and health care management. In

      Advances in health care management (pp. 11–36). Emerald Publishing Limited.

      https://doi.org/10.1016/s1474-8231(01)02021-3

McMurchy, D. (2018). Evidence Synthesis: Strategies and Approaches to Enhance Family

      Physician Engagement. In *Research Gate*.

      https://www.researchgate.net/publication/330765139_Evidence_Synthesis_Strategies_an

      d_Approaches_to_Enhance_Family_Physician_Engagement

Merriam, S. (1998). *Qualitative research and case study applications in education*. Jossey-Bass

      Publishers.

Middlesex London Ontario Health Team. (n.d.). *Middlesex London Ontario Health Team About Us*. https://mloht.ca/about/

Milliken, A. (2014). Physician engagement: a necessary but reciprocal process. *Canadian Medical Association Journal*, *186*(4), 244–245. https://doi.org/10.1503/cmaj.131178

Ministry of Health & Ministry of Long-Term Care [MOH & MOLTC]. (n.d.). *Primary care payment models in Ontario*. Ministry of Health & Ministry of Long Term Care. https://www.health.gov.on.ca/en/pro/programs/pcpm/

Ministry of Ontario Laws. (n.d.). *E-Laws*. Ontario e-Laws. https://www.ontario.ca/laws

Morrow, S. L. (2007). Qualitative Research in Counseling Psychology. *The Counseling Psychologist*, *35*(2), 209–235. https://doi.org/10.1177/0011000006286990

Motiwala, S. S., Flood, C. M., Coyte, P. C., & Laporte, A. (2005). The First Ministers' Accord on Health Renewal and the Future of Home Care in Canada. *Healthcare Quarterly*, *8*(1). https://doi.org/10.12927/hcq.2005.17232

Mukamel, D. B., Haeder, S. F., & Weimer, D. L. (2014). Top-Down and Bottom-Up Approaches to Health Care Quality: The Impacts of Regulation and Report Cards. *Annual Review of Public Health*, *35*(1), 477–497. https://doi.org/10.1146/annurev-publhealth-082313-115826

Muldoon, L., Hogg, W. E., & Levitt, M. (2006). Primary Care (PC) and Primary Health Care (PHC). *Canadian Journal of Public Health-revue Canadienne De Sante Publique*, *97*(5), 409–411. https://doi.org/10.1007/bf03405354

Nash, D. M., Rayner, J. J., Bhatti, S., Zagar, L., & Zwarenstein, M. (2022). The Alliance for Healthier Communities' journey to a learning health system in primary care. *Learning Health Systems*, *7*(1). https://doi.org/10.1002/lrh2.10321

Neuendorf, K. A. (2018). Content analysis and thematic analysis. In *Routledge eBooks* (pp. 211–223). https://doi.org/10.4324/9781315517971-21

Nowell, L., Norris, J. M., White, D. L., & Moules, N. J. (2017). Thematic Analysis. *International Journal of Qualitative Methods*, *16*(1), 160940691773384. https://doi.org/10.1177/1609406917733847

Ogundeji, Y. K., Quinn, A. E., Lunney, M., Chong, C., Chew, D. P., Danso, G. K., Duggan, S., Edwards, A. L., Hopkin, G., A, P., Senior, Sumner, G. L., Williams, J. S., & Manns, B. J. (2021). Factors that influence specialist physician preferences for fee-for-service and salary-based payment models: A qualitative study. *Health Policy*, *125*(4), 442–449. https://doi.org/10.1016/j.healthpol.2020.12.014

Ontario Government. (2019). *Hallway health care: A system under strain*. https://www.ontario.ca/document/hallway-health-care-system-under-strain/executive-summary

Ontario Health. (n.d.). *Ontario Health Teams*. https://www.ontariohealth.ca/providing-health-care

Ontario Medical Association. (n.d.). *Ontario Health Teams: A new integrated health-care delivery system*. https://www.oma.org/advocacy/ontario-health-teams/

Ontario Medical Association. (2021). Involving Physicians in OHTs: A toolkit to support meaningful and effective involvement of physicians in your Ontario Health Team. In *Ontario Medical Association*. https://www.oma.org/uploadedfiles/oma/media/pagetree/advocacy/ontario-health-teams/toolkit-involving-physicians-in-ohts.pdf

Ontario Ministry of Health Long-Term Care. (2018). *Primary care payment models in Ontario*.

 Ontario Ministry of Health and Long-Term Care.

 http://www.health.gov.on.ca/en/pro/programs/pcpm/.

Pariser, P., Pus, L., Stanaitis, I., Abrams, H., Ivers, N., Baker, G. B., Lockhart, E., & Hawker, G.

 A. (2016). Improving System Integration: The Art and Science of Engaging Small

 Community Practices in Health System Innovation. *International Journal of Family*

 Medicine, *2016*, 1–8. https://doi.org/10.1155/2016/5926303

Patel, R. S., Bachu, R., Adikey, A., Malik, M., & Shah, M. (2018). Factors Related to Physician

 Burnout and Its Consequences: A Review. *Behavioural Sciences*, *8*(11), 98.

 https://doi.org/10.3390/bs8110098

Pauli, G., Martin, S., & Greiling, D. (2022). The current state of research of word-of-mouth in

 the health care sector. *International Review on Public and Nonprofit Marketing*, *20*(1),

 125–148. https://doi.org/10.1007/s12208-022-00334-6

Pepler, E. F., Pridie, J., & Brown, S. D. (2018). Predicting and testing a silo-free delivery system.

 Healthcare Management Forum, *31*(5), 200–205.

 https://doi.org/10.1177/0840470418793910

Perreira, T. A., Perrier, L., Prokopy, M., Neves-Mera, L., & Persaud, D. D. (2019). Physician

 engagement: a concept analysis. *Journal of Healthcare Leadership*, *Volume 11*, 101–113.

 https://doi.org/10.2147/jhl.s214765

Perreira, T., Prokopy, M., Shea, C., Carlton, E., Greenberg, A., Herbert, M., Zaki-Azat, J.,

 Paneduro, D., Brown, A., & Harrison, R. (2021). Physician Engagement, Well-being, and

 Organizational Culture. In *Ontario Hospital Association*. Ontario Hospital Association.

 https://www.oha.com/Bulletins/Paper%205%20-%20Report.pdf

Ponka, D. (2017). *Medical Silos*. The College of Family Physicians of Canada.

  https://www.cfp.ca/news/2017/08/09/808-1

Ponterotto, J. G. (2005). Qualitative research in counseling psychology: A primer on research

  paradigms and philosophy of science. *Journal of Counseling Psychology*, *52*(2), 126–

  136. https://doi.org/10.1037/0022-0167.52.2.126

Puri, A. K., Bhaloo, T., Kirshin, T. A., & Mithani, A. (2006). A Comprehensive Approach to

  Effectively Engage Physicians during a Hospital Closure: Using the Physician

  Engagement Model. *Healthcare Management Forum*, *19*(4), 34–39.

  https://doi.org/10.1016/s0840-4704(10)60244-x

Quinn, A. E., & Manns, B. J. (2021). Commentary: Improving the Sustainability of Healthcare in

  Canada through Physician-Engaged Delivery System Reforms. *Healthcare Policy*, *16*(3),

  43–50. https://doi.org/10.12927/hcpol.2021.26434

Rabkin, S. W., Dahl, M., Patterson, R. P., Mallek, N., Straatman, L., Pinfold, A., Charles, M.,

  Van Gaal, S., Wong, S. J., & Vaghadia, H. (2019). Physician engagement: the Vancouver

  Medical Staff Association engagement charter. *Clinical Medicine*, *19*(4), 278–281.

  https://doi.org/10.7861/clinmedicine.19-4-278

Rao, S., Ferris, T. G., Hidrue, M. K., Lehrhoff, S. R., Lenz, S., Heffernan, J. B., McKee, K. E., &

  Del Carmen, M. G. (2020). Physician Burnout, Engagement and Career Satisfaction in a

  Large Academic Medical Practice. *Clinical Medicine & Research*, *18*(1), 3–10.

  https://doi.org/10.3121/cmr.2019.1516

Registered Nurses Association Ontario. (n.d.). *Ontario Primary Care Council (OPCC)*.

  https://rnao.ca/policy/political-action/OPCC

Reinersten, J., Gosfield, A., & Rupp, W. (2007). Engaging physicians in a shared quality agenda.

    Institute for Healthcare Improvement.

    https://www.ihi.org/resources/Pages/IHIWhitePapers/EngagingPhysiciansWhitePaper.asp

    x

Rolfe, D. E., Ramsden, V. R., Banner, D., & Graham, I. D. (2018). Using qualitative Health

    Research methods to improve patient and public involvement and engagement in

    research. *Research Involvement and Engagement*, *4*(1). https://doi.org/10.1186/s40900-

    018-0129-8

Ronson, J. (2006). Local Health Integration Networks: Will "Made in Ontario" Work?

    Healthcare Quarterly. https://doi.org/10.12927/hcq.2006.17903

Rosenstein, A. H. (2015). A multistep approach to improving physician well- being and purpose.

    ResearchGate. https://www.researchgate.net/publication/281034277

Saunders, B. E., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., &

    Jinks, C. (2017). Saturation in qualitative research: exploring its conceptualization and

    operationalization. *Quality & Quantity*, *52*(4), 1893–1907.

    https://doi.org/10.1007/s11135-017-0574-8

Scime, N. V., & Burke, S. M. (2018). Environmental Scan of Breastfeeding Resources in

    Canadian NICUs. *Journal of Obstetric, Gynecologic, & Neonatal Nursing*, *47*(2), 202–

    213. https://doi.org/10.1016/j.jogn.2017.12.005

Scott, C. A., Thériault, A., McGuire, S., Samson, A. L., Clement, C., & Worthington, J. (2012).

    Developing a Physician Engagement Agreement at The Ottawa Hospital: A Collaborative

    Approach. *Healthcare Quarterly*, *15*(3), 50–56. https://doi.org/10.12927/hcq.2013.23020

Shah, M., Ho, J. L., Zhong, A., Fung, M., Elia, M., Dang, J., & Freeman, T. B. (2020). In a Time

    of Need: A Grassroots Initiative in Response to PPE Shortage in the COVID-19

    Pandemic. *Healthcare Quarterly*, *23*(2), 9–15. https://doi.org/10.12927/hcq.2020.26282

Shanafelt, T. D., Boone, S., Tan, L., Dyrbye, L. N., Sotile, W. M., Satele, D., West, C. P., Sloan,

    J. A., & Oreskovich, M. R. (2012). Burnout and Satisfaction With Work-Life Balance

    Among US Physicians Relative to the General US Population. *Archives of Internal*

    Medicine, *172*(18), 1377. https://doi.org/10.1001/archinternmed.2012.3199

Sibbald, S.L., Elliot, J., Smith, A., Chala, M.B., Dool Koontio, N., Alpaugh-Bishop, A., Jarmain,

    S., Joshi, A., McMahon, M., Meyers, M. (2023). Designing systems for the care we need:

    A transformation journey in Southwestern Ontario. *Healthcare Management* Forum.

    https://doi.org/10.1177/08404704231178456.

Sibbald, S. L., Embuldeniya, G., Kokorelias, K. M., & Wodchis, W. P. (2022). Engaging

    Patients and Family Members in System Reform: The Ontario Health Team Experience.

    International Journal of Integrated Care, *22*(S2), 209.

    https://doi.org/10.5334/ijic.icic21281

Sibbald, S. L., Paciocco, S., Fournie, M., Van Asseldonk, R., & Scurr, T. N. (2021). Continuing

    to enhance the quality of case study methodology in health services research. *Healthcare*

    Management Forum, *34*(5), 291–296. https://doi.org/10.1177/08404704211028857

Skillman, M., Cross-Barnet, C., Singer, R. F., Ruiz, S., Rotondo, C., Ahn, R., Snyder, L. P.,

    Colligan, E. M., Giuriceo, K., & Moiduddin, A. (2017). Physician Engagement Strategies

    in Care Coordination: Findings from the Centers for Medicare & Medicaid Services'

    Health Care Innovation Awards Program. *Health Services Research*, *52*(1), 291–312.

    https://doi.org/10.1111/1475-6773.12622

Snadden, D., Reay, T., Hanlon, N., & MacLeod, M. L. P. (2019). Engaging primary care

physicians in system change – an interpretive qualitative study in a remote and rural

health region in Northern British Columbia, Canada. *BMJ Open*, *9*(5), e028395.

https://doi.org/10.1136/bmjopen-2018-028395

Snell, A. J., Briscoe, D., & Dickson, G. (2011). From the Inside Out: The Engagement of

Physicians as Leaders in Health Care Settings. *Qualitative Health Research*, *21*(7), 952–

967. https://doi.org/10.1177/1049732311399780

Sousa, V., Zauszniewski, J., & Musil, C. (2004). How to determine whether a convenience

sample represents the population. *Applied Nursing Research*, *17*(2), 130–133.

Southwest Primary Care Alliance. (n.d.). *Purpose of the Alliance*.

https://www.swpca.ca/24/Purpose_of_the_Alliance/

Spaulding, A., Gamm, L. D., & Menser, T. (2014). Physician Engagement: Strategic

Considerations among Leaders at a Major Health System. *Hospital Topics*, *92*(3), 66–73.

https://doi.org/10.1080/00185868.2014.937970

Spurgeon, P., Barwell, F., & Mazelan, P. (2008). Developing a medical engagement scale

(MES). *The International Journal of Clinical Leadership*, *16*, 213–223.

https://www.health.nsw.gov.au/wohp/Documents/mc3-spurgeon2008-mes.pdf

Spurgeon, P., Mazelan, P., & Barwell, F. (2011). Medical engagement: a crucial underpinning to

organizational performance. *Health Services Management Research*, *24*(3), 114–120.

https://doi.org/10.1258/hsmr.2011.011006

Stake, R. (1995). *The art of case study research*. SAGE.

Suter, E., Arndt, J., Arthur, N., Parboosingh, J., Taylor, E. J., & Deutschlander, S. (2009). Role

understanding and effective communication as core competencies for collaborative

practice. *Journal of Interprofessional Care*, *23*(1), 41–51.

https://doi.org/10.1080/13561820802338579

Taitz, J. M., Lee, T. H., & Sequist, T. D. (2011). A framework for engaging physicians in quality

and safety. *BMJ Quality & Safety*, *21*(9), 722–728. https://doi.org/10.1136/bmjqs-2011-

000167

Taylor, N. (2019, July 25). *Ontario Health Teams will focus on needs of local patients*. Orillia

Matters. https://www.orilliamatters.com/local-news/ontario-health-teams-will-put-

stronger-focus-on-local-pateints-officials-1606800

Teherani, A., Martimianakis, T., Stenfors-Hayes, T., Wadhwa, A., & Varpio, L. (2015).

Choosing a Qualitative Research Approach. *Journal of Graduate Medical Education*,

7(4), 669–670. https://doi.org/10.4300/jgme-d-15-00414.1

Thames Valley Family Health Teams. (n.d.). *Interdisciplinary Health Professionals*.

https://thamesvalleyfht.ca/interdisciplinary-health-professionals/

Thomas, D. (2006). A General Inductive Approach for Analyzing Qualitative Evaluation Data.

American Journal of Evaluation, *27*(2), 237–246.

https://doi.org/10.1177/1098214005283748

Tracy, S. J. (2010). Qualitative Quality: Eight "Big-Tent" Criteria for Excellent Qualitative

Research. *Qualitative Inquiry*, *16*(10), 837–851.

https://doi.org/10.1177/1077800410383121

Tsasis, P., Evans, J. M., & Owen, S. (2012). Reframing the challenges to integrated care: a

complex-adaptive systems perspective. *International Journal of Integrated Care*, *12*(5).

https://doi.org/10.5334/ijic.843

Underdahl, L., Jones-Meineke, T., & Duthely, L. (2018). Reframing physician engagement: An analysis of physician resilience, grit, and retention. *International Journal of Healthcare Management*, *11*(3), 243–250. https://doi.org/10.1080/20479700.2017.1389478

Vaismoradi, M., Turunen, H., & Bondas, T. (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study. *Nursing & Health Sciences*, *15*(3), 398–405.

Waddel, K., & Lavis, J. (2022). Rapid synthesis: Engaging physicians in Ontario Health Teams. In *McMaster Health Forum* (ISSN 2292-7999 (online)). https://www.mcmasterforum.org/docs/default-source/product-documents/rapid-responses/engaging-physicians-in-ontario-health-teams.pdf?sfvrsn=8ea8c63f_5

Whitlock, D., & Stark, R. (2014). Understanding physician engagement and how to increase it. *Physician Leadership Journal*, *1*(1), 8–12.

Yazan, B. (2015). Three Approaches to Case Study Methods in Education: Yin, Merriam, and Stake. *The Qualitative Report*. https://doi.org/10.46743/2160-3715/2015.2102

Yin, R. K. (2002). Case study research: Design and methods. SAGE Publications.

Appendices

Appendix A: Overview of team-based models across Ontario informed by Laberge et al. (2016); Ontario Ministry of Health Long-Term Care, 2018; Muldoon et al., 2006.

Health Care Service Delivery	Year of Introduction	Description of Model	Billing Model
Family Health Networks (FHNs)	2001	• Minimal team-based structure • Consists of more than three physicians • Contract with Ministry of Health Long-Term Care	• Blended capitation model
Family Health Groups (FHGs)	2003	• Minimal team-based structure • Consists of more than three physicians with no governance structure	• Enhanced fee-for-service model
Family Health Organizations (FHOs)	2006	• Minimal team-based structure • Consists of more than three physicians • Contract with Ministry of Health Long-Term Care	• Blended capitation model
Community Health Centers (CHCs)	1980	• Team-based structure with group of physicians, nurses, nurse practitioners (e.g.: nurse practitioner led clinics) • Community board governance structure	• Salary-based model
Family Health Teams (FHTs)	2005	• Team-based model of physicians, nurse practitioners, social workers, educators, and an executive director position • Community or provider-led governance structure	• Blended capitation model or blended salary model

Appendix B: Letter of Information and Consent Form

Western

Project Title: Primary Care Physician Engagement in Health System Transformation: A case study

Principal Investigator:

Dr. Shannon L. Sibbald, Health and Rehabilitation Sciences & Schulich Family Medicine, University of Western Ontario

Contact Information: ███████████████████████████

Research Team:

██████████████████, Department of Family Medicine, University of Western Ontario

Atharv Joshi, Health Promotion, Graduate Student, University of Western Ontario

Letter of Information – Key Informant Participants

1. Invitation to Participate

You are being invited to participate in this research study because you are a member of an interdisciplinary healthcare team that provides care for patients. This case study aims to provide a better understanding of the development of a regional primary care alliance and the physician engagement strategies used within the regional primary care alliance.

2. Purpose of the Letter

The purpose of this letter is to provide you with the information required to make an informed decision regarding participation in this research study. It is important for you to know why the study is being done and what it will involve. Please take the time to read this letter carefully, and feel free to ask questions if anything is unclear, or if there are words or phrases you do not understand. All individuals participating in the study will be informed of any changes or new information, as it may affect your decision to participate.

3. Purpose of this Study

Primary care is a cornerstone of Canada's health system. Health care systems that have more engaged physicians can achieve better patient outcomes and facilitate a more effective work environment. Despite proven benefits of engagement, more research of engagement within the London-Middlesex Primary Care Alliance (LMPCA), an integrated care group, is needed. While strategies to improve/enhance physician engagement have been described in literature, there is limited research regarding physician engagement from a grassroots perspective specifically in a regional integrated primary care group. The exploration of the relationships of physicians from a grassroots level of a regional primary care alliance can help understand the physician driven 'voices' of engagement within the Middlesex-London OHT. Engagement in organizations can be done from a top-down or bottom-up approach. We are conducting a case study, which aims to better understand the bottom-up development of a regional primary care alliance and the associated top-down primary care physician engagement strategies used within a regional health system transformation. This research will identify the key junctures that took place with the development of the regional primary care alliance group (London –Middlesex Primary Care Alliance or LMPCA) and ML-OHT. This study will incorporate an interview via Zoom with key

informant participants (primary care physicians, nurse practitioners and health care administrators of the LMPC). To accommodate those who may not be able to use Zoom, an alternative phone interview will be conducted. The objectives of the study include;

- o Plot key time points and critical junctures in the development of the regional primary care alliance (LMPCA)
- o Explore strategies used for engagement at a local and regional levels within OHT development and
- o Discuss the barriers and facilitators to primary care engagement in health system transformation.

4. Inclusion Criteria

Primary care physicians, nurse practitioners, primary care transformation lead and health care administrators that are involved with the London Middlesex Primary Care Alliance and the Middlesex-London Ontario Health Team, will be invited to participate. Participants will need access to an internet-connected device to complete the data collection. This can be either a laptop or cellular device which can utilize Zoom. This study seeks to obtain between 10-20 members.

5. Exclusion Criteria

Those who do not meet the inclusion criteria will not receive an invitation to participate in this study. Participants will be excluded if they are non-English speaking, are unable to comprehend the letter of information and consent documentation, and/or under the age of 18.

6. Study Procedures

If you agree to participate in the study, you will also be asked to complete one interview. The interview will take about 30 minutes to complete and will take place over Western University's Zoom at a time that is convenient for you. Should Zoom not be a convenient platform, an alternative phone interview can be accommodated. The purpose of the interview is to understand the development of the primary care alliance and discuss the primary care physician engagement strategies used within the regional health system transformation. The interviews will be conducted by principle investigator, Dr. Shannon Sibbald and graduate research assistant, Atharv Joshi. The interview will be audio-recorded through Zoom. When recording through Zoom, it creates both an audio and video file. The video file will be immediately destroyed by the researchers, but the audio file will be used to conduct transcription and analysis.

The researchers will ask and confirm the ongoing willingness to participate in the study prior to the interview. Information gathered from your interview will not be used in research until the form is signed.

After the completion of data analysis, a report will be provided with the findings of the study. If you have any concerns or questions about the findings, you are welcome to contact the PI.

7. Possible Risks and Harms

There are no known harms associated with participation in this study. However, for some people, these questions can be distressing, and this distress can occur during or after they complete the study. There may be some social or emotional risks, or discomforts to participating team members in interviews. Questions will be asked about the development and engagement of their work team, and the participants may find that talking about these things may be emotionally difficult if the participant has had a negative experience in their work setting. There is also a risk of privacy breach as data collection will be taking place virtually.

8. Possible Benefits
There are no guaranteed direct benefits. Team members will have the opportunity to improve team processes by learning about any potential gaps / areas for improvement. As well, information gathered from this study may provide benefits to society.

9. Compensation
You will be compensated a $20 'Everything' gift card for your participation in this research study. The gift card will be delivered via email.

10. Voluntary Participation
Participation in the study is completely voluntary. You may withdraw from the study without a reason at any time. Please see Confidentiality Section of this Letter of Information, which deals with the data collected after withdrawal from the study. You do not have to take part in the study if you do not want to. Refusal to participate, consent, or withdraw will generate no consequence for your employment. By signing the consent form you do not waive any personal legal rights. You have the right to not answer any questions. You should only agree to take part if you are satisfied that you know enough about these things.

11. Confidentiality
Each respondent will write his or her name, signature, and date of signature on the Qualtrics form at the time of giving informed consent. This form will have a unique study ID number to link data collection to each other. The participant is able to withdrawal at any point by stating that they would like to withdraw. Your research results will be stored in the following manner:

- All electronic data will be stored on OneDrive provided by Western University. All electronic files will be password protected and require Multifactor Authentication System (MFA) to be accessed. Only the research team directly involved in this study will have access to these data.
- All data and personal information will be permanently destroyed from Qualtrics at the conclusion of the study however your identifiers will be retained locally for 7 years

The study data will be kept for a minimum of 7 years according to Western Research policies. Depending on the possibility and length of a follow-up study, it may be used for a longer period. If you decide to withdraw from the study, you have the right to request withdrawal of information collected about you. If you wish to have your information removed please let the researcher know. It is important to note that a record of your participation must remain with the study as such, the researchers may not be able to destroy your signed letter of information and consent, or your name on the master list, however any data may be withdrawn UNTIL data analysis has been completed. Once data analysis has been completed, researchers will not be able to remove your information as the data will have been anonymized and coded as it will be near impossible. Personal identifiers such as name and signature provided in the LOI/C will be retained for 7 years as per HSREB protocol. NOTE: Once the study has been published we will not be able to withdraw your information.

12. Contacts for Further Information
If you require any further information regarding this research project, and/or your participation in the study, and/or would like to receive a copy of any potential study results, you may contact the Principal Investigator, Dr. Shannon Sibbald by phone at ███████████████ or by email at ██████████

If you have any questions about your rights as a research participant or the conduct of this study, you may contact The Office of Research Ethics ███████████, email: ███████████

13. Publication.

The results of this study are to be published in peer-reviewed journals as well as graduate student theses. Any identifying information will not be used in any publications.

14. Participation in Concurrent or Future Studies.

If you are participating in another study at this time, please inform the research team to determine if it is appropriate for you to participate in this study.

This letter is yours to keep for future reference.

Participant Consent Form

Project Title: Primary Care Physician Engagement in Health System Transformation: A Case Study
Study Investigator's Name: Dr. Shannon Sibbald
Contact Information: ███████████████████

You do not waive any legal rights by signing this consent form and/or agreeing to participate.

Participant's Name (please print): _____

Date: _____

Are you interested in being contacted about future research studies being done by this research team?
☐   Yes
☐   No
If yes, please provide contact information: _____

I have read the Letter of Information, have had the nature of the study explained to me, and I agree to participate. All questions have been answered to my satisfaction.

Participant's Signature:
_____

My signature means that I have explained the study to the participant named above and that I have answered any questions.

Person Obtaining Informed Consent (please print): _____

Signature: _____

Date: _____

Western 🛡️

Email Script for Recruitment

Subject Line: Invitation to participate in research for involving the London Middlesex Primary Care Alliance

Hello,

This email is being sent on behalf of researchers from the Faculty of Health Sciences at Western University who are conducting a study to explore physician engagement within the London Middlesex Primary Care Alliance. The purpose of this study is to examine primary care physician engagement within health systems through the development of a regional primary care alliance. Briefly, the study involves taking part in a key informant interview discussing key events of the LMPCA and certain aspects of physician engagement. Interviews will take place over Zoom and take approximately 30-45 minutes and will only occur once.

Interested participants who are currently primary care physicians, nurse practitioners or health care administrators working in the London-Middlesex region or associated with the LMPCA or ML-OHT, are able to read, write, and speak in English, and have access to an internet-connected device are asked to follow the link below for a detailed letter of information about the study.

LOI: ██████████████████████████████████████

Thank you for your time, if you have any questions, please feel free to reach out to either: Atharv Joshi ████████████ ; Dr. Shannon Sibbald ████████████ .

Thank you for your consideration.

Regards,

Atharv Joshi, BHSc
MSc Student – Health Promotion
Health and Rehabilitation Sciences
Western University
London, Ontario, Canada
██████████████

Shannon L. Sibbald, PhD
Associate Professor
Faculty of Health Sciences

Western University
London Ontario, Canada

Title: Primary Care Physician Engagement in Health System Transformation: A Case Study
Principal Investigator: Dr. Shannon L. Sibbald, PhD
Other Investigators: Atharv Joshi BHSc., ███████████████████

Summary

The aim of this short summary is to describe our study, provide the rationale and explain how LMPCA can support this project.

To date, no one has captured and shared the story of the development of the LMPCA. The LMPCA has been impactful and provided the London-Middlesex region with great support to coordinate and improve primary care priorities and be a voice for primary care within the region. Throughout this research, we will tell this story and identify the key junctures that took place during the development of a regional primary care alliance as well as explore primary care physician engagement within health system reform.

There is growing evidence that greater levels of physician engagement can achieve and lead to better performance and efficacy in hospitals and primary care settings. Physician engagement is critical to the success of primary care settings. Engagement in primary care settings can be done from a top-down (mandated by leadership/government) or bottom-up approach (or grassroots). However, there is limited empirical evidence on bottom-up physician engagement in health system transformation and how it can improve overall system integration.

The researchers of this project will interview LMPCA health care administrators, nurse practitioners and primary care physicians of the London-Middlesex region to understand a first-hand voice of the key events of the LMPCA and explore physician engagement within a regional health system. Data collected in this study will provide benefits to the scientific community, primary care organizations, and the public in general through our description of physician engagement in health systems change. Primary care physicians, nurse practitioners, and health care administrators will learn about how to support and improve physician engagement efforts by learning about barriers and areas for improvement. This will be an opportunity to help shape physician engagement in the London-Middlesex region. Additionally, this will provide a chance for members to reflect, celebrate and showcase the LMPCA's success stories to be an exemplar across provincial primary care alliances.

For more information and to participate in this study:
███████████████████████████████████

Western 🛡️

Participants Needed for Research in Primary Care Physician Engagement in Health System Research

We are looking for volunteers to take part in a study of exploring physician engagement within the region and the development of the London Middlesex Primary Care Alliance (LMPCA).

We invite you to share your experiences and help shape physician engagement in this region!

To participate, you must:

- Have access to an internet-connected device or telephone
- Be a practicing physician, nurse practitioner or health care administrator in the London-Middlesex region

Your participation would involve an interview over Zoom (approximately 30 minutes).

For more information or to get involved:

██

If you are interested in participating in an interview, please contact Dr. Shannon Sibbald and the research team at ██████████ **or call** ██████████████████████████.

Appendix E: Interview Guide

Key Informant Interview Guide

Hello.

Thank you for agreeing to participate in this interview. My name is [Research Assistant] and I am a research assistant working with Dr. Shannon Sibbald from Western University.

Prior to starting this interview, we would like to confirm that we have received your consent to conduct the interview. Do you have any questions about the interview or the information in the letter?

[Begin if there are no questions] The goal of our research is to explore primary care physician engagement in health systems reform through the development of a regional alliance. Our end-goal of this study is two-fold: first, we want to explore the grass roots development of a regional primary care alliance; second, we want to understand the primary care engagement strategies used within regional health system transformation

A reminder that this interview will be audio-recorded however, should you choose not to be audio-recorded, handwritten notes will be taken during this interview. The transcript and notes of today will be de-identified and kept confidential. Are there any questions? All analysis and presentation of data will be done in aggregate. Participation in this interview is completely voluntary and you may choose to stop the interview at any time. Before we start, do you have any questions?

Questions:

1. Before we start the interview questions, we would like to ask two demographic questions. These are optional and only for statistical purposes. To start, please briefly tell us what gender you identify as and your age?

2. We will begin the core interview questions now. To start, please briefly, tell me about your current position/role. Please be specific in terms of your practice characteristics, and some general information about the patients in your practice.

    a. Do you, or have you, worked in a team-based practice?

        i. If yes: Is this a family health team (FHT) or other?

3. How would you describe your current and previous engagement within primary care as a sector?

4. Are you aware of the LMPCA?

    a. If yes: Please describe your understanding of the role and mission of the LMPCA.

    b. If yes: What is your role with or engagement in LMPCA?

    c. If yes: Do you believe LMPCA effectively represents the primary care sector within our region?

    d. If no: How should primary care be represented?

5. Tell me about the growth and development of LMPCA.

    a. **Probe:** Are there any people or facilitators who have been key in driving forward LMPCA's mission?

    b. What are some examples of critical junctures of the LMPCA? What makes them critical to the development of the primary care alliance?

    c. What are some barriers experienced in the development of the primary care alliance? What would have been needed to over come this (ie: funding, time, support)

6. Do you know about the LMPCA Primary Care Transformation Lead?

    a. If yes: was this an effective position?

    b. **Probe:** What made them effective?

    c. **Probe:** What did the Transformation Lead do that the others were not doing?

    d. Are you aware of similar positions such as the Transformation Lead within primary care?

7. I want to talk a bit about physician engagement now. Thinking back to when you were first engaged with the LMPCA to the present, what activities or strategies worked well in? What might have you changed? Do you have any 'success stories' you could share?

a. Provide an example of an event or activity, specific to the LMPCA development that was labelled a 'physician engagement' activity.

I would like to shift now to talking about the OHT broadly, and more specifically, how the LMPCA worked with the Middlesex-London OHT. If you have engaged with other OHTs aside from the Middlesex-London OHT, please be specific when providing the examples.

8. What do you believe were some of the key events or turning points in the development of the OHT specifically related to primary care. Please consider local, regional and provincial events.
    a. Were any of these events driven by LMPCA?
9. How receptive/engaged were physicians with the development of the OHT?
    a. Has that changed to more, or less now? What caused that change?
    b. **Probe**: Do you think the LMPCA had a role in physician engagement?
    c. **Probe**: In the OHT, what would successful physician engagement look like?
10. How did the LMPCA and OHT work together?
    a. **Probe:** What activities have the LMPCA been involved in during the formation of the ML-OHT?
    b. Provide an example of an event or activity, specific to the OHT development that was labelled a 'physician engagement' activity.

11. How did COVID-19 impact the work of the primary care alliance? And/or the OHT?
    a. **Probe:** How did the organizations (LMPCA/MLOHT) resolve or negotiate the conflicts or challenges?

12. What are some next steps that you wish to see with LMPCA and/or primary care within the OHT?

13. Is there anything that we not have discussed today that is important for us to explore physician engagement in the LMPCA?

Appendix F: Coding Framework

Theme	Subtheme	Description
Context for Change	OHT Development	This code identified the introduction of the OHTs as a critical moment for physicians and leaders to organize themselves within the London-Middlesex region.
	Isolation and Fragmentation in Primary Care	This code described the isolation and gaps that existed within the London-Middlesex region where physicians were unable to join primary care specific groups.
	Unified Voice in Primary Care	This code described the need for a collective voice in primary care within the London-Middlesex region.
Branding	Not applicable*	This code highlighted the importance of creating a new identity and brand of a primary care alliance and move away from the previous hesitancies within the region.
Response to COVID-19	Personal Protective Equipment (PPE) Hub	This code identified the PPE hub as a critical event to the LMPCA's growth and development during the COVID-19 pandemic.
	Vaccination Clinics	This code identified the vaccine clinics as a critical event where the LMPCA came together health care organizations of London-Middlesex region to engage and facilitate the vaccine rollout.
Leadership Development in the LMPCA	Not applicable*	This code described the leadership development of the LMPCA through cohesiveness, trust and building relationships with physicians and the organizations of the London-Middlesex region.
Drivers for Engagement	Recognizing Value	This code identified the importance of the physician's role and how they will add value and better impact the primary care sector if they chose to engage.

	Intrinsic Motivation	This code identifies the importance of an inherent or intrinsic drive to be engaged within the primary care sector whether that is a leadership role or informal involvement for a particular activity.
	Organized Procedures	This code recognizes the importance of well-organized, structured, and efficient meetings or opportunities which could involve and be mindful of the physician's schedule.
	Strong Communication	This code recognized the importance of strong communication strategies that were used to engage and involve physicians such as using Townhalls, webinars or communication newsletters.
	Grassroots Approach	This code identified the grassroots and bottom-up approach that was helped facilitate physician engagement in the LMPCA.
	Primary Care Transformation Lead	This code identifies the role of the primary care transformation lead that contributed to the success of the LMPCA and promoting physician engagement.
Barriers to Engagement and Sustainability	Lack of Funding or Resources for Remuneration	This code identified the need to remunerate or compensate physicians for their time in engagement initiatives.
	Inadequate Administrative Support	This code identified the need for administrative and office support which can help reduce the administrative burden that physicians would need to deal with.
	Insufficient Acknowledgement and Representation of Physician Voice	This code described why physicians' voices and representation need to be valued in the primary care sector to facilitate appropriate engagement.
	Succession Planning	This code highlighted the importance of succession planning and the involvement of new leaders, to ensure the sustainability of the LMPCA.

*Note: * denotes that there was no subtheme for the corresponding theme.*

Appendix G: Ethics Approval

Western Research

Date: 1 September 2022

To: Dr. Shannon Sibbald

Project ID: 121041

Review Reference: 2022-121041-70397

Study Title: Primary Care Physician Engagement in Health System Transformation: A case study

Application Type: HSREB Initial Application

Review Type: Delegated

Full Board Reporting Date: 13/Sept/2022

Date Approval Issued: 01/Sep/2022 07:14

REB Approval Expiry Date: 01/Sep/2023

Dear Dr. Shannon Sibbald

The Western University Health Science Research Ethics Board (HSREB) has reviewed and approved the above mentioned study as described in the WREM application form, as of the HSREB Initial Approval Date noted above. This research study is to be conducted by the investigator noted above. **All other required institutional approvals and mandated training must also be obtained prior to the conduct of the study.**

Documents Approved:

Document Name	Document Type	Document Date	Document Version
Research Protocol Atharv Joshi v2	Protocol	25/Aug/2022	2
Interview Guide Draft KII v3	Interview Guide	30/Aug/2022	3
Recruitment Email v2	Email Script	25/Aug/2022	2
Letter of Information:Consent v4	Written Consent/Assent	31/Aug/2022	4

No deviations from, or changes to, the protocol or WREM application should be initiated without prior written approval of an appropriate amendment from Western HSREB , except when necessary to eliminate immediate hazard(s) to study participants or when the change(s) involves only administrative or logistical aspects of the trial.

REB members involved in the research project do not participate in the review, discussion or decision.

The Western University HSREB operates in compliance with, and is constituted in accordance with, the requirements of the TriCouncil Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2); the International Conference on Harmonisation Good Clinical Practice Consolidated Guideline (ICH GCP); Part C, Division 5 of the Food and Drug Regulations; Part 4 of the Natural Health Products Regulations; Part 3 of the Medical Devices Regulations and the provisions of the Ontario Personal Health Information Protection Act (PHIPA 2004) and its applicable regulations. The HSREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000940.

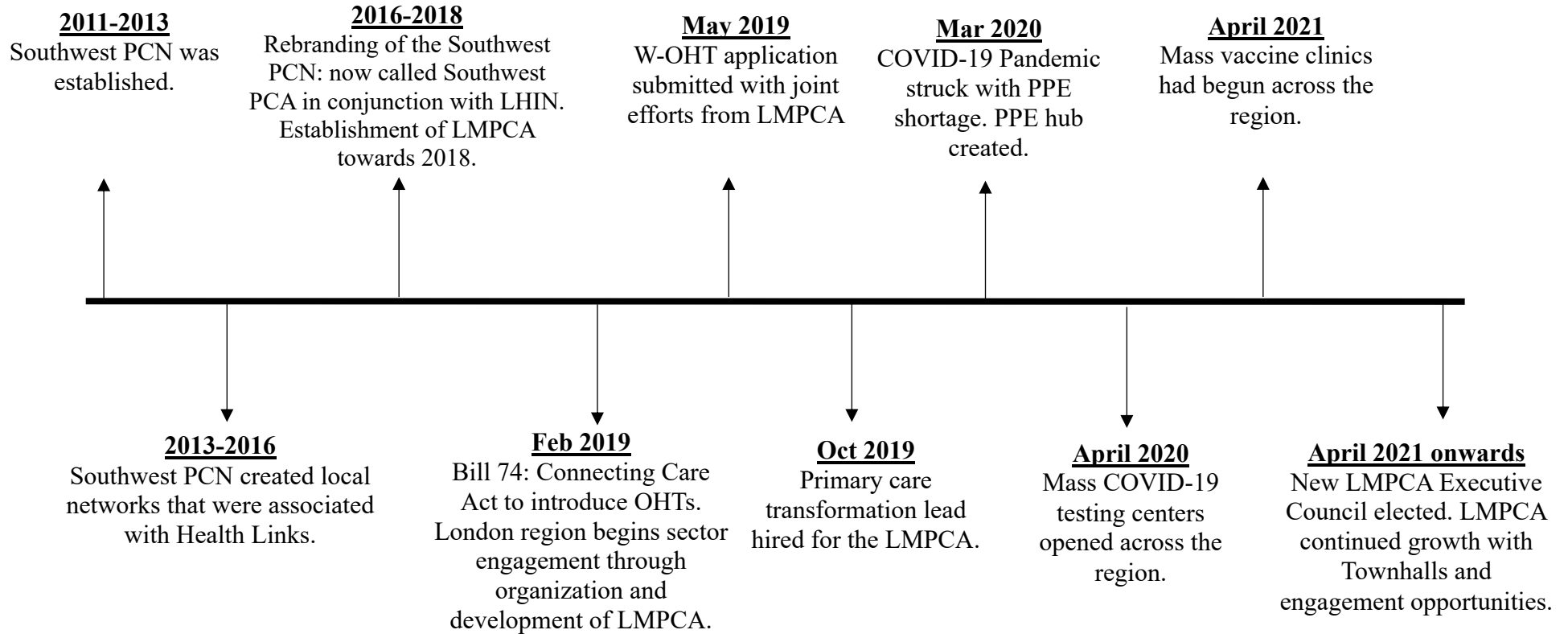Please do not hesitate to contact us if you have any questions.

Electronically signed by:

Reason: I am approving this document

Note: This correspondence includes an electronic signature (validation and approval via an online system that is compliant with all regulations, See **Electronic System Compliance Review***)*

Appendix H: Timeline of the Critical Junctures of the LMPCA and ML-OHT

2011-2013
Southwest PCN was established.

2016-2018
Rebranding of the Southwest PCN: now called Southwest PCA in conjunction with LHIN. Establishment of LMPCA towards 2018.

May 2019
W-OHT application submitted with joint efforts from LMPCA

Mar 2020
COVID-19 Pandemic struck with PPE shortage. PPE hub created.

April 2021
Mass vaccine clinics had begun across the region.

2013-2016
Southwest PCN created local networks that were associated with Health Links.

Feb 2019
Bill 74: Connecting Care Act to introduce OHTs. London region begins sector engagement through organization and development of LMPCA.

Oct 2019
Primary care transformation lead hired for the LMPCA.

April 2020
Mass COVID-19 testing centers opened across the region.

April 2021 onwards
New LMPCA Executive Council elected. LMPCA continued growth with Townhalls and engagement opportunities.

Abbreviations:
PCN: Primary Care Network
PCA: Primary Care Alliance
PPE: Personal Protective Equipment

Curriculum Vitae

Name: Atharv Joshi

Post-secondary University of Western Ontario
Education and London, Ontario, Canada
Degrees: 20217-2021 BHSc.

       University of Western Ontario
       London, Ontario, Canada
       2021-Present MSc.

       American University of the Caribbean School of Medicine
       Coral Gables, Florida, United States and Cupecoy, St. Martin
       Incoming MD Candidate
       September 2023-April 2027

Honours and University of Western Ontario Student Research Award
Awards: May 2021

       University of Western Ontario Engagement Award
       April 2021

       University of Western Ontario Dean's Honours List
       April 2021

       University of Ontario Scholarship of Distinction
       September 2017

Related Work Graduate Teaching Assistant
Experience   University of Western Ontario
       HS 2300: Human Anatomy (Fall 2021, Fall 2022 & Winter 2023)
       HS 1002: Social Determinants of Health (Winter 2022)

       Research Assistant
       Sibbald Lab Team
       April 2021-Present

       Clinical Research Assistant
       Lawson Health Research Institute
       April 2022-August 2022

Publications:

Joshi, A., and Grannary, M. (2023) Understanding the impacts of climate change on the Northern Inuit community. Health Sciences Inquiry Journal. https://healthscienceinquiry.com/index.php/hsi/issue/view/14

Sibbald SL., Paciocco S., Huizhu Chen L., **Joshi A.**, Ferrone M., Licskai, C. (2022) A Peer-to-Peer Approach to Implementation of a Chronic Disease Management Program. Journal of Research in Interprofessional Practice and Education. https://doi.org/10.22230/jripe.2022v12n2a343

Sibbald, SL., Elliot, J., Smith, A., Chala, M.B., Dool-Kontio, N., Alpaugh-Bishop, A., Jarmain, S., **Joshi, A**., McMahon, M., Meyer, M. (2023) Designing systems for the care we need: A transformation journey in Southwestern Ontario. In press with SAGE Health Care Management Forum Journal.