Primary Health Care Performance Measurement and Accountability in Ontario

by

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A thesis submitted in conformity with the requirements for the degree of Doctor of Philosophy
Institute of Health Policy Management and Evaluation
University of Toronto

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Abstract

Ontario was used to explore the meaning, approaches, and measures of accountability, and examine the connection between primary health care (PHC) key attributes, performance measurement and accountability. This research study used qualitative research methods design and a theoretical framework to guide the inquiry, collection, analysis and interpretation of data (i.e., documents and 28 semi-structured interviews). This study offers empirical knowledge about the scope of accountability in PHC—who is accountable to whom, for what and how is accountability implemented and measured. These insights are valuable lessons for other jurisdictions, and suggest future research topics for scholars.

This study found that in a public contract model, the key aspects of the PHC system performance measurement are: access to and utilization of insured services; and cost of reimbursing private providers. These are components of financial and political accountability of the funder. PHC providers and clinics have multiple lines of accountability. Clinical performance accountability is implicit and not routinely monitored. PHC providers are self-regulated and trust is placed on them to deliver evidence based care to achieve desirable patient outcomes. In this governance structure, metrics used in PHC are those that are easy to measure and within the control of clinicians. Metrics involving co-production of services and tacit use of clinical knowledge are
left out because it is complex to get access to this data from disparate standalone systems, which results in low measurability of many services. If data sources could be linked, it may be feasible to align PHC performance and accountability with the four key PHC attributes: access, person-focused care, coordination and comprehensiveness. With this, relevant metrics can be fed back to PHC providers and publicly reported to enable patients to exercise their right as consumers to select care from high performing PHC teams. The latter could advance accountability in PHC.
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This dissertation could not have been completed without the support of exceptional colleagues, mentors, friends and family who provided expertise, guidance, and moral support.

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Dr. Adalsteinn Brown, a member of my thesis committee. I am grateful to Dr. Brown for providing strategic feedback, guiding me to think as a policy-maker, and pushing me to write as an academic instead of as a consultant.

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## Glossary

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<th>Term</th>
<th>Definition</th>
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<tbody>
<tr>
<td><strong>Access</strong></td>
<td>In primary health care (PHC), access often refers to PHC serving as the first point of contact for patients (Starfield, 1998; World Health Organization, 1978).</td>
</tr>
<tr>
<td><em>PHC attribute</em></td>
<td></td>
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<tr>
<td><strong>Accountability</strong></td>
<td>Accountability is defined as being answerable for a set of objectives including providing justification for actions for failure to comply (Brinkerhoff, 2004; Dubnick &amp; Frederickson, 2011).</td>
</tr>
<tr>
<td><strong>Accountability dimensions</strong></td>
<td>Dimensions of accountability are classified as financial, performance, professional and political (Brinkerhoff, 2004).</td>
</tr>
<tr>
<td><strong>Accountability mechanisms</strong></td>
<td>Accountability mechanisms are processes or instruments used to operationalize, assess and foster elements of accountability (Dubnick &amp; Frederickson, 2011; Shortt &amp; Macdonald, 2002).</td>
</tr>
<tr>
<td><strong>Canada Health Act</strong></td>
<td>The Canada Health Act is Canada’s federal legislation for publicly funded health care insurance. The Act sets out terms and conditions for insured and extended health care services with which the provinces and territories in Canada would have to comply in order to receive full federal transfers (Government of Canada, 1984).</td>
</tr>
<tr>
<td><strong>Contestability</strong></td>
<td>Contestability is a condition of the market in which firms can enter it freely (without resistance from other firms) and subsequently exit without losing any investments (Preker &amp; Harding, 2000).</td>
</tr>
<tr>
<td><em>Production characteristic</em></td>
<td></td>
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<tr>
<td><strong>Complexity</strong></td>
<td>Complexity is whether goods and services provided in health care stand-alone or require coordination with other service providers (Preker &amp; Harding, 2000; Preker, Xingzhu, &amp; Velenyi, 2007).</td>
</tr>
<tr>
<td>PHC attribute</td>
<td>Definition</td>
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<tr>
<td>Comprehensiveness</td>
<td>In PHC, comprehensiveness is the extent to which all essential services that are needed to address the majority of the populations’ health needs are offered and provided at the PHC facilities (Macinko, Almeida, dos, &amp; de Sa, 2004; Starfield, 1998; World Health Organization, 1978).</td>
</tr>
<tr>
<td>Coordination of care</td>
<td>Coordination is the extent to which PHC facilitates the coordination of patients’ care between various levels of care and with other important social services and sectors (Macinko, Shi, &amp; Starfield, 2004; Starfield, 1998; World Health Organization, 1978).</td>
</tr>
<tr>
<td>Financial accountability</td>
<td>Financial accountability is concerned with tracking and reporting on allocation, disbursement and utilization of financial resources, using tools of auditing, budgeting and accounting (Brinkerhoff, 2004; Emanuel &amp; Emanuel, 1996).</td>
</tr>
<tr>
<td>First contact care</td>
<td>The degree to which the PHC place and providers serve as an entry point to the health care system for patients (Starfield, 1998; World Health Organization, 1978).</td>
</tr>
<tr>
<td>Qualitative methods</td>
<td>Qualitative methods are a range of data collection and analysis techniques such as a purposive sample, semi-structured, open-ended interviews, and other sources (Cresswell, 1998; Denzin, 1970; Denzin &amp; Lincoln, 1994; Winston &amp; Gills, 2003; Choy, 2014; Dudwick, Kuehnast, &amp; Woolcock, 2010; Kvale, 1996).</td>
</tr>
<tr>
<td>Governance</td>
<td>Governance refers to: a new process of governing; or a changed condition of ordered rule; or the new method by which society is governed (Rhodes, 2006).</td>
</tr>
<tr>
<td>Longitudinality or ongoing care</td>
<td>Longitudinality refers to a long-term relationship developed over time between the primary health care providers and patients</td>
</tr>
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<table>
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<tr>
<th>Measurability</th>
<th>Measurability is defined as the precision with which inputs, processes, outputs and outcomes of particular goods or services can be measured (Preker, Harding, &amp; Travis, 2000; Preker et al., 2007).</th>
</tr>
</thead>
<tbody>
<tr>
<td>New public management</td>
<td>New public management embodies ideas such as benchmarking and output measurement, performance contracts and financial incentives, creation of internal markets, and assimilation of private-sector management techniques (Dunleavy &amp; Hood, 1994; Ehrler, 2012; Gruening, 2001; Stark, 2002).</td>
</tr>
<tr>
<td>Performance accountability</td>
<td>Performance accountability refers to demonstrating and accounting for performance with respect to agreed-upon performance targets (Brinkerhoff, 2004; Emanuel &amp; Emanuel, 1996).</td>
</tr>
<tr>
<td>Performance measurement</td>
<td>Performance measurement is a form of an instrument or a mechanism to operationalize accountability and it aims to measure the extent to which the intended policy goals or objectives are being achieved (Kalininchenko, Amado, &amp; Santos, 2013; Wooder et al., 2011).</td>
</tr>
<tr>
<td>Production characteristics</td>
<td>Production characteristics refers to the characteristics of goods and services produced in health care using three concepts: 1) contestability; 2) measurability; and 3) complexity (Preker, Harding, &amp; Travis, 2000; Preker et al., 2000; Preker et al., 2007).</td>
</tr>
<tr>
<td>Purposive sample</td>
<td>A purposive sample represents a group of non-probability sampling techniques. Purposive sampling focuses on selecting particular characteristics of a population (e.g., expertise or experience) that can help answer research study questions (Kuzel, 1999; Marshall, 1996).</td>
</tr>
<tr>
<td><strong>Policy instruments</strong></td>
<td>Policy instruments is a generic term used in political science literature to refer to the techniques and resources used by decision-makers to make public policy, carry out preferred policy directions and implement policy objectives (Howlett, 1991).</td>
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<tr>
<td><strong>Political accountability</strong></td>
<td>Political accountability refers to accountability of providers to a governing board of representatives, funders, community members, and patients with respect to the policy goals and objectives set out by political figures (Brinkerhoff, 2004; Shortt &amp; Macdonald, 2002).</td>
</tr>
<tr>
<td><strong>Primary care</strong></td>
<td>Primary care is a term that tends to focus on the provision of services to diagnose, treat and manage health conditions. Primary care places emphasis on identifying and managing prevalent diseases (Paalman, Bekedam, Hawken, &amp; Nyheim, 1998; Rifkin &amp; Walt, 1986; Starfield, 1998; World Bank, 1993).</td>
</tr>
<tr>
<td><strong>Primary health care</strong></td>
<td>Primary health care is a term that is often referred to as the first or initial point of contact (Starfield, 1998; Haggerty, 1969; White, 1967) to access services with a broad health orientation and provided by a variety of health professionals on a continuous basis (Tonkin, 1976). PHC addresses the needs of individuals as a whole including problems in the community by providing a wide spectrum of interventions and services including health promotion, disease prevention and rehabilitation (Health Council of Canada, 2005; World Health Organization, 1978).</td>
</tr>
<tr>
<td><strong>Professional accountability</strong></td>
<td>In health care, professional accountability refers to the delivery of services provided by regulated health care providers in accordance to the standard of care prescribed by professional agencies (Brinkerhoff, 2004; Emanuel &amp; Emanuel, 1996).</td>
</tr>
</tbody>
</table>
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Appendix 1A: Primary Care Reform in Ontario

Appendix A: Interview Guide Questionnaire for Macro-level Key Informants

Appendix B1: Interview Guide Questionnaire for Micro-level Key Informants

Appendix B2: Interview Guide Questionnaire for Micro-level Key Informants (e.g., CHC)

Appendix C: Standard Content for Email—Inviting Key Informants to Participate in the Study

Appendix D: Introduction to the Study and Informed Consent

Appendix E: Categories and Sub-Categories for Coding Interview Data
Chapter 1

Introduction

1.0 Study Overview

Accountability is defined as being answerable for a set of objectives including providing justification for actions or failure to comply (Brinkerhoff, 2004; Dubnick & Frederickson, 2011). Performance measurement is one aspect of accountability and it aims to measure the extent to which the intended policy goals or objectives are being achieved (Kalininchenko et al., 2013; Woeder et al., 2011). While these concepts have been studied in health care to understand institutional and organizational accountability, less is known in the literature about the scope and dimensions of accountability as it relates to health care providers and organizations in primary health care (PHC). In this thesis, Ontario’s primary health care sector (PHC) is used as a case study to: explore the meaning of and approaches to accountability; examine the connection between performance measurement and accountability; and determine the alignment between accountability and key PHC attributes.

In Ontario, accountability continues to be a core element of a series of policy initiatives (described in Chapter 6) to reform PHC, enhance accountability of PHC providers and organizations, and achieve four policy goals: 1) access; 2) quality; 3) integration; and 4) accountability (Government of Ontario, 2012; Ontario Ministry of Health and Long Term Care, 2015). To achieve these policy goals and to reform the PHC organization, service delivery, remuneration, and measurement (see Section 1.5 and Chapters 6 and 8), Ontario has used policy levers such as contractual arrangements, performance-based incentives and regulation (Government of Ontario, 2006, 2010). These are known as forms of accountability mechanisms (Dubnick & Justice, 2004) that are intended for use by decision-makers to govern, and implement policy directions (Doern & Phidd, 1992; Howlett, 1991). Decision-makers in Ontario, for example, have used contracts and legislation in PHC to gradually introduce governance structures and performance indicator measures as part of implementing the quality improvement plans (QIPs). However, in Ontario the PHC contracts have been less explicit about the terms and conditions of implementing and measuring accountability
(Palmer, 2000). This is not surprising since in the health care sector, accountability is generally ill defined (Brinkerhoff, 2004; Dubnick & Yang, 2011). In addition, less is known in the literature and public documents about the scope, mechanisms, measures and dimensions of accountability as it relates to Ontario’s PHC system.

Ontario provided a suitable environment and a rich setting to carry out this research study and to answer research questions. This research study used qualitative methods research design, involving document analyses and semi-structured key informant interviews to examine the approaches to, mechanisms of and measures of accountability implemented in Ontario’s PHC system. The two central Research Questions and a number of sub-questions explored in this study are:

1. What are the common definitions and characteristics of PHC?
   a. What are the key attributes of PHC?
      i. How do the PHC key attributes align to the characteristics of PHC in Ontario?
   b. What are the key PHC indicator measurement systems and what key characteristics of PHC are being and not being captured (i.e., included or not included) by these measurement systems? Why?

2. What is meant by accountability and performance measurement?
   a. What is the scope of accountability in Ontario?
   b. What is being collected and measured (mandatory vs. voluntary), and what measures are being used for what, for whom, and by whom? What is not being measured and why not?
      i. What are the differences in accountability and reporting requirements across various PHC practice models in Ontario?
      ii. How do Ontario’s PHC performance measures relate to the key PHC attributes?
   c. What accountability mechanisms have been implemented in Ontario?

The literature review and the application of theoretical constructs (see Sections 1.1 - 1.3, Chapters 2 and 4) guided the development of these research questions.
1.1 Theoretical Concepts

The theoretical framework for this research study (described in Chapter 2) draws on the following theoretical concepts found in the literature: 1) accountability (Brinkerhoff, 2004; Dubnick & Justice, 2004; Emanuel & Emanuel, 1996); 2) performance measurement (Brandsen, 2004; Le Grand & Bartlett, 1994; Trommel, Brandsen, van Heffen-Oude Vrielink, & Moulijn, 2004); 3) policy instruments (Doern & Phidd, 1992; Hood, 1983; Howlett & Ramesh, 1993; Howlett, Ramesh, & Perl, 2009); 4) governance (Rhodes, 2006); and 5) production characteristics (Preker et al., 2007). These theoretical concepts have guided the inquiry, collection and interpretation of this research study data to: unveil the meaning, dimensions, measures and approaches of accountability; draw the connection between accountability, performance measurement and PHC key attributes; and explain why some performance measures are explicitly tied to accountability while others are not. Some of the theoretical concepts applied in this research study have previously been used in a Canadian study to examine approaches to accountability across health sectors (Deber, 2014).

Research Question #1 analyzes the key definitions of PHC (described in Chapter 5) found in the literature, and classifies the four key attributes that characterize the core function of PHC involved in delivering care to and coordinating care for patients. The four key PHC attributes are: 1) first contact; 2) longitudinality or person-focused care; 3) comprehensiveness; and 4) coordination (World Health Organization, 1978; Starfield, 1998). These four PHC attributes are essential components of defining elements of PHC performance measurement (Starfield, 1998) because they can aid in measuring the extent to which the core functions of PHC are attained, and where accountability in PHC can be reinforced (Starfield, 1998). The sub-concepts of four PHC attributes (defined in Chapter 5) are therefore used in: Chapter 6 to describe the PHC characteristics in Ontario (this answers Research Question #1.a.i); and Chapter 7 to analyze the five PHC indicator measurement systems (this answers Research Question #1.b). The production characteristics of goods and services theory by Preker and Harding (Preker et al., 2007) is used in Chapter 7 to examine and to explain why certain PHC attributes in the PHC indicator measurement systems are being captured and measured while others are not.
Research Question #2, examines and analyzes the components, dimensions and mechanisms of accountability using the accountability theoretical concepts (Chapter 2, Section 2.2), and conceptually makes the connection between accountability and performance measurement. Using Ontario as a case study, Research Question #2.a explores the meaning and scope of accountability by examining: a) concepts such as accountability for what, for whom and by whom (Brinkerhoff, 2004; Dubnick & Justice, 2004; Emanuel & Emanuel, 1996), and b) dimensions of accountability.

Research Questions #2.b and #2.b.i explore the connection between accountability and performance measurement in PHC by examining what is being or not being collected, measured (mandatory vs. voluntary) and reported, and what mechanisms are used for measuring performance and reporting in Ontario. Lastly, the analysis derived from Research Questions #2.b and #2.b.i provided the basis to answer Research Question #2.b.ii.

Research Question #2.c explores what accountability mechanisms have been implemented in Ontario. This research draws on the theory of policy instruments (described in Chapter 2, Section 2.2.iv) (Doern & Phidd, 1992; Hood, 1983; Howlett & Ramesh, 1993; Howlett et al., 2009) to examine types of accountability mechanisms and resources used by the Ontario decision-makers to carry out preferred policy directions.

1.2 Accountability and Performance Measurement

Often times, the literature uses the terms “performance improvement” and “accountability” interchangeably and indiscriminately for explaining the expected benefits and purposes of performance measurement (Halachmi, 2002). Accountability is about relationships: who is answerable to whom? What must be reported and who decides it? Accountability is defined as being answerable for a specific set of objectives and being measured against performance standards. Accountability involves external scrutiny and a relatively rigid use of pre-established legal and professional standards (Dubnick & Frederickson, 2011).

Performance measurement entails measuring pre-defined key makers or indicators. Performance measurement is often used in an output-oriented system of governance (Kalininchenko et al., 2013; Shortt & Macdonald, 2002; Trommel et al., 2004; Wooder et al., 2011). The nature of the governance system and characteristics of goods and services can
influence the form performance measurement can take. For example, performance measurement may take the form of realized outputs (i.e., service volumes) that are pre-defined when there is information asymmetry, or when the services at stake are highly complex (e.g., in health care). Performance measurement may also take the form of outcomes (Brandsen, 2004; Le Grand & Bartlett, 1994) when activities or services are easy to measure. Performance measurement can contribute to transparency, organizational learning, assessments and sanctioning. These are key elements of: a) fostering greater accountability and transparency from providers; b) providing higher-quality services; c) bringing resource allocation closer to the point of delivery; d) using contracting-out; and e) enlarging the coalition of players (de Bruijn, 2002; Simonet, 2008).

In this research study, the theoretical concepts of accountability and performance measurement are explored and applied in the context of the PHC system in Ontario to examine the connection between what is measured and reported for accountability, and the four key attributes of PHC. In total, this research study has used five theoretical constructs: 1) accountability; 2) performance measurement; 3) policy instruments; 4) governance; and 5) production characteristics of goods and services to collect, analyze and interpret research data related to Research Questions #1, and #2 and their sub-questions.

1.3 Primary Health Care Sector

For most people, PHC is the first point of contact with the health system to access: a) short-term acute care interventions; b) services to manage long-term chronic conditions; and/or c) referral to specialized services that are provided elsewhere (Aggarwal & Hutchison, 2012; Hutchison, Strasberg, et al., 2011; Starfield, 1998; Watson, Broemeling, Reid, & Black, 2004). The term PHC is defined in multiple ways and sometimes is used interchangeably with the term primary care (PC). The term PC is oriented with the delivery of illness-focused, episodic medical interventions while the term PHC is broadly defined and includes a provision to provide a wide spectrum of interventions and services including health promotion, disease prevention and rehabilitation to address needs of individuals, communities and populations within the broader social context (Dinh, Stonebridge, & Theriault, 2014; Magnussen, Ehiri, & Jolly, 2004; Muldoon, Hogg, & Levitt, 2006; Rifkin & Walt, 1986;
World Health Organization, 1978). The characteristics that define the term PC are embodied in the broader definition of the term PHC. Hence, the term PHC is used throughout this thesis.

1.4 The Case of Ontario

In Ontario the PHC reform has introduced: 1) diverse PHC practice models—some incorporate inter-professional team-based care; 2) multiple funding and payment arrangements to remunerate family physicians and PHC organizations; and 3) structures, including targeted financial incentives and reporting to drive and influence the uptake of performance measurement, governance and quality-improvement (Government of Ontario, 2015; Hutchison, Levesque, Strumpf, & Coyle, 2011). Details on Ontario’s PHC reform initiatives are described in Chapter 6.

Previous studies have examined PHC reform initiatives in Ontario to understand the impact of PHC models on quality of care, and utilization (e.g., emergency department visits) and access (Dahrouge, Hogg, et al., 2012; Glazier, Zagorski, & Rayner, 2012; Howard & Randall, 2009). Other studies have examined performance measurement and accountability in relation to performance-based incentives and their impact on: a) physician behavior (Hurley, DeCicca, Li, & Buckley, 2011); b) improving access to PHC services such as preventive care and chronic disease management (Dahrouge, Devlin, et al., 2012; Rosenthal, Landon, Normand, Frank, & Epstein, 2006); c) clinical outcomes; d) quality of care; and e) quality improvement (Rosen, 2000; Ruhe, Carter, Litaker, & Strange, 2009; Smith, Mossialos, & Papanicolas, 2008). These previous research studies have shed light on whether the intended policy goals have or have not being achieved. Less is known in the literature about the connection between PHC performance measures, key attributes and accountability.

Therefore, using Ontario, this research study contributes to the literature by providing both theoretical and empirical insights about the: use of policy levers by decision makers to implement accountability in PHC; conditions influencing the parameters for what can and cannot be explicitly measured for accountability in PHC; and connection between aspects of the PHC key attributes and routine measurement and reporting. These are discussed in Chapter 9.
At a high level, the findings of this research study suggest that potentially the theory of accountability previously defined by several scholars (Brinkerhoff, 2004; Dobrow, Sullivan, & Sawka, 2008; Emanuel & Emanuel, 1996; Shortt & Macdonald, 2002) may be expanded. Also, the findings of this study reinforce the theoretical underpinnings of the production characteristics theory described by Preker and Harding (2010) (see Chapter 2 and 9). For example, the findings of this research study support that measurability for some characteristics of PHC services are not easy to measure because data are not easily accessible and acquired from multiple providers who are involved in delivering coordinated care to patients. As a result, complex measures of care are left out of the performance accountability measurement systems in PHC.

Furthermore, this research study provides a theoretical framework (see Section 2.3) that may be repurposed in future studies to examine approaches and measures of PHC accountability in other jurisdictions.

1.5 Thesis Outline

This thesis consists of nine chapters. This section provides an overview of the following last eight chapters of this thesis:

**Chapter 2: Literature Review and Theoretical Framework** synthesizes the background literature on PHC and the theoretical concepts of accountability, performance measurement, policy instruments, governance, and production characteristics. This chapter also outlines the theoretical framework (Section 2.3) used for this research study. The research study theoretical framework has guided the data query, collection and analysis for Research Questions #1 and #2, and the synthesis and critique of the research study findings.

**Chapter 3: Health Care in Canada** provides an overview of how the health care system in Canada is organized, financed and delivered. This information sets in place the essential context to support the interpretation of the research findings discussed in Chapters 6 and 8 in relation to the province of Ontario, and for critically discussing the research study findings in Chapter 9.
Chapter 4: Research Methods describes the research methods used to gather data and conduct analysis in support of this research.

Chapter 5: Primary Health Care Definitions and Key Attributes answers Research Questions #1 and #1.a. It describes and analyzes the key definitions of PHC found in the literature and classifies the key attributes of PHC.

Chapter 6: Primary Health Care in Ontario describes the PHC context and reform initiatives implemented in Ontario. Next this chapter uses the key PHC attributes (defined in Chapter 5) to analyze and characterize the PHC system in Ontario. The analysis presented in this chapter answers Research Question #1.a.i.

Chapter 7: Primary Health Care Attributes and Indicator Measurement Systems uses the key attributes of PHC (identified in Chapter 5) as an outline to analyze which constructs of the PHC attributes are or are not captured in the five PHC indicator measurement systems examined in this research study. To explain the findings about why some PHC attributes are left out from the measurement systems, the discussion in Chapter 7 draws on the theoretical framework by Preker and Harding (2000). The analysis presented in this chapter answers Research Question #1.b.

Chapter 8: Accountability and Performance Measurement answers Research Question #2 and begins by referencing the theoretical concepts of accountability and performance measurement described in Chapter 2, Section 2.2. Subsequently, the chapter draws data from PHC service agreements (i.e., contracts between the funder and family physicians, and contacts between the funder and PHC organizations) and 28 key informant interviews to unveil the meaning, scope, measures and mechanism of accountability in PHC within the context of Ontario. Next, the analysis highlights the scope of mandatory PHC data collection and reporting in Ontario for accountability purpose, and by and to whom. This chapter also provides insight on the commonalities and differences in accountability and reporting requirements across the various PHC practice models in Ontario. Section 8.6 notes that there is a weak connection between the mandatory PHC data reporting in Ontario and the key PHC attributes (classified in Chapter 5). Section 8.7 draws on the theoretical constructs of the policy instruments by Doern and Phidd (1992) and describes the three policy instruments that
are mainly used by decision makers in Ontario to reform and shift the paradigm of how PHC services are organized, delivered and remunerated.

**Chapter 9: Conclusion:** This final chapter notes the strengths and weaknesses of this research study. Then, it refers to this research study’s theoretical framework (described in Section 2.3, Chapter 2) to discuss and critically analyze key findings of this research study (noted in the main body of this thesis), and states the conclusion. Chapter 9 also highlights the empirical and theoretical contributions made by this research study, outlines areas of potential research studies for future considerations.
Chapter 2

Literature Review and Theoretical Framework

2.0 Literature Review and Theoretical Framework

2.0.1 Chapter Overview

This chapter reviews the literature on PHC and on the five theoretical concepts that have guided the inquiry and data collection for this research study. As noted previously, the theoretical concepts include: 1) accountability; 2) performance measurement; 3) policy instruments; 4) governance; and 5) production characteristics of goods and services.

Section 2.1 describes the background on PHC sector to set the context for the discussion in Chapters 5, 6, 7 and 8. Section 2.2 describes the five theoretical constructs, which are applied in Chapters 6, 7, 8 and 9 to interpret, explain and critique the research study findings. Three of the five theoretical constructs have previously been used in a Canadian study to examine approaches to accountability across health sectors (Deber, 2014). Section 2.3 outlines and describes the key elements of the theoretical framework for this research study and how the theoretical constructs have been applied in this research study. The research study’s theoretical framework is used throughout the different chapters of this thesis to guide the data analysis and discussion for Research Questions #1 and #2, and synthesis of the research study findings in Chapter 9. The theoretical framework of this research study is used to generalize key findings, inform the conclusion and offer suggestions for future research topics, in Chapter 9.

2.1 Background

There are multiple and overlapping definitions of PHC, these are reviewed in Chapter 5 to clarify and describe the concepts of the key PHC attributes. This section provides an overview of the meaning of PHC and briefly describes the historical context that may have influenced the emergence of different definitions of PHC.
As noted in Chapter 1, PHC is a term that is often referred to as the first or initial point of contact (Haggerty, 1969; White, 1967) to access services with a broad health orientation, that are provided by a variety of health professionals on a continuous basis (Tonkin, 1976). By broad health orientation, it means inclusion of services such as: “education concerning the prevailing health problems and the methods of preventing and controlling them; promotion of food supply and proper nutrition; an adequate supply of safe water and basic sanitation; maternal and child health care, including family planning; immunization against the major infectious diseases; prevention and control of locally endemic diseases; appropriate treatment of common diseases and injuries; and provision of essential drugs” (World Health Organization, 1978). This definition emphasizes that PHC addresses the needs of individuals as a whole on an ongoing basis including concerns related to their income, housing, education and environment; as well as, the main problems in the community by providing health promotion, prevention, curative (i.e., diagnosis and treatment of illness), and rehabilitative services (Health Council of Canada, 2005; World Health Organization, 1978). In contrast, the term primary care (PC) tends to focus on the provision of services to diagnose, treat, and manage health conditions, usually performed by family physicians. PC places emphasis on identifying and managing prevalent diseases (Paalman et al., 1998; Rifkin & Walt, 1986; World Bank, 1993) while PHC stresses on providing a broader spectrum of health services (World Health Organization, 1978).

The WHO (2008) points out the philosophical differences between the term PHC and PC. PC focuses on prioritizing disease control interventions for a targeted group of population while PHC focuses on addressing health needs of all members of the community, providing person-centered care for individuals, and soliciting input from and involving community members through regular engagement and continuous partnership for empowering and building community knowledge capacity (Lindsey, Shields, & Stajduhar, 1999; World Health Organization, 2008). The philosophical underpinnings of the terms PC and PHC note that PC encompasses the curative component of the broader spectrum of PHC services. Increasing the orientation of PC services toward meeting the needs of the communities and individuals can bring conventional primary medical care closer to the PHC philosophy as envisaged by the World Health Organization (WHO) at Alma-Ata in 1978 (Starfield, 1998). In this thesis, the term PHC is used exclusively because it encompasses both meanings (i.e., PC and PHC).
In 1978, at the time of defining the scope of PHC, the WHO declared, described and placed emphasis on the role of the state with respect to organizing and integrating PHC with other health care sectors, as well as making PHC centers available and accessible as close as possible to where people live and work because it constitutes the first element of continuing health care process. Furthermore, WHO underlined the importance of involving the community members to: identify health issues and solutions to address health needs of the community; build knowledge capacity and self-reliance; and empower individuals, families and the community to take on responsibility for their own health (World Health Organization, 1978).

To operationalize the Alma-Ata declaration of the PHC definition required the political will, support from other levels of the health system, and significant upfront investment. As per the World Bank in 1979, an initial significant investment, training of human resources, the lack of implementation specifics, and lack of political support from rich countries posed challenges for the WHO member countries to make PHC an integral part of a comprehensive national health system within their social, political and economic context (Banerji, 2003; Cueto, 2004; Missoni, 2009; Walsh & Warren, 1979).

In the years following the WHO conference in 1978, efforts were made by the WHO member countries to adapt and operationalize the key principles of the PHC definition. Simultaneously, multiple definitions of the term PHC emerged in the literature. As mentioned earlier, a range of PHC definitions are described and analyzed in Chapter 5. The PHC definition by Starfield (1998) is one definition that is often cited in the literature. Starfield (1998) points out four key attributes of PHC: 1) first contact; 2) ongoing care; 3) coordination; and 4) comprehensiveness. Care at first contact is the degree to which the PHC place and PHC providers serve as an entry point to the health care system each time a patient has a new health problem. Ongoing care refers to a long-term relationship between the PHC provider and the patient. Coordination of care involves recording, exchanging and retrieving relevant patient health information so that PHC providers and/or specialists can access the information to target desired goals and outcomes for patients, as well as coordinate care between multiple health providers. Comprehensiveness of care specifies that the PHC provider identifies a patient’s full range of health-related needs and puts together the required resources to meet those needs. These four key attributes are discussed in detail in Chapter 5.
Moreover, the four PHC attributes identified by Starfield (1998) (further elaborated in Chapter 5) align closely with the WHO’s characterization of PHC, envisioned in 1978. One key distinction, however, between WHO’s and Starfield’s characterization of PHC is the extent of involving community members in the planning, organization and operation of PHC. The WHO’s definition of PHC encompasses the notion of ground-level up orientation of PHC; requires maximum community and individual self-reliance and participation in the planning, organization, operation and control of PHC; and suggests leveraging local, national and other available resources (World Health Organization, 1978). In contrast, Starfield (1998) presents a narrow focus and emphasizes the importance of involving community members in the planning through local PHC clinic sites and establishing interpersonal relationship with patients and their families to provide person-focused care and empower patients to manage their own care over time (Starfield, 1998). The PHC key attributes proposed by Starfield (1998) conceptually fit with the community-oriented approach suggested by the Alma-Ata in 1978 (J. Macinko et al., 2004).

These four key attributes of PHC have been used in several studies to assess the orientation and performance of the PHC sector within a health care system and to evaluate the impact of PHC reform initiatives. The Commonwealth Fund study in 31 European countries found that countries with more comprehensive PHC service delivery had slower growth in total health care expenditures per capita (Kringos, Boerma, van der Zee, & Groenewegen, 2013). The findings from this Commonwealth Fund study confirmed the results found in other studies (Ansari, Carson, Serraglio, Barbetti, & Cicuttini, 2002; Parchman & Culler, 1994; Rosano et al., 2011). For example, hospitalization for patients with chronic conditions is reduced or avoided when PHC services are accessible, coordinated, and comprehensive (Caminal, Starfield, Sanchez, Casanova, & Morales, 2004; Kringos et al., 2013). Additional studies have found that where PHC provides first contact care or performs a role of a gatekeeper, the overall use of outpatient services (e.g., visits with specialists) and cost of health care and ambulatory care was lower (Delnoij, Van Merode, Paulus, & Groenewegen, 2000; Wang et al., 2015). Studies from the United States revealed that limited availability of PHC increased avoidable hospitalization (Ansari et al., 2002; Parchman & Culler, 1994; Rosano et al., 2011). When people do not have access to a regular PHC provider, they end up in emergency rooms more often, and they are admitted to hospitals more frequently (Freundlich, 2013). Additional
evidence in the United States and European countries suggest that strong PHC systems are associated with lower health care costs, higher patient satisfaction and better quality of care (Starfield, 1994; Starfield & Shi, 2002). These studies used the four key attributes to measure PHC performance and the contribution of PHC to the broader health system, and to signal where improvements can potentially be made in PHC and across the health system. This research study takes a similar approach in terms of using the four key attributes to examine the connection between PHC performance and accountability, and PHC key attributes in Ontario. The four key attributes are chosen for use in this thesis because they represent the broader definition of PHC.

In Ontario, the PHC practice clinics are aligned closer to the classification of the term PC than PHC. This insight is gleaned from the working knowledge of the researcher in the PHC field, from 2008 to 2013 at the Canadian Institute for Health Information. Although the researcher is aware of what is being done on the ground in Ontario, this research study uses the concepts associated with the term PHC (as noted in Chapter 1) to objectively examine and answer sub-questions of Research Questions #1 and #2.

An overview of the PHC sector in Canada, including in Ontario (where this research study is conducted) is provided in Chapter 3. Chapter 3 describes how health care in Canada is organized, delivered, and financed. This information lays the foundation to assist with the interpretation of the findings of this research study, described in Chapters 6 and 8.

2.2 Five Theoretical Constructs

As previously noted, accountability, performance measurement, policy instruments, governance, and production characteristics of goods and services are five theoretical constructs used in this research study to collect data for, and to examine, analyze and answer two central research questions in PHC sector within the province of Ontario, Canada, as noted in Section 1.0. These five theoretical constructs have also been used to synthesize and generalize the findings of this research study and to inform the conclusion in Chapter 9.

Sections 2.2.i to 2.2.vi describe the five theoretical constructs and how they have been applied to answer the research questions (noted in Section 1.0) of this study. The five theoretical
constructs also form the basis of the theoretical framework of this research study, outlined in Section 2.3.

2.2.i Accountability Definition

*Accountability* is defined as being answerable for a set of objectives including providing justification for actions or failure to comply (Brinkerhoff, 2004; Dubnick & Frederickson, 2011) through a variety of mechanisms. In this research study, the definition of accountability is explored as part of Research Question #2.a. Research Question #2.a examined the meaning and scope of accountability, and who is accountable to whom, for what and how. To analyze and describe the concept of who is accountable to whom and for what, this research study drew on the constructs of the dimensions of accountability described in Section 2.2.ii. The mechanisms of accountability described in Section 2.2.iii were studied to analyze and describe how accountability is implemented, measured and reported.

2.2.ii Accountability Dimensions

The literature classifies the *dimensions of accountability* as financial, performance, professional, and political/democratic (Brinkerhoff, 2004); it can be ex ante or ex post (Kearns, 1994; Palmer, 2000; Shortt & Macdonald, 2002). In the context of health care in Canada, dimensions of accountability may include financial accountability to the funders; clinical accountability for quality and for standards of care to professional associations, patients, health councils and regional authorities; and overall accountability to the public (Brinkerhoff, 2004; Dobrow, Sullivan, & Sawka, 2008; Emanuel & Emanuel, 1996; Shortt & Macdonald, 2002; Wooder et al., 2011).

Combing the theoretical concepts of accountability dimensions or modes as classified by Brinkerhoff (2004), and Emanuel and Emanuel (1996), this thesis uses four categories of accountability dimensions, namely: 1) financial; 2) performance; 3) professional; and 4) political to analyze who is accountable to whom and for what within Ontario’s PHC sector. The four categories of accountability dimensions are briefly described below.
Financial accountability is concerned with tracking and reporting on allocation, disbursement, and utilization of financial resources, using tools of auditing, budgeting and accounting.

Performance accountability refers to demonstrating and accounting for performance in light of agreed-upon performance targets. In other words, performance accountability concentrates on results. Performance accountability is often connected to political accountability in that the criteria for performance is tied to responsiveness to and achievement of service delivery targets that meet needs and demands of citizens. In the realm of PHC, Starfield (1998) suggests aligning the PHC performance accountability measurement with the four key PHC attributes: 1) first contact; 2) ongoing care or longitudinality; 3) coordination; and 4) comprehensiveness. These four key attributes (described in detail in Section 5.2.a) are linked to the core function of PHC, and are used in this research study to examine the connection between what is being measured for accountability in PHC and the core function of PHC.

Professional accountability in health care is described in terms of accountability of regulated health care providers to deliver and adhere to the standards of care prescribed by professional agencies. Professional service providers in health care are accountable to their patients for providing professional services according to the standards of care established by professional association(s), regulatory agencies and/or accreditation health care organization(s). As well, to maintain a license to practice, regulated service providers are expected to meet defined requirements related to standards of care and are accountable to professional associations and regulatory agencies.

Political accountability can be approached from two perspectives. One perspective applies the lens on whether the government delivers on electoral promises, fulfills public trust, aggregates and represents citizens’ interests, and responds to ongoing and emerging societal needs. This perspective is not explored in this research study. The second perspective is fundamentally concerned with accountability of professional providers to a wide range of groups, including governing board of representatives, patients, community members, and funder(s) for a specific set of objectives. The second perspective is examined in this research study.
Concepts described in Sections 2.2.i and 2.2.ii have been applied to answer Research Question # 2.a.

2.2.iii Accountability Mechanisms

The literature suggests that accountability can be operationalized using a variety of mechanisms. Shortt and Macdonald (2002), and Dubnick (2004) classify accountability mechanisms as: 1) process oriented, and 2) instruments. Process oriented mechanisms of accountability may include community involvement, self-governing assessment, provision of information, and routine audits etc. Instruments of accountability may include legislation with accountability provision(s), performance measurement, report cards/balanced score-cards, benchmarking and guidelines, quality assurance measurement systems, legal contracts or partnership agreements, financial incentives, accreditation and credentialing (e.g., licensing of professionals), complaint procedures and ethics (Dubnick & Justice, 2004; Shortt & Macdonald, 2002).

In the literature, accountability instruments are referred as ideas of the new public management (NPM) approach to reorganize the management, reporting and accounting of public sector bodies to mirror business methods used in the private sector (Dunleavy & Hood, 1994). The NPM has been associated with an increased emphasis on measuring performance and increasing competition, governance, and control; generally, it embodies ideas such as benchmarking and output measurement, performance contracts, and financial incentives (Dunleavy & Hood, 1994; Ehrler, 2012; Gruening, 2001; Stark, 2002; Simonet, 2013). Often the NPM literature suggests that instruments of accountability are used in the public governance system as a result of the underlying principal-agent relationship (Schachter, 1989; van Berkel, de Graaf, & Sirovátka, 2011). The underlying NPM assumption connotes that by measuring performance the funder can control and minimize the principal/agent differences (e.g., informational asymmetry) (Schachter, 2014). A growing literature has found potential limitations to the view of NPM (Bevan & Hood, 2006; Exworthy, 2010; Kuhlmann, 2010). The theoretical concepts of the NPM such as market competition and control were less relevant for application in this research study within the health policy realm because this study did not focus on how the principal health service funder introduced instruments to
increase cost and control performance. The concepts of NPM were not used in this research study.

Several scholars (Dunleavy & Hood, 1994; Ehrler, 2012; Kaboolian, 1998; Trommel et al., 2004) suggest that it is important to explain why instruments of accountability (this may include performance measurement) are introduced as part of the dynamics of the governance system (theoretical concepts related to governance are described below in Section 2.2.v). To support this argument, Trommel et al. (2002) and Ehrler (2012) propose that performance measurement, for example, can be introduced because of fundamental conflicts over the nature of the governance system rather than information asymmetries or mistrust between the funder and service provider. This viewpoint has been considered in this research study to understand the dynamics between the governance structure and what gets measured for accountability as part of Research Question #2.b, and #2.b.ii.

2.2.iii.a Performance Measurement

Performance measurement entails measuring pre-defined key makers or indicators. Performance measurement is often used in an output-oriented system of governance (Kalininchenko et al., 2013; Shortt & Macdonald, 2002; Trommel et al., 2004; Wooder et al., 2011). The nature of the governance system and characteristics of goods and services can influence the form performance measurement can take. For example, performance measurement may take the form of realized outputs (i.e., service volumes) that are pre-defined when there is information asymmetry, or when the services at stake are highly complex (e.g., in health care). Performance measurement may also take the form of outcomes (Brandsen, 2004; Le Grand & Bartlett, 1994) when activities or services are easy to measure. Performance measurement can contribute to transparency, organizational learning, assessments and sanctioning. These are key elements of: a) fostering greater accountability and transparency from providers; b) providing higher-quality services; c) bringing resource allocation closer to the point of delivery; d) using contracting-out; and e) enlarging the coalition of players (de Bruijn, 2002; Simonet, 2008).

Both process-oriented mechanisms and instruments of accountability (noted above in this section) are also considered in the policy science context and literature as types of tools or resources available to decision-makers in the government to govern, carry out and implement
preferred policy directions and initiatives (Doern & Phidd, 1992; Hood, 1983; Howlett, 1991; Howlett & Ramesh, 1993). Discussion on a range and nature of resources available to decision-makers for directing and implementing policies is captured below in Section 2.2.iv.

Within the scope of this research study, the theoretical concepts related to the mechanisms (i.e., process-oriented and instruments) of accountability (noted above), performance measurement (see Section 2iii.a), governance (Section 2.2.v) and policy instruments (see Section 2.2.iv) have been applied together to answer Research Questions # 2.b and #2.b.i and referenced again in Chapter 8 to analyze how accountability is operationalized, measured and reported in Ontario’s PHC sector.

2.2.iv Policy Instruments

*Policy instruments,* is a generic term used in the political science literature to refer to the myriad of techniques used by decision-makers to make public policy and to implement their public policy objectives (Howlett, 1991). Decision makers may include delegated authoritative figures in the government, policy-makers, policy sub-system actors such as health provider professional associations (listed in Chapter 4), patient advocacy groups, health providers, health service organizations, and health quality councils etc. In the policy science literature, the terms policy instruments, governing instruments and tools of governments are often used interchangeably. In this thesis, the term policy instrument is used.

There are a number of different taxonomies of policy instruments. Some policy instruments are described as a resource-based approach while others are described as a continuum approach (Howlett, 1991). Resource-based schemes include distinct categories of instruments that decision makers can consider using to solve a specific problem within the parameters of a given policy situation based on the availability and demands on resources. Theoretically, scholars of the resource-based schemes argue that the distinct categories of instruments are not substitutable. On the other hand, scholars of the continuum models argue that there are similarities between categories of instruments and instruments are technically substitutable. The key difference between the two schemes is that resource-based schemes help to explain why decision makers choose one instrument over the other while continuum models attribute the choice of instrument to political determination. Both schemes argue that instrument choice is circumscribed by existing social, political and economic circumstances.
To inform the theoretical framework for this research study, the policy instrument taxonomies by Christopher Hood (1983), and by Doern and Phidd (1992) are explored. Hood’s categorization of policy instruments is resource-based; however, Hood argues that instruments are essentially substitutable and decision-makers will choose certain instruments over others due to resource and legal constraints, political pressure, and lessons learned from the past instrument failures (Hood, 1983). According to Hood (1983), decision makers confront public problems through the use of one of four broad categories of governing resources to monitor society or to alter its behaviour. Decision makers as the policy actor can use the information in their possession (‘nodality’), their legal powers (‘authority’), their money (‘treasure’) and/or formal organizations available to them (‘organization’). The taxonomy by Hood (1983) is referred as the NATO approach. The NATO approach can be used to classify instruments that decision-makers (including the government) might use (Howlett et al., 2009). The nodality (information-based) instruments include information collection and release; advice and exhortation; advertising; and commission and inquiries. The authority-based instruments include: command and control regulation; standard setting and delegated regulation (or delegation of power in the form of self-regulation); and advisory committees and consultations. The treasure-based instruments include: grants and loans; user charges; taxes and tax expenditures; and interest group creation and funding. The organization-based instruments include: direct provision of goods and services and public enterprises; use of family, community and voluntary organizations; and government reorganization.

With respect to these four categories of governing resources, Hood (1983) argues that decision makers prefer to use nodality instruments to influence individual behaviour as this type of resource tool does not impose direct constraints on individuals and decision makers do not need to worry about resource depletion. Another possibility included in some frameworks, is to do nothing and hope the problem will solve itself without the need for government action. The use of nodality instruments rests on the assumption that individuals are naturally both willing and able to maximize their self-interest in a rational way and to coherently try to achieve collective goals (Contandriopoulos, Champagne, & Denis, 2014); often such assumptions are poorly supported by evidence (Contandriopoulos et al., 2014).
In addition, Hood (1983) argues that to closely target societal groups for action, decision makers prefer to use authority-based over organization-based instruments since it is less resource intensive. As per Contandriopoulos et al. (2014), authority- and organization-based instruments are examples of behaviour modification tools that are directed at drawing in participation from targeted individuals, whose beliefs are structured by broader social values, including those values that are being pursued by decision-makers.

The policy instrument framework by Doern and Phidd (1992) is an example of a continuum model. Doern and Phidd (1992) use a similar taxonomy to Hood (1983) but arrange and classify instruments into a continuum that spans from the least to most degree of legitimate coercion. At one extreme of the instrument continuum, Doern and Phidd (1992) classify a category of the least coercive instruments as exhortation, which means that decision makers encourage stakeholders to act in a particular way through persuasion, discussion and voluntary approaches. This may include information, education and/or symbolic gestures. Exhortation is similar to the concept of nodality.

Next on the continuum is the category expenditure. Expenditure as an instrument may also include direct provision of funds for a particular purpose, or the use of taxation (i.e., tax policy) or tax breaks for certain activities. The next category is regulation, where rules are established to encourage or penalize certain type of actions. Regulation can be directed at individuals (e.g., specifying who can practice as a health professional), at activities (e.g., coordinating care for complex patients), and at price. Justifications for regulation may include the need to protect the public, particularly when one is dealing with public goods, market failure or asymmetry of information. Regulation is intended to constrain behaviour that may be seen not in the public interest. Finally, government or decision makers can directly run an activity through public ownership. The last three categories of the instrument, namely, taxation, regulation and public ownership are examples of more coercive instruments compared to exhortation because they involve setting rules of behaviour backed up directly by sanctions to stimulate change.

Doern and Phidd (1992) assume that decision-makers can use any instruments along the continuum; however, decision-makers often prefer to use the least coercive instruments
available and then slowly move up the scale as necessary to overcome societal resistance to effective regulation.

The NATO framework by Hood (1983) and the choices of instruments based on the degree of coercion described by Doren and Phidd (1992) make similar points using slightly different language and concepts to label these instrument categories. As well, both of these policy instrument frameworks work on the assumption that decision makers prefer to initially choose passive, information-based instruments, and instrument selection is determined by political calculations and preferences of the state and societal actors. This research study has applied the theoretical concepts outlined by Doern and Phidd (1992) to examine the types of policy instruments used in Ontario to implement accountability mechanisms (described in Section 2.2.iii) and measures in PHC, and to answer Research Questions #2.c, and #2.b.

2.2.v Governance

The term governance has several distinct meanings (Rhodes, 2006). The current use does not treat governance as a synonym for government (Ehrler, 2012; Rhodes, 2006). As per Rhodes (1996) “governance signifies a change in the meaning of government, referring to a new process of governing; or a changed condition of ordered rule; or the new method by which society is governed” (pg. 652-53). Rhodes (1996) identifies six separate uses of the term governance: as the minimal state; as corporate governance; as the NPM; as good governance; as a socio-cybernetic system; and as a self-organizing network. These six uses underline that governance is a design of a relationship that outlines: a) who has power; b) who makes decisions; c) how others make their voice heard; and d) how accounts are rendered. The characteristics of a governance structure are influenced by the condition and dynamics of the relationship between the funder and service provider and the extent to which the government is or can be involved in steering (i.e., directing policy decisions) and/or rowing (i.e., delivering services and managing operations). In other words, the different forms of governance reflect the level of involvement from the government in authoritatively allocating resources, exercising control and coordination, and setting rules of behavior. Rules can be coercive or non-coercive in nature and can be implemented using accountability mechanisms (described in Section 2.2.iii) or policy instruments (described in Section 2.2.iv).
The theoretical concepts of governance are used as a backdrop to describe the role of the state in Ontario in relation to the health care arena, the relationship between the state and PHC providers and organizations; and how is accountability implemented. These concepts have been examined as part of Research Questions #1.a.i, #2.a and #2.b and are discussed in Chapters 8 and 9.

2.2.vi Production Characteristics

All health care goods and services have production characteristics that can affect how performance can be measured and managed (Deber, 2004; Jakab, Preker, Harding, & Hawkins, 2002; Preker & Harding, 2000, 2003; Preker et al., 2000; Rico & Puig-Junoy, 2002; Vining & Globerman, 1999). Production characteristics include contestability, measurability, and complexity; these have been defined as follows (Preker & Harding, 2000):

2.2.vi.a Contestability

Contestability refers to a condition of the market in which “firms can enter it freely (without any resistance from other firms) and subsequently leave without losing any investments” (Preker et al., 2000 p. 782). Highly contestable goods and services are goods and services that experience low barriers to enter and exit the market. Non-contestable goods have high barriers. Increased barriers to entry in the market can be caused by high investment, or “sunk” costs, high technical specifications, high product differentiation, copyright protection, and/or high asset specificity (which also represents a sunk cost) (Preker et al., 2000).

In the context of PHC, there are high barriers to enter the work force. PHC regulated providers are required to have technical expertise, specialized knowledge, training, registration and a license to practice and to provide services. The technical and licensing requirements for and asset specificity of health human resources to provide care and services in PHC signifies that PHC services are considered relatively low contestable goods with high barriers to enter and exit the PHC market. The nature of low contestable goods (including reputation and patients’ trust in PHC providers) in PHC can influence public policy decision-making (e.g., decision not to shut down less efficient PHC clinics), and the design of flexible contracts (e.g., voluntary participation to reform PHC and not using contracts as a means to enforce performance improvement and/or service termination). These components of the PHC
market further lower the degree of contestability and limits the options to create market competition (Preker et al., 2007). Markets work better if contestability is high. The concept of contestability has been applied in this research study to answer Research Questions #2.a and #2.b, and to analyze the nature of policy instruments used in PHC in Ontario, and to explain why sanctions may or may not be suitable to enforce accountability in PHC.

2.2.vi.b Measurability

Measurability can be defined as the precision with which: inputs; processes; outputs; and outcomes of particular goods or services can be measured (Preker et al., 2000; Preker et al., 2007). Monitoring performance is easiest when measurability is high (e.g., lab values and observation measurements). However, some areas of measurement in health care are not simple to measure or monitor (e.g., processes involved in coordinating care and retrieving information from other interdisciplinary teams and multiple health care facilities, and tacit processes and knowledge used to make clinical assessment and judgment in the aims of providing patient-focused care—these concepts are described in Section 2.1).

Measuring outcomes of good or services is a form of an accountability mechanism that allows for monitoring, managing and improving performance (Dubnick & Yang, 2011). In the PHC context, outcomes of the services rendered are challenging to measure because multiple factors affect outcome. First is the high degree of clinical information asymmetry. Second, to measure outcomes, data is required from: a) patients regarding compliance with medical directives; and b) providers about factors such as timeliness of care, adherence to standards of care, patient morbidity, barriers to treatment, treatment restrictions due to complex health needs of patients, and more. In such an environment, funders usually have less information on the performance of activity or service outcomes and are challenged to specify the measurability requirements in contracts (Pollock, Price, Viebrock, Miller, & Watt, 2007). As well, the data availability to measure health service outputs and outcomes with precision is often lacking (Canadian Institute for Health Information, 2013).

The nature of medical services rendered in the PHC setting presents potential measurability challenges. According to Preker, Harding and Travis (2000), low measurability and contestability (the latter refers to how well the market competition works) are associated with expensive, complex, and specialized forms of health care services. To address these
challenges, a strong regulatory environment and a skilled contracting mechanism are
mentioned in the literature as approaches to implement accountability. For contracts to serve
as a means to implement performance and productivity measurement, and to link performance
to pay, activities must be specified. However, increasing specificity of an activity raises
transaction costs (Poppo & Zenger, 1998; Williamson, 1985). When performance is difficult
to measure, either low-powered incentives that deliver low-performance are adopted or
measurement simply defines the performance that measures outputs but fails to measure
outcomes (i.e., cost, quality and responsiveness) (Poppo & Zenger, 1998).

The concept of measurability has been applied in this research study to answer Research
Questions #1.b, #2.b, and #2.b.i, and to analyze what key PHC characteristics are or are not
being captured in PHC indicator systems, and what is or is not being collected and measured
in Ontario’s PHC sector for accountability purpose and why not.

2.2.vi.c Complexity

Complexity refers not to how complex the particular goods and services are but to whether
the goods and services stand-alone or require coordination with other providers. For example,
laboratory tests are highly measurable, but gain much of their value by being embedded
within a system of care in which providers order tests appropriately, and are aided as required
in interpreting and acting upon results. Medical services often include a high degree of
complex tasks and conditions that are difficult to specify, monitor, measure and determine
prospective outcomes. The concept of complexity has been applied in this research study to
answer Research Questions #1.b, and #2.b, and to analyze and explain why some attributes of
PHC are not being captured in PHC indicator systems, and why some PHC measures are not
being collected and measured in Ontario.

Within the context of health care services, contestability, measurability and complexity are
three essential concepts to consider when examining what is included versus not included in
performance measurement and why.
2.3 Research Study Theoretical Framework

The theoretical framework for this research study is outlined below in Figure 2.0 and its foundation is premised on the five theoretical constructs (described in Section 2.2) and the PHC background (described in Section 2.1). These theoretical constructs have been applied before in a larger Canadian study that examined approaches of accountability in health care (Deber, 2014) and I led the sub-study that focused on PHC. The results of this study have been published (Mukhi et al., 2014).

This research study has used five theories (noted in Section 2.2 and depicted in Figure 2.0) and concepts of the four key PHC attributes to examine the: connection between PHC accountability and performance measurement; and alignment between accountability, performance measurement and PHC key attributes in Ontario.

In Figure 2.0 below, the research study’s theoretical framework outlines the variables that have been drawn out of the theoretical constructs (see Section 2.2); these variables have been used to guide the research study inquiry, and to set the basis for data collection for Research Questions #1 and #2 and their sub-questions (noted in Chapter 1).

The data collection for this research study began with the variables listed on the left side of Figure 2.0: PHC attributes; accountability for what (i.e., meaning and scope); accountability dimensions (i.e., accountability to and by whom); accountability reporting requirements; accountability mechanisms (i.e., form of processes and instruments); policy instruments; and governance structure. These variables represent concepts of the theoretical constructs discussed in Section 2.2. Each theoretical construct described in Section 2.2 guided the inquiry (for example, framing of the interview questions and identification of key terms that guided the researcher to find official documents and journal articles), collection and interpretation of this research study data to: unveil the meaning, dimensions, measures and approaches of accountability; draw the connection between accountability, performance measurement and approaches of accountability; and explain why some performance measures are explicitly tied to accountability while others are not. Essentially, the theoretical constructs were applied to answer research questions of this study (see Chapters 5 to 8) and to discuss and explain findings of this research study (in Chapter 9) (Creswell, 1998).
The chapters in this thesis are organized by research questions; each research question query was tied to key variables depicted in Figure 2.0. For example, the first variable PHC core functions is tied to Research Questions #1 and #1.a; the first variable was used to search and find relevant literature and other documents, and construct analytical tables to answer Research Question #1 and #1.a. The variables associated with PHC attributes were then applied to the Ontario context to describe the characteristics of Ontario’s PHC system (this guided the research to find content data to answer Research Question #1.a.i (see Chapter 6); and to compare and contrast the PHC indicator systems to answer Research Question #1.b (see Chapter 7, Table 7.1).

Variables related to the constructs of accountability, reporting requirements, production characteristics, policy instruments and governing assisted in describing interview questions (see Appendix B1 and B2, more details are noted in Chapter 4). For each variable noted in Figure 2.0, data were collected and analyzed. Chapter 5 describes findings about PHC characteristics and the key PHC attributes; Chapter 6 describes the characteristics of PHC system in Ontario; Chapter 7 presents findings on the extent to which PHC key attributes are included or not in five PHC indicator systems; and Chapter 8 discusses in depth the meaning, scope, dimensions, reporting requirements of accountability, and how accountability is operationalized in PHC within the Ontario context. The theoretical framework of this research study is also used in Chapter 9 to synthesize and explain the research study findings, inform the conclusion, identify future research areas, and note the new body of knowledge and theoretical contributions made from this research study. Theoretical constructs have been applied in this research study to reinforce theoretical constructs and make a theoretical contribution (see Chapter 9, Section 9.1).
Chapter 3 describes how health care is organized, delivered and provided in Canada. Chapter 3 also briefly describes the characteristics of PHC within the Canadian and Ontario context. This information lays out the necessary context to interpret the findings related to the Ontario data with respect to research sub-questions #1.a.i, #2.a, #2.b, #2.b.i, and #2.c, presented in Chapters 6 and 8.
Chapter 3

Health Care in Canada

3.0 Health Care in Canada

3.0.1 Chapter Overview

This chapter provides an overview of the governance (previously defined in Section 2.2.v) and accountability (previously defined in Section 2.2.i) structures of the health care system in Canada. This chapter begins by describing how the inter-relationship between the federal and provincial/territorial levels of the government has influenced the way in which publicly funded health care services (i.e., hospital and physician services) are organized, financed and delivered. This overview highlights that in Canada, health care is a provincial/territorial responsibility and each province has responsibility for financing insured health services for insured people. Provincial/territorial governments play a key role in setting and steering the policy direction for publicly funded health services provided in the hospitals and in the community. In the community, most often, medically necessary services that are provided by physicians (e.g., in PHC) are required to be publicly funded. Subsequently, this chapter briefly describes the characteristics of the PHC system (which is a sector of the broader health care system) in Canada and in Ontario. This information supplements the general PHC background information described in Section 2.1.

Ontario is a province within Canada and is used as a case study for this research study to explore approaches of accountability in PHC and to provide insights on how accountability is operationalized in a publicly financed system (described in Sections 3.1.c and 3.1.d) that contracts out the delivery of professional services through private providers (discussed in Sections 3.1 and 3.1.e). This chapter concludes by briefly justifying why Ontario is used as a case study to explore and examine the two central research questions (noted in Chapter 1) of this study. The information provided in this chapter sets the necessary context for interpreting the findings related to the Ontario data presented in Chapters 6 and 8, and for critically analyzing the synthesis presented in Chapter 9. Furthermore, the description provided in this chapter about the Canadian health care system structures may assist other countries—where
the organization of social programs is decentralized while the policy direction and funding allocation is centrally controlled and coordinated within a jurisdiction—to leverage empirical insights from this research study and apply lessons within their own settings.

3.1 Health Care in Canada Overview

In Canada, publicly funded medically necessary health services are: 1) organized by provincial/territorial levels (in some jurisdictions, regional agencies organize health services, see Section 3.1.c); 2) publicly financed by the provincial/territorial government (discussed in Section 3.1.d); and 3) privately delivered by health providers (see Section 3.1.e) using what the Organization for Economic Co-operation and Development (OECD) calls a public contract model (i.e., publicly financed yet almost entirely delivered by private providers) (Docteur & Oxley, 2003). This arrangement has been influenced by the Constitution Act 1867 (discussed in Section 3.1.a), other legislation (e.g., the Medical Care Act 1966, Canada Health Act 1984—discussed in Sections 3.1.c, and 3.1.b respectively), as well as the dynamics of the inter-relationship between the two levels of the government: 1) national (i.e., federal); and 2) provincial/territorial.

Canada is a federation with two constitutionally recognized levels of government: the national (federal) government, and the provinces and territories (Department of Justice Canada, 2013). Influenced by the Constitution Act 1867, Canada does not have a national health care system. Each level of the government has a different role in health care; the role of federal versus the provincial/territorial government is described below. The role of the federal government is described in Section 3.1.a, and the role of the provincial/territorial government is described in Section 3.1.c.

In Canada, the federal government is responsible for: 1) certain aspects of health and pharmaceutical regulation and safety; 2) financing and administration of health benefits and services for eligible First Nations and Inuit; and 3) public health insurance coverage for members of the Canadian armed forces, veterans, inmates in federal penitentiaries, and refugee claimants (Marchildon, 2013). In keeping with the Constitution Act 1867, the federal government has legislative power to regulate matters of national health and welfare; however, within the health care realm the federal government may play a national role if there is an
agreement from the provinces and territories. Historically, the federal government has carried a national role by giving money to the provinces and territories for specified purposes, with or without strings attached (Deber & Mah, 2014).

The provincial/territorial governments bear the principal responsibility for a broad range of social policy programs and services including the bulk of publicly financed health services, which are planned, managed, and funded by local regions but delivered by private providers (see Section 3.1.e). 70% of the health expenditures are financed through public funds (i.e., out of pocket (15%), private insurance (12%), and other (3%) (Canadian Institute for Health Information, 2017). Of the 70% of the health expenditures that are publicly financed, spending on physician services is 15.4% ($1,014 per person) (Canadian Institute for Health Information, 2017). Most of the cost for PHC services falls under the physician spending category.

3.1.a Federal Role in Health Care

The federal government has historically played an important role in establishing provincial insurance plans for hospital and physician services across Canada. In 1957, the federal government passed the Hospital Insurance and Diagnostic Services Act (HIDS) with all party approval; the establishment of this act set national standards and conditions discussed below in Section 3.1.b for hospital insurance programs and created a pathway for provinces and territories to receive federal funds to cover about half the cost of their hospital insurance programs. In 1966, the federal Medical Care Act provided similar cost sharing arrangement for hospital insurance plans for hospital and physician services across Canada. Hospital and physician services have become the main focus of the health care delivery that is provided to residents in most provinces (Deber & Mah, 2014).

In 1971, the cost sharing funding model was modified with the passage of the Federal-Provincial Fiscal Arrangements and Established Programs Financing Act (known as EPF), a third cost-sharing program that had helped the provinces to fund post-secondary education into a

This legislation grouped the federal transfers from HIDS, the Medical Care Act, plus a third cost-sharing program that had helped the provinces to fund post-secondary education into a
new transfer using a new payment model. With the introduction of EPF, the cost sharing shifted from actual spending to a population basis. This gave the provinces flexibility to deliver hospital, physician and post-secondary education programs. Under the older rules, provinces would only get cost sharing for services that were delivered in hospitals or by physicians. However, since 1977, provinces do not face the same degree of restrictions. Although provinces are required to meet conditions outlined in the 1984 Canada Health Act (CHA) (see below), they often go beyond this if necessary. For example, some provinces publicly finance non-physician services in the community (i.e., home care) and in PHC.

In 1996, the EPF was combined with the 1966 Canada Assistance Plan, another federal transfer to the provinces, which provided transfers to provinces to cover cost for certain non-universal social programs. This new transfer was renamed the Canada Health and Social Transfer (CHST). In 2004, the CHST was split into two transfers and renamed the Canada Health Transfer and the Canada Social Transfer. Although funding for health, post-secondary education and social welfare programs were combined into these transfers, federal or national conditions exist only for health insurance in the form of the 1984 CHA (details on CHA are discussed in Section 3.1.b). The CHA was mainly based on the HID S and the Medical Care Act cost-sharing legislation. Details on the national conditions for health insurance are discussed below.

3.1.b National Health Care Conditions—Canada Health Act

The CHA set out explicit terms and conditions with which the provinces and territories would have to comply in order to receive full federal transfers. There are five conditions set out by CHA; these are 1) public administration; 2) comprehensiveness; 3) universality; 4) portability; and 5) accessibility. The five conditions are briefly described below; the second, third and fifth conditions—comprehensiveness, universality and accessibility—are closely examined in this research study in connection with Research Questions #2.a and #2.b in Chapter 8.

The first condition, public administration, requires that the insurance plan in each province/territory must be administered and operated on a non-profit basis by a public authority, designated by the province. The public authority can, with conditions, designate an agency to receive payments to the provincial health care insurance plan, and/or to carry out on
its behalf responsibilities in connection with receipt or payment of accounts for insured health services. There is no requirement that the insured services be publicly administered.

The second condition, comprehensiveness, requires that the provincial/territorial plan insure all “insured health services” (defined as in-patient or outpatient medically necessary hospital services; physician services rendered by medical practitioners; and surgical dental services performed by a dentist in a hospital) are provided to “insured persons” (i.e., citizens or residents of Canada) by hospitals and doctors, and where the law of the provinces so permits, other health care practitioners. In addition, according to the CHA, insured services mean that once non-physician care shifts from hospital, these services are no longer required to be insured, although they may still be viewed as medically necessary. However, provinces are free to extend such coverage (see context on Canada Health Transfer and Canada Social Transfer, Section 3.1.a).

The third condition, universality, requires that the provincial/territorial plan must cover all insured health services for all insured persons (i.e., residents of a province) under uniform terms and conditions.

The fourth condition, portability, specifies that when insured persons are travelling or moving from one province to another, they be eligible for insured health services within Canada. This condition also specifies flow of payment by sending or receiving province based on: a) the time-period; b) elective or emergency insured health services; and c) whether services are rendered within or outside of Canada.

The fifth condition, accessibility, requires that the provincial plan provide insured health services to insured persons on uniform terms and conditions. These insured services must be “reasonably” accessible to all insured persons; direct or indirect impediments (including user charges) to insured persons for insured services are explicitly prohibited. However, user fees related to services outside of the insured services are permitted. For example, services such as accommodations and meals for those people in chronic care facilities or those people seeking care from practitioners such as naturopaths or osteopaths would not be classified as insured services. This fifth condition also requires that a provincial plan must provide reasonable compensation to practitioners for all insured health services they provide to insured persons; this is usually determined through negotiations between the province and the provincial
organization representing the medical practitioners. For example, for physician services, the negotiations in most provinces occur between the provincial ministry of health and the provincial medical association; disputes are settled through conciliation or binding arbitration. This condition also requires that the provincial plan provide reasonable payment to hospitals to cover the cost of insured health services provided to insured persons. The terms of this fifth condition, specifically relating to “the provision of making insured health services accessible to insured persons on uniform terms and conditions” is examined when analyzing the data and interpreting findings of this research study in Chapters 7, 8 and 9.

For two of the five CHA conditions (i.e., extra billing and user fees) outlined above, the CHA (1984) allows the federal government to reduce or completely withhold part or all of the transfers, if a provincial health care insurance plan is not in compliance. To support equivalent coverage of services falling under the requirements of the CHA, resources are transferred from the federal government to provinces/territories (Oates, 1999). While the CHA does serve as a means to set common parameters across jurisdictions, there is considerable variability across jurisdictions in the extent of publicly financed coverage for out-of-hospital care delivered by non-physician providers, and how services are organized, managed and delivered (see Sections 3.1.c and 3.1.d). This is because provinces are able to fund beyond the requirements set out by the CHA.

Based on the context described above, health care in Canada is highly decentralized (Marchildon, 2013). The decentralized nature of health services is attributed to: 1) the provincial and territorial responsibility for funding the delivery of medically necessary health care services; 2) the status of physicians as independent contractors; and 3) the existence of multiple organizations from regional health authorities to privately governed hospitals and primary care clinics that operate at arm’s length from the provincial government.

The next few sections describe how health care services are organized, financed, delivered, and reimbursed at the provincial and territorial level.

3.1.c Organization of Health Care Services

The provinces and territories establish strategic direction, set provincial health priorities, develop legislation and policies, and publicly fund insured health care services. In recent
years, health care planning, managing and funding for some services (largely hospital) has been organized through local regions. These regional organizations are known in most provinces as regional health authorities (RHA) with the exception in Ontario where they are known as local health integration networks (LHIN). These regional organizations can be classified as quasi-public (i.e., legally private, but heavily regulated) according to Evans (1984) and have varying responsibilities for the services in their catchment area (Deber & Mah, 2014; Marchildon, 2013). At the time of writing, all provinces using regional models have given regional organizations some responsibility for hospitals while none had given them responsibility for physician services. Provinces are directly involved in managing physicians in terms of which insured services physicians will deliver, and their remuneration (i.e., amount and method of payment). This arrangement dates back to when the Medical Care Act was established. At that time, physicians were remunerated primarily on fee for service (FFS) payment model, and given clinical autonomy and control over location and organization of their medical practice (Hutchison, Levesque, et al., 2011).

Regionalization has some elements of decentralization and centralization. For example, activities related to reimbursing physicians rests with higher levels of government (i.e., provincial ministries) and activities related to funding the province’s hospitals and some community agencies rests with regional authorities. Conversely, doctors, outpatient drugs and public health are not under the regional governance structure in Canada (at the time of writing this thesis).

Furthermore, in some provinces, regional health authorities are involved in directly delivering health services while in Ontario, regional bodies did not directly deliver health services at the time of writing this thesis. The number of regional bodies varies by province. For example, Ontario has 14 regional bodies, and Nova Scotia amalgamated their regional bodies from ten to one in 2015. In Ontario, LHINs are the intermediary agents of the Ontario MOHLTC and are regional entities responsible for planning, funding and monitoring a range of providers working in various health care sectors, including community agencies (Ontario Ministry of Health and Long Term Care, 2008). In 2016, the Ontario MOHLTC introduced and passed a new legislation—Patient First Care Act. This legislation may expand the mandate and role for LHINs to include responsibilities for planning and integrating PHC, and home and community care services with services that are provided by other sectors across the health
care continuum (Ontario Ministry of Health and Long-Term Care, 2016). Prior to the introduction of the Patients First Act, LHINs were already involved in planning for PHC services that are provided through Community Health Centers (CHCs). CHCs are one of many PHC practice models in Ontario (in Chapter 6, Ontario’s seven different PHC practice models are described). In Chapter 8 of this thesis, when answering research sub-questions #2.a and #2.b, the role and responsibilities of the LHINs with respect to PHC is discussed. At the time of writing this thesis, similar to regional bodies in other provinces, LHINs did not oversee physician services.

3.1.d Financing and Delivery of Health Services

In Canada, health care is publicly financed primarily through taxation and all insured persons have universal access to insured health services regardless of their risk factors or level of taxation. Private providers such as hospitals, physicians and regulated non-physician clinicians deliver health services.

In most Canadian provinces, including Ontario, funding flows to the hospitals and community based agencies from regional bodies while reimbursement to physicians (in hospitals and in PHC) who are not on salary is handled directly by provincial/territorial governments. Hospitals, physicians and non-physician providers are considered private providers and they are involved in delivering medically necessary health services to insured persons in the Canadian context. Within the Canadian context, the terms public and private apply to both how care is financed and how it is delivered; each of these terms can be divided into several categories (Deber, 2004; Evans, 1984). The term public can refer to different levels of government, including national, state/provincial, regional and local (Deber, 2004; Deber & Mah, 2014). The term private can include: corporate for-profit business (which has a responsibility to maximize returns to shareholders); for profit small business (which also may include health care professional practices such as physician or physiotherapist offices, a category Evans (1984) calls “not-only-for-profit”); not-for-profit (NFP) organizations (both large and small organizations, including many hospitals and community agencies); and individuals and their families (who may pay for and provide many services). Based on this description, health care in Canada including in the province of Ontario can be characterized as
publicly financed and privately delivered. The classification of the terms public and private are referred again in Chapter 6 of this thesis.

3.1.e Reimbursing Health Care Organizations and Providers

Reimbursement is a link between finance and delivery (Deber, Hollander, & Jacobs, 2008). Reimbursement deals with how resources flow from payers to providers. Within the health care structure in Canada, a variety of reimbursement models exist. Fixed or global budgets, and activity-based funding are examples of models used to reimburse provider organizations (e.g., hospitals, and PHC organizations etc.) (Deber & Mah, 2014; Marchildon, 2013). In return, the provider organizations compensate health care providers who are on salary or on wages per hour, or on other payment models.

Physicians, on the other hand, are reimbursed retrospectively (i.e., fee-for-service (FFS) method) and/or prospectively based on population served (e.g., capitation). FFS has been the dominant mode of physician payment in Canada (Naylor, 1986). CIHI reports that FFS payments represented 71% of total clinical payments in 2011-2012, with alternative payments making up the other 29% (Canadian Institute for Health Information, 2013).

Alternative payment plans (APPs) constitute a variety of payment methods. In Canada, APP may include: block funding; blended funding; stipend; capitation; sessional; hourly; salary; and incentive programs. Common types of APPs in PHC in Canada include capitation, salary, and pay-for-performance incentives (Canadian Institute for Health Information, 2012a). There is a tendency to think of APPs as a substitute for FFS. However, in practice, APPs are often used as a supplement to the FFS compensation (Canadian Institute for Health Information, 2012a). Examples include blended funding in which physicians are paid a salary or a daily stipend and bill FFS; and/or in PHC, some physicians are paid on the basis of capitation for rostering (defined as attaching patients under their care for a duration of period) patients, FFS for insured services, and incentives for a defined standard of care or service (Canadian Institute for Health Information, 2012a). Different reimbursement models have different incentive structures (Leger, 2008). For example, from an economic standpoint, literature argues that global budgets give incentive to do as little as possible as a means to ensure the budget is not exceeded; FFS gives an incentive to deliver more services to increase revenues; and capitation gives an incentive to select the lowest-cost clients (Leger, 2008).
incentives and disincentives of physician remuneration methods are discussed again in the context of PHC physician remuneration methods used in Ontario, in Chapter 6.

Relevant to this research study, details regarding the types of physician-specific remuneration methods that have been introduced in PHC within the Canadian context as part of reform are described below: FFS, capitation, blended capitation, salary and pay-for-performance.

3.1.e.i Fee-For-Service

The FFS system is known as a retrospective payment system and pays family physicians exclusively on service mix and volume. FFS offers little incentives for family physicians to consider costs when treating their patients (Leger, 2011). By rewarding volume instead of appropriate treatment and/or desired outcomes, the FFS system may not enable the delivery of PHC services to focus on ongoing and comprehensive care needs of patients over time. The principles of FFS billing are the same across the country; however, the fee schedule and billing codes are specific to each province (MD Physician Services Inc. & Canadian Medical Association, 2012).

3.1.e.ii Capitation

Capitation is often referred as a prospective population based form of payment. Family physicians are paid an upfront fixed amount (possibly risk adjusted) for services per patient they enlist as part of their roster (Leger, 2011). In the capitation system, more volume may not translate into more income but higher number of patients does (particularly if they are low users). In fact, each additional visit by a patient amounts to a cost to a provider in terms of time and effort. Therefore, there is an incentive to keep the cost per patient low, to maintain patients’ health, and to consider providing services via phone or email. The disadvantage of the capitation payment scheme is that family physicians may select to enlist patients who require little care; may opt for excessive use of specialty care; and may make it difficult for expensive or sick individuals to find care—leading to issues of equitable access to care (Leger, 2011). The risk of under-provision of care by family physicians in a capitation system is of particular concern in Canada because family physicians face little competition. Although the use of this payment mechanism may help “bend the cost curve” in the PHC sector, it may also come with unwanted consequences with respect to the quality of care provided in PHC
and excessive use of both specialty and hospital care. The empirical evidence on the effects of capitation on health care costs and quality is mixed (Rudmik, Wranik, & Rudisill-Michaelsen, 2014).

3.1.e.iii Blended Capitation

Another alternative payment method is known as the mixed payment system or blended capitation. A mixed payment system includes a prospective component (i.e., up-front capitation payment for a defined group of patients) and a retrospective component (i.e., like a FFS payment). As mixed payment method can offer some advantages such as compensating physicians for research, administrative duties, and teaching—these services have not been traditionally remunerated via FFS payments (Allard, Thomas Léger, & Rochaix, 2009). This payment model has been used in Quebec and Ontario (Canadian Institute for Health Information, 2008).

3.1.e.iv Salary

Salary is a fixed payment ‘per period of time’ remuneration method (Rudmik et al., 2014). The salary payment method is not dependent on the number of health care activities or the number of patients. This payment method creates a stable and predictable income source for family physicians. One advantage associated with the salary payment method is that it provides an incentive to reduce quantity of care and can help control cost compared to the FFS payment method. On the flip side though, there is the risk that salary may lead to under-providing appropriate care.

3.1.e.v Pay for Performance

Pay for Performance (P4P) is a form of bonus payment method aimed at targeting priority services and rewarding high-quality or a defined standard of care. P4P is used in Canada in response to quality related issues and it has been paired with many existing payment mechanisms. The downside to P4P method is that it can encourage providers to pay attention to incentivized services while potentially crowding out non-incentivized services. P4P is often designed to include process-oriented aspects of health services and not tied to patient outcomes (Leger, 2011) or public health, population health goals and prevention of
hospitalization (Ogilvie & Eggleton, 2012). Patient outcomes may be difficult to measure especially on some patients with underlying physiology and/or adherence issues.

The payment methods described in Sections 3.1.e.i to 3.1.e.v were introduced to reform approaches for reimbursing family physicians in PHC across Canada, beginning in 2000s. FFS, traditionally, has been the dominant method to reimburse individual family physicians in PHC, in Canada. Chapter 6 describes the payment methods used in Ontario’s PHC sector to reimburse family physicians. Provided below is a short description of the PHC system in Canada and the scope of PHC reform initiatives.

3.2 Primary Health Care in Canada

In Canada, PHC is often referred as PC and is the first point of contact for patients with the health care system through clinicians such as family physicians and nurses (Canadian Institute for Health Information, 2016). Family physicians and nurses provide and coordinate care to help people: a) manage their health problems in the community, and b) from getting sick in the first place (Canadian Institute for Health Information, 2016). At its core, PHC involves general medical care for common conditions and injuries (Marchildon, 2013), and coordinating care for uncommon conditions (Canadian Institute for Health Information, 2016). PHC is provided in physician offices and/or outpatient clinics.

The injection of federal dollars ($16 billion) in the early 2000s galvanized efforts to reform PHC. With the support of the federal dollars, provinces pursued three main PHC policy goals: improving access, quality of care and cost. To support these three policy goals, provinces across Canada introduced a number of policy initiatives to: 1) include interdisciplinary teams in the PHC provider pool; 2) move away from solo practices; 3) shift from FFS payment method to an APP (defined in Section 3.1.e); and 4) establish governance and accountability mechanisms (including the implementation of electronic medical records and quality improvement plans and measures) (Aggarwal & Hutchison, 2012; Hutchison, Levesque, et al., 2011).

Across the country, the implementation of PHC reform initiatives varies. While a number of reports highlight that Alberta, Quebec and Ontario have made substantial progress in improving access to multidisciplinary team-based care in PHC (Aggarwal & Hutchison, 2012;
Government of Quebec, 2009; Hutchison, Levesque, et al., 2011; Ogilvie & Eggleton, 2012), less is known about performance measurement and accountability in PHC. To gain insight on performance measurement and accountability in PHC, this research study has used Ontario as a case study to examine two central research questions (noted in Chapter 1).

With Ontario’s experience in implementing pluralistic approaches to transform PHC for over 13 million residents using a decentralized approach to organize the delivery of publicly financed PHC medically necessary services, Ontario presented a suitable environment to study approaches of accountability and performance measurement in PHC. There are 12,500 family physicians providing patient care in communities across the province of Ontario (Ontario College of Family Physicians, 2016). Chapter 6 provides a detailed description of PHC reform initiatives, how PHC is organized, financed, delivered, and remunerated; and what are the characteristics of PHC in Ontario. Chapter 7 discusses Primary Care Performance Measurement Framework for Ontario in relation to the four key PHC attributes—access, person focused care, comprehensiveness, and care coordination. Chapter 8 describes in detail the scope of PHC performance measurement and accountability in Ontario, including who is accountable to whom, for what and how.

The empirical insights gathered from studying Ontario as a case, may offer lessons for jurisdictions—where the organization of social programs is decentralized while the policy direction and funding allocation is centrally controlled and coordinated—to apply to their settings.
Chapter 4

Research Methods

4.0 Research Methods

4.0.1 Chapter Overview

This chapter provides an overview of the qualitative methods used for this research study and highlights strengths and weaknesses of qualitative research methods. In this research study, semi-structured interviews and documents have been used to collect data for answering two central research questions and sub-questions (noted in Chapter 1). In addition, this chapter describes methods used in this research study to analyze and draw interpretation from the qualitative data. Section 4.7 outlines steps that were taken to analyze, integrate and interpret the document content and the interview coded data using research questions as a framework. The method used to elicit the meaning from multiple sources of data, and to corroborate and synthesize findings is also described in this chapter.

4.1 Introduction

Qualitative research is described as a multi-method approach that uses empirical materials to study, explore and interpret a social problem in order to describe a complex and holistic picture, and its meaning within defined parameters (Creswell, 1998; Denzin, 1970; Denzin & Lincoln, 1994; Winston & Gills, 2003). Qualitative methods typically refer to a range of data collection and analysis techniques that use purposive sampling, semi-structured, open-ended interviews, documents and other sources (Choy, 2014; Dudwick et al., 2010; Kvale, 1996). These definitions underline that research problems can be explored, studied and understood by using various interconnected sources of information (Bowen, 2009; Denzin, 1970; Hall & Rist, 1999).

Consistent with these definitions of qualitative research methods, this research study has used qualitative research study design, which incorporated a purposive sample for interviewing key informants from Ontario (Stake, 1995) and multiple qualitative data sources (Miles & Huberman, 1994) to investigate the Research Questions (see Chapter 1) of this study. This
study used semi-structured open-ended questions to interview a purposive, heterogeneous sample of 32 participants (representing 26 organizations) to gather contextual information and rich knowledge about their experiences and perspectives regarding the meaning, approaches, and mechanisms of accountability in PHC within the context of Ontario. In addition, this research study gathered, reviewed and analyzed other data sources such as key documents, articles and peer review journals to clarify concepts extracted from the interview data and to corroborate findings. The data collected from multiple sources for this research study were compared and contrasted to determine and corroborate research findings and to assess trustworthiness, credibility, and confidence in the findings. This analytical technique increased the reliability and validity of the qualitative research data (Bowen, 2009; Ryan & Bernard, 2000). The data from multiple sources were also compared and contrasted to identify conflicting or rival ideas (i.e., unexplainable divergences), which were then further investigated through key informant interviews and analysis of the official documents released by the Ontario MOHLTC (funder of insured hospital and physician services) (Bowen, 2009; Miles & Huberman, 1994; Ryan & Bernard, 2000).

The researcher of this study used multiple qualitative data sources to answer Research Questions #1 and #2; this approach reflects the philosophical basis for research that represents the pragmatic worldview. According to Creswell (2009) and Patton (1990), pragmatism is a paradigm that conveys that the researcher has placed importance on focusing on the research problem and using multiple sources to draw shared meaning of the data for addressing the research problem in social, political and potentially other relevant context. Pragmatism is based on the belief that theories can be both contextual and generalizable by analyzing them for transferability to another situation.

Furthermore, the researcher of this study also applied the philosophical basis of the worldview known as post-positivism to data collection and analytical methods (Guba & Lincoln, 1994; Ryan, 2006). Post-positivist paradigm accepts that theories, background, knowledge and values of the researcher can influence what is observed. The researcher of this thesis took a post-positivist stance by using theoretical constructs (described in Chapter 2) to guide the development of the interview questionnaire and the collection of research study data (Chapter 4, Sections 4.5 - 4.7), interpret the research study data synthesis to answer research questions, construct arguments based on the evidence derived from the research study data (see Chapter
5-8), and inform the conclusion (see Chapter 9). This approach assisted the researcher to minimize the potential to influence the key informants with the researcher’s predispositions and to reduce the effect of biases (Copper, 1997). Another post-positivist stance taken by the researcher involved paying close attention to examining and drawing the meaning out of the data during the analysis and synthesis phase of the study and presenting the interview data findings at the aggregate level while preserving the context of the research study (instead of at the individual level) (Copper, 1997; Creswell, 2009; Sandelowski, Leeman, Knafl & Crandell, 2012). In addition, post the data analytical phase the researcher used the findings of this study to contribute to the theoretical knowledge base (see Chapter 9, Section 9.1), although the researcher initially did not intend to apply theory for testing or verification purpose in this study (Copper, 1997; Guba & Lincoln, 1994; Ryan, 2006).

In this research study, the researcher has strived to maintain subjectivity in her own reflections on research (through written reflexive analytical notes about the data), as well as objectivity using the philosophical underpinnings of the post-positivists worldview (described above) to collect data and using the triangulation protocol to analyze, synthesize and validate the data throughout all phases of study (Shannon-Baker, 2016; Farmer, Robinson, Elliot & Eyles, 2006; Sandelowski et al., 2012). Triangulation is a methodological approach that contributes to the validity of research results when multiple data sources and theories are employed (Denzin, 1978; Farmer et al., 2006). Triangulation is a process used in this study to explore convergence, complementarity, and dissonance (Erzerberger & Prein, 1997). Sections 4.5.b and 4.7 of this chapter describe information about the triangulation protocol that was applied in this study for analyzing, interpreting, synthesis and describing the data findings, and for ensuring interpretations were credible (Guba & Lincoln, 1994).

4.2 Strengths and Weaknesses of Qualitative Research Method

The qualitative research methods used in this research study helped to explore the views of diverse groups of people in the purposive sample by probing and guiding key informants to openly discuss issues, and unpack the different perspectives and aspects of accountability, governance, performance measurement, and the production characteristics of health services in PHC.
As noted earlier, the researcher used the theoretical concepts (described in Chapter 2) as a starting point to design the interview questionnaire to ensure the interview questions were tied to the Research Study Questions (noted in Chapter 1). The qualitative semi-structured open-ended questions gave the key informants more control over the content of the data they shared and to describe their experiences in their own words without being influenced by the researcher’s predisposition. The researcher used the research study key variables (see the research study theoretical framework described in Section 2.3) to draft the interview questions and probes to guide the conversation, and multiple data sources such as official documents, journal articles and grey literature to triangulate the data collected from key interview informants. The researcher used a protocol (described in detail in Sections 4.5.b and 4.7) to triangulate and validate the interview coded data and salient text data extracted from multiple document sources (Denzin, 1978; Sandelwoski et al., 2012). These steps ensured that the researcher remained objective and tied the inquiry guide to the purpose of this research study and theoretical constructs while being aware of her own background in PHC.

As noted above, qualitative methods typically refer to a range of data collection and analysis techniques that use purposive sampling, semi-structured, open-ended interviews, documents and other sources. In this research study (as noted above), the data were collected using key interview informants and documents (Miles & Huberman, 1994). The researcher encountered that the data analysis and interpretation phase of this qualitative research study presented some potential challenges. With the large volume of interview data, it was easy to overlook some key issues expressed by the key informants. To address this challenge, the researcher took a two-step process. First, the coded interview data and document content analysis were sorted, organized and grouped into similar categorized themes to understand sentence patterns and structure and integrate the findings while preserving the context to allow for comparison among them for addressing the research questions of interest. This sorted and grouped data was then entered into an electronic tool (Microsoft Word). This process helped the researcher identify content overlap and themes from each data source. Second, an electronic copy was printed and used for further reviewing, analyzing the coded interview and content data, identifying convergence coding, and making hand-written notes to document and reflect on the essence of the meaning of the data. Third, the hand-written notes and the themes of the interview data were verified with another researcher. This iterative approach was used to
study the overlapping versus conflicting themes, draw out the meaning out of the data, refine data interpretation, search for more evidence to corroborate findings, and increase reliability and build trustworthiness in the findings (Choy, 2014; Dudwick et al., 2010; Kvale, 1996; Farmer et al., 2006; Denzin, 1978; Sandelwoski et al., 2012; Banning, 2003).

In addition, the researcher made notes to document her own reflections and identify any potential biases in interpreting the data subjectively. For example, the researcher documented her reflections about other influencing factors other than what the key informant during the interview said that frequently they encountered challenges to generate and report indicators in PHC for accountability because the data collection systems in PHC are not standardized. While the researcher recognized from her own previous work experience that there is truth in what the key informants were saying, the researcher also reviewed documents and literature to validate the interview data, and applied the theoretical concepts of production characteristics (Preker et al., 2010) to further contextualize the interview data by explaining that the nature of the production characteristics of PHC services can also make it difficult to capture, measure and report data. The researcher found that by documenting her reflections, she was able to tap into different elements of the issue, identify complementary findings that contributed to achieving a more complete picture of study findings and generate higher level of interpretations of the data for answering the research questions (Farmer et al., 2006; Sandelowski et al., 2012). These steps were important to take in this study as the researcher served as the main instrument for data collection, analysis and interpretation (Creswell, 2009). This also ensured that the researcher was aware of potential biases and of the importance of taking an objective approach to interpreting the research study findings.

The researcher’s interpretation of the data presented as findings in Chapter 5 through Chapter 9 may be limited and influenced by the researcher’s personal work experiences and knowledge in PHC. The researcher’s potential biases were addressed in a number of ways. As noted above, the researcher made reflexive analytical notes. Also, the researcher took an iterative analytical approach to analyze the interview and document content data, code the data, document the essence of the meaning of the data, used a triangulation protocol (discussed in Sections 4.1, 4.5.b and 4.7) to document overlapping versus conflicting categories of data, and searched for additional data sources to increase confidence in the findings that are presented in this thesis. The researcher also used the research study questions
to further sort and organize findings (i.e., similar categorized data segments) from each data source, analyze and interpret the study data, and identify convergent or divergent coded themes; this further supported the researcher to triangulate and integrate the synthesis of the findings from multiple data sources. Triangulation was used because it helps to improve confidence in the research results and to overcome research bias (Murray, 1999).

Furthermore, the thesis committee members reviewed the content of this thesis at different points in the content development cycle and provided constructive feedback to the researcher. In response to the feedback, the researcher investigated new information, incorporated new thinking and content, and enhanced the final content presented in this thesis. As well, the researcher took interval breaks between review cycles to reflect on the learning that was documented through reflection and edit the content of this thesis with an objective lens. Taking interval breaks helped the researcher to consult with the thesis committee supervisors and an external reviewer, reflect deeper on drawing out the essence of the meaning of the data using theoretical concepts, further triangulate the data, confirm validity and gain confidence in the analysis that is presented in this thesis.

4.3 Ethics

The Research Ethics Board at the University of Toronto granted approval in March 2012 for this research study, including the key informant interviews. No other approvals were required to complete this research.

4.4 Purposive Sample

This research study has used a purposive sample (defined as a target group of stakeholders) to answer Research Question #2 and its sub-questions. The purposive sample for this research study was identified using an environmental scan, websites, and selection criteria.

First, an environmental scan was conducted using Internet sources between November 2011-2012 and subsequently in January 2015 and May 2017 to gather a better understanding about key stakeholders who were involved in: a) influencing, making, implementing and/or evaluating PHC policies and initiatives in Ontario at the provincial or regional levels (defined in Section 3.1.c); and b) implementing PHC policy programs and/or delivering PHC services
locally on the ground. The scan in 2015 and 2017 ensured new official documents were incorporated in this research and that the spectrum of stakeholders previously identified in 2012 were still valid.

At the outset, the environmental scan helped the researcher become familiar with the group of key stakeholders in PHC and the policy initiatives introduced in PHC since 2000 (inception of PHC reform in Ontario). In the public policy domain, stakeholders can play an important role in public policy making. The public policy-making cycle is a dynamic process, and is influenced by ideas of policy actors and a set of interrelated decisions made by various individuals and agencies within the government (Michael Howlett et al., 2009; Jenkins, 1978).

The environmental scan was conducted using Google Search. The following key words were used to identify the key documents for determining the purposive sample: PHC policy in Ontario, PHC legislation, PHC in Ontario, Ontario Action Plan, Family Health Team Association, Community Health Centers, family physicians in Ontario, Physician Services Agreement, and PHC service agreements. As a result of this search, a number of key document sources were identified and reviewed. The key documents included: Ontario PHC legislations related to quality, integration, and professional regulated act; PHC accountability and service agreements; and official documents describing PHC policy goals, objectives and initiatives. Google Search was also used to locate and review information on agencies of interest via websites. For example, the Ontario Ministry of Health and Long-Term Care (MOHLTC) website (www.health.gov.on.ca/en/) provided information on PHC related legislation(s), program and services, initiatives, news releases, speeches, and official resources such as the Action Plan 2012 and 2015 and organizational chart. The Ontario MOHLTC is a steward of the health care system in Ontario, sets the policy direction and finances insured health care services using public funds.

Several additional searches were conducted to find materials about organizations who have historically played a role in influencing ideas and interests of groups) in the policy making process. Research was conducted using specific websites (noted in brackets) on organizations such as: 1) Health Quality Ontario (HQO) who is the arms-length agency of the Ontario MOHLTC and advises on quality of PHC (www.hqontario.ca); 2) professional colleges that
regulate family physicians—the College of Physicians and Surgeons of Ontario (www.cpso.ca) and the Ontario College of Family Physicians (www.ocfp.on.ca); and 3) professional associations—the Ontario Medical Association (www.oma.org), the Association of Family Health Teams of Ontario (www.afhto.ca) and the Association of Ontario Health Centres (www.aohc.org.ca). The Ontario Medical Association represents family physicians (and other specialists) and is the bargaining agent of physicians in Ontario. The Association of Family Health Teams of Ontario is the advocate, network and resource of team-based PHC in Ontario. The Association of Ontario’s Health Centres (AOHC) is Ontario’s voice of and represents 108 community-governed PHC organizations. These websites provided an understanding of the roles played by the following policy actors: the HQO, professional colleges, and provincial associations in influencing ideas and interest of groups, informing the policy-making cycle, and steering the policy implementation process in the field and on the ground.

In addition, several independent searches were conducted to identify and review service agreements (in Ontario) between the funder and: 1) a health care provider (i.e., family physician); 2) organizations (i.e., PHC models); 3) regional agencies (i.e., LHINs who are an intermediary agent of the Ontario MOHLTC, and who fund and establish services agreements with Community Health Centers in Ontario); and 4) provincial agencies (i.e., OntarioMD and Ontario e-Health who fund e-health initiatives in PHC and who have provided subsidy for family physicians to adopt and implement electronic medical records). An overview of PHC providers, PHC organizations and LHINs is described in Chapters 6 and 8.

The review of PHC contractual agreements provided insight on the scope of publicly funded insured PHC services and its connection to PHC performance measurement and accountability in Ontario. The PHC service agreements indicated the co-existence of multiple lines of accountabilities in PHC, scope of PHC reform initiatives implemented in Ontario, the approved list of billing fee codes, and all PHC clinics were not formed into group-based interdisciplinary PHC clinics/practices (see Appendix 1A).

From the review of the key documents and websites, the researcher observed that it was important to include a diverse group of stakeholders in the purposive sample. The environmental scan review (described above) helped the researcher develop selection criteria
for recruiting a purposive sample. The selection criteria for the purposive sample included: macro-, meso- and micro-level of agencies and individuals with first-hand knowledge and experience in reforming PHC structures (e.g., remuneration methods and PHC team make-up etc.), processes (e.g., governance and business cases etc.), and outcomes (e.g., impact on the delivering PHC services to communities in urban and rural areas) in Ontario. By including a diverse group of agencies and individuals, the researcher maximized the depth and richness of the data collection to address the two central research study questions (Kuzel, 1999) and gathered and gained a wide range of perspectives and insights (Kvale, 1996; Marshall, 1996) on key concepts of the research study.

Overall, the environmental scan helped the researcher develop important details for the selection criteria (described in the above paragraph) and guided the researcher to identify potential sources for recruiting prospective key informants for the purposive sample. Based on the selection criteria noted above, a list was generated to recruit organizations and individuals who: a) had some experience with the policy making process (defined above); b) played a role in advocating for and informing PHC reform initiatives; and c) had implemented a series of PHC reform initiatives to achieve system level goals of improving quality, access, cost, and care coordination/integration. The recruitment list for the purposive sample also included organizations and individuals who: d) had signed PHC contracts (e.g., Physician Services Agreement, funding agreement, accountability agreement—each of these agreements are discussed in Chapters 7 and 8); e) were located and practiced in urban and rural areas; and f) represented different forms of governance model (i.e., physician led governance model, community-led governance, and mixed physician-community led governance). The search also provided email contact information of prospective key informants. Initially, the researcher searched for names and contact information of the executive directors of each organization because often the executive directors were noted on the official documents as the ones who were involved in negotiations and/or signing service agreements, and participating in provincial working groups. A total of 34 prospective key informant organizations were contacted via email: Accreditation Canada, Ontario College of Family Physicians, Ontario Ministry of Health, Ontario Medical Associations, Health Quality Ontario, Association of Community Health Centers, four Local Health Integration Networks, and 23 PHC practice sites (i.e., eight Family Health Teams, five Family Health Groups, five Family Health
Organizations, and five Community Health Centers). The researcher received some contact names of the PHC practice sites directly from Health Quality Ontario. In addition, the researcher also identified contact information of other PHC practice sites directly from websites that were linked to the Association of Community Health Centers, Association of Family Health Teams, and Ontario e-Health. These websites identified names of PHC practice sites who were involved in implementing PHC reform initiatives on the ground at the point of care (one of the selection criteria). When the initial contact was made with these organizations, the researcher outlined the purposive sample selection criteria (outlined above in Section 4.4) to discern and confirm that the prospective key informants met the selection criteria. The email also confirmed interest, the data and time for the interview.

4.5 Key Informant Semi-Structured Interviews

Of the 34 prospective informants contacted, 26 organizations responded and 32 individuals were interviewed via phone between 2012-2015. Most of the interviews were completed in 2012-2013. However, the researcher had to take time off from her research in 2014 because of personal loss and challenges with her own health. In late 2014, the researcher resumed her research activities, which entailed writing the analytical findings, reconfirming the research study findings were still valid with the most current release of the literature and public documents, and having the PhD committee members review and critique the thesis draft.

The key informants were contacted via email. Either an executive director or a delegated representative of an organization confirmed with the researcher names of the key informants. Key informants included those in the line of authority (e.g., executive directors, directors and/or clinical leads/clinical peer leader) as they were often involved in leading initiatives to reform PHC structures, processes, and/or outcomes (these align with the selection criteria, described in detail in Section 4.4). The 32 key informants interviewed represented a diverse group of stakeholders from provincial agencies and PHC practice sites (the description of key informants at the macro- and micro-level is noted below in this section).

To answer the two central research study questions, semi-structured, predetermined open-ended questions were used as a format and method to construct a dialogue with and collect rich descriptive data from key informants (selected based on criteria noted in Section 4.4).
The researcher conducted in-depth telephone interviews with key informants in a small group format (ranged from 2 to 4) to help delve deeper into the concepts of the research study (see the research study theoretical framework described in Section 2.3), discover a shared understanding of the perspectives provided by the interviewees, and elicit expressions and gather sufficient details (Chirban, 1996; Dicicco-Bloom & Crabtree, 2006; Johnson, 2002; McCracken, 1988).

The interview guides described in Appendix A and in Appendix B1 and B2 were used to conduct semi-structured interviews and guide a dialogue with individuals working in macro and meso level organizations. The interview questions in Appendix A were used for conducting interview with organizations at the macro level. At the macro level, the interviewees included individuals from the Ontario Medical Association, three Local Health Integration Networks, Health Quality Ontario, Association of Community Health Centers, Ontario College of Family Physicians, and Association of Family Health Teams in Ontario. Several attempts were made over the period 2012 - 2015 to contact various provincial policy leaders from four branches at the Ontario MOHLTC: 1) the Negotiations and Accountability Management; 2) the Strategic Policy and Planning; 3) the Health System Accountability and Performance; and 4) the Health System Quality and Funding. Representatives from these branches were unresponsive when the requests were made to set up an interview. For this reason, the perspectives of the Ontario MOHLTC are not included in the interview data analysis in Chapters 6 and 8. The data related to the Ontario MOHLTC were instead extracted from the official provincial documents available through the Ontario MOHLTC website and other Internet sources. Examples of official provincial documents included the Ontario Action Plans, press releases, Quality Improvement Plan Guidance, service agreements, compensation guidelines, and legislation (e.g., Excellent Care for All Act and Patient Care First Act).

Another interview questionnaire (see Appendix B1 and B2) was used to interview and guide a dialogue with organizations and individuals at the micro level. Key informants at the micro-level included family physicians and executive directors of a broad range of PHC practice sites. A majority of the PHC practice sites have a contractual agreement directly with the Ontario MOHLTC. For interviewing these sites, the interview question guide noted in Appendix B1 was used. Community Health Center (CHC), a salary-based and an interdisciplinary PHC practice site, has a contractual agreement with an intermediary funding
agent, the LHINs. To interview the CHCs, the interview question guide noted in Appendix B2 was used.

Interviews were organized with the organizations and individuals at the macro and micro levels by first making the initial contact via an electronic mail (email). A standard content for the email (see Appendix C) was developed and used to contact each prospective interviewee individually. This email included the purpose for which the prospective interviewees were being contacted, the study description, the selection criteria, and the intent for the interview. Of the 34 prospective interviewees contacted via email, 26 organizations responded and confirmed their participation for an hour-long interview by signing the Introduction and Consent Form (see Appendix D). The Introduction and Consent Form provided the prospective interviewees with more detail about the research study background and the attainment of ethics approval from the University of Toronto Research Ethic Review Board. The Introduction and Consent Form also outlined the procedures and processes for collecting data, tape-recording and transcribing the interviews, and analyzing and synthesizing the interview data into themes to ensure anonymity when findings are reported.

4.5.a Interview Guide Development Process

The researcher took a number of steps to set out an approach for developing the interview guide. The researcher initially reviewed five theoretical concepts (described in Chapter 2) as well as a number of key official documents to identify key concepts, variables and context specific terminology (e.g., contracts between physicians and the Ontario MOHLTC are referred as Physician Services Agreement) for inclusion in the interview questions. The theoretical concepts reviewed were: accountability, performance measurement, governance, production characteristics and policy instruments described in Chapter 2. The key documents reviewed were: 1) contractual PHC service and funding agreements, PHC related legislation (e.g., the Local Health Network Integration Act (2007) and the Excellent Care for All Act (2010)), Ontario Action Plans and provincial commissioned papers of PHC assessment and evaluation. The review of these documents and the literature, as a starting point, helped the researcher become familiar with the terms or nomenclature used for PHC service agreement and gain information about Ontario’s PHC policy goals and initiatives; and understand what variables may be important to explicitly describe in the line of inquiry within the PHC
context. Based on the review of the literature on theoretical constructs and official documents, semi-structured, open-ended interview questions (see Appendix A, B1 and B2) were developed to elicit the perspectives of key interview informants about the role(s) and relationships of, and governance and funding arrangements between the funder and those involved in the planning, organization, and delivery of PHC services (i.e., PHC providers, administrators and organizations).

For example, the following main theoretical concepts of accountability: what is meant by accountability, who is accountable to whom, how is accountability given, how is justification sought were commonly captured in the literature related to accountability (see Chapter 2). These concepts provided a comprehensive approach for the researcher to examine concepts and dimensions accountability in PHC. These concepts were used by the researcher in this study to frame the interview questions related to accountability. In the actual description of the interview questions, the researcher linked and referenced the concepts of accountability by using the terminology that the key informants would be familiar with, for example, Physician Services Agreement (noted in Section 4.4, is an example of an accountability mechanism), Ontario MOHLTC (the funder), and scope of practice (to explore accountability for what) etc. The interview probing questions listed in Appendix B1 and B2 under the sections “Contract Negotiations” and “Organizational Factors” examined concepts of accountability such as what (are the terms of the contract, what is accountability for); who (i.e., who was involved in negotiations, who is accountable for what, who is held accountable for the terms of the agreement, who reports, and who is accountability for the quality of care service delivered); and how (i.e., how are accounts given, how often is compliance measured, and what requirements appear in conflict). These probing questions directly link to the theoretical concepts of accountability. In addition, the overarching interview questions listed in Appendix B1 and B2 were broadly defined to examine concepts related to implementation approaches and dimension of accountability, accountability for what, to whom and how (Miles & Huberman, 1994). These concepts guided the data collection for answering Research Questions #2.a, #2.b, #2.b.i, and #2.c.

Because accountability mechanisms overlap with the concepts of policy instruments (see Chapter 2), the researcher designed and constructed the introductory interview questions and interview questions listed under “Organizational factors” listed in Appendix B1 and B2 to
inquire about how are publicly funded services implemented, which types of resources or policy instruments were used to reform PHC, what are the remuneration arrangements for delivering PHC services, what is the nature of the relationship between the funder and service providers, and which legal entity oversees the quality of care delivered to patients. These questions are tied to the theoretical concepts of policy instruments and governance (see Chapter 2) and helped the researcher understand which expenditure, legal and exhortation policy instruments were used and what is the nature of governance between service providers, funders and regulatory agencies.

In addition, to examine what is captured for reporting accountability data, the researcher applied the theoretical concepts of accountability mechanisms, performance measurement and production characteristics (described in Chapter 2) such as contestability, measurability and complexity to inform the design and formation of interview questions listed in Appendix B1 and B2 under the sections “Measurability” and “Complexity”. For example, the interview questions examined what type of indicators are captured for performance or for other purpose (this line of inquiry was examining what is being measured), and what is important to measure but is not currently being measured (this line of inquiry was examining what is not being measured and why not). These questions helped the researcher gather details of what is required for accountability, what can be measured, what cannot be measured but is important, and what are the characteristics of performance measurement (e.g., indicators are count-based, outcomes oriented or process oriented—these concepts represent the theoretical concepts of performance measurement, see Chapter 2). The data collected through these questions helped the researcher examine the concept of contestability (described in Chapter 2) such as how is measurability related to the technical knowledge applied in clinical practice when delivering care, and what aspects of technical knowledge are captured versus not, and why not. The list of interview questions under the sub-heading “Complexity in Appendix B1 and B2 examined the ease or challenges of linking and measuring clinical data when care is delivered by multiple providers located across the care continuum, and why—this is a key concept of the production characteristic “complexity” (see Chapter 2). These concepts were explored through the interviews to elicit information about the characteristics of performance measurement and reporting data for accountability purpose in Ontario’s PHC system; these questions collected data for answering Research Questions # 2.b and #2.b.ii.
The interview questions (outlined in Appendix A, B1 and B2) were pre-tested by two thesis committee supervisors (Dr. Deber and Dr. Barnsley). The interview questionnaires were not further revised during the data collection process; however, additional probes were added to incorporate the learning the researcher captured through the initial set of interviews with three key informants. The interview questions were comprehensive and assisted the researcher to explore concepts such as the meaning of accountability in PHC, approaches used to implement accountability, PHC performance measures and production characteristics, PHC accountability dimensions, and the role of policy actors in developing, implementing and evaluating PHC policy initiatives. These concepts explored through the interview questionnaire(s) are tied to the two central research study questions (noted in Chapter 1). The data collected through the key informant interviews were used to supplement the literature review and gain further information and insights about the concepts listed above.

4.5.b Interview Data Analysis

The researcher used prior knowledge gathered from the review of the literature and official policy documents in advance of holding interviews to guide the development of the interview questionnaire, to gain familiarity with the knowledge base related to PHC initiatives in Ontario, and to help relate to and analyze the interview data (Borkan, 1999; Burnard, 1991; Miles & Huberman, 1994; Thomas, 2006). The researcher developed a procedure to analyze the qualitative data by using the research study questions. After each interview, the researcher reviewed the interview data numerous times, highlighted the relevant chunk of text, documented observations, created preliminary categories of themes, and kept notes documenting preliminary observations derived from the interview data, literature and official documents (Miles & Huberman, 1994; Farmer et al., 2006). This helped the researcher compare and contrast different data sources, establish credibility, corroborate preliminary observations, and address rival ideas (i.e., unexplainable divergences noted using different data sources) that were captured during separate key informant interviews (Miles & Huberman, 1994). One example of rivalry noted during the interview data collection phase included the variation in how the key interview informants described the local governance structure at the interdisciplinary PHC practice model sites. The researcher noted the variation and initiated steps to verify the accuracy of the description with the key interview informants (at the time of the interview) as well as review (post-interview) the official documents.
released by the Ontario MOHLTC to ensure that the data that were collected and analyzed were accurate and trustworthy. Through this validation process, the researcher confirmed that differences in the governance arrangements exist across different PHC practice models (i.e., Family Health Teams) because the MOHLTC has given the PHC practice sites the permission, flexibility, and option to establish the make-up of the governance structure in a slightly different ways to represent the local governance characteristics of the PHC organization, values of the physician leaders and administration staff, elements of reimbursement scheme and openness to involve local community members (see Chapter 6) (Ontario Ministry of Health and Long-Term Care, 2004). This helped the researcher address the rival descriptions gathered from separate interviews, gain confidence in the interview data, triangulate and validate key observations and research findings (described in Section 4.1 and explained below) directly by using a methodological approach that drew information from multiple data sources (for example, in this case the researcher used key informant interview data, key informants and official documents released by the funder), and gather insights about how to explain the phenomena of governance structure at the local level using narrative text in Chapter 6 (Denzin, 1978; Farmer et al., 2006; Erzerberger & Prein, 1997).

Once all the interview data were analyzed, the researcher then used Research Questions #1 and #2 and the associated sub-questions as the basis to outline the structure of the data table. The research questions provided a frame and guided the analysis and directed an iterative review of the raw interview data in detail to derive themes and categories, which helped to succinctly condense extensive and varied raw text data. The iterative review of the interview text data helped the researcher: a) become familiar with the transcribed interview data content; b) initiate data analysis; c) document observations; and d) code emerging thematic patterns. The documentation made from this step was then compared to the hand-written notes that the researcher had initially documented during and after the interview calls. The iterative review of the interview transcripts describing the narrative data also helped the researcher to immerse deeply into the text data, reflect on the meaning embedded in the narrative data and identify abstract concepts for coding (Farmer et al., 2006). Two people independently coded the interview data for the first 12 interviews. The two people included: 1) the primary researcher, and 2) an independent researcher (i.e., one member of the thesis committee). There was strong agreement between the primary and the independent
researchers in coding the interview data in most cases; however, in some cases, the data codes were modified to roll-up concepts into broader themes (Miles & Huberman, 1994; Farmer et al., 2006). The primary researcher then coded the rest of the interview data.

Simultaneously, the researcher made additional notes and began to record themes and issues noted during the analysis of the raw interview text data. The initial set of text codes entailed blocking large sections of the interview text. Subsequently, the researcher undertook another review of the interview transcripts and further refined the themes into broader categories (i.e., collapsing common concepts), removed overlapping concepts and identified contrasting concepts to produce a final list of text codes (see Appendix E). The concepts related to the final list of codes were defined using the terminology expressed by study participants. The final list of codes was further reviewed by the researcher to analyze, refine and establish clear links between the research study questions (noted in Chapter 1) and the thematic findings that were derived from the analysis of the interview raw data (Miles & Huberman, 1994). The development and review of the higher-order categories was discussed, verified and validated with the other independent researcher, this step confirmed the internal validity of the thematic findings of the raw text data (Miles & Huberman, 1994; Ryan & Bernard, 2000).

4.6 Document Search Criteria and Analysis

As an initial step, a list of search criteria (described in Section 4.6.a) was established to guide and inform the search strategy for finding relevant documents electronically.

4.6.a Search Criteria

The document search criteria were organized into three categories to find information for the two research study questions. The first category included the term accountability and primary health care. In this category, a combination and variation of terms were used to find information electronically. Examples of variations included terms like: “accountability in primary health care”, “accountability in primary care”, “PHC models and accountability”, “clinical accountability”, “dimensions of accountability in PHC”, “mechanisms of accountability in PHC”, “accountability and quality of care”, “accountability and quality improvement”, and “accountability”, “accountability and governance”, and “PHC policy”.

The second category included the term “PHC system performance and management”.

Electronic searches were conducted using a variation of terms like: “PHC system performance”, “PHC measurement system”, “performance measurement”, “requirements to measure PHC system”, “instruments for measuring PHC”, “PHC performance measurement and accountability”, “PHC measurement tools”, “PHC system management”, “framework for measuring PHC”, “evaluating PHC system”, “PHC system reporting”, “performance measurement theories”, and “new public management”. The third category included the term “PHC” and “PC” to identify definitions of PHC in the literature. A variety of terms like “attributes of PHC”, “definitions of PHC and PC”, “implementation of PHC”, “what is PHC”, and “PHC/PC characteristics” were used to search for information. A variety of search engines such as Google Scholar, ProQuest, and JSTOR were used to find relevant journal articles, and historical and background documents.

4.6.b. Document Analysis

Using the key search words noted in Section 4.6.a, several documents were identified and examined to gain understanding of PHC reform initiatives, evaluations, and empirical knowledge. The following forms of documents were reviewed: agendas, meeting minutes, manuals, background papers, books, journals, press releases, program proposals, institutional reports, survey data, peer review journal articles, commissioned reports, and government released official documents.

To guide document analysis for Research Questions #1, #1.a., #1.b and #2, the researcher first became familiar with the PHC background, definitions, policy initiatives, measurement tools and issues faced in the field. Subsequently, the researcher developed a strategy to structure content analysis using a table matrix. For Research Questions #1 and #1.a, the researcher thoroughly examined multiple definitions of PHC (described in Chapter 5) by reading a variety of documents published by the WHO (1978, 2000, 2008), Starfield (1992, 1998, 2000, 2005), World Health Assembly, World Bank, Institute of Medicine (1982, 1996), Kirby (2002), Romanow (2002), Ontario Health Services Restructuring Commission (1996), and Canadian Health Service Research. The initial review of the documents related to the PHC definitions helped the researcher identify relevant passages to further analyze and identify common themes across the various definitions of PHC (see Table 5.1 in Chapter 5). By contrasting and comparing the key elements listed in the PHC definitions (described in
Chapter 5), the researcher identified the main elements that defined the scope, core function and key attributes of PHC.

To answer Research Question #1.a.i, the researcher reviewed and analyzed data from a variety of PHC service agreements, namely Physicians Service Agreement, Multi-Sector Service Accountability Agreements (MSSAA), and PHC Funding Agreement. The researcher then independently coded the data using the constructs of the four key PHC attributes identified when answering Research Question #1.a and placed it in a Table format (See Table 6.1 in Chapter 6). The data captured in Table 6.1 were used to analyze key findings. In addition, Ontario based documents and journal articles were reviewed, examined and analyzed into text codes to identify themes. The text analysis then was used: a) to get a better sense about how the PHC system in Ontario is organized, delivered and funded; b) to synthesize and describe an overview of the PHC system in Ontario (see Chapter 6); and c) to characterize Ontario’s PHC system (described in Chapter 6) in relation to the four key attributes of PHC.

To answer research questions #1.b, several documents were identified using the search criteria outlined in Section 4.6.a and were reviewed to gather an understanding about the existing and common types of PHC indicator systems in the literature. The researcher selected for further analysis five types of the PHC indicator measurement systems found in the literature; these PHC indicator measurement systems were published by the following authors: Starfield (1998), Safran (1998), Flocke (1997), CIHI (2005, 2012), and HQO (2014). The selection of the PHC indicator measurement systems was based the following criteria: indicator system designed to assess the orientation of PHC, previously tested and/or used at the local clinic level, developed by scholars or reputable agencies within and/or outside of Canada, linked indicator domains to the function of PHC. The five PHC indicator measurement systems analyzed in this research study are described in Chapter 7. The researcher closely examined the survey questions/items and the domains of the five PHC indicator systems to conceptually analyze the extent to which the constructs of the survey questions and/or indicators align with the concepts of the four key PHC attributes. This conceptualization directed the researcher to develop the outline of the data table (see Table 7.1, in Chapter 7) to map the concepts of the four key PHC attributes that are included or not included in the five PHC indicator systems. Once the concepts were mapped, the data in
Table 7.1 were further analyzed to identify similar and dissimilar concepts captured across the five PHC indicator measurement systems.

To answer Research Question #2, literature describing the theoretical concepts of accountability, performance measurement, governance, production characteristics, and policy instruments were thoroughly reviewed and examined several times to synthesize and describe variables that were important to explore in this research study (see the research study theoretical framework in Section 2.3 of Chapter 2). The theoretical concepts of accountability, performance measurement, governance, production characteristics and policy instruments are described in Chapter 2 and referenced in Chapters 6, 7 and 8 to discuss and explain the findings. In addition, these theoretical concepts were used to develop the theoretical framework of this research study (see Section 2.3 in Chapter 2).

4.7 Integrating Data Analysis, Interpretation, and Synthesis

A number of techniques (described in Section 4.1) were used to integrate the interview and document data analysis, draw interpretation and corroborate findings. The techniques involved first sorting findings from each data source into similar categories or themes to understand sentence patterns and structure and integrate the findings while preserving the context to allow for comparison among them for addressing the research questions of interest (Sandelowski et al., 2012; Farmer et al., 2006). Second, the researcher further sorted overlapping versus conflicting content areas, and then compared findings from interview coded data and salient document content segments to further examine convergence of the essence of the meaning of the data from different sources, prominence of the themes that were present in the data sources, and writing narratives (Creswell (2006) calls this memo writing and Sandelowski et al., 2012 call it reflexive analytical notes) to integrate and synthesize data findings (while preserving the context) into paragraphs under each research question. To assist with the narrative writing, the researcher created data tables; each column of the data table header had the research study question listed to organize the flow of the analysis narrated by the researcher in Microsoft Word document. Next, the relevant quotes and text-coded themes from the interview data (previously analyzed electronically and on a hard paper copy (~ 300 pages of text)—previously discussed in Sections 4.5.b and 4.6.b) as well as the text coded data themes from the documents were imported into the table columns to assist the
researcher to explicitly analyze and draw deeper meaning or the essence of the meaning of the data of overlapping coded data themes, to further establish and roll-up the convergence coded data themes, to initiate deeper application of the theoretical concepts to explain the “why” behind what the data were signaling, and to articulate the meaning of the interpretation derived from comparing the findings with the information gleaned from the application of the theories (Lincoln & Guba, 1985; Creswell, 2006; Miles & Huberman, 1994). The research study data were reviewed multiple times iteratively to further draw the meaning out of the data and synthesize research findings, and create an outline of the structure for describing findings in narrative text (see Chapters 6 and 8).

In the narrative text, the researcher started to interconnect themes into a story to describe and articulate the research study findings while preserving the context (Farmer et al., 2006; Creswell, 2006; Sandelowski et al., 2012). The procedure described in this paragraph highlights the approach the researcher used to analyze, interpret, synthesize and triangulate the data. The data tables used by the researcher helped her to organize her thoughts, gain clarity about how she can write about study findings in response to the research questions. Multiple data sources, synthesis from Research Question #1, and #1.a, and theoretical concepts were interconnected for use to answer Research Questions #2.a, #2.b, #2.b.i, and #2.b.ii. The strategy of using and interconnecting multiple data sources and theories aligns with the philosophical assumptions of the pragmatic paradigm used by the researcher of this study (see Section 4.1) (Creswell, 2009; Patton, 1990).

The research questions were also used by the researcher to help her outline the chapters of this thesis, initiate writing the findings in the report (i.e., the thesis), organize her flow of thoughts, and transfer narrated text from the data tables into paragraphs from one Word document (this document contained the data tables discussed above) into another Word document (this document contained the thesis report). This step helped the researcher to review her description of the data findings, further refine her thinking about how she was going to rewrite the text, synthesize the interpretation of findings, and further corroborate findings. The researcher corroborated findings by further searching, pulling, sorting and inserting relevant evidence from the two data sources (i.e., interview data and documents such service agreements, governance document, and other official documents released by the MOHLTC) into relevant sections of thesis (in Word). This exercise also prompted the
researcher to refine her thinking about the best way to apply the theoretical concepts to explain the “why” behind what the research findings were signaling and to articulate the meaning of the interpretation derived from comparing the findings with the information gleaned from the application of the theories (Lincoln & Guba, 1985; Creswell, 2006; Miles & Huberman, 1994). The latter description of the process speaks about how the researcher applied the philosophical basis of the post-positivists paradigm in analyzing the research study findings and constructing the arguments that are presented in Chapters 6-9 (Guba & Lincoln, 1994; Ryan, 2006). Moreover, in Chapter 9, the research study findings were further synthesized and discussed using the five theoretical constructs (described as part of this research study’s theoretical framework, see Section 2.2.i to 2.2.vi, and Section 2.3). Using the procedure described above in this section (Section 4.7), the researcher iteratively reviewed, compared and synthesized key findings noted in Chapters 5, 6, 7 and 8, reflected on the theoretical constructs to refine and interconnect the data interpretation, and synthesized the salient findings in narrative format in Chapter 9. In addition, the researcher drew and integrated evidence from the literature to critically analyze and support the claims from this research study findings to convey key lessons that may be applied in different settings potentially by a variety of audiences and to inform conclusion.
Chapter 5
Primary Health Care Definitions and Attributes

5.0 Primary Health Care Definitions and Attributes

5.0.1 Chapter Overview

This chapter draws on the literature to describe the common definitions and characteristics of PHC. This chapter begins by defining the general concept of PHC and articulates the meaning of the terms “PC” and “PHC”. In the literature, multiple definitions of the term PHC exist. Nine PHC definitions are described in Table 5.1 (in ascending order, by year) and discussed in Section 5.1 to answer Research Question #1. The analysis presented in Section 5.1 highlights that the term PC places emphasis on medical intervention to fight disease and is a component of the broader definition of the term PHC. The World Health Organization (WHO) (1978) and Starfield (1998) define the core function, elements and key attributes of PHC. Section 5.2 describes the four key attributes and its main constructs to answer the research sub-question #1.a. The main constructs noted in Section 5.2 indicate concepts that can be used to measure the four key PHC attributes: 1) access; 2) longitudinality; 3) comprehensiveness; and 4) coordination of care. This chapter concludes by drawing the connection between Chapters 5, 6 and 7. In Chapter 6 the four key PHC attributes and the associated sub-constructs are used to characterize the PHC system in Ontario and in Chapter 7 to determine which PHC attributes are or are not captured in PHC indicator measurement system.

5.1 Primary Health Care

PHC is a central component of a health care system and it is the entry point for patients and a key determinant of the patient’s journey along the continuum of care. PHC is, for most people, the first point of contact with the health care system, usually through a family physician. It is where short-term health issues are resolved, where the majority of chronic health conditions are managed, where health promotion and education efforts are undertaken, and where patients in need for more specialized services are connected with care (Mukhi, Barnsley, & Deber, 2014).
PHC is defined in multiple ways (Aggarwal & Hutchison, 2012; Muldoon et al., 2006; Palmer, 2000) and often the terms “PHC” and “PC” are used interchangeably in the literature. The key definitions of the term “PHC” and “PC” are described in Table 5.1 and discussed below.

Table 5.1 Key Definitions of Primary Health Care

<table>
<thead>
<tr>
<th>Defined by and Year</th>
<th>Definitions of Primary Health Care</th>
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<tr>
<td>WHO 1978</td>
<td>Comprehensive PHC</td>
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PHC is essential health care based on scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part of the country’s health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of continuing health care process.

**Scope of service**

Promotive, preventive, curative, rehabilitative and emergency care appropriate to meet the main health problem in the community, with special attention to vulnerable groups, and be responsive to the needs and capacities of the people.

**Appropriate technology that people can afford and use**

Includes: supply of low-cost, good quality essential drugs, vaccines, biological and functionally efficient and PHC oriented health care facilities (i.e., health centres and hospitals).

**Referral system**

PHC serves as a link in the health system chain by liaising and coordinating arrangement for specialized care.

*Source: (World Health Organization, 1978)*
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<th>Defined by and Year</th>
<th>Definitions of Primary Health Care</th>
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<td>World Health Assembly UNICEF 1982</td>
<td><strong>Selective PHC</strong>&lt;br&gt; Selective PHC was introduced as a package of low cost technical interventions to tackle the main disease problems of poor countries. The interventions suggested through this model were easy to monitor and evaluate, had clear targets and were measureable. Funding appeared easier to obtain because of indicators of success and reporting could be produced rapidly.&lt;br&gt;&lt;br&gt;<em>Sources: (Newell, 1988; Rifkin &amp; Walt, 1986; Walsh &amp; Warren, 1979).</em></td>
</tr>
<tr>
<td>Community-Oriented Primary Care (COPC) Defined in 1982 Conference Institute of Medicine</td>
<td><strong>COPC</strong>&lt;br&gt;A systematic approach to health care based upon the principles derived from epidemiology, primary care, preventive medicine, and health promotion.&lt;br&gt;&lt;br&gt;<strong>Operational definition</strong>&lt;br&gt;A primary care practice providing accessible, comprehensive, coordinated, continuous-over-time and accountable health care services.&lt;br&gt;&lt;br&gt;A defined community for whose health the practice has assumed responsibility. In this context, community refers to geographic or social communities; groups that form within the workplace church or schools; or persons enrolled in a common health plan. Specifically, excluded are communities consisting of the active patients in a practice.&lt;br&gt;&lt;br&gt;A process includes the following four steps:&lt;br&gt;1) Defining and characterizing the community,&lt;br&gt;2) Describing community health problems,&lt;br&gt;3) Modifying the health care program to address high-priority health needs,&lt;br&gt;4) Monitoring the effectiveness of program modifications.&lt;br&gt;&lt;br&gt;<em>Sources: (Institute of Medicine, 1984; Longlett, Kruse, &amp; Wesley, 1980)</em></td>
</tr>
<tr>
<td>Institute of Medicine (IOM) 1996</td>
<td><strong>PC</strong>&lt;br&gt;Primary care is the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients and practicing in the context of family and the community.&lt;br&gt;&lt;br&gt;<em>Source: (Institute of Medicine et al., 1996)</em></td>
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<td>Defined by and Year</td>
<td>Definitions of Primary Health Care</td>
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<tr>
<td>Starfield 1998</td>
<td><strong>PC</strong></td>
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<td></td>
<td>Primary care is that level of a health service system that provides entry into the system for all new needs and problems, provides person-focused (not disease oriented) care over time, provides care for all but very uncommon or unusual conditions, and coordinates or integrates care provided elsewhere by others. It thus is defined as a set of functions that, in combination, are unique to primary care. PC also shares characteristics with other levels of health systems: accountability for access; quality and costs; attention to prevention, therapy and rehabilitation; and teamwork. PC is not a set of unique clinical tasks or activities; virtually all types of clinical activities (diagnosis, prevention, screening and various strategies for clinical management) are characteristics of all levels of care. Rather, PC is an approach that forms the basis for and determines the work of all other levels of health system. PC addresses the most common problems in the community by providing preventive, curative and rehabilitative services to maximize health and wellbeing. It integrates care when there is more than one health problem and deals with the context in which illness exists and influences the responses of people to their health problems. It is care that organizes and rationalizes the deployment of all resources, basic as well as specialized, directed at promoting, maintaining and improving health.</td>
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<tr>
<td></td>
<td>Sources: (Starfield, 1992; B Starfield, 1998)</td>
</tr>
<tr>
<td>Ontario Health Services Restructuring Commission, Primary Health Care Strategy (OHSRC) 1999</td>
<td><strong>PHC</strong></td>
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<td>The first level of care and usually the first point of contact that people have with the health system. PHC supports individuals and families to make the best decisions for their health. It includes advice on health promotion and disease prevention, health assessments, diagnosis, and treatment of episodic and chronic conditions and supportive rehabilitative care. Services are coordinated, accessible to all consumers and are provided by health care professionals who have the right skills to meet the needs of individuals and the communities being served. These professionals work in partnership with consumers and facilitate their use of other health-related services when needed.</td>
</tr>
<tr>
<td></td>
<td>Sources: (Health Services Restructuring Commission, 1999; Ontario Health Services Restructuring Commission, 2000)</td>
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<tr>
<td>Romanow (2002)</td>
<td><strong>PHC</strong></td>
</tr>
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<td>Primary health care is made up of the following diverse and complex components:</td>
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<td>Defined by and Year</td>
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| Commission on the Future of Health Care in Canada | • It combines high-quality medical, nursing and other health care services with disease prevention and health education programs;  
• Services are provided not only to individuals, but also to communities as a whole, including public health programs that deal with epidemics, improve water or air quality, or health promotion programs designed to reduce risks related to tobacco, alcohol and substance abuse;  
• Service are organized so that they address the needs and characteristics of the population that is served—either a group of people living in a defined location (territorial approach) or a group of people who belong to a particular social or cultural group (population approach);  
• Teamwork and interdisciplinary collaboration are expected from health care providers either working in PHC organizations or participating in networks of providers;  
• Services are available 24 hours a day, 7 days a week;  
• Decision-making is decentralized to community-based organizations to ensure that services are adapted to the needs and characteristics of the population served and that communities can be mobilized around health objectives that directly affect their community.  

The overall aim of PHC is to significantly increase the importance of the first line of contact and those deliver these first contact services. In effect, PHC is the central focus and main function of the health care system (WHO, 1978). There are a number of benefits of PHC:  
• More coordinated care  
• Better quality of care  
• Better use of resources  

*Source: (Commission on the Future of Health Care in Canada, 2002)* |
| Canadian Health Services Research Foundation (CHSRF) (2003) | PHC  
PHC is defined as a set of universally accessible first-level services that promote health, prevent disease, and provide diagnostic, curative, rehabilitative, supportive and palliative services.  

*Source: (Lamarche et al., 2003)* |
| Health Canada (2007) | PHC  
PHC refers to an approach to health and a spectrum of services beyond the traditional health care system. It includes all services that play a part in health, such as income, housing, education, and environment. PC is an element within |
**Defined by and Year** | **Definitions of Primary Health Care**
---|---
| PHC that focuses on health care services, including health promotion, illness and injury prevention, and the diagnosis and treatment of illness and injury.  
*Source: (Health Canada, 2007)*
| CIHR (2016) | Community Based Primary Health Care (CBPHC)  
CBPHC covers the broad range of primary prevention (including public health) and primary care services within the community, including health promotion and disease prevention; the diagnosis, treatment and management of chronic and episodic illness; rehabilitation support and end-of-life care. CBPHC involves the coordination and provision of integrated care provided by a range of health care providers, including nurses, social workers, pharmacists, dieticians, public health practitioners, physicians and others in a range of community settings including people’s homes, healthcare clinics, physicians’ offices, public health units, hospices and workplaces. It is delivered in a way that is patient and population-centered and responsive to economic, cultural and social differences.  
*Source: (Canadian Institutes of Health Research, 2016)*

The meaning of the term “PC” is relatively narrow in scope compared to the meaning of the term “PHC”. The term “PC” (as defined by World Health Assembly UNICEF in 1982, see Table 5.1) places emphasis on medical intervention to fight disease, which is a component of the broader definition of the term “PHC” (Magnussen et al., 2004; Muldoon et al., 2006; Rifkin & Walt, 1986). In contrast, the term PHC as described by WHO in 1978 (see Table 5.1) is broader in scope and underlines that the core function of PHC is to address the main health problems of individuals in the community, as well as to: 1) assess social determinants of health and provide a broad range of services (e.g., health promotion, prevention, curative, and rehabilitative); 2) develop partnerships with patients and their families; 3) incorporate community input to plan, organize and manage PHC; and 4) implement programs to benefit community and population health (World Health Organization, 1978). These four core elements of PHC are essential to promote the overall social and economic development of the community and create a sustainable health care system (World Health Organization, 1978).
This is why, according to WHO, it is imperative for PHC health care providers to incorporate all core functions of PHC when delivering PHC services at the point of care.

Overall, WHO stresses that PHC initiatives and programs need to be organized at the state level (by which it means country), and program implementation should ensure: a) comprehensive coverage for a broad spectrum of PHC services to address social determinants and health needs of people; b) PHC clinics are organized and located as close as possible to where people live and work so that it is accessible; e) PHC location and multidisciplinary PHC providers are accessible and available; d) PHC serves as an initial point of contact and a source for referral to specialists; e) the use of acceptable, scientifically sound, simple and low-cost methods, techniques and equipment in the delivery of care; and f) building capacity of community members in order to enable maximum community and individual self-reliance and participation in the planning organization, operation and control of PHC (World Health Organization, 1978). These are essential components for implementation because PHC constitutes the first element of care within the broader continuum of health care processes and serves as the first level of contact for individuals, their families and the community (World Health Organization, 1978) (see Table 5.1).

The definition of PHC by WHO (1978) is one of the most comprehensive definitions available in the literature; however, the WHO definition is criticized for not specifying the practical details that are necessary to operationalize and implement the concepts of PHC (Walsh & Warren, 1979).

Aside from the WHO definition of PHC, other definitions exist in the literature. Table 5.1 describes a range of PHC definitions and illustrates that: 1) various definitions of PHC emerged after the Alma-ATA declaration in 1978 (definitions in Table 5.1 are displayed in ascending order by year); and 2) attempts have been made in the United States, Canada and Ontario to operationalize selective concepts of PHC.

In the United States, the Institute of Medicine (IOM) in 1982 defined the function of PHC from two perspectives: 1) the role of PHC providers in managing active patients registered with a PHC practice; and 2) the role of PHC providers in engaging with members living in the community who are not attached to a PHC practice (Institute of Medicine, 1984; Wright, 1993). According to the IOM (1984), the constituents of the community may include
geographic or social communities, groups that form within the workplace, church or school, or persons enrolled in a common health plan. As per the IOM (1984), the function of PHC is to provide *accessible, comprehensive, coordinated, continuous* and *accountable* health care services to active patients. In addition, IOM (1984) points out a distinct role or function of PHC with respect to: a) reaching out, engaging, and determining the needs of the geographically-based community health; b) offering programs to address high-priority health needs; and c) monitoring and measuring PHC program effectiveness.

Though the 1982 definition of PHC by IOM elaborates on how to operationalize the scope of responsibility for community health, it provides little information on the meaning of attributes (terms italicized below) and direction on how to operationalize these five attributes—“accessible, comprehensive, coordinated, continuous and accountable health care services”.

In 1996, the IOM refined and expanded the 1982 PHC definition by elaborating on what is meant by “accountable health care services”. The 1996 definition of PHC by IOM suggests that “accountable health care services” means that clinicians who work in PHC are responsible to: a) make themselves accessible; b) provide integrated care; c) address a large majority of personal health care needs; and d) develop partnerships with patients, their families and the community (Institute of Medicine et al., 1996). The two definitions of PHC by IOM add to the WHO definition of PHC by: a) providing more clarity about how to engage with and invite participation from the community members to plan and develop PHC programs at the local level; b) bringing to the forefront the role of PHC clinicians to deliver “accountable health care services”; and c) putting emphasis on measuring PHC performance and evaluating to effectiveness of PHC programs. Although there are a number of similarities between the IOM and the WHO definitions of PHC, the IOM does not elaborate on the meaning of PHC attributes (i.e., accessible, comprehensive, integrated and continuous care) and does not share the same perspective as the WHO regarding PHC’s role in serving as the initial point of contact for individuals, their families and the community.

In 1998, in the United States, another definition of PHC emerged. The PHC definition by Starfield (1998) described in Table 5.1 is frequently cited in the literature (Aggarwal & Hutchison, 2012; Commission on the Future of Health Care in Canada, 2002; Hutchison, Strasberg, et al., 2011; McMurchy, 2009; Watson et al., 2004). Starfield (1998) builds and
elaborates on the components of the PHC definition described by IOM (in 1982 and 1996) and WHO (1978). Similar to WHO (1978), Starfield (1998) emphasizes that PHC provides an entry into the health system for new needs and ongoing problems, and PHC is not disease oriented care rather PHC provides person focused care. Starfield (1998) adds to the WHO definition of PHC by elaborating on the meaning of person-focused care, which includes care for all but very uncommon or unusual conditions. According to Starfield (1998), care for all includes virtually all types of clinical activities such as diagnosis, prevention, screening, therapy and rehabilitation. The concept of very uncommon conditions, noted in Starfield’s definition of PHC, implies that the role of PHC is to coordinate or integrate care that can be provided elsewhere through a referral. Both concepts—care for all but very uncommon or unusual conditions—emphasize that the function of PHC is to provide a broad scope of services and/or arrange services through referral that can be provided elsewhere by other health providers.

In contrast to the IOM definition of PHC, Starfield (1998) draws out and defines in her definition of PHC the four key attributes of PHC. According to Starfield (1998), the key attributes of PHC include: 1) first contact care for new health problems; 2) long-term person-focused care; 3) comprehensive care; and 4) care coordination across providers (Starfield, 1998; Starfield, Shi, & Macinko, 2005). Similar to the IOM and the WHO definitions of PHC, Starfield (1998) stresses that the role of PHC is to: 1) empower patients to be more involved in their own care; and 2) build and sustain partnerships with other service providers to coordinate care for patients within the broader health care system. There are a number of common points covered in the PHC definitions by WHO (1978) and Starfield (1998). However, WHO (1978) and Starfield (1998) propose a slightly different perspective on the extent of community involvement. Starfield (1998) suggests that community outreach, engagement and partnership is part of the PHC attribute, comprehensiveness. As well, Starfield (1998) suggests that community engagement can be led by PHC providers to help them determine which emerging health issues are being faced by members in the community; this can potentially assist PHC providers to plan, organize and implement the delivery of PHC service programs to benefit the broader community. In contrast, the WHO’s definition of PHC encompasses the notion of ground-level up orientation of PHC; requires maximum community and individual self-reliance and participation in the planning, organization,
operation and control of PHC; and suggests leveraging local, national and other available resources (World Health Organization, 1978). In essence, the WHO proposes that community members should be encouraged to not just participate in the planning but also in the organization, operation and control of PHC services. Both perspectives are incorporated in this thesis.

The arguments presented above note the commonalities versus differences across the three definitions of PHC by WHO (1978), IOM (1982 and 1996) and Starfield (1998). With respect to the focus of this research study, the discussion below now turns to what concepts of PHC are defined within the context of Canada and Ontario. The PHC definitions by Canadian sources are described in the last five rows of Table 5.1. The PHC definition by Romanow (2002) expands on the concepts of PHC advocated by WHO (1978) and Starfield (1998), and provides direction on how to operationalize, implement and reform core functions of PHC in Canada. Similar to WHO (1978) and Starfield (1998), Romanow (2002) advocates that PHC is the first line of contact; combines medical, nursing and other health care services; provides a broad range of services to individuals and the members in the community; addresses population health needs by developing targeted programs; and delivers services through interdisciplinary team collaboration (Commission on the Future of Health Care in Canada, 2002). In addition, Romanow (2002) noted that providers in PHC play a role in determining which PHC programs will benefit the needs and characteristics of the community or sub-population being served, and services through PHC should be available 24 hours a day, 7 days a week (Commission on the Future of Health Care in Canada, 2002).

Within the Canadian context, the definition of PHC by Romanow (2002) noted in Table 5.1 is more elaborate relative to the definition of PHC described by others such as the Ontario Health Services Restructuring Commission, Canadian Health Services Research Foundation, Health Canada and Canadian Institute of Health Research. These Canadian sources describe the scope and range of PHC services in a similar way. Overall, the five Canadian sources embed in their definition of PHC several features of PHC that are advocated by WHO (1978) and Starfield (1998), and they set out a direction for Ontario and other Canadian provinces and territories to reform and expand the focus of PHC to include population health, and interdisciplinary team providers.
The nine PHC definitions discussed in Section 5.1 capture a number of common elements; for example, PHC: 1) serves as a primary source of care for new or ongoing health problems and addresses health and social conditions; 2) provides physician and non-physician services; 3) makes providers responsible for engaging with patients, their families and members of the community; and 4) coordinates care that can be provided by other sources of care.

The analyses and arguments described in Section 5.1 also highlight that Starfield (1998) draws on and elaborates on the principles of PHC that were advocated in 1978 by WHO in Alma-Ata and emphasized by IOM in 1982 and 1996. The arguments also note a number of similarities between the WHO (1978) and Starfield (1998) definitions of PHC. To answer Research Sub-question #1.a, this thesis draws on Starfield (1998) and WHO (1978) as two primary sources of literature to describe the key attributes of PHC (see Section 5.2).

Information described in Section 5.2 helps to situate the context for a discussion in: Chapter 6 about the characteristics of PHC system in Ontario; Chapter 7 on what PHC characteristics are or are not included in the PHC indicator systems; and Chapter 8 on the alignment between the key attributes of PHC and what is being or not being measured and reported on for accountability in PHC in Ontario.

5.2 Primary Health Care Key Attributes

Health care can be structured by primary, secondary and tertiary levels of care. As noted above, Starfield (1998) highlights that a strong PHC system is characterized by accessible, person-focused, comprehensive, and coordinated care that is organized by the state and provided by interdisciplinary teams who are using efficient technology and methods to deliver a broad range of services that meet the immediate, medium-term and long-term care needs of individuals, families and the community. Similar to White (1973, 1968) and Fry (1972), Starfield (1998) in her definition of PHC draws attention to the distinct functions carried out by PHC organizations compared to secondary care organizations (e.g., care provided by specialists usually on referral from PHC) and tertiary care organizations (e.g., specialized consultative care provided usually on referral from PHC or secondary care) (Fry, 1972; White, 1968, 1973). As well, Starfield (1998) highlights the overlapping characteristics common across these three levels of care. Essentially, all levels of the health care system have an overall accountability to improve access, quality and cost; as well as support
interdisciplinary team collaboration and integration, and provide care that is focused on prevention, treatment and rehabilitation (Starfield, 1998). Virtually all types of clinical activities (e.g., diagnosis, prevention, screening and various strategies for clinical management) are characteristics of all three levels of care—primary, secondary and tertiary. Compared to the secondary and tertiary levels of care, one key distinct function of PHC as stated by various sources (Starfield, 1998; Vuori, 1985; World Health Organization, 1978) is that PHC is an approach that forms the basis for and determines the work of all other levels of the health system. PHC constitutes the first element of continuing health care process and provides an entry into the health system (Starfield, 1998; World Health Organization, 1978).

Evidence suggests that PHC is strengthened and contributes to improving quality, outcomes and cost of care when health systems are oriented around PHC and when PHC serves as a set of functions delivered by a usual source of care (Friedberg, Hussey, & Schneider, 2010). The four key attributes of PHC previously stated in the analysis noted above in Section 5.1 include: 1) access (e.g., first point contact or entry point); 2) longitudinality (i.e., person-focused care); 3) comprehensiveness; and 4) integration/coordination of care. PHC is assessed as “good” according to how well these four key attributes are fulfilled (Starfield et al., 2005). The four key attributes of PHC are elaborated and described below in Section 5.2.a.

5.2.a Descriptions of Primary Health Care Key Attributes

5.2.a.i Access

The term access as a concept applies to all levels of care and it is often used interchangeably with the term accessibility (Penchansky & Thomas, 1981). In PHC the concept of access has many facets such as, structural, organizational, geographic and behavioural (Starfield, 1998). The structural component of access refers to PHC serving as the first point of contact to address new or ongoing health concerns and to provide adequate, timely and right care. In essence, people seeking care should easily be able to access PHC as the point of entry into the health service system. Literature suggests that when the location of PHC center and PHC providers are easily accessible, PHC is often used as the first contact of care, is utilized for each perceived need, strengthens continuity of care with a PHC provider, and reduces utilization of specialty services and emergency room visits (Forrest & Starfield, 1998).
Another facet of access is the availability of after-hours care through PHC organization sites or locations. Access to after-hours care implies that the primary source of care (i.e., PHC site or health provider(s)) is available to address the needs of patients during emergency hours as well as during evening and/or weekend hours (e.g., having an office open after business hours), and is available to do house calls or provide advise via telehealth (Starfield, 1998).

Access is also concerned with the wait time involved in getting an appointment, the length of time individuals seeking care are waiting in the office to see a PHC provider, and the geographical distance individuals are required to travel to access PHC services. The length of travel time may serve as an enabler or a barrier (Starfield, 1998) to access care.

Evidence shows that access plays a role in helping patients navigate the system and contributes to the boarder health care system (Leiyu Shi, Starfield, Politzer, & Regan, 2002) by better coordinating care, supporting continuity of care (McMurchy, 2009), and lowering hospitalization rates (Bodenheimer, 2006; Epstein, 2001; Ricketts, Randolph, Howard, Pathman, & Carey, 2001; Rizza, Bianco, Pavia, & Angelillo, 2007).

5.2.a.ii Longitudinality

Longitudinality, in the context of PHC, involves the development of a long-term interpersonal relationship over time between PHC providers and patients regardless of the type of health problems or the presence of a health problem. Over time, both PHC providers and patients get to know each other to develop a sustained partnership in which the patient is treated as a whole person (Institute of Medicine et al., 1996; Starfield, 1998; World Health Organization, 1978). In a sustained partnership, PHC providers become more aware of and knowledgeable about patients’ medical history and patient’s social milieu (Starfield, 1998).

To facilitate the development of the patient-provider relationship, Starfield suggests that in PHC, a defined group of patients should be enrolled (also referred as patient rosters in the literature) with a primary PHC provider (Starfield, 1998). Patient lists or rosters are the basis for enabling PHC providers to establish a sense of responsibility for a group of people within a catchment area and are the means by which PHC providers can keep track of their patients’ needs and the extent to which the needs are or are not being met (Starfield, 1998). When patients are enrolled to a primary source of care, the providers’ relationship with patients
exists for a defined or indefinite period of time via formal or informal contract (Starfield, 1998).

Evidence shows that when individuals or patients have a long-term relationship with their PHC provider, they can identify with a primary source of care as “theirs” (Starfield, 1998). When PHC providers or a group of providers are involved in providing ongoing care to patients, Starfield suggests that “it helps providers recognize that they are the regular source of person-focused (not just disease focused) care” (Starfield, 1998).

Often the literature uses the phrase continuity of care to refer to longitudinal care. According to Starfield (1998), continuity of care does not imply that a long-term relationship between providers and patients exists. Starfield (1998) states that “continuity can be a characteristic of specialty care as well as PHC, and is focused on the management of problems rather than on the care of people regardless of what problems they may have”. In the literature, continuity of care is described in various ways. Reid et al. (2002) describe two core elements of continuity: 1) the experience of care by a single patient with his or her provider(s), and 2) care that continues over time (Reid, Haggerty, & McKendry, 2002). Reid et al. (2002) and Starfield (1998) are defining continuity of care as chronological continuity, which is not the same as longitudinal care.

Other scholars describe continuity of care as the extent to which patients see the same practitioner or visit the same facility from one visit to another or even over a period of time (Fenton, Franks, Reid, Elmore, & Baldwin, 2008; Meredith, Sturm, Camp, & Wells, 2001). On the other hand, some scholars suggest that continuity of care is achieved when providers or clinicians are directly involved in coordinating care for patients and providing care to patients (Hennen, 1975; McWhinney, 1975). Continuity of care has several dimensions, which include: a) interpersonal (i.e., same physician with patient); b) chronologic (i.e., over time); c) geographic (i.e., continuity among locations of care, for example, PHC office, specialized care, and home etc.); d) interdisciplinary (i.e., meeting a variety of needs with the support of other professionals); and e) informational (i.e., through maintenance of the medical record) (Hansen, 1975; Hennen, 1975; McWhinney, 1975). As noted in Section 5.2.a.ii, the interpersonal and chronologic dimensions are associated with the concept of longitudinal care while the last three dimensions—geographic, interdisciplinary and informational continuity—
are part of the concept of access (see Section 5.2.a.i) and coordination of care for patients (see Section 5.2.a.iv).

In the literature the measures of continuity of care vary and most often continuity of care is inferred through measures such as the duration of patient-provider affiliation; sequence of care among different providers; completeness of information transfer between providers; extent to which information is used by providers or patients; delivery of one aspect of care in the continuum of the management plan; and occurrence of follow-up visits when care crosses organizational boundaries (Eriksson & Mattsson, 1983; Hjortdahl, 1992; Holmes, Kane, Ford, & Fowler, 1978; Reid et al., 2002; J. M. Rosenthal & Miller, 1979; Shortell, 1976; Steinwachs, 1979; Wolinsky et al., 2007).

Evidence shows that greater continuity of care between a physician and a patient over time can lead to a reduction in hospitalizations, improvements in follow-up, an increase in patient satisfaction, an increase in compliance with recommended care, and a reduction in duplication of tests (Burge, Lawson, & Johnston, 2003; Gill & Mainous, 1998; Wall, 1981). Some studies have also demonstrated that patients who have a regular source of care are more likely to get screened for cancer (Fenton et al., 2008), and less likely to visit the emergency department (Burge et al., 2003; Gill, Mainous, & Nsereko, 2000; Grumbach, Keane, & Bindman, 1993; Haddy, Schmaler, & Epting, 1987; Sox, Swartz, Burstin, & Brennan, 1998). Other studies have noted that patients: 1) are more satisfied when they see the same physician (Saultz & Albedaiwi, 2004); 2) value a continuous relationship with the provider because the interactions are efficient (i.e., not having to repeat complex histories) and effective (sustained relationship allows involvement in decision making); and 3) trust that their doctor will take responsibility for current and future care needs (Guthrie, Saultz, Freeman, & Haggerty, 2008; Guthrie & Wyke, 2006; Kearley, Freeman, & Heath, 2001; Nutting, Goodwin, Flocke, Zyzanski, & Stange, 2003; Schers, van den Hoogen, Grol, & van den Bosch, 2003).

5.2.a.iii Comprehensiveness

Comprehensiveness in PHC refers to the extent to which all essential services that are needed to address the majority of the populations’ health needs are offered and provided at PHC facilities (Macinko et al., 2004). Comprehensiveness in PHC is about adequately recognizing the full range of patients’ health-related needs and arranging resources to deal with a broad
array of health concerns within the broader social context (Starfield, 1998). Health related needs may include symptoms, dysfunctions, discomforts, disease prevention, and health-promotion. In PHC the range of health problems varies. To address the broad spectrum of health concerns in PHC, it is necessary to ensure that a diverse group of competent resources are available to deliver comprehensive care (Starfield, 1998).

Starfield (1998) notes three inputs of comprehensiveness: 1) provider competency to recognize health problems; 2) resource availability (i.e., multi-disciplinary health providers, equipment and technology); and 3) provision of a wide spectrum of PHC services. She stresses that in PHC it is challenging to determine which services are needed when because in PHC, care is ongoing and healing can be prolonged and extensive. To achieve comprehensiveness, home visits and outreach efforts may be necessary in PHC to investigate determinants of ill health. In addition, Starfield (1998) underlines that the range and availability of PHC services may vary from community to community and may be directly correlated with the incidence or prevalence of health problems of a community. Although it is well cited that PHC plays a role in directly providing all services for common needs and serves as an agent for the provision of services for needs that must be met elsewhere (e.g., specialized care via a referral), deciding on an appropriate range of services is often times done through policy initiatives, especially in places where there is universal health care coverage and there is no out-of-pocket payment required from a patient to get access to insured health services.

Comprehensiveness can be measured by the extent to which the common health needs of individuals in all sub-populations are adequately met in PHC. Additional measures can include the spectrum of problems addressed in PHC with primary and secondary preventive activities (such as immunization, health educations, screening, and proactively assessing health problems in the community served); recognition and management of health problems in the population; patients who are managed without a referral; and the range of activities that the PHC system is designed to handle (for example, short-term, long-term and recurring illnesses) (Starfield, 1998).

Evidence is scant on comprehensiveness of PHC services in relation to its impact on patients, their families and the health system (e.g., less referrals to specialists, emergency department
visits, and hospital readmissions). One study found that a comprehensive scope of PHC services helped to manage acute care sensitive conditions in the community and lower hospitalization rates (Starfield et al., 2005). As well, other studies have reported that the delivery of a wide range of services by PHC providers is associated with improved health (Starfield et al., 2005; Wilhelmsson & Lindberg, 2007).

As noted earlier, for uncommon or unusual conditions, PHC makes a referral to coordinate care for patients who may need to be seen by other health care providers, for example, specialists. The concept of coordination of care is discussed below in Section 5.2.a.iv.

5.2.a.iv Coordination

Coordination is the extent to which PHC facilitates the coordination of patients’ care between various levels of care and with other important social services and sectors (Macinko et al., 2004). Starfield (1998) states that to achieve coordination of care, PHC should facilitate succession of events between visits regardless of where they occur and for what reason. Starfield (1998) also states that in order to coordinate care it is essential that patient information is captured using a mechanism that provides information continuity, and that the providers are able to recognize patient’s problems and transfer information appropriately to enable sequential visits within the same location (i.e., within PHC teams) and/or across different locations (i.e., where specialized care is located). A patient’s medical information record is essential to provide reliable and continuous medical care (Starfield, Simborg, Johns, & Horn, 1977; Weed 1968), and is a useful source of information to determine aspects of care that have been previously coordinated (Starfield et al., 1979). Continuity of care or sequence of events is essential to attain coordination. In other words, better coordination follows from continuity (Haggerty et al., 2003).

According to Starfield (1998), coordination is a structural component of care that relies on three components. The first component is a mechanism to record, track and/or transfer information about a patient’s health problem and the care received from one encounter to another from the same physician or a team of PHC providers. Information may be transferred among health care providers within the same organization or across different organizations. The second component is the tacit knowledge about patients’ care needs and medical history held by PHC providers that is essential to relay when referring patients to organize care
elsewhere (for example, coordinating care with a specialist for an uncommon problem, as noted above) (Starfield, 1998). The process of transferring information can be a two-way process where either PHC providers are referring patients to specialists, or a specialist or a hospital is providing a summary report to a primary source of care about patients’ short- or long-term care needs that need to be managed in the community. The third component is linking past knowledge to the current state of patients’ care needs and determining a future state care plan. These three components are complimentary to the three sub-concepts of continuity described by Haggerty et al. (2003).

Haggerty et al. (2003) proposes three sub-concepts of continuity to facilitate coordination: informational, management and relational continuity. Informational continuity involves the use of information on past events and personal circumstances to make the current care appropriate for each individual (Haggerty et al., 2003). Management continuity entails a consistent and coherent approach to the management of a health condition that is responsive to a patient’s changing needs (Haggerty et al., 2003). Relational continuity means an ongoing therapeutic relationship between a patient and one or more providers (Haggerty et al., 2003).

Several authors have used the concepts of coordination described by Starfield (1998) to examine the extent to which coordination of care is attained. For example, some studies have assessed measures such as continuity of practitioners; PHC practices having a mechanism to easily record, retrieve and transfer patient information; when is care organized with other practitioners, and recognition of patient information from diverse sources to prevent duplication of services and to make appropriate use of referrals (Barker et al., 1989; Fletcher, O'Malley, Fletcher, Earp, & Alexander, 1984). Some studies have found that provider continuity is associated with better recognition of patient information and patient outcomes (e.g., improved compliance, uptake of preventive care services and use of resources) (Bruce Guthrie, Brampton, & Wyke, 2000; Starfield, Simborg, Horn, & Yourtee, 1976; Wasson et al., 1984; Weyer et al., 2005). Another study found that record formats that enhance the recognition of patient information are associated with shorter subsequent hospitalization and higher completed referral rates (Rogers & Haring, 1979).

Additional studies have examined the implementation of electronic health/ medical records and various aspects of coordination and continuity of care such as compliance with
medications, interventions, and referral for lab tests (Burton, Anderson, & Kues, 2004; Garrido, Jamieson, Zhou, Wiesenthal, & Liang, 2005; Kerse et al., 2004; O'Malley, Grossman, Cohen, Kemper, & Pham, 2010; Renée A. Stiles et al., 2007; R. A. Stiles et al., 2007), and proactive delivery of preventive care services by PHC practice organizations (Weyer et al., 2005).

Sections 5.2.a.i to 5.2.a.iv have described the four key PHC attributes, their concepts and sub-concepts/constructs selected for this study. These constructs are applied in Chapter 6 to outline the data table (see Table 6.1) to analyze and to determine the degree of alignment between the characteristics of Ontario’s PHC practice models and the four PHC key attributes. The analysis presented in Chapter 6 answers Research Question #1.a.i.

The constructs of the four key PHC attributes are also applied in Chapter 7 to outline the data table (see Table 7.1) and to determine which constructs of the PHC key attributes are or are not being captured in the five PHC indicator measurement systems that have been examined for this research study. In Chapter 8, the PHC attributes are referenced again to examine the connection between performance measurement, accountability, and key attributes of PHC. In Chapter 9 (Section 9.1), a short critique about Starfield’s definition of PHC is described.
Chapter 6

Primary Health Care in Ontario

6.0 Primary Health Care in Ontario

6.0.1 Chapter Overview

This chapter draws on the information (described in Chapter 5) as well as the literature, contracts and key informant interview data to answer Research Question #1.a.i: how are the four key PHC attributes aligned to the characteristics of PHC in Ontario. The chapter begins by giving an overview of how PHC services in Ontario are organized, delivered and financed. Then, the chapter briefly links this discussion to the PHC reform policy goals and initiatives that have been introduced and implemented in Ontario to reform PHC since the early 2000s. Next, the chapter describes the seven PHC practice models and six remuneration methods that have been implemented in Ontario. Then, the chapter proceeds to analyze four of the seven PHC practice models and the remuneration methods to examine and answer Research Question #1a.i and discusses the degree of alignment between the characteristics of Ontario’s PHC practice models and the four PHC key attributes (described in Chapter 5).

6.1 Overview of Primary Health Care in Ontario

In Ontario, PHC services are publicly funded by the provincial health insurance plan called the Ontario Health Insurance Plan (OHIP) and are delivered by private providers, namely family physicians (predominately) and non-physician providers using a public contract model (described in Section 3.1.d). As noted in Section 3.1.e, in Ontario prior to 2002 the province remunerated physician services primarily on a FFS basis (Marchildon & Hutchison, 2016). Beginning in 2002, Ontario introduced alternate forms of remuneration payment models (described in Section 6.1.c) (Marchildon & Hutchison, 2016). PHC services are available predominately through physician’s offices, which are located in both rural and urban community settings, and some are located in academically affiliated hospitals. In the community settings, various types of PHC practice models exist (described in Section 6.1.b.i), including urgent care centers known as walk-in clinics.
Historically, family physicians have been the first point of contact for new or ongoing health concerns of patients. In recent years, Ontario has introduced non-physician providers into the PHC workforce. In the past, only non-physician medically required services provided in hospitals (not outside of hospitals) were publicly funded (see Section 3.1.a). With the implementation of a number of PHC reform initiatives (discussed below in Sections 6.1.a and 6.1.a.i) in Ontario, medically necessary family physician as well as non-physician PHC services may now be publicly funded and insured; however, the non-physician services are only available through a selected PHC group practice sites (described in Sections 6.1.b.v and 6.1.b.vii). In PHC inter-disciplinary practice sites (described in Sections 6.1.b.v and 6.1.b.vii), both family physicians and non-physician providers have collectively become patients’ first point of entry into the health system. This arrangement is intended to transform the foundation of PHC sector to: enhance patients’ access to physicians and non-physician services; improve the delivery of comprehensive care to patients’; and improve access to and integration of services within the PHC setting and across the health system, as noted in Section 5.2.a.iii (Starfield, 1998).

Residents in Ontario are not required to pay for insured PHC physician services at the point of care; this arrangement is in line with the accessibility and comprehensiveness principles of CHA (1984) (described in Section 3.1.b). Insured physician services are defined by the provincial health plan and the scope of insured PHC services is defined through a negotiation process that occurs between the provincial government, the Ontario MOHLTC, and the provincial medical association, the OMA (who is the official bargaining agent of physicians). Since 2005, patients are also not required to pay for certain non-physician services provided through PHC clinics where family physicians and non-physicians work together in a group practice (see Sections 6.1.b.v and 6.1.b.vii).

6.1.a Organization of Primary Health Care in Ontario

In Ontario, the MOHLTC centrally establishes strategic directions, sets priorities for PHC initiatives and services, legislates, develops and implements policies, and finances insured PHC medically necessary services. In 2001, the Ontario MOHLTC funded a number of reform initiatives to achieve specific policy goals. The PHC policy goals included, improving: 1) access to care; 2) quality and continuity of care; 3) provider and patient satisfaction with
the health care system; and 4) cost-effectiveness of the health-care system (Hutchison, Abelson, & Lavis, 2001; Hutchison et al., 2000; Ontario Ministry of Health and Long Term Care, 2012). In 2012, the Ontario MOHLTC expanded the PHC policy goals to include a focus on improving patient-centeredness and integration supported by governance and accountability (Fitzpatrick, 2012).

The PHC policy goals (outlined above) have been implemented directly in family physician’s offices with the support and agreement of the OMA, using contracts. A formal contract known as the Physician Services Agreement (PSA) (elaborated in Chapter 8, Section 8.7.a.i) was introduced in 2000. This agreement stipulated the terms of the fee schedule, and service and billing requirements for the core basket of insured physicians’ services, and listed PHC reform initiatives (see Section 6.1.a.1).

Through the PSA, family physicians were offered the option to voluntarily choose an alternate: 1) payment method (i.e., capitation payment method (previously described in Section 3.1.e.ii) and 2) practice setting (i.e., group practice). Family physicians who chose to participate in the alternate PHC reform options formally signed a contract directly with the Ontario MOHLTC. The OMA played a key role initially in the negotiation process and subsequently in garnering buy-in from family physicians, and facilitating the logistical processes for getting contracts signed by family physicians. The PSA between a family physician and the Ontario MOHLTC has generally been renewed every four-years up until the 2012-2014 contract. The last formal agreement between the Ontario MOHLTC and the physicians ended on March 31, 2014. At the time of writing this thesis, the Ontario MOHLTC and the OMA had reached consensus on terms of the 2016 tentative agreement to establish a subsequent PSA. However, Ontario doctors have voted to reject the 2016 tentative Physician Services Agreement.

Family physicians on a salary payment method (described in Section 3.1.e.iv) have not been required to sign a PSA, although they have been and continue to be actively involved in reforming PHC. Family physicians on salary are considered employees of an interdisciplinary practice model known as the Community Health Centre (CHC) (described in Section 6.1.b.vii). At the time when PHC policy initiatives were being introduced in early 2000s, the
implementation of and funding for PHC reform initiatives in CHCs was organized through 14 LHINs (description noted in Section 3.1.c).

The section below briefly provides an overview of the PHC policy initiatives introduced to date in Ontario.

6.1.a.i Primary Health Care Policy Initiatives

To achieve the PHC policy goals (noted in Section 6.1.a), beginning in 2000, the Ontario MOHLTC introduced and funded a diverse set of policy initiatives to facilitate the implementation of: 1) patient enrollment (defined as attaching patients to a family physician for all health needs); 2) inter-disciplinary team-based care; 3) after-hours service availability; 4) delivery of preventive care services; and 5) integration of information technology (i.e., electronic medical records) in PHC practice. These policy initiatives were packaged together with the emergence of new and diverse PHC payment methods to remunerate family physicians and PHC practice models (see Sections 6.1.c and 6.1.b.i respectively). Remuneration methods were designed to encourage family physicians to work in groups either with other family physicians or with interdisciplinary non-physician providers. Although family physicians were able to self-select, the Ontario MOHLTC had a final say in who got approved to practice in group-based PHC models. As noted earlier, family physician’s participation in non-solo PHC practice models has been voluntary and arranged via contracts.

To support and advance the 2012 PHC policy goals—improving patient centeredness and integration—the Ontario government introduced a legislation called the Excellent Care for All Act (ECFAA) in 2010 (details in Chapter 8, Section 8.7.b) and pilot tested an initiative called Health Links (in 2012). Health Links created a pathway for health care providers from hospitals, PHC clinics, community agencies and long-term-care facilities to organize and coordinate the delivery of vertically integrated health services for high-needs patients with complex and multiple morbidities in rural and urban communities. With the support of the OMA, the Association of Family Health Teams, the Association of Community Health Centers and LHINs, the Ontario MOHLTC used the ECFAA as a lever to integrate 59 interdisciplinary team based PHC practice models (i.e., Family Health Team and Community Health Centre—for description see Sections 6.1.b.v and 6.1.b.vii) with other sectors within
the health system. The concept of Health Links is referred again in Chapter 8, Sections 8.3.d and 8.3.e when describing what FHTs and CHCs are accountable for, and in Section 8.7 when describing mechanisms used in Ontario to implement accountability.

6.1.b Practice Models of Primary Health Care in Ontario

Ontario has implemented an “alphabet soup” of PHC practice models since 2000 (Hutchison, Levesque, et al., 2011). Since 2005, Ontario incrementally introduced six new PHC practice models (Rudoler, Deber, Barnsley, Glazier, & Laporte, 2014). Family physicians were free to self-select and join the new PHC practice models. In total, there are seven types of PHC practice models in Ontario. Across the seven PHC practice models, the team make-up, family physician payment method, and patient enrollment requirements can vary; these are described below in Sections 6.1.b.i to 6.1.b.vi. The governance model also varies across the seven PHC practice models. The PHC practice models are led and governed by either family physicians, or by a combination of family physicians, non-physician providers and community members (Ontario Hospital Association, 2016).

6.1.b.i Fee-for-Service Practice Model

FFS practice model is often referred as the solo practice model and is organized as a for profit small business (defined in Section 3.1.d). The FFS practice model was introduced prior to 1966. Family physicians working in this model often manage their practice independently, are entirely compensated based on FFS as per the fee schedule defined by the Ontario MOHLTC, and are the first point of contact for patients with health needs (Marchildon & Hutchison, 2016; Ontario Ministry of Health and Long Term Care, 2015). Family physicians individually bill the government. The governance model may include only one family physician.

6.1.b.ii Comprehensive Care Model

The Comprehensive Care Model (CCM) was introduced in 2005 and is another form of a solo practice model in which a family physician works independently to provide comprehensive care to enrolled patients and provide some after-hours care. Comprehensive care includes the basket of insured physician services covered under the provincial health plan. In this model, physicians are compensated on a FFS basis, plus they get a bonus for enrolling patients,
providing after-hours care and delivering preventive care services (Marchildon & Hutchison, 2016; Ontario Ministry of Health and Long Term Care, 2015). Family physicians individually bill the government. The governance model includes one or many family physician(s). CCM is organized and functions as a for profit small business (see Section 3.1.d).

6.1.b.iii Family Health Network and Family Health Group

Family Health Network (FHN) and Family Health Group (FHG) were introduced in Ontario in 2002 and 2003 respectively. Both of these PHC practice models share similar characteristics. In these models, family physicians are required to work in a group of three or more. Each family physician is required to provide comprehensive care (defined above in Section 6.1.b.ii) to patients who are enrolled under their care. Family physicians in this model are 100% compensated on a FFS basis, plus they receive a bonus for providing comprehensive care and after-hours care to their enrolled patients, conducting health assessment, delivering preventive care services, participating in tele-health advisory program organized by the province, and providing diagnostic care and treatment to non-enrolled patients (Ontario Ministry of Health and Long Term Care, 2015). Family physicians individually bill the government. The governance model includes all family physicians (i.e., three or more) working in the group practice. FHNs and FHGs are organized and function as a for profit small business (see Section 3.1.d).

6.1.b.iv Family Health Organization

Family Health Organization (FHO) was introduced in 2006. Similar to the FHN and FHG practice models, the FHO practice model requires three or more family physicians to work together to provide comprehensive care (defined above in Section 6.1.b.ii) to enrolled patients 24 hours a day, seven days a week. Family physicians working in this model have an agreement with the Ontario MOHLTC and are compensated on a capitation (previously defined in Section 3.1.e.ii) basis for a defined population, as well as on a FFS basis. Family physicians in this practice model individually bill the government for services that are not covered under the capitation arrangement and for services that are provided to non-enrolled patients. Family physicians are also entitled to receive a bonus for providing services related
to chronic disease management, disease prevention and health promotion (Ontario Ministry of Health and Long Term Care, 2015).

The governance model includes all family physicians working in the group practice. Similar to the FHN and FHG practice models, FHO is also organized and functions as a for profit small business (see Section 3.1.d).

6.1.b.v Family Health Teams

The Family Health Team (FHT) is an integrated and interdisciplinary practice model, introduced in 2005 (Government of Ontario, 2015; Marchildon & Hutchison, 2016; Ontario Ministry of Health and Long Term Care, 2016). Hutchison et al. (2011) describes FHTs as “the provincial government’s flagship initiative in PHC renewal… and the first explicitly inter-professional PHC model introduced in Ontario in three decades.” FHTs were created to expand access to comprehensive family health care services across Ontario (Government of Ontario, 2015; Ontario Ministry of Health and Long Term Care, 2016) and are community-centered. The FHT practice model brings together family physicians and non-physician providers to deliver comprehensive care to patients under one roof (Association of Family Health Teams Ontario, 2016). The non-physician providers may include nurse practitioners, nurses, social workers, dieticians, mental health support worker, pharmacists and other non-physician providers. The non-physician providers are responsible for the delivery of comprehensive services (e.g., chronic disease management, counseling, health education and palliative care) for patients enrolled with the FHT. Family physicians in a FHT, on the other hand, are responsible for the delivery of physician services as per their agreement with the Ontario MOHLTC.

There are two key distinctions between family physicians and the non-physician providers in a FHT: role, and compensation. Family physicians are assigned the role to provide care to both non-enrolled and enrolled patients while non-physician providers are assigned the role to provide care primarily to enrolled patients with chronic diseases. Family physicians in FHTs are reimbursed through multiple payment streams: 1) prospective payments for enrolled patients (via a blended capitation method); 2) bonus payments for providing incentivized care (e.g., chronic disease management, disease prevention and health promotion); and 3) retrospective payments (i.e., on a FFS basis for non-enrolled patients). Family physicians
individually bill the government. The non-physician providers in FHTs are on a salary and their compensation is arranged through an annual funding agreement between a FHT organization and the Ontario MOHLTC. The non-physician providers are paid directly by the FHT organization and are not entitled to preventive care bonuses or special payments on top of their base salary.

Through the annual funding agreement, FHTs as an organization also receive funding to cover operational over-head costs. The FHTs are required to have a governing body (i.e., the Board of Directors) and to register as a not-for-profit organization (see Section 3.1.d). However, the governance model varies across the FHTs.

In Ontario, the MOHLTC has provided general guidelines to assist FHTs to set up the governance structure and model. FHTs have three options to choose from; however, the selection of a governance model depends on whether the organization is registered or incorporated (Ontario Ministry of Health and Long-Term Care, 2004). To have a community governance model, FHTs are required to be registered as a non-profit organization with community representation on the Board of Directors (Ontario Ministry of Health and Long-Term Care, 2004). The provider-governance model in a FHT is represented by provider-groups with an established corporation, partnership or professional association (Ontario Ministry of Health and Long-Term Care, 2004). The third governance model is known as the provider-community led governance model, which requires FHTs to be registered as non-profit/community based organization and is represented by a wide range of providers (Ontario Ministry of Health and Long-Term Care, 2004). In practice, family physicians represent a large majority of governance body and FHT Board of Directors have the flexibility to set their own priorities, which may or may not be directly linked with the PHC priorities that are being pursued by the Ontario MOHLTC.

At the time of writing this thesis, a total of 206 FHTs were operational and serving over 3 million patients across Ontario (Ontario Ministry of Health and Long Term Care, 2015). However, it is unclear from the review of public sources how many family physicians are working in the FHT practice model. A non-governmental source has reported that, in Ontario, twenty one percent of family physicians practice in the FHTs and an increasing number of
family physicians are joining the interdisciplinary teams—176 in 2002 and 2500 in 2011 (Hutchison, Levesque, et al., 2011).

6.1.b.vi Nurse Practitioner Led Clinic

The Nurse Practitioner Led Clinic (NPLC) practice model was announced in 2007 and implemented in 2010. NPLCs provide comprehensive care services including health promotion, disease prevention, mental health, chronic disease management, and care coordination and navigation of the health system. The NPLC have a mandate to provide services to people of all ages and to unattached patients—this includes individuals who have a difficult time finding a PHC provider (Ontario Ministry of Health and Long Term Care, 2015). The NPLCs are made up of nurse practitioners, nurses, pharmacists, dieticians, and social workers. Family physicians work in this model at an arm’s length as a consultant and/or a collaborator. The non-physician providers in a NPLC are on a salary and there are no bonuses or special payments allocated to individual non-physician providers. As of 2012, 22 NPLCs were open. The provincial government anticipates that the NPLCs will provide care to 40,000 unattached patients (Government of Ontario, 2012).

An operational agreement (to cover funds for resources and operations) has been established between a NPLC organization and the Nursing Secretariat of the Ontario MOHLTC. Similar to FHTs, NPLCs are also registered as a not-for-profit organization (see Section 3.1.d) and are governed by a Board of Directors.

6.1.b.vii Community Health Center

Community Health Centers (CHCs) were initiated over 40 years ago (the first CHC was established in 1973) and provide PHC services using an inter-disciplinary model of care. Although CHCs were not introduced as part of the recent PHC reform efforts, the provincial government invested reform money between 2004 and 2006 to expand and include new CHCs sites. Consequently, 21 new CHCs and 28 satellites were opened (Association of Ontario Health Centres, 2010; Ontario Ministry of Health and Long Term Care, 2005). At the time of writing this thesis, there were 75 CHCs and 28 satellites in operation with a mandate to focus on addressing issues related to the social determinants of health—social, economic, environmental and culture factors—that shape an individuals’ wellbeing (Association of
Ontario Health Centres, 2010, 2013). CHCs are situated in geographic areas with identified under-serviced and/or high-service need population (e.g., immigrants, homeless and seniors). The CHCs have a community-based governance model. The interdisciplinary team members at CHCs are on a salary, including family physicians. The CHCs have a separate funding and performance agreement with LHINs (previously noted in Section 3.1.c, and Section 6.1.a).

Although both CHCs and FHTs are an interdisciplinary team-based PHC practice model, family physicians in CHCs are not required to formally enroll and attach patients because CHCs serve a specific population—marginalized individuals with complex health needs. As noted above in Section 7.1.a, family physicians in the CHC practice model are on salary and they serve a vulnerable and very complex patient population (Association of Ontario Health Centres, 2016). CHCs are governed by a Board of Directors and are a not-for-profit organization (see Section 3.1.d).

**PHC Practice Models Examined in this Research Study**

In this research study, the following four PHC practice models: 1) FHOs; 2) FHGs; 3) FHTs; and 4) CHCs are included and studied. These four models have been selected because they: a) provide the necessary context to study and answer Research Question 1.a.i and the sub-questions under the Research Question #2 (see Chapter 1); b) continue to be funded by the Ontario government (Ontario Hospital Association, 2016); and c) have different characteristics than the solo FFS practice model. In this research study, the CCM and NPLC practice models are not included mainly because the CCM practice model has been discontinued (Ontario Hospital Association, 2016) and the NPLC model was just being implemented at the time when the proposal for this research study was put together.

The four PHC practice models—FHT, FHG, FHO and CHC—are analyzed further in Section 6.2 of this chapter to answer Research Question #1b.i.

**6.1.c Primary Health Care Remuneration Methods**

As noted earlier, Ontario has six payment methods in PHC to remunerate family physicians. The six payment methods include: FFS, capitation, blended capitation, salary, blended salary, and P4P (see Section 2.1.e for the description on five of the six payment methods). Blended
salary model (one of the six payment method is more specific to Ontario) is made up of a
three-tier salary base and is used to remunerate family physicians working in a community-
based and not-for-profit FHT organization.

These alternate forms of payment methods have been introduced in Ontario to incrementally
shift the remuneration system away from FFS payment method. For decades in Ontario, the
FFS method has predominately been used to reimburse all 12,500 family physicians (see
Section 3.2). According to the Ontario MOHLTC, change is slowly taking place. In 2012, the
Ontario MOHLTC reported that 3000 family physicians were still being remunerated on only
a FFS basis while 7209 family physicians (i.e., 2900 in FHG, 309 in FHN, and 4000 in the
FHO practice models) were compensated on a blended capitation basis (for rostered patients)
and FFS for non-rostered patients (Fitzpatrick, 2012). The figure 7209 does not include
family physicians practicing in the FHT practice models.

Although family physicians have switched over to an APP, over 90 per cent of family
physicians continue to enter fee codes for most patient visits to bill the Ontario government
(Sweetman & Buckley, 2014). This suggests that in Ontario APPs are used as a supplement to
the FFS compensation (Canadian Institute for Health Information, 2012a). High use of the
FFS codes in Ontario may suggest that fee codes are used to account for services that are not
part of the patient enrollment method (noted in Section 6.1.a.i). For example, services:
provided to complex patients who are not rostered; such as clinical interventions that are not
covered under the capitation payment scheme; that patients have received from walk in
clinics; and related to incentivized care (defined in Section 6.1.b.v).

Findings related to Alternate Payment Plan

On average three payment methods (i.e., blended capitation or blended salary, P4P and FFS)
are combined to form an APP (previously described in Section 3.1.e) in Ontario’s PHC
system. APPs have their advantages and disadvantages. According to the key interview
informants, there are a number of advantages of switching over to the blended capitation
payment method. The blended capitation payment method offers:

- “A huge benefit to patients; for example, in some circumstances patients no
  longer have to physically visit a PHC clinic as telephone or email consultations
  can sufficiently address patients’ concerns, and family physicians are paid to
  look after enrolled patients whether patients physically come into the office or
not. This example illustrates that a family physician can provide a much more focused patient-centered care and better follow-up care” (ID 008A).

- “Flexibility to expand scope of practice for nurses; for example, under the medical directives, nurses are providing PHC services to patients with urinary tract infection and ordering a bunch of medications. As a result, this opens up an extra spot for a family physician to see other patients who have urgent care needs. Ultimately, blended capitation payment methods are helping avoid visits to the emergency departments” (ID 008A).

- “An environment for family physicians to focus on enrolling and providing care to a defined group of patient population who need to be served” (ID 004A).

- “Family physicians have a stable monthly income even when they are away on vacation or away sick. Under the capitation payment method, family physicians do not end up losing 25% of their clinical income as they did under the FFS payment method” (ID 008A).

- “A model for integrating non-physician providers into the PHC setting; previously, non-physician clinicians were shut out of PHC” (ID 004A).

- “An opportunity for family physicians to work with non-physicians and deliver cost-effective care to patients. For example, when patients receive care from non-physician health providers instead of a family physician, it cost the health system less money” (ID 007A).

As per the key interview informants, the blended capitation payment method in PHC has created opportunities and enabled family physicians to work differently. The blended capitation payment scheme offers incentives and flexibility for family physicians to work with interdisciplinary health providers to improve access for patients, and creates an environment for patients to easily and conveniently access PHC services from their primary family physician and non-physician clinicians. These characteristics are part of the key PHC attribute, access as defined by WHO (1978) and Starfield (1998).

There are a few unintended consequences of using blended capitation payment scheme and these may directly affect patients living in rural geographical areas and/or patients who have multiple morbidities and complex care needs. According to the key interview informants:

“Family physicians practicing in rural areas end up enrolling about 2500 to 3500 patients under their roster while family physicians practicing in an urban area enroll 1500 patients under their care. It is impossible for a family physician to manage and to provide person-focused, comprehensive care to all 2500 to 3500 patients especially those patients with multiple chronic conditions. In situations where family physicians have an exceeding high number of patients, you generally see a high number of visits
to the emergency department and/or high usage of walk-in clinics. The other unintended consequence is that family physicians do not enroll complex patients under their roster because the capitation payment methods are based on age and sex, and does not factor in acuity scale for complexity” (ID 008A; 013A; 005A).

These two examples of unintended consequences noted by the key informant interviews suggest that in some cases the capitation payment method does result in compromising patients from accessing PHC services, and in gaming—low risk and low-cost patients are selected for rostering while high risk and high cost patients are left out and do not get rostered. In these circumstances, there is an impact on the system when patients end up in the emergency departments when their care could have been managed in PHC. Ultimately, the system ends up paying the price.

6.2 Alignment between Ontario’s PHC Practice Models and PHC Attributes

This section examines the degree of alignment between the characteristics of PHC practice models (i.e., FHOs, FHGs, FHTs and CHCs) in Ontario and the four key PHC attributes (previously discussed in Chapter 5) to answer Research Question #1.a.i (noted in Chapter 1).

The analysis presented below in Table 6.1 describes the elements of the PHC policy initiatives (described in Section 6.1.a.i) that have been implemented in the four PHC practice models—FHOs, FHGs, FHTs and CHCs. The data in Table 6.1 can be interpreted in the following manner: “yes” denotes that the service agreements explicitly prescribed expectations; “no” denotes that the service agreements did not include a specific focus on the initiative in question or specify an expectation to provide a specific service (although providers may still do it); and “implicit” denotes that the service agreements did not clearly prescribe any expectations for PHC providers to implement the initiative in question; however, it makes the assumption that clinicians will automatically draw on their professional ethics to guide their conduct. The analyses noted in Table 6.1 are discussed below by the four PHC attributes: a) access; b) integration/coordination of care; c) longitudinality; and d) comprehensiveness.
Table 6.1 Key PHC attributes and the characteristics of Ontario’s PHC practice models

| Key PHC Attributes Defined by WHO (1978) & Starfield (1992, 1998) | PHC Reform Programs Implemented |
|---|---|---|---|---|
| | FHO | FHG | FHT | CHC |
| **Access** | | | | |
| • First point of contact | Yes | Yes | Yes | Yes |
| • Availability of PHC source of care | Yes | Yes | Yes | Yes |
| • Availability of PHC provider(s) | Implicit | Implicit | Implicit | Implicit |
| • Availability of after-hours care (weekend and evening) | Yes | Yes | Yes | Yes |
| • PHC providers should make house calls | Yes | Yes | Yes | Yes |
| • Clinics can accommodate same day or next day appointments | No | No | No | No |
| **Coordination/Integration** | | | | |
| • Mechanism to capture, store and transfer patient record | Yes | Yes | Yes | Yes |
| • Medical records contain accurate and complete patient information | No | No | No | No |
| • Relational continuity (i.e., knowledge and access to information to recognize patient information) | Implicit | Implicit | Implicit | Implicit |
| • Management continuity (i.e., referral and transfer information to facilitate sequential visits) | Implicit | Implicit | Yes | Yes | Yes | Yes |
| o Within PHC practice | | | Yes | Yes |
| o Outside of PHC practice (e.g., specialized care) | | | | |
| • Informational continuity (i.e., linking past knowledge to current state for setting future direction of care) | Implicit | Implicit | Implicit | Implicit |
| **Longitudinality (person focused continuous care)** | | | | |
| • Sustained partnership: patient-provider relationship over time and strength of relationship | Implicit | Implicit | Implicit | Implicit |
| • Person-focused (not disease focused care): defined eligible population: patients attached or registered with a regular source of care | Yes | Yes | Yes | Yes |
| • Care provided by regular source of care and or provider(s): place of visit | Yes | Yes | Yes | Implicit |
| • Utilization: PHC use over time for unreferral visits with the primary source of care (PHC provided services instead of a specialist) | No | No | No | No |

<table>
<thead>
<tr>
<th>PHC Reform Programs Implemented</th>
<th>FHO</th>
<th>FHG</th>
<th>FHT</th>
<th>CHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encounter by type of problem (types and range of encounter addressed by PHC)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### Comprehensiveness

<table>
<thead>
<tr>
<th>PHC Reform Programs Implemented</th>
<th>FHO</th>
<th>FHG</th>
<th>FHT</th>
<th>CHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services provided for majority of population health needs</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Adequately recognize full range of patients’ health needs within broader social context</td>
<td>Implicit</td>
<td>Implicit</td>
<td>Implicit</td>
<td>Yes</td>
</tr>
<tr>
<td>Availability of diverse group of health providers to deliver comprehensive care</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Outreach</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Home visit</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
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### 6.2.a Access

Across the four PHC practice models—FHO, FHG, FHT and CHC, a number of policy initiatives have been implemented to improve access. Sections 6.1.a.i and 6.1.b noted that in Ontario, the implementation of the patient enrollment initiative and blended capitation payment mechanism have been key in formally attaching patients to family physicians in FHO, FHG, and FHT practice models (described in Section 6.1.b). Table 6.1 displays elements of a number of initiatives that have been implemented in Ontario to improve access—one of the PHC policy goals (see Section 6.1). Table 6.1 shows that patients who are enrolled with family physicians in FHOs, FHGs and FHTs: a) have a regular source of care formally assigned to them; b) can contact their family physician first when they need care; and c) can access care in the evenings and on weekends. In these three models, family physicians are expected to make home visits when the need arises, for seniors or for housebound patients. In FHTs, enrolled patients also have access to non-physician providers for management of chronic conditions (see Section 6.1.b.v).

In the CHC practice model, though the patient enrollment model initiative has not been implemented formally through the service agreements, family physicians and non-physician...
providers provide care to a targeted group of medically underserved population within a specified catchment area (National Association of Community Health Centers, 2016) (see Section 6.1.b.vii). Often, CHCs register and keep a count of visits and reason for visit by patient. Family physicians and non-physician providers are the regular source of care and are the first point of contact for vulnerable patients with multiple morbidities; and make home visits on a regular basis to attend to the needs of the marginalized population (described in Section 6.1.b.i.vii). According to the key informant interviews,

“the patient enrollment initiative is not suitable for CHCs because family physicians practicing in a CHC deal with very complex patient populations as well as mental health patients (ID 005A). Given the nature and complexity of patients being cared for at CHCs, it is challenging for family physicians to handle more than 500 patients (ID 005A). Complex patients tend to require much longer visits” (ID 013A).

The service agreements for FHOs, FHGs, FHTs and CHCs in Ontario have not explicitly outlined a requirement for the PHC sector to offer same day or next day appointments at the request of patients. This suggests that, at the time of writing this thesis, patients are not guaranteed an appointment on the same day or the next day uniformly across Ontario, although some patients may be able to get same day or next day appointments with their primary source of care. As well, the service agreements offer little implementation guidance regarding the specific rules and timings for operating evenings and weekend services in PHC. The service agreements are predicated on the assumption that PHC providers under the self-governance model will realize on their own to follow their professional ethics and offer arrangements that line up with the needs and interests of their patients. With the vague language used in the service agreements, it is challenging to say whether care or PHC services across Ontario are consistently organized (e.g., if patients are getting same day or next day appointments when they need it regardless of where they live) and if patients can equitably access their regular source of care during evening and/or weekends. According to the key interview informants,

“access continues to be an issue for patients in PHC and patients are turning to emergency departments to seek care in the evening and weekends as per the Auditor General Report released in 2013” (ID 008A).
In sum, all constructs of access noted in Table 6.1, column 1 (advocated by WHO and Starfield), are part of the four PHC practice models—FHO, FHG, FHT and CHC—in Ontario. However, because the implementation of PHC reform initiatives has not been mandated, patients across Ontario may not uniformly get access to PHC services and providers in the evenings and weekends, and may not be able to get same day or next day appointments.

6.2.2 Coordination

An information system to capture, store and transfer patient health record is central to health providers’ ability to recall and recognize relevant patient information, link it to past care provided to patients and make a decision regarding care that can be delivered in PHC or coordinated elsewhere through a referral. In Ontario, the government has invested in and implemented electronic medical records (EMRs) in PHC by establishing an agreement with individual family physicians. The agreement for funding EMRs is separate from the PSA. 78% of family physicians in Ontario are using EMRs in their practice (Ontario Ministry of Health and Long Term Care, 2015) and initially received a subsidy from the government to purchase an EMR.

Starfield (1998) and WHO (1978) point out that having an information technology available and being able to use it in practice is fundamental to: a) the provision of high quality care; b) process a referral; and c) enable and foster relational continuity (defined in Chapter 5). High quality of care is facilitated through clinical decision-making tools, such as indicator reports and reminders generated in EMRs that prompt clinicians to act on alerts (Agency for Healthcare Research and Quality, 2009). A high-functioning EMR system is essential to support inter-professional team collaboration and management continuity (defined in Chapter 5) (Gocan, Laplante, & Woodend, 2014).

In reference to the role of an information system as described by WHO (1978) and Starfield (1998), in Ontario EMRs have been implemented in a slightly different way. The EMR funding agreement requires a family physician to adopt, implement and use an EMR. The agreement does not set out clear expectations around the documentation standards and requirements. According to the key informant interviews,
“text based data is captured in EMRs and the quality of data is poor, requiring a lot of effort to massage and clean up the data. The level of effort required to extract the data for quality improvement initiatives is huge and the cost is very high. The nature of the EMR data is also posing a few limitations. The unstructured EMR data is challenging to use for performance measurement, as well as coordinating care with interdisciplinary team members who are part of the PHC practice” (ID 008A; 009A; 002A).

Furthermore, as per the key interview informants:

“a systematic approach to implementing EMRs is missing. The EMR systems are not inter-operable with the hospital information systems or with information systems used by specialists where patients are receiving care. This does pose a number of challenges to enhance elements of coordinating care and establishing a plan of care for patients who have specialized care needs (ID 002A; 005A).

As per the key interview informants and as noted in Table 6.1, in FHOs, FHGs, FHTs and CHCs, EMRs are used as a mechanism to capture clinical data. However, EMRs contain unstructured, narrative data, which may pose some challenges for PHC providers to recall patient information and provide relational and informational continuity (defined in Chapter 5). In Ontario, concepts such relational, management and informational continuity are not explicitly defined in the service agreements and may not be implemented in practice, as defined by Starfield (1998).

6.2.c Longitudinality

All constructs of the concept of longitudinality (defined in Chapter 5) are noted in Table 6.1, Column 1. Two constructs—care provided by regular source of care and person-focused are—were noted in the funding service agreement but not explicitly defined. As part of the family physician remuneration schemes, patient enrolment incentives were created to enable family physicians in FHOs, FHGs, and FHTs to develop and strengthen a sustained relationship with patients over time. In FHO, FHT and FHG practice models, patients are formally attached to family physicians. Family physicians are expected to enroll patients based on assigned targets and to be the regular source of care for enrolled patients. However,
there is an implicit assumption made in the service agreement that family physicians will build partnerships with their enrolled patients, establish ongoing relationship overtime, and become more knowledgeable about all health needs of their enrolled patients. These elements are sub-concepts of the concept of person-focused care and they are not explicitly defined in the funding service agreement or remuneration schemes in Ontario. This analysis suggests that the concept of person-focused care, for example, is open to multiple interpretations and there is no guarantee that patients are receiving person-focused care in a consistent manner from PHC providers across Ontario as envisioned by WHO and Starfield. According to key interview informants,

“the lack of clarity and implementation directions in service agreements raises concerns about the provision of equitable care to patients across the province” (ID 001A).

This section highlighted that accountability in the funding agreement is attached to patient enrollment numbers and not to the delivery and/or outcomes of delivering person-focused care.

6.2.d Comprehensiveness

Within the Ontario context, in FHO, FHG and FHT PHC practice models, the scope of comprehensive care is defined from two lenses: 1) insured physician services covered by the provincial health plan; and 2) clinical assessment conducted and judgment made by family physicians at the point of care when a patient presents with health concerns. In the FHO, FHG and FHT PHC practice models, it is left up to family physicians to use their medical philosophy, ethics and professional judgment to assess and determine the full range of needs of their patients, and offer physician services based on what is covered under the publicly insured physician service plan. In contrast to these three PHC practice models, the scope of comprehensive services in CHCs is defined in a slightly different way.

The scope of PHC services for family physicians working in CHCs is defined by the CHC mandate (defined in Section 6.1.b.vii). CHCs have an explicit mandate to address the care needs of patients with a focus on physiological and broader social determinants of health including social, economic, environmental and culture factors (see Section 6.1.b.vii). CHCs
offer a broader scope of PHC services compared to FHOs, FHGs and FHTs, specifically with respect to identifying and addressing social determinants of health issues of individuals as well as of the community at large, and promoting self-care management and social well-being.

In terms of non-physician providers working in FHTs, the scope of comprehensive services that they can provide to patients is defined by: 1) what the ministry decides to publicly insure; and 2) demographic reports submitted to the ministry by FHTs. In FHTs, the scope of publicly insured non-physician provider services includes: chronic disease management (e.g., diabetes, hypertension, and medication management etc.); disease prevention (e.g., obesity management/weight loss, and smoking cessation etc.); and mental health care and counseling. This scope of non-physician provider insured services is relatively narrow compared to the scope of insured physician services in FHTs.

In FHO, FHG, and FHT practice models, according to the PSAs, family physicians are not expected to do outreach activities and engage with community members. This illustrates that some characteristics of FHO, FHG and FHT practice models are not aligned to the broader definition of PHC as advocated by WHO and Starfield. WHO (1978) and Starfield (1998) identify community engagement and outreach as an important element of the PHC attribute—comprehensiveness, and of the broader definition of PHC. Engaging with community members via outreach activities is a key component of the broader definition of PHC because it enables PHC providers to gather input from members of the community, identify and determine a wider range of health needs of their respective communities, and target initiatives that could benefit and improve population health.

CHCs, on the other hand, are an exception. According to their mandate, CHCs engage with their community and the population they serve to determine and design population-based programs for the medically underserved population. To provide comprehensive care and to build a sustainable partnership, it is important to engage with the community as it helps PHC providers to proactively seek out and determine a presence of an illness or an outbreak, and emerging challenges faced by members of the community within the broader social context (World Health Organization, 1978).
The analysis noted in Table 6.1 and Section 6.2 highlights the characteristics of the four Ontario PHC practice models—FHO, FHG, FHT and CHC—examined in this study. The characteristics of these four PHC practice models are closely aligned to some extent with the four key attributes of PHC (described in Chapter 6); however, they are more strongly aligned with the sub-concepts of the PHC attribute, access (defined in Chapter 5 and outlined in Table 6.1).

Improving access to PHC services is one of the PHC policy goals in Ontario (see Section 6.1.a) and this is an area where the Ontario government has invested its resources and efforts. The PHC sector in Ontario serves as the first point of contact for patients and their families for new or ongoing care needs. For enrolled patients, the PHC practice sites and PHC providers are their regular and primary source of care for: addressing health concerns; organizing care and arranging an appointment with specialists; and helping patients navigate the health system. Although CHCs do not formally establish contracts with patients and enroll patients with a family physician, they register all patients and are patients’ first point of contact into the health system.

Same day or next day access to PHC services has not been formally implemented in PHC clinics and access to PHC services in the evenings and weekends may be inconsistently offered across the provinces as the operating hours are not defined in the service agreements and all PHC clinics are not mandated to offer care during extended hours. In connection to extended hours of care in PHC, the service agreements do not explicitly define the role and accountabilities of PHC providers—in relation to managing their patients’ use of health service in PHC and preventing unnecessary visits to the specialists, emergency departments, and hospitals (for readmission).

The PHC characteristics in Ontario are not closely aligned to the concepts of: same day or next day appointments; person-focused care; and community engagement and outreach. Overall, the characteristics of PHC in Ontario are not tightly aligned to the broader definition (defined in Chapter 5) of PHC as advocated by WHO and Starfield. Although policy initiatives have been implemented in Ontario with the goal to reform the characteristics of PHC services (i.e., access and coordination of care) more closely to the broader definition of PHC, services that offered through FHOs, FHGs, and FHTs are more closely aligned the
attributes of PC (defined in Chapter 5). When uptake and implementation of policy initiatives is voluntary, service agreements and alternate payment methods alone may be insufficient to reform PHC to bring it close to the attributes of PHC espoused by WHO (1978) and Starfield (1998). The PHC system in Ontario is in transition.

This chapter provided an overview of the PHC reform policy goals and initiatives; described the diverse set of PHC practice models and remuneration methods implemented in Ontario; presented analysis and characterized the four PHC practice models; and described the degree of alignment between the characteristics of PHC practice models in Ontario and the four key PHC attributes defined by WHO (1978) and Starfield (1992, 1998).

The next chapter, Chapter 7, initiates the discussion on performance measurement (defined in Chapter 2) to answer research question #1.b. Chapter 7 explores which constructs of the PHC key attributes (defined in Chapter 5 and discussed in Chapter 6) are or are not being captured in the five PHC indicator measurement systems examined in this research study. Information from Chapter 6 is referenced and used in Chapter 7 to critically analyze and discuss findings related to Primary Care Performance Measurement Framework for Ontario, one of the five PHC indicator measurement systems.

Chapter 8 ties the discussion presented in Chapters 6 and 7 to answer research sub-questions #2. Chapter 8 examines different policy initiatives used in Ontario to implement accountability, including performance measurement; and compares the accountability and reporting requirements across the four PHC practice models: FHO, FHG, FHT and CHC—that have been discussed in this chapter.
Chapter 7

Primary Health Care Attributes and Indicator Systems

7.0 Primary Health Care Attributes and Indicator Systems

7.0.1 Chapter Overview

Performance measurement is an example of a mechanism used to assess performance of a defined set of activities as well as measure accountability in relation to a defined set of objectives. Performance measurement is a tool that is often used to examine whether policy goals or desired outcomes are being achieved as intended and to know what is working versus not working. This chapter synthesizes information from the literature about five PHC indicator measurement systems commonly used in the United States and in Canada to measure PHC performance, and examines the extent to which these five measurement systems capture the constructs of the four key PHC attributes (described in Chapter 5).

The five PHC indicator measurement systems analyzed and discussed in Section 7.2 of this chapter are: 1) Primary Care Assessment Tool (Starfield, 1998); 2) Primary Care Assessment Survey (Safran et al., 1998); 3) Components of Primary Care Index (Flocke, 1997); 4) Pan-Canadian PHC indicators (Canadian Institute for Health Information, 2006, 2012b); and 5) Primary Care Performance Measurement Framework for Ontario (Health Quality Ontario, 2014b).

Section 7.3 presents analysis that shows which constructs of the four key PHC attributes: access, longitudinality, comprehensiveness and coordination are and are not captured in the five PHC measurement systems. The findings discussed in Sections 7.2 and 7.3 collectively answer Research Question #1.b: what are the key PHC indicator measurement systems and what key characteristics of PHC are being and not being captured? And why? Finally, Section 7.4 describes the production characteristics of indicators that are captured in the five PHC indicator systems. Section 7.4 also explains and offers insights on why it is not easy to capture a subset of PHC attributes in the PHC indicator measurement systems, using the theoretical concepts of production characteristics by Preker et al. (2000). Some lines of
argument noted in Section 7.4 are referenced in Chapter 8 when similar patterns are observed with respect to the data that are versus not being collected and reported in Ontario for measuring PHC accountability.

7.1 Context

A number of performance measurement tools have been developed and used in the United States, United Kingdom and Canada to measure performance of PHC. Five PHC indicator measurement systems from the United States and Canada are briefly described first in Section 7.2 and then examined and analyzed to determine the conceptual alignment to the four key PHC attributes (described in Chapter 5) in Section 7.3. The four key PHC attributes and their definitions described in Chapter 5 are used as a reference point because according to Starfield (1998), the extent to which the PHC key attributes—access, person-focused (or longitudinality), comprehensiveness and coordination—are attained indicates how well PHC is performing and meeting its role and accountabilities within the broader health care system. Tying accountability measures or indicators to the constructs of the four key PHC attributes can guide decisions about meaningful improvements across all levels of the health care system—from provider-patient interaction to regional planning to provincial and/or national health strategies (B Starfield, 1998).

7.2 Overview of Primary Health Care Indicator Measurement Systems

In this section, from Sections 7.2.a to 7.2.e, the five PHC indicator measurement systems are briefly described to set context for the discussion in Section 7.3.

7.2.a Primary Care Assessment Tool—Adult Edition (PCAT-AE)

The Primary Care Assessment Tool-Adult Edition (PCAT-AE) is a consumer-client survey that is designed to gather patient reported data on four core PHC subdomains and three derived domains using nine scales (concepts of the scale are noted in brackets below). The core PHC subdomains are: 1) first contact (i.e., scales measuring the extent of affiliation with a place or a doctor, utilization, and access); 2) longitudinality (i.e., scales measuring
interpersonal relationship and information system); 3) coordination of services (i.e., scales measuring sequential visits); and 4) comprehensiveness (i.e., scales measuring services available and services provided) (Starfield, 1998). The derived domains (from the core domains) include: 1) family-centeredness; 2) cultural competency; and 3) community orientation. In total, there are seven domains: four core domains; and three derived domains.

There are two versions of the PCAT-AE survey: expanded version and short version. The expanded version contains 129 survey questions (survey questions are also referred as items in the literature and in this thesis) while the short version contains 56 survey questions. The PCAT-AE survey questionnaire has been assessed for validity and reliability. The psychometric assessment supports the integrity and general adequacy of the PCAT-AE for assessing the characteristics of and quality of services in PHC for adults (Shi, Starfield, & Xu, 2001). In addition, when Haggerty (Haggerty et al., 2011) administered the PCAT-AE survey plus five other tools in the Canadian context to examine and compare how well the instruments measure essential attributes of PHC, she reported that PCAT-AE (the expanded version) has better measurement properties for all four key PHC attributes. For the purpose of this research thesis, the PCAT-AE expanded version with 129 survey question items is analyzed in Table 7.1, Column 2.

The PACT-AE survey by Starfield (1998) is widely used internationally, including in the United States and in Canada to measure the performance of the health service delivery and experiences of patients and providers with PHC (Fracolli et al., 2014; Haggerty, 2011; Haggerty et al., 2011; Shi, 2012; L. Shi & Starfield, 2001; Shi et al., 2002; Shi et al., 2001; Starfield et al., 2005). In Ontario, the Primary Care Assessment Tool (Starfield, 1998) has been used to evaluate the performance of PHC models in 2011 and to evaluate the PHC reform pilot sites in the 1990s (Starfield, 2011).

7.2.b Primary Care Assessment Survey

The Primary Care Assessment Survey (PCAS) by Safran (1998) is a patient-completed questionnaire designed to operationalize the IOM’s definition of PHC (previously defined in Chapter 5) and to enable performance monitoring and improvement planning at the individual physician, group practice, health plan, and health delivery system level. The PCAS tool has been validated and implemented in some parts of the United States.
The PCAS measurement tool consists of 51 questions to assess seven domains through eleven measures of PHC performance. The domains and the corresponding measures (noted in brackets) are: 1) accessibility (organizational and financial measures); 2) continuity (longitudinality, and visit-based measures); 3) Comprehensiveness (contextual knowledge of patient, and preventive counseling measures); 4) integration; 5) clinical interaction (clinician-patient communication, and thoroughness of physical examinations); 6) interpersonal treatment; and 7) trust (Safran et al., 1998). The sub-constructs of the PCAS tool are conceptually mapped in Table 7.1, column 3.

7.2.c Components of Primary Care Index

The Components of Primary Care Index (CPCI) tool measures patient’s perspective of the patient-physician interaction, and are designed for individual patients to complete the survey immediately following a visit with a family physician. The CPCI tool has been validated for content and concepts during the pilot testing and implementation phases in the United States.

The CPCI tool has seven components, which have been selected based on the IOM 1992 definition of PHC (previously discussed in Chapter 5) and the components of PHC identified by prominent researchers at that time when the CPCI tool was being developed (Flocke, 1997). The seven components of the CPCI tool include: 1) comprehensiveness of care—majority of care that is provided by a family physician; 2) physician accumulated knowledge about a patient; 3) interpersonal communication; 4) coordination of care and patient rating of the importance of coordination; 5) first-contact care; 6) continuity of care and patient rating of the importance of continuity; and 7) longitudinality. The sub-constructs of the CPCI tool are conceptually mapped in Table 7.1, column 4.

7.2.d Pan Canadian PHC Indicators

In 2006, CIHI released a set of 105 pan-Canadian PHC indicators that were identified through a consensus process. Indicators that were deemed necessary to measure and compare PHC performance at multiple levels within and across jurisdictions in Canada were included as part of the 105 pan-Canadian indicators. In 2012-2013, CIHI updated the 105 indicators through a Modified Delphi Method and released two sets of priority measurable PHC indicators: 27 indicators for policy makers and 24 indicators for PHC providers. A number of indicators
overlap between the two sets of indicators, indicators for the policy maker and indicators for PHC providers. Overall, the updated pan-Canadian PHC indicators are comprised of 13 domains and 46 indicators. The 13 domains are: 1) acceptability; 2) accessibility; 3) appropriateness; 4) comprehensiveness; 5) coordination; 6) effectiveness; 7) efficiency; 8) expenditure; 9) governance; 10) health status; 11) information technology infrastructure; 12) safety; and 13) workforce (Canadian Institute for Health Information, 2012b). Based on stakeholder consensus and due to the lack of availability of data sources, nine out of 46 indicators were dropped out (Canadian Institute for Health Information, 2012b). The updated list of a total of 37 PHC indicators are used for the purpose of the analysis presented in Table 7.1, column 5. Of the 13 pan-Canadian PHC domains, three domains (accessibility, comprehensiveness and coordination) are closely relevant to the attributes of PHC defined by WHO (1978) and Starfield (1998) (see Table 7.1). Indicators related to the other domains are also and presented in Table 7.1 under the last row “other”.

7.2.e Primary Care Performance Measurement Framework for Ontario

In 2014, HQO released the Primary Care Performance Measurement (PCPM) Framework for Ontario. The PCPM Framework for Ontario includes nine domains, 112 practice-level and 179 system-level measures (Health Quality Ontario, 2014b). Ninety-two measures are common to both levels. At the time of writing this thesis, HQO indicated that data sources are available for only 13 per cent (i.e., 15 measures) of the 112 practice-level measures and for only 41 per cent (i.e., 73 measures) of the 179 system-level measures (Health Quality Ontario, 2014b).

A total of 107 measures were recommended, through a consensus process, as valuable to measure PHC on a regular basis and to inform decision-making. A broad group of stakeholders, including clinicians, PHC organizations, system managers, researchers and patient representatives participated in the consensus process. The nine domains of the PCPM Framework for Ontario are: 1) access; 2) patient-centeredness; 3) integration; 4) effectiveness; 5) focus on population health; 6) efficiency; 7) safety; 8) appropriate resources; and 9) equity (Health Quality Ontario, 2014b). All 107 measures of the PCPM Framework for Ontario are analyzed in Table 7.1, column 6.
Table 7.1, below, displays in detail one-to-one conceptual mapping between the four key PHC attributes (column 1 of Table 7.1) and the sub-concepts/constructs representing the survey questions/items and/or indicators included in the five PHC indicator measurement systems (i.e., PACT-AE, PACS, CPC1, pan-Canadian PHC indicators and PCPM for Ontario in columns 2, 3, 4, 5 and 6 respectively). There are 20 sub-concepts noted in column 1 and these are derived from the analysis described in Chapter 5. Of note, indicators in the five PHC indicator measurement systems often do not use the same terms as the sub-concepts of the four key attributes, noted in the column 1. In addition, cells with a blank space in Table 7.1 indicate that some PHC indicator systems do not capture some and/or all constructs of the key PHC attribute (being examined). Constructs of the survey questions that are not similar to the PHC key attributes are described in the last row, labeled as ‘other’. From the detailed analysis presented in Table 7.1, key points are distilled and discussed next in Section 7.3.

<table>
<thead>
<tr>
<th>Key Attributes of PHC</th>
<th>PHC Indicator Systems and sub-concepts Included for Measurement</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO (1978) and Starfield (1998) 4 key concepts, 20 sub-concepts</td>
<td>PCAT (Starfield, 1998) 129 items</td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>Financial access</td>
<td>First contact</td>
</tr>
<tr>
<td>First point of contact</td>
<td>Money patient pays for visit or treatment</td>
<td>Visit to doctor for illness</td>
</tr>
<tr>
<td>Availability of PHC source of care</td>
<td>Organizational access: Accessed physician's office via phone</td>
<td>Affordability: Health insurance</td>
</tr>
<tr>
<td>Availability of PHC provider(s)</td>
<td>Get a medical appointment</td>
<td>Acceptability</td>
</tr>
<tr>
<td>After-hours care (weekend and evening)</td>
<td>Obtain information via phone</td>
<td>Satisfaction with visit</td>
</tr>
<tr>
<td>Make house calls</td>
<td>Waiting time on phone</td>
<td>Acceptability</td>
</tr>
<tr>
<td>Can get same day or next day appointments</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Of the 60 indicator items, 30 indicators identified for use by policy makers and 30 indicators for use by providers; 7 overlap

2 Of the 291 items, 179 indicators identified for system level and 112 indicators identified for practice level; 92 are common set of indicators between system and practice levels.
### Table 7.1 Five PHC Indicator Measurement Systems and PHC Key Attributes

<table>
<thead>
<tr>
<th>Key Attributes of PHC</th>
<th>PHC Indicator Systems and sub-concepts Included for Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WHO (1978) and Starfield (1998)</strong>&lt;br&gt;4 key concepts, 20 sub-concepts</td>
<td>PCAT (Starfield, 1998) 129 items</td>
</tr>
<tr>
<td>Difficulty getting care Accommodation:</td>
<td>Appointment punctuality Convenience of office location and hours.</td>
</tr>
<tr>
<td>Patient goes to PHC when ill Provider knows patient well &amp; is responsible for health (as a person) Duration of relationship Assigned or choose PHC, can change Seek care for special problem, regular checkup, a new problem Patient &amp; family involvement in planning care Provider surveys patients, and community members</td>
<td>Longitudinal continuity Duration of patients' relationship with physician Visit based continuity: Frequency of patient visit to see physician for routine check-ups and when sick Contextual knowledge of the patient: FP’s knowledge of patients medical history, responsibilities at work, home and school, principle health concerns, values and beliefs</td>
</tr>
<tr>
<td>Comprehensive Services provided for majority of population health needs Adequately recognize full range of patients health needs within the</td>
<td>Contextual knowledge Physicians’ knowledge of patients medical knowledge, Responsibilities at work, Principal health concerns, values &amp; belief</td>
</tr>
<tr>
<td></td>
<td>Provider knows about problems, medical &amp; family history, employment, ability to pay for meds 36 items of preventive services, health promotion, interventions Community orientation: Health problems in the community</td>
</tr>
<tr>
<td>Key Attributes of PHC</td>
<td>PHC Indicator Systems and sub-concepts Included for Measurement</td>
</tr>
<tr>
<td>----------------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>WHO (1978) and Starfield (1998)</td>
<td>4 key concepts, 20 sub-concepts</td>
</tr>
<tr>
<td>PCAT (Starfield, 1998)</td>
<td>129 items</td>
</tr>
<tr>
<td>Primary Care Assessment Survey (Safran, 1998)</td>
<td>51 items</td>
</tr>
<tr>
<td>Components of Primary Care Index (Flocke, 1997)</td>
<td>19 items</td>
</tr>
<tr>
<td>Pan-Canadian PHC Indicator (CIHI, 2012)</td>
<td>60 items</td>
</tr>
<tr>
<td>Primary Care Performance Measurement Framework Ontario (HQO, 2014)</td>
<td>291 items</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Broader social context</th>
<th>Outreach (needs assessment)</th>
<th>Home visit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider consults with other providers to provide better health care</td>
<td>Ask family members to be on the Board of Directors or advisory committee</td>
<td>Patient would recommend their provider to someone else</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Preventive counseling:</th>
<th>Medical and family history</th>
<th>Understand care needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physician discussed smoking, alcohol use, seat belt use, diet, exercise, stress &amp; safe sex.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coordination/Integration:</th>
<th>Patients' perception that physician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Get a referral to see a specialist</td>
<td>Is unaware of the care provided elsewhere</td>
</tr>
<tr>
<td>Seen by specialist</td>
<td>Communicates with other providers</td>
</tr>
<tr>
<td>FP aware of visit to specialist, care requirements and concerned about quality of care</td>
<td>Aware of the results of visits with other doctors</td>
</tr>
<tr>
<td>Assessment of FP's role in coordinating &amp; synthesizing care received from specialists and or while patient was hospitalized</td>
<td>Always follows up on a problem at my next visit or via phone</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coordination:</th>
<th>PHC team effectiveness score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborative care with other health care organizations</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coordinate care</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients rate provider for team approach</td>
</tr>
<tr>
<td>PHC organizations have tools to support collaboration</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patients readmitted to a hospital within 30 days &amp; 1 year of discharge</td>
</tr>
<tr>
<td>Rate of hospitalization by chronic conditions</td>
</tr>
<tr>
<td>Test results unavailable &amp; notification delays</td>
</tr>
<tr>
<td>FP/NP informed about care received elsewhere</td>
</tr>
<tr>
<td>PHC coordinated care with specialist &amp; coordinated community services</td>
</tr>
<tr>
<td>Wait time for specialists &amp; community services</td>
</tr>
<tr>
<td>7 days after discharge saw physician</td>
</tr>
<tr>
<td>Hospital arranged follow-up care</td>
</tr>
<tr>
<td>Received hospital discharge report</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family centeredness</td>
</tr>
<tr>
<td>PHC provider sought ideas &amp; opinion to plan, treat &amp; care for you &amp; your family</td>
</tr>
<tr>
<td>PHC provider took family medical history</td>
</tr>
<tr>
<td>PHC provider met patient’s family</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communicate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thoroughness of FP’s questions about symptoms, attention to what patient in says, clarity of explanations, instructions, advise and help in making</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Appropriateness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screening and preventive care (16 indicators)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effectiveness:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalization for ambulatory care sensitive conditions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medication prescribed, routine examined</td>
</tr>
<tr>
<td>Mental health follow-up COPD confirmed</td>
</tr>
<tr>
<td>Blood tests, BMI etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient demographics</td>
</tr>
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<td>19 items</td>
</tr>
<tr>
<td>Pan-Canadian PHC Indicator (CIHI, 2012)</td>
<td>60 items</td>
</tr>
<tr>
<td>Primary Care Performance Measurement Framework Ontario (HOQ, 2014)</td>
<td>291 items</td>
</tr>
</tbody>
</table>

- **Activities**
  - Make home visits
  - Make home visits
  - Make home visits
  - Make home visits
  - Make home visits

- **Awareness and Knowledge**
  - Aware of health problems in my neighbourhood,
  - Get ideas from people that will help provide better health care

- **Participation**
  - Cultural competence:
    - Recommend PHC provider to:
      - A friend or relative
      - Non-English speaking persons
      - Someone who uses folk medicine
      - Insurance questions
      - Health assessment
      - Demographic/socioeconomic characteristics

- **Effectiveness**
  - Physical examination of patient:
    - Thoroughness of FP’s physician examination of patient
  - Trust:
    - Assessment of FP’s integrity, competence and role as the patient agent

- **Efficiency**
  - Emergency department visits for asthma
  - Complications of diabetes
  - Blood pressure control

- **Expenditure**
  - PHC FP remuneration method

- **Governance**
  - PHC needs-based planning
  - Maintaining medication and problem list in PHC

- **Information Technology**
  - Uptake of information & communication technology by PHC providers

- **Workforce**
  - PHC provider supply

- **Quality**
  - % Obese, inactive patients, smokers, vaccinated, cancer etc.

- **Health Promotion**
  - Prenatal care & breastfeeding

- **Efficiency**
  - Expenditures (e.g., ED visits, capitation)

- **Quality Improvement**
  - PHC consult wait time
  - Health promotion advise
  - Duplicate tests ordered

- **Appropriate Resources**
  - # Of hours on direct or indirect patient care, teaching/education, committees, administration, research, managing practice
  - High demands to manage aging, chronic patients, workload, medical liability

- **Quality Improvement**
  - Quality improvement in PHC & receive data on clinical outcomes, patient satisfaction, hospital admission, & frequency of ordering diagnostic tests and referrals to specialists

- **FPs Report Providing Broader Scope of PHC Care Services**
  - PHC practice in teams and professional development support

- **PHC Have a Complete Team, # Staff**

### 7.3 Primary Health Care Attributes in Measurement Systems

This section distills key points of the analysis from Table 7.1 to discuss which key PHC attributes are and are not included in the five PHC indicator measurement systems and why.
not. This discussion is presented below in Sections 7.3.a to 7.3.d and is arranged by the four key PHC attributes: 1) first level contact/access; 2) person-focused care/longitudinality; 3) comprehensiveness; and 4) coordination.

Section 7.4 draws on the key findings noted in Sections 7.3.a to 7.3.d and explains why some constructs of the key PHC attributes are not included in the five PHC indicator systems, using the theoretical framework by Preker et al. (2000) (described in Chapter 2). The theoretical framework by Preker et al. (2000) assists in pointing out the limitations of the production characteristics of PHC services and challenges of using patient reported measurement to evaluate all sub-concepts of the key PHC attributes.

7.3.a Access

As per WHO (1978), Starfield (1992, 1998), and Penchansky and Thomas (1981), the attribute access represents the following sub-concepts: access, availability, accommodation, affordability, acceptability and utilization. These are described in Table 7.2, column 1.

Table 7.2 Measuring access in PHC indicator measurement systems

<table>
<thead>
<tr>
<th>First level contact &amp; accessibility</th>
<th>PACT-AE</th>
<th>PCAS</th>
<th>CPCI</th>
<th>CIHI</th>
<th>PCPM Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access: place &amp; provider</td>
<td>Yes</td>
<td>Yes</td>
<td>Partial</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Availability: emergency appointment, house calls, after-hours coverage</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Partial</td>
<td>Yes</td>
</tr>
<tr>
<td>Accommodation: office hours, same day or next day availability, wait in waiting room, wait to get an appointment</td>
<td>Yes</td>
<td>Partial</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Affordability: fees or insurance payment</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Acceptability: PHC office appearance and neighbourhood &amp; other visiting patients</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Utilization: first visit for a new problem is made to the regular source of care</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
Table 7.1 highlights that the five PHC indicator measurement systems define and capture sub-concepts of access in a slightly different way compared to how they are defined by WHO (1978) and Starfield (1998). Table 7.2 notes that the constructs of the key attribute access are partially captured in the PACT-AE (83%), PCPM for Ontario (50%) and PCAS, CPCI and CIHI tools (33%).

The sub-concept—availability—is captured comprehensively in the PACT-AE and PCPM Framework for Ontario survey questionnaire, and is partially captured in CIHI’s pan-Canadian PHC indicators. The two tools—PCAS and CPCI—do not survey patients about PHC provider availability: when an emergency arises; during after-hours; and/or to make house calls.

The sub-concept—accommodation—is fully captured in the PACT-AE and PCPM Framework for Ontario, and partially captured in the PCAS survey questionnaire. The CPCI survey questionnaire and CIHI’s pan-Canadian PHC indicators do not include constructs to measure the sub-concept—accommodation.

The sub-concept—acceptability—is partially captured in the CPCI tool. The other four PHC measurement systems listed in Table 7.2 do not include constructs to measure the sub-concept acceptability.

The sub-concept—affordability—is captured in the PACT-AE, PCAS, and CPCI survey questionnaire. However, the constructs of affordability are not captured in CIHI’s pan-Canadian suite of indicators and the PCPM Framework for Ontario survey questionnaire. This observation may be explained by the context in which CIHI’s pan-Canadian suite of indicators and the PCPM Framework for Ontario survey questionnaire were developed. These indicator systems were developed within the Canadian context and in Canada, all Canadian jurisdictions offer a universal provincial health care coverage as per the principles of the CHA (1984)—which does not require patients to make a payment at the point of receiving care for medically necessary insured services from a physician (see Section 3.1.b in Chapter 3).

The constructs of the sub-concept utilization are captured in PACT-AE survey questionnaire. However, the other four PHC indicator measurement systems—PCAS, CPCI, CIHI’s pan-
Canadian suite of PHC indicators, and PCPM Framework for Ontario—do not capture and measure constructs of the sub-concept utilization such as whether or not the first visit for a new problem is made to a regular source of care. This indicator is an important marker to show if PHC does serve as an entry into the health system and if health care system resources are being utilized appropriately and in a cost effective manner (Starfield, 1998), especially in countries where PHC is the first point of contact of care. Though in Canada and in Ontario, PHC serves as a first point of contact (see, Section 3.2, Chapter 3), it is less obvious why the two made in Canada measurement systems—CIHI’s pan-Canadian suite of PHC indicators and PCPM Framework for Ontario—do not capture the sub-concept of utilization—if the first visit for a new problem is made to the regular source of care. This indicator within the Canadian context could potentially shed light on whether access to PHC is improving or needs to be further strengthened, and what other policy initiatives could be introduced to improve health care system sustainability. In the United States PHC does not always serve as the first point of contact into the health system; this may explain why the PCAS and CPCI survey questionnaire (developed in the United States) do not capture this sub-concept of utilization.

7.3.b Person-focused Care/Longitudinality

The concept of person-focused care/longitudinality underlines the long-term inter-relationship between a provider and a patient. In Chapter 6, the analysis highlighted six sub-concepts of person-focused care (Starfield, 1998; World Health Organization, 1978). The six sub-concepts are: 1) PHC use over time for un-referred visits; 2) provider-patient relationship over time; 3) strength of the relationship between patients and provider(s); 4) number of patients attached to or registered with the regular source of care within a defined area; 5) place of visit; and 6) encounters for type of problems (Starfield, 1998; World Health Organization, 1978). These six sub-concepts are described in Table 7.3, column 1.
### Table 7.3 Measuring Person-focused Care in PHC Indicator Systems

<table>
<thead>
<tr>
<th>Person-focused care and patients’ involvement to empower self-care</th>
<th>PACT-AE</th>
<th>PCAS</th>
<th>CPCI</th>
<th>CIHI</th>
<th>PCPM Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilization: PHC use over time for un-referred visits with the primary source of care</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Temporal relationship: patient-provider relationship over time</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Personal relationship: strength of relationship between patient-provider(s)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Defined eligible population: patients attached or registered with the regular source of care</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Place of visit</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Encounter for a type of problem</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 7.3 highlights that the sub-concepts of person-focused care as defined by WHO (1978) and Starfield (1998) are captured sporadically in five PHC measurement tools. The sub-concept utilization, which aim to measure PHC use over time for un-referred visits, is only included in the PACT-AE and PCAS tools but not in the CPCI, CIHI and PCPM for Ontario measurement systems.

The sub-concepts—temporal relationship and personal relationship, which aims to measure patient-provider relationship over time and the strength of this relationship, are included in PACT-AE, PCAS, and CPCI tools only. CIHI’s pan-Canadian suite of indicators and the PCPM Framework for Ontario do not capture the sub-concepts of temporal and personal relationship. This latter finding is important to note considering the patient-to-provider attachment (referred as patient rostering—defined in Chapter 3) has been one of the major initiatives implemented to reform PHC in Canada, including Ontario (noted in Chapter 6).
The sub-concept of defined eligible population is only captured in, hence, measured in the PACT-AE measurement tool.

The two sub-concepts—place of visit and encounter for the type of problem—are not captured in any of the five PHC measurement systems (see Table 7.3).

To sum it up, PACT-AE captures four of the six person-focused care sub-concepts. The three PHC indicator measurement instruments, PCAS, CPCI and PCPM Framework for Ontario capture some sub-concepts of person-focused care; however, constructs of the survey questions in PCAS and CPCI tools place their focus to only measure patients’ perspective on a family physician as a provider. Considering that team-based care is a prominent characteristic of PHC as noted by WHO (1978) and Starfield (1992, 1998), PCAS and CPCI tools are not fully capturing, hence, evaluating the constructs of the PHC attribute, person-focused care.

The PCPM Framework for Ontario has a domain that they label patient-centeredness domain (see Table 7.1, column 6). In the patient-centeredness domain, the following constructs are included: percent of patients who report that their family physician, nurse practitioner or someone else in the PHC office: a) spends enough time with them; and b) explains things in a way that is easy to understand. These constructs do not directly measure the sub-concepts of person-focused care (listed in Table 7.3, column 1) as defined by WHO (1978) and Starfield (1998). This finding points out that Ontario’s PCPM Framework is not measuring sub-concepts of person-focused care such as: temporal relationship (i.e., patient-provider relationship overtime); personal relationship (i.e., strength of relationship between a patient and provider(s)); defined patient population (i.e., patients registered with a regular PHC source); the place of visit from which patients are receiving care; and PHC encounter for a type of problem. This finding illustrates that the PCPM Framework for Ontario has not been designed to capture indicators that can measure and evaluate aspects of the PHC reform policy initiatives (e.g., patient enrollment model, and PHC serving as the first source of care etc.) implemented in Ontario (as noted in Chapter 6).

The analysis in Table 7.3 also shows that CIHI’s pan-Canadian PHC indicators are not measuring any sub-concepts of person-focused care.
CIHI’s pan-Canadian indicators and PCPM Framework for Ontario do not capture the sub-concepts such as eligible patient population, PHC use over time for un-referred visits and temporal and personal relationship. These constructs if measured, could potentially aid to evaluate aspects of Ontario’s PHC reform initiatives and understand the intended results of increasing responsibility of family physicians to manage patient’s use of health services within PHC for new and ongoing care needs (see Chapters 6 and 8).

Overall, Table 7.3 highlights that none of the five measurement systems include an item to measure patients’ perspective about whether or not they are treated as a whole person by their PHC provider and if they are feeling empowered to manage self-care and comply with recommended care. Empowering patients toward self-care is: a) a by-product of a greater continuity of care between a PHC provider and a patient; b) emphasized as an essential part of operationalizing the PHC definition described by WHO (1978) and Starfield (1992, 1998); and c) key to achieving a sustainable partnership with patients and a sustainable healthcare system. This data could potentially be collected using patient surveys.

7.3 c Comprehensiveness

The third attribute of PHC involves providing comprehensive care to patients, their families and members of the community. Comprehensiveness involves gathering and taking into account information on the whole population and community, and on various dimensions about the patient and their family, including their employment, social determinants of health, and financial well-being (Starfield, 1998; World Health Organization, 1978). The measurement constructs for comprehensiveness include: 1) a range of services delivered according to professional guidelines; 2) a range of a core set of services available to every person and those with special needs that are common within a sub-population; 3) frequency of type of services encountered (e.g., PHC versus specialty); 4) team-based care or inter-disciplinary care; and 5) community orientation (Starfield, 1998; World Health Organization, 1978). The five constructs are described in Table 7.4, column 1.
Table 7.4 Measuring Comprehensiveness in PHC Indicator Systems

<table>
<thead>
<tr>
<th>Comprehensiveness</th>
<th>PACT-AE</th>
<th>PCAS</th>
<th>CPCI</th>
<th>CIHI</th>
<th>PCPM Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range of services delivered aligned to guidelines (competency)</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Partial</td>
</tr>
<tr>
<td>Range of services available as a core set</td>
<td>Yes</td>
<td>Partial</td>
<td>Partial</td>
<td>Some</td>
<td>No</td>
</tr>
<tr>
<td>Frequency and the type of services encountered (i.e., PHC vs. specialty care)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Comprehensive care delivered by diverse inter-disciplinary team</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Partial</td>
<td>No</td>
</tr>
<tr>
<td>Community orientation (home visits &amp; outreach)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 7.4 shows that the sub-concept of comprehensiveness, range of services delivered according to guidelines, is captured in PACT-AE, PCAS, CPCI and CIHI tools. The PCPM Framework captures: 1) the delivery of guideline-based services; and 2) immunization and screening services in the domains they label—effectiveness, and population health respectively. The PCPM Framework for Ontario does not have a domain dedicated to comprehensiveness.

The measurement of the sub-concept—the range of services available as a core set in PHC—is fully captured in PACT-AE, and partially captured in PCAS, CPCI and CIHI measurement systems. The PCAS tool captures information on preventive counseling and the CPCI measurement tool asks patients if majority of their care is addressed by a family physician (details noted in Table 7.1). Both the PCAS and CPCI measurement tools do not capture elements to measure the sub-concept—a range of core services available to patients. CIHI’s pan-Canadian indicators capture items related to immunization, screening and prevention. The PCPM Framework for Ontario does not include any survey questions to measure a range of core PHC services available to Ontarians. The latter point suggests that the PCPM
Framework for Ontario is not designed to evaluate if PHC policy reform initiatives (noted in Chapter 6) in Ontario are effective in broadening the orientation and scope of PC services to include services such as health promotion and prevention, and wellbeing (including housing, and sanitation etc.), as envisioned by WHO (1978) and Starfield (1998) in their definition of PHC (noted in Chapter 5).

The two sub-concepts of comprehensiveness—frequency and type of services encountered—are not included in any of the five PHC indicator measurement tools listed in Table 7.4. This observation may be explained by the design and intent of these tools. These tools capture perspectives from patients and not from PHC providers. Patients are recipients of services and generally they have no direct access to information on frequency and type of services encountered in PHC. This information is typically stored in electronic systems, physically situated in PHC offices and readily accessible by PHC providers. PHC providers such as family physicians, nurse practitioners, nurses and front desk clerks are usually involved in capturing technical and clinical content such as a reason for visit, symptoms and health conditions in an information system such as the electronic medical records (EMRs).

Considering the role of PHC providers in capturing technical content, it is more appropriate to either gather data directly from PHC providers or extract data from EMRs for measuring frequency and type of services encountered. This context provides insight on why the consumer-oriented surveys such as PACT-AE, PCAS, CPCI and PCPM may not be capturing feedback from patients on reason and frequency of PHC visit.

The sub-concept—diverse group of resources (including interdisciplinary team care) are available in PHC to provide comprehensive care—is partially captured in CIHI’s indicator measurement system and not in PACT-AE, PCAS, CPCI and PCPM for Ontario measurement systems. Interdisciplinary teams are an essential component of the PHC structure to address a broad spectrum of health concerns that revolve through PHC (B Starfield, 1998; World Health Organization, 1978).

The sub-concept—community orientation—is only captured in PACT-AE and not in the other four PHC measurement tools. According to WHO (1978) and Starfield (1998), it is vital for PHC to incorporate processes to enable PHC providers to engage with members of the community in order to get a better sense of: a) social and economic determinants affecting the
well-being of local community residents; and b) emerging health ailments. Community orientation and engagement in PHC helps PHC providers design, plan and offer targeted programs and services to members of the community.

In sum, Table 7.4 illustrates that less than 40% of the constructs of comprehensiveness are captured in four PHC indicator measurement tools—PCAS, CPCI, CIHI and PCPM Framework for Ontario. The PACT-AE captures and measures 60% of the sub-concepts of comprehensiveness.

7.3.d Coordination of Care.

Coordination of care is a function carried out by primary, secondary and tertiary levels of care (Starfield, 1998). Within the PHC context, appropriate technology or a mechanism is essential to track, manage, retrieve and process patient health information in order to provide care directly and/or to coordinate care that can be provided elsewhere for patients with a very uncommon illness or condition (as noted in Chapter 5) (Starfield, 1998; World Health Organization, 1978). According to WHO (1978) and Starfield (1998), the five measurement constructs connected to the concept of coordination of care in PHC are: 1) mechanism to convey and transfer information; 2) medical records contain accurate and complete information; 3) informational continuity; 4) relational continuity; and 5) management continuity. Of the five, the last four sub-concepts represent care processes that typically involve knowledge of PHC provider(s) to coordinate care or integrate knowledge. All five constructs are described in Table 7.5, column 1.

Table 7.5 Measuring coordination of care in PHC indicator systems

<table>
<thead>
<tr>
<th>Coordination of care and referral system</th>
<th>PACT-AE</th>
<th>PCAS</th>
<th>CPCI</th>
<th>CIHI</th>
<th>PCPM Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanism to convey and transfer information</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Medical records contain accurate and complete information</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Informational continuity—linking past knowledge to current health state to set future direction of care</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Table 7.5 highlights that various constructs of the concept—coordination of care—are not easy to measure and there is little consistency in how each of the five constructs (noted in Table 7.5, column 1) are captured in the five PHC indicator measurement systems.

The two sub-concepts of coordination of care—1) mechanism to convey and transfer information, and 2) medical records contain accurate and complete information—are not captured in any of the five PHC measurement systems listed in Table 7.5. These two sub-concepts of coordination of care are components of the care processes, which involve PHC providers to directly document accurate patient health information in information systems (as noted above in Section 7.3.c). As a result, PHC providers may be a better source for providing this type of information and sharing their perspectives. Patients are not an ideal source of information to measure these two sub-concepts. This point underlines a possible explanation for why the patient reported five PHC measurement systems examined in this research study do not capture these two sub-concepts of coordination of care.

The third sub-concept—linking past knowledge to the current state of patients’ health for setting a care plan—is captured in PACT-AE, CPCI and PCPM for Ontario. However, different dimensions of this construct are included in these three PHC measurement tools. From a patients’ perspective: the PACT-AE tool measures family physicians’ awareness of patients’ care requirements and concerns about quality of care; the CPCI tool measures if a
family physician followed-up about a health concern; and the PCPM tool measures delay in getting test results and whether a family physician saw a patient within seven days of discharge. These are examples of proxy measures from a patients’ perspective. The act of linking past knowledge to the current state of patients’ health and then setting a care plan requires the use of tacit and technical knowledge of health care providers. This point underlines that in addition to gaining perspective from patients, it may also be valuable to survey PHC providers to measure informational continuity.

The construct relational continuity and management continuity is consistently captured in four of the five PHC measurement systems examined in this research study. PACT-AE, PCAS, CPC1 and PCPM Framework for Ontario measurement tools capture relational continuity by measuring patients’ perspective on whether a family physician had access to information about care received by the patient elsewhere or from a specialist. Three (i.e., PACT-AE, PCAS and PCPM Ontario) out of the five PHC indicator measurement tools capture management continuity by measuring patients’ perspective about family physicians’ role in making a referral to or coordinating care with a specialist; this measure helps confirm if PHC is serving as the first point of contact for care and serving in the role of a gatekeeper. The construct of management continuity is not captured in the CPC1 tool and CIHI’s pan-Canadian indicators.

To sum it up, some constructs of the PHC attribute—coordination of care—may be better measured using sources of data other than patient reported data.

7.4 Primary Health Care Production Characteristics

As noted earlier, this section draws on the three theoretical concepts of production characteristic—contestability, measurability, and complexity defined by Preker et al. (2000) (see Chapter 2)—to interpret the findings presented in Section 7.3 and to explain the connection between the production characteristics of the key PHC attributes and why some constructs of the PHC attributes are not included in the five PHC measurement systems.

The analysis in Section 7.3 highlighted that three out of five PHC measurement systems capture and measure structural and process oriented constructs of PHC attributes because they are easy to measure compared to clinical constructs (see Sections 7.3.a to 7.3.d). Examples of
structural oriented indicators that get captured are—whether or not patients are able to: access PHC location and PHC providers during regular office hours and after-hours; get same day or next day appointment; and get a referral to a specialist. Process oriented indicators that get captured include patients’ perspective on: whether or not their providers could access their information regarding care provided elsewhere, and whether or not they (i.e., patients) were notified of abnormal lab tests.

The patient measurement instruments (discussed in Section 7.3) do not capture clinical constructs to evaluate clinical decision-making appropriateness and/or whether professional expert health providers administered appropriate clinical services. Also, all of the five PHC indicator measurement systems do not capture constructs to evaluate the delivery of care characteristics such as: a range of services delivered as per the clinical guidelines; a range of services available to patients; provider’s ability to link past knowledge to current health state for setting a care plan; provider’s ability to recognize existing health problems of patients; and EMRs contain accurate and complete patient health information. When some of these constructs are captured in patient reported PHC measurement systems, there is variability and little consistency in how these constructs are defined for measurement. In some instances, clinically oriented constructs can be challenging to capture and measure because clinical guidelines cannot be applied uniformly across all patient cases; professional discretion is often exercised for patient cases with multiple morbidities. Each patient case can vary in clinical practice and can present a number of uncertainties as such it makes it very problematic to measure various constructs of PHC attributes and evaluate PHC performance using only patient reported measurement tools.

Essentially, the nature and production characteristics of health services provided in PHC influences what can be and gets measured versus not. As noted earlier, clinical judgment, knowledge and competencies, and appropriateness of care are examples of constructs that are challenging to capture and measure using patient reported measurement tools. This is because there is complete reliance on regulated professional health providers to use their expertise (i.e., training and qualifications in family medicine) and discretion to make clinical decisions that are in the best interest of patients to achieve desirable outcomes. And, when making clinical decisions, health providers draw on their tacit knowledge, which is often based on
many years of experience working in clinical practice. These aspects of care are challenging to capture and make contestability (defined in Chapter 2) low in PHC.

Furthermore, the art and science of tailoring clinical care based on the health needs of individual patients requires specific skills and knowledge base of regulated health providers. This very point underlines the importance of directly capturing data from PHC providers and inter-linking with other data sources to measure standardized set of indicators. The use of multiple and inter-linked data sources can potentially improve measurability of certain aspects of patient care activities such as comprehensive, person-focused, continuous, and unmet care needs. This point also suggests that in PHC, similar to other health care settings, some of the existing standardized indicators may be imperfect and it may be essential to involve frontline health providers to determine which metrics can be considered to rate clinical aspects of quality of care and services patients are receiving in PHC. Involving frontline practitioners early on can also potentially help identify: a) ways to improve the measurability to support patient care activities and outcomes; b) if new data sources and tools can to be established; and c) approaches to publicly report key performance measures with the aim to improve the delivery of high quality of PHC services and health system sustainability.

Another factor that influences the measurability of PHC attributes is the ability to access clinical data from multiple sources. Often times, for uncommon health conditions, patients go to a number of centers for diagnostic tests, and/or they receive care from specialists as well as PHC providers. At all these different touch points, patient data are collected and recorded in information systems that may or may not be inter-linked. Getting access to the recorded clinical data from across the continuum of care may present some challenges, which suggests that some production characteristics of PHC services are very complex. Section 7.3.d highlighted that when complexity is high, measurability is low. Table 7.5 shows that the constructs of the PHC attribute—coordination of care (see Table 7.5) are an example of PHC services that are inconsistently captured or not captured in the five PHC measurement systems. Usually, narrative data is transferred from one provider to another using disparate systems when care is being coordinated. Narrative data decreases the measurability and increases the complexity as well.
PHC patient outcomes are also an example of the production characteristic, complexity. All five PHC indicator measurement systems (see Section 7.3) do not include survey questions or indicators to measure outcomes of PHC services even though it is important to measure outcomes of PHC services. Outcomes of PHC services can be difficult to measure because there are many factors that can influence patient outcomes. Patients’ compliance to medical treatment, and health provider’s competency are two of many factors that can influence outcomes of care. Monitoring patient’s level of compliance using surveys is logistically challenging, expensive and nuisance to those having to administer, complete and analyze them. Evaluation of health care providers competency may be based on standards of care, which are set by regulatory agencies. The professional regulatory agencies have under their purview to evaluate competency as part of licencing requirements. This helps explain why the five PHC measurement systems do not include indicators on patient outcomes. This point further strengthens the finding highlighted earlier—in a clinical setting, contestability and measurability are low and indicators that are easier to measure get selected while the difficult to measure indicators get left out.

The next chapter, Chapter 8, builds on the performance measurement discussion presented in Chapter 7. Chapter 8 analyzes performance measurement in connection to accountability within Ontario’s PHC system. Specifically, Chapter 8 explores: what is meant by accountability in PHC; what PHC measures are being collected, for what, by whom and to whom; and what mechanisms have been used to implement accountability in Ontario. In addition, in Chapter 8, the accountability and reporting requirements are compared across the four PHC practice models that have been included in this research study: FHO, FHG, FHT and CHC (previously discussed in Chapter 6).
Chapter 8

Accountability and Performance Measurement

8.0 Accountability and Performance Measurement

8.0.1 Chapter Overview

This chapter draws on the literature, contracts and key informant interviews to answer Research Question #2 and its sub-questions (described in Chapters 1 and 2) to unveil the meaning, measures, and mechanisms of accountability in PHC in Ontario.

This chapter begins by recapping that performance measurement and accountability are central components of the PHC policy goals and objectives in Ontario (noted in Chapter 6); and it is in this context where the concepts of the terms accountability and performance measurement (previously described in Chapter 2) are applied and studied. Next, the chapter draws on the theoretical concepts of accountability (described in Chapter 2) and describes the explicit meaning and the scope of accountability in PHC by the distinct roles of the key parties who are involved in financing, delivering and managing PHC services. The meaning and scope of accountability is described in terms of who is accountable to whom, and for what (i.e., the direction of accountability relationship between which parties); and how are accounts given (i.e., mechanism used to justify action or performance) in Ontario’s PHC sector.

The chapter then provides insight about PHC performance measurement—what is being and what is not being collected and measured (mandatory vs. voluntary), and what measures are being used for what, for whom, and by whom within the Ontario context. Subsequently, the similarities and differences in accountability requirements across the four PHC practice models in Ontario (previously described in Chapter 7) are described. Next, the analysis described in Chapter 8 is assimilated together to describe how Ontario’s PHC performance measures relate to the key PHC attributes defined by WHO (1978) and Starfield (1992, 1998), points out key enablers and barriers of PHC performance measurement system in Ontario. Finally, the chapter outlines and discusses how accountability has been implemented (i.e.,
which policy instruments have been used to implement accountability) in Ontario’s PHC sector.

8.1 Introduction

Performance measurement and accountability are key components of the PHC reform policy goals and objectives in Ontario (previously mentioned in Chapter 6). The key PHC policy objectives stated in the Ontario Action Plan include “greater and faster access to the right care; stronger links to interdisciplinary care; high quality of PHC with a greater focus on accountability and access for individuals and families; publicly post reports on health system performance and make the health care more accountable; put patients first; and improve transparency and accountability to provide health care in a way that maximizes both quality and value” (Government of Ontario, 2012; Ontario Ministry of Health and Long Term Care, 2015). To achieve these PHC policy objectives, the Ontario government has leveraged a variety of resources/policy instruments (defined in Chapter 2 and further discussed in Chapter 8, Section 8.7).

Using Ontario as a setting, this chapter draws on the theoretical concepts of accountability, performance measurement, governance, governing instruments and production characteristics (described in Chapter 2) to explore and unveil the meaning, measures and approaches of accountability in PHC. In the sections below, the following concepts are examined and discussed by distinct roles of key parties (defined in Section 8.3): who is accountable for what, to whom and how (Section 8.3); and who is measuring what and for whom, and what measures are being reported versus not (Section 8.4). Section 8.5 draws on the analysis from Section 8.4 and describes how do accountability measures in Ontario’s PHC sector relate to the key attributes of PHC (previously described in Chapter 5). Section 8.6 describes barriers and potential enablers of PHC performance measurement and accountability. Finally, Section 8.7 describes the policy instruments that have been used to implement accountability in PHC, in Ontario.

All sections of Chapter 8 draw on multiple data sources, namely the literature, documents and 32 key informant interviews (noted in Chapter 4). The 32 key interview informants represented a diverse group of 26 organizations in Ontario (see Table 8.1).
8.2 Accountability and Performance Measurement

The concepts of accountability and performance measurement previously described in Chapter 2, Section 2.3 are examined in Ontario’s PHC setting to understand the meaning and application of accountability in PHC by: a) distinct roles of key parties; and b) PHC practice models (described in Chapter 6). Often the literature notes that the meaning and application of accountability is context based (Behn, 2001; M. Dubnick, 2005; Mulgan, 2000; Shortt & Macdonald, 2002). Therefore, using Ontario’s context, this chapter presents analysis and provides insight on the approaches and mechanisms of accountability used in PHC, and draws the connection between PHC accountability and performance measurement.

8.3 What is the Meaning of Accountability in PHC?

In Ontario, accountability in PHC is explicitly defined by distinct roles of the key parties who are involved in financing, delivering and managing PHC services. The key parties are: a)
funder (i.e., Ontario MOHLTC or LHINs); b) PHC providers (i.e., family physicians and non-physicians); c) executive directors of inter-disciplinary PHC organizations (i.e., FHTs and CHCs—previously described in Chapter 6); and d) Board of Directors of FHTs and CHCs. For each of these key parties, the meaning of accountability slightly varies (see Table 8.2, displayed below) and there are multiple lines or dimensions of accountability for each of these key parties within the PHC context. The sub-sections (8.3.a to 8.3.f) below discuss in detail what the key parties in PHC are accountable for, to whom and how.

Table 8.2 The scope of accountability (i.e., for what) by key parties (i.e., PHC providers and executive directors (i.e., by whom)) in Ontario, and the alignment to PHC key attributes

<table>
<thead>
<tr>
<th>Policy Goal</th>
<th>PHC Key Attribute</th>
<th>Policy initiatives Introduced in Ontario</th>
<th>Family Physicians Accountable for?</th>
<th>Non-physicians Accountable for?</th>
<th>FHT/CHC Executive Directors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>FHO</td>
<td>FHG</td>
<td>FHT</td>
</tr>
<tr>
<td>Access</td>
<td>Access/ First Point Contact</td>
<td>Enroll patients</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>Integrate with other health care providers within region</td>
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<td>Board Governance</td>
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✓ means yes; blank cells mean not explicitly held accountable for the initiative in question.

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### 8.3.a Who is the Funder Accountable to, for What and How?

In PHC, the Ontario MOHLTC and LHINs have a political accountability to the citizens. The Ontario MOHLTC also has political and performance accountability to the federal government (see Chapter 3). The Ontario MOHLTC is a steward and centrally establishes and provides policy direction, funds policy initiatives, and finances medically necessary insured
physician and non-physician services to ensure that Ontario residents have access to PHC services without having to pay out of pocket or user fees; an important criteria for Ontario as a province to qualify for federal cash transfers according to the CHA (1984) (refer to Chapter 3, Section 3.1.b). The Ontario MOHLTC allocates funding to LHINs to fund CHCs (described in Chapter 6) in PHC.

8.3.b Who are Family Physicians Accountable to, for What and How?

Family physicians (in all PHC practice models except for CHCs) have: financial, performance and political accountability to the funder (i.e., the Ontario MOHLTC) for meeting predefined targets (e.g., preventive care services) and thresholds for services (e.g., patient enrolment, discussed in Chapter 6). Family physicians (in CHCs and other PHC practice models) also have professional accountability to patients and to their professional regulatory agency; and performance accountability to their peers. Family physicians collaborate with other physicians and non-physician providers—the accountability between peers and other inter-disciplinary regulated professionals to coordinate care is informal, implicit, and is based on reputation, trust, reciprocity and mutual inter-dependence (Rhodes, 2006).

Overall, family physicians have multiple lines of accountability. As per the key interview informants, the following accountability dimensions are explicitly delineated:

“Family physicians have: a financial accountability for rostering patients (there is an average of 1500 patients per family physician in a practice); a professional accountability to patients (i.e., by attaching patients, family physicians are actually accountable for that patient in terms of ongoing care needs, in the past accountability to patient was only tied to an individual encounter); and performance accountability (i.e., reporting to the MOHLTC on the targets and volume of patients enrolled and to record clinical documentation as per OHIP requirements)” (ID 004A; 005A).

Some aspects of professional and performance accountability in PHC are grey, undefined and implicit. For the care of the enrolled patients in the interdisciplinary practice models, it is assumed that family physicians will inherently agree and volunteer to work with their non-physician provider counterparts. There are no guidelines or policies centrally defined to assist providers at the local level to form governance structure(s) around collective performance
goals and collaborative team models for delivering patient care activities. The governance structure is formed organically and is implicit; it can vary by PHC clinic teams.

8.3.b.i Scope of Accountability for Family Physicians

In Ontario, family physicians’ scope of accountability is defined by the funder and influenced by the characteristics of their payment model. Among family physicians, there are minor differences in the scope of accountability (see Table 8.2). The differences in accountability fall around the population they serve, patient caseload volume, financial incentives and reporting structure (see Table 8.2). Two primary payment methods—salary vs. capitation (this includes capitation/blended capitation/ blended capitation-salary)—are compared below to discuss the differences in scope of accountabilities for family physicians (see Table 8.2).

*Patient Population Served*

Family physicians in CHC practice model, on salary, are mandated to serve vulnerable individuals and marginalized patient groups, engage with community members, and proactively identify determinants of ill health and social issues. In contrast, family physicians in the FHT, FHG and FHO practice models are remunerated to provide symptom-based management care to patients (pre-enrolled or non-enrolled) at the clinic. Family physicians in these non-CHC practice models (i.e., FHOs, FHGs and FHTs) are not remunerated; hence, are not explicitly required to conduct outreach activities and engage with community members.

*Patient Caseload Volume*

Family physicians in FHOs, FHGs and FHTs participate in the patient enrollment model (see Chapter 6). These family physicians, depending on the geography, are often assigned 1500 to 3500 patients by the funder. The pre-assigned number of enrolled patients per family physician can increase if new patients (who are not already enrolled) enroll themselves at any clinic. In contrast, family physicians in the CHC practice model have a caseload assigned to them by CHCs; often their patient caseload is made up of 500 to 600 patients.

*Financial Incentives*
Family physicians in the FHOs, FHGs and FHTs are eligible for financial incentives when they provide insured services such as screening, flu injections, diabetes and cardiac care. In contrast, family physicians in the CHC practice models are not eligible to receive a bonus on top of their base pay.

**Reporting Structures**

Family physicians in CHCs have performance accountability and financial accountabilities; for performance accountability, they report to their respective CHC executive director and Board of Directors, and for financial accountability, they report to LHINs. On the other hand, family physicians in the FHOs, FHGs, and FHTs have a financial, performance and political accountability directly to the Ontario MOHLTC; this is done via billing claims.

**Compensation Tools and Accountabilities**

Overall, for family physicians accountability is explicitly defined by the funder (i.e., the Ontario MOHLTC) for: a) the provision of medically necessary insured physician services to Ontario residents at no charge; b) billing and documentation; and c) referring patients to services that can be offered by other specialists. In addition, regulatory agencies explicitly define accountability for family physicians to deliver care in line with the latest evidence-based standards of care.

As per the key informant interviews, below are examples of what family physicians are explicitly accountable for, to whom and how:

- “Follow a set of regulations related to the provincial health insurance plan (OHIP) to process billing codes (there is no contract in place between family physicians and OHIP) and document notes as proof of providing service to a patient” (ID 004A; 008A);
- “Document information that indicates that service(s) have been provided to patients and as a family physician you have fulfilled the elements of care that are required of you. With the documentation in place, family physicians can bill the provincial health plan” (ID 005A);
- “Comply with the auditing requirements set out by the Ontario MOHLTC to resolve billing discrepancies, when required” (ID 005A);
- “Offer preventive care services and meet quality targets set out by the ministry of health” (ID 009A; 003A; 005A; 013A; 007A);
- “Provide ongoing care to enrolled patients unless travelling or there is an emergency, according to the patient enrollment agreement with the Ontario ministry of health. In the event family physicians are travelling, peers of family physicians within the group practice can provide care” (ID 005A; 008A; 004A);
• “Ensure patients avoid seeking care from other sources (e.g., walk-in clinics or other PHC clinics). If patients seek care from family physicians outside the group practice (e.g., walk-in clinic) for more than 20% of the time, the primary family physician receives a penalty (i.e., a negative access bonus—a certain amount of money is deducted from the total bonus earned) and a letter from the ministry of health” (ID 008A; 005A; 007A);

• “Provide good care to patients, record information (for medical legal reasons and for billing purpose) and store information for 10 years (in case an audit is requested), and bill the government for services provided (this is a professional responsibility and is not part of the Physician Services Agreement)” (ID 005A);

• “Follow clinical guidelines and best practices as espoused by the medical college (i.e., the College of Physicians and Surgeons of Ontario)” (ID 005A; 007A; 013A); and

• “Enroll and attach a number of patients as per the agreed target that is set with the ministry of health” (ID 007A; 005A).

The key informant interview quotes noted above highlight that Ontario uses a number of compensation tools (e.g., billing, enrollment numbers, incentives) to monitor accountability. Family physicians in Ontario use billing as a mechanism to report on financial, performance and political accountability. Accountability for standards of care is neither reported to the funder nor to the regulatory agency; rather the onus is left on individual family physicians to independently take ownership to fulfill their professional responsibilities around the use evidence-based best practices, and to act in the best interest of their patients. Family physicians are self-governed; hence, aspects of clinical care services such as adherence to the standards of care and patient outcomes are not explicitly monitored or reported on a regular basis. The funder does not interfere in clinical matters.

Patient enrollment payment scheme is primarily used to track number of enrolled patients per family physician, although family physicians participating in patient enrolment models are responsible for a number of activities. For example, family physicians are expected to provide extended hours of care and achieve a defined set of quality targets. For these services, family physicians bill the government; however, they are not required to explicitly report on: the duration of after-hours care provided; number of enrolled patients they managed in PHC during extended hours and number of visits prevented to emergency departments; and number of qualified enrolled patients who either declined or who were not offered preventive care services. Access to preventive care services is only monitored via billing; the funder has a record of a number of patients who received incentivized care. However, family physicians are never asked to justify their actions. The relationship between the funder and a family physician is based on trust.
Managing patients’ use of health services within and outside of PHC is another area family physicians are responsible for under the patient enrollment method. However, this responsibility is not explicitly and formally articulated. Often family physicians work with the understanding that they are responsible for ensuring enrolled patients can get access to PHC services when care is needed, either directly through them or through another family physician from the group practice. In other words, family physicians are explicitly responsible for ensuring their enrolled patients do not end up seeking care from a family physician outside of the group practice or do not end up seeking care from a walk-in clinic. This area of responsibility is explicitly monitored by the funder and is reinforced using payment deductions. Regarding managing patients’ use of health services outside of PHC (i.e., patients’ use of emergency department or specialists’ services for conditions that could be managed in PHC), family physicians are not explicitly responsible for this. Managing patients’ use of health services outside of PHC is a critical component of providing person-focused care as defined by WHO (1978) and Starfield (1998), yet this scope of accountability is not explicitly implemented through the PHC policy initiatives or incentive structures introduced in Ontario (see Table 8.2).

8.3.c Who are Regulated Non-physician Providers in FHTs Accountable to, for What and How?

Regulated non-physician providers (e.g., nurse practitioners, nurses and social workers etc.) in FHTs are accountable to perform patient care activities in accordance with their professional standard of practice, participate with other team members in the delivery of services to patients, and provide a defined scope of PHC services (described in Sections 6.3.b and 6.3.d) to enrolled patients as per the FHT funding service agreement. In addition, non-physician providers are directly accountable to patients as per their professional code of conduct and to their respective professional regulatory agencies.

Regulated non-physician providers in the FHTs follow a scope of practice, defined by the funder. In FHTs, regulated non-physician providers deliver care primarily to enrolled patients with chronic conditions. This scope of practice is relatively narrow and restricts regulated non-physician providers from carrying out their full scope of practice, as defined by their regulatory agencies. Within their full scope of practice, non-physician providers could easily
provide preventive care services to enrolled patients. However, the financial incentive structures designed to reward family physicians for delivering preventive care services impose a restriction, implicitly undermine the role and scope of practice of non-physician providers, and underutilize the skill set of regulated non-physician providers. Family physicians are given a financial reward if they are directly involved in administering preventive care services to patients. The design of financial reward system in PHC: a) influences family physicians’ preference to administer preventive care services, and b) does not take into account the potential of matching and assigning clinical activities with available resource capacity and team capability in PHC inter-disciplinary clinics.

In addition, the regulated non-physician providers are delegated the responsibility to track specific indicators pre-assigned by the Ontario MOHLTC. The pre-assigned indicators essentially measure areas of accountability for non-physician providers in FHTs. Example of indicators tracked by the non-physician providers in FHTs, noted during the key informant interviews, include:

“the regulated non-physician providers in FHTs are accountable for tracking and reporting on how many patients with diabetes, hypertension and cardiac condition they have seen on a quarterly basis” (ID 008A). This measurement, however, lends itself to gaming because non-physicians manually keep track of which patients they have provided care to and often times the number counting is a guess work” (ID 013A).

The regulated non-physician providers working in FHT practice models report on their performance to the FHT’s executive director; the reporting structure is in keeping with the FHT funding agreement with the Ontario MOHLTC. The performance of non-physician providers in FHTs is explicitly monitored based on one key accountability metric—the number of enrolled patients they provided care to for managing chronic disease. Adherence to standards of care and patient outcomes are important areas of measuring clinical accountability; the funder or the regulatory agencies however, do not routinely monitor this.
8.3.d Who are Regulated Non-physician Providers in CHCs Accountable to, for What and How?

The regulated non-physician providers in CHCs are explicitly responsible to: deliver PHC services to the medically underserved population within the broader social context; engage with the community members to determine population-based program needs; and enter patient information into EMRs (Sandy Hill Community Health Centre & Champlain Local Health Integration Network, 2014). This scope of practice assigned to the regulated non-physician providers in CHCs is designed to further the goals of CHCs in terms of promoting health, developing community programs, addressing social and environmental issues affecting community members, and empowering patients to learn relevant knowledge so that patients can self-manage their own chronic condition(s). To achieve these goals, the non-physician providers and family physicians in CHCs work jointly—this point was reverberated during the interviews. The key interview informants noted that,

> “inter-disciplinary team members in CHCs are responsible to provide good quality care and if there are patient related issues, it means that the whole group of inter-disciplinary team members (i.e., family physicians and non-physician providers) jointly share the accountability to resolve the issue at hand together and to deliver care to patients” (ID 003A). “The scope of practice for the inter-disciplinary team members in CHCs is dictated by their respective regulatory agencies” (ID 005A).

In essence, non-physician providers in CHCs have a broader scope of practice than non-physician providers in FHTs.

In CHCs, non-physician providers are accountable to the community for promoting health and wellbeing of individuals and members in the community. The non-physician providers in CHCs are also accountable to patients and their respective professional regulatory agencies for standards of care and professional code of conduct. The non-physician providers working in CHC practice models are accountable to report on their performance to their respective organization’s executive director.
Performance Accountability of Regulated Health Providers

The analysis presented in Sections 8.3.a to 8.3.d highlights an important point—the performance accountability of family physicians is to the funder and the performance accountability of regulated non-physician providers is to the executive directors of PHC interdisciplinary team organizations. The accountability of both the family physicians and regulated non-physician providers in PHC is not connected to whether or not care is clinically appropriate and if desirable clinical outcomes are being achieved. This suggests that for the delivery of quality and standards of care in PHC, the governance model between the funder and the PHC clinical providers can be characterized as one that is based on trust, autonomy, self-responsibility, and reliance on self-governance (Rhodes, 2006). Although the funder steers and influences the implementation of targeted PHC policy goals and initiatives, the funder does not exert its will or control on clinicians regarding standards of care and patient outcomes. This is because, the PHC providers (e.g., family physicians, nurses, social workers, and pharmacists) are self-regulated health professionals, they belong to their respective colleges, and they are governed in accordance with Ontario’s Regulated Health Professions Act (1991) (Laupacis, 2014). Under the self-governance model, the funding agencies are wise enough not to try to interfere with clinical activities. According to the key informant interviews, regulatory colleges play a role in ensuring that professionals are up to date with their knowledge; they do this by having the following processes and requirements in place:

“all family physicians and some non-physician providers have to be licensed in order to professionally qualify to provide their services in Ontario. Some regulatory colleges require that PHC providers (for example, family physicians) earn a certain number of education credits per year to maintain their license to practice and be eligible to renew their license with their respective colleges yearly” (ID 007A)

To get professional practice license renewed, regulated professionals are typically required to answer questions about the area and location of their practice. A formal and routine reporting on clinical accountability is absent. The renewal process is based on trust. The regulatory agencies intervene if and when a complaint of negligence is reported to the college against a particular member of the professional group, or when a regulated professional is undergoing a remedial training, for example.
8.3.e Who are FHT Executive Directors Accountable to, for What and How?

The FHT executive director represents the FHT organization; he/she has a defined set of financial and performance accountabilities to the funder (i.e., the Ontario MOHLTC) and to the Board of Directors; professional accountability to staff and to partners with whom FHTs form linkages to integrate care for patients; and political accountability to the Ontario MOHLTC, the Association of Family Health Teams of Ontario, and HQO (related to QIP indicator reporting, discussed in Sections 8.4.b and 8.4.c). In addition, the executive director of a FHT has political and performance accountabilities for governance (i.e., sound decision-making processes, financial policies, safeguards and management) to the Ontario MOHLTC, and the Board of Directors.

The FHT executive directors are explicitly accountable for planning and implementing programs, processes and resources necessary to achieve PHC policy goals (described in Chapter 6) prescribed by the Ontario MOHLTC in the FHT funding services agreement. On behalf of the FHT organization, the FHT executive director is responsible for implementing the PHC policy objectives (previously described in Chapter 6 and outlined in Table 8.2)—these overlap with the policy initiatives themes prescribed in the PSAs for family physicians to execute in the FHTs (see Table 8.2). The funder (Ontario MOHLTC) implicitly holds family physicians and regulated non-physician providers in FHTs accountable to jointly deliver targeted clinical services to enrolled patients. According to the key interview informants:

“…while the FHT organizations and family physicians share joint accountability around “rostered targets and rostered number of patients, if however, services that are provided by non-physician providers to the rostered or enrolled patients does not equal to what was promised to the MOHLTC then there is a threat and a risk that the compliment of inter-disciplinary health providers may be taken away from FHTs. Joint accountability around rostered patients is closely monitored by the MOHLTC” (ID 007A; 008A).

In addition, FHT executive directors are accountable for establishing linkages with other health care organizations within the community, and reporting on operational activities
prescribed by Ontario MOHLTC. With respect to forming linkages with other health care organizations, key interview informants pointed out that

“FHTs form partnerships with the hospitals, community agencies, and Toronto Public Health, for example, without having any formal agreement in place. Accountability with the partners is informal, implicit” and done out of goodwill” (ID 007A; 008A; 001A).

The informal partnership between the various organizations in PHC is based on a network governance model in which the individual organizations are autonomous; however, they form inter-organizational linkages to deliver services to patients and achieve objectives set out by the funder.

Furthermore, for FHTs who are participating in Health Links (previously described in Chapter 6), the executive directors are also responsible for ensuring their staff (i.e., regulated non-physician providers) participate in coordinating and providing care to patients (discharged from hospital) with complex medical conditions (see Section 6.1.a.i).

In terms of administrative tasks, FHT executive directors are accountable for the following tasks as prescribed by the Ontario MOHLTC: conduct and submit annual financial audits; submit quarterly reports that provides details regarding the number of rostered patients, and service volume delivered by the type of non-physician provider; complete a governance assessment (i.e., strategic planning, board evaluation and fiduciary functions, and governance policies) and produce an annual report (Ontario Ministry of Health and Long Term Care, 2014).

8.3.f Who are CHC Executive Directors Accountable to, for What and How?

The CHC executive directors represent their respective CHC organization; he/she has a defined set of financial accountabilities to the funder (i.e., LHINs who allocate funds to CHCs, although MOHLTC finances CHCs), and performance and political accountability to Ontario MOHLTC, LHINs and the Board of Directors for implementing: a) CHC’s mandate (previously described in Chapter 7); b) pre-defined service targets as per the accountability services agreement; and c) governance structure.
The CHC executive directors’ performance accountability is evaluated by LHINs based on a number of prescribed mandatory indicators (discussed in the next section). If the reported indicator results indicate that service targets are unmet, LHINs can directly adjust funds previously allocated in the accountability services agreement as a way to enforce accountability on CHCs. In addition, CHC executive directors have political accountability to the Ontario MOHLTC, HQO (for QIP indicator reporting, described in Sections 8.4.b and 8.4.c), Board of Directors, and the Association of Community Health Centers for: a) their participation in QIPs (described previously in Section 6.1.a.i) and Health Links (described in Section 6.1.a.i); b) reporting indicators to HQO (described in Sections 8.4.b and 8.4.c); and c) improving community health.

Furthermore, the CHC executive directors have a political accountability to the community. Members of the community are part of the community-governed Board of Directors. The community-governance model at CHCs provides a process and structure to guide the organization and is used as a strategy to engage their communities and to enable community members to express their voice and choice about health services they desire to receive (Association of Ontario Health Centres, 2011). According to the key interview informants, in practice the community-governance model means

“mutually involving the service providers (e.g., family physicians and non-physician providers), individual patients and communities to create a mutual sense of shared vision to support their health and sustain that health” (ID 005A).

The CHC governance structure helps community members understand how power is exercised, how decisions are taken and who is accountable in planning, delivering PHC services and maintaining health (Association of Ontario Health Centres, 2011).

Overall, the CHC executive directors are accountable for reducing barriers, improving access to care and achieving community health by engaging with the community and integrating with partners to deliver a broad range of PHC services to people who are impacted by a combination of factors affecting health. Factors affecting health may include: unstable housing or homelessness; low income; recent immigration and language barriers; moderate to severe mental health challenges; addictions; moderate to severe disabilities; limited or no access to PHC; and circumstances posing risk of social exclusion. In addition, the CHC
executive directors are accountable for: managing and balancing the budget as per the funding agreement; preparing financial performance reporting; and reporting on clinical indicators as prescribed jointly by the Ontario MOHLTC and LHINs.

8.3.g Who are the FHT and CHC Board of Directors Accountable to, for What and How?

Community governed PHC organizations such as the CHCs and FHTs are incorporated under the Not-for-Profit Corporation Act and are mandated to establish a Board of Directors. The Board of Directors serve in a governance capacity and have a fiduciary responsibility to the PHC organization, and must work in the best interest of the community, PHC organization and the health system when fulfilling their primary duties. The primary duties of the Board of Directors include: a) community engagement to improve service delivery to populations; b) development of a mission, vision, and strategic plan for the organization; and c) financial oversight and risk management (Laupacis, 2014). In the case of CHCs, the key interview informants highlighted that

“the Board of Directors are accountable for ongoing monitoring, and ensuring that the CHCs are providing care in accordance with their agreement with the Ontario MOHLTC and LHINs, and are reporting on performance of the funded services” (ID 001A). “The Board’s responsibility is also to ensure that CHCs report to the funder(s) on specific performance indicators such as operational indicators, volumes, prices, cost averages” (ID 003A).

Details related to the CHC performance indicators are discussed below in Section 8.4.

The information presented in Section 8.3 answers Research Question # 2.a: what is the scope and meaning of accountability in PHC—who is accountable to whom, for what and how. A number of observations were noted in Section 8.3; these observations are further synthesized below to highlight the learning gathered from implementing accountability in PHC.
Learning from Implementing Accountability in PHC

First, the analysis in Section 8.3 suggests that the meaning and scope of accountability in PHC is heavily influenced and shaped by the implementation of policy initiatives, which are authorized, introduced and funded by the Ontario MOHLTC.

Second, on the ground there have been some unintended consequences of implementing policy initiatives to reform PHC. One example is the impact of funding service agreements on regulated non-physician providers working in FHTs. Regulated non-physician providers are delegated to work within a confined scope of practice, which is not fully aligned with the scope of practice defined by their respective professional colleges. In addition, financial incentives for family physicians also impose restrictions (see Section 8.3.c). It may be necessary to develop performance management agreement for interdisciplinary teams and keep it separate from the reimbursement agreement.

At the time of writing this thesis, a PHC performance management agreement did not exist in Ontario. It is perceived by the key interview informants that having a joint performance measurement agreement could serve as a potential enabler to facilitate an open dialogue between different key parties (e.g., family physicians, regulated non-physician providers, administrators, community agencies and professional associations etc.) about what makes sense to hold family physicians, regulated non-physician providers and PHC organizations accountable for instead of assigning accountabilities to where public money is flowing.

Third, it is perceived patients need to be enrolled with a family physician as well as the non-physician providers, as they are both part of the patients’ circle of care. This could potentially strengthen the scope of joint accountability for the delivery of a broad range of insured PHC services. In the current patient enrollment model, some non-physician providers face restrictions to perform tasks that are within their scope of practice.

Fourth, FHOs, FHGs and FHTs PHC practice models are not explicitly required to formally engage with community members (see Table 8.2, also noted in Section 6.2.d), at the time of conducting this research study. In principle, PHC providers in the non-CHC practice models (i.e., FHOs, FHGs and FHTs) see the importance of community outreach; however, they suggested through the key interviews that it is essential that the funder allocate dedicated
resources to enable PHC organizations and providers to do community engagement and tailor PHC programs for the needs of the community.

Fifth, the Ontario MOHLTC has defined organizational accountability for FHTs and CHCs, and not for FHOs and FHGs. This may be related to how the different PHC practice models operate. FHTs and CHCs operate as a not-for-profit while FHOs and FHGs operate as a small for-profit business (see Chapter 6). As well, the governance model varies across all four PHC practice models (see Chapter 6). The key distinction is that family physicians solely govern FHOs and FHGs.

8.4 Who Defines the Scope of Data Collection and Reporting in PHC?

In Ontario, two funding agencies specify the mandatory data collection and reporting requirements in PHC: 1) Ontario MOHLTC, and 2) LHINs (which get their money from the Ontario MOHLTC). Until 2014, the Ontario MOHLTC jointly with the OMA specified the mandatory reporting requirements for non-salary family physicians—this would include family physicians remunerated via blended capitation and blended salary methods (previously described in Chapter 6) in FHOs, FHGs and FHTs. Most recently, between 2015-2017, the Ontario MOHLTC unilaterally started to specify reporting requirements for non-salary family physicians. The Ontario MOHLTC specifies the reporting requirements for FHT organizations, as well. The Ontario MOHLTC and LHINs jointly define the reporting requirements for CHC organizations. In Ontario, the PHC reporting requirements are defined for the following key parties: family physicians, FHTs and CHCs. For these key parties, the reporting requirements are outlined in their respective service agreements.

Table 8.3 (displayed below) analyzes the PHC reporting requirements by the four PHC practice models (described in Chapter 6), payment methods and key parties in Ontario. The analysis in Table 8.3 at a glance summarizes what mandatory and non-mandatory data are captured, measured and reported, for what purpose, for whom and by whom in PHC. Distilling the data from Table 8.3, Sections 8.4.a to 8.4.c describe: a) what mandatory data are collected and reported by family physicians, FHTs and CHCs; b) for whom and for what; and c) what is actually being measured in PHC, in Ontario.
Table 8.3 Information collected and measured in PHC in Ontario by practice model, payment method and key parties.

<table>
<thead>
<tr>
<th>Practice Model</th>
<th>Payment Method</th>
<th>Data Captured for billing fees</th>
<th>Why</th>
<th>By whom</th>
<th>For whom</th>
<th>What is measured</th>
<th>What is reported</th>
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<tbody>
<tr>
<td>FHO</td>
<td>Blended Capitation</td>
<td>• New patient enrollment • After hours • Seniors care • Diabetes care • Congestive heart failure • Smoking cessation • Comprehensive care &amp; complex vulnerable capitation • Hospital, obstetrics, prenatal, office procedures, home visits, palliative care, serious mental illness • Preventive care • Core services to non-enrolled patients (FFS) • LTC rostering • Unattached patients from hospital • Mother newborn new patient • Newborn care • Labour &amp; delivery</td>
<td>Billing</td>
<td>FPs</td>
<td>MOHLTC</td>
<td># patients enrolled in a practice</td>
<td>MOHLTC provides FPs a summary and payment report</td>
</tr>
<tr>
<td>FHG</td>
<td>Blended Salary Model</td>
<td>Level 1: roster size 1300 and salary $158,367.05 • New patient enrolled • Roster size • Acute care patients enrolled (previously unattached) • Comprehensive care • Seniors care • Shadow billing premium (5% premium on approved services for enrolled patients) • FFS for services provided outside of FHT to enrolled and non-enrolled patients • FFS for services provided to non-enrolled patients in FHT • After-hours access • Telephone health advisory services • Congestive heart failure • Diabetes management • Smoking cessation counseling • Complex vulnerable patients • Mother newborn new patient (unattached mother within 2 weeks of giving birth) • Multiple newborn • Health care connect • Special premium: Labour and delivery; palliative care; home visits; long-term care; office procedures; prenatal care; hospital services; serious mental illness • Preventive care: Pap smear, mammogram, influenza</td>
<td>Billing</td>
<td>FPs</td>
<td>MOHLTC</td>
<td># patients enrolled in a practice</td>
<td>MOHLTC provides FPs a monthly compensation report and may indicate decrease in salary of 10% if roster size drops: for level 1 &lt;1,170; level 2 &lt;1327 and level 3 &lt; 1485 No change in salary if roster size decreases &lt;10% The MOHLTC provides comprehensive care capitation payment summary report, payment report</td>
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<tr>
<td>FHT</td>
<td>Blended Salary Model</td>
<td>Level 2: roster size 1475 and salary $179,559.69 • New patient enrolled • Roster size • Acute care patients enrolled (previously unattached) • Comprehensive care • Seniors care • Shadow billing premium (5% premium on approved services for enrolled patients) • FFS for services provided outside of FHT to enrolled and non-enrolled patients • FFS for services provided to non-enrolled patients in FHT • After-hours access • Telephone health advisory services • Congestive heart failure • Diabetes management • Smoking cessation counseling • Complex vulnerable patients • Mother newborn new patient (unattached mother within 2 weeks of giving birth) • Multiple newborn • Health care connect • Special premium: Labour and delivery; palliative care; home visits; long-term care; office procedures; prenatal care; hospital services; serious mental illness • Preventive care: Pap smear, mammogram, influenza</td>
<td>Billing</td>
<td>FPs</td>
<td>MOHLTC</td>
<td># patients enrolled in a practice</td>
<td>MOHLTC provides FPs a monthly compensation report and may indicate decrease in salary of 10% if roster size drops: for level 1 &lt;1,170; level 2 &lt;1327 and level 3 &lt; 1485 No change in salary if roster size decreases &lt;10% The MOHLTC provides comprehensive care capitation payment summary report, payment report</td>
</tr>
<tr>
<td>FHT</td>
<td>Blended Salary Model</td>
<td>Level 3: roster size 1650 and salary $200,752.35 • New patient enrolled • Roster size • Acute care patients enrolled (previously unattached) • Comprehensive care • Seniors care • Shadow billing premium (5% premium on approved services for enrolled patients) • FFS for services provided outside of FHT to enrolled and non-enrolled patients • FFS for services provided to non-enrolled patients in FHT • After-hours access • Telephone health advisory services • Congestive heart failure • Diabetes management • Smoking cessation counseling • Complex vulnerable patients • Mother newborn new patient (unattached mother within 2 weeks of giving birth) • Multiple newborn • Health care connect • Special premium: Labour and delivery; palliative care; home visits; long-term care; office procedures; prenatal care; hospital services; serious mental illness • Preventive care: Pap smear, mammogram, influenza</td>
<td>Billing</td>
<td>FPs</td>
<td>MOHLTC</td>
<td># patients enrolled in a practice</td>
<td>MOHLTC provides FPs a monthly compensation report and may indicate decrease in salary of 10% if roster size drops: for level 1 &lt;1,170; level 2 &lt;1327 and level 3 &lt; 1485 No change in salary if roster size decreases &lt;10% The MOHLTC provides comprehensive care capitation payment summary report, payment report</td>
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<td>Practice Model</td>
<td>Payment Method</td>
<td>Data Captured for billing fees</td>
<td>Why</td>
<td>By whom</td>
<td>For whom</td>
<td>What is measured</td>
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<td>vaccine, immunization, colorectal cancer screening, fecal occult blood testing (FOBT) • Continuing medical education payments (CME)</td>
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<td>detail report and reconciliation detail report</td>
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<td>Outside use</td>
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<tr>
<td>CHC</td>
<td>Salary (all staff including FPs) Budget: global &amp; line-by-line</td>
<td>Performance indicators: • Balanced budget • Proportion of budget spent on administration • Percent of total margin (no negative variance is accepted) • Percent of alternate level of care days (closed cases) • Variance forecast to actual expenditure • Service activity by functional center (e.g., PHC clinics/ programs; general clinic; therapy clinic; health promotion and education; and CHC client support services) • Number of individuals served • Cost per unit service (by functional center) • Cost per individual served (by program/service/functional center) • Client experience Clinical performance indicators • Cervical cancer screening rate • Colorectal screening rate • Inter-professional diabetes care rate • Influenza vaccination rate • Breast cancer screening rate • Periodic health exam rate • Vacancy rate (for NP and FPs) • Access to PHC QIP indicators by HQO: • Timely access to PHC when needed • PHC visits within seven days of post-discharge • Patient experience—opportunity to ask questions • Patient experience—enough time • Patient experience—involvement in care decisions</td>
<td>Funding agreement requirement</td>
<td>CHC Executive Director</td>
<td>LHIN</td>
<td>Clinical performance indicator by LHIN</td>
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Explanatory indicators
• Emergency visit best managed elsewhere • Client satisfaction—access • Clinic support staff per PHC provider • Cultural interpretation • Exam rooms per PHC provider • New grads/new staff • Non-PHC activities • Number of registered patients • Number of new patients • Specialized care • Supervision of students
<table>
<thead>
<tr>
<th>Practice Model</th>
<th>Payment Method</th>
<th>Data Captured for billing fees</th>
<th>Why</th>
<th>By whom</th>
<th>For whom</th>
<th>What is measured</th>
<th>What is reported</th>
</tr>
</thead>
</table>
| FHT            | Salary (inter-disciplinary health care providers) | • Third next available appointment  
• Non-insured clients | Justifying value for non-physician provider compensation | FHT organization Executive Director | MOHLTC | QIP indicators by HQO:  
• Timely access to PHC when needed  
• PHC visits within seven days of post-discharge  
• Patient experience—opportunity to ask questions  
• Patient experience—enough time  
• Patient involvement in care decisions

**Budget: Global funding & line by line (2005-2014)**

- # of rostered patients
- Service unit and type by inter-disciplinary health care service provider
- # of patients by type of chronic disease
- Programs offered (e.g., obesity counseling, blood pressure management, and smoking cessation etc.)
- Budget balanced: global budget
- Extended hours
- Vacancy rate
- Annual financial audit

**Beginning 2014-2015**

- Expenditure capture by 5 categories: operating overhead; salaries and benefits; specialist sessional; physician consulting; and one-time funding
- Programs and services delivered by FHT to enhance access, quality, and integration/coordination
- Governance: strategic planning, Board self-evaluation, Board fiduciary functions, governance policy, and operational maturity (submitted to qualify for semi-global funding)

- Budget balanced
- Extended hours
- Vacancy rate
- Annual financial audit

8.4.a What Data is Collected and Reported by Family Physicians, for What and for Whom?

Table 8.3 shows that the mandatory data reporting requirements are similar for family physicians in the blended capitation and blended salary payment methods. Family physicians report data using pre-defined FFS or shadow billing (the latter is used by family physicians in the blended capitation method and it generates a premium that represents a percentage of the full value of a FFS claim) codes. These billing codes are used by the Ontario MOHLTC to track, process billing payments, measure financial accountability tied to physician services (see Sections 8.3.a and 8.3.a.i) rendered to patients, and inform funding allocation in PHC.

With respect to processing billing payments, the Ontario MOHLTC uses billing data to: a) address any discrepancies in billing claims; and b) issue a quarterly summary of payment report to individual family physicians (Primary Health Care Branch - Ontario Ministry of Health and Long-Term Care, 2012, 2014). The summary of payment report typically outlines the payment amount authorized by the MOHLTC based on volume and utilization of PHC services and may include bonus payments.

The summary report exemplifies that financial accountability is tied to service volume rather than to the quality of care provided to patients, how many patients are being managed in the community, and how many enrolled patients visited the emergency departments, for example. The dimensions of accountability in PHC may be strengthened according to the key interview informants if accountability were to be tied to measures such as:

“…inappropriate use of emergency department visits and hospitalization for chronic disease, readmissions, and alternate level of care. The summary report does not hold family physicians accountable for how many visits the enrolled patients made to the emergency department that could have been avoided, and how many cases were managed in PHC and therefore, did not require care from a specialist” (ID 001A; 002A; 005A).
In addition to quarterly reports, the Ontario MOHLTC also provides biannual feedback reports to family physicians. As per the key informant interviews,

“the ministry also provides biannual feedback reports to family physicians about targets reached for preventive care services and percent of patients with controlled diabetes and blood pressure. The targets are set at the government level and prescribed in the PSAs. In addition, the ministry from time to time will do a diabetic survey and reconcile the survey data with the billing data. Through this survey, the ministry can tell how often a family physician is doing the three-month blood check for diabetes patients and is sending patients for an eye examination, according to the diabetes care management clinical guidelines. The ministry also compares the survey findings with the billing information on the diabetes care indicators and then produces a report to send to family physicians. Once the ministry sends this information to a family physician, it is up to the family physician to take action or not to take action. Further follow-up is not done by the ministry (ID 006A)”.

The latter quote noted above underpins the argument that was made in Section 8.3—family physicians are a self-regulated group of professionals, and judgment regarding standards of care is left in the hands of the professionals. The Ontario MOHLTC does not interfere in clinical matters. According to the key interview informants, the Ontario MOHTLC uses what Doern and Phidd (1992) call the information-based policy instrument or exhortation, the least coercive governing instrument to influence family physician’s behavior without imposing control. The use of information based policy instruments also implies that the MOHLTC trusts that family physicians will inherently take action in the best interest of their patients to achieve desirable outcomes (Contandriopoulos et al., 2014).

*Governance Structure of Regulated Health Professionals and Reporting Parameters*

The current governance structure between the funder and family physicians defines the parameters of the data reporting requirements and the corresponding formal structures of accountabilities. The key informant interview data detailed—what is and is not being measured, and what is important to consider measuring. As per the key interview informants:
“the ministry receives crude information about the volume and type of services on a population-wide scale. For a family physician, accountability on the financial side in PHC is rather strong but the accountability measures for outcomes are relatively poor. In fact, there are no strong accountability measures outside of what is used for reimbursement” (ID 002A; 007A).

“What is missing from reporting but is important to measure and monitor is accountability measures related to outcomes of care like hospitalizations, readmission rates, mortality rates, visits to the emergency departments, outcomes related to quality of care provided and so forth. It is also important to measure patients’ perspectives related to the quality of care they have received, whether they are getting enough attention from their family physician and do they trust their physician, how long did they have to wait to see a family physician, and how long did it take for them to travel to a PHC clinic” (ID 005A; 005A; 007A; 001A).

These key interview quotes reemphasize that in PHC, the mandatory data reporting requirements are tied to where the money is flowing. This service utilization data tells a partial story about access—frequency of visits in PHC by diagnosis and type of interventions. The alignment between the billing data reporting and the key PHC policy objectives (described in Chapter 6 and Section 8.1) is less clear. Furthermore, the financial performance reporting requirements in Ontario are not directly connected to the attainment of the core PHC function (defined in Chapter 5).

The present nature of what is being measured for accountability in PHC has been influenced by decisions taken at the policy setting level from two angles: 1) measuring what is within the control of family physicians; and 2) what is easy to measure. These insights were gleaned directly from interviewing the research study key informants who said:

- “We have been comfortable making providers accountable in PHC for outputs and services…that is something that is very easy to attribute back to the individual provider. It is nearly, totally within the provider’s control…whether they fill out a diabetes flow-sheet for a patient or not, that is up to a family physician in their practice” (ID 004A); and
- “Preventive care services (e.g., Pap smear, flu shot, mammograms, childhood immunization, and colorectal screening) and patient enrollment targets were picked because they can easily be counted. Measures for smoking status, smoking cessation
counseling and blood pressure outcomes were not selected because they are difficult to measure” (ID 004A; 001A; 008A).

The key interview informants also highlighted the importance of explicitly measuring and connecting accountability between the implementation and outcomes of policy initiatives. Examples of meaningful outcomes-oriented PHC accountability measures suggested by the key interview informants include: a) visits to the emergency department, hospitalization and hospital readmission rates of enrolled and non-enrolled patients; b) mortality rates; and c) patient satisfaction with the quality of PHC services received. These measures of accountability can potentially serve as proxies to examine the extent to which PHC: 1) serves as the first point of contact for new or ongoing care needs; 2) is accessible during business and extended hours; 3) providers take on the responsibility to identify all health needs of patients; and 4) provides comprehensive care (see evidence described in Chapter 5, Sections 5.2.a.i to 5.2.a.iv). The key interview informants signaled that although there are signs of readiness in the environment to evolve accountability measures from financial to clinical outcomes, the process to expand the scope of PHC performance and accountability measures may involve a dialogue between multiple key parties. This is because clinicians alone cannot achieve desirable patient outcomes. Multiple factors influence clinical outcomes, including professional competencies, patients’ role in complying to medical treatment protocol, standards of care guidelines and new evidence, scope of publicly funded medical services, and access to care.

Performance Reporting and Production Characteristics of PHC Services

Applying the theoretical concepts of performance measurement by Brandsen (2004) and Le Grand–Bartlett (1993), and of production characteristics by Preker et al., (2000) (described in Chapter 2) to the above noted research study findings, it can be inferred that Ontario’s PHC performance measurement approach is designed to routinely monitor predefined activities and outputs (i.e. service volumes) that are easy to collect and measure, and that are within the control of family physicians. In Ontario, the billing-derived PHC performance measurement metrics for family physicians exclude indicators related to activities and processes that directly involve: a) co-production of clinical services, clinical decision-making and interventions (e.g., mental health counseling); b) tacit use of clinical expert knowledge; c) clinical judgment around the level of appropriateness of care; and d) factors influencing
outcomes of care for vulnerable patients (at the time of writing this thesis). The production characteristics of these services are complex and require technical and medical knowledge; suggesting that contestability (defined in Chapter 2) is low and complexity (defined in Chapter 2) is high in PHC.

The complexity of delivering PHC services to address the needs of patients with uncommon and chronic conditions is high. Patients with multiple-morbidities often require: 1) multiple providers with different expertise to delivery care; 2) ongoing consultations drawing in specialized clinical expert knowledge; and 3) several patient visits. In addition, complexity increases when different clinical experts located across the health system collect data in standalone information systems that cannot easily be interlinked to access clinical data. According to Preker et al. (2000), when complexity is high and contestability is low, measurability is often low. In the context of PHC in Ontario, the argument made by Preker et al. (2000) holds true (see Chapter 2). The theoretical concepts by Preker et al. (2000) help explain that in PHC, metrics related to service coordination are not easy to measure because the complexity is high in terms of getting access to the clinical data from multiple providers. Although certain metrics are not included for measurement in PHC due to infrastructure constraints and the governance structure, family physicians may still be delivering care that is appropriate and in line with the evidence-based standards of care in Ontario.

The observations noted in Ontario around what gets reported for PHC performance are similar to the findings mentioned in Chapter 7, Section 7.4 about what gets included and captured in the PHC measurement systems. Section 7.4 highlighted that PHC measurement indicator systems often leave out measures related to: a) complex nature of clinical activities requiring coordination of services between multiple providers; b) clinical interpretation of diagnostic test results; and c) appropriateness of care (e.g., clinical judgments may differ from one patient to another, depending on the number of morbidities a patient has).

The theoretical concepts by Brandsen (2004), Le Grand–Bartlett (1993) and Preker et al. (2000) have been helpful to examine and describe the production characteristics of the PHC performance measurement reporting requirements for family physicians in Ontario, and to explain why financial accountability is at the center of the PHC performance measurement in Ontario.
8.4.b What Data is Collected and Reported by FHTs, for What and for Whom?

The Ontario MOHLTC mandates and collects data from FHTs to measure: a) total number of registered enrolled patients; b) volume of services provided to the enrolled patients by non-physician providers; c) type of secondary prevention programs offered by the FHTs; and d) budget variance and balance. The budgetary data is annually audited and reported to the MOHLTC using manual processes. The FHT budgetary structure has a number of disadvantages. According to the key interview informants:

“every year FHTs have to do a massive budget submission with the thought in the back of our heads that we are probably not going to get an increase but we still go through a difficult process of trying to make things work. Without an increase in budget, it is challenging to do strategic planning, think about innovation and add new compliment of staff to meet the needs of the growing patient population demographics. The budget is not flexible and it is unrealistic to bring innovation with a zero-budget growth” (ID # 013A).

Since 2014, some FHTs have begun collecting patient survey data on five indicators that inform the development of Quality Improvement Plans (QIP) in PHC. The FHTs report the patient survey data indicators to HQO on a voluntary basis. The five QIP indicators (listed in Table 8.3) measure: 1) timely access to PHC when needed; 2) PHC visits within seven days of post-discharge from the hospital; 3) patient experiences—if patients had opportunity to ask questions; 4) patient experiences—if providers spent enough time with patients; and 5) patient experiences—about patients’ involvement in care. These measures are designed for FHTs and the health system to gain insights on patient’s experience and perspective about: a) access; b) quality of interaction and inter-relationship between a patient and providers; and c) openness of PHC providers to involve patients in the decision-making process for care planning.

The range of mandatory data collected and reported by FHTs provides information on financial accountability for over-head costs, and compensation costs for human resources (i.e., non-physician providers). The patient survey data on the other hand provides a view on experiences of patients in PHC around access and the strength of the relationship between a provider and a patient. The latter indirectly speaks about the effect of implementing the patient enrollment method (described in Chapter 6) in PHC. The PHC patient survey data
could potentially be used for measuring sub-constructs of the PHC key attribute access and person-focused care. In Ontario, the patient reported data is only collected by some FHTs; this data represents views of a small sample of patients or residents. Accountability in PHC for FHTs is focused more on throughput of PHC services and is less organized around the scope of the four key PHC attributes (defined in Chapter 5, and analyzed in Chapters 6, and 7).

8.4.c What Data is Collected and Reported by CHCs, for What and for Whom?

The LHINs have mandated data collection and reporting in CHCs around three broad categories of indicators: 1) budget related performance indicators; 2) clinical performance indicators; and 3) explanatory indicators. Table 8.3 lists 10 performance indicators which are used by CHCs to report, explain and justify budget expenditure for administration, per cent of budget variance to actual, per cent of alternate level of care days, number of patients served, service activity delivered by functional centers, and cost per unit of service and per patient served. These measures are tied to financial and performance accountability (noted earlier)

CHCs also report on eight clinical performance indicators (listed in Table 8.3); five of the eight indicators are related to preventive care services. Although family physicians in CHCs, and in FHOs, FHGs and FHTs have similar reporting requirements for the five preventive care indicators, they report to different funders. CHCs report on behalf of family physicians to LHINS while family (in the non-CHCs models) report directly to the Ontario MOHLTC.

The fourteen explanatory indicators (listed in Table 8.3) reported by CHCs indicate that CHCs are also accountable to monitor and report on: patients who access services through hospital emergency departments; patient satisfaction survey around access; third available appointment; number of registered patients; number of new patients serviced; the delivery of non-PHC services; and services provided to non-insured patients. These indicators provide a broader perspective on care needs and an insight on some aspects of the key PHC attributes—access, longitudinality, and comprehensiveness. These indicators are not captured or monitored by FHTs. Similar to FHTs, CHCs report on QIP indicators (described in Section 8.5.b) to HQO.
In contrast to FHTs, CHCs are required to report on a greater number of performance indicators. The performance indicators in CHCs, however, do not capture the broad spectrum of services (described in Chapter 7) that are typically provided by CHCs. CHCs provide a broad range of PHC services to address social determinants of ill health and promote wellbeing—these are some of the key distinct elements embedded in the broader definitions of PHC (described in Chapter 5). These however, are not mandated for reporting to the funder though noted as important to measure by key interview informants. According to key interview informants,

“it is important to measure activities related to health promotion, complexity of care involved in the delivery of services to vulnerable populations who have barriers to access care, and upstream and downstream savings” (ID 003A; 001A).

The analysis described in Sections 8.3, 8.4.a, 8.4.b and 8.4.c answered Research Question #2.b. In Ontario, the collection of mandatory data from family physicians and PHC practice models demonstrates financial accountability and is used to inform program and budget planning activities. Some patient reported data are collected on a voluntary basis by PHC organizations for measuring patient-provider strength of relationship and access to PHC. It is unclear how patient reported data are being used for health system planning. The infrastructure constraints and the governance structure between the funder and family physicians may be influencing the scope of mandatory data collection and reporting in PHC. At the time of writing this thesis, this research study found that what is easy to collect and what is within the control of family physicians gets measured. Family physicians have very little say in what gets measured, although there is consensus among family physicians about what should get measured to manage patient cases better in the community and to potentially increase clinical accountability.

8.4.d Commonalities and Differences in Accountability and Reporting Requirements Across PHC Practice Models in Ontario

This section draws on the analysis previously described in Section 8.4 (8.4.a to 8.4.c) to answer Research Question # 2.b.i (described in Chapter 1) and to point out the similarities
and/or differences in accountability and reporting requirements across the four PHC practice models (FHOs, FHGs, FHTs, and CHCs) examined in this research study.

The financial accountability reporting requirements for family physicians working in FHOs, FHGs and FHTs are similar and are centered on enrolled patients. Family physicians in the blended capitation and the blended salary payment methods use the same fee codes to bill (see Table 8.3) OHIP.

Although family physicians in FHOs, FHGs and FHTs are responsible for providing PHC services during extended hours (i.e., beyond 9-5 business hours), it is not mandatory for all family physicians in Ontario to offer PHC services after hours (i.e., in the evenings and/on weekends). In addition, parameters for providing extended hours care in PHC are not defined in the service agreement; this suggests that family physicians in FHOs, FHGs and FHTs are not accountable to deliver a set number of hours of PHC services in the evenings and weekends uniformly across the province. As per the key interview informants,

“there is no agreement that outlines what the expectations are around the timing of the extended hours and what the amount should be for outside use…” (ID 007A).

The point noted by the key interview informants suggest that in Ontario, accessibility of PHC services during extended hours may vary because there is no standard set out centrally by the funder. This may directly impact patients’ use of emergency department visits.

Family physicians working in FHOs, FHGs and FHTs report on financial accountability to the funder on an individual basis. On the other hand, family physicians in CHCs do not report to the funder individually. Rather, CHCs report to the funder on behalf of the entire organization, including family physicians and non-physician providers.

In PHC, two PHC practice models—FHTs and CHCs report from an organizational standpoint and have similar mandatory budgetary reporting requirements (as noted in Sections 8.4.b and 8.4.c). There are some differences in reporting requirements between FHTs and CHCs. The first reporting distinction is related to population being served—most FHTs report on enrolled patients and CHCs report on marginalized patients. Some satellite FHTs, however, do report on marginalized patient population they serve. The second distinction is related to reporting requirements for financial accountability. CHCs are required to report on
more indicators than FHTs (see Section 8.4.c). In addition to reporting on budgets, CHCs also report on cost per patient served and unit of service, and explanatory indicators (see Table 8.2). Overall, the mandatory performance reporting requirements for CHCs are slightly broader in scope and different than for FHTs.

In terms of non-mandatory reporting requirements, FHTs and CHCs report to HQO on similar QIP indicators (listed in Table 8.3 and described in Sections 8.4.b and 8.4.c). At the time of writing this thesis, 182 FHTs and 74 CHCs were reporting to HQO on QIP indicators for QIPs (Health Quality Ontario, 2014a). Although HQO has indicated the desire to expand the QIP indicators beyond the five (see 8.4.b and Table 8.3), Ontario has not moved forward to include measures such as: a) emergency department visits for conditions best managed elsewhere; b) hospital readmission rates for PHC patient population; and c) percent of patient population that are up to date with cancer screening (Health Quality Ontario, 2014a). These indicators are challenging to measure because the data for these measures are collected by independent, autonomous organizations whose information systems are not linked to information systems in PHC. The production characteristics of PHC services in the form of the three indicators noted above are characterized as complex (Preker & Harding, 2010).

With respect to the other two PHC practice models—FHOs and FHGs—they have no organizational level reporting requirements to the funder, an association, or a Board of Directors for financial, clinical performance and political accountability respectively.

8.5 Ontario’s Primary Health Care Performance Measures and Primary Health Care Key Attributes

The analysis presented in this section answers Research Question # 2.b.ii (described in Chapter 1). Research Question #2.b.ii examines the extent to which Ontario’s PHC measures are aligned to the key PHC attributes (described in Chapter 5). The four key PHC attributes (defined in Chapter 5) are used below in Table 8.4 as a reference point to compare, contrast and examine the characteristics of Ontario’s PHC performance measures. Many scholars (see Chapter 2) have used the four key PHC attributes to assess the orientation and performance of PHC. Furthermore, Starfield (1992, 1998) states that when PHC performance measurement
systems capture and measure constructs of the four key PHC attributes, it helps to determine and identify areas for improving PHC performance and health system accountability.

The analysis presented in Table 8.4 (below) draws on the key data points outlined in Table 8.3 and shows how the mandatory list of PHC performance measures in Ontario reported by the four PHC practice models—FHOs, FHGs, FHTs and CHCs—relate to the four key PHC attributes. The discussion below describes the degree of alignment between the four key attributes and mandatory data reported by: 1) family physicians (via billing data), and 2) PHC organizations (using performance indicators).

Table 8.4 PHC key attributes and performance measures linked to funding in Ontario

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>FPs in FHO, FHG &amp; FHTs</td>
<td>FHT Organization</td>
<td>CHC Organization</td>
<td>MOHLTC Feedback</td>
</tr>
<tr>
<td><strong>Access</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• First point of contact</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Availability of PHC source of care</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>• Availability of PHC provider(s)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>• Availability of after-hours care (weekend and evening)</td>
<td>Implicit</td>
<td>Implicit</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• PHC providers should make house calls</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>• Accommodate same day or next day appointments</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Coordination/ Integration</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Mechanism to capture, store and transfer patient record</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Accurate capture of content in patient record</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Relational continuity (i.e., knowledge and access to information to recognize patient information)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Management continuity (i.e., referral and transfer information to facilitate sequential visits)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>o Within PHC practice</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>FPs in FHO, FHG &amp; FHTs</td>
<td>FHT Organization</td>
<td>CHC Organization</td>
<td>MOHLTC Feedback</td>
</tr>
<tr>
<td>o Outside of PHC practice (e.g., specialized care)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Informational continuity (i.e., linking past knowledge to current state to set future direction of care)</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Longitudinality (person focused continuous care)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Sustained partnership: patient-provider relationship and strength of relationship</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Person-focused (not disease focused care): encounter for a type of problem and PHC use over time for unreferred services</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Care provided by regular source of care and or provider(s) (defined population)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>• Utilization: PHC use over time for unreferred visits with the primary source of care</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>• Defined eligible population: attached or registered with the regular source of care</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Comprehensiveness</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Range of services provided for majority of population health needs (as a core set)</td>
<td>Implicit</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>• Range of services delivered as per guidelines</td>
<td>Partial</td>
<td>No</td>
<td>Partial</td>
<td>No</td>
</tr>
<tr>
<td>• Adequately recognize full range of patients health needs within broader social context</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>• Services offered by interdisciplinary teams</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>• Outreach</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>• Home visit</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>

At a glance, the analysis presented in Table 8.4 highlights an important finding—mandatory reporting of volume- and count-based PHC data—are aligned to some but not all constructs of the four PHC key attributes (described in Chapter 5). The discussion below describes the alignment between the four key attributes and the two streams of mandatory data reported to
the funder: 1) billing data from family physicians; and 2) indicator data from PHC organizations (i.e., FHTs and CHCs).

The PHC mandatory billing data reported by family physicians in Ontario (see Table 8.4) could hypothetically measure concepts such as whether or not some PHC clinics are: a) offering after-hours care; and b) providing PHC services to address majority of population health needs. The family physician billing data could theoretically also measure whether or not some family physicians make house calls. The billing data on these measures are collected and reported by only those family physicians who voluntarily partake in the PHC reform initiatives; this data may not provide a population-wide view on whether or not access to PHC place, providers and services is improving across the province. The billing data does not measure how long patients have to wait to get an appointment with a family physician or how long patients spend time in the waiting room before being seen by a family physician at the clinic—these are important aspects of evaluating the key PHC attribute, access (see Section 5.2.a.i). If these areas of access were to be measured, they could theoretically serve as means to provide an insight into geographical, structural or capacity access issues faced by patients in Ontario.

Table 8.4 also shows that billing data are not directly tied to measuring concepts such as whether or not: PHC is serving as the first point of contact for patients to access care; PHC place and providers are available for patients when they require care; and patients can access PHC services equitably. These constructs, if measured, could examine if access to PHC is improving or not. This analysis highlights that family physician billing data cannot measure all aspects of the key PHC attribute, access and whether or not access in PHC is improving—one of the key PHC policy goals (see Sections 6.1.a.i and 8.1). The billing data cannot be used to measure three other policy goals—quality, integration, and accountability. In addition, the billing data on its own may be insufficient to measure the nine dimensions of quality (i.e., accessible, appropriate, effective, efficient, equitable, integrated, patient centered, population health focused, and safe) outlined in the Excellent Care for All Act (2010).

Table 8.4 also highlights that when family physicians report billing data, there is no feedback given to them about how their efforts at the clinic level with patient care activities are
assisting to improve the policy goals—access, quality, integration and accountability in PHC, and improve the sustainability of the health care system in Ontario.

With respect to PHC organizations, the FHTs and CHCs report on a number of common mandatory performance indicators (see Table 8.1); these indicators are aligned to some constructs of the three key PHC attributes: access, longitudinality, and comprehensiveness (see Table 8.4). As noted earlier (in Section 8.4.d), CHCs report on a broader set of performance indicators; hence, the discussion below uses CHCs as a case to illustrate and discuss the alignment between the key PHC attributes and the mandatory data reported by PHC organizations.

CHCs report on PHC data that can explicitly examine a number of concepts to determine: 1) if PHC serves as a primary source of care for patients; 2) availability of PHC providers; 3) if PHC providers make home visits; 4) if patients can get same-day or next day appointments; 5) if care is provided by regular source of care and/or by PHC providers; 6) if PHC providers recognize a full range of patients’ health needs within the broader social context; 7) if patients have access to interdisciplinary care; and 8) if outreach activities are undertaken by PHC providers to engage with community members. Although reporting requirements for CHCs are aligned to some extent to the three key attributes (access, longitudinality and comprehensiveness), the key attribute—coordination of care is left out completely.

Overall in Ontario’s PHC system, the mandatory data that is reported by family physicians and PHC organizations to the funder can measure PHC utilization, service throughput, and expenditure. In addition, CHCs collect and report on other meaningful metrics such as community outreach and engagement, and the scope of comprehensive care provided to patients based on their health needs within the broader social context. These types of metrics are not collected and reported by all PHC organizations. Across the province, measures are aligned to some but not all constructs of the four PHC key attributes (see Table 8.4) (at the time of writing this thesis).
8.6 Primary Health Care Performance Measurement and Accountability: Barriers and Potential Enablers

The preceding sections in this chapter highlight that in Ontario, there is no cohesive and coordinated approach implemented to measure the performance of PHC around multiple dimensions of accountability (see Sections 8.3.b to 8.3.g) and the four key PHC attributes on a regular basis (see Section 8.5). The mandatory data that is reported by family physicians and PHC organizations (i.e., FHTs and CHCs) can measure some concepts of the PHC attributes—access, and comprehensiveness (see Section 8.5). The mandatory reporting requirements for family physicians are strongly tied to financial and political accountability (discussed in Sections 8.4.a, 8.4.b, 8.4.c and 8.5) and not to whether or not access to PHC services and provider is improving, and if insured physician services in PHC are comprehensive and meeting the needs of insured persons. Measurement related to clinical accountability and the quality of care delivered to patients is absent; clinical accountability is left to professional judgment (see Sections 8.3.a to 8.3.d). In PHC, the patient reported measurement is based on a select few indicators and is organized through HQO. Some PHC organizations participate on a voluntary basis (see Sections 8.4.b ad 8.4.c). To gain insights on why PHC measurement system in Ontario is so fragmented and focused on financial accountability, this section draws on the interview data. Section 8.6.a identifies existing barriers that restrict the potential to organize and align performance measurement in PHC beyond financial accountability, and Section 8.6.b provides insight on potential enablers for expanding performance measurement beyond financial accountability.

8.6.a Barriers to Measuring Performance and Accountability in Primary Health Care

In Ontario, the key interview informants provided insights on a number of system-level challenges that serve as barriers to organize and implement a coordinated approach to PHC performance measurement in PHC. According to key informant interviews, the barriers to performance measurement in PHC are:

- “The provincial health insurance plan information system. This system is not designed to track processes and outcomes of PHC services. This provincial level information system
infrastructure cannot be leveraged to measure PHC performance or accountability” (ID 004A);
• “There is a lack of access to standardized PHC information. EMRs in PHC offices aren’t functional and are fragmented. The quality of data in EMRs is not that great because patient health information entered into EMRs is not standardized. This adds to the frustration and adds a layer of complexity in measuring meaningful measures in PHC” (ID 001A; 005A);
• “Fragmented EMRs cannot produce comparative reporting that can enable PHC providers and organizations to compare themselves with their peers and the system. This limits the opportunity to learn from one another and to participate in continuous quality improvement” (ID 005A; 003A);
• “The reporting requirements are separate from what we do on a day-to-day basis. Therefore, the amount of time spent on reporting on accountability and the complexity of that reporting is significant. The reporting for the most part is manually done simply because there is a lack of performance measurement infrastructure in PHC to facilitate performance measurement in PHC” (ID 002A).
• “Clinical areas are harder to measure and often times the information systems necessary to collect and report on complex measures such as coordination of care, management continuity and informational continuity are not available. So generally, for these types of measures, you are into manual reporting and that becomes a real difficult thing to do and to scale up” (ID 013A; 005A);
• “If there isn’t the infrastructure, then the reporting back of complicated accountability measures is limited. In PHC, depending on the funding model and infrastructure availability, reporting on performance and accountability in some cases is very limited to counts” (ID 007A; 005A; 001A; 002A);
• “Family physicians are sensitive to and are nervous about the term accountability (perceived as a ruler and a stick) and it does not help that a top-down approach has been taken by the ministry to select priorities for performance measurement and cherry pick accountability measures in the present environment. Why wouldn’t PHC hubs and patients be involved in selecting what is important to measure? Someone from above is dictating and that is the problem with accountability in PHC. There is definitely some resistance from family physicians about adopting and participating in QIPs, and giving EMR clinical data to the funder, the Ontario MOHLTC. As well, there is the assumption that family physicians aren’t held accountable. But, if the data were there and family physicians were involved from the get go and knew how we collectively were going to measure accountability, family physicians would want to participate” (ID 004A; 003A; 009A);
• “There is a lack of culture of accountability in PHC and a lack of capacity and funding to support quality improvement” (ID 005A; 007A; 013A; 003A); and
• “There is a lack of a coherent approach and guidance about what quality measures should be assessed and how funds will be provided to cover the cost of doing measurement. It costs a lot of money to do the measurement” (ID 005A; 007A; 003A).

The key informant interview quotes described above suggest that in Ontario, there are a number of system-level barriers that limit the potential of moving beyond financial accountability. The system-level barriers are: the data collection tools; the top-down
approach; a lack of meaningful measures; funding and resources to support the effort involved in measuring performance; and the culture of accountability and performance measurement at the local level in PHC. According to the key interview informants, the administrative billing database is not a comprehensive tool to measure all aspects of PHC performance because it provides an incomplete picture of clinical services and care that are provided to patients in PHC. Therefore, the OHIP billing system should not be considered as the only data source to measure accountability of family physicians. On the other hand, EMRs do capture information on clinical activities; however, they capture unstructured data, which can be challenging and resource intensive to manipulate and to use. As well, the EMRs are not interoperable with other information systems used in hospitals and in clinics where specialists work, for example. This observation highlights that the existing infrastructure that is in place in PHC is challenging to use for health care providers to coordinate care for patients and to report on meaningful measures. Some of these findings suggest that the production characteristics of PHC services are complex (defined in Chapter 2); as a result, measurability (defined in Chapter 2) is low. Another point of note is that to measure all aspects PHC attributes, it may be necessary to use and interlink multiple data sources. The administrative billing data is insufficient to measure the performance and accountability in PHC.

In addition, the key interview informants pointed out that the transactional cost is high to generate data for reporting requirements. Funding and resources are necessary structural inputs to support PHC performance measurement.

The key interview informants also noted that the top-down approach taken in Ontario to select accountability measures and markers of performance in PHC is not necessarily a helpful tactic to get buy-in from frontline family physicians. As well, what is being measured from the OHIP billing data is not capturing what is being done in practice. For example, billing data only represents one diagnosis per patient visit. However, in practice PHC providers address concerns and administer interventions for multiple diagnostic conditions per patient, per visit. As well, the physician billing information does not reflect the care that has been provided by non-physician providers within a practice or by providers in other health sectors (e.g., community agencies, homecare and pharmacy etc.). As a result, billing data only provides a partial story about health provider resources used to address the care needs of a patient and how many different locations patients had to go to get services from health providers.
The general message from the key interview informants is that PHC providers are open to participate in PHC performance measurement activities. They would, however, prefer to be involved at the outset in the selection process to identify relevant indicators that are patient-centric and that can inform quality improvement initiatives at the local level. As well, PHC organizations and providers require funding and resources to implement the right tools and to operationalize regular reporting of accountability and performance measures in PHC.

These system level barriers limit the possibility of: a) generating comparative feedback reports on meaningful measures for providers to review and act on; and b) publicly reporting on aspects of quality of care delivered and attained in PHC. In the publicly financed system, both the information system deficiencies, the lack of funder-to-provider feedback reports, and the absence of public reporting of key performance metrics in PHC: 1) further lowers the contestability (defined in Chapter 2) in PHC; 2) reduces the prospect of building capacity and accountability at the local level to use own data and stimulate conversations among peers within and across PHC group practices; and 3) limits the potential to further embed and foster the culture of continuous quality improvement in PHC. Not supplying data back to PHC providers limits the ability of the providers to reflect on the care that is provided in their own practice and strengthen clinical accountability to patients, regulatory agencies and ultimately to the funder. In addition, the absence of performance reporting in PHC at provider level: 1) restricts the potential of facilitating peer-to-peer dialogue, identifying best practices and learning from one another; and 2) continues to confine the focus of accountability in PHC to remain on expenditures. Not publicly reporting on PHC measures means patients are unable to exercise their right to select a provider based on the quality of care performance ratings. In Ontario, low measurability in PHC does not support the creation of an environment to empower patients to make a choice about seeking care from PHC providers based on performance patterns. This condition drives the contestability in PHC lower.

8.6.b Potential Enablers to Measure Performance and Accountability in Primary Health Care

To advance accountability measurement in PHC, the key interview informants identified a number of potential ideas—if pursued—could serve as key enablers to get buy-in from frontline providers, and define and expand the scope of performance measurement and
management in PHC beyond financial accountability. Examples of what could potentially be considered and explored to establish PHC performance measurement and accountability in Ontario, according to the key interview informants, include ideas such as:

- “Introduce a separate PHC service and accountability performance agreements and involve patient, physician, and non-physician provider groups, relevant professional associations, and the ministry at the outset in the negotiation process” (ID 004A; 013A; 001A);
- “Involve PHC service providers to identify which PHC performance measures are clinically relevant (e.g., tie measures to the standards of care) and which can support to measure the characteristics of and nature of services delivered in PHC” (ID 013A);
- “Tie performance accountability to non-financial incentives or standards of care, broader outcomes of care and quality improvement plan implementation. This is more powerful than individual payments for increasing volume of PHC services” (ID 005A; 002A; 001A; 008A);
- “Assign accountability to patients. Clinicians cannot be accountable for patient outcomes, for example. Patient outcomes are affected by a number of factors including patients’ own involvement in managing their condition. The patient who has a disease has as much of the ownership as the clinician who is giving guidance” (ID 005A; 001A; 004A);
- “Design accountability in a way that seamlessly interfaces with what clinicians do every day with patients and the electronic system clinicians use to record information about interventions they have offered or administered to patients” (ID 007A; 002A; 001A; 008A);
- “Ensure information systems between PHC and hospitals are connected and PHC providers can easily access the right information at the right time” (ID 005A; 008A);
- “Ensure separate funding is allocated to implement and operationalize a performance measurement information system” (ID 008A); and
- “Define the scope of accountability for the Ministry for example in the areas of providing timely response and stability in funding” (ID 005A; 004A).

The key interview informants identified a number of potential key enablers to form consensus on measures and reporting, and to facilitate uptake and implementation of accountability and performance measurement in PHC. As per the key interview informants, Ontario may want to explore using a bottom-up approach to inform the terms of the service agreements in PHC as well as, to select performance measures that are linked to multiple dimensions of accountability. The key interview informants defined the bottom-up approach as a process that invites and drives collaboration among those who: 1) fund PHC services; 2) set standards of care; 3) organize, deliver and receive PHC services; and 4) monitor and evaluate PHC service utilization, expenditure and quality of care. Through this collaborative process, it is suggested by the key interview informants that Ontario’s PHC system may be able to move forward and towards measuring performance in PHC based on what matters to frontline staff,
patients, and system-thinkers, -organizers, and -decision-makers. The final point noted in the interviews is the potential of determining and assigning accountability to all key parties—this includes the funders, providers, organizers, patients, and system-level planners and advocates. These recommendations, if acted upon, may help Ontario reform the reporting and measurement of PHC performance and accountability, and create a pathway to evaluate the key PHC policy goals as well as the four key PHC attributes (described in Sections 6.1.a.i and 8.1).

8.7 Implementing Accountability in Primary Health Care in Ontario

This section describes the policy instruments used in Ontario to implement PHC policy goals, using the theoretical concepts of Doern and Phidd (1992) (previously described in Chapter 2). The information in this section answers Research Question #2.c: what accountability mechanisms have been implemented in Ontario.

In PHC, the Ontario government used a number of policy instruments; these can be classified as follows: treasury or expenditure instruments (e.g., contracts and financial incentives), authority based instrument (e.g., legislation), and information-based instrument or exhortation (e.g., clinical leadership) (Doern & Phidd, 1992). Sections 8.7.a to 8.7.c describe how these policy instruments have been used to implement accountability in PHC, in Ontario.

8.7.a Expenditure Instruments

In the PHC sector, Ontario used two types of expenditure instruments, namely contracts and financial incentives. The sub-sections (8.7.a.i to 8.7.a.iii) below describe key components of the three PHC contracts.

8.7.a.i Expenditures/ Payments Reflected in the Contracts

In Ontario’s PHC sector, there are three separate contracts used to establish service agreements; these include: 1) Physician Services Agreement (PSA); 2) line-by-line FHT funding service agreement; and 3) Multi-Sector Service Accountability Agreement (MSSAA).
Physician Service Agreement and Financial Incentives

Ontario introduced PSAs in 2000s. In PHC, the PSAs are used to form a contract between the Ontario MOHLTC and individual family physicians for the delivery of insured physician services. Up until 2014, the terms of the contracts were negotiated between the Ontario MOHLTC and the OMA (the bargaining agent for the medical profession practicing in Ontario according to the Health Care Accessibility Act, 1990; Health Insurance Act, 1990; Physicians Services Delivery Act, 1996). Between 2014 and 2016, ongoing negotiations between the Ontario MOHLTC and the OMA occurred to establish the tentative 2016 four-year term PSA. The tentative PSA has not been accepted by the OMA membership, which includes physicians who practice in PHC and in other specialty areas of medicine. Starting 2016, the Ontario MOHLTC unilaterally laid out the conditions of the tentative agreement. At the time of writing this thesis, a new PSA was still not established, and the political struggles and tensions between the funder, medical association and the physician workforce continues to remain intense.

Table 8.5 summarizes the key elements of the PSAs related to PHC. Since the introduction of PSAs, a four-year term has been renewed, with the exception in 2012 (see Table 8.5). In 2012, a two-year term was renewed.

Table 8.5 Key components of the Physician Services Agreements related to PHC.

<table>
<thead>
<tr>
<th>Accountability Mechanism(s)</th>
<th>Year</th>
<th>Policy Goals</th>
<th>Policy Initiatives</th>
<th>Billing Fee codes for incentivized initiatives / scope of accountability</th>
</tr>
</thead>
</table>
| OMA-Ontario MOHLTC Agreement | 2000-2004 | Investigate feasibility and effectiveness of primary care reform models     | 7 Primary Care Network pilot sites  
Rostering  
Funding for information systems  
Alternate payments or non-FFS-delivery models                  | Billing codes listed  
Accountability not described                                             |
| Quality and access          |        | Patient care enhancements                                                    | Admission assessments  
Home care application  
Home care supervision  
Complex care elderly  
After-hours                                                        |
| Access                      |        | Rostering  
Comprehensive care  
Chronic disease care (diabetes & congested heart failure)  
Seniors care                                                      | Commitment to access  
Continuity  
Comprehensive primary care  
Service integration  
Complex care  
Preventive care                                                      |
<table>
<thead>
<tr>
<th>Accountability Mechanism(s)</th>
<th>Year</th>
<th>Policy Goals</th>
<th>Policy Initiatives</th>
<th>Billing Fee codes for incentivized initiatives / scope of accountability</th>
</tr>
</thead>
</table>
| Physician Services Agreement | 2004-2008  | Smoking cessation & colorectal screening                                      | Integration and coordination Abedancement of primary care models                    | • Evaluation of FHN & FHT  
• Patient access to care  
• Provision of comprehensive PHC  
• FPs & patient satisfaction  
• Continuity of care |
|                             |            |                                                                                | Service delivery organizations                                                    |                                                                                  |
| Accountability              |            | Group management & leadership                                                  |                                                                                   | • Local champions to reform PHC  
• Coordination of care  
• Provide patient enrollment data & reports to funders  
• Champion chronic disease management, health promotion & disease prevention programs |
| Physician Services Agreement | 2008-2012  | Patient first: • Access  
• Quality                                           | Unattached patients enrollment & registry  
• Broad range of services  
• Out-of-office services  
• Diabetes management as per guidelines  
• After-hours care                        | Enrollment of unattached patients (complex/vulnerable hospital in-patient, mother & newborn within 2 weeks of birth & new)  
• Comprehensive PHC  
• Commitment to expand access  
• Aging at home, end of life  
• After-hours care  
• Technical quality as per practice guidelines  
• Reduce rostered patient use of emergency department |
| Innovation to meet public needs |            | Diabetes registry  
• Inter-professional shared care  
• Coordination  
• Physician-LHIN tripartite committee |                                                                                   | • Patients’ use of diabetes registry & self-care management  
• Partnership: attach patients to nurse, coordinate with local community, mental health & LTC agencies  
• Align to population health needs –served by practice |
| Physician Services Agreement | 2008-2012  | Performance-focus on results (access & quality)                              | Enrollment of unattached patients & effective management of hospital patients       | Length of stay  
• Readmission rates  
• Number of unattached patients enrolled  
• Collection of physician level compensation data across all government funded programs |
<table>
<thead>
<tr>
<th>Accountability Mechanism(s)</th>
<th>Year</th>
<th>Policy Goals</th>
<th>Policy Initiatives</th>
<th>Billing Fee codes for incentivized initiatives / scope of accountability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Transparency &amp; accountability to taxpayers</td>
<td>• Capitation rate methodology adjustment • Incorporate burden of illness of patients (complex or vulnerable) into the capitation rate methodology • Align CHC compensation with service profile and accountability with LHIN</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sharing risks for controllable results &amp; show return on investments (cost)</td>
<td>• Patient enrollment model for acuity of patients • Enhance after-hours access • House calls for homebound • PHC Committee to examine the issue of daytime access to physicians and recommend standards for operating daytime hours, group size &amp; strategies for advanced access • FHN, FHG, &amp; FHO to enhance after-hours care based on group size</td>
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<tr>
<td></td>
<td>2012-2014</td>
<td>Access</td>
<td>• PHC Committee to implement PHC quality agenda • Align to Cancer Care Ontario screening guidelines for colon &amp; cervical cancer • PHC Committee to examine the issue of daytime access to physicians and recommend standards for operating daytime hours, group size &amp; strategies for advanced access • FHN, FHG, &amp; FHO to enhance after-hours care based on group size</td>
<td>Collaborate with FHTs, CHCs &amp; Aboriginal Health Access Centre to expand quality agenda • Develop annual quality improvement plans, indicators, patient experience surveys and public reporting • No data published at an individual physician level • HQO responsible for publishing results</td>
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<td></td>
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<td>Quality</td>
<td>• Inter-professional health care provider funding • Inter-professional health care provider funding • Inter-professional health care provider funding</td>
<td>Demonstrate community needs • Demonstrate involvement in quality improvement initiatives • Demonstrate integration with other health care providers to support population based planning &amp; service provision with the region</td>
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<td>Coordination</td>
<td>• Inter-professional health care provider funding • Inter-professional health care provider funding • Inter-professional health care provider funding</td>
<td>Demonstrate community needs • Demonstrate involvement in quality improvement initiatives • Demonstrate integration with other health care providers to support population based planning &amp; service provision with the region</td>
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<td></td>
<td></td>
<td>Cost</td>
<td>Remove • Access bonus per physician • Out-of-office service bonus</td>
<td></td>
</tr>
<tr>
<td>Accountability Mechanism(s)</td>
<td>Year</td>
<td>Policy Goals</td>
<td>Policy Initiatives</td>
<td>Billing Fee codes for incentivized initiatives / scope of accountability</td>
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<td>• Preventive care management service enhancement fee</td>
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<td>• Diabetes management fee</td>
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<td></td>
<td>Reduce comprehensive care capitation payment by 50% for patients enrolled &gt; 2400</td>
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<td></td>
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<td>Introduce group appointments for chronic disease</td>
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<td></td>
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<td></td>
<td>Manage entry of FPs into: FHN, FHO &amp; FHG</td>
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</table>

The PSA is a blanket agreement for all physicians practicing in Ontario. Table 8.5 only highlights key clauses related to the PHC insured physician services in the PSAs. Table 8.5 notes that the PSAs include three key components: a high-level description of the health system policy goals; PHC specific policy initiatives; and billing fee codes for insured physician services. There are three categories of billing fee-codes in the PSAs: 1) fee-for-service billing codes; 2) shadow billing codes; and 3) financial incentive billing codes. These concepts have been defined in Chapter 3, and discussed in Chapters 6 and 8 within the Ontario context.

Chapter 6 noted that financial incentives (defined in Chapter 3) have been used in Ontario to improve access to and embed standards of care for a short list of PHC physician services (outlined in Table 8.4). Financial incentives are bonus payments that are layered on top of the existing remuneration mechanisms (discussed in Chapter 6). In Ontario, bonus payments are used as a way to reward or penalize family physicians. If a family physician provides a target list of services to eligible patients, he/she receives a bonus. However, when enrolled patients end up seeking care outside of their primary source of care (i.e., the PHC clinic), the primary family physician runs a risk of losing a portion of his/her bonus (discussed earlier in Section 8.3.b.i).
In PHC, the financial incentives continue to evolve. With the renewal of the two-year PSA in 2012, the access bonus scheme was reconfigured. Access bonus payments are now directed to a group of family physicians working within the same practice (see Table 8.4) instead of individual family physicians. In addition, bonus payments have been eliminated for preventive care, diabetes care management, and out-of-office care services (Ontario Hospital Association, 2016).

In PHC the use of contracts have been combined with financial incentives to establish a clear line of financial accountability for family physicians to bill and manage a group of enrolled patients within PHC. However, the contractual terms are implicit and do not explicitly:

- Tie financial accountability to the achievement of health system policy goals and/or integration across the health system sectors;
- Hold family physicians accountable for ensuring their enrolled patients are managed in the community for conditions that can be addressed in PHC, and to prevent visits to the emergency department or hospitalization; and
- Define requirements or process for measuring PHC performance and accountability in the publicly funded system. The PSAs are not used as a mechanism to coordinate input or buy-in from frontline providers and set a direction in PHC for performance measurement.

For the delivery of physician services, the terms of the PSAs only hold family physicians accountable for billing and documenting the delivery of PHC services (e.g., counseling, medication prescription, referral, and flu shot etc.) rendered to patients.

**Family Health Team Funding Agreement**

The second type of contract established in PHC is known as the line-by-line funding agreement between a FHT and the Ontario MOHLTC; implemented since 2005. As briefly noted earlier in Chapter 8, the FHT Executive Director and Board President sign the funding agreement with the Ontario MOHLTC. The funding agreement is established to allow funds to follow through FHT organizations and to enable the FHT Executive Directors to hire, employ, and compensate non-physician providers, and to cover operational overhead costs. Typically, the Ontario MOHLTC develops the FHT funding agreements unilaterally; this process, noted by the key interview informants, often does not take into account actual costs of running the operations of FHTs. According to the key interview informants, there are a
number of challenges with the process and structure of the FHT funding agreement. For example,

“there is no room for negotiations to take place to establish the FHT funding agreement. As well, there is little room to negotiate the amount allotted for contracting out services (e.g., external financial auditing report)” (ID 007A; 013A).

“funds allocated by the ministry for a particular non-physician resource cannot be used to cover another type of resource; these constraints pose a huge issue in terms of being able to be agile and meet the emerging needs of the enrolled patients. If the earmarked dollars are put toward hiring a nurse practitioner instead of a social worker, then the ministry comes back and reinforces that the approved money can only be transferred to hire a social worker. While the global line-by-line funding model allows FHTs to deliver the approved programs and services, it poses limitations for FHTs to think outside of the box. For example, zero dollars are assigned and approved for FHTs to formally do outreach—a key component of providing comprehensive care according to Starfield (1998)” (ID 007A; 013A).

The Ontario MOHLTC renews the FHT funding agreement annually, although for some FHTs, the Ontario MOHLTC has moved toward approving a multiyear budget (Ontario Ministry of Health and Long Term Care, 2014). Some FHTs also have a separate individual accountability agreement with family physicians for providing medical care services to patients in the FHT model. This type of arrangement is, however, very rare.

Multi-Sector Service Accountability Agreement

The Multi-Sector Service Accountability Agreement (MSSAA) is the third type of contract implemented in PHC since 2005. The MSSAA is a funding and accountability agreement between the LHINs and the CHCs. Before establishing the MSSAA with CHCs, LHINs first work directly with the MOHLTC to discuss budgetary figures and/or policy priorities. Subsequently, LHINs enter into negotiations with individual CHC executive directors to establish the terms of and sign the MSSAA. In the MSSAA, expectations are explicitly outlined for CHCs. CHCs are expected to operationalize priority policy goals and initiatives,
and manage a zero-budget balance (details described in Sections 8.3.f and 8.4.c of Chapter 8). As per the key interview informants,

“the MSSAA also defines the requirements and expectations in terms of who CHCs will serve (i.e., the geographically-based priority populations), the make-up of the Board members, as well as the consequences of breaching the conditions stipulated in the MSSAA. If the terms of the MSSAA are contravened, LHINs can withdraw funds and can potentially terminate the agreement” (ID 004A).

In sum, in Ontario one agreement is used to remunerate family physicians, and two separate agreements are used to fund two different types of inter-disciplinary PHC organizations. These agreements serve the purpose of organizing publicly financed PHC insured services provided by family physicians and non-physician providers. These service agreements outline the PHC policy goals and the list of PHC services that can be provided to Ontario residents at no cost. Although the three service agreements include a termination clause, only the MSSAA explicitly outlines the consequences for breaching the terms of service agreements. LHINs can leverage the terms and conditions included in the MSSAA to reinforce accountability in CHCs (see Section 8.4.c). The Ontario MOHLTC uses the PSAs as a medium to reinforce accountability related to billing fee codes for physician services but does not interfere with clinical decision-making processes or outcomes. As noted in Section 8.4, all three contracts are designed to hold family physicians, FHTs and CHCs accountable for activities and services financed through public funds. Expectations for performance measurement in PHC are not described in the service agreements.

Theoretically, contracts are considered a coercive form of policy instrument (Doern & Phidd, 1992). In Ontario, however, family physicians are not coerced to sign a contract, and are not coerced to join group practices, enroll patients, provide extended hours care, manage enrolled patients in the community, or embed attributes of the broader definition of PHC (defined in Chapter 5) in practice. The government of Ontario in collaboration with the OMA have introduced flexible terms in the contracts (introduced between 2000 and 2014) to help family physicians feel at ease to enter or exit contracts without any penalties. The limitation of this arrangement is that the terms of the contract have no “teeth” to reinforce accountability in PHC. In other words, family physicians face no consequences for not complying with the
objectives and terms of the contract. The only time a family physician may face consequences is when a formal complaint is launched with their regulatory college about clinical care negligence, for example (see Section 8.3.d).

8.7.b Legislation

Relevant to PHC, Ontario has introduced legislation—two separate Acts in a span of six years. The first legislation is called the Excellent Care for All Act (ECFAA), enacted in 2010. The main goals of the ECFAA are to strengthen the organization of health service delivery around the patient, to foster accountability for efficient use of resources to deliver high quality patient care informed by evidence, and to launch quality improvement initiatives.

In 2011, the ECFAA was initially applied to hospitals. Subsequently, in 2012-2014 the principles of the ECFAA were applied in the inter-disciplinary PHC practice models –FHTs and CHCs (Ontario Hospital Association, 2016). Leveraging the principles of the ECFAA, the Ontario government mobilized FHTs and CHCs to: 1) form partnerships with hospitals and community agencies (through the initiative called Health Links, previously discussed in Chapter 6) to organize and deliver integrated care for one percent of the Ontario population with multiple morbidities; 2) survey patients on key quality indicators; and 3) develop QIPs (discussed in Sections 8.3.e. and 8.3.f; and 8.4.b and 8.4.c) and report indicators to HQO for aggregated level public reporting.

In addition, in the Legislative Assembly the Ontario government introduced Patients First Act (Bill 210) in June 2016 and subsequently reintroduced the Patients First Act (Bill 41) and passed in December 2016. Bill 210 (Section 29) was revised to keep intact the current reporting arrangement between family physicians and the Ontario MOHLTC. Bill 41 now stipulates that family physicians may need to provide information on transitions in practice for the purpose of local planning, identifying gaps in PHC services, and better planning for primary care needs of patients (Ontario Ministry of Health and Long-Term Care, 2016).

According to the Ontario MOHLTC website, Bill 41 is designed to help the province improve access to family physicians and nurse practitioners; and access to care when patients need it, including on the same day or next day, when ill and during after-hours and on weekends. At the time of writing this thesis, the government had not announced how Bill 41 will directly be applied to PHC. It is clear that Bill 41 does directly influence and expand the role of LHINs
for planning services across the health sector including community care and primary care so that care is more integrated and responsive to local needs.

Legislation is the most coercive form of policy instrument (Doern & Phidd, 1992). However, in PHC, the Ontario government has not used legislation as means to mandate or coerce family physicians to participate in PHC policy initiatives. In fact, legislation is used in PHC to create a platform to invite family physicians and non-physician providers to partake in system-level reform initiatives such as Health Links, QIPs, surveying patients on five QIP indicators, and reporting QIP data to HQO.

8.7.c Exhortation

The Ontario government has also used a number of non-coercive policy instruments. In PHC, Ontario used: 1) change agents; and 2) information based tools. These information-based policy instruments have been used to influence and shift the culture and dynamics of how family physicians interact with the health system planners, and to align the delivery of PHC services at the clinic level with the policy directions stated in the Ontario Action Plan (described in Section 8.1).

First, in 2008, the Ontario government introduced the concept of a clinical leader as a change agent to champion the uptake of PHC reform initiatives, to establish a relationship with regional funding agencies, and to integrate PHC services as part of regional program planning. Historical funding structures have required family physicians to have a direct relationship with the government; as a result, family physicians have not had to work directly with regional agencies (i.e., LHINs). To bridge this gap, for 14 regions in Ontario, 14 clinical leaders were appointed and were given a very specific task. According to the key informant interviews,

“the idea behind the primary care physician role is to try to engage and integrate PHC in regional system programing and planning. PHC and medicine in general, at least in the made in Ontario regionalization solution, has been left out of that regionalization solution. So, family physicians for the most part, aside from the family physicians working in the CHCs, are funded through a completely separate envelope and the LHINs do not have any sort of accountability mechanism around physicians. In
addition, the primary care physician leads are trying to build a community of primary care that can then network with the LHINs to do system-wide programs and improve issues related to transitions of care, unattached patients and integration of PHC with the rest of the health care system” (ID 004A; 008A; 005A).

Hence, as champions of PHC reform initiative, 14 PHC clinical leaders across the province have been placed in a leadership position to garner support, steer collective action on the ground and recruit family physicians to participate in provincially funded PHC initiatives (see Table 8.4) (Ontario Hospital Association, 2016). The introduction of the PHC clinical leaders by the MOHLTC in Ontario has been designed to incrementally shift the culture on the ground with respect to: 1) establishing new connections between family physicians and regional agencies (i.e., LHINs); 2) opening a window of opportunity for family physicians to provide input and participate in regional planning for health services; and 3) enabling family physicians to start to think about practice-level program planning for patient cohorts (see Table 8.4) (Ontario Hospital Association, 2016).

In 2012 and in 2015, the Ontario government introduced another exhortation type of policy instrument called the Ontario Action Plan to announce a number of overarching province-wide PHC policy goals and initiatives (discussed in Chapter 6 and Section 8.1 of this chapter), and to influence the direction and focus of program planning at the clinic level. In addition, the Ontario MOHLTC commissioned the evaluation of the PHC interdisciplinary team-based practice models (Dinh et al., 2014; The Conference Board of Canada, 2014), which provided feedback to PHC clinics and providers and the associations (for CHCs and FHTs) about common areas for improving the organization and delivery of PHC services.

The discussion in Section 8.7 highlights that Ontario has taken incremental and sequential steps, and used a variety of policy instruments to: a) implement a wide range of PHC reform initiatives (discussed in Chapter 6); b) establish formal lines of financial accountability; and c) facilitate the integration of PHC services under regional planning. Ontario has used coercive and non-coercive policy instruments. Using the theoretical concepts by Doern and Phidd (1992), it can be classified that Ontario has used three types of policy instruments: 1) expenditures; 2) legislation; and 3) exhortation (Doern & Phidd, 1992). Of these three policy instruments, legislation is classified as the most coercive form of policy instrument to
command and demand control. In Ontario within the context of PHC, however, ECFAA has not been used in a coercive manner. Rather the Ontario government has used the principles of ECFAA to gently shape the direction for improving the quality of care in PHC, and to draw in voluntary participation from PHC clinics and providers for QIPs. In Ontario, the implementation of PHC reform initiatives has often been based on the philosophy of “voluntary participation”; no coercion was imposed on family physicians to participate in PHC reform. This speaks to the dynamics of the governance structure that exists between the funders and the PHC professional providers who are self-regulated group of professionals and have special skill set to deliver low contestable PHC clinical services.

Another point of note is that Ontario has used different policy instruments to achieve different policy goals. For example, Ontario used: 1) payments to improve access to physician services as well as inter-disciplinary care services in PHC; 2) financial incentives to increase access to and improve quality of care (by embedding evidence in practice) for a short list of insured physician services; 3) legislation to advance the policy agenda on quality and integration; and 4) exhortation tools to subtly pursue the policy agenda related to patient-centered care and political dimensions of accountability.

Chapter 8 described the meaning, scope, measures and reporting requirements of accountability in PHC, in Ontario. The analysis presented in Chapter 8 drew the connection between PHC performance measurement and accountability by highlighting that the central focus of PHC performance measurement is about monitoring where the money is flowing; this is classified as financial accountability (see Chapter 2).

Using Ontario as a setting, this chapter drew on the theoretical concepts of accountability, performance measurement, governance, governing instruments and production characteristics (described in Chapter 2) and answered Research Question #2 and its sub-questions. The next chapter uses the research study’s theoretical framework (Section 2.3) and synthesizes the analyses previously presented in Chapters 5 to 8; and states the conclusion.
Chapter 9

Conclusion

9.0 Conclusion

9.0.1 Chapter Overview

Ontario was used to examine the meaning, measures and mechanisms of accountability in PHC and to draw the connection between accountability, performance measurement and PHC attributes. Qualitative data were collected from multiple sources and analyzed to answer two central research questions (noted in Chapter 1).

This chapter begins by highlighting the strengths and limitations of the research study. Then in Section 9.2 the main findings of this research study are discussed and critically analyzed using the constructs of the theoretical framework (previously described in Section 2.3) and the principles of the Canadian legislation, Canada Health Act (1984) (described in Chapter 3); Section 9.2 ends by highlighting valuable lessons for policy-makers, and noting future areas of research. Section 9.3 states the conclusion.

9.1 Research Study Strengths and Limitations

There are four key strengths of this research study. First, this research study used a theoretical framework to guide the collection, analysis and interpretation of multiple qualitative data sources; the synthesis presented in this research study provides rich empirical knowledge and insights about the scope of and connection between PHC performance measurement, attributes and accountability in a publicly funded health system. The findings of this research study offer pointers and valuable lessons for other jurisdictions about what to avoid and what to consider when they plan to implement accountability across health care systems, including in PHC. A number of lessons distilled from this research study that are presented in this thesis may also be applied to other health systems.

Second, the findings of this research study contribute to the broader academic literature on accountability and performance measurement. This research study revealed that in the health
care industry there can be co-existence of multiple dimensions and lines of accountability, and these lines of accountability are not exclusive and they are not unidirectional. The study also found that it was useful to use the theories of accountability and governance (see Chapter 2) together to get a deeper understanding behind the meaning of “accountability for what”, why “specific forms of accountability processes and/or instruments may be selected for use by decision-makers”, and why “some dimensions of accountability may be selected for explicit monitoring, auditing and sanctioning”. These findings propose the idea of potentially expanding the theory of accountability, previously defined by a number of scholars (Brinkerhoff, 2004; Dobrow, Sullivan, & Sawka, 2008; Emanuel & Emanuel, 1996; Shortt & Macdonald, 2002) by embodying the concepts of governance within the theory of accountability, and highlighting that in health care, multiple parties have multi-directional relationships for accountability.

Third, the findings presented in this research study reinforce the theoretical underpinnings of the production characteristics of health care goods and services by Preker and Harding (2010). Specifically, the findings note that certain production characteristics of health care services such as clinical activities and patient outcomes have low measurability because some data are: a) captured in a non-standardized format; and, b) not easily accessible when multiple providers from different locations are involved in coordinating care. As a result, easy to measure metrics that are within the control of clinicians are often used. Difficult to measure metrics are often left out of the performance measurement systems. Conditions such as low measurability and a high complex environment can serve as a barrier and reduce the potential of generating relevant metrics for clinicians and patients. In PHC, in order to enhance accountability, it is necessary to provide clinicians with relevant and meaningful data metrics so that they can: a) gain confidence in the reliability and accuracy of the clinical data; b) have a conversation with data custodians; and c) feel comfortable about enhancing accountability via public reporting of key performance measures. Public reporting of key metrics can foster transparency, inspire open discussions and ideas for quality improvement, and increase system responsiveness to meet needs of patients. In PHC, key metrics by providers and by PHC centers are not publicly reported; as a result, patients/health service consumers are unable access the information they need to choose preferred service providers. Ultimately, low measurability and lack of transparency lowers contestability in PHC.
Furthermore, this research study provides a theoretical framework that can be repurposed by other scholars in future studies to examine approaches of accountability in PHC in other jurisdictions and validate and/or refute the research study findings presented in this thesis.

This research study presents a few limitations. This study placed focus on drawing data from the literature and documents mainly to identify the common definitions of PHC and the key PHC attributes, and to characterize Ontario’s PHC system (this answered Research Questions #1 and #1.a). This study used two definitions of PHC (WHO, 1978; Starfield, 1998) to examine and characterize Ontario’s PHC system, and draw the connection between performance measurement, accountability and the key PHC attributes. This study assumed that it was applicable to use the PHC attributes described by WHO (1978) and Starfield (1998) in the context of Ontario as the working group commissioned by the Ontario MOHLTC in 2011 also used the two PHC definitions by WHO (1978) and Starfield (1998) to put forward recommendations for Ontario to strengthen PHC (Grinspun & Tetley, 2011). The scope of this study did not explore to identify potential differences in local community-oriented PHC attributes across Ontario and if these potential attributes were or were not covered in the PHC definitions by WHO (1978) and Starfield (1998).

The PHC definitions by WHO (1978) and Starfield (1998) provided a useful structure for the researcher of this study to objectively examine and analyze the connection between PHC performance measurement and accountability within the context of Ontario. The analysis noted in this thesis points out gaps for using the WHO’s and Starfield’s definitions of PHC in this study. The PHC definitions by WHO (1978) and Starfield (1998) were developed 40 and 20 years ago respectively; these definitions may not take into account how the core functions of PHC may have evolved over time in the ever changing political and social environments within the complex health system structure. In addition, PHC definitions by WHO (1978) and Starfield (1998) applied in this study were useful to examine some domains of accountability and performance measurement. However, the PHC attributes defined by WHO (1978) and Starfield (1998) did not pick out areas of accountability that may be present but implicit in Ontario’s PHC system (examples may include: governance, quality improvement plans, and informal partnerships between health providers and agencies) (see Chapter 8). This study did not explore or analyze dimensions of PHC accountability that may be present but not covered
the PHC definitions by WHO (1978) and Starfield (1998), as well as who should be or can be held accountable for specific dimensions of accountability in PHC.

In addition, some data were impossible to gather directly from a few key informants through an interview. The views of the publicly funding agency, the Ontario MOHLTC, were included by directly reviewing and incorporating a number of data points from various documents that were officially released by the Ontario government and available publically. An interview with an official representative of the Ontario MOHLTC was challenging to get, even after making several attempts. At the time of writing this thesis, the direct implications of the Patients First Act (2016) in PHC were less clear. Hence, this thesis does not include an in-depth analysis of this legislation. Once there is clarity about how the Patients First Act (2016) will be applied in PHC to further enhance accountability across the health sector, including in PHC, we can anticipate that future research studies on performance measurement and accountability in PHC within the context of Ontario may present slightly different findings than those presented in this thesis.

Moreover, the interview with the provincial medical association was held at a time when negotiations were occurring between the medical association and the provincial government; due to the political sensitivity around the negotiations, the interviewee was discrete in answering interview questions. All relevant official documents and media releases were reviewed and analyzed to ensure relevant data were incorporated in this research study. In addition, this study does not represent views of family physicians in solo FFS PHC practice model because they weren’t participating in the PHC reform initiatives, at the time of writing this research thesis (described in Chapter 6).

Last, this research study did not include views and voices of the relevant national professional associations, and patients because it was considered out of scope.

9.2 Discussion

In this research study, we found that the term PHC and PC (defined in Chapter 5) have distinct meanings, yet they are used interchangeably in the literature as well as in practice. The term PHC denotes that a broad spectrum of PHC services are: 1) made available to individuals, their family, and members in the community; 2) delivered by interdisciplinary
groups of PHC providers to address common needs, social determinants of ill health, and uncommon needs (see Chapter 5); and 3) designed, planned and organized based on the input from members of the community to address the needs of the broader community. The broad scope of PHC services covers health promotion, preventive care, curative care, rehabilitation and referral to specialized care; these services are intended to promote the physical, social and economic wellbeing of individuals and community members (WHO, 1978; Starfield, 1998).

The term PC places emphasis on identifying and managing prevalent diseases (Paalman et al., 1998; Rifkin & Walt, 1986; World Bank, 1993), and prioritizing implementation of disease control interventions for targeted sub-population groups. PC represents the scope of curative care, which is a component of the broader spectrum of PHC services. This research study used the broad definition of the term PHC (see Chapter 5) to describe the key PHC attributes, to characterize the PHC system in Ontario, and to understand the connection between PHC performance measurement and accountability. The findings are discussed below.

This study found that the core functions of PHC can be described by four key attributes; these are: 1) access or first contact care; 2) ongoing person-focused care or longitudinality; 3) comprehensiveness; and 4) care coordination (defined in Chapter 5). The implementation of these attributes in PHC can vary depending on the social and political context of a jurisdiction. In Ontario, where this research study was conducted, over the last decade resources have been directed to incrementally implement a diverse set of policy initiatives (see Chapter 6), which have aimed at reforming the PHC organization, delivery and remuneration methods. Many reform initiatives in PHC have aspired to integrate several sub-concepts of the four key PHC attributes (see Chapter 6) within the organization and delivery structures of the PHC system in Ontario. According to the findings of this study, many of the sub-concepts of the PHC attributes (See chapter 6) are not all fully applied, operationalized and immersed within the day-to-day operations of PHC practice setting, as envisioned by WHO (1978) and Starfield (1998) (see Chapters 5 and 6). Variation exists in how PHC providers and clinics have implemented PHC attributes in Ontario (see Chapters 6 and 8). The evidence is elaborated below.

Orientation of the PHC System in Ontario
Ontario’s publicly financed and privately delivered PHC system can be characterized by three attributes. These are access, comprehensiveness, and care coordination. Person-focused care or longitudinality may not be a strong attribute of the organization and planning of the PHC system in Ontario. Some of the features of the PHC attributes are discussed below, using key findings of this study.

**Access**

PHC serves as a first point of contact for all residents (i.e., insured persons who are legal residents of Ontario), provides insured services (i.e., publicly financed physician and non-physician services in PHC), and is a gatekeeper for arranging specialized care. All residents can access insured PHC physician services at no charge across the province. This is a key condition for Ontario to qualify for receiving full federal transfers as per the *Canada Health Act (1984)* (see Chapter 3).

In Ontario, a number of PHC reform initiatives have aimed at improving access to PHC providers, predominately family physicians (see Chapter 6). This study notes that while there is equitable access to insured physician services, only some PHC clinics offer insured non-physician services such as nursing, social work, pharmacist, and mental health counseling. In addition, only some PHC clinics offer patients same-day or next-day appointments, and provide access to care in the evenings and/or on weekends (see Chapters 6 and 8). Health Quality Ontario (2015) reported that only 44% of Ontarians have access to same-day or next-day appointments with their primary care provider when they are ill. At clinics where a combination of different services are available, the clinic operating hours are inconsistent within a region, as well as across the province. These are examples of disparities that exist across PHC clinics in Ontario. Disparities in PHC impact patients; there is no guarantee that all residents who need care can get equitable access to all insured PHC services and providers.

There may be several possible explanations behind why access to PHC services, providers and place varies across Ontario. One possible explanation may be related to the approach used by the public funder to implement several concepts of access in PHC. Though decision-makers in Ontario did provide strategic directions centrally and used policy initiatives to systematically coordinate efforts to improve access, they implemented initiatives using a
voluntary approach. Meaning that early adopters (i.e., family physicians) who resonated with the idea of increasing value of care to patients and the philosophy of working with other clinicians, left their individual solo practices and joined inter-disciplinary team-based delivery model of care (see Chapter 6) or group-based practice model of care to provide PHC to residents in a defined community. The early adopters who volunteered were rewarded financially for their participation. Family physicians who chose to remain in solo practice were not eligible for financial incentives and were not pressured to change practices. The second possible explanation may be tied to the requirements of the national legislation, Canada Health Act (1984). Within the Canadian context, non-physician services, clinic operating hours, and accommodations for urgent appointments may not be classified as medically necessary physician insured services under the Canada Health Act (1984) (see Chapter 3). This implies that potentially Ontario is not obligated to arrange equitable access to services other than medically necessary physician services on a uniform basis across the province. While the Canada Health Act (1984) does serve as a means to set common parameters across provinces and territories, each province, including the province of Ontario has flexibility when it comes to organizing, managing and delivering out-of-hospital and non-physician services as they see fit (see Chapter 3). The conditions outlined in the Canada Health Act (1984) may have influenced the decision taken in Ontario to not mandate the reform of PHC. The voluntary approach used in Ontario may have introduced a number of inconsistencies in PHC across the province. Another possible explanation may be that PHC services are privately delivered in Ontario (see Chapter 6) and different providers may be running their practices in different ways.

Disparities in the availability of insured PHC services across the province essentially means that patients potentially may not be able access all insured PHC services, close to where they live. This suggests that access to PHC services is inequitable in Ontario. In relation to inequitable access to PHC services and providers, policy makers may want to take a closer look at patient experiences, potential unintended consequences on the health system, and options for setting a standard for clinic operating hours and access to physician and non-physician services in PHC. Arranging consistent access to PHC providers, place and services could offer advantages for patients and the health system. One advantage for patients may include convenience, meaning patients could seek and access care directly from their primary
source, closer to where they live. For the health system, the economic benefit may include patients accessing inexpensive care from PHC versus accessing episodic and expensive care from urgent care centers, emergency departments, and/or specialists (Starfield et al., 2005). Evidence shows that when patients access their care through their primary source in PHC, patients are likely to receive care that is more comprehensive, linked to their past medical and social history, and person-focused (see Chapters 3 and 5). In contrast, when patients end up seeking care through sources other than their primary source, care can often be about addressing patients’ immediate symptoms. Symptom-based care management does not focus on patients as a whole person, and can often result in additional visits and more cost to the health system (see Chapters 3 and 5).

Patient rostering is another initiative implemented in PHC to improve access. Residents are attached to and registered with a family physician and/or a PHC clinic in Ontario (Ontario Ministry of Health and Long Term Care, 2015). Starfield (1998) states that the goal of attaching patients to PHC provider(s) is to strengthen and sustain patient-PHC provider inter-relationship, and to enable PHC providers to become more familiar with all aspects of the needs of a patient and their family so that the patient can receive person-focused, ongoing proactive care by the right PHC provider at the right time. This study found that in Ontario, patients are not attached to members of the inter-disciplinary team who are also part of patients’ circle of care in PHC. This observation suggests that patients can only access care from non-physician providers in PHC, if their family physician works in an inter-disciplinary team-based PHC clinic and is willing to make a referral. As well, in Ontario family physicians self-select which patient they will roster (Rudoler et al., 2014). A recent study reports that family physicians tend not to take complex and high needs patients onto rostered models; this may not necessarily be beneficial for the health system more generally (Rudoler et al., 2014). PHC system in Ontario is family physician centric.

*Person-focused Care/Longitudinality*

The term person-focused care or longitudinality (defined in Chapter 5) is not part of the common phraseology that is used in PHC by PHC providers in Ontario. Though person-focused care may be delivered to patients, it may not be consistently delivered in PHC across Ontario. This study found that the characteristics of person focused-care, the roles and
responsibilities of PHC providers with respect to delivering person-focused care, and expectations of PHC provider to the attached patients are not explicitly and centrally defined. In the absence of having a clear definition, PHC providers have taken upon themselves to draw meaning of these concepts for application in PHC practice setting. The evidence shows that in Ontario an uncoordinated approach has been taken to implement concepts related to person-focused care and manage attached patients; this may be attributing to variation in care being provided by PHC providers. For example, some PHC providers manage patients’ use of services within and outside of PHC while others are not so clear about their responsibilities surrounding rostered patients (see Chapters 6 and 8).

According to Starfield (1998), PHC providers have a defined role for delivering person-focused care. PHC providers are responsible for: a) being patients’ primary source of care for addressing ongoing and new care needs; b) becoming familiar with the needs of the patient as a whole for providing comprehensive care; c) being available to provide timely access to care during business and after hours; and d) managing patients’ use of health services within and outside of PHC. These concepts are broad and rooted in clinical care processes; and they can be difficult to implement in clinical practice without getting direct input from PHC providers. PHC providers possess the expertise and knowledge that is required to guide how best to define and implement these concepts seamlessly with other clinical practice processes used in PHC. In addition to engaging with a wide range of PHC providers, policy makers may want to consider leveraging resources (e.g., medical education credits) that could aid in embedding these concepts in practice.

A key lesson highlighted here is that clinicians’ time, knowledge, and personal commitment are main components involved in the delivery of person-focused care. Therefore, it becomes even more prudent to consider using a bottom-up approach for getting buy-in early on from a wide range of PHC providers about the elements involved in providing person-focused care to rostered and non-rostered patients (Denis et al., 2013). In fact, throughout the policy-making, implementation and evaluation cycle, it may be helpful to invite, engage and involve local PHC champions, providers, organizers, recipients of care, and community members to participate in forums to assist with: the creation of operational definitions of PHC attributes and identification of context specific attributes of PHC for adoption potentially; b) the design of how to embed person-focused care concepts; and c) the discussion around defining
associated accountabilities for those providers involved in patients’ circle of care. This is an important aspect for policy-makers and implementers to consider because the implementation of PHC key attributes affects how PHC services are organized and delivered by private providers, and where, when and from whom PHC services can be accessed by patients and community members. The clearer providers, patients and community members become about expectations, the greater the benefits can be realized at the health system level.

Comprehensiveness

Community outreach, engagement and partnership are key components of the PHC attribute—comprehensiveness. Engaging and forming partnerships with community members is critical for understanding and identifying comprehensive needs of those living in the community, and for defining, designing and implementing appropriate PHC population-based programs and services (World Health Organization, 1978; Starfield, 1998). In this study, the evidence showed that community input is not sought to define the basket of insured physician and non-physician PHC services in Ontario. Rather, in a publicly financed system, a pre-approved, standard list of physician services is used. In Ontario, the scope of pre-approved, insured physician services is: a) centrally defined; b) informed by past PHC service utilization patterns with input from a selected group of family physicians; c) based on the assumption that the standard list of physician services will address all common and uncommon health needs of people in the community (see Chapters 6 and 8); and d) premised on the notion that one size will fit all. The missing component here is the voice of community members.

While the use of the standard pre-approved list of physician services can promote the availability of PHC physician services consistently across Ontario, there may be some risks with using this approach. The current process involved in creating the scope of insured physician services may not incorporate steps to formally solicit input directly from patients and community members for determining geographical community differences related to emerging health ailments and social determinants of ill health. These steps are important for policy- and decision-makers to consider for ensuring insured PHC services are comprehensive and can meet the local community health needs. According to Starfield (1998) the range and requirements of PHC services can vary from community to community; this may directly be correlated with the incidence or prevalence of health problems of a community.
This study raises awareness about the importance of listening to patients and citizens about their health issues and needs, understanding implications of uninsured services (e.g., pharmaceuticals, rehabilitation, naturopathic medicine and other) on patients, and leveraging the acquired information to potentially inform public polices, enhance the scope of insured PHC services, and direct resource allocation for policy implementation.

Listening to patients and community members and capturing their input can begin at the local level in PHC clinics (World Health Organization, 1978; Starfield, 1998). In Ontario, the CHCs regularly engage, invite participation, and solicit feedback from community members (see Chapters 6 and 8). This is not a common phenomenon across Ontario though. The PHC practice models (except for CHCs) do not have a formal mechanism in place to gather patient and community input mainly because of local capacity challenges and devoting available resources to address policy driven competing priorities (see Chapter 8). There are inconsistencies in local practices and governance models for engaging and involving community members in the: 1) evaluation process to assess the effectiveness of existing PHC services; 2) problem solving process to identify how PHC services can be improved; and 3) planning process to design effective population-based programs in PHC (see Chapter 8, Tables 8.2, 8.3 and 8.4). Over the last decade, the policy directions in Ontario have not included a strong focus on systematically coordinating the implementation of a community engagement process in PHC (see Chapter 8).

To give patients and community members a voice, promote consistency, and ensure insured services do reflect the ongoing and emerging health needs of insured persons, policy makers may want to consider using an approach that can enable all PHC clinics to establish formal community engagement and communication channels for capturing feedback data routinely from and involving community members, including patients in identifying solutions that could benefit the broader community. The community reported data in the future could potentially benefit patients, PHC providers and the health system. For example, the data could potentially assist in answering a series of questions such as: a) can PHC providers (instead of specialists) play a role in meeting majority of the common and uncommon health needs of patients; b) what are the difference in local needs of the community; c) which uncommon needs of patients are not insured and how does this affect patients; and c) potentially what can be done to expand publicly funded basket of PHC and other health services to address
emerging medical needs of the community. Determining answers to these and potentially other questions can offer pointers about ways to strengthen the provision of insured services for insured persons across diverse communities. It may be helpful for policy- and decision-makers to keep in mind that the range and requirements of PHC services can vary from community to community (Starfield, 1998). Community engagement and population health-based planning are foundational pieces of defining the scope and range of services in PHC and for sectors across the health care continuum (World Health Organization, 1978; Starfield, 1998). WHO and Starfield (1998) advocate that community members should be involved in and participate in the planning, organization and operation of PHC.

Coordination of Care

Coordination is a structural component of care that relies on PHC providers to use an electronic mechanism for: recording, tracking, recalling and/or transferring accurate information about a patient’s medical history, problem, diagnostic tests, action plan including interventions, and outcomes (World Health Organization, 1978; Starfield, 1998; Haggerty et al., 2003). In Ontario’s PHC system, EMRs are used for capturing clinical data. A large proportion of the EMR data is narrated. Narrative data are text-based data, and there is no easy way of automatically accessing this data from electronic records in EMRs to support clinical decision-making, and/or transfer of patient information for referrals. Though narrative data may be manipulated for analysis, it is labour and time intensive, which makes it difficult to use EMR data for clinical decision-making in real-time. In addition, the EMR systems in PHC are not inter-linked with the hospital information systems and other systems used by specialists to facilitate communication between providers in real-time; this can often lead to fragmented care for patients. The EMR infrastructure can potentially pose limitations for fully operationalizing concepts related to coordination of care in PHC, in Ontario, as well as generating indicators for improving PHC practices.

Standardized and extractable electronic data collection tools in PHC can potentially support the implementation of concepts of the PHC attribute, coordination of care. To achieve this desired state, it may be necessary to secure and maintain commitment from PHC providers, and garner political will and support for putting significant investment towards enhancing the data infrastructure, technology, and reporting mechanisms. A firm commitment from
Clinicians at the outset is necessary because they will have to unlearn the old way of documenting and learn a new way of capturing clinical notes in a discrete format. To facilitate this transition, demonstrate value back to clinicians, and reinforce good behaviour for accurate and discrete data collection practices, it may be helpful to leverage the use of non-monetary incentives such as continuing professional development credits. Regulated college members, specifically, physicians are required to participate in a program of continuing professional development under the Quality Assurance Regulation, according to the College of Physicians and Surgeons of Ontario. Continuing professional development credits may be a lever for policy makers to consider using for influencing physician behaviour and sustaining good data capture practice in PHC clinic setting.

The evidence discussed thus far suggests that some attributes of PHC are part of Ontario’s PHC system; however, their implementation is not fully completed and ingrained in practice. In addition, it may be helpful for policy makers to engage with a wide range of regulated providers, community members, and community based service-oriented agencies to discover and discern context specific, local characteristics of PHC for future planning and organization of the delivery of publicly financed services in PHC and other sectors across the health system. More effort and resources may potentially be required to bring PC closer to the characteristics of PHC in Ontario (see Chapters 5 and 6). This finding is echoed again in Chapter 8, which draws the connection between PHC performance measurement, attributes and accountability in Ontario.

**Performance Measurement and Accountability in PHC**

The evidence presented in Chapter 8 shows that in Ontario, the PHC performance and accountability metrics reported to the funder include: frequency of patient visits (e.g., rostered vs. non-rostered); type of diagnosis encountered per patient in the clinic; type of disease control interventions administered by family physicians and/or non-physician regulated providers; patients referred to specialists; and incentivized services administered by family physicians to prevent the onset of flu and exacerbation of chronic conditions, and to catch early onset of breast and cervical cancer. These metrics reflect a proportion of activities carried out in PHC and the characteristics that define the philosophy of PC and not PHC (see Chapter 5). Furthermore, the PHC performance measurement and accountability is centered
on monitoring service utilization, where the money is flowing, and PHC patient visits.
Although these areas of measurement are important for measuring the financial dimension of accountability, they do not provide insight on other important dimensions of accountability in PHC (see Chapter 8). Basing performance measurement of PHC on financial accountability may signal that other important clinical and non-clinical operational activities carried out by PHC providers and organizations may not matter (Deber & Schwartz, 2016).

Moreover, the PHC performance metrics are populated with the provincial physician billing code data (see Chapter 8). In Ontario, the physician billing code data mainly capture information about encounters related to prevalent diseases and administration of disease control interventions in PHC. There are no pre-approved physician billing codes to capture accountability for managing social determinants of ill health, and issues related to housing, sanitation, adequate supply of safe water, and education level, for instance. These activities are core aspects of the broader spectrum of PHC services (see Chapter 5) and though they may be delivered by many PHC clinics, they are not paid for or included under the funding models. This evidence further substantiates the findings noted above—that the PHC system in Ontario is designed closely to resemble the philosophy of PC and not PHC, as defined by WHO (1978) and Starfield (1998) (see Chapter 5).

This study also identified a number of gaps in the PHC performance and accountability metrics. The PHC accountability system may not capture useful metrics to recognize PHC providers for doing a good job, pave the way to improve practice or governance, and enhance health system performance across health sectors. In Ontario, PHC performance and accountability measurement system disregards metrics for measuring concepts related to: a) the four key PHC attributes (see Chapters 5, 6, and 8); b) co-production of clinical services; c) tacit use of clinical expert knowledge; d) clinical judgment to determine appropriateness of care; e) factors influencing outcomes of care for vulnerable patients; and f) stakeholder partnerships and governance. Other relevant metrics that are also excluded from the PHC performance measurement consist of: a) patient visits to the emergency department(s), hospitalization and readmission rates; b) mortality rates; and c) patient satisfaction with the quality of PHC services received (see Chapter 8). Some of these relevant patient outcome oriented metrics could potentially serve as proxies to examine some sub-concepts of the four key PHC attributes and to determine the extent to which PHC: 1) serves as the first contact in
the health system for new and ongoing care needs; 2) is accessible outside of business hours (9am-5 pm); 3) providers identify all health needs of patients; and 4) provides comprehensive care (see Chapter 8).

Potential Conditions Influencing Scope of PHC Performance Measurement and Accountability

The PHC performance measurement and accountability gaps, noted above and identified by this research study, may be attributed to a combination of surrounding conditions such as: 1) the design and infrastructure of the data collection system; 2) priorities of what the funder is accountable for; 3) measuring items that are within the control of physicians/clinicians; 4) constraints of the governance model between the funder and the regulated health providers; and 5) the feasibility of measuring complex production characteristics of the PHC services. These conditions are elaborated below.

Data Infrastructure and Performance Measurement

The infrastructure used in Ontario to collect data related to insured physician and in-hospital services across the health care system is not inter-operable/inter-linked, and is only designed for collecting utilization and administrative data (noted above, also see Chapter 8). Hospital, PHC and lab information systems are all necessary data sources yet they cannot easily be inter-linked to support the measurement of concepts associated with the four key PHC attributes and other meaningful indicators (see Chapter 8). In addition, information systems that do capture clinical data in PHC are not standardized; systems in PHC capture text-based data, which can be analyzed but require a significant number and amount of resources to manually manipulate and massage the data for reporting purposes. These are examples of the data infrastructure conditions that can pose limitations and place constraints on mobilizing relevant data sources for PHC measurement. The evidence presented in this study suggests that what is easy to collect and measure is what gets included in PHC performance measurement for accountability. The evidence noted in this thesis as well as in another study highlights that multiple data sources are often needed to measure meaningful indicators (Deber & Schwartz, 2016); however, often the production characteristics of services can influence what can get measured versus not (Deber, 2014) (also see below).
In PHC, performance measurement requirements (see Chapter 8) set by the funder may be tailored and designed to respond to the financial and performance accountabilities of the funder in accordance with the *Canada Health Act (1984)*. Relevant to this research study, there are two conditions outlined in the *Canada Health Act (1984)* that define provincial funders’ financial and performance accountabilities for qualifying for full federal transfers (see Chapter 3). Under the *Canada Health Act (1984)*, the condition “comprehensiveness” requires that all insured health services are provided to all insured persons, where insured services are defined in terms of where (hospitals) and by whom (i.e., physicians) they are delivered; and the condition “accessibility” requires that all insured persons have reasonable access to insured services at no cost to the insured persons (see Chapter 3). The elements of these conditions partially make up the mandatory PHC data collection requirements in Ontario, which the PHC providers and clinics routinely collect and report for PHC performance measurement and accountability (see metrics discussed above). The PHC performance measurement data collected in Ontario illustrates two dimensions of accountability—financial and political performance of the funder with respect to the requirements for arranging “access to insured physician PHC services by insured persons at no cost”.

The PHC performance measurement data and metrics reported for accountability in Ontario are relatively narrow in scope, measure the administration of public funds for insured PHC services, and explicitly monitor only two dimensions of accountabilities in PHC. While it is important to focus on financial accountability, activity based financial accountability metrics may be insufficient for use to determine where multiple sectors across the system are doing well and where there may be a need to focus our attention on to improve the organization, delivery and reimbursement of services in PHC and elsewhere, for instance. In addition, the accountability system in PHC tends to overlook at measuring other important dimensions of accountability that matter to PHC providers and patients with respect to clinical activities and outcomes. Omitting these areas from measurement may imply falsely that they do not matter (McGlynn, 2009; Deber & Schwartz, 2016). The evidence in this thesis notes that in PHC there are multiple lines of accountabilities; some of these accountabilities are tied to the core functions of PHC (see Chapters 5, 6 and 8), and some are tied to governance structures for
quality and standards of clinical care, and forming and nurturing partnerships among service providers and their agencies to organize, operationalize and control the delivery of care to patients. The multiple dimensions of accountabilities in PHC include: performance (i.e., PHC attributes, clinical, and health system), professional, governance, financial, and political accountabilities. These dimensions of accountabilities are not all explicitly monitored and reported; however, they could potentially be measured with the data that are already collected in PHC, community and across the system. The health system has access to a number of rich data sources that remain untapped for use for public policy making.

The evidence discussed above highlights that there is room for improving PHC performance measurement and accountability in Ontario. Elements that may be considered for improving PHC measurement and accountability include: measuring what matters to providers at the point of care as well to decision-makers for steering the system in the right direction; and measuring what would useful for multiple audiences (i.e., including the funder(s), health providers, administrators, patients and citizens) to guide conversations about enhancing accountabilities for common system-level goals across multiple levels. These are important areas for policy makers to consider in developing a successful performance measurement system and to clearly define what should be measured (McGlynn & Ash, 1998) to not only guide PHC sector but also other health sectors. PHC constitutes the first element of care within the broader spectrum of health care processes, is a link in the health system chain for specialized care, and informs resource requirements for all levels across the health system continuum (World Health Organization, 1978; Starfield, 1998; see Chapter 5).

*Metrics within the Control of Clinicians*

As noted above, PHC performance measurement is strongly tied to financial and political performance accountabilities; and is based on counts (e.g., number of rostered vs. non-rostered patients, service utilization and volume throughput) (see Chapter 8). The design of these metrics may have been influenced by decisions made at the policy level from the perspective of: a) measuring what is within the control of family physicians; and 2) what is easy to measure (see Chapter 8). Metrics that are challenging, not easy to measure, and difficult to explain or justify are left out (Deber & Schwartz, 2016). Patient, clinical, and policy outcomes are examples of difficult to measure metrics because they are connected to
many influencing factors. For instance, patient outcomes may be influenced by factors such as professional competencies, patients’ role in complying with medical treatment protocol, standards of care guidelines and new evidence, the scope of publicly funded medical services, and access to care. Many of these factors are beyond the control of clinicians alone. The evidence shows that in Ontario, PHC performance and accountability measurement includes only those metrics that are within the control of clinicians, although they may not be relevant to support clinical decision-making and/or community-based program planning at the clinic level (see Chapter 8).

Governance Structure and Performance Measurement

Another potential condition that may have influenced the PHC performance and accountability measurement scope is the governance structure of the regulated health professionals (see Chapters 7 and 8). Family physicians and non-physician providers in PHC are self-regulated groups of professionals. In the self-governance model, judgment regarding standards of care is left in the hands of regulated health professionals and trust is placed on them to act in the best interest of their patients to achieve desirable outcomes (Rhodes, 2006; Contandriopoulos et al., 2014). This condition of the self-governance model may have influenced the funder’s decision to not interfere in clinical matters. Under the self-governance model, clinical accountability is implicit and is based on reputation, trust, reciprocity and mutual inter-dependence (Rhodes, 2006). Monitoring of clinical accountability falls under the purview of professional colleges. However, the professional colleges do not have a mechanism in place to routinely monitor clinical accountability unless a formal complaint has been launched against a provider or if a provider is undergoing remedial training (see Chapter 8). Although clinical accountability is not explicitly being measured in PHC, it is important to consider for increasing transparency and sustaining multiple lines of relationships that are based on trust. Implicitly, clinicians are accountable to patients, their peers, regulatory agencies, and associations. These other dimensions of accountability that exist in PHC; however, formally and explicitly, clinicians report only on financial accountability dimension to the funder (see Chapter 8).
Production Characteristics of PHC Services

The nature and production characteristics of health services provided in PHC can potentially influence what can be and gets measured versus not. This is another condition that can influence what is left out of the PHC performance measurement and accountability. This study found that several areas of clinical care services are not captured in Ontario’s PHC measurement system (see Chapter 8) as well as in the five PHC indicator measurement systems examined (see Chapter 7). The evidence from this study reinforces the theory by Preker et al. (2007). Preker et al. (2007) postulate that clinical care services are often not easy to capture and often the production characteristics of clinical services can be relatively complex. The evidence showed that multiple health providers are typically involved in delivering clinical services to PHC patients with multiple morbidities; these providers collect patient clinical data in disparate standalone systems that are located across various points of the health system continuum. Getting access to this data can be complex as the systems are not inter-linked. In addition, in PHC the feasibility of measurement decreases when the data are narrated, not documented, and cannot be inter-linked with other data sources. In PHC, the availability of clinical data for measurement and reporting is limited. This can have impact on the health system, providers and patients.

In Ontario, in general, the PHC data in EMRs are not easily extractable and therefore not available to measure clinical service areas such as: 1) dimensions of quality (i.e., accessible, appropriate, effective, efficient, equitable, integrated, patient centered, population health focused, and safe); 2) aspects related to the standards of care; 3) patient outcomes; 4) the broad scope of PHC services; 5) provision of population-health programs and promotion; and 5) various concepts of the PHC key attributes (see Chapter 6, 7 and 8). In addition, in general, systems in PHC cannot be automated to generate relevant metrics for PHC frontline providers to purposefully reflect on their own data, identify areas for embarking on local quality improvement initiatives, and gain confidence in the PHC data (at the time of writing). Clinicians have no confidence in the quality and accuracy of the clinical data in PHC because the data collection is not standardized and the measurability is low (see Chapter 8). As long as clinicians have low confidence in PHC data, it is hypothesized that it will be challenging to get agreement from frontline providers to use PHC data for public reporting—one of the instruments to enhance accountability (see Chapter 2).
Improving access to PHC data and other relevant data sources is considered essential to improve measurability and to:

- Enable PHC providers to build confidence in the PHC data and leverage the data to foster the culture of transparency and continuous quality improvement cycle in PHC;
- Advance accountability in PHC by using public reporting as a mechanism to share widely key PHC performance data, which may include evaluation metrics tied to the PHC attributes, and quality of service delivered in PHC by provider and clinic; and
- Create an environment that empowers patients/health service consumers to use PHC performance data for selecting preferred service provider(s) (de Bruijn, 2002; Simonet, 2008; Contandriopoulos et al., 2014; Preker et al., 2000; Preker et al., 2007).

At the time of writing this thesis, low measurability and a high complex environment (i.e., unable to get access to and link data across information systems in PHC, specialists’ offices and hospitals) served as barriers for measuring relevant metrics in real-time for frontline providers, patients and health system decision-makers (see Chapters 7 and 8). In PHC, if the complexity of accessing and using data for measurability remains as is, it is hypothesized that the contestability in health care will not improve (see Chapters 6, 7 and 8) (Preker et al., 2000; Preker et al., 2007), the scope of PHC measurement and accountability may still continue to focus on activity-based financial monitoring and reimbursing providers for the count of services delivered to patients, and multiple dimensions of accountability in PHC will continue to be implicit. The literature shows little compelling evidence that placing focus on activity-based financial accountability can improve quality of care, patient care outcome, and health system sustainability (Ryan & Werner, 2013; Christianson, Leatherman, & Sutherland, 2007). In addition, some evidence highlights that keeping a narrow focus on accountability can potentially result in negative unintended consequences; for example, dissuading innovation and reliance on performance indicators that do not adequately support the delivery of high quality care (Gray, Berta, Deber & Lum, 2014). It may be helpful for policy makers to consider looking at connecting multiple dimensions of accountability with what can intrinsically motivate and influence PHC providers, administrators, system actors and decision-makers to think about improving population health, delivery of care across the system and health system sustainability (Ryan & Werner, 2013; Christianson, Leatherman, & Sutherland, 2007).
Accountability in PHC

Accountability is about being answerable for a set of objectives and providing justification for actions and failure to comply (Brinkerhoff, 2004; Dubnick & Frederickson, 2011). This definition can be operationalized using mechanisms, which can be process-oriented and instruments (see Chapter 2). In Ontario, accountability in PHC is operationalized using instruments such as funding service agreements, financial incentives, and legislation (see Chapter 8). These instruments are classified as expenditure instruments and are examples of coercive forms of policy instruments, according to Doern and Phidd (1992) (see Chapter 2). Ontario decision-makers have also used process-oriented mechanisms such as information-based or exhortation type of policy instruments, which are non-coercive in nature (see Chapter 2 and 8).

Though coercive forms of instruments have been used in PHC to advance accountability, contracts, performance measurement reporting, financial incentives and legislation have no teeth, and they are not used as the means to seek justification, mobilize corrective course of action or reinforce accountability to improve quality of care and other policy goals. The definition of accountability as described by Brinkerhoff (2004) and Dubnick & Frederickson (2011) is not fully applied and does not hold true in Ontario’s PHC system.

In contracts, policy and implementation objectives have not been explicitly defined. Contracts are used to reimburse providers and organizations without setting out clear expectations around: a) implementation requirements; b) how objectives will be measured and how actions for compliance or failure will be monitored; and c) anticipated consequences for failing to meet objectives. Contracts in PHC lack specificity; as well, the terms, conditions and clauses described in the contracts are left loose and open for multiple interpretations. Essentially, decision-makers in Ontario have taken a softer approach to implement coercive policy instruments such as expenditure-based tools and legislation.

Furthermore, in PHC, a formal and consistent process is not in place to routinely and transparently seek information or justification from PHC providers, PHC organizations, and Board of Directors about: a) which policy objectives were met or not, and what were the intended vs. unintended consequences of implementing policy initiatives on the ground; and b) areas where accountability can be reinforced (see Chapters 6 and 8).
As per the evidence noted in Chapter 8, contracts, incentives, compensation tools and legislation that have been used to implement accountability in PHC may be insufficient to ensure parties (defined in Chapter 8) are held accountable for their activities related to the stated policy goals in a public contract model (see Chapters 6 and 8).

**Valuable Lessons for Policy Makers**

The evidence presented in this thesis highlights a number of valuable lessons for policy- and decision-makers, system actors and PHC providers. This study highlights that the organization, design and delivery structures of the PHC practice models implemented in Ontario reflect the philosophy of PC instead of PHC. Three potential areas can be considered to strengthen PHC: community involvement and participation in planning, organizing, and operationalizing PHC; creating equal access for patients to get care from physician and non-physician providers in PHC (in-person or virtually); and clearly defining expectations for managing patients use of health services within and outside of PHC.

In PHC, performance measurement and accountability are tied to activity-based financial metrics. There is little compelling evidence that placing a focus on activity-based financial accountability can improve quality of care, patient care outcome, and health system sustainability. As well, by focusing on financial accountability, other dimensions of accountability (such as clinical, governance, health system performance) are not being captured and explicitly monitored. This may falsely signal that clinical and non-clinical activities carried out in PHC and across other health sectors matters less.

In PHC, there is an opportunity to improve the organization and delivery structures of PHC, as well as to improve performance measurement and accountability. This may be addressed using a variety of options. One option may involve taking a bottom-up approach and a widespread clinician engagement strategy to determine indicators for measuring what matters to providers at the point of care as well to decision-makers to steer the system in the right direction; and measuring what would be useful for multiple audiences (i.e., including the funder(s), health providers, administrators, patients and citizens) to guide conversations about enhancing accountabilities for common system-level goals across multiple levels. These are important areas for policy makers to consider in developing a successful performance
measurement system and to clearly define what should be measured to guide PHC sector and other health sectors towards improvement.

Measurement of indicators for multiple dimensions of accountability often requires using multiple data sources from PHC practice sites, institutions and agencies across health sectors within the health system. In PHC, getting access to data from multiple providers located across the system is challenging; this can make it difficult to measure what matters. The evidence noted in this study cautions policy makers that while it is important to get access to standardized and linkable data sources for performance measurement, the transaction cost and the investment to establish the data infrastructure may be high. However, getting access to the right and usable data sources can make the system more responsive and can assist clinicians to adequately manage patient’s use of services within and outside of PHC (see Chapter 8).

Lastly, this study increases awareness for strengthening accountability for all key parties, including patients, and potentially using alternate policy instruments to strengthen the organization and delivery structures in PHC.

The findings discussed above highlight a number of lessons gleaned from studying Ontario; these lessons may be applied in other jurisdictions where policies are being or going to be implemented to initiate or improve performance measurement and accountability in PHC and/or in health care sectors across the continuum. The findings of the research study may be used to guide conversations to define governance structures, hone in on identifying key PHC performance indicators, develop relationships using agreements, and form consensus to advance the implementation and measurement of accountability in an environment where health services are publicly funded, centrally directed, and privately delivered by professionals who are self-governed with specialized training and qualifications.

*Future Research Topics*

The research study’s theoretical framework (see Section 2.3) may be repurposed and applied in other jurisdictions to research and study the connection between PHC performance measurement and accountability, and validate and/or refute the findings presented in this thesis. Furthermore, through this research a few ideas have been identified for future studies to fill a gap in the literature. Topics for future studies may include: 1) defining performance
measurement across the health system using PHC key attributes and what areas of PHC attributes can improve health system sustainability; 2) what conditions are necessary to enable reporting of all dimensions of accountability in PHC and who can play what role in implementing accountability in PHC; 3) what is the connection between the concepts of the key four PHC attributes and dimensions of accountability; 4) what dimensions of PHC accountability are not reflected in the WHO and Starfield definition of PHC; 5) what are the positive and negative consequences of delivering care to heterogeneous population in PHC when accountability is narrowly focused on expenditure; and 6) how much can be accomplished outside of the accountability models.

9.3 Conclusion

In a public contract model, PHC performance is based on where the money is flowing to reimburse providers to provide insured services to insured persons, and is connected to financial and political accountabilities. PHC performance measurement in its current state reflects the funder’s legislative and moral responsibilities for publicly financing medical necessary services and ensuring that all insured persons have reasonable access to services uniformly. Clinical accountability is implicit and is not routinely monitored to gauge whether or not: a) patients are receiving evidence-based care; and b) the care that is delivered to patients is achieving desirable outcomes. PHC providers are self-regulated; this model is premised on the principle that all PHC providers will innately use the latest evidence to deliver care to patients. Metrics related to adherence of standards of care and patient outcomes are not routinely evaluated and not fed back to providers. Some metrics that are fed back to PHC providers are linked to service utilization instead of aspects of PHC attributes or day-to-day clinical functions. Relevant metrics need to be fed back to PHC providers, and publicly reported to enable patients to exercise their right as consumer to select care from high performing PHC teams.

The use of administrative data sources provides a view on expenditure of public funds for services provided to patients by private providers; however, the billing data are insufficient to assess accountability of the PHC core functions, by role, for what, by whom across the circle of care of providers and by institutions. Focusing on financial accountability may falsely signal that other dimensions of accountability matter less. Multiple sources of inter-linked
data may be necessary to use to improve measurability, complexity and contestability in PHC; however, gaining access to data sources can increase transactional costs.

Elements of operationalizing accountability in PHC include having clarity, a coordinated approach and explicit definitions that outline: accountability for what (e.g., covering multiple dimensions of accountability, health system and clinical level performance objectives); accountability for whom (responsibilities by PHC provider, PHC organizations, patients, funders, and regulatory bodies); how will accountability be measured (meaningful performance metrics that affects day-to-day function in managing patients in PHC and can guide how the system can improve); and whose role is it to measure and monitor what (governance structures in the evolving context of PHC). Defining accountability in PHC is complex because it touches diverse delivery models of care across the health system continuum, it interacts with governance structure of regulated health professionals as well as of the system, and there are multiple lines of accountability each regulated professional holds.

The PHC organization, delivery structures, performance measurement and accountability is aligned to the philosophy of PC, which may not be aligned to support the sustainability of the health system.
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Appendices

Appendix 1A: Primary care reform in Ontario

<table>
<thead>
<tr>
<th>Year</th>
<th>PHC Model</th>
<th>Characteristics</th>
<th>Payment Method</th>
<th>Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Community Health Centre (CHC)</td>
<td>Interdisciplinary Comprehensive Health promotion Serving vulnerable &amp; ethnically diverse groups</td>
<td>Salary</td>
<td>Piloted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Populations enrollment Fixed funding per patient</td>
<td>Capitation</td>
<td>Implement</td>
</tr>
<tr>
<td>1999</td>
<td>Primary Care Networks (PCN)</td>
<td>Physicians located at &gt;1 location(s) Patient enrollment Telephone triage Information technology used</td>
<td>Capitation or fee-for-service Incentives for targeted interventions</td>
<td>Pilot</td>
</tr>
<tr>
<td>2001</td>
<td>Family Health Network</td>
<td>Formal enrollment with practice</td>
<td>Blended capitation with incentives</td>
<td>Builds on PCN</td>
</tr>
<tr>
<td>2003</td>
<td>Family Health Groups (FHG)</td>
<td>Similar to FHN</td>
<td>Retain FFS payments within a blended payment model</td>
<td>Builds on PCN</td>
</tr>
<tr>
<td>2005</td>
<td>Family Health Teams (FHT)</td>
<td>Inter-disciplinary teams</td>
<td>Blended capitation Blended salary</td>
<td>Implement</td>
</tr>
<tr>
<td>2007</td>
<td>Family Health Organization (FHO) HSO and PCN transitioned to FHO</td>
<td>Some have nurses in practice</td>
<td>Blended capitation</td>
<td>Many FHO are FHT</td>
</tr>
</tbody>
</table>

Source: Conference Board of Canada, 2014

Appendix A Interview Guide
Interview Questions:

- To set the context, we would like to begin by understanding your role in framing, formulating, negotiating and establishing policy goals and service agreements for the provision of primary care services in Ontario?
- How were providers involved in establishing PC reform service agreements?
- How are primary care providers, in particular physicians and their organization held accountable to the terms stipulated in the service agreement?

Probes

- What are the specific documentation and reporting expectations and what policy goals do the service agreement help to achieve?
- How is the remuneration tied to quality of care and improvement?
- What aspect of the service agreement clearly outlines responsibilities and expectations for funders, providers and patients? Which areas of the service agreement need greater clarity?

- In what way will the Excellent Care for All Act (2011) influence policy goals, terms of the service agreement, rewards, sanctions and performance measurement?
- What are the current enablers of and limitations to the establishment of accountability agreements in primary health care? What additional enablers are envisioned to be implemented by the system to support accountability in primary care?
- With the primary care reform initiatives, at the system level, what intended and unintended consequences have been realized? What does this mean for future policy in primary care?
- What is the relationship between the service agreement, accountability and quality improvement?

Do you have any additional comments or any questions for us about the study?

Thank you for taking the time to meet with us.
Appendix B 1Interview Guide (Practice Site)

**Introductory Questions:**
- To set the context, we would like to begin by understanding your role in this organization?
- How is the Physician Service Agreement (PSA) with either the Ontario MOHLTC tied to the services offered through your organization?

*Probes*
- Alignment to your organization’s mission and value proposition
- Remuneration arrangement for organization and delivery of services?
- Service needs of patients covered and those not covered (out-of-pocket payments by patients)
- PSA clearly outlines responsibilities and expectations (what is blurry)
- Scope of practice and involvement in providing care to patients
- Organization characteristics

**Contract Negotiation**
- To what extent are you involved with establishing PSA with the Ontario MOH?

*Probes*
- Were the terms of the PSA negotiated?
  - If so, in what ways?
  - How was consensus reached?
- What are the advantages and disadvantages of the PSA for the organization, providers and patients?

*Probes*
- Outcome and implications
  - Better or worse agreement?
  - Patient care (access, quality), finance and management?
- What proportion of your revenue is derived from public vs. private (out-of-pocket or insurance) funds?
- How are you and the organization held to account for terms stipulated in the service agreement?

*Probes*
- Documentation or reporting requirements and how is this achieved?
- How often is compliance measured? For non-compliance, are there sanctions?
- Does the organization require additional resources to meet PSA requirements? If so, what type of resources?

**Measurability**
- As an organization, what type of performance indicators do you capture?

*Probes*
- Alignment to PSA requirements
- Tied to quality
- Does your organization collect other indicators?
What are these indicators used for and who uses them? How are these indicators tied to quality?

- What activities do you think are critical to measure for quality of care but are not currently being measured?
  - Why are these activities not being measured?
  - Who is involved in capturing and analyzing this information?

**Complexity:**

- Do you rely on other health care sectors or professionals outside of your organization to deliver services to your patients? If so, in what way?
- Has your organization changed the way it delivers services since the PSA?
  
  **Probes**
  
  - Implications to the organizational autonomy
  - Other

**Organizational factors**

- In what ways is the organization dependent on the PSA? Does the organization have agreements with other institutions to support its strategic or operational decision-making?
- In addition to the MoH, which other stakeholders or agencies are you and your organization held accountable to?
  
  **Probes**
  
  - Nature of the relationship (i.e., funders, accreditors, etc.)
  - Information requests or requirements that appear in conflict (or overlap)
    - Manage conflicting demands
    - Risks for not managing or addressing the demands
    - Communication or accountability requirements by stakeholders
  - Who in your organization is responsible for the quality of service (individual providers or the organization as a whole)?
  
  **Probes**
  
  - Legal entity overseeing the provision of quality of care
- What are the intended vs. unintended consequences that have surfaced since the establishment of the PSA? What are the areas of opportunities?

Do you have any additional comments or any questions for us about the study?

Thank you for taking the time to meet with us.
Appendix B 2 Interview Guide (Practice Site)

Introductory Questions:

- To set the context, we would like to begin by understanding your role in this organization?
- How is the Multi-sectorial Accountability Service Agreement (MSASA) with the LHIN tied to the services offered through your organization?

Probes
- Alignment to your organization’s mission and value proposition
- Remuneration arrangement for organization and delivery of services?
- Service needs of patients covered and those not covered (out-of-pocket payments by patients)
- MSASA clearly outlines responsibilities and expectations (what is blurry)
- Scope of practice and involvement in providing care to patients
- Organization characteristics

Contract Negotiation

- To what extent are you involved with establishing MSASA with the LHNI?

Probes
- Were the terms of the MSASA negotiated?
  - If so, in what ways?
  - How was consensus reached?
- What are the advantages and disadvantages of the MSASA for the organization, providers and patients?

Probes
- Outcome and implications
  - Better or worse agreement?
  - Patient care (access, quality), finance and management?
- What proportion of your revenue is derived from public vs. private (out-of-pocket or insurance) funds?
- How are you and the organization held to account for terms stipulated in the service agreement?

Probes
- Documentation or reporting requirements and how is this achieved?
- How often is compliance measured? For non-compliance, are there sanctions?
- Does the organization require additional resources to meet MSASA requirements? If so, what type of resources?

Measurability

- As an organization, what type of performance indicators do you capture?

Probes
- Alignment to MSASA requirements
- Tied to quality
- Does your organization collect other indicators?
• What are these indicators used for and who uses them? How are these indicators tied to quality?

• What activities do you think are critical to measure for quality of care but are not currently being measured?
  - Why are these activities not being measured?
  - Who is involved in capturing and analyzing this information?

Complexity:

• Do you rely on other health care sectors or professionals outside of your organization to deliver services to your patients? If so, in what way?

• Has your organization changed the way it delivers services since the MSASA?

  Probes
  - Implications to the organizational autonomy
  - Other

Organizational factors

• In what ways is the organization dependent on the MSASA? Does the organization have agreements with other institutions to support its strategic or operational decision-making?

• In addition to the LHIN, which other stakeholders or agencies are you and your organization held accountable to?

  Probes
  - Nature of the relationship (i.e., funders, accreditors, etc.)
  - Information requests or requirements that appear in conflict (or overlap)
    - Manage conflicting demands
    - Risks for not managing or addressing the demands
    - Communication or accountability requirements by stakeholders

• Who in your organization is responsible for the quality of service (individual providers or the organization as a whole)?

  Probes
  - Legal entity overseeing the provision of quality of care

• What are the intended vs. unintended consequences that have surfaced since the establishment of the MSASA? What are the areas of opportunities?

Do you have any additional comments or any questions for us about the study?

Thank you for taking the time to meet with us.
Appendix C Letter that was disseminated to prospective study participants to invite them for an interview.

Dear X,

I am contacting you on the recommendation of Dr. Adalsteinn Brown to invite you to participate in a research study, Approaches to Accountability in Primary Health Care, funded by CIHR and approved by UofT research ethics. As a PhD student, I am working with Dr. Adalsteinn Brown, Dr. Raisa Deber and Dr. Janet Barnsley on this project.

We recognize how very busy you are. I would like to ask if you might be willing to arrange a phone interview with me for A MAXIMUM OF one hour sometime between March 18 and 28, 2013 at a mutually convenient time. I am listing some potential dates and times for your consideration:

- March 18 - 22 between 9:30 am and 5 pm
- March 25 - 27 between 9:30 am and 5 pm
- March 28 between 10:00 am and noon, and 4 pm

We can also consider an alternate time that works better for you, if the above proposed times are not suitable.

By way of background, the purpose of this study is to explore and describe the 1) meaning of accountability within the primary care context in Ontario, 2) existing accountability mechanisms and measures, and 3) differences in accountability across different primary care organizational models. Your involvement as a participant would entail answering a series of questions in a telephone interview and helping make sure we've got relevant documents (e.g., policy and procedures) that might enhance our understanding of accountability mechanisms within primary health care organizations in Ontario. THE STUDY IS PART OF A LARGER STUDY ON APPROACHES TO ACCOUNTABILITY, WHICH IS EXAMINING ACCOUNTABILITY ACROSS VARIOUS SUB-SECTORS.

Post data collection, I will analyze the material and extract key themes. Of course, nothing will be used that could identify individual participants unless the material is otherwise in the public domain, or express permission is given. And we'll be sharing our preliminary findings with those we speak with to make sure we're interpreting things properly. More information about the study can be found on our website

http://approachestoaccountability.ca/.
I am attaching a copy of the consent form and of the draft interview questions for your information. We'd be happy to answer any questions you would have.

With warm regards,

Shaheena Mukhi, Candidate, PhD - Health Policy

Institute of Health Policy Management and Evaluation University of Toronto

416 886 6409
Appendix D Background information sheet that was shared with prospective key informants; this was disseminated with the letter (see Appendix C) to prospective study participants

**Introduction and Informed Consent**

CIHR\(^4\) funded research study, Approaches to Accountability project

Project Lead: Dr. Raisa Deber and Dr. Jan Barnsley

Institute of Health Policy, Management and Evaluation

University of Toronto

Dear Sir or Madam:

On behalf of the Institute of Health Policy, Management and Evaluation at the University of Toronto, you are cordially being invited to participate in a CIHR funded and Research Ethics approved research study, Approaches to Accountability in Primary Health Care. Accountability is a key component of the current reform efforts, internationally and in Canada. Across sub-sectors of the health system, including primary care, the research study involves working in collaboration with policy- and decision-makers to clarify what is meant by accountability and which approaches to achieving it might work where.

The purpose of the research study, in which you are being invited to participate on a voluntary basis, will explore and describe the 1) meaning of accountability within the primary care context in Ontario, 2) implemented accountability mechanisms and measures to achieve a defined set of objectives, and 3) systematic differences in accountability across different primary care organizational models. Completion of this research study will fulfill requirements in part for a doctoral thesis in Health Policy pursued by Shaheena Mukhi through the Department of Health Policy, Management and Evaluation in the University of Toronto.

Your involvement as a participant will entail answering a series of questions and providing relevant business documents to support and enhance understanding associated with who is accountable to whom and for what within the primary care domain in Ontario. The interview will be recorded for accuracy of

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\(^4\) Canadian Institute of Health Research
transcription and securely stored in compliance with research standards for seven years. Each transcription will be assigned an arbitrary identifier to uphold the privacy and security of information shared by key informants and their respective organization. The interview content will be analyzed into categories of themes, presenting data anonymously unless the knowledge is publically available or permission has been sought.

The interview questions are not foreseen to cause discomfort or risk to key informants or their respective organizations. The study participants can choose not to respond to questions deemed politically sensitive or difficult to answer and can withdraw from the study at any time without consequence.

As part of the outcome of this research study, participants may receive a copy of preliminary thematic analysis and an executive summary for confirmatory purpose. The final content analysis will contribute to a larger case study featuring approaches to achieving accountability across subsectors within the health system. The empirical knowledge could potentially be used by policy- and decision-makers to understand enablers, opportunities, expectations of clinicians and unintended consequences of various accountability mechanisms within the primary health care sector.

For any questions or comments about the research or the Research Ethics approval, your contacts will be Shaheena Mukhi (shaheena.mukhi@utoronto.ca), Jan Barnsley (Jan.barnsley@utoronto.ca) and Raisa Deber (Raisa.deber@utoronto.ca). To contact Research Ethics Board at the University of Toronto, please email ethics.review@utoronto.ca.

Feel free to visit the website www.approachesaccountability.ca to view the project background, available publications and updates.

I ________________________________, consent to participate on a voluntary basis in the “Approaches to Accountability within the primary care sector in Ontario” study conducted by Shaheena Mukhi. I have understood the nature of this project and wish to participate. I am not waiving any of my legal rights by signing this form. My signature below indicates by consent.

_______________________________  ______________________
Participant                      Date

_______________________________  ______________________
Investigator                     Date
Appendix E Categories derived from interview data

Preliminary Categories & Sub-categories

- Policy goals
  - Policy instruments
    - Communication/ expectation
  - Levers
- Accountability
  - Type/ components
  - Mechanisms and for what
  - For who
  - Payment models
  - Funder
  - Reporting for service
  - Regulator
  - Incentives to advance policy goals
  - Patient
  - Clinical relevance/ quality
  - Client Provider Organization
- Barriers / production characteristics
  - Enablers
  - Engagement strategy / interest groups
  - Communication For what To whom
  - System level governance/ strategy
  - Measurement system
  - Incentives to advance policy goals
  - Measurement system/ infrastructure
  - Quality & accountability
  - Data
  - Governance
  - Consequences
  - Political tension

- Quality
  - Performance measurement
  - Horizontal Integration
  - Vertical Integration
  - Multi-specialty
  - Across Sector
  - Coordination and integration
  - Service outputs and broad outcomes
  - Quality improvement culture and incentives
  - Complex risk adjustment

Evaluate consequences of implementing policy goals