

Current State Assessment of the Primary Health Care System in Nova Scotia

The Primary Health Care System Baseline Report:
Technical Document

Nova Scotia Health Authority | Primary Health Care

Date of release: August 2019 | Edit: October 2019

ACKNOWLEDGEMENTS:

The *Current State Assessment of the Primary Health Care System in Nova Scotia* was completed as a result of contributions from many Primary Health Care leaders, providers, researchers, and partners. We thank Research Power Inc. for their work to facilitate the process and we thank representatives from the Nova Scotia Health Authority, Department of Health and Wellness, the IWK Health Centre, the research community, and patient representatives for their participation in the planning process.

Prepared with support from Research Power Inc.



RECOMMENDED CITATION:

Primary Health Care, NSHA (2019). *Current state assessment of the primary health care system in Nova Scotia: The primary health care system baseline report*. Nova Scotia: Primary Health Care, Nova Scotia Health Authority.

FOR FURTHER INFORMATION:

For information about any of the concepts included in this paper, please contact:
primaryhealthcare@nshealth.ca

TABLE OF CONTENTS

Executive Summary	5
Introduction and Rationale.....	11
Defining Primary Health Care	11
Nova Scotia Context	12
Purpose of Report.....	13
Approach	14
Stakeholder Engagement	14
Guiding Documents and Frameworks	14
System-level Evaluation Framework	16
Design and Development	16
Framework Elements.....	16
Indicator Selection and prioritization	18
Final Indicators and Current State in Nova Scotia	19
Indicator Mapping	19
Current State Assessment	21
Overview.....	21
Type 1: Enablers and Inputs	21
Family Physician Remuneration Method.....	22
Governance Model Distribution of Collaborative Family Practice Teams.....	24
Collaborative Family Practice Teams.....	26
Difference Between Available and Required PHC Health Human Resources (excluding family physicians)	28
Population with a Regular Healthcare Provider	31
Family Medicine Learners.....	32
Research Capacity (Participation and Partnerships)	33
Type 2: Functions and Activities	34
Programs Dedicated toward Priority Populations.....	34
PHC Providers' Sensitivity to Patients' Cultural Values	36
PHC Support for Self-Management of Chronic Conditions	38
Scope of Primary Health Care Services.....	40
PHC Provider Time in Direct Patient Care	43
Type 3: Outputs and Outcomes.....	45
Per Capita PHC Expenditures.....	45

Patient Participation in Activities	47
Family Physician use of Electronic Medical Record (EMR)	49
Percentage of Population Served by a Collaborative Family Practice Team.....	51
Primary Care Providers Accepting New Patients.....	52
Provision of After Hours Primary Care	54
Wait Times for Routine and Urgent Primary Care.....	56
Research Outputs	59
Influenza Immunization for Individuals 65 and Older	60
Family Physicians Working in Collaborative Family Practice Teams	61
Use of Emergency Department for Minor Complaints.....	62
Prevalence of Individuals with Self-Reported Five or more Chronic Conditions.....	64
Ambulatory Care Sensitive Conditions (ACSC) Hospitalization Rate	65
PHC Patient Access to Health Care	67
Patient Involvement in Decisions about their Care and Treatment.....	69
Patient Safety Culture.....	70
Conclusion	72
References	73
Appendix A: Key Stakeholders.....	76
Appendix B: Guiding Documents and Frameworks	78
PHC Functions and Enablers	78
Accreditation Canada Quality Domains.....	81
Description of Nova Scotia Contexts	81
Geographic Framework for Planning.....	82
Appendix C: Indicator Selection Process	84
Indicator Selection Criteria	84
Description of the Multi-Voting Process	85

BACKGROUND AND RATIONALE

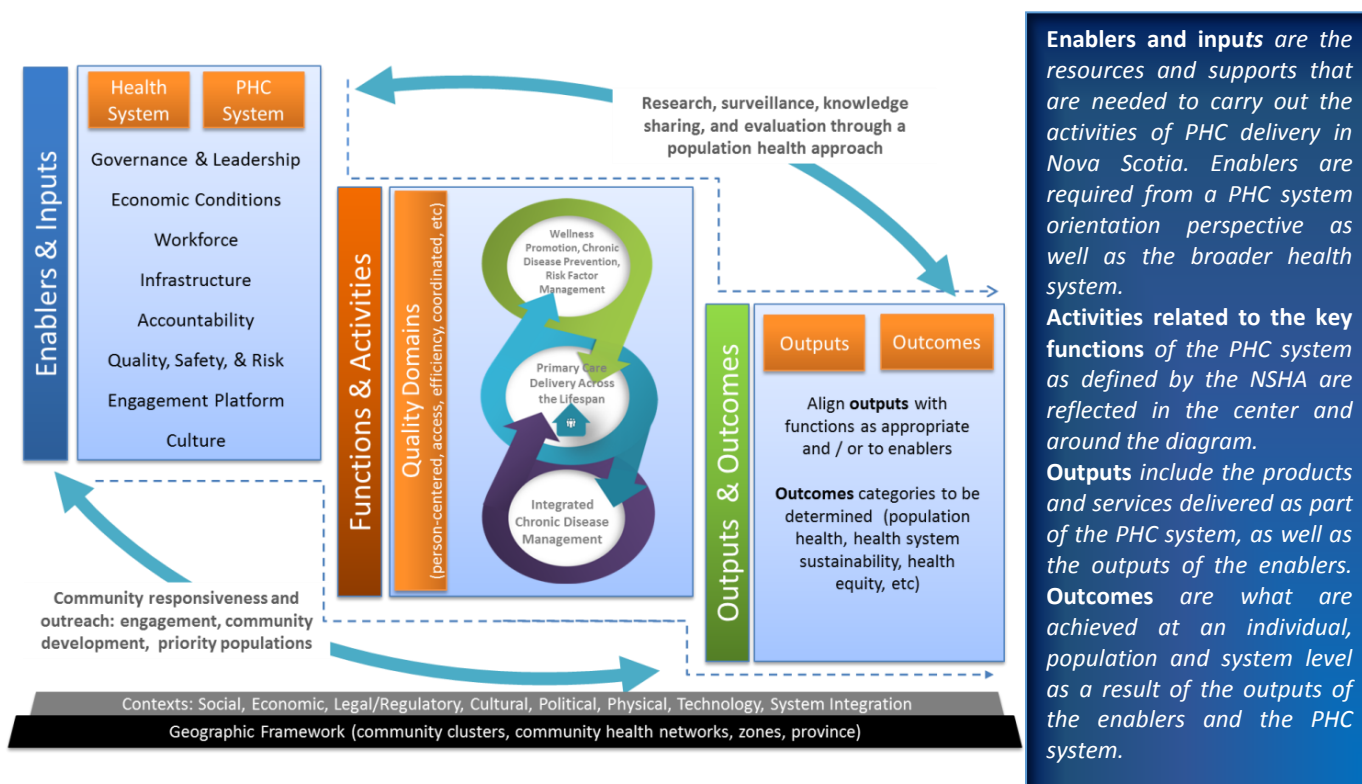
Primary health care is the foundation of the health system and where the majority of people experience most of their health care. In Nova Scotia (NS), the primary health care system is on a journey of large scale transformational change; investing in the community-based primary health care system is key to achieving Nova Scotia Health Authority’s (NSHA) vision of *Healthy people, healthy communities – for generations*.

In order to appropriately design, implement, and evaluate any primary health care system, the desired outputs and outcomes, along with the indicators and measures to assess progress towards these outputs and outcomes, need to be identified. A baseline assessment of these identified indicators is needed for NS in order to properly measure the effectiveness of the system transformation in primary health care and serve as a foundation for future measurement.

SYSTEM-LEVEL EVALUATION FRAMEWORK

To guide indicator selection and alignment, a multidimensional evaluation framework was developed that reflects the complex nature of the PHC system, incorporates functions and enablers defined by the NSHA and considers the broader geographic, economic, and social context in NS (Figure 1). The development of the NSHA PHC System-level Evaluation Framework was guided and influenced by key documents, guiding frameworks, and stakeholder input.

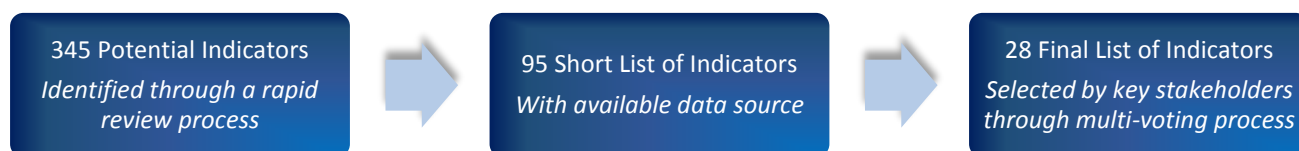
Figure 1: NSHA PHC System-Level Evaluation Framework



APPROACH

To accomplish the objectives of the report, existing guiding frameworks and seminal documents were used to provide a theoretical foundation for the design of the NSHA PHC System-level Evaluation Framework and to guide indicator selection. 345 potential indicators were identified using a rapid review process examining existing evidence-based work on indicators for the PHC system, including Canadian Institute for Health Information (CIHI) PHC indicators, NSHA’s key performance indicators, Health Quality Ontario’s PHC indicators, past evaluation work for the PHC system in NS, among many other sources. This was reduced to a short list of 95 indicators, primarily based on feasibility of obtaining an aligning data source. Key stakeholders further reduced the list to 28 indicators through a multi-voting process considering the balance of indicators across framework domains (Figure 2). The longer list is being maintained as a list for potential future indicators.

Figure 2: Indicator Selection Process



CURRENT STATE ASSESSMENT

The current state of the 28 indicators selected is described in detail using a collection of data sources and the most recent year of data available aligned with the year of transition to a provincial health authority (2015) in the full technical report. A snapshot of the results of the current state assessment of each indicator is included below. Indicators are organized by the three types: (1) Enablers and Inputs; (2) Functions and Activities; and (3) Outputs and Outcomes, based on alignment to each component of the system-level framework (Figure 1).

Enablers & Inputs

The first seven indicators are classified as enablers and inputs and align with the framework domains: economic conditions, governance and leadership, workforce and research, surveillance, knowledge sharing and evaluation.

Enablers and Inputs: Economic Conditions Indicator 1: Family Physician (FP) Remuneration Method	Enablers and Inputs: Governance and Leadership Indicator 2: Governance Model Distribution of Collaborative Family Practice Teams (CFPTs)	Enablers and Inputs: Workforce Indicator 3: Collaborative Family Practice Teams (CFPT)
<p>Alternative payment methods 23%</p> <p>Fee-for service 77%</p> <p><i>Data Source: FY15-16 MSI billing data; validated 2017</i></p>	<p>■ Turn-key</p> <p>■ Co-leadership</p> <p>■ Other/Blended</p> <p>■ Contracted Services</p> <p><i>Data Source: Nova Scotia Health Authority 2015-16</i></p>	<p>39 50 57 83 88 ++</p> <p>2015-16 2016-17 2017-18 2018-19 2019-20 2020-21</p> <p><i>Data Source: Nova Scotia Health Authority 2015-16</i></p>
<p>The majority of FPs providing office-based care in NS were remunerated through the fee-for-service method (77%), 23% were remunerated through alternative payment methods (APP, group APP, ROS, CAPP).</p>	<p>For the CFPTs that existed at the time of NSHA’s formation in 2015-16, the most predominant governance model was turn-key (51% of CFPTs), followed by co-leadership (41% of CFPTs). 8% of CFPTs were other/blended or contracted services.</p>	<p>At the time of NSHA’s formation, there were 39 CFPTs in NS, meeting the minimum working definition of having at least 3 health professionals with a minimum of 2 professional disciplines.</p>

<p><i>Enablers and Inputs: Workforce</i></p> <p>Indicator 4: Difference between Available and Required PHC Human Resources</p>	<p><i>Enablers and Inputs: Workforce</i></p> <p>Indicator 5: Population with a Regular Healthcare Provider</p>	<p><i>Enablers and Inputs: Workforce</i></p> <p>Indicator 6: Family Medicine Learners</p>
<p><i>*Community adaptive team members, including social workers, dietitians, occupational therapists, physiotherapists, etc.</i></p> <p><i>Data Source: Nova Scotia Health Authority, 2016</i></p>	<p><i>Data Source: Canadian Community Health Survey, 2015</i></p>	<p><i>Data Source: Dalhousie University, 2016-17</i></p>
<p>The additional PHC health human resources required, by professional discipline, to support the population based on PHC planning parameters.</p>	<p>In 2015, 88.7% of Nova Scotians who responded to the CCHS indicated that they had a regular healthcare provider. This is above the national rate of 83.3% of Canadians.</p>	<p>During the 2016-2017 academic year, there were approximately 31 medical residents completing training in Nova Scotia family medicine practices.</p>
<p><i>Enablers and Inputs: Research, Surveillance, Knowledge Sharing and Evaluation</i></p> <p>Indicator 7: Research Capacity (Participation and Partnerships)</p>		
	<p>Approx. 60 PHC staff and physician leaders from the NSHA and Dalhousie Family Medicine (DFM) have research profiles. Other results included 50-100 research activities and 15 research study partnerships, for FY16-17.</p> <p><i>Data Source: CoR-PHC, 2017; BRIC-NS, 2017; NSHRF, 2017; CIHR, 2017; NSHARF, 2017</i></p>	

Functions & Activities

The next five indicators are classified as functions and activities and align with the framework domains: community responsiveness and outreach, integrated chronic disease management (CDM) and PHC delivery.

<p><i>Functions and Activities: Community Responsiveness and Outreach</i></p> <p>Indicator 8: Programs Dedicated toward Priority Populations</p>	<p><i>Functions and Activities: Community Responsiveness and Outreach</i></p> <p>Indicator 9: PHC Providers' Sensitivity to Patients' Cultural Values</p>	<p><i>Functions and Activities: Integrated CDM Delivery</i></p> <p>Indicator 10: PHC Support for Self-Management of Chronic Conditions</p>
<p><i>Data Source: Nova Scotia Health Authority, 2017</i></p>	<p><i>Data Source: NSHA PHC Client Experience Survey, 2017</i></p>	<p><i>Data Source: NSHA PHC Client Experience Survey, 2017</i></p>
<p>As of 2017, there were 17 PHC programs and services dedicated to priority populations such as the 2SLGBTIQ+ community, students and youth, women, men, newcomers, First Nation communities, and African Nova Scotians.</p>	<p>In 2017, 97% of patient respondents to the PHC Client Experience Survey administered at locations of PHC teams participating in Accreditation Canada's Primary Care Services Standards agreed or strongly agreed that staff took their cultural values and those of their family or caregiver into account.</p>	<p>Approximately 55% of respondents to the 2017 PHC Client Experience Survey reported that yes, they were always or sometimes encouraged to go to a specific group, program or class to help them manage their health concerns.</p>

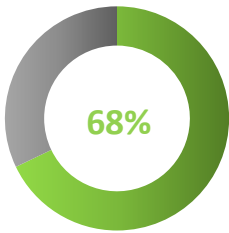
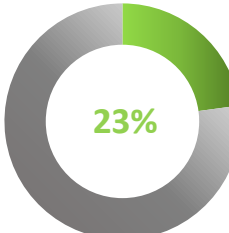
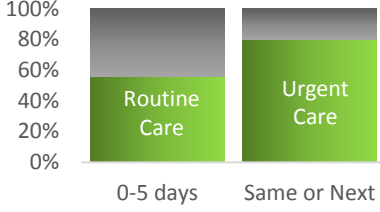

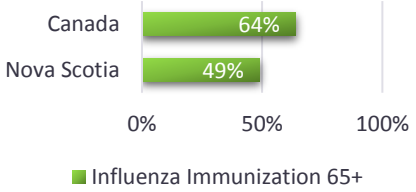

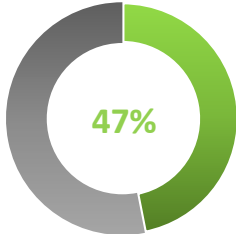
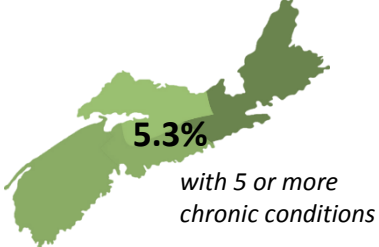

<i>Functions and Activities: PHC Delivery</i> Indicator 11: Scope of Primary Health Care Services	<i>Functions and Activities: PHC Delivery</i> Indicator 12: PHC Provider Time in Direct Patient Care																						
<p>Top 5 Most Commonly Offered Primary Care Services in NS offered by Family Physicians and Nurse Practitioners</p> <table border="1"> <caption>Top 5 Most Commonly Offered Primary Care Services</caption> <thead> <tr> <th>Service</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Non-urgent care</td> <td>99.8%</td> </tr> <tr> <td>Care for an emergent but minor problem</td> <td>99.5%</td> </tr> <tr> <td>Behaviour change counselling, tobacco use</td> <td>97.1%</td> </tr> <tr> <td>Behaviour change counselling, physical activity</td> <td>96.4%</td> </tr> <tr> <td>Liaison with home care services</td> <td>91.6%</td> </tr> </tbody> </table> <p><i>Data Source: MAAP-NS, 2015</i></p>	Service	Percentage	Non-urgent care	99.8%	Care for an emergent but minor problem	99.5%	Behaviour change counselling, tobacco use	97.1%	Behaviour change counselling, physical activity	96.4%	Liaison with home care services	91.6%	<p>Family Physician and Nurse Practitioner Availability for Patient Appointments, Weekly</p> <p style="text-align: center;">Average Number of Weekly Hours in Direct Patient Care</p> <p style="text-align: center;"><i>Nova Scotia Average: 28 hours Range: 3 hours – 61 hours</i></p> <table border="1"> <thead> <tr> <th>Zone</th> <th>Average Weekly Hours</th> </tr> </thead> <tbody> <tr> <td>Western</td> <td>27 hours</td> </tr> <tr> <td>Northern</td> <td>31 hours</td> </tr> <tr> <td>Eastern</td> <td>24 hours</td> </tr> <tr> <td>Central</td> <td>29 hours</td> </tr> </tbody> </table> <p><i>Data Source: MAAP-NS, 2015</i></p>	Zone	Average Weekly Hours	Western	27 hours	Northern	31 hours	Eastern	24 hours	Central	29 hours
Service	Percentage																						
Non-urgent care	99.8%																						
Care for an emergent but minor problem	99.5%																						
Behaviour change counselling, tobacco use	97.1%																						
Behaviour change counselling, physical activity	96.4%																						
Liaison with home care services	91.6%																						
Zone	Average Weekly Hours																						
Western	27 hours																						
Northern	31 hours																						
Eastern	24 hours																						
Central	29 hours																						
<p>The MAAP-NS study looked at the scope of services provided by PHC providers (family physicians, nurse practitioners) in 2015 to assess comprehensiveness of services provided. The most commonly offered services are relatively consistent across zones.</p>	<p>In 2015, PHC providers across NS indicated spending an average of 28.3 hours per week in direct patient care. Across individual providers, there was a large range of variability, ranging from 3 hours (minimum) to 61 hours (maximum).</p>																						

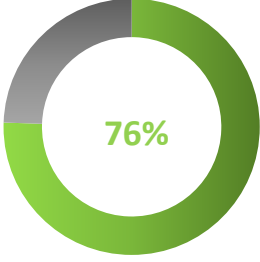

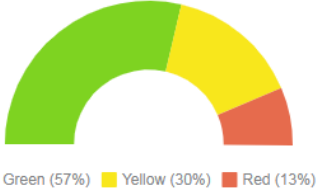
Outputs & Outcomes

The remaining 16 indicators are classified as outputs and outcomes; 10 are outputs and 6 are outcomes. The 10 output indicators align with the framework domains: economic conditions, engagement platform, infrastructure, workforce, PHC delivery, research, surveillance, knowledge sharing and evaluation, PHC delivery, and wellness, prevention, and risk factor management. Outcome indicators span multiple functions.

<i>Output: Economic Conditions</i> Indicator 13: Per Capita Primary Health Care Expenditures	<i>Output: Engagement Platform</i> Indicator 14: Patient Participation in Activities	<i>Output: Infrastructure</i> Indicator 15: PHC Physician use of Electronic Medical Record (EMR)
<i>Data Source: Primary Health Care, NSHA, 2015-16</i>	<i>Data Source: Primary Health Care, NSHA, 2017</i>	<i>Data Source: Department of Health & Wellness, 2017</i>
<p>Primary Health Care's budget was \$33,293,521 at the time of NSHA's formation in 2015-16. This equated to NSHA spending \$36 per person (or \$3.6M per 100,000 people) on primary health care programs and services (based on a population of 920,383, Census, 2011). <i>*excludes spending on physician services and MSI billings</i></p>	<p>At the time of this report, involving patient and family advisors in planning and quality in PHC was in its early stages. All zones were beginning the process to recruit patient and family advisors as part of quality teams and there was a history of patient involvement and engagement in several areas. PHC will be standardizing how we report on this important measure going forward.</p>	<p>In 2017, approximately 87% of family physicians in the province were on an EMR. Of all physicians using an EMR, 80% used Nightingale on Demand.</p>

Note: Indicator #16 was not reportable at the time of preparation of this report. Refer to the Technical Document for more information.

<p><i>Output: PHC Delivery</i> Indicator 17: Primary Care Providers Accepting New Patients</p>	<p><i>Output: PHC Delivery</i> Indicator 18: Provision of After-Hours Care</p>	<p><i>Output: PHC Delivery</i> Indicator 19: Wait Times for Routine and Urgent Primary Care</p>
 <p>68%</p> <p><i>Data Source: MAAP-NS, 2015</i></p>	 <p>23%</p> <p><i>Data Source: MAAP-NS, 2015</i></p>	 <p>100% 80% 60% 40% 20% 0%</p> <p>Routine Care Urgent Care</p> <p>0-5 days Same or Next day</p> <p><i>Data Source: MAAP-NS, 2015</i></p>
<p>In 2015, 68% of PHC providers indicated they are accepting new patients, either unconditionally or with exceptions (e.g., family members, newborns, etc.).</p>	<p>In 2015, 23% of PHC providers indicated that they were providing care after 5 pm at least one evening a week.</p>	<p>In 2015, over half of PHC providers across the province were able to provide routine care within 5 days, while 80% were able to see patients same day/next day for urgent care.</p>
<p><i>Output: Research, Surveillance, Knowledge Sharing and Evaluation</i> Indicator 20: Research Outputs</p>	<p><i>Output: Wellness, Prevention, Risk Factor Management</i> Indicator 21: Influenza Immunization for Individuals 65 and Over</p>	<p><i>Output: Workforce</i> Indicator 22: Family Physicians Working in Collaborative Family Practice Teams</p>
 <p>16 Research publications 12 Grants worth \$900,000 8 Ethic Submissions</p> <p><i>Data Source: CoR-PHC, 2017; BRIC-NS, 2017; NSHRF, 2017; CIHR, 2017; NSHARF, 2017</i></p>	 <p>Canada 64% Nova Scotia 49%</p> <p>0% 50% 100%</p> <p>■ Influenza Immunization 65+</p> <p><i>Data Source: CPCSSN, 2016 and CIHI, 2016</i></p>	 <p>159 Family Physicians Working in 39 Collaborative Family Practice Teams</p> <p><i>Data Source: Primary Health Care, NSHA, 2015-16</i></p>
<p>In 2017, NSHA PHC staff, DFM, and CoR-PHC received 12 grants worth approximately \$900,000, and produced eight ethics submissions and 16 research publications in the past year.</p>	<p>In 2016, 49% of PHC patients aged 65 and older in Nova Scotia who had a provider visit in the past 24 months received an influenza immunization in the last 12 months. Nationally, the influenza vaccination rate among those over 65 years was 64% in 2013-14.</p>	<p>In the collaborative family practice teams that existed at the time of NSHA's formation, there were approximately 159 family physicians working as part of the 39 collaborative family practice teams. Note this is an estimated head count only; does not equal full-time equivalents.</p>
<p><i>Outcome: Across Functions</i> Indicator 23: Use of Emergency Department for Minor Complaints</p>	<p><i>Outcome: Across Functions</i> Indicator 24: Prevalence of Individuals with Self-Reported Five or more Chronic Conditions</p>	<p><i>Outcome: Integrated Chronic Disease Management Programs and Services</i> Indicator 25: Ambulatory Care Sensitive Conditions (ACSC) Hospitalization Rate</p>
 <p>47%</p> <p><i>Data Source: EDIS, Meditech, and STAR data, Nova Scotia Health Authority, 2017</i></p>	 <p>5.3% with 5 or more chronic conditions</p> <p><i>Data Source: Canadian Community Health Survey, 2013</i></p>	 <p>Hospitalization Rate for ACSCs 355 per 100,000</p> <p><i>Data Source: CIHI 2014-15</i></p>
<p>Almost half (47%) of all Emergency Department (ED) visits across the province in 2016 were triaged as semi-urgent (CTAS level 4) or non-urgent (CTAS level 5), according to the Canadian Triage and Acuity Scale. Visits for CTAS 4 & 5 were lowest in Central Zone (34%) and highest in Western Zone (57%).</p>	<p>The prevalence of individuals with self-reported five or more chronic conditions (asthma, arthritis, high blood pressure, COPD, diabetes, heart disease, cancer, stroke, dementia, mood disorder, and/or anxiety) was 5.34% in Nova Scotia in 2013/14.</p>	<p>In 2014/15, Nova Scotia recorded a hospitalization rate for ambulatory care sensitive conditions of 355 hospitalizations per 100,000 people in patients younger than age 75.</p>

<p><i>Outcome: Primary Care Delivery Across the Lifespan</i></p> <p>Indicator 26: PHC Patient Access to Health Care</p>	<p><i>Outcome: Primary Care Delivery Across the Lifespan</i></p> <p>Indicator 27: Patient Involvement in Decisions about their Care and Treatment</p>	<p><i>Outcome: Quality, Safety, and Risk</i></p> <p>Indicator 28: Patient Safety Culture</p>
 <p>Data Source: NSHA PHC Client Experience Survey, 2017</p>	 <p>Data Source: QUALICOPC (Quality and Costs of Primary Care) Canada, 2013</p>	 <p>Patient Safety Culture Flags</p> <p>Data Source: NSHA Patient Safety Culture Survey, 2016</p>
<p>In 2017, 75.5% of patients at PHC teams participating in Accreditation Canada’s Primary Care Services Standards indicated they did not have difficulties getting the health care or advice they needed.</p>	<p>96% of patients in NS indicated that their doctor involved them in making decisions about treatment and/or health related goals at their visit.</p>	<p>Of the total 23 statements related to patient safety culture in Primary Health Care, the responses to statements were rated red, yellow, green (with green the highest rated and red being the lowest rated). The majority of responses were green flags (57%), 30% were yellow flags, and 13% were red flags.</p>

The remainder of the report provides more detail related to the background and rationale for preparing the report, the methodology for framework development and indicator selection, and detailed information related to the indicator data sources and calculation methodology, along with detailed results.

This report provides an important first step in assessing the primary health care system in NS. By outlining key indicators and data sources, it will encourage consistency and consensus in the reporting of key measures and will serve as the foundation for future measurement and evaluation related to the transformation of the primary health care system over time. The goal is to use this report as a foundation for monitoring the indicators highlighted in this report to determine changes over time.

Future work will focus on identifying a complete set of ideal, future-oriented indicators that is not constrained by readily available data sources only. This will also require identifying and/or developing accompanying data collection tools and resources, as well as identifying strategies for accessing additional, critically important data sources, such as electronic medical record (EMR) data. Additional work is required to identify a core set of indicators to assess performance at the program/service and practice level, as part of a cascade of indicators at multiple levels of the system (macro, meso, micro).

Current State Assessment of the Primary Health Care System in Nova Scotia

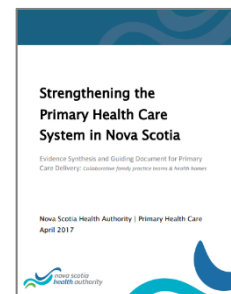
The Primary Health Care System Baseline Report: Technical Document

INTRODUCTION AND RATIONALE

DEFINING PRIMARY HEALTH CARE

Primary health care is an approach to health that acknowledges the determinants of health and the importance of healthy individuals and communities. It focuses on factors such as where people live, the state of the environment, education and income levels, genetics, and relationships with friends and family. It also includes the continuum of care from pre-conception to end-of-life care, emphasizing health promotion, disease and injury prevention, health maintenance, and supporting patients and families in being partners in their health journey. With patients and families being core partners on the team, primary health care professionals include family doctors, family practice nurses, nurse practitioners, pharmacists, social workers, dietitians, physiotherapists, behaviourists, psychologists and many others, who all work collaboratively to improve the health and well-being of their patients and clients. Primary health care is the foundation of the health system, where the majority of people experience most of their health care, in the community, and is the ongoing point of contact a person has with the overall health system (adapted from Nova Scotia Health Authority, 2015; Annapolis Valley Health - as cited in Primary Health Care, NSHA, 2017).

Strong primary health care systems contribute to overall health system performance and the health of the population (Starfield et al., 2005; Shi, 2012; Freidburg et al., 2010; Kringos et al., 2013; McMurchy, 2009). The evidence outlining the importance of a strong primary health care system as the foundation for the overall health system is summarized in NSHA's 2017 Evidence Synthesis, *Strengthening the Primary Health Care System in Nova Scotia – Evidence Synthesis and Guiding Document for Primary Care Delivery* (Primary Health Care, NSHA, 2017), which is available on our [website](#).



The functions and enablers of a strong primary health care system have been derived through synthesis of the literature (e.g., McMurchy, 2009; Kringos, 2010; etc.) and through consultation with primary health care leaders, teams, and partners across Nova Scotia. The primary health care functions and enablers serve as a foundation for planning and as a conceptual framework for how the primary health care system is viewed, and for the purposes of this report, evaluated in Nova Scotia (Edwards et al., 2017).

The functions of the primary health care system include:

- Primary care delivery across the lifespan from birth to end of life care;
- Wellness promotion, chronic disease prevention, and risk reduction for individuals, groups, and communities;
- Integrated chronic disease management;
- Research, surveillance, knowledge sharing, and evaluation through a Population Health approach

- and in partnership with public health and others; and
- Community responsiveness and outreach: engagement, community development, and priority populations.

The functions are supported by **foundational enablers**, which are required to build and sustain the primary health care system and include: leadership and governance; economic conditions; workforce; engagement platform; quality, safety, and risk; infrastructure; accountability; and culture. While the enablers are largely consistent with what is needed across other parts of the health care system, the enablers to support community-based primary health care require a different orientation than in acute care or other parts of the system (Primary Health Care, NSHA, 2017).

NOVA SCOTIA CONTEXT

Since the formation of the Nova Scotia Health Authority (NSHA) in 2015, Primary Health Care (PHC) has been on a journey to strengthen the primary health care system in Nova Scotia (NS). Enhancing person-centred, high quality, safe and sustainable care for Nova Scotians is a strategic priority and investing in the community-based primary health care system to increase the number of collaborative family practice teams has been a key strategic direction to achieve the health authority's vision of *healthy people, healthy communities – for generations* (Nova Scotia Health Authority, 2016).

On April 1, 2015, the former district health authorities (DHAs) transitioned to a provincial health authority, the NSHA, and the Izsak Walton Killam (IWK) Health Centre providing an opportunity to develop consistent, province-wide approaches to the planning and delivery of primary health care as well as other health care services that support the health and well-being of Nova Scotians. This set into motion provincial planning processes across many portfolios in the newly formed NSHA, the Nova Scotia Department of Health and Wellness, and the IWK (Stevenson & Burstall, 2016). Provincial planning provided an opportunity for strengthening the primary health care system in NS by building on existing and established strategies, models, and innovations while planning for new and essential components of a provincial system and to meet the changing landscape of health care in the province.

As a result of planning, a multi-year implementation and business plan was developed to rollout collaborative family practice teams province-wide as part of establishing the foundation of the health care system in NS. Work is continuing on the development of a provincial plan to establish a population-based chronic disease and wellness approach. Taken together, the future vision will result in an integrated primary health care system in each community health network that will link with the broader health care system and work in partnership with communities.

With the planning work well underway, along with announcements by Government for investment in primary health care specifically for implementation of collaborative family practice teams, it was identified by PHC system leaders that a robust evaluation plan was required to both measure and monitor (quantitatively and qualitatively) the impact of these changes on primary health care program and service delivery, experience of care, and population outcomes.

This current state assessment outlines the early steps taken to document available measures from a system-perspective at the time NSHA was established and prior to the implementation of the new

investment funds. The journey of transformation is ongoing and there will be additional reports, research studies, and publications that will share the progress and impact of the systematic transformation of the PHC system in NS.

PURPOSE OF REPORT

To design, implement, and evaluate any primary health care system, a critical starting point is to identify the desired outputs and outcomes using relevant guiding frameworks, along with the indicators¹ and measures to assess progress towards these outputs and outcomes. An assessment of a PHC system using these identified indicators is also needed prior to implementing new models of organizing care delivery in order to appropriately measure the effectiveness of the system transformation through the implementation, spread, and scale of new delivery model(s) and their impact to our population, providers, and system.

Upon the transition to a provincial health authority plus the IWK in 2015, there was no comprehensive report that identified and measured the current state of key structural, process, and outcome indicators at a **system-level** in NS that was reflective of the multi-dimensional nature of the system across all functions and supporting enablers. As a result, there was no 'baseline' to serve as the foundation for future measurement and evaluation related to the impact of primary health care health services planning and implementation in NS. Moreover, the activity to prepare this report provided an opportunity to inventory and assess available data and indicators and align the information to the current planning frameworks of the NSHA, as well as establish consistency and consensus in the reporting of key measures. Together, these factors presented a timely opportunity to develop a current state assessment at this critical juncture for transforming the PHC system in NS.

This report provides a comprehensive, systems-level assessment of the structural, process, and outcome domains of the PHC system in NS with data available at the time of the formation of the NSHA.

The three main objectives of this report are:

1. To establish an evidence-based evaluation framework to guide indicator selection for primary health care in NS;
2. To identify an inventory of potential indicators for present and future consideration and align a select subset with the newly developed evaluation framework; and
3. To provide a baseline assessment of the current state of the PHC system in NS at the time of the formation of NSHA using the selected indicators with a readily available data source to serve as a foundation for future measurement.

This document is a **technical report** and the information aligning with each of the three objectives is outlined in detail in the following sections. Accompanying this technical report is a brief executive summary document as well as a dashboard of the final set of selected indicators. This technical report will serve as a thorough reference document for the selected indicators and data sources promoting consistency and consensus in the reporting of key measures.

The evaluation framework and the indicators selected to assess progress across the framework domains will serve as a foundation for the measurement and evaluation of the impact of the large scale change transformation underway in PHC in NS and will help inform future planning and initiatives.

¹ An indicator is a measure that can be reported on regularly and that provides relevant and actionable information about population health and/or health system performance and characteristics (CIHI).

APPROACH

STAKEHOLDER ENGAGEMENT

To support accomplishing the objectives of this report, NSHA PHC consulted Research Power Inc. (RPI), a private consulting firm, to facilitate stakeholder engagement, indicator refinement, and documentation. A group of key stakeholders were engaged to provide input and guidance on the work (Appendix A: *Contributors to Indicator Selection and Data Provision*). The key stakeholders worked collaboratively to develop and advise on the evaluation framework and seminal articles informing its development, the selection and prioritization of a core set of indicators aligning with the framework and based on readily available data, and in some cases, the provision of data to report on the selected indicators. The diverse group of stakeholders were instrumental in the design and completion of the current state assessment of the PHC system in NS.

GUIDING DOCUMENTS AND FRAMEWORKS

Key documents and frameworks provided a theoretical foundation for both the design of the evaluation framework, which is directly aligned with ongoing health services and implementation planning led by PHC, NSHA, and the identification of system-level indicators. Together, these guiding documents and frameworks provided important context and direction in designing the framework and identifying and selecting indicators that had a readily available data source to be included in this report that were also aligned with an evidence-based approach and aligned with work being conducted nationally and internationally. The guiding documents and frameworks are outlined in Table 1 and described in detail below.

Table 1: Guiding Documents and Frameworks

Guiding Documents	Associated References	Information/Description
The Functions and Enablers of a High Performing PHC System	<i>Edwards et al., 2017</i>	The functions and enablers of a strong PHC system have been derived through synthesis of the literature and through consultation with PHC leaders, teams, and partners across the province. The PHC functions and enablers serve as a foundation for planning and as a conceptual framework for how the primary health care system is viewed in NS. See Appendix B: <i>Guiding Documents and Framework</i> for detailed information on the functions and enablers.
Geographic Framework for Planning	<i>Terashima et al., 2016 and Nova Scotia Health Authority</i>	The Geographic Framework includes 54 community clusters in the province, nested in 14 community health networks, which are further nested in the NSHA's four management zones. This framework has been adopted by the NSHA for primary health care planning and is described in more detail in Appendix B: <i>Guiding Documents and Framework</i> .
Accreditation Canada Quality Domains and Primary Care Standards	<i>Accreditation Canada, 2015</i>	Eight quality domains have been identified by Accreditation Canada and include population focus, accessibility, safety, worklife, client-centered services, continuity, appropriateness, and efficiency. See Appendix B: <i>Guiding Documents and Framework</i> for more detail. The organization's Qmentum accreditation program includes standards for primary care delivery.
IHI's Triple Aim	<i>Stiefel & Nolan, 2012; CFHI, n.d</i>	Triple Aim is the focus on three goals for improving primary health care: to achieve better population health, better healthcare experiences and improved per-capita cost of care.

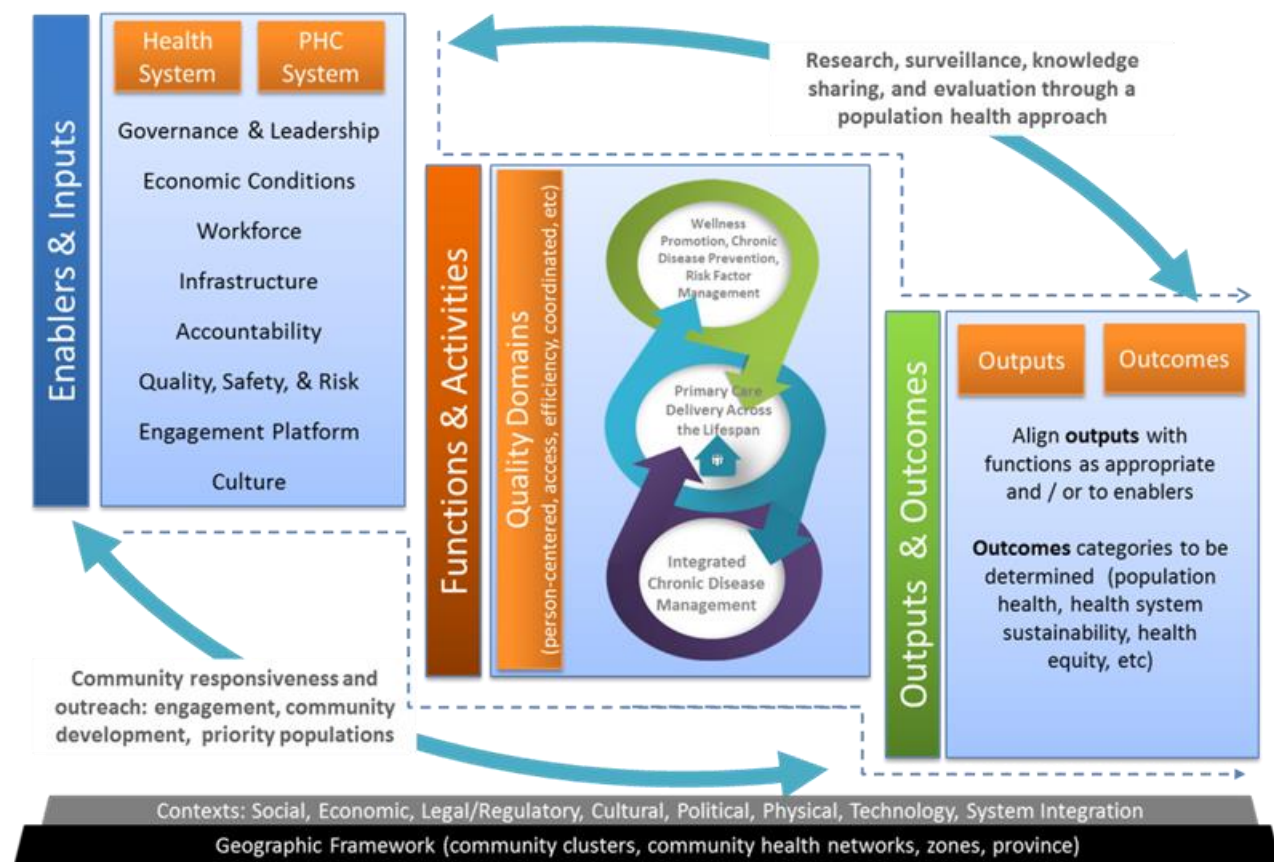
Guiding Documents	Associated References	Information/Description
Expanded Chronic Care Model (CCM-E)	<i>Barr et al., 2003</i>	The CCM-E describes the elements of a system for chronic disease prevention and management, including elements within the health system (information systems, delivery system design, decision support, self-management skills) and within the community (healthy public policy, supportive environments, and community action).
Primary Health Care Performance Initiative	<i>Primary Health Care Performance Initiative, 2015</i>	This initiative involved developing a conceptual framework for assessing the core attributes and enablers of strong primary health care systems using a logic-model driven approach; this conceptual framework was a key guiding document in the development of an evaluation framework aligned to Nova Scotia's context
CIHI Pan-Canadian Primary Health Care Indicators	<i>Canadian Institute for Health Information, 2006, 2012, 2016</i>	The CIHI PHC Indicators were identified as a comprehensive way to assess multiple elements of high-quality primary health care delivery based on data availability, trending over time, and alignment with previous work and methodology. The indicators include both practice-level and system-level indicators and have evolved over time to prioritize and refine a set of core measures to be used to evaluate primary health care.
Primary Care Performance Measurement Framework for Ontario	<i>Health Quality Ontario, 2014</i>	Developed by Health Quality Ontario, the Primary Care Performance Measurement Framework for Ontario was developed through extensive stakeholder engagement to identify valuable measures to inform planning, management, and quality improvement. The result was identification of 9 domains with 112 practice-level and 179 system-level measures to measure performance over time.
Other Canadian PHC System Logic Models	<i>Alberta Health Services, 2013 & British Columbia PHC Logic Model (Watson, Broemeling, & Wong, 2009)</i>	A review of grey literature, websites, and other strategic planning and evaluation documents identified core examples of evaluation frameworks for primary health care system evaluation from other jurisdictions in Canada and beyond. Two key primary health care system logic models from other jurisdictions that were used to inform the work included: the Alberta Health Services PHC system logic model (2013) and the British Columbia PHC Logic Model (Watson et al., 2009)
Local Documents and Historical Work completed up to 2015-16	<i>Numerous references – see examples</i>	In addition, various local documents and historical work also contributed to the theoretical foundation of the framework development and indicator selection. These included: <ul style="list-style-type: none"> • NSHA Quality & Risk Management Framework • NSHA Strategic Directions, and Macro Key Performance Indicators (KPIs) • Capital Health PHC Quality Framework and PHC Dashboard • Cape Breton PHC Whole System Measures and KPIs • Other existing KPIs (meso-level) for PHC, NSHA across zones / former DHAs • DHW Collaborative Care Framework • Key NS Research Studies (i.e., TRANSFORMATION, MAAP-NS) • DHW PHC System Report, 2003 & PHC Evaluation Framework, 2006 • Work from Primary Care Research Unit, Dalhousie University - Department of Family Medicine • And more

SYSTEM-LEVEL EVALUATION FRAMEWORK

DESIGN AND DEVELOPMENT

To guide selection and organization of indicators and their respective data sources, a draft evaluation framework was developed drawing upon the guiding frameworks and documents outlined in Table 1. In December 2016, the draft framework was presented to key stakeholders for their input and feedback. Overall, there was consensus that the framework was a reflective of the multidimensional nature of the PHC system and captured the system's complexity while aligning with the concurrent and ongoing health services planning that was underway. Suggestions were incorporated based on stakeholder feedback resulting in the final version, the *NSHA Primary Health Care System Evaluation Framework*, presented in Figure 1.

Figure 1: NSHA Primary Health Care System Evaluation Framework



FRAMEWORK ELEMENTS

The visual for the framework uses the domains of a traditional logic model (i.e., inputs, activities, outputs and outcomes) while incorporating the PHC system functions and enablers defined by NSHA (See Appendix B: *Guiding Documents and Framework* for a description of the PHC functions and enablers) and highlighting the relationships between quality domains, attributes, outputs, and outcomes of the PHC delivery system. A description of each of the framework elements is outlined below in Table 2.

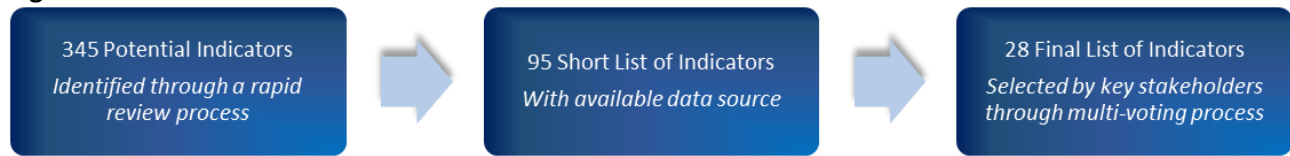
Table 2: Evaluation Framework Elements

Framework Element(s)	Description
<p>Enablers & Inputs</p>	<p>The box on the far left of the framework captures the enablers and inputs to PHC delivery, i.e., the resources and supports that are needed to carry out the activities of PHC delivery in NS. The enablers may also be reflected in the outputs and outcomes box. The enablers are reflective of what is required from a PHC system orientation perspective, as well as the broader health system lens.</p>
<p>Functions & Activities</p>	<p>The middle box of the framework reflects the activities related to the program and service delivery functions of the PHC system as defined by the NSHA. The three functions within the box are presented as overlapping and with interconnected arrows to show that they are not discrete, but are interconnected both conceptually and practically from a care delivery perspective.</p> <p>The other two functions are shown with arrows outside of the boxes because they cut across all elements of the framework and reflect “how” we do our work, with a focus on research, surveillance, and knowledge sharing with a community responsiveness lens. The eight quality domains identified by Accreditation Canada (See Appendix B: <i>Guiding Documents and Framework</i> for a list of the Accreditation Canada Quality Domains) are also captured in this middle box as they most closely relate to how programs/services are delivered, and indicators that address these domains may include input, activity, output or outcome indicators.</p>
<p>Outputs & Outcomes</p>	<p>The final box reflects the outputs and outcomes of the PHC system. The outputs include the products and services delivered as part of the PHC system, as well as the outputs of the enablers. The outcomes reflect what is achieved at an individual, population, and system level as a result of the outputs of the enablers. The outputs reflect either the structural elements (governance, economic conditions, workforce) or the processes of care within the system (access, continuity of care, coordination of care, comprehensiveness of care) (Kringos et al., 2010). The outcomes address quality of care, efficiency of care, and/or equity in health (Kringos et al., 2010).</p>
<p>Geographic Framework and Context</p>	<p>Underneath the three main boxes, the geographic framework for planning is outlined as a critical consideration, along with elements related to the broader context in NS (e.g., provincial economic conditions, social and cultural factors, etc.), as these elements contribute to the inputs of the system and have an impact on the outputs and outcomes. The geographic framework and elements of the NS context are further described in Appendix B: <i>Guiding Documents and Framework</i>. While indicators that assess this broader context are not included in the Baseline Report, they are taken into consideration through the community responsiveness function in the PHC system.</p>

INDICATOR SELECTION AND PRIORITIZATION

After the Primary Health Care System Evaluation Framework was agreed upon, the process of **system-level** indicator selection using the guiding framework was conducted (Figure 2).

Figure 2: Indicator Selection Process



First, potential indicators and associated data sources were identified through a rapid-review process of existing evidence-based work that identified indicators for evaluating PHC systems locally, nationally, and internationally.

Examples of documents considered in the rapid-review process included:

- Primary Health Care Performance Initiative (Primary Health Care Performance Initiative, 2015);
- Canadian Institute for Health Information (CIHI) *Pan-Canadian Primary Health Care Indicators* (Canadian Institute for Health Information, 2006, 2016);
- Health Quality Ontario Primary Health Care Indicators (Health Quality Ontario, 2014);
- NSHA key performance indicators (KPIs) and Past evaluation work in Nova Scotia;
- Comprehensive research studies that were conducted in Nova Scotia, e.g., QUALICOPC (Canadian Foundation for Healthcare Improvement, 2014), TRANSFORMATION (University of British Columbia, n.d.), Models and Access Atlas of Primary Care-Nova Scotia (MAAP-NS) (Dalhousie University, n.d.).

This review process yielded a list of **345 total potential indicators**². The next step in indicator selection involved a small group within NSHA PHC to review and develop a shortlist of indicators for review by the key stakeholder group, using a set of criteria. As the intention of this report was to provide a *current state assessment* of the PHC system in NS reflective of data and information that is presently available, an important consideration for inclusion on the short list was the **feasibility** of obtaining and aligning data using existing data sources. For example, the group did not select indicators for the short list that were not measurable in the NS context or would require the completion of new research, surveys, or analysis to be able to report. The **short list included 95 indicators** with a readily available data source. Out of scope for this shortlist were indicators at a practice-level only, with data sources that would only be readily accessible at the practice level (i.e., from a practice's EMR).

To further reduce the list to a final set of 30 or fewer indicators for inclusion in the baseline report, stakeholders (Appendix A) reviewed the shortlist and provided input through a multi-voting process in-person and electronically using standard selection criteria (Appendix C: *Indicator Selection Process*). Five primary criteria were considered by stakeholders when voting on indicators:

- Importance and Actionability;
- Feasibility;
- Credibility;
- Comparability; and
- Understandability.

² Note that there was some duplication and overlap of indicators that were seen in multiple sources in the list of 345 total potential indicators.

The balance of indicators across Primary Health Care System Evaluation Framework domains (i.e., functions and enablers), and the type of indicator (input, activity, output, or outcome) was also considered. There were additions of some indicators not originally included in the short-list for the multi-voting process to reflect areas identified as gaps by stakeholders during the process and following a gap-analysis review of the final shortlist (e.g., research, learners). The final result did include some gaps as well; however, no indicators with viable/reliable data sources were identified at this time and should be considered for future iterations of this report.

A **final list of 28 indicators** was selected for inclusion in the baseline report while the longer list is being maintained as an inventory of potential future indicators. Note that minor adjustments were made to the definitions of some indicators after the multi-voting process to ensure the appropriate data could be aligned to reflect the intention of the indicator.

FINAL INDICATORS AND CURRENT STATE IN NOVA SCOTIA

INDICATOR MAPPING

This section of the report presents the 28 final indicators and their mapping in alignment with the elements of the Primary Health Care System Evaluation Framework (Figure 1). Table 3 below provides an overview of the number indicators that fall under each indicator type (inputs, activities, outputs, outcomes), categorized by the associated function or enabler.

Table 3: Indicator Mapping

Function or Enabler	Total	Inputs	Activities	Outputs	Outcomes
Enablers					
Accountability					
Culture					
Economic Conditions	2	1		1	
Engagement Platform	1			1	
Governance and Leadership	1	1			
Infrastructure	1			1	
Quality, Safety & Risk	1				1
Workforce	5	4		1	
Functions					
Community Responsiveness & Outreach	2		2		
Research, surveillance, knowledge sharing, and evaluation	2	1		1	
Integrated CDM Delivery	2		1		1
Primary Care Delivery	8		2	4	2
Wellness, Prevention, Risk Factor Management	1			1	
Across Functions	2				2
Total:	28	7	5	10	6

Table 4 lists the detailed names of each indicator alongside the associated function/enabler, categorized by indicator type.

Table 4: Final Indicators for Baseline Assessment

Type	Number	Indicator Name	Function/ Enabler
Enablers and Inputs	Indicator 1	Family Physician Remuneration Method	Economic Conditions
	Indicator 2	Governance Model Distribution of Collaborative Family Practice Teams	Governance and Leadership
	Indicator 3	Collaborative Family Practice Teams	Workforce
	Indicator 4	Difference between Available and Required PHC Health Human Resources	Workforce
	Indicator 5	Population with a Regular Healthcare Provider	Workforce
	Indicator 6	Family Medicine Learners	Workforce
	Indicator 7	Research Capacity (Participation, Training, Partnerships)	Research, surveillance, knowledge sharing, and evaluation
Functions and Activities	Indicator 8	Programs Dedicated Toward Priority Populations	Community Responsiveness & Outreach
	Indicator 9	PHC Providers' Sensitivity to Patients' Cultural Values	Community Responsiveness & Outreach
	Indicator 10	PHC support for self-management of chronic conditions	Integrated CDM Delivery
	Indicator 11	Scope of PHC services	Primary Care Delivery
	Indicator 12	PHC Provider Time in Direct Patient Care	Primary Care Delivery
Outputs and Outcomes	Indicator 13	Per Capita PHC Expenditures	Economic Conditions
	Indicator 14	Patient Participation in Activities	Engagement Platform
	Indicator 15	PHC use of Electronic Medical Record (EMR)	Infrastructure
	Indicator 16	Percentage of Population Served by a Collaborative Family Practice Team	Primary Care Delivery
	Indicator 17	Primary Care Providers Accepting New Patients	Primary Care Delivery
	Indicator 18	Provision of After Hours Primary Care	Primary Care Delivery
	Indicator 19	Wait Times for Routine and Urgent Primary Care	Primary Care Delivery
	Indicator 20	Research Outputs	Research, surveillance, knowledge sharing, and evaluation
	Indicator 21	Influenza Immunization for Individuals 65 and Older	Wellness, Prevention, Risk Factor Management
	Indicator 22	Family Physicians Working in Collaborative Family Practice Teams	Workforce
	Indicator 23	Use of Emergency Department for Minor Complaints	Across Functions
	Indicator 24	Prevalence of Individuals with Self-Reported Five or More Chronic Conditions	Across Functions
	Indicator 25	Ambulatory Care Sensitive Conditions (ACSC) Hospitalization Rate	Integrated chronic disease management programs & services
	Indicator 26	PHC Patient Access to Health Care	Primary Care Delivery
	Indicator 27	Patient Involvement in Decisions about their Care and Treatment	Primary Care Delivery
	Indicator 28	Patient Safety Culture	Quality, Safety and Risk

OVERVIEW

In the following sub-sections, each of the 28 indicators is presented sequentially in detail. Indicators are **categorized by indicator type** and presented with a **description table** and a **results section** for each indicator’s current state upon the formation of the NSHA using the most recent year of data available in **2017**. It is the intent that this report be updated each year and/or as new data becomes available.

The description table presented for each indicator includes the following information where applicable:

- Indicator Description
- Method of Calculation (and associated mathematical terms)
- Year of Data
- Data Source
- Data Limitations & Considerations
- Level of Reporting
- Comparable Data
- Significance/Rationale

The results section includes both a graph and table, where applicable, to present the data.

TYPE 1: ENABLERS AND INPUTS



The first seven indicators are classified as **enablers and inputs** and align with following functions and enablers: economic conditions, governance and leadership, workforce and research, surveillance, knowledge sharing and evaluation.

These indicators provide examples of core system-level components that support and sustain the work of primary health care:

- Family physician remuneration method
- Family physicians practicing in each governance model
- Collaborative Family Practice Teams
- Difference between available and required collaborative family practice team health human resources
- Population with a regular medical doctor
- Family medicine learners
- Research capacity (participation and partnerships)

INDICATOR 1: FAMILY PHYSICIAN REMUNERATION METHOD

DESCRIPTION

Indicator #1	
Family Physician Remuneration Method	
Type of Indicator	Input
Enabler or Function	Economic conditions
Indicator Description	Percentage of family physicians providing office-based care who were primarily remunerated by type of payment modality (FFS, APP, Group APP, AFP, CAPP)
Numerator	<p>Number of family physicians providing office-based care who were primarily remunerated by type of payment modality that is currently available in NS:</p> <ul style="list-style-type: none"> • FFS: Fee-for-service – traditional remuneration method where physicians are self-employed professionals who bill Medical Services Insurance (MSI) for eligible services they provide to patients. • APP: Alternative Payment Plan – alternative payment arrangement to fee-for-service for physicians. These individual physician service contracts recognize and remunerate physicians for their direct clinical services and associated administrative duties. • Group APP: Group Alternative Payment Plan – this is similar to the APP described above but the payment contract includes multiple physicians as a group rather than just one individual physician. The group of physicians is collectively responsible for providing the clinical services and administrative functions outlined. This type of funding arrangement is often used in the Collaborative Emergency Centre (CEC) context to encompass all care provided in the community. • AFP: Academic Funding Plan – used for physicians who teach in NS academic institutions (e.g., Dalhousie University) in addition to clinical practice. These plans recognize and compensate physicians for their direct clinical services in addition to their academic, research, and administrative deliverables. This funding model is currently only available to family physicians working at Dalhousie Family Medicine locations in Halifax. • CAPP: Clinician Assessment for Practice Program for international medical graduates – this program was launched by the College of Physicians and Surgeons of Nova Scotia in 2005 to support International Medical Graduates (IMGs) who are practice-ready, without any additional formal residency training in Canada. It is no longer in operation (as of 2015) but physicians licensed through CAPP continue to receive support and supervision from the College while in practice.
Denominator	Total number of family physicians providing office-based care
Method of Calculation	<p>$(\text{Numerator}/\text{Denominator}) \times 100$</p> <p>NSHA PHC and Department of Family Practice Leaders reviewed the list of family physicians working in office-based care provided by the Department of Health and Wellness and manually identified the remuneration method for each physician to inform the numerator; the denominator is identified by using information provided by the Department of Health and Wellness regarding the total number of family physicians practicing in office-based care in NS</p>
Year of Data	Using MSI billing data from FY2015-16, this information was validated/updated in 2017
Data Source	MSI Billing Data for family physicians provided by the Nova Scotia Department of Health and Wellness.
Data Limitations & Considerations	Includes analysis of family physicians working in office-based care; based on best available data and information; estimate based on point-in-time data (n=748), as there are frequent changes to practicing physicians (e.g., recruitment, retirements, etc.). Only one payment modality was assigned to each physician based on their primary location of work; it is

Indicator #1	acknowledged that family physicians may have different payment modalities in different settings (e.g., an FP may be paid by APP for the majority of the work they do during the work, but may also work in a walk-in clinic on weekends where they are paid FFS).
Level of Reporting	Provincial
Comparable Data	See the Canadian Institute for Health Information (CIHI)'s Summary Report, Physicians in Canada, 2016 . See page 13, "How are Physicians Paid" for information across Canada and specifically for page 17, Figure 8, showing a national benchmark for Family Medicine. This report is produced annually.
Significance/ Rationale	This measure aids in PHC health workforce planning. Having an understanding of the current remuneration method of physicians also assists in assessing readiness for implementing a collaborative team approach to care delivery in a community cluster (Nova Scotia Health Authority, 2015) and can serve as a benchmark to see how payment models evolve over time to support collaborative, team-based care.

RESULTS

In 2017, the majority of family physicians providing office-based care (77%) were primarily remunerated through a fee-for service (FFS) payment modality. The remainder, 23%, were remunerated through alternative payment mechanisms, with the second most common payment method being alternative payment plan (APP) at 13% of family physicians who provide office-based care (Figure 3 and Table 5), followed by CAPP, AFP, and finally Group APP.

Figure 3: Family Physician Remuneration Method, 2017

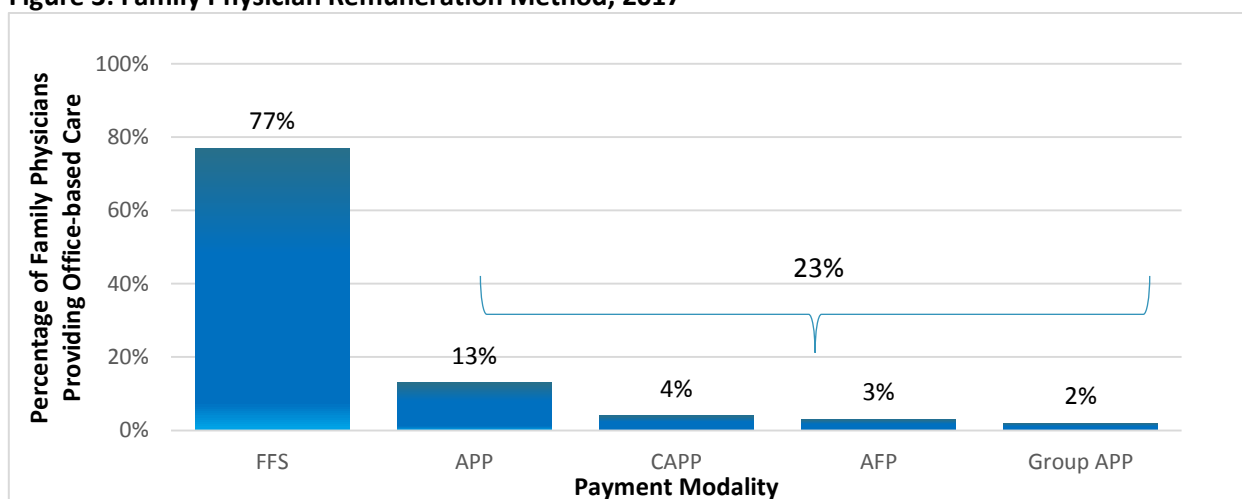


Table 5: Family Physician Remuneration Method, 2017

Remuneration Method	Frequency of Family Physicians	Percentage of Family Physicians
Fee-for-service (FFS)	574	76.7%
Alternative Payment Mechanisms	174	23.3%
Alternative Payment Plan (APP)	96	12.8%
Clinician Assessment for Practice Program (CAPP)	33	4.4%
Academic Funding Plan (AFP)	24	3.2%
Group Alternative Payment Plan (Group APP)	21	2.8%
Total	748	100%

INDICATOR 2: GOVERNANCE MODEL DISTRIBUTION OF COLLABORATIVE FAMILY PRACTICE TEAMS

DESCRIPTION

Indicator #2	
Governance Model Distribution of Collaborative Family Practice Teams	
Type of Indicator	Input
Enabler or Function	Governance and Leadership
Indicator Description	Percentage of collaborative family practice teams that existed at the time of this report, aligned with each type of governance model (co-leadership, turn-key, contracted services, other/blended).
Numerator	<p>Collaborative family practice teams associated with each of the following governance models:</p> <ul style="list-style-type: none"> • Contracted Services: In a contracted services governance arrangement, NSHA provides funds (team member compensation and associated operating costs) to an entity or group who is responsible for the day-to-day operations and management of all activities for the delivery of comprehensive primary care services, including the employment of staff and the delivery of services and monitoring safety and quality of those said services. NSHA and the entity work together cooperatively through joint planning and consultation to ensure comprehensive primary care services are provided to the population. • Co-leadership: In a co-leadership governance model, NSHA works collaboratively in a co-leadership model with the entity (which may be physicians or other group) to support the collaborative family practice team. Co-leadership means a means a cooperative and collaborative affiliation between NSHA and the entity, who work together as equals to oversee the operations of, and share accountability for, the collaborative family practice team. • Turn-key: In a turn-key governance arrangement, NSHA is responsible for the managerial and operational oversight of the collaborative family practice team and works collaboratively, with elements of co-leadership, with the family physicians who are part of the team. • Other/blended: Collaborative family practice teams that do not fit directly with one of the three aforementioned governance models due to factors such as involvement of a third party or alternative funding arrangement, etc.
Denominator	Total number of collaborative family practice teams (<i>see Indicator #3 for calculation methodology</i>)
Method of Calculation	<p>$(\text{Numerator}/\text{Denominator}) \times 100$</p> <p>NSHA PHC Leaders reviewed the list of existing collaborative family practice teams and manually assigned the governance model for each team.</p>
Year of Data	2015-16; for collaborative family practice teams existing at the time of NSHA's formation
Data Source	Manual tracking maintained by Primary Health Care, Nova Scotia Health Authority
Data Limitations & Considerations	Reflects the governance model at a high level only, based on the degree of working together with NSHA; does not differentiate between the multiple entities and partners in each model. For example, First Nations Health Centres are included in both co-leadership and contracted services categories, based on their model of working together with NSHA. Academic family practice models also distributed throughout the categories, as are community health centres, etc.
Level of Reporting	Provincial
Comparable Data	Not available

Indicator #2	
Significance/ Rationale	Through health services planning, NSHA PHC has identified a common framework for governance as new collaborative family practice teams are developed. The intent of monitoring this will show how the governance landscape for collaborative family practice teams may or may not change over time. This indicator has resourcing implications for management/leadership structure required to support.

RESULTS

For the collaborative family practice teams that existed at the time of NSHA’s formation in 2015-16, the most predominant governance model was a turn-key arrangement, with 51% of collaborative family practice teams (n=20) being aligned to a turn-key governance model. This was followed by co-leadership, with 41% of collaborative family practice teams (n=16), and small minority working in an other/blended arrangement (n=2) or a contracted services arrangement (n=1) (Figure 4 and Table 6).

Figure 4: FY2015-16 Collaborative Family Practice Team Governance Model Distribution, by percentage

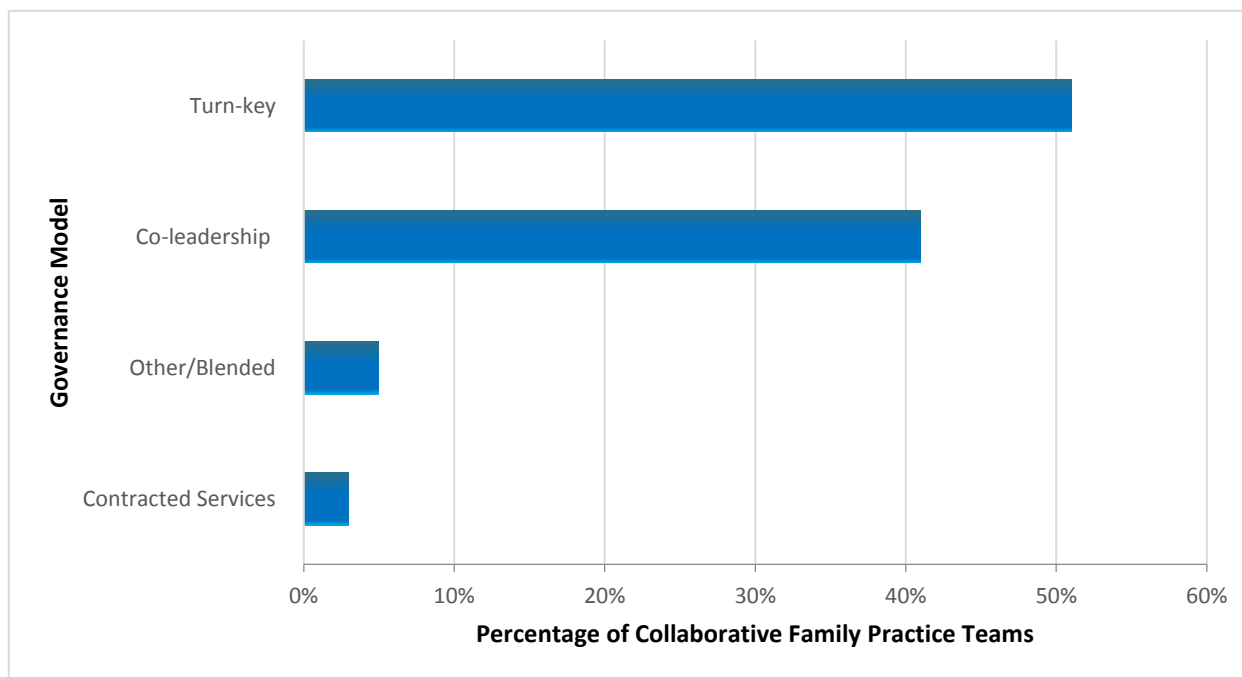


Table 6: FY2015-16 Collaborative Family Practice Team Governance Model Distribution

Governance Model	Number of Collaborative Family Practice Teams	Percentage of Collaborative Family Practice Teams
Turn-key	20	51%
Co-leadership	16	41%
Other/Blended	2	5%
Contracted Services	1	3%
Total:	39	100%

INDICATOR 3: COLLABORATIVE FAMILY PRACTICE TEAMS

DESCRIPTION

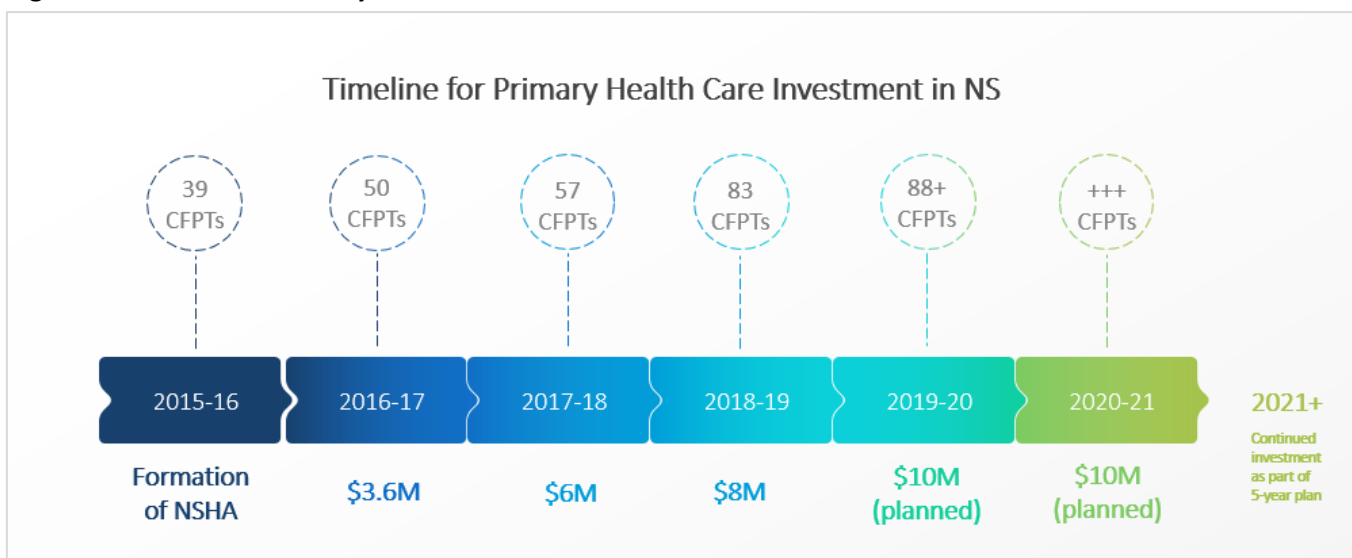
Indicator #3	
Collaborative Family Practice Teams	
Type of Indicator	Input
Enabler or Function	Workforce
Indicator Description	<p>Number of collaborative family practice teams</p> <p>For the purposes of identifying current collaborative family practice teams in NS, the following general definition has been adopted:</p> <p><i>Different types of primary health care providers who collaborate and share responsibility for comprehensive and continuous primary health care for a practice population. With patients and families as core partners on the team, the team consists of various combinations of family physicians, nurse practitioners, family practice nurses, and other providers such as dietitians, social workers, occupational therapists, physiotherapists, pharmacists, learners, behaviourists, medical office assistants, and/or community mental health workers, identified based on the needs of the community. Management/leadership support is important to provide strategic and operational support to the team. Clerical/office staff are considered integral members of the team.</i></p> <p>The proposed metric (population to provider ratios) for collaborative family practice teams has been designed to describe the team required to provide accessible, coordinated, continuous, comprehensive, and community oriented primary care to a practice population, working within a health home model. The metric will be applied at the community cluster level as a ratio per 10,000 citizens:</p> <ul style="list-style-type: none"> • 4-5 Family physicians** • 1-2 Nurse practitioners • 2-3 Family practice nurses • 1-2 Community adaptive team members (e.g., dietitians, social workers, OT, etc.) • Community pharmacist and other resources aligned to the community cluster • Clerical support • Leadership / management support, including practice support • Linkage with care coordinators, paramedics, other primary and secondary care resources, as appropriate. <p><i>** Reflective of family physician full-time equivalents providing office based care and home visits only.</i></p> <p>While recognizing that a team size consisting of 4-5 physicians working with nurse practitioners, family practice nurses and other providers serving a population of approximately 10,000 is a preferred future model, NSHA is in the first phase of that journey. The current working definition for a collaborative family practice team is a group of at least three health care providers, two of which are different professions, who work together collaboratively. This early definition was created by consensus with Department of Health & Wellness, representatives from the research community, IWK, and NSHA. It is envisioned that over time, these smaller teams will join up and work together across a community cluster/network to become a team that meets the preferred size. Going with a minimum definition for measurement was a purposeful decision so that the historically funded small teams would be recognized and to allow NSHA to meet physicians where they were in the change journey and provide flexibility for smaller, rural communities.</p>
Numerator	n/a- Count only

Indicator #3	
Collaborative Family Practice Teams	
Denominator	n/a – Count only
Method of Calculation	A count of the groups providing primary care who are working collaboratively that meet the minimum working definition, that is a group of at least three health care providers, two of which are different professions, who work together collaboratively.
Year of Data	2015-16; for collaborative family practice teams existing at the time of NSHA's formation
Data Source	Primary Health Care, Nova Scotia Health Authority (manual tracking)
Data Limitations & Considerations	Includes those groups that meet the minimum working definition only and are affiliated with NSHA (i.e., receive funding from NSHA to support the team). There would be groups in NS whereby the family physicians or others directly employ staff (e.g. family practice nurse, LPN) that do not receive funding from NSHA that would not be included in this count. This is a count at the time of NSHA's formation, <u>prior</u> to any new investment from government in FY16-17.
Level of Reporting	Provincial
Comparable Data	Not available using this same working definition; there would be numerous reports from other jurisdictions detailing primary health care models
Significance/Rationale	Since the formation of the NSHA in 2015, through new investments from government, and with a platform commitment of \$34M for collaborative family practice teams over four years, NSHA has been working to create more and strengthen existing collaborative family practice teams across the province – a key strategic direction to achieve the health authority's vision of <i>Healthy people, healthy communities – for generations</i> . This indicator is critical to monitor to assess NSHA's progress toward strategic goals, advance primary health care as the foundation of the health system, and monitor the impact of as new investments are made by government.

RESULTS

At the time of NSHA's formation, there were 39 Collaborative Family Practice Teams in NS, meeting the minimum working definition (Figure 5).

Figure 5: Collaborative Family Practice Teams in Nova Scotia



INDICATOR 4: DIFFERENCE BETWEEN AVAILABLE AND REQUIRED PRIMARY HEALTH CARE HEALTH HUMAN RESOURCES

DESCRIPTION

Indicator #4	
Difference Between Available and Required PHC Health Human Resources (excluding family physicians)	
Type of Indicator	Input
Enabler or Function	Workforce
Indicator Description	Difference between <u>required</u> PHC provider full time equivalents (FTEs), according to PHC planning metrics developed through health services planning to achieve having the majority of the population with access to a collaborative family practice team and access to wellness programs and services and the <u>current</u> PHC provider FTEs based on population, by cluster. This is for the PHC staff only working in collaborative family practice teams and wellness programs/services and excludes family physicians.
Numerator	Number of active FTE PHC providers by type, by Community Health Network
Denominator	Number of required FTE PHC providers by type, by Community Health Network
Method of Calculation	<p><i>Required primary health care health human resources in each community health network – the current primary health care health human resources in each community health network</i></p> <p>Required PHC health human resources for collaborative family practice teams and wellness programs/services are calculated using PHC planning metrics, as a ratio per 10,000 citizens:</p> <ul style="list-style-type: none"> • 4-5 Family physicians** • 1-2 Nurse practitioners • 2-3 Family practice nurses • 1-2 Community adaptive team members (e.g., dietitians, social workers, OT, etc.) • Community pharmacist and other resources aligned to the community cluster • Clerical support • Leadership / management support, including practice support • Linkage with care coordinators, paramedics, other primary and secondary care resources, as appropriate. <p><i>** Reflective of family physician full-time equivalents providing office based care and home visits only.</i></p> <p>Calculations for the required providers are based on the population of each network, relative to 2011 Census Population.</p>
Year of Data	2016
Data Source	Current PHC Health Human Resource Data for NPs, FPNs, and community adaptive team members is from NSHA HR Data (SAP); 2011 Census population data is from Statistics Canada
Data Limitations & Considerations	Includes clinical resources employed by PHC, NSHA only for collaborative family practice teams and wellness programs and services. Excludes current PHC resources dedicated to chronic disease management programs. Not reflective of all of the staffing requirements to operate and sustain a PHC system, including appropriate leadership and management supports, clerical resources, etc. Excludes family physicians. Refer to NSHA's website for information on physician recruitment reporting and vacancies.
Level of Reporting	Provincial, Zone, CHN, Cluster
Comparable Data	Not available using this definition and method of calculation
Significance/ Rationale	Since the formation of the NSHA in 2015, through new investments from government, and with a platform commitment of \$34M for collaborative family practice teams over four years, NSHA has been working to create more and strengthen existing collaborative family

Indicator #4	
	practice teams across the province. This indicator is critical to monitor to assess NSHA's progress toward strategic goals, advance primary health care as the foundation of the health system, and monitor the impact of as new investments are made by government and as progress is made to expand access to wellness programs and supports across NS.

RESULTS

Figure 6 and Table 7 depict the difference between the current number of FTE PHC providers in 2016 and the required number, based on PHC planning metrics. This is presented by provider type (NPs, FPNs, and community adaptive team members such as dietitians, social workers, or physiotherapists) and geography (zone and community health network). A negative difference signifies an area where the current FTEs are less than the required / planned FTEs, while a positive difference signifies an area where the current supply exceeds the future planned number (note – there may be explainable differences in these areas). The results indicate that in 2016, there is progress to be made to ensure a full complement of PHC providers, relative to the future health services plan.

Figure 6: Difference between Current and Planned PHC Health Human Resources by Zone, Network, 2016

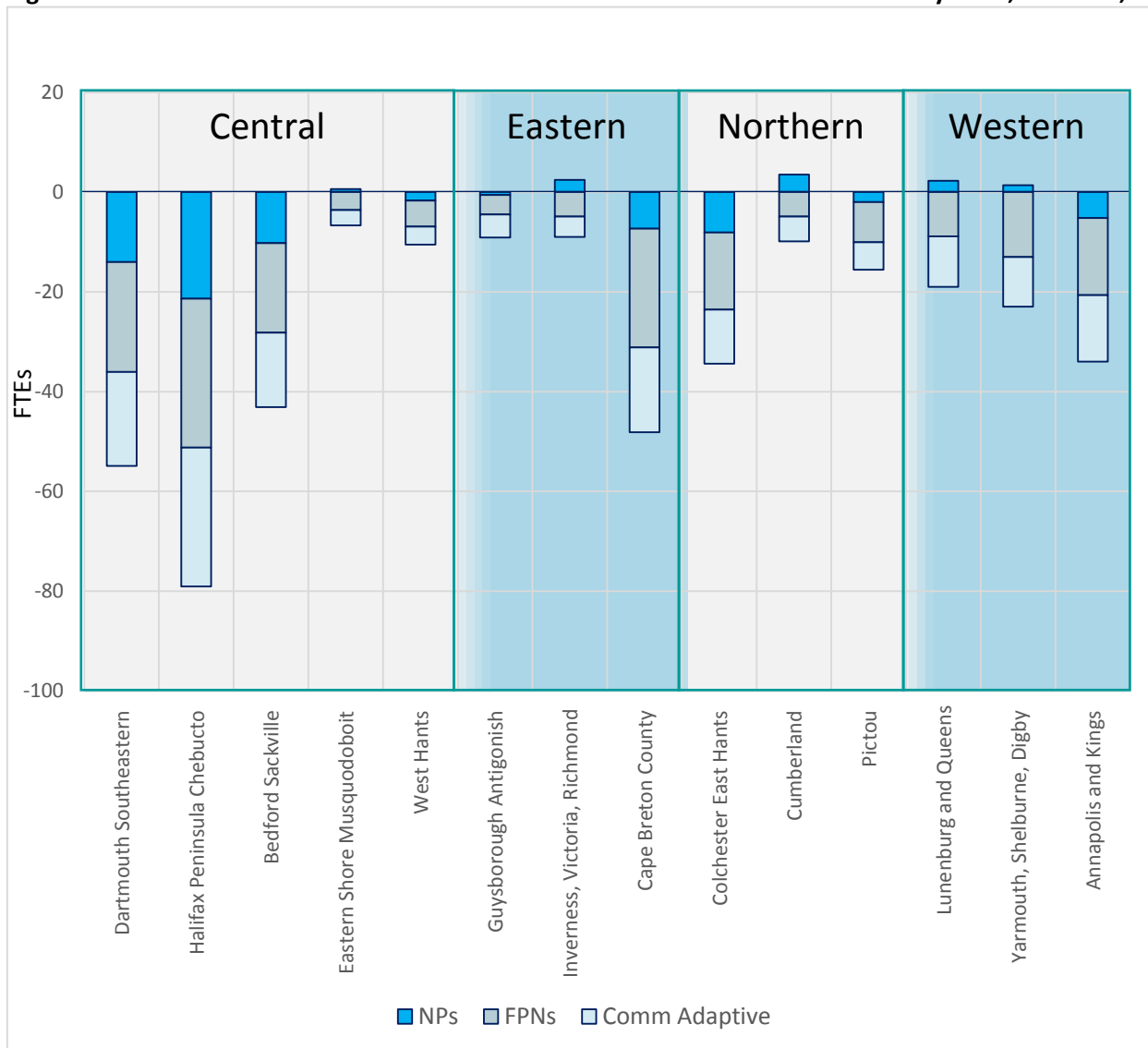


Table 7: Difference between Current and Planned PHC Health Human Resources by Zone, Network, 2016

Zone/Network	Population (2011 Census)	Nurse Practitioners	Family Practice Nurses	Community Adaptive Team Members
Central Zone	409,986	-46.70	-78.60	-68.30
<i>Dartmouth Southeastern</i>	115,610	-14.03	-22.00	-18.85
<i>Halifax Peninsula Chebucto</i>	167,379	-21.36	-29.84	-27.85
<i>Bedford Sackville</i>	87,838	-10.22	-17.96	-14.93
<i>Eastern Shore Musquodoboit</i>	18,203	0.60	-3.60	-3.10
<i>West Hants</i>	20,956	-1.70	-5.20	-3.60
Eastern Zone	163,217	-5.40	-32.60	-25.70
<i>Guysborough Antigonish</i>	27,315	-0.55	-3.93	-4.64
<i>Inverness, Victoria, Richmond</i>	33,505	2.44	-4.88	-4.10
<i>Cape Breton County</i>	102,397	-7.31	-23.80	-17.01
Northern Zone	150,597	-6.60	-28.40	-21.30
<i>Colchester East Hants</i>	69,946	-8.09	-15.49	-10.79
<i>Cumberland</i>	34,750	3.48	-4.89	-5.01
<i>Pictou</i>	45,901	-1.97	-8.08	-5.50
Western Zone	196,583	-1.60	-37.30	-33.40
<i>Lunenburg and Queens</i>	59,526	2.26	-8.88	-10.12
<i>Yarmouth, Shelburne, Digby</i>	58,550	1.39	-13.04	-9.95
<i>Annapolis and Kings</i>	78,507	-5.21	-15.43	-13.35
Nova Scotia	920,383	-60	-177	-149

INDICATOR 5: POPULATION WITH A REGULAR HEALTHCARE PROVIDER

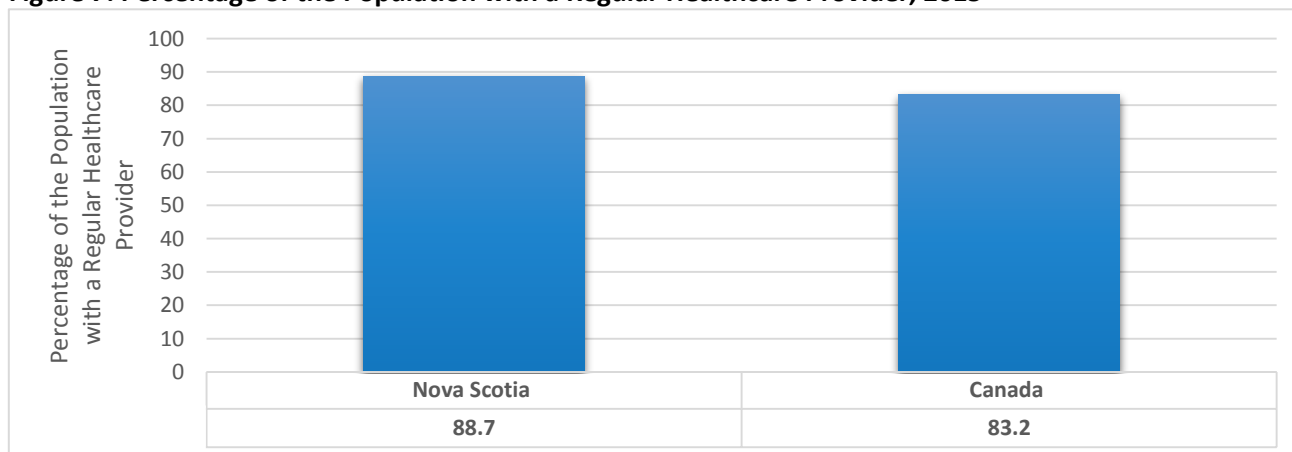
DESCRIPTION

Indicator #5	
Population with a Regular Healthcare Provider	
Type of Indicator	Input
Enabler or Function	Workforce
Indicator Description	Percentage of population, age 12 and older, who reported having a regular healthcare provider
Numerator	Number of individuals in the denominator who reported having a regular healthcare provider
Denominator	Number of respondents age 12 and older (excludes No Answer, Refused, Don't Know, etc.)
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2015
Data Source	Canadian Community Health Survey (CCHS), Statistics Canada
Data Limitations & Considerations	CCHS data is based on self-report data.
Level of Reporting	Provincial
Comparable Data	Comparable national and provincial data through the Canadian Community Health Survey. Additional comparable provincial data is now available through the Need a Family Practice Registry from 2017 onward, for those who register through the Need a Family Practice Registry to self-identify that they are seeking a primary care provider.
Significance/Rationale	Having access (or being attached) to a PHC provider has been associated with better overall health and lower health care utilization. Continuity of care in PHC has been associated with positive health outcomes, including increased rates of preventive care, decreased hospitalization and fewer emergency department visits (CIHI, 2016). Access (and attachment) to a primary care provider is also a top priority of the NSHA and government.

RESULTS

In 2015, 88.7% of Nova Scotians who responded to the CCHS indicated that they had a regular healthcare provider. This is above the national rate of 83.2%, and similar to the three other Atlantic Provinces (Prince Edward Island – 88.7%; Newfoundland and Labrador – 88.1%; New Brunswick – 90.8%).

Figure 7: Percentage of the Population with a Regular Healthcare Provider, 2015



INDICATOR 6: FAMILY MEDICINE LEARNERS

DESCRIPTION

Indicator #6	
Family Medicine Learners	
Type of Indicator	Input
Enabler or Function	Workforce
Indicator Description	Number of Family Medicine learners in Nova Scotia practices in the last academic year
Numerator	n/a – count only
Denominator	n/a – count only
Method of Calculation	Count of number of residents (Post Graduate Year 2) completing training in Nova Scotia family medicine practices.
Data Source	Dalhousie University, Department of Family Medicine
Year of Data	2016-17 academic year (July 1, 2016 – June 30, 2017 for residents)
Data Limitations & Considerations	The data for this indicator is approximate because there may be residents from outside the province, or some residents that complete training in family medicine at sites in NB or PEI. Overtime, it will be ideal to report on all learners in primary health care, including nurse practitioners and others.
Level of Reporting	Provincial
Comparable Data	n/a
Significance/ Rationale	With planned investments to increase the number of family medicine seats and training sites, it will be important to monitor this indicator over time.

RESULTS

In the 2016-2017 academic year, approximately 31 medical residents from the Dalhousie University Family Medicine Program who were Post Graduate Year 2 (PGY2) did both a core practice experience and a community experience in NS practices.

INDICATOR 7: RESEARCH CAPACITY (PARTICIPATION AND PARTNERSHIP)

DESCRIPTION

Indicator #7	
Research Capacity (Participation and Partnerships)	
Type of Indicator	Input
Enabler or Function	Research, surveillance, knowledge sharing, and evaluation
Indicator Description	Compilation indicator, including: <ul style="list-style-type: none"> • Number of NSHA PHC staff (including PHC and Dalhousie Family Medicine) that have a research profile • Number of research activities these staff have participated in (research partnership meetings, engagement, education, presentations) • Number of partnership documents with NSHA-PHC Research
Numerator	n/a
Denominator	n/a
Method of Calculation	Reporting based on manual tracking of activities
Year of Data	2017
Data Source	Collaborative Research in Primary Health Care (CoR-PHC), Building Research for Integrated Primary Healthcare (BRIC-NS), Nova Scotia Health Research Foundation (NSHRF), Canadian Institutes of Health Research (CIHR), Nova Scotia Health Authority Research Fund (NSHARF).
Data Limitations & Considerations	PHC staff are defined as administrators, clinicians, patient advisors, staff, researchers working in PHC services or programs or a collaborator working in a PHC program or service
Level of Reporting	Provincial
Comparable Data	n/a
Significance/Rationale	Embedded research, surveillance, knowledge sharing, and evaluation is a core function of the PHC portfolio within NSHA. Monitoring, overtime, the level of involvement of staff in research, along with research activity, is critical to monitoring success.

RESULTS

In 2017, approximately 60 PHC staff and physician leaders from the NSHA and Dalhousie Family Medicine (DFM) had research profiles. These staff and physician leaders participated in an estimated 50 to 100 research activities such as research partnership meetings, education and engagement initiatives, and research presentations.

NSHA-PHC Research has established four key partnership documents with Collaborative Research in Primary Health Care (CoR-PHC), Building Research for Integrated Primary Healthcare (BRIC-NS), NSHA Research Innovation, and the Maritime SPOR (Strategy for Patient Oriented Research) SUPPORT Unit (MSSU) PHC Primary Project. NSHA-PHC Research has also established approximately 15 research study partnerships.

TYPE 2: FUNCTIONS AND ACTIVITIES



The following five indicators are classified as **functions and activities** and align with the following functions: community responsiveness and outreach, integrated chronic disease management (CDM) and primary care delivery across the lifespan.

These indicators are largely process-oriented and represent the program/service delivery areas that the primary health care system is responsible to deliver:

- Programs dedicated toward priority populations
- PHC providers' sensitivity toward cultural values
- PHC support for self-management of chronic conditions
- Scope of PHC services
- PHC provider time in direct patient care

INDICATOR 8: PROGRAMS DEDICATED TOWARD PRIORITY POPULATIONS

DESCRIPTION

Indicator #8	
Programs Dedicated toward Priority Populations	
Type of Indicator	Activity
Enabler or Function	Community responsiveness and outreach: engagement, community development, priority populations
Indicator Description	Number and description of the number of programs for priority populations. In a Public Health context, priority populations “are those populations that are at risk and for whom public health interventions may be reasonably considered to have a substantial impact at the population level” (Public Health Ontario, 2015). In PHC, interventions for priority populations are considered at the individual, community, and population level.
Numerator	n/a – count only
Denominator	n/a – count only
Method of Calculation	Survey - programs were identified by NSHA Primary Health Care Directors and Health Services Managers in each zone.
Year of Data	2017
Data Source	Primary Health Care, Nova Scotia Health Authority (manual tracking)
Data Limitations & Considerations	This listing includes only those programs and services delivered by PHC, NSHA. It does not include all of the NSHA services and initiatives offered to priority populations or the work of the diversity and inclusion committees –this listing would be considered a subset only.
Level of Reporting	Provincial and by Zone
Comparable Data	Not available
Significance/Rationale	Primary Health Care is an approach to health that acknowledges the determinants of health and is tailored to meet the needs of communities. Focused programs, services, and partnership work with priority populations is an important part of the work PHC is responsible for, across all functions.

RESULTS

As of 2017, there were 17 PHC programs and services dedicated to priority populations provided by PHC, NSHA. Targeted priority populations include the 2SLGBTIQ+ community, students and youth, women, men, newcomers, First Nation communities, and African Nova Scotians. Refer to table 8 for a full listing, by zone.

Table 8: PHC Programs and Services Dedicated to Priority Populations by Zone, 2017

Central Zone
<p>There are six programs and services in Central Zone:</p> <ul style="list-style-type: none"> • PrideHealth • NS Brotherhood Initiative • Newcomers Health Clinic • Community Health & Wellness Centre serving North Preston, East Preston, Cherry Brook, and Lake Loon • Cobequid Youth Health Centre • Community Health Teams (4 locations in HRM)
Eastern Zone
<p>There are three programs and services in Eastern Zone:</p> <ul style="list-style-type: none"> • Lindsay's Health Centre for Women • First Nations MOU and leading practice with Accreditation Canada • Men's Health Centre (MHC)
Northern Zone
<p>There are three programs and services in Northern Zone:</p> <ul style="list-style-type: none"> • LGBTQ Safer Space • Sipekne'katik (Indian Brook) PHC Collaborative Team • Pictou Landing First Nations One Door Chronic Disease Clinic
Western Zone
<p>There are four programs and services in Western Zone:</p> <ul style="list-style-type: none"> • First Nations Partnership work • First Nation Joint Committee (MOU) • Liaison for Students with Health Care Needs • Pre-natal care in Digby
Province-Wide
<p>There is one province-wide program/service:</p> <ul style="list-style-type: none"> • Provincial Diversity and Inclusion Committee

INDICATOR 9: PHC PROVIDERS’ SENSITIVITY TO PATIENTS’ CULTURAL VALUES

DESCRIPTION

Indicator #9	
PHC Providers’ Sensitivity to Patients’ Cultural Values	
Type of Indicator	Activity
Enabler or Function	Community responsiveness and outreach: engagement, community development, priority populations
Indicator Description	Percentage of survey respondents to the PHC Client Experience Survey from all Primary Health Care locations participating in Accreditation for Primary Care Services standards (including collaborative family practice teams, chronic disease management, and wellness teams) who agreed or strongly agreed with the statement “staff took my cultural values and those of my family or caregiver into account”
Numerator	Number of survey respondents to the PHC Client Experience Survey from all Primary Health Care locations participating in Accreditation for Primary Care Services standards who agreed or strongly agreed with the statement “staff took my cultural values and those of my family or caregiver into account”
Denominator	Number of survey respondents from all Primary Health Care locations participating in Accreditation for Primary Care Services standards who answered this question (blank responses are excluded)
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2017
Data Source	NSHA PHC Client Experience Survey for Accreditation Canada
Data Limitations & Considerations	Certain survey responses were grouped together in the analysis below, including the responses, “Don’t Know”, “Don’t Remember” and “Not Applicable”.
Level of Reporting	Provincial
Comparable Data	N/A
Significance/ Rationale	From NSHA’s Diversity and Inclusion Framework , 2017, page 8: “Client and family-centred care is an approach that guides all aspects of planning, delivering and evaluating services. The focus is always on creating and nurturing mutually beneficial partnerships among the organization’s staff and the clients and families they serve. Providing client and family-centred care means working collaboratively with clients and their families to provide care that is respectful, compassionate, culturally safe, and competent, while being responsive to their needs, values, cultural backgrounds and beliefs and preferences. (Accreditation Canada, adapted from the Institute for Patient- and Family-Centered Care (IPFCC) 2008 and Saskatchewan Ministry of Health 2011).”

RESULTS

96.6% of respondents to the 2017 PHC Client Experience Survey agreed or strongly agreed that staff at their PHC collaborative family practices and chronic disease management/wellness teams took their cultural values and those of their family or caregiver into account. Results 94.8% of respondents of NSHA 2017 Patient Experience Survey agreed or strongly agreed that their cultural values were taken into account. See Figure 8 and Table 9 for further details.

Figure 8: PHC Client Experience Survey: Cultural Values, 2017

Strongly Agree or Agree: “Staff took my cultural values and those of my family or caregiver into account”

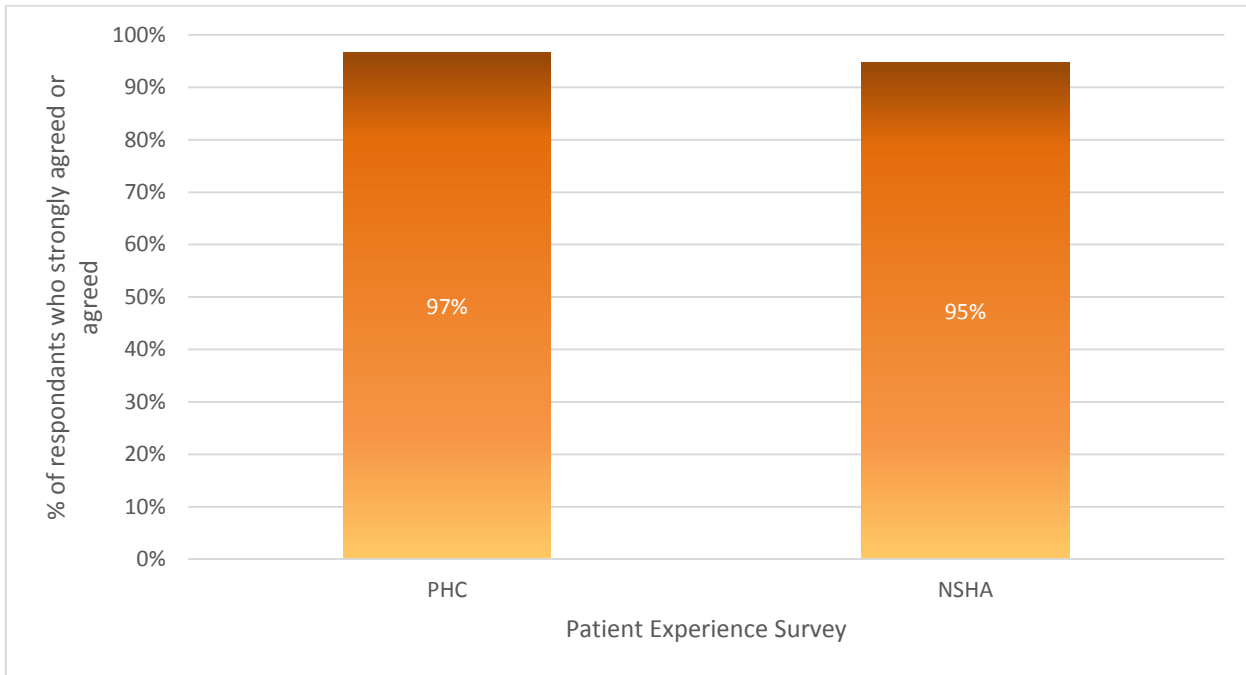


Table 9: PHC Client Experience Survey: Cultural Values, 2017

Strongly Agree or Agree: “Staff took my cultural values and those of my family or caregiver into account”

Response	PHC	NSHA
Agree + Strongly Agree	96.6%	94.8%

INDICATOR 10: PHC SUPPORT FOR SELF-MANAGEMENT OF CHRONIC CONDITIONS

DESCRIPTION

Indicator #10	
PHC Support for Self-Management of Chronic Conditions	
Type of Indicator	Activity
Enabler or Function	Integrated chronic disease management programs and services
Indicator Description	Percentage of survey respondents to the PHC Client Experience Survey from all Primary Health Care locations participating in Accreditation for Primary Care Services standards (including collaborative family practice teams, chronic disease management, and wellness teams) who responded “yes, sometimes” or “yes, always” to the question, “Were you encouraged to go to a specific group/program or class (such as a self-management class) to help you manage your health concerns”?
Numerator	Number of survey respondents to the PHC Client Experience Survey from all Primary Health Care locations participating in Accreditation for Primary Care Services standards (including collaborative family practice teams, chronic disease management, and wellness teams) who responded “yes, sometimes” or “yes, always” to the question, “Were you encouraged to go to a specific group/program or class (such as a self-management class) to help you manage your health concerns”?
Denominator	Number of survey respondents from all sites (Primary Care Collaborative Practices and Chronic Disease Management/Wellness sites) who answered this question (blank responses are excluded)
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2017
Data Source	NSHA Client Experience Survey for Accreditation Canada
Data Limitations & Considerations	Certain survey responses were grouped together in the analysis below, including the responses, “Don’t Know”, “Don’t Remember” and “Not Applicable”.
Level of Reporting	Provincial
Comparable Data	N/A
Significance/ Rationale	There is strong evidence that to support that chronic disease self-management programs: can improve quality of life, increase healthy behaviors, and improve health outcomes for a variety of chronic conditions. The Health Council of Canada (2012) recommended all health systems across Canada provide self-management supports in a more systematic way.

RESULTS

Approximately 55% of respondents to the 2017 PHC Client Experience Survey reported that yes, they were always or sometimes encouraged to go to a specific group, program or class to help them manage their health concerns. See Figure 9 and Table 10 for further details.

Figure 9: PHC Client Experience Survey: Self-Management, 2017

“Were you encouraged to go to a specific group/program or class (such as a self-management class) to help manage your health concerns?” – broken down by team type

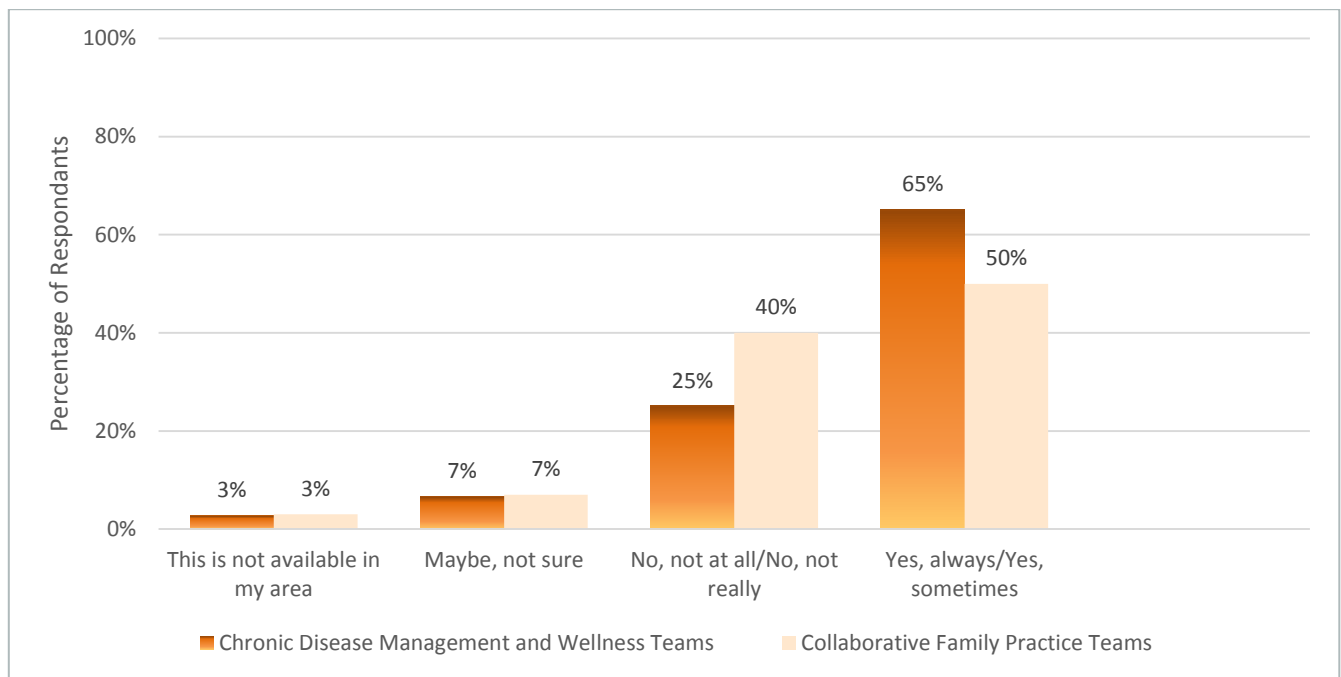


Table 10: PHC Client Experience Survey: Self-Management, 2017

“Were you encouraged to go to a specific group/program or class (such as a self-management class) to help manage your health concerns?” – broken down by team type

Response	Chronic Disease Management and Wellness Teams	Collaborative Family Practice Teams
This is not available in my area	2.7%	3.4%
Maybe, not sure	6.6%	6.8%
No, not at all/No, not really	25.1%	39.5%
Yes, always/Yes, sometimes	65.1%	50.4%
Total	100%	100%

INDICATOR 11: SCOPE OF PRIMARY HEALTH CARE SERVICES

DESCRIPTION

Indicator #11	
Scope of Primary Health Care Services	
Type of Indicator	Activity
Enabler or Function	Primary care delivery across the lifespan
Indicator Description	Percentage of primary health care providers (family physicians, nurse practitioners) that provide a range of primary health care services
Numerator	<p>Number of PHC provider respondents to the MAAP-NS fax survey that report offering the following services:</p> <ul style="list-style-type: none"> • Care for an emergent but minor problem • Non-urgent care • Rehabilitation services • Minor office procedures • Pre-natal care • Intrapartum care • Postpartum care • Behaviour change counselling about tobacco use, healthy eating, and/or physical activity • Other health promotion or prevention services • Mental health services • Psychosocial services • Liaison with home care services • Provision of home visits • Outreach services to vulnerable/special populations • Specialized programs • End of life home care • Primary care in long-term care facilities • Community outreach • Emergency Department work • Collaborative Emergency Centres work • In-patient hospital care • Other services
Denominator	Number of PHC provider respondents to the MAAP-NS provider fax survey
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2015
Data Source	Models and Access Atlas of Primary Care-Nova Scotia (MAAP-NS) study. The MAAP-NS study addresses knowledge gaps on how primary care practices are structured, what accessibility is like for patients, and the impact on patient care outcomes.
Data Limitations & Considerations	This data is based on responses to the faxed provider survey conducted as part of the MAAP-NS study. The response rate for this survey was calculated to be 60% and included both family physicians and NPs for a total response of 433 of 722. No other PHC providers included beyond FPs and NPs who responded to the study.
Level of Reporting	Provincial and by Zone
Comparable Data	At the time of this report, MAAP primary care studies were being conducted in four Canadian provinces: BC, NFLD, NS, and PEI. Comparison Data will be available for many items.
Significance/Rationale	The scope of primary health care services provided by family physicians and nurse practitioners is an important part of assessing the comprehensiveness attribute of PHC.

RESULTS

Figure 10 shows the five services most commonly offered by primary care providers across NS and in each Zone based on responses to the 2015 MAAP-NS PHC provider fax survey. The most commonly offered services are relatively consistent across Zones.

Figure 10: Five Most Commonly Offered Primary Health Care Services in NS by FPs and NPs, 2015

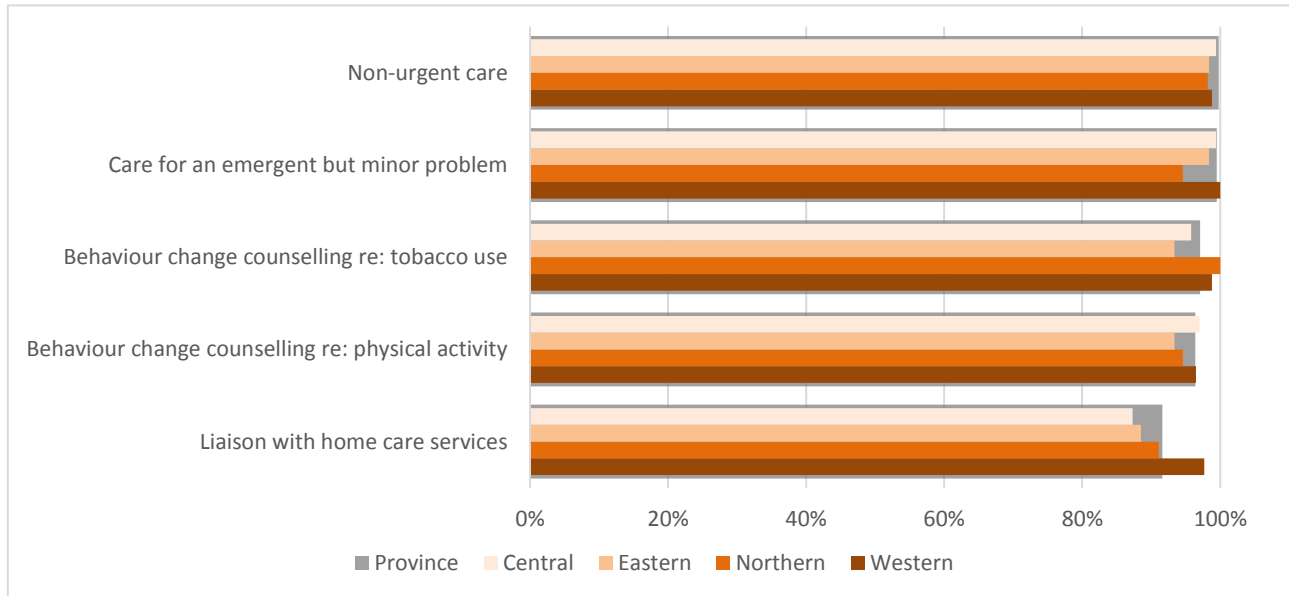


Figure 11 shows the services that are the least commonly offered across NS based on responses to the 2015 MAAP-NS PHC provider fax survey. There is more variability in the proportion of providers offering the service in each Zone for less commonly offered services.

Figure 11: Five Least Commonly Offered Services in NS by FPs and NPs, 2015

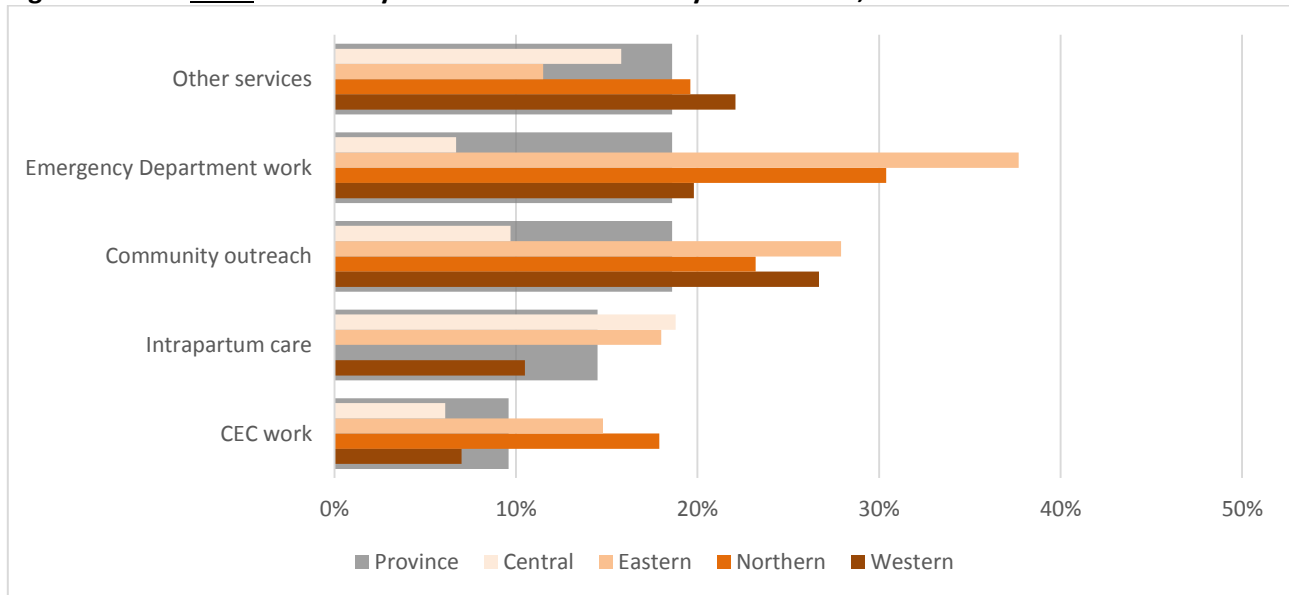


Table 11 provides a detailed list of the types of services offered and the proportion of primary care providers who offer them provincially as well as by zone based on responses to the 2015 MAAP-NS PHC provider fax survey.

Table 11: Type of Care Offered by PHC Providers (NPs, FPs) Provincially and by Zone, 2015

Type of Care	Province		Central		Eastern		Northern		Western	
	#	%	#	%	#	%	#	%	#	%
Care for an emergent but minor problem	413	99.5%	164	99.4%	60	98.4%	53	94.6%	86	100.0%
Non-urgent care	414	99.8%	164	99.4%	60	98.4%	55	98.2%	85	98.8%
Behaviour change counselling re: tobacco use	403	97.1%	158	95.8%	57	93.4%	56	100.0%	85	98.8%
Behaviour change counselling re: physical activity	400	96.4%	160	97.0%	57	93.4%	53	94.6%	83	96.5%
Liaison with home care services	380	91.6%	144	87.3%	54	88.5%	51	91.1%	84	97.7%
Other health promotion or prevention services	376	90.6%	150	90.9%	50	82.0%	50	89.3%	79	91.9%
Mental health services	357	86.0%	144	87.3%	51	83.6%	47	83.9%	73	84.9%
Minor office procedures	356	85.8%	135	81.8%	51	83.6%	53	94.6%	75	87.2%
Provision of home visits	353	85.1%	141	85.5%	52	85.2%	43	76.8%	78	90.7%
Behaviour change counselling re: healthy eating	351	84.6%	161	97.6%	56	91.8%	53	94.6%	81	94.2%
Psychosocial services	344	82.9%	139	84.2%	46	75.4%	46	82.1%	72	83.7%
Pre-natal care	307	74.0%	129	78.2%	41	67.2%	46	82.1%	58	67.4%
Postpartum care	302	72.8%	131	79.4%	45	73.8%	49	87.5%	77	89.5%
End of life home care	267	64.3%	98	59.4%	34	55.7%	34	60.7%	72	83.7%
In-patient hospital care	195	47.0%	38	23.0%	52	85.2%	37	66.1%	47	54.7%
Primary care in long-term care facilities	176	42.4%	40	24.2%	41	67.2%	29	51.8%	45	52.3%
Outreach services to vulnerable populations	131	31.6%	37	22.4%	26	42.6%	23	41.1%	30	34.9%
Rehabilitation services	116	28.0%	49	29.7%	20	32.8%	15	26.8%	19	22.1%
Care in long-term care facilities for own patients	110	26.5%	28	17.0%	19	31.1%	27	48.2%	24	27.9%
Specialized programs	107	25.8%	35	21.2%	19	31.1%	17	30.4%	26	30.2%
Community outreach	77	18.6%	16	9.7%	17	27.9%	13	23.2%	23	26.7%
Emergency Department work	77	18.6%	11	6.7%	23	37.7%	17	30.4%	17	19.8%
Other services	77	18.6%	26	15.8%	7	11.5%	11	19.6%	19	22.1%
Intrapartum care	60	14.5%	31	18.8%	11	18.0%	<5	N/A	9	10.5%
CEC work	40	9.6%	10	6.1%	9	14.8%	10	17.9%	6	7.0%
Total Number of Respondents*	415		165		61		56		86	

* The total number of respondents varied somewhat for each specific type of care provided (i.e., some respondents did not answer yes or no to a specific type of care in the list above). The number of respondents for the question as a whole was therefore used as the denominator for consistency.

INDICATOR 12: PHC PROVIDER TIME IN DIRECT PATIENT CARE

DESCRIPTION

Indicator #12	
PHC Provider Time in Direct Patient Care	
Type of Indicator	Activity
Enabler or Function	Primary care delivery across the lifespan
Indicator Description	Average weekly hours available for appointments, as described by respondents to the practice telephone survey conducted by MAAP-NS.
Numerator	n/a
Denominator	n/a
Method of Calculation	Collation of data obtained through telephone surveys to calculate the mean, median, and range of weekly hours available for appointments with patients.
Year of Data	2015
Data Source	Models and Access Atlas of Primary Care-Nova Scotia (MAAP-NS) study.
Data Limitations & Considerations	This data is based on responses to the telephone practice survey conducted as part of the MAAP-NS study. The response rate for this survey was calculated to be 85% and included 588 family physician (FPs) and 39 Nurse Practitioners (NPs) for a total response of 627 of 741. The telephone practice survey involved asking the receptionist/office manager about the primary care provider's information, details regarding access, and organizational model. A total of 598 respondents answered this specific question on hours available for appointments.
Level of Reporting	Provincial and by Zone
Comparable Data	At the time of this report, MAAP primary care studies were being conducted in four Canadian provinces: BC, NFLD, NS, and PEI. Comparison Data will be available for many items.
Significance/Rationale	This measure provides an indication of accessibility of providers to patients based on the time they spend doing direct clinical care in a primary care practice setting.

RESULTS

PHC providers across NS (FPs, NPs) who responded to the MAAP-NS practice telephone survey in 2015 indicated that, on average, they had 28.3 hours per week available for patient appointments. However, the range of responses was wide, with 3 hours availability indicated as the minimum and 61 hours availability indicated as the maximum. See Figure 12 and Table 12 for the breakdown by Zone.

Figure 12: PHC Provider Hours Available Weekly for Patient Appointments, 2015

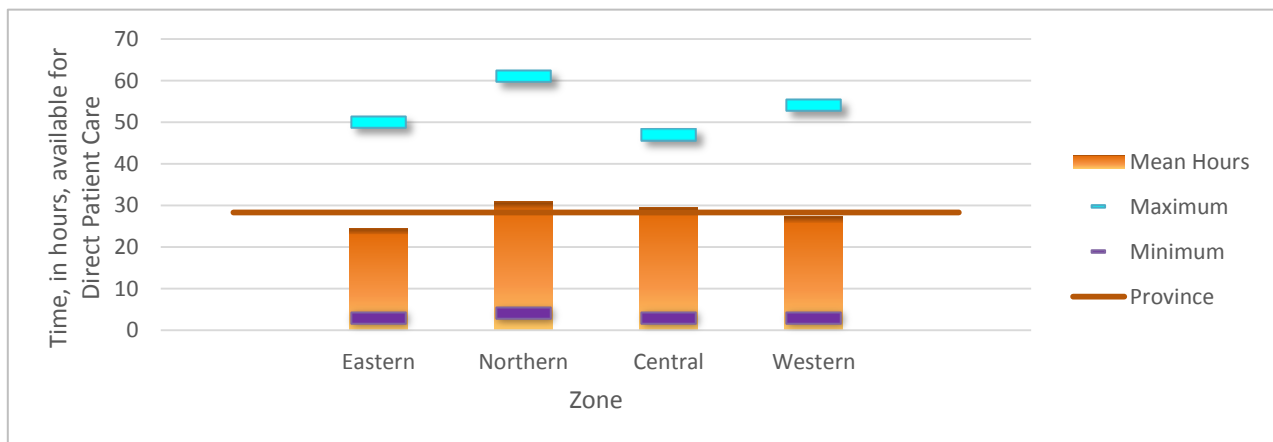
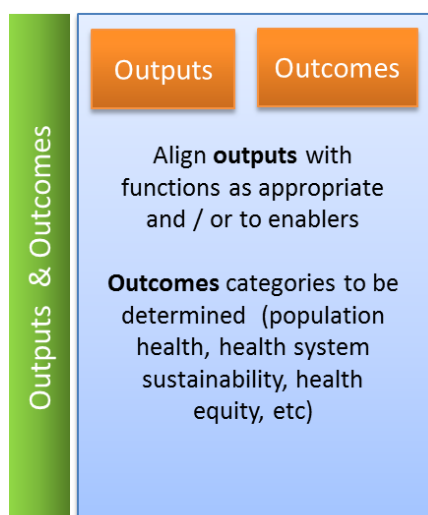


Table 12: PHC Provider Hours Available Weekly for Patient Appointments, 2015

Zone	Mean Hours	Median Hours	Range	Number of Respondents
Central	29.4	30	3.0-47.0	282
Eastern	24.4	24	3.0-50.0	102
Northern	30.9	30	4.0-61.0	85
Western	27.4	28	3.0-54.0	129
<i>Nova Scotia</i>	28.3	28	3.0-61.0	598

TYPE 3: OUTPUTS AND OUTCOMES



The following sixteen indicators are classified as **outputs and outcomes** and align with the following functions and enablers: economic conditions; engagement platform; quality, safety, and risk; infrastructure; workforce; research, surveillance, knowledge sharing, and evaluation; primary care delivery; integrated CDM delivery; and wellness, prevention, risk factor management. Additionally, there are two ‘cross-cutting’ indicators that are system-level outputs/outcomes and map to multiple functions/enablers.

INDICATOR 13: PER CAPITA PHC EXPENDITURES

DESCRIPTION

Indicator #13	
Per Capita PHC Expenditures	
Type of Indicator	Output – Structure
Enabler or Function	Economic conditions
Indicator Description	Per capita primary health care expenditures by NSHA
Numerator	Total NSHA PHC Budget
Denominator	Total Nova Scotia population
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100,000$
Year of Data	Fiscal Year 2015-16
Data Source	NSHA for PHC expenditures, based on Primary Health Care’s budget for Primary Health Care identified in SAP. Population data from Statistics Canada, based on 2011 Census data.
Data Limitations & Considerations	This calculation includes only PHC expenditures made by the NSHA. It does not include expenditures on physician services billed through MSI or other expenses incurred by the Department of Health and Wellness or private organizations.
Level of Reporting	Provincial
Comparable Data	Not available
Significance/ Rationale	Doing things differently by reinvesting resources and change efforts in the primary health care and broader community-based system will not only improve the person-centred health care experience of citizens, but will also contribute to the sustainability of the overall health care system. Prioritizing primary health care and allocating resources to build a strong primary health care system has been shown to “bend the cost curve” over time through a study of 11 European Countries (Kringos et al., 2013). Kringos and colleagues identified that the investment in building strong primary care was associated, with a reduced rate of growth in

	health care spending; lower rates of potentially avoidable hospitalization; better population health outcomes; and lower socioeconomic inequality in self-rated health.
--	---

RESULTS

Upon NSHA's formation in 2015-16, NSHA's total budget was \$1,817,546,047.

Primary Health Care's budget was \$33,293,521.

Using a total Nova Scotia population of 920,383, this equates to \$36 per person, or \$3.6M per 100,000 people.

It is important to note that this is NSHA's per capita budget for the Primary Health Care portfolio only. It does not reflect all primary health care system costs, such as physician billings or other physician payment mechanisms, other contributions made to PHC by the Department of Health and Wellness that do not come to NSHA, or other private programs/services.

INDICATOR 14: PATIENT PARTICIPATION IN ACTIVITIES

DESCRIPTION

Indicator #14	
Patient Participation in Activities	
Type of Indicator	Output – Process
Enabler or Function	Engagement platform
Indicator Description	# of NSHA Primary Health Care activities (quality, planning) with patient participation/ representation through a patient and family advisor
Numerator	n/a
Denominator	n/a
Method of Calculation	Survey – patient participation in activities was identified by NSHA Primary Health Care Directors and Health Services Managers in each zone.
Year of Data	2017
Data Source	Primary Health Care, Nova Scotia Health Authority (manual tracking)
Data Limitations & Considerations	At the time of data collection for this report, there was no established formal tracking of this measure. Results based on best available information available for PHC planning and quality improvement activities. Does not include all patient participants in research studies at this time.
Level of Reporting	Provincial
Comparable Data	n/a
Significance/ Rationale	From NSHA’s <i>Involving Patients and Citizens in Decision Making: A Guide to Effective Engagement</i> (2016): “Patient and public engagement (PPE) is a philosophy and methodology that contributes to better, more sustainable, person-focused decisions and outcomes” (pg. 2) and “Engaging people and stakeholders in health and health care is a pathway to shared accountability for health” (pg. 3).

RESULTS

At the time of this report, involving patient and family advisors in planning and quality in PHC was in its early stages. All zones were beginning the process to recruit patient and family advisors as part of quality teams and there was a history of patient involvement and engagement in several areas. Due to the lack of formal tracking, information is provided as examples, vs being quantified. PHC will be standardizing how we report on this important measure going forward.

Examples of patient engagement / involvement in decision making at the time of NSHA’s formation:

- Cancer screening focus groups to understand low screening rates for breast, cervical, and colon cancer in Eastern Zone;
- Program evaluation for the Community Health Assessment Team in Eastern Zone;
- Work to understand our health status in Eastern Zone;
- Co-design of a blood pressure check event in Northern Zone;
- Design of the initial model and ongoing program development for the Community Health Teams; Hants Health and Wellness Team; Community Health and Wellness Centre serving North Preston, East Preston, Cherry Brook, and Lake Loon; Community Wellness Centre in Spryfield, and the Nova Scotia Brotherhood Initiative, all in Central Zone;
- As team members for a CFHI Collaborative on patient and family engagement in Central Zone;
- As representatives on Quality Teams in Central Zone; and through
- Patient Experience Surveys, province-wide.

The level of involvement by patients varied in each initiative, in some cases patients were engaged by *informing* planning and decision making through survey or focus groups; in other cases, patients and families were directly involved in *co-designing* initiatives. A priority of PHC is to increase the number of patient and family advisors participating in quality, planning, and decision making activities, along with completing more public engagement and community conversations.

INDICATOR 15: PHC PHYSICIAN USE OF ELECTRONIC MEDICAL RECORD (EMR)

DESCRIPTION

Indicator #15	
Family Physician use of Electronic Medical Record (EMR)	
Type of Indicator	Output
Enabler or Function	Infrastructure
Indicator Description	Percentage of family physicians who use an electronic medical record (EMR)
Numerator	Number of family physicians who currently use an EMR to complete their professional tasks
Denominator	Number of family physicians who are targeted to use an EMR. The target number excludes family physicians that have indicated that they are not interested in EMR, that do not have an office-based practice (e.g., work in hospital only), are retiring, and/or have no address.
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2017
Data Source	Primary Healthcare Information Management (PHIM) Program at the Department of Health and Wellness (DHW)
Data Limitations & Considerations	See above – the target number excludes family physicians that have indicated that they are not interested in EMR, that do not have an office-based practice (e.g., work in hospital only), are retiring, and/or have no address. Excludes NP data at this time. DHW does not have a record of the total count of NPs working in the province to calculate a percentage using the same calculation methodology as above, but reports that 9 NPs are working on Practimax and 83 on Nightingale on Demand and 0 on QHR, at the time of this report.
Level of Reporting	Provincial and by Zone
Comparable Data	Rates of EMR adoption across Canadian provinces is reported through the National Physician Survey, and The Commonwealth Fund, along with individual province's EMR support organizations (as published in Change and Gupta, 2015)
Significance/Rationale	The uptake of technology such as EMRs can lead to benefits in patient care and system efficiencies (Canadian Institute for Health Information, 2016) and is recognized as best practice to support informational continuity in primary health care, as well as to support quality improvement and research. EMR use by type of EMR vendor is expected to change substantially, with the decommissioning of Nightingale in NS.

RESULTS

Of the 886 family physicians targeted to use an EMR in NS as defined by the NS Department of Health and Wellness, 86.6% were currently using an EMR in 2017 (see Table 13).

Table 13: EMR Usage Rates across Nova Scotia and by Zone for Family Physicians, 2017

Zone	Number of Family Physicians Targeted	Total EMR Users	
		Frequency	Percentage
Central	430	357	83.0%
Eastern	147	132	89.8%
Northern	130	114	87.7%
Western	179	164	91.6%
Nova Scotia	886	767	86.6%

When examining usage by EMR type, the most commonly used EMR in NS was Nightingale on Demand, used by 80% of family physicians who reported EMR use (Figure 13 and Table 13).

Figure 13: EMR Usage Rates by Family Physicians by EMR Type, 2017

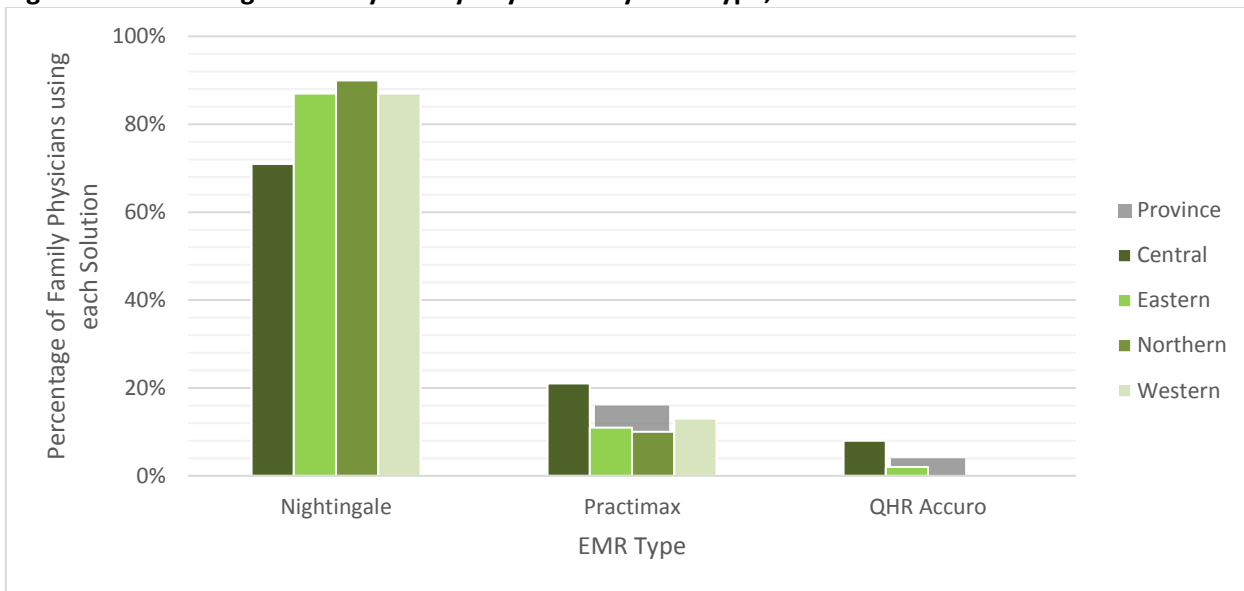


Table 14: Types of EMRs Used by Family Physicians across Nova Scotia and by Zone, 2017

Zone	Total EMR Users	Nightingale		Practimax		QHR Accuro		Other EMR	
		#	%	#	%	#	%	#	%
Central	357	252	70.6%	74	20.7%	29	8.1%	2	0.6%
Eastern	132	115	87.1%	14	10.6%	3	2.3%	0	0.0%
Northern	114	103	90.4%	11	9.6%	0	0.0%	0	0.0%
Western	164	143	87.2%	21	12.8%	0	0.0%	0	0.0%
Nova Scotia	767	613	79.9%	120	15.6%	32	4.2%	2	0.3%

INDICATOR 16: PERCENTAGE OF POPULATION SERVED BY A COLLABORATIVE FAMILY PRACTICE TEAM

Important Methodology Note: Data for this indicator is not available

Following the completion of the stakeholder engagement exercise and in the process of preparation of this report, it was identified that the data for Indicator #16, percentage of the population served by a collaborative family practice team, was actually not available in order to report on this indicator reliably and accurately. NSHA did not have access to the data required to complete the level of analysis required to report on this indicator at the time of calculation in 2017. A decision was made by PHC leadership to keep it in this report as a placeholder for the future, given its importance (see ‘Significance/Rationale’ in the description table) and to actively continue work with our partners at the Department of Health and Wellness to obtain the necessarily data to calculate this indicator reliably through an agreed upon methodology. It may be possible to retrospectively calculate this indicator at that time to update the current state assessment for the time of NSHA’s formation.

DESCRIPTION

Indicator #16	
Percentage of Population Served by a Collaborative Family Practice Team	
Type of Indicator	Output – Structure
Enabler or Function	Primary care delivery across the lifespan
Indicator Description	Percentage of the Nova Scotia population served by a collaborative family practice team
Numerator	Number of population served by a collaborative family practice team, as identified by the number of people seen in a given year by any member(s) of a collaborative family practice team meeting the minimum working definition
Denominator	Total population of Nova Scotia
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2011 census data for population data 2015-16 MSI Billing Information; EMR data for other team members
Data Source	NSHA and DHW for physician, NP, FPN and community adaptive team member data Statistics Canada for population data from the 2011 census
Data Limitations & Considerations	<i>See Important Methodology Note: Data for this indicator is not available</i>
Level of Reporting	Provincial, by Zone, by Community Health Network, by Cluster
Comparable Data	Not available
Significance/Rationale	Since the formation of the NSHA in 2015, through new investments from government, and with a platform commitment of \$34M for collaborative family practice teams over four years, NSHA has been working to create more and strengthen existing collaborative family practice teams across the province – a key strategic direction to achieve the health authority’s vision of <i>Healthy people, healthy communities – for generations</i> . This indicator is critical to monitor to assess NSHA’s progress toward strategic goals, advance primary health care as the foundation of the health system, and monitor the impact of as new investments are made by government.

RESULTS

Not reportable at the time of this report.

INDICATOR 17: PRIMARY CARE PROVIDERS ACCEPTING NEW PATIENTS

DESCRIPTION

Indicator #17	
Primary Care Providers Accepting New Patients	
Type of Indicator	Output – Process
Enabler or Function	Primary care delivery across the lifespan
Indicator Description	Percentage of PHC providers accepting new patients (unconditionally or with exceptions) as reported through the MAAP-NS study
Numerator	Number of PHC providers who responded that they were accepting new patients (unconditionally or with exceptions)
Denominator	Total Number of PHC provider respondents to the telephone and fax surveys through the MAAP-NS study
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2015
Data Source	Models and Access Atlas of Primary Care-Nova Scotia (MAAP-NS) study.
Data Limitations & Considerations	This data is based on responses to the both the telephone practice survey and the fax provider survey conducted as part of the MAAP-NS study.
Level of Reporting	Provincial and by Zone
Comparable Data	At the time of this report, MAAP primary care studies were being conducted in four Canadian provinces: BC, NFLD, NS, and PEI. Comparison Data will be available for many items.
Significance/Rationale	Having access (or being attached) to a PHC provider has been associated with better overall health and lower health care utilization. Continuity of care in PHC has been associated with positive health outcomes, including increased rates of preventive care, decreased hospitalization and fewer emergency department visits (Canadian Institute for Health Information, 2016). Access (and attachment) to a primary care provider is also a top priority of the NSHA and government.

RESULTS

As illustrated in Figure 14 and Table 15, 68% of primary care providers in NS that responded to the MAAP-NS survey in 2015 indicated they are accepting new patients, either unconditionally or with exceptions (e.g., only family members, newborns, etc.).

Figure 14: Percentage of Primary Care Providers Accepting New Patients, 2015

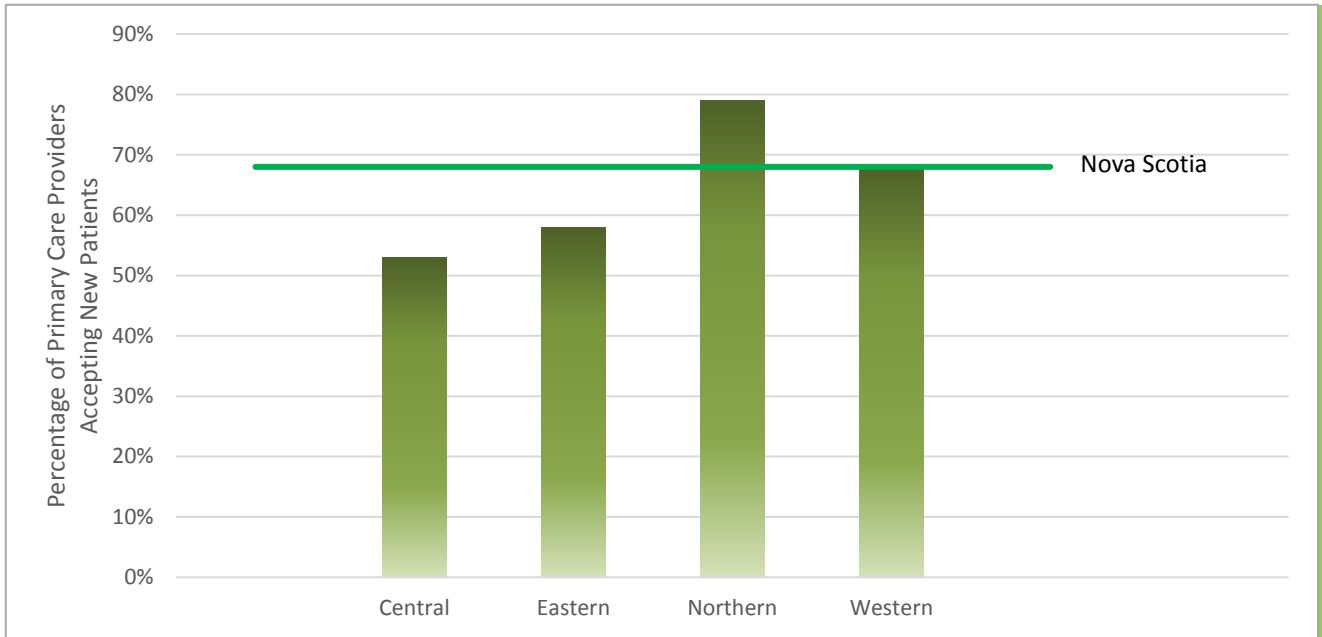


Table 15: Primary Care Providers Accepting New Patients, 2015

Zone	Number of Primary Care Provider Respondents	Respondents that are Accepting New Patients	
		Frequency	Percentage
Central	289	153	53%
Eastern	110	64	58%
Northern	92	73	79%
Western	135	92	68%
Nova Scotia	626	425	68%

INDICATOR 18: PROVISION OF AFTER HOURS PRIMARY CARE

DESCRIPTION

Indicator #18	
Provision of After Hours Primary Care	
Type of Indicator	Output – Process
Enabler or Function	Primary care delivery across the lifespan
Indicator Description	Percentage of primary care providers who provide care at least one evening (after 5:00 PM) a week
Numerator	Number of primary care providers who provide care at least one evening (after 5:00 PM) a week
Denominator	Total number of primary care provider respondents to the telephone practice survey through the MAAP-NS study
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2015
Data Source	Models and Access Atlas of Primary Care-Nova Scotia (MAAP-NS) study.
Data Limitations & Considerations	This data is based on responses to the telephone practice survey conducted as part of the MAAP-NS study. The response rate for this survey was calculated to be 85% and included 588 family physicians (FPs) and 39 Nurse Practitioners (NPs) for a total response of 627 of 741. The telephone practice survey involved asking the receptionist/office manager about the primary care provider's information, details regarding access, and organizational model.
Level of Reporting	Provincial and by Zone
Comparable Data	At the time of this report, MAAP primary care studies were being conducted in four Canadian provinces: BC, NFLD, NS, and PEI. Comparison Data will be available for many items.
Significance/Rationale	The provision of afterhours care is an important component for ensuring accessibility in primary health care. Enhanced access is associated with reduced wait times, improved coordination, improved referrals, less duplication of services, reduced mortality, and reduced self-referred emergency department visits (McMurphy, 2009; Shi, 2012; Cowling et al., 2013). There is also evidence that access to primary care can lead to improvements in other inter-related attributes, such as continuity and comprehensiveness and access is linked to improvements in health equity for priority population groups in multiple reviews (Shi, 2012; Kringos et al, 2010; Starfield et al., 2005).

RESULTS

As seen in Figure 15 and

Table 16 below, 23% of primary care provider respondents to the 2015 MAAP-NS telephone practice survey indicated that they provide care after 5:00 PM at least one evening a week. By Zone, the rates vary between 14% and 28%.

Figure 15: Percentage of Primary Care Providers that Provide Care after 5:00 PM at Least One Evening a Week, 2015

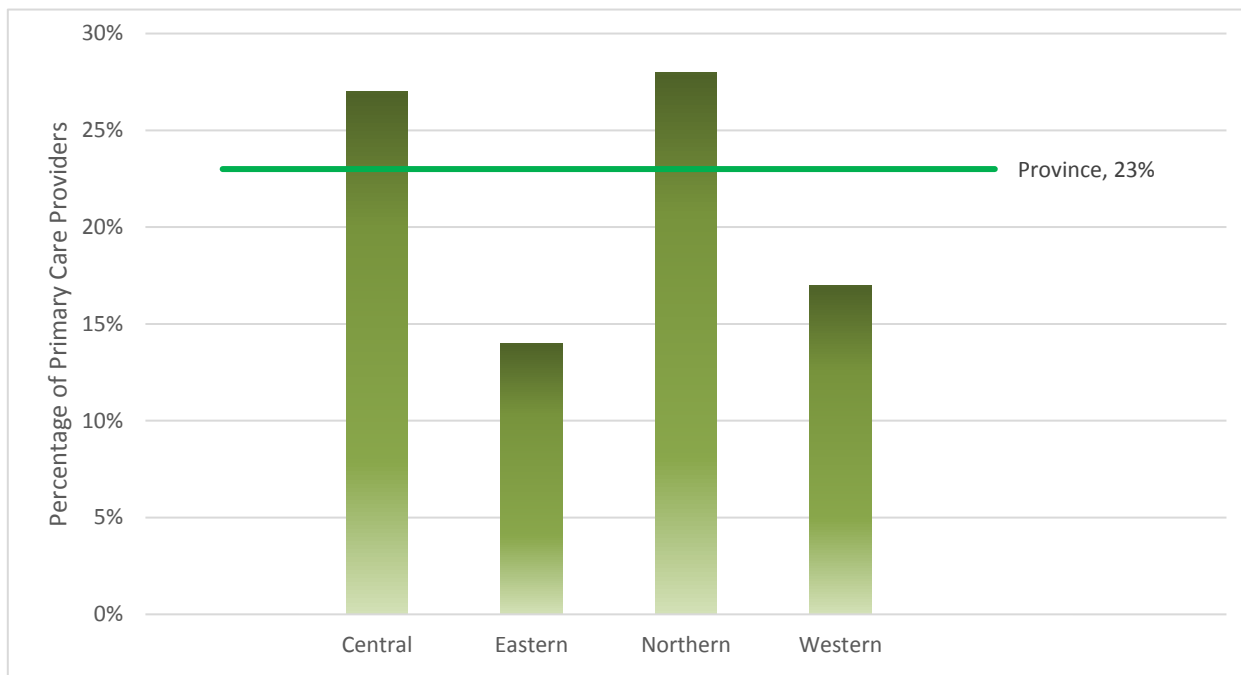


Table 16: Primary Care Providers that Provide Care after 5:00 PM at Least One Evening a Week, 2015

Zone	Number of Primary Care Provider Respondents	Respondents that Provide Care after 5:00 PM	
		Frequency	Percentage
Central	289	79	27%
Eastern	110	15	14%
Northern	92	26	28%
Western	135	23	17%
Nova Scotia	626	143	23%

INDICATOR 19: WAIT TIMES FOR ROUTINE AND URGENT PRIMARY CARE

DESCRIPTION

Indicator #19	
Wait Times for Routine and Urgent Primary Care	
Type of Indicator	Output – Process
Enabler or Function	Primary care delivery across the lifespan
Indicator Description	Percentage of primary care providers who report seeing patients for <u>routine</u> care with the following waits: 0-1 day, 2-5 days, 6-10 days, >10 days; and Percentage of primary care providers who report seeing patients for <u>urgent</u> care with the following waits: Same day, next day, 2-5 days, >5days
Numerator	Number of primary care providers who report seeing patients for routine care with the following waits: 0-1 day, 2-5 days, 6-10 days, >10 days; and Number of primary care providers who report seeing patients for urgent care with the following waits: Same day, next day, 2-5 days, >5days
Denominator	Total number of primary care provider respondents to the telephone practice survey through the MAAP-NS study
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2015
Data Source	Models and Access Atlas of Primary Care-Nova Scotia (MAAP-NS) study.
Data Limitations & Considerations	This data is based on responses to the telephone practice survey conducted as part of the MAAP-NS study. The response rate for this survey was calculated to be 85% and included 588 family physicians (FPs) and 39 Nurse Practitioners (NPs) for a total response of 627 of 741. The telephone practice survey involved asking the receptionist/office manager about the primary care provider's information, details regarding access, and organizational model.
Level of Reporting	Provincial and by Zone
Comparable Data	At the time of this report, MAAP primary care studies were being conducted in four Canadian provinces: BC, NFLD, NS, and PEI. Comparison Data will be available for many items.
Significance/ Rationale	Enhanced access to primary health care is associated with reduced wait times, improved coordination, improved referrals, less duplication of services, reduced mortality, and reduced self-referred emergency department visits (McMurphy, 2009; Shi, 2012; Cowling et al., 2013). There is also evidence that access to primary care can lead to improvements in other inter-related attributes, such as continuity and comprehensiveness and access is linked to improvements in health equity for priority population groups in multiple reviews (Shi, 2012; Kringos et al, 2010; Starfield et al., 2005).

RESULTS

Regarding routine primary care, just over half (56%) of primary care providers across the province who responded to the 2015 MAAP-NS telephone practice survey indicated they are able to provide patients requiring routine care with an appointment within 5 days. By Zone, the rates were similar in Northern Zone (57%) and Central Zone (62%), and slightly lower in Eastern Zone (49%) and Western Zone (48%). See Figure 16 and Table 17 for more information.

Figure 16: Wait Times for Routine Primary Care across Nova Scotia and by Zone, 2015

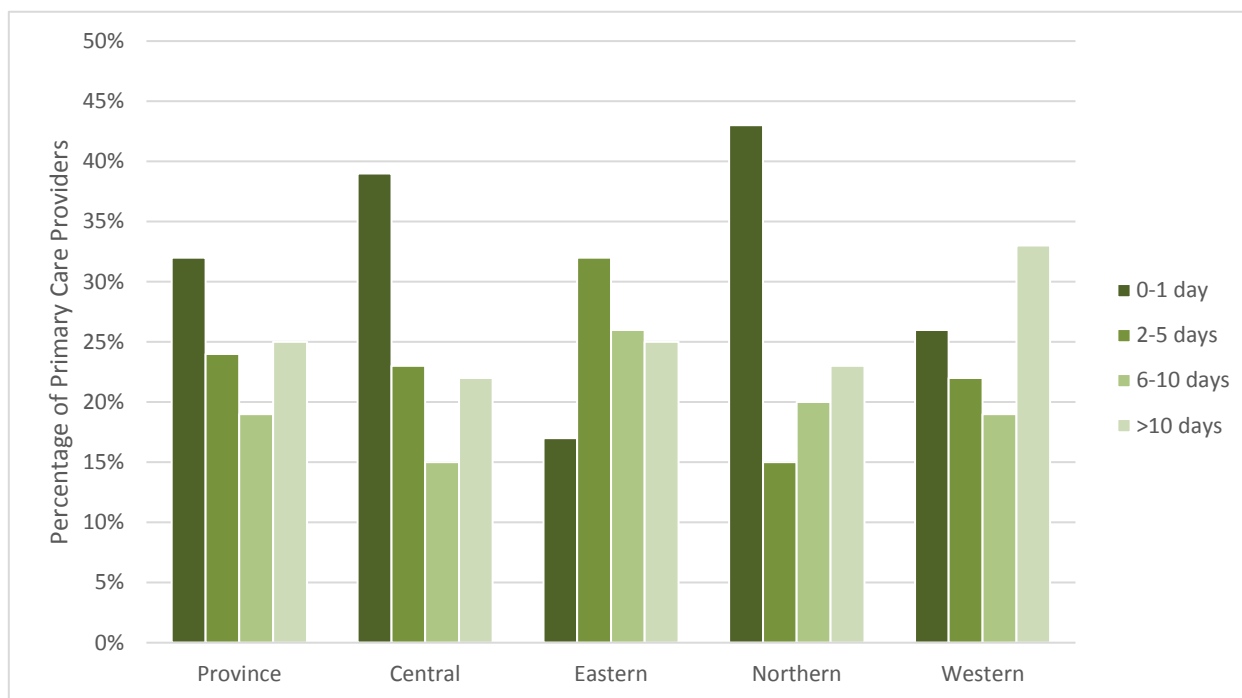
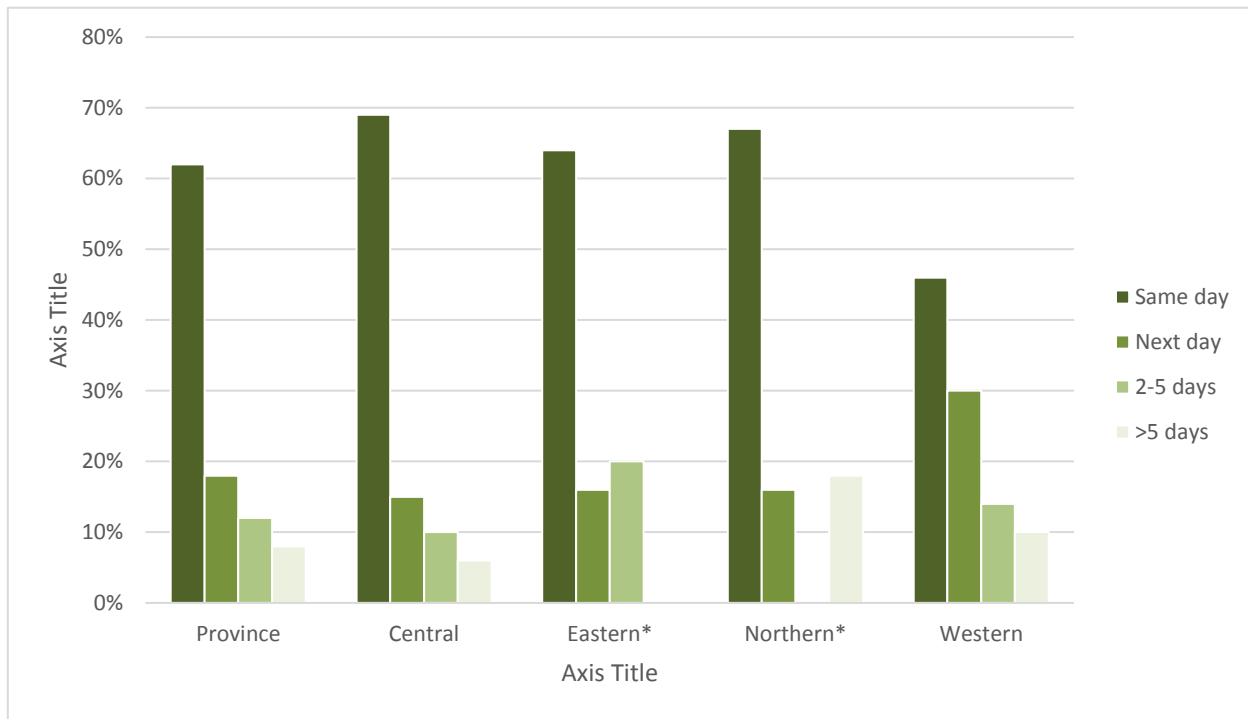


Table 17: Wait Times for Routine Primary Care across Nova Scotia and by Zone, 2015

Wait Time	Province		Central		Eastern		Northern		Western	
	#	%	#	%	#	%	#	%	#	%
0-1 day	171	32%	99	39%	17	17%	26	43%	29	26%
2-5 days	126	24%	58	23%	32	32%	9	15%	25	22%
6-10 days	98	19%	39	15%	26	26%	12	20%	21	19%
>10 days	132	25%	56	22%	25	25%	14	23%	37	33%
Total	527	100%	252	100%	100	100%	61	100%	112	100%

For urgent primary care, the majority of primary care provider respondents across the province (80%) indicated that they are able to see patients the same day or the next day. See Figure 17 and Table 18 for the rates by Zone.

Figure 17: Wait Times for Urgent Primary Care across Nova Scotia and by Zone, 2015



* There were fewer than 5 respondents for 2-5 days in Northern and >5 days in Eastern, so the data for those two data points is excluded from this chart and from the table below.

Table 18: Wait Times for Urgent Primary Care across Nova Scotia and by Zone, 2015

Wait Time	Province		Central		Eastern		Northern		Western	
	#	%	#	%	#	%	#	%	#	%
Same day	311	62%	170	69%	58	64%	34	67%	48	46%
Next day	92	18%	37	15%	14	16%	8	16%	32	30%
2-5 days	60	12%	24	10%	18	20%	<5	N/A	15	14%
>5 days	38	8%	15	6%	<5	N/A	9	18%	10	10%
Total	501	100%	246	100%	90	100%	51	100%	105	100%

INDICATOR 20: RESEARCH OUTPUTS

DESCRIPTION

Indicator #20	
Research Outputs	
Type of Indicator	Output – Structure
Enabler or Function	Research, surveillance, knowledge sharing, and evaluation
Indicator Description	Number of grants, research publications and ethics submissions in the past year from NSHA PHC staff, Dalhousie Family Medicine (DFM), and Collaborative Research in Primary Health Care (CoR-PHC)
Method of Calculation	N/A
Year of Data	2017
Data Source	CoR-PHC, Building Research for Integrated Primary Healthcare (BRIC-NS), Nova Scotia Health Research Foundation (NSHRF), Canadian Institutes of Health Research (CIHR), Nova Scotia Health Authority Research Fund (NSHARF).
Data Limitations & Considerations	PHC staff are defined as administrators, clinicians, patient advisors, staff, researchers working in PHC services or programs or a collaborator working in a PHC program or service
Level of Reporting	Provincial
Comparable Data	N/A
Significance/ Rationale	Embedded research, surveillance, knowledge sharing, and evaluation is a core function of the Primary Health Care portfolio within NSHA. Monitoring, overtime, the level of involvement of staff in research, along with research activity, is critical to monitoring success.

RESULTS

As of 2017, NSHA PHC staff, Dalhousie Family Medicine, and CoR-PHC received 12 grants worth approximately \$900,000, and produced eight ethics submissions and 16 research publications.

INDICATOR 21: INFLUENZA IMMUNIZATION FOR INDIVIDUALS 65 AND OLDER

DESCRIPTION

Indicator #21	
Influenza Immunization for Individuals 65 and Older	
Type of Indicator	Output – Process
Enabler or Function	Wellness promotion, chronic disease prevention, risk factor management
Indicator Description	Percentage of patient population, age 65 and older, who received an influenza immunization
Numerator	Number of individuals aged 65 and older, in the denominator population who received an influenza immunization within the past 12 months by their primary care provider
Denominator	Number of primary care patients who have had an encounter visit in the past 24 months, and were age 65 and older at the time data collection. The denominator was calculated based on the definition of an “active patient” within CPCSSN-MaRNetFP, which requires an encounter visit in the past 24 months. The two year contact group is perceived to most accurately reflect the providers’ active patient roster.
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2016
Data Source	Canadian Primary Care Sentinel Surveillance Network (CPCSSN) – Maritime Family Practice Research Network (49%)
Data Limitations & Considerations	This indicator reflects data from a sample of Nova Scotia primary care practices. CPCSSN data for Nova Scotia includes information from 80 sentinel providers approximately 125,000 patients (as of November 2016). Individual primary care practices for documenting pharmacy administered vaccination may vary. This adds a degree of uncertainty to the reliability of the numerator.
Level of Reporting	Provincial
Comparable Data	National data is available for this indicator through other CPCSSN nodes and other nationally reported mechanisms
Significance/ Rationale	Influenza has the potential to cause significant morbidity and mortality among high-risk groups, such as seniors. The National Advisory Committee on Immunization recommends that at least 80% of eligible Canadian seniors receive the annual influenza vaccine (Canadian Institute for Health Information, 2016).

RESULTS

49% of primary care patients at Nova Scotia practices participating in Canadian Primary Care Sentinel Surveillance Network (CPCSSN) – Maritime Family Practice Research Network (MaRNet-FP) who had an encounter visit in the past 24 months, and were age 65 and older at the time of data collection, received an influenza immunization in the last twelve months. Nationally, the influenza vaccination rate among those over 65 years old was 64% in 2013-14 (Canadian Institute for Health Information, 2016).

INDICATOR 22: FAMILY PHYSICIANS WORKING IN COLLABORATIVE FAMILY PRACTICE TEAMS

DESCRIPTION

Indicator #22	
Family Physicians Working in Collaborative Family Practice Teams	
Type of Indicator	Output – Structure
Enabler or Function	Workforce
Indicator Description	Number of family physicians who work collaborative with other health professionals providing office-based care as part of a collaborative family practice team that meets the minimum working definition (see Indicator #3 for calculation methodology)
Numerator	n/a
Denominator	n/a
Method of Calculation	Count of the number of family physicians who work collaborative with other health professionals providing office-based care as part of a collaborative family practice team, less duplicates (to account for physicians working in multiple teams). Head count only; FTE not available.
Year of Data	2015-16; for collaborative family practice teams existing at the time of NSHA's formation
Data Source	Primary Health Care, Nova Scotia Health Authority (manual tracking)
Data Limitations & Considerations	Based on best available data and information; estimate based on point-in-time data as there are frequent changes to practicing physicians (e.g., recruitment, retirements, etc.). Data is based on the teams that existed in 2015-16, relative to the current physician complement for each team in 2019. Estimate only.
Level of Reporting	Provincial
Comparable Data	Not available
Significance/ Rationale	Since the formation of the NSHA in 2015, through new investments from government, and with a platform commitment of \$34M for collaborative family practice teams over four years, NSHA has been working to create more and strengthen existing collaborative family practice teams across the province – a key strategic direction to achieve the health authority's vision of <i>Healthy people, healthy communities – for generations</i> . This indicator is critical to monitor to assess NSHA's progress toward strategic goals, advance primary health care as the foundation of the health system, and monitor the impact of as new investments are made by government.

RESULTS

In the collaborative family practice teams that existed at the time of NSHA's formation (n = 39), there were approximately 159 family physicians working as part of the 39 collaborative family practice teams. Note this is an estimated head count only; does not equal full-time equivalents.

INDICATOR 23: USE OF EMERGENCY DEPARTMENT FOR MINOR COMPLAINTS

DESCRIPTION

Indicator #23	
Use of Emergency Department for Minor Complaints	
Type of Indicator	Outcome – Efficiency of Care
Enabler or Function	Across functions
Indicator Description	Percentage of emergency department visits that are a level 4 (semi-urgent) or 5 (non-urgent) based on the Canadian Triage and Acuity Scale (CTAS)
Numerator	Number of emergency department visits that are a level 4 (semi-urgent) or 5 (non-urgent) on the CTAS
Denominator	Total triaged emergency department visits in NS (patients with unknown triage scores are excluded)
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2017
Data Source	Emergency department information system (EDIS), Meditech, and STAR NSHA supplemental technical document (2015)
Data Limitations & Considerations	It should be acknowledged that CTAS 4 and CTAS 5 visits may be <i>appropriate</i> emergency department encounters in many circumstances. Emergency Department visits at the IWK Health Centre are excluded from this data.
Level of Reporting	Provincial and by Zone
Comparable Data	Some jurisdictional data available across Canada by facility type
Significance/ Rationale	Patients seen in the emergency department (ED) with triage level four (semi-urgent) and five (non-urgent) conditions maybe individuals who could be seen in a primary care setting with the available resources and supports. This indicator is often viewed as a proxy indicator of primary care access since individuals with semi-urgent or non-urgent health concerns may present to the ED when primary care access is delayed or is not conveniently available.

RESULTS

As seen in Figure 18 and Table 19, almost half (47%) of all Emergency Department (ED) visits across the province in 2016 were triaged as semi-urgent (CTAS level 4) or non-urgent (CTAS level 5). The rate of CTAS 4 and 5 visits as a percentage of overall visits in Central Zone (34%) was lower than the other three Zones (57% in Western, 51% in Eastern, and 49% in Northern), likely due to the presence of the province's largest tertiary care facility.

Figure 18: Percentage of ED Visits that were Level 4 (semi-urgent) or 5 (non-urgent) on the Canadian Triage and Acuity Scale, 2017

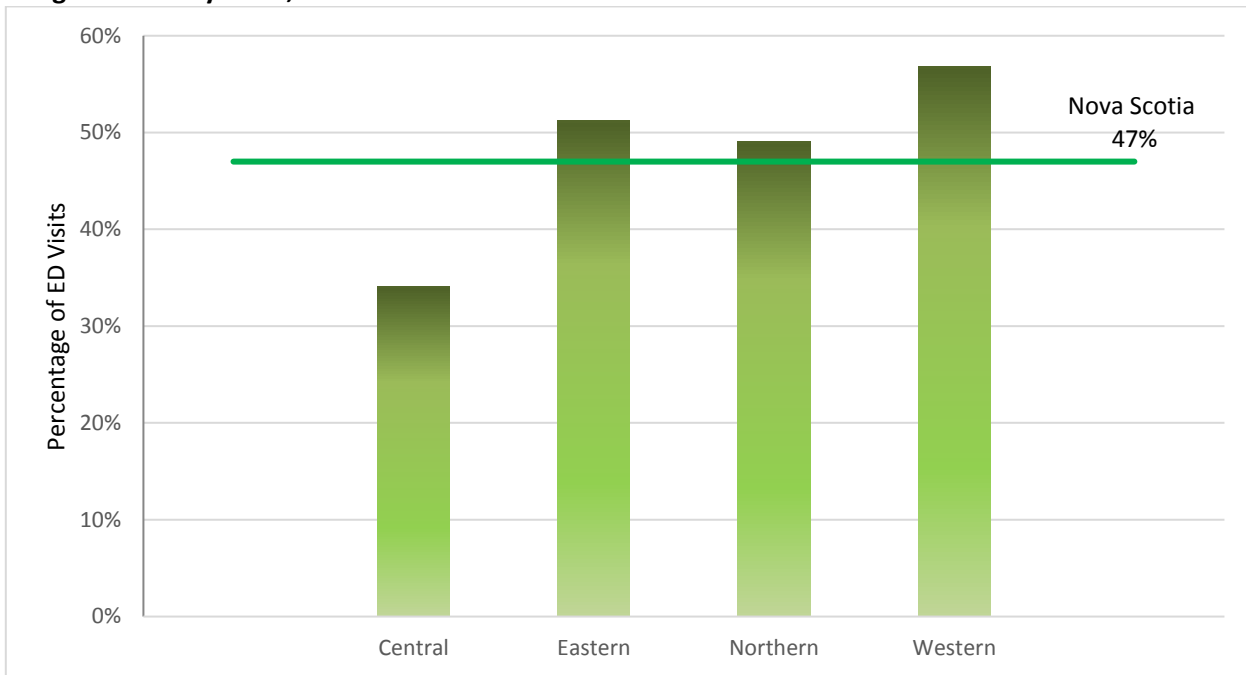


Table 19: ED Visits that were Level 4 (semi-urgent) or 5 (non-urgent) on the Canadian Triage and Acuity Scale

Zone	All Triage Visits	Canadian Triage and Acuity Scale (CTAS) 4 & 5	
		Visit Frequency	Percentage of Total
Central	180,884	61,761	34.1%
Eastern	133,775	68,438	51.2%
Northern	97,279	47,798	49.1%
Western	151,949	86,264	56.8%
Nova Scotia	563,887	264,261	46.9%

INDICATOR 24: PREVALENCE OF INDIVIDUALS WITH SELF-REPORTED FIVE OR MORE CHRONIC CONDITIONS

DESCRIPTION

Indicator #24	
Prevalence of Individuals with Self-Reported Five or more Chronic Conditions	
Type of Indicator	Outcome – Quality of Care
Enabler or Function	Across functions
Indicator Description	Prevalence of individuals with self-reported five or more chronic conditions from the following possibilities: Asthma, Arthritis, High Blood Pressure, COPD, Diabetes, Heart Disease, Cancer, Stroke, Dementia, Mood Disorder, or Anxiety
Numerator	Number of individuals with self-reported five or more chronic conditions (all 'No Answer', 'Refused', and 'Don't Know' responses removed from denominators)
Denominator	Total survey respondents
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2013-2014
Data Source	Canadian Community Health Survey (CCHS)
Data Limitations & Considerations	Due to small sample sizes of the CCHS, several years of data are pooled together to increase sample size and reduce the variance in the data, and thereby improve the accuracy of the data. Therefore, instead of a single year of data being compared to previous years for any given health authority (thereby providing a temporal trend), we see the prevalence of a health condition over a four-year time period.
Level of Reporting	Provincial
Comparable Data	National data available through CCHS to compare across provinces and with national rates
Significance/Rationale	Nova Scotia has high rates of chronic disease, and also scores low on many of the social determinants of health, compounding an already poor provincial health profile, and highlighting the need for effective chronic disease management and primary prevention efforts. Evidence supports the assertion that high rates of chronic disease, coupled with poor chronic disease management, can lead to negative health outcomes and high health care costs.

RESULTS

The prevalence of individuals with self-reported five or more chronic conditions (asthma, arthritis, high blood pressure, COPD, diabetes, heart disease, cancer, stroke, dementia, mood disorder, and/or anxiety) was 5.34% in NS in 2013/14. NS has the second highest prevalence compared to the other Atlantic Provinces, was also higher than the national average.

INDICATOR 25: AMBULATORY CARE SENSITIVE CONDITIONS (ACSC) HOSPITALIZATION RATE

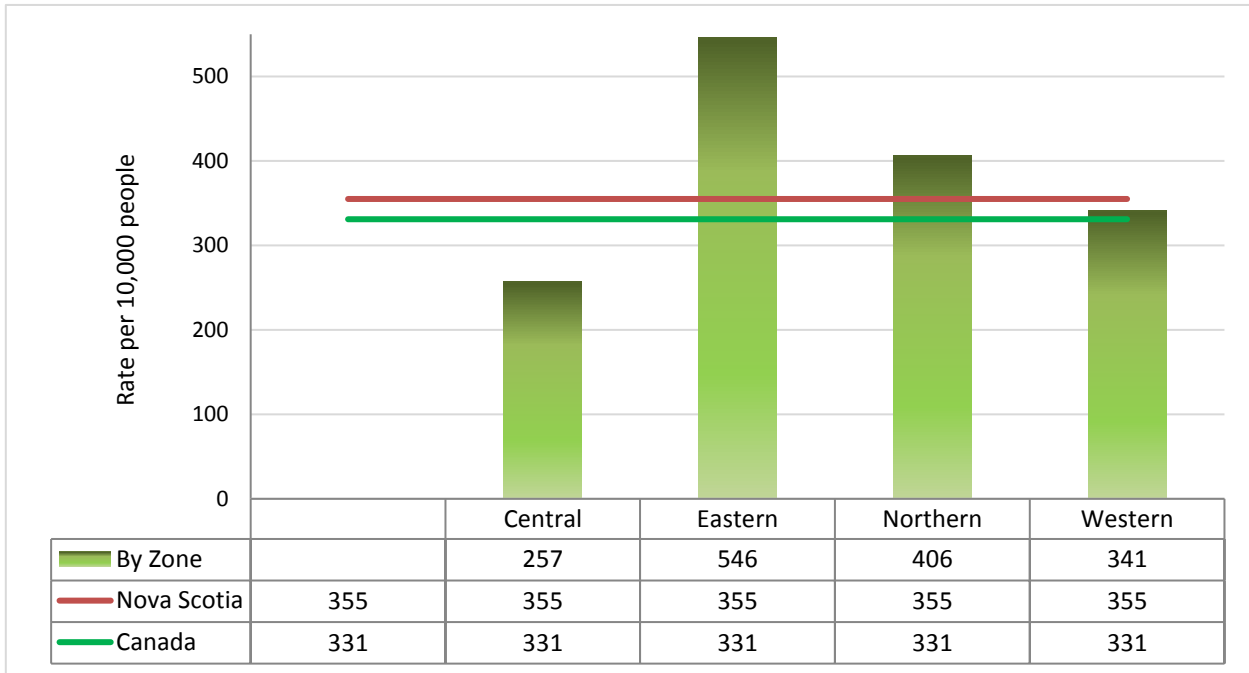
DESCRIPTION

Indicator #25	
Ambulatory Care Sensitive Conditions (ACSC) Hospitalization Rate	
Type of Indicator	Outcome – Quality of Care
Enabler or Function	Integrated chronic disease management programs and services
Indicator Description	Age-standardized acute care hospitalization rate for conditions where appropriate ambulatory care may prevent or reduce the need for admission to hospital, per 100,000 population
Numerator	Total number of acute care hospitalizations for ambulatory care sensitive conditions (grand mal status and other epileptic convulsions, chronic obstructive pulmonary disease, asthma, diabetes, heart failure and pulmonary edema, hypertension, and angina) in patients younger than age 75
Denominator	Mid-year population age 75 and younger, divided by 100,000 (age adjusted)
Method of Calculation	<i>Numerator/Denominator</i>
Year of Data	2014-2015
Data Source	Discharge Abstract Database (Canadian Institute for Health Information)
Data Limitations & Considerations	Data is retrospective and so will not reflect any recent changes to process/policy etc.
Level of Reporting	Provincial and by Zone
Comparable Data	National data is available through CIHI
Significance/Rationale	Nova Scotians have high rates of chronic disease. This indicator helps in understanding how patients with chronic diseases access health services in Nova Scotia. Ambulatory Care Sensitive Conditions (ACSC) are chronic medical conditions that when treated effectively in community settings, should not, in most cases, lead to a hospital stay. Managing chronic diseases effectively in the community can improve patient outcomes while using fewer hospital in-patient services.

RESULTS

In 2014/2015, NS recorded a hospitalization rate of 355 hospitalizations per 100,000 people for ambulatory care sensitive conditions (grand mal status and other epileptic convulsions, chronic obstructive pulmonary disease, asthma, diabetes, heart failure and pulmonary edema, hypertension, and angina) in patients younger than age 75. This was above the national rate of 331 hospitalizations per 100,000 people, and above the Central Zone rate of 257 hospitalizations per 100,000 people. The highest rate across the province was in Eastern Zone at 546 hospitalizations per 100,000. See Figure 19 for further details.

Figure 19: Ambulatory Care Sensitive Conditions Hospitalization Rate per 100,000 people, 2014-2015



INDICATOR 26: PHC PATIENT ACCESS TO HEALTH CARE

DESCRIPTION

Indicator #26	
PHC Patient Access to Health Care	
Type of Indicator	Outcome – Quality of Care
Enabler or Function	Primary care delivery across the lifespan
Indicator Description	Percentage of survey respondents to the PHC Client Experience from all Primary Health Care locations participating in Accreditation for Primary Care Services standards (including collaborative family practice teams, chronic disease management, and wellness teams) who responded “yes, once” or “yes, several times” to the question, “were there times when you had difficulty getting the health care or advice you needed?”
Numerator	Number of survey respondents to the PHC Client Experience Survey from all Primary Health Care locations participating in Accreditation for Primary Care Services standards (including collaborative family practice teams, chronic disease management, and wellness teams) who responded “yes, once” or “yes, several times” to question, “were there time when you had difficulty getting the health care or advice you needed?”
Denominator	Number of survey respondents from all Primary Health Care locations participating in Accreditation for Primary Care Services standards (including collaborative family practice teams, chronic disease management, and wellness teams) who answered this question (blank responses are excluded)
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2017
Data Source	NSHA Client Experience Survey for Accreditation Canada
Data Limitations & Considerations	Certain survey responses were grouped together in the analysis below, including the responses, “Don’t Know”, “Don’t Remember” and “Not Applicable”.
Level of Reporting	Provincial
Comparable Data	N/A
Significance/ Rationale	Delays in providing requested primary health care services can adversely affect clinical outcomes, patient and staff satisfaction and cost. Patients unable to be seen in a timely manner risk seeing health concerns worsen without being investigated, or having to seek care elsewhere (EDs, walk-in clinics, etc.). Continuity of care, one of the key benefits of attachment to a primary care provider, can suffer as a consequence.

RESULTS

78.3% of respondents the PHC Client Experience Survey all Primary Health Care locations participating in Accreditation for Primary Care Services standards indicated that they did not have difficulty getting the health care or advice they needed. 12.9% of respondents for collaborative family practices had difficulty several times getting the health care or advice they needed and 8.7 % of respondents from chronic disease management and wellness site had difficulty several times getting the health care or advice they needed. See Figure and Table 19 for further details.

Figure 20: PHC Client Experience Survey: Patient Access, 2017

“Were there times when you had difficulty getting the health care or advice you needed?”

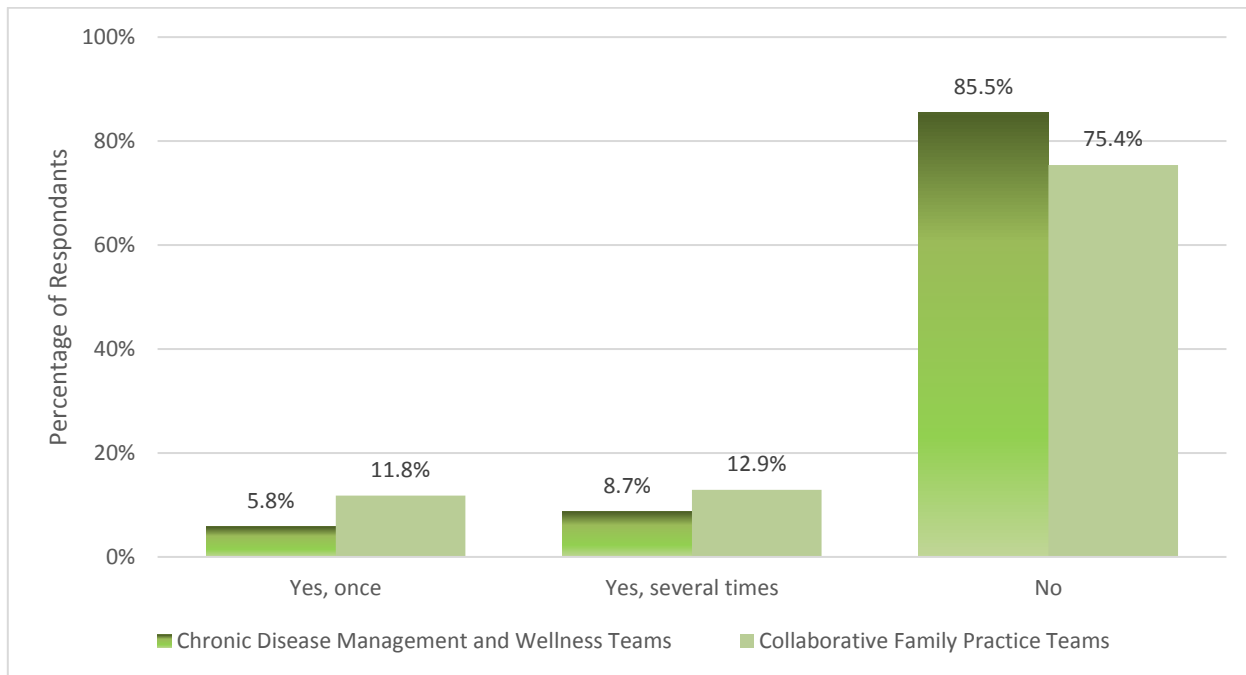


Table 19: PHC Client Experience Survey: Patient Access, 2017

“Were there times when you had difficulty getting the health care or advice you needed?”

Response	Chronic Disease Management and Wellness Teams	Collaborative Family Practice Teams
Yes, once	5.8%	11.8%
Yes, several times	8.7%	12.9%
No	85.5%	75.4%
Total	100%	100.0%

INDICATOR 27: PATIENT INVOLVEMENT IN DECISIONS ABOUT THEIR CARE AND TREATMENT

DESCRIPTION

Indicator #27	
Patient Involvement in Decisions about their Care and Treatment	
Type of Indicator	Outcome – Quality of Care
Enabler or Function	Primary care delivery across the lifespan
Indicator Description	Percentage of NS patients that completed a Patient Experience Survey (PES) as part of the QUALICOPC study who replied positively to the question "the doctor involved me in making decisions about treatment and/or health related goals at today's visit"
Numerator	Number of NS patients that completed a PES as part of the QUALICOPC study who replied positively to the question "the doctor involved me in making decisions about treatment and/or health related goals at today's visit"
Denominator	Number of NS patients that completed a PES as part of the QUALICOPC study
Method of Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Year of Data	2013
Data Source	<p>QUALICOPC began as a research program funded by the European Union (EU), including 31 countries. Canada decided to participate in this study as well, and all 10 provinces collaborated for this purpose. The research included recruiting physicians to participate in the study, and then distributing patient experience surveys (PES) to consecutive consenting patients visiting the participating physicians. The patient experience survey measured four dimensions of primary care including Continuity and Coordination, Communication and Patient-Centredness, Patient Activation and Access. Provinces began their recruitment in 2013 with the majority of data collection occurring over the summer. Some provinces continued collecting surveys from practices until the winter of 2014 to achieve their target number of participating practices. Across Canada, a total of 8,332 patients of 810 primary care physicians in 785 practices participated in the QUALICOPC study. Of these, 7,172 patients of 807 primary care physicians completed the PES, reporting on their experience with primary care. Canadian Foundation for Healthcare Improvement (2014). <i>QUALICOPC (Quality and Costs of Primary Care) Canada — A focus on the aspects of primary care most highly rated by current patients of primary care practices</i>. Available online. Data for NS for this question is on page 20.</p>
Data Limitations & Considerations	This indicator reflects data from a selected sample of NS PHC practices. 59 physicians from NS participated in QUALICOPC and 544 patients completed the PES. There is also data for a similar indicator from the TRANSFORMATION research study, but each question has slightly different wording.
Level of Reporting	Provincial – selected sample as described.
Comparable Data	Across Canada, 96% of patients that completed a Patient Experience Survey (PES) as part of the QUALICOPC study indicated that their doctor involved them in making decisions about treatment and/or health related goals at their visit.
Significance/ Rationale	This indicator reflects an important element of communication and patient-centred care. 76% of Canadian patients in the QUALICOPC study ranked this aspect of primary care as "very important", giving it the 6 th highest ranking in a list of 56 aspects of primary care.

RESULTS

Of NS patients that completed the 2013 Patient Experience Survey (PES) as part of the QUALICOPC study, 96% indicated that their doctor involved them in making decisions about treatment and/or health related goals at their visit.

INDICATOR 28: PATIENT SAFETY CULTURE

DESCRIPTION

Indicator #28	
Patient Safety Culture	
Type of Indicator	Outcome – Quality of Care
Enabler or Function	Quality, safety and risk
Indicator Description	Percentage of total flags received by PHC through the Patient Safety Culture (PSC) survey that were red, yellow, and green. Green flags represent the best performance and red flags represent the worst performance. See ‘Method of Calculation’ for an explanation of a flag and description of how flags are determined.
Numerator	Number of flags received by PHC through the PSC survey that were red, yellow, or green
Denominator	Total number of possible flags (i.e., the 23 statements)
Method of Calculation	<p>This data is drawn from the results of the PSC survey NSHA completed through Accreditation Canada in May 2016. The survey included 23 statements related to patient safety. For the first 21 statements, respondents were asked to indicate their agreement with each statement using the scale strongly disagree, disagree, neutral, agree, strongly agree (respondents could also indicate not applicable). For the other two statements, respondents were asked to give their unit and their organization an overall grade on patient safety using the scale A-excellent, B-very good, C-acceptable, D-Poor, and F-failing.</p> <p>Each statement is then assigned a ‘flag’ that is coloured either red, yellow or green. The colour of the flag for each statement is calculated by summing the percentage of respondents that selected each of the top two positive answers. This could be either strongly agree + agree or strongly disagree + disagree depending on how the statement is framed (e.g., the statement “Patient safety decisions are made at the proper level by the most qualified people” would be strongly agree + agree; the statement “My co-workers will lose respect for me if they know I’ve made a serious error” would be strongly disagree + disagree), or A-excellent + B-very good for the two statements on the overall grade for patient safety.</p> <p>The flags are then defined as follows:</p> <ul style="list-style-type: none"> • Green flag: the sum of the two positive columns $\geq 75\%$ • Yellow flag: the sum of the two positive columns $>50\%$ and $<75\%$ • Red flag: the sum of the two positive columns $\leq 50\%$ <p>The percentage for the indicator is then calculated by: $(\text{Numerator}/\text{Denominator}) \times 100$</p>
Year of Data	2016
Data Source	NSHA PSC survey completed through Accreditation Canada
Data Limitations & Considerations	The total sample completing the PSC survey is 269 responses across the province in PHC. This survey was open to all staff, regardless if they had a direct role in patient care. If there were fewer than 5 responses for any site, these sites were not reported.
Level of Reporting	Data is reported at the Zone and provincial level. Data was collected at multiple sites within each Zone and is also available at the site level.
Comparable Data	Not available
Significance/ Rationale	This survey was conducted to gather information about staff and physician perceptions and opinions on patient safety. Overall, the number and balance of red, yellow and green flags provides an indication of patient safety and the overall patient safety culture within the organization. Statements with red flags across the province highlight areas where additional

Indicator #28	
Patient Safety Culture	
	support is needed. An action plan to respond to the red flag areas identified in the PSC survey was developed.

RESULTS

Of the total 23 statements related to patient safety culture in Primary Health Care, the majority were green flags (57%), 30% were yellow flags, and 13% were rated as a red flag. (Figure 21 and Table 21)

Figure 21: Percentage of total flags received by PHC through the Patient Safety Culture (PSC) survey that were red, yellow, and green, by Zone, 2016

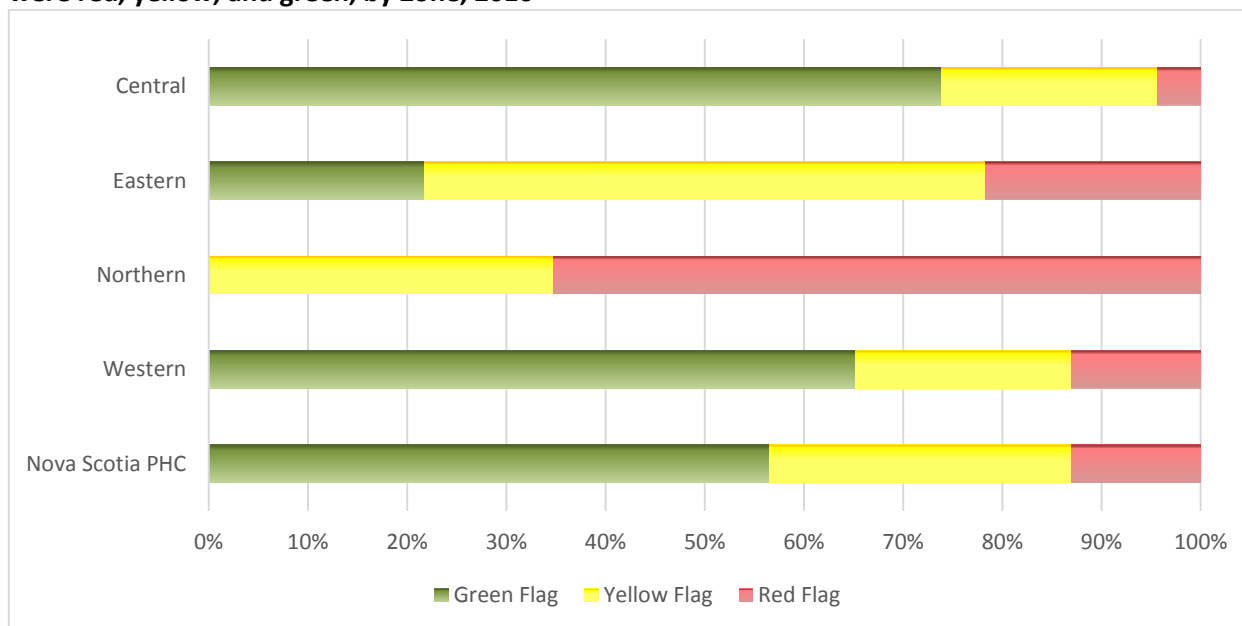


Table 21: Percentage of total flags received by PHC through the Patient Safety Culture (PSC) survey that were red, yellow, and green, by Zone, 2016

Flag Colour	Provincial		Central		Eastern		Northern		Western	
	#	%	#	%	#	%	#	%	#	%
Green	13	57%	17	74%	5	22%	0	0%	15	65%
Yellow	7	30%	5	22%	13	56%	8	35%	5	22%
Red	3	13%	1	4%	5	22%	15	65%	3	13%
Total	23	100%	23	100%	23	100%	23	100%	23	100%

CONCLUSION

The *Current State Assessment of the Primary Health Care System in Nova Scotia*, provides a comprehensive, system-level assessment of the primary health care system at the time of Nova Scotia Health Authority's formation. The technical report presents an evidence-based evaluation framework, an inventory of prioritized indicators and measures, and a detailed baseline assessment of these 28 system-level indicators with a readily available data sources.

While this report is an important first step in assessing the PHC system in Nova Scotia, the information presented should be interpreted with the following considerations:

- First, the PHC System Evaluation Framework and the associated indicators presented are intended to reflect a systems view of the PHC system in Nova Scotia, providing a high level synopsis of the performance of the PHC system at the time of NSHA's formation. Further work is required to identify a core set of indicators to assess performance at the *program/service* and *practice* level, as part of a **cascade of indicators** at multiple levels of the system (macro, meso, micro).
- Second, it is important to note that the indicators that are included in this report are drawn from currently available data sources, and future investigation will be needed to provide a more comprehensive and wide-ranging quality and evaluation framework for the PHC system. Additional work is needed to identify a **complete set of ideal indicators** and identify and/or develop the data collection tools and resources required to gather data for these indicators. As a starting point for this future work, an inventory of potential indicators was identified and will be re-visited to determine which ones are appropriate for future progress assessments.

This report provides an important first step in assessing the primary health care system in Nova Scotia. By outlining key indicators and data sources, it will encourage consistency and consensus in the reporting of key measures and will serve as the foundation for future measurement and evaluation related to the transformation of the primary health care system over time. The goal is to use this report as a foundation for monitoring the indicators highlighted in this report to determine changes over time.

Future work will focus on identifying a complete set of ideal, future-oriented indicators that is not constrained by readily available data sources only. This will also require identifying and/or developing accompanying data collection tools and resources, as well as identifying strategies for accessing additional, critically important data sources, such as electronic medical record (EMR) data.

We would like to thank all stakeholders who participated in this work and provided data to support the development of this report. The *Current State Assessment of the Primary Health Care System in Nova Scotia* was completed as a result of contributions from many Primary Health Care leaders, providers, researchers, and partners. We thank Research Power Inc. for their work to facilitate the process and we thank representatives from the Nova Scotia Health Authority, Department of Health and Wellness, the IWK Health Centre, the research community, and patient representatives for their participation in the planning process.

Strong primary health care systems contribute to overall health system performance and the health of the population (Starfield et al., 2005; Shi, 2012; Freidburg et al., 2010; Kringos et al., 2013; McMurchy, 2009). Establishing a strong primary health care foundation, built on a quality platform, will serve as an enabling step to facilitate overall health system transformation. Working with our communities and our providers as partners throughout the journey, we must focus on a strong foundation of quality to strengthen the primary health care system in Nova Scotia.

REFERENCES

- Accreditation Canada. (2015). Qmentum Program Standards, Primary Care Services. Ottawa, ON.
- Annapolis Valley Health. (2005). *Vision for Community Health Centres*. Berwick, NS: Primary Health Care.
- Alberta Health Services. (2013). Logic Model for Alberta's Primary Health Care System.
- Baker, R. & Denis, J.L. (2011). *A comparative study of three transformative healthcare systems: lessons for Canada*. Ottawa, ON: Canadian Health Services Research Foundation.
- Barr, V. J., Robinson, S., Marin-Link, B., Underhill, L., Dotts, A., Ravensdale, D., & Salivaras, S. (2003). The Expanded Chronic Care Model: An Integration of Concepts and Strategies from Population Health Promotion and the Chronic Care Model. *Healthcare Quarterly*, 7(1), 73-82.
- Canadian Foundation for Healthcare Improvement. (2014). *QUALICOPC (Quality and Costs of Primary Care) Canada — A focus on the aspects of primary care most highly rated by current patients of primary care practices* Retrieved from <http://www.cfhi-fcass.ca/sf-docs/default-source/reports/qualicopc-e.pdf?sfvrsn=4>
- Canadian Foundation for Healthcare Improvement (CFHI). (n.d.). Triple Aim. Retrieved March 3, 2017, from <http://www.cfhi-fcass.ca/WhatWeDo/triple-aim>
- Canadian Institute for Health Information. (2006). Pan-Canadian Primary Health Care Indicators Report 1, Volume 1. Ottawa, ON.:CIHI.
- Canadian Institute for Health Information. (2012). Pan-Canadian Primary Health Care Indicator Update Report. Ottawa, ON.: CIHI.
- Canadian Institute for Health Information (2016). Primary Health Care in Canada: A Chartbook of Selected Indicator Results. Ottawa, ON: CIHI.
- Chang, F., & Gupta, N. (2015). Progress in electronic medical record adoption in Canada. *Canadian Family Physician*, 61, 1076-1084.
- Cowling, T.E., Cecil, E. V., Soljak, M.A., Lee, J. T., Millett, C., Majeed, A., Wachter, R. M., & Harris, M. J. (2013). Access to Primary care and Visits to Emergency Departments in England: A Cross-Section Population-Based Study. *PLOS One*, 8(6), 1-6
- Dalhousie University. (n.d.). Models and Access Atlas of Primary Care-Nova Scotia (MAAP). Retrieved March 1, 2017, from <https://www.dal.ca/sites/maapstudy.html>
- Edwards, et al. (2017). Functions and enablers of the primary health care system. Manuscript in preparation.
- Friedberg, M. W., Hussey, P.S., & Schneider, E.C. (2010). Primary Care: A Critical Review of the Evidence on Quality and Costs of Health Care. *Health Affairs*, 29(5), 766-772.

- Health Council of Canada. (2012). Self-management support for Canadians with chronic health conditions. A focus for primary health care. Toronto, ON: Author.
- Health Quality Ontario. (2014). *A Primary Care Performance Measurement Framework for Ontario: Report of the Steering Committee for the Ontario Primary Care Performance Measurement Initiative, Phase One*. Retrieved from <http://www.hqontario.ca/portals/0/Documents/pr/pc-performance-measurement-report-en.pdf>
- Kringos, D. S., Boerma, W. G., Hutchinson, A., van der Zee, J., & Groenewegen, P. P. (2010). The breadth of primary care: a systematic literature review of its core dimensions. *BMC Health Services Research*, 10(1), 65. doi: 10.1186/1472-6963-10-65
- Kringos, D., Boerma, W., van der Zee, J., & Groenewegen, P. (2013). Europe's Strong Primary Care Systems Are Linked To Better Population Health But Also To Higher Health Spending. *Health Affairs*, 32(4), 686-694.
- Nova Scotia Department of Health. (2003). *Primary health care renewal: Action for healthier Nova Scotians*. Halifax, NS: Province of Nova Scotia.
- Nova Scotia Department of Health and Wellness. (2015). Primary Health Care Population Based Planning Tool, Version 2.0, Technical Document.
- Nova Scotia Health Authority. (2016). *Healthier Together 2016-19 Strategic Plan*. Halifax, NS: NSHA. Retrieved from <http://www.nshealth.ca/publications/strategic-plan>
- McMurphy, D. (2009). *What are the Critical Attributes and Benefits of a High-Quality Primary Healthcare System?* Ottawa: Canadian Health Services Research Foundation. Retrieved from http://www.cfhi-fcass.ca/sf-docs/default-source/primaryhealthcare/11498_PHC_McMurphy_ENG_FINAL.pdf.
- Primary Health Care, NSHA (2017). *Strengthening the Primary Health Care System in Nova Scotia. Evidence synthesis and guiding document for primary care delivery: Collaborative family practice teams and health homes*. Nova Scotia: Primary Health Care, Nova Scotia Health Authority.
- Primary Health Care Performance Initiative. (2015). Primary Health Care Performance Initiative: Methodology Note.
- Public Health Ontario. (2015). *Priority Populations Project Technical Report* Retrieved from https://www.publichealthontario.ca/en/eRepository/Priority_Populations_Technical_Report.pdf
- Shi, L. (2012). The Impact of Primary Care: A Focused Review. *Scientifica*, 2012, 1-22.
- Starfield, B., Shi, L., & Macinko, J. (2005). Contribution of Primary Care to Health Systems and Health. *The Millbank Quarterly*, 83(3), 457-502.
- Stevenson, C., & Burstall, D. (2016). The role of change management in the District Health Authority Consolidation (Transition and Design) project in Nova Scotia. *Healthcare Management Forum*, 29(2): 74-77.

Stiefel, M., & Nolan, K. (2012). *A Guide to Measuring the Triple Aim: Population Health, Experience of Care, and Per Capita Cost*. IHI Innovation Series white paper. Cambridge, Massachusetts: Institute for Healthcare Improvement. Retrieved from <http://www.ihl.org/resources/Pages/IHIWhitePapers/AGuidetoMeasuringTripleAim.aspx>

Terashima, M., Jones, P., Levy, A., Christian, E., Ahrens, B., Dowling, L., & Traynor, R. (2016). *Developing Nova Scotian community clusters for health service planning and research: An inter-sectoral, collaborative approach to the development of community cluster boundaries* Retrieved from <http://www.spor-maritime-srap.ca/news/all/mssu-reports>

University of British Columbia. (n.d.). TRANSFORMATION. Retrieved March 1, 2017, from <http://www.transformationphc.ca/>

Watson, D. E., Broemeling, A. M., & Wong, S. T. (2009). A results-based logic model for primary healthcare: a conceptual foundation for population-based information systems. *Healthc Policy, 5 Spec no*, 33-46.

APPENDICES

APPENDIX A: KEY STAKEHOLDERS

Important Note: all participant titles were current to the time of their participation in the Stakeholder Engagement sessions. Many of the individuals on this list have changed roles between the time of their initial participation and the release of this report and therefore, the list below is not considered to be a reflection of current roles, titles, or organizations of key stakeholders.

The NSHA wishes to thank the following individuals for their participation in the process of developing this report. Individuals supported the work by participating in the indicator selection process, providing data and information related to the indicators, and reviewing and providing input into the draft report.

Those who contributed to the development of this report include (in alphabetical order):

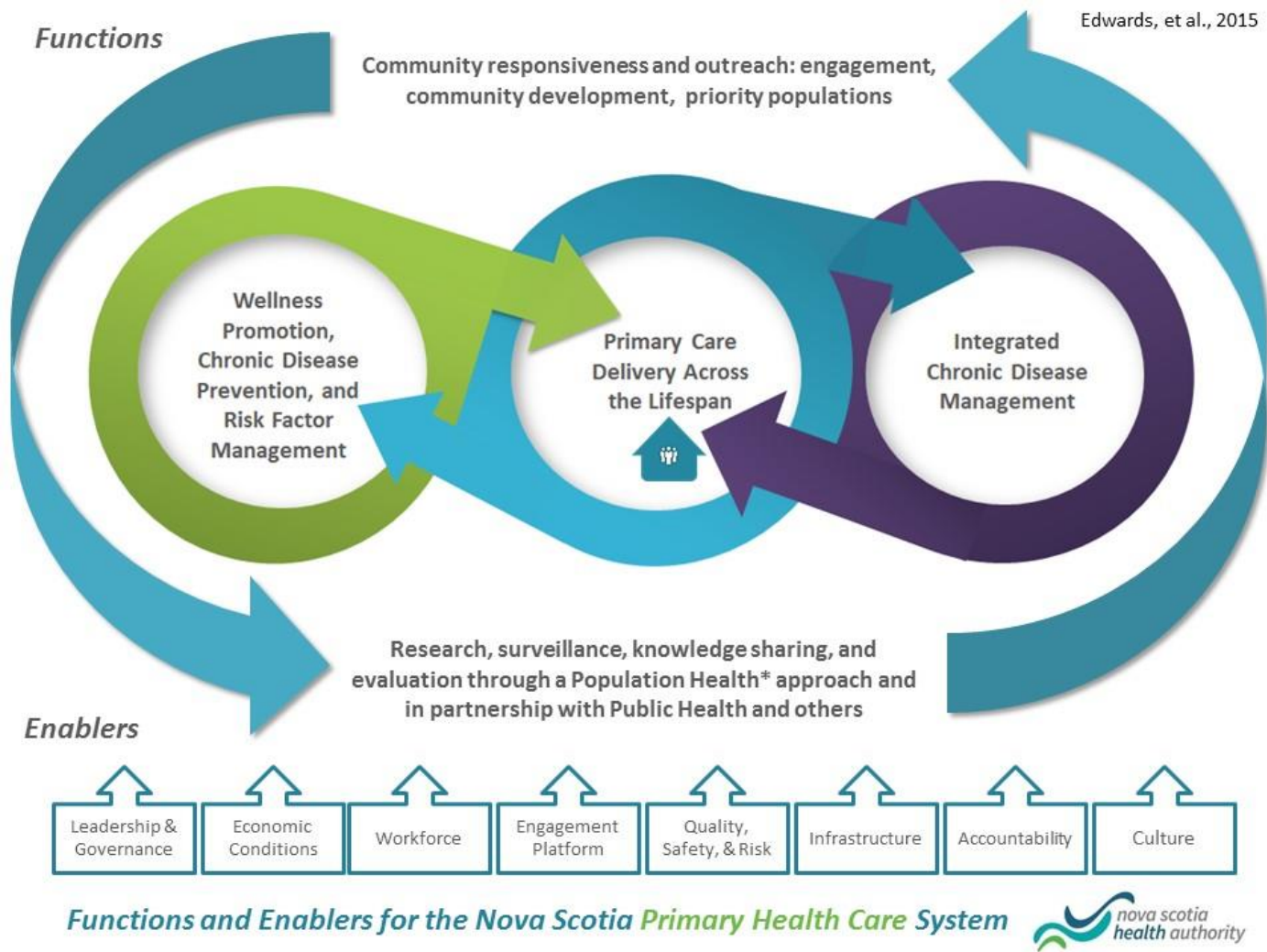
- Dr. Fred Burge, Professor and Research Director, Department of Family Medicine, Dalhousie University
- Kathy Bell, Director, Primary Health Care, Eastern Zone, NSHA
- Shawna Chenell, Health Services Manager, PHC, Northern Zone / PHC Manager Planning & Development, NSHA
- Erin Christian, Director, Primary Health Care Implementation, NSHA
- Tricia Cochrane, Vice President, Primary Health Care and Population Health, NSHA
- Charmaine Cooke, Manager, Decision Support & Analytics, DHW
- Lynn Edwards, Senior Director, Primary Health Care, Family Practice, Chronic Disease Management, NSHA
- Dr. David Gass, Physician Advisor, Health System Workforce, DHW
- Dr. Rick Gibson, Department Head, Family Practice, Central Zone, NSHA
- Dr. Matt Grandy, Director CPCSSN/Mar-Net
- Pamela Jones, Director, Investment and Decision Support, DHW
- Jennifer Kendrick, Planning & Evaluation Coordinator, Public Health & PHC, NSHA
- Robin Latta, Decision Support Analyst, NSHA
- Emily Gard Marshall, Principal Investigator, MAAP-NS and Associate Professor and Affiliate Scientist, Dept. of Family Medicine, Dalhousie University
- Adrian MacKenzie, Senior Health Policy Researcher, Maritime Strategy for Patient-Oriented Research Support Unit (MSSU)
- Ruth Martin-Misener, Professor, School of Nursing, Dalhousie University
- Elizabeth Michael, Project Lead, PHC, Central Zone, NSHA
- Melanie Mooney, Health Services Manager, PHC, Western Zone, NSHA
- Matthew Murphy, Director, System Performance/Quality, NSHA
- Natalie Oake, Primary Health Care Epidemiologist, NSHA
- Kylie Peacock, Patient Advisor
- Susan Philpott, Policy Analyst, DHW
- Shannon Ryan Carson, Director, PHC, Central Zone, NSHA
- Tara Sampalli, Director, Research & Innovation, NSHA
- Emily Somers, Executive Director, DHW
- Pamela Talbot, Junior Epi / Project Consultant, Diabetes Care Program NS
- Dr. Crystal Todd, Department Head, Family Practice, Western Zone, NSHA
- Christine Tompkins, Project Lead, PHC, NSHA

Report Authors:

- Erin Christian, Director, Primary Health Care Implementation, NSHA (*contributing co-author*)
- Beth McDougall, Primary Health Care Epidemiologist, NSHA (*contributing co-author*)
- Eder Pulido, Senior Decision Support Analyst, NSHA (*visual design and analysis*)
- Research Power Inc. – Clare Levin and Stephanie Heath

APPENDIX B: GUIDING DOCUMENTS AND FRAMEWORKS

PHC FUNCTIONS AND ENABLERS



Functions of a Primary Health Care System

<p>Research, surveillance, knowledge sharing, and evaluation through a Population Health* approach and in partnership with public health and others</p>	<p>Community responsiveness and outreach: engagement, community development, and priority populations</p>	<p>Wellness promotion, chronic disease prevention, and risk reduction for individuals, groups, and communities</p>	<p>Integrated chronic disease management programs and services</p>	<p>Primary care delivery across the lifespan from birth to end of life care</p>
<p><i>Constructs/elements:</i></p> <ul style="list-style-type: none"> • Understand the population being served and how services are aligned • Engage stakeholders, including the public, in this work • Lead research to inform health system & service delivery best practices and be an active partner in others' research • Participate in policy and planning processes at the local, provincial, and national level • Support the use of knowledge and evidence in informing decisions • Promote a culture of continuous quality improvement 	<p><i>Constructs/elements:</i></p> <ul style="list-style-type: none"> • Engage using a cultural safety, health literacy, and health equity lens • Work with others to build healthy communities, being guided by activities that enhance community capacity • Work with communities to strengthen community action • Apply and adapt health system planning and service models to ensure appropriate fit with communities • Support Public Health to build healthy public policy 	<p><i>Constructs/elements:</i></p> <ul style="list-style-type: none"> • Promote and offer wellness programming within the system and in community • Work with partners to create supportive environments and strengthen community action • Support Public Health to build healthy public policy • Provide evidence-based behavioral change supports to providers and build capacity as a team 	<p><i>Constructs/elements:</i></p> <ul style="list-style-type: none"> • Promote skills, capacity, and supports to manage health • Build skills, capacity, and resources to manage health both for the individual and in the community • Enhance the understanding of approaches to manage and support complex chronic disease/ multimorbidity • Realign the system to integrate identified chronic care programs & services, including specialist programs • Provide evidence-based behavioral change supports to providers and build capacity as a team 	<p><i>Constructs/elements:</i></p> <ul style="list-style-type: none"> • Understand the practice population • Ensure accessibility (timely access, across settings and geographies, communication approaches, affordability, culturally appropriate, equitable) • Foster continuity (informational, relational, management) • Offer a comprehensive team approach • Coordinated & integrated - coordination of individuals' and families' health and community-based supports • Provide individual health promotion, prevention, acute episodic care, ongoing management of chronic conditions, rehabilitation, management of frailty and end of life

Functions and Enablers for the Nova Scotia Primary Health Care System



Enablers for a Primary Health Care System

Governance & Leadership	Economic Conditions	Workforce	Engagement Platform	Quality, Safety, & Risk	Infrastructure	Accountability	Culture
<ul style="list-style-type: none"> • Vision and Health Goals • Priorities and Strategic directions • Policy and strategy aligned to promote equity in access to primary care services • Strategic systems/services for family practice and primary health care • Ongoing development & implementation Primary care management structures that support ongoing service development, monitoring & accountability • Quality management infrastructure • Leadership models, including co-leadership • Governance of primary care practices • Integration of primary health care in the health care system • Planning and leadership aligned to local geographies (networks and clusters) 	<ul style="list-style-type: none"> • Health care funding and expenditure • Primary care funding and expenditures • Employment arrangement • Remuneration and income for workforce aligned with models of care • Funding formulas that represent the populations & geographies served • Investment in and reallocation of funding to primary health care • Funding structures to promote value and improve quality and provide incentives for health outcomes 	<ul style="list-style-type: none"> • Current and future projected profile of primary health care workforce • Professionals working to full scope of professional license • Education, mentoring, and retention • Academic and post graduate development of primary health care disciplines • Future development of the primary health care workforce based on clinical and primary health care competencies 	<ul style="list-style-type: none"> • Engagement models and strategies adapted for all partner groups, i.e. citizens, family physicians, private providers, community partners • Targeted engagement with health care system partners (e.g., mental health and addictions, continuing care, public health, acute care and specialty partners, etc), • Build capacity and competencies among team members to support ongoing engagement 	<ul style="list-style-type: none"> • Evidence based care standards • Measurement and evaluation frameworks and reporting • Quality improvement focus in all streams of work 	<ul style="list-style-type: none"> • Information technology • Information management processes • One patient One Record • Physical spaces and policies that support collaborative care 	<ul style="list-style-type: none"> • Accountability agreements • Establishment of priorities • Ability & commitment to continually understand the populations we serve & adapt to meet the needs of the population 	<ul style="list-style-type: none"> • Person & family centered • Interprofessional teams • Population health and determinants of health focus • Engagement in change management approaches • Provider and patient engagement / citizen and family

Functions and Enablers for the Nova Scotia Primary Health Care System



ACCREDITATION CANADA QUALITY DOMAINS

Dimensions



Population Focus: Work with my community to anticipate and meet our needs



Accessibility: Give me timely and equitable services



Safety: Keep me safe



Worklife: Take care of those who take care of me



Client-centred Services: Partner with me and my family in our care



Continuity of Services: Coordinate my care across the continuum



Appropriateness: Do the right thing to achieve the best results



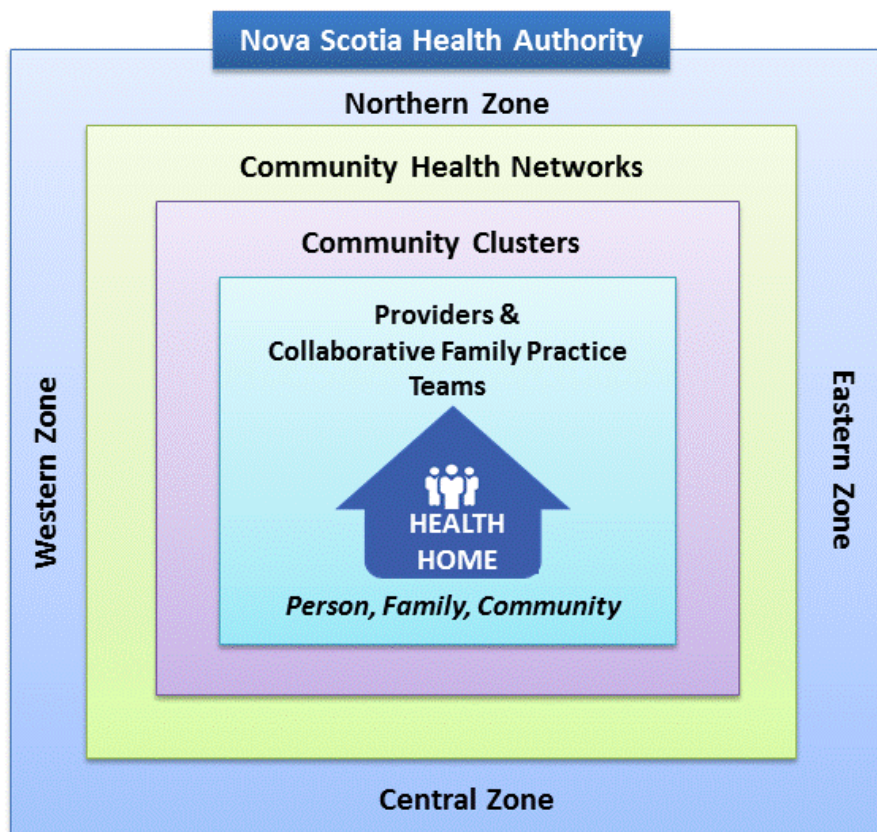
Efficiency: Make the best use of resources

DESCRIPTION OF NOVA SCOTIA CONTEXTS

As described in the section of this report on the indicator framework, the overall context in Nova Scotia outside of the PHC system influences the PHC system and its outputs and outcomes. The relevant contexts include:

- Social: e.g., social norms and values
- Cultural: e.g., cultural composition of the population
- Political: e.g., current government, political process
- Economic: e.g., economic growth, rates of poverty
- Physical: e.g., condition of roads, quality of housing
- Technology: e.g., access to information technology
- System integration: i.e., how all of the pieces of the system integrate and work together
- Legal/regulatory: e.g., laws or regulations that impact PHC

Geographic Framework for Planning



- The Nova Scotia Health Authority is responsible for health care delivery across the *province*
- The Nova Scotia Health Authority is divided into four management *zones*
- Community Health Networks* are geographic based and serve as a mechanism to facilitate linkages across all health system and community partners, linking primary, secondary, tertiary, and diagnostic care across settings (hospital, community, long term care)
- Community Clusters* represent communities in NS that have been clustered together to share health care resources, promoting access at a local level
- Collaborative Family Practice Teams* form the basis of the health home; different types of PHC providers collaborate and promote accessible, coordinated, comprehensive, continuous, primary care, sharing responsibility and resources for a practice population.
- Providers* working in the community may be working in groups or independently. All providers working in the community should be supported by a broader team with access to resources regardless of remuneration model.
- All working in partnership with an informed and activated *person, family, and community*

<https://www.spor-maritime-srap.ca/sites/default/files/Community%20Cluster%20Report%20-%202017-01-25%20-%20FINAL.pdf>

ZONE	COMMUNITY HEALTH NETWORKS	POPULATION ¹	NUMBER OF CLUSTERS
Western (194,501)	Lunenburg & Queens	57,544	4
	Yarmouth, Shelburne, & Digby	58,550	4
	Annapolis & Kings	78,507	5
Northern (150,597)	Colchester East Hants	73,352	6
	Cumberland	31,344	4
	Pictou County	45,901	3
Eastern (163,217)	Antigonish & Guysborough	27,315	3
	Cape Breton County	102,397	4
	Inverness Victoria Richmond	33,305	6
Central (412,068)	Dartmouth/Southeastern	115,610	5
	Halifax Chebucto/Peninsula	169,461	8
	Bedford/Sackville	87,838	4
	Eastern Shore Musquodoboit	18,203	1
	West Hants	20,956	1

¹ Census 2011 updated December 2015

INDICATOR SELECTION CRITERIA

1. Important and Actionable: Indicators should:
 - a. Be relevant for Nova Scotia;
 - b. Be relevant to policy, planning and/or system management needs for the Primary Health Care system;
 - c. Reflect issues of provincial importance;
 - d. Be useful and applicable to the people that will be using the indicators; and
 - e. Be useful for PHC system performance improvement (i.e., indicator data is useful to support decision-making and can be acted on to improve the PHC system).

2. Feasible
 - a. Baseline data for the indicator should be readily available or obtainable within the timeline required.
 - b. The value of the data for an indicator (including ongoing data collection and monitoring) should be greater than the burden (cost, personnel, etc.) of data collection.
 - c. Data should be available with appropriate frequency.

3. Credible:
 - a. Indicators should be both valid (accurately reflect the dimension of PHC system performance it is supposed to assess) and reliable (produce consistent results).
 - b. Indicators that are collected for sub-groups of the population should have sufficient coverage to ensure against misleading results (e.g., potential bias with a small population).
 - c. There should be a good evidence base to support the indicator or the indicator should be innovative and make a clear contribution to expanding/informing the evidence base.

4. Comparable:
 - a. Indicators should be comparable across people (e.g., sub-populations) and places (e.g., national, provincial, zone, or community level).
 - b. Indicators that reflect a small sample of the population or only part of the geographical area of the province should only be used if no other data source is available.
 - c. Indicator data should be comparable over time.
 - d. Where possible and appropriate, indicators that are comparable nationally and/or internationally should be selected.

5. Understandable:
 - a. Indicators should be understandable to a range of audiences.
 - b. Indicators should be straightforward to interpret, avoiding ambiguity about whether the performance being monitored has improved or deteriorated.

DESCRIPTION OF THE MULTI-VOTING PROCESS

As described in the section of the report on the indicator selection process, a multi-voting process was used to narrow down the list of indicators to be included in this report from 95 to less than 30. This took place at a meeting of key stakeholders on Jan. 31, 2017. The process was as follows:

- The group used a “dotmocracy” process to conduct the voting, with those participating remotely submitting their votes via a poll on Lync or by typing in their choices if a poll was not feasible due to the number of options.
- Indicators were categorized by indicator type (input, activity, output, outcome), by function or enabler (i.e., the five functions and eight enablers represented in the Functions and Enablers of PHC document), and by Accreditation Canada domain (Accessibility, Appropriateness, Client-centred Services, Continuity, Efficiency, Population Focus, Safety, Worklife).
- The voting followed the structure of the PHC indicator framework, moving from inputs, to activities, to outputs, to outcomes.
- The **first round of voting** involved voting on any sub-groups with five or more indicators (e.g., input indicators for workforce, output indicators for accountability, etc.). Sub-groups with fewer than 5 indicators were not included in the first round of voting, only in the second round.
- There were six indicators that reflect the NSHA Key Performance Indicators (KPIs) that PHC is required to report on, so these indicators were not voted on and moved forward automatically.
- For the voting process, if selecting between 5 or fewer indicators, each person got 1 vote; if 6-10 indicators, 2 votes each; if 10-15 indicators, 3 votes each.
- The groups included in the first round of voting were:
 - Inputs: sub-groups reviewed and voted on in round 1:
 - Economic Conditions (6 indicators)
 - Quality, Safety and Risk (5 indicators)
 - Workforce (8 indicators)
 - Activities: included all 8 indicators in this group
 - Outputs: sub-groups reviewed and voted on in round 1:
 - Accountability (6 indicators)
 - Quality, Safety and Risk (5 indicators)
 - PHC delivery (13 indicators)
 - Outcomes: sub-groups reviewed and voted on in round 1:
 - PHC delivery (7 indicators)
 - Across functions (6 indicators)
- Round 1 voting on the specific sub-groups reduced the list from 95 to 61 indicators.
- The **second round of voting** brought all the indicators together for each type of indicator, i.e., all inputs, all outputs, all outcomes (all activity indicators were already voted on in the first round).
 - Indicators for inputs were reduced from 17 to 5 indicators.
 - Indicators for activities remained at 5 indicators (this group was not voted on again).
 - Indicators for outputs were reduced from 29 to 10 indicators.
 - Indicators for outcomes were reduced from 10 to 6 indicators.
- As part of this round of voting, the group also looked at the balance of indicators across domains (i.e., the functions and enablers) and in some cases decided to add indicators back in that had been removed during the voting process to ensure coverage of certain domains.
- The group also combined some indicators and suggested changes to the wording and categorization of some indicators.

TECHNICAL NOTES

In the preparation of this report, minor changes to a small subset of indicators had to be updated from the originally agreed upon language and calculation approaches through the prioritization process. Changes were made to the phrasing of the indicator and/or calculation methodology to ensure that the data was reportable, accurate, and an appropriate reflection of the intention of the indicator in these instances.

A summary of the edits include:

- Indicator #2: Naming convention was changed from “family physicians working in different governance models” to “governance model distribution of collaborative family practice teams”
 - Rationale: to be more reflective of what was intended to be measured as part of discussions and to align with data available and currently reported by NSHA
- Indicator #4: Family physicians were removed from the calculation due to not having a commonly agreed upon methodology to establish family physician FTE to calculate variances by geography, especially since family physician vacancies are only tracked at a zone level by NSHA and only since 2017. A decision was made to refer to the report produced by NSHA’s Office of Medical Affairs responsible for physician recruitment.
- Indicator #5: Changed from “Population with a Regular Medical Doctor” to “Population with a Regular Healthcare Provider” to align with the year of available CCHS data at the time of NSHA’s formation.
- Indicator #16 – cannot reliably report on this indicator; refer to report notes.
- Indicator #18: added “primary” to the indicator name to distinguish from other types of afterhours and routine care.

