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

The Primary Health Care System Baseline Report:
Executive Summary

Nova Scotia Health Authority | Primary Health Care

nova scotia
health authority

## ACKNOWLEDGEMENTS:

## RECOMMENDED CITATION:

## FOR FURTHER INFORMATION:

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## 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*.
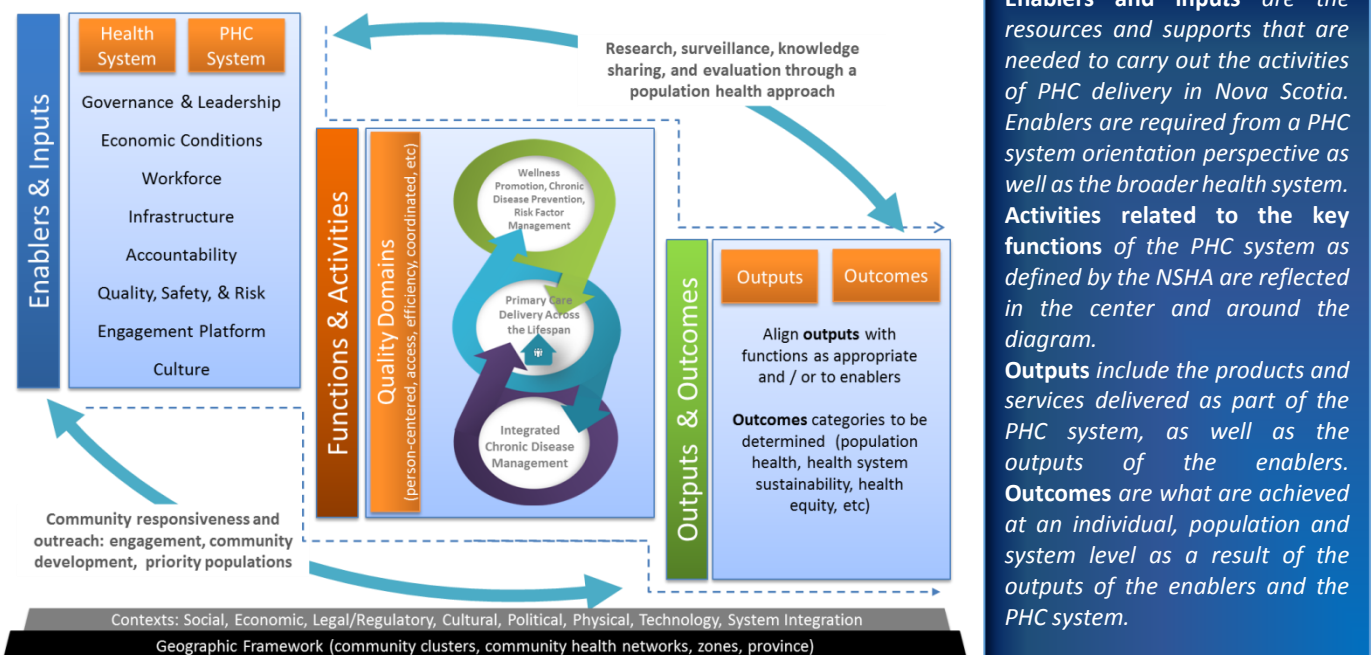
In order to appropriately design, implement, and evaluate any primary health care system, the desired outputs and outcomes, along with the indicators and measures to assess progress towards these outputs and outcomes, need to be identified. A baseline assessment of these identified indicators is needed 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.

This executive summary is a condensed overview of the technical document, *Current State Assessment of the Primary Health Care System in Nova Scotia,* which provides a comprehensive analysis of the PHC system in NS at the time of NSHA's formation. This document will serve as the foundation for future measurement and evaluation related to the impact of system change and investment in PHC. The executive summary highlights the NSHA PHC System-level Evaluation Framework, available indicators and a snapshot of their current state in NS at the time of NSHA's formation. Please refer to the full **Technical Document** for further details.

## 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.
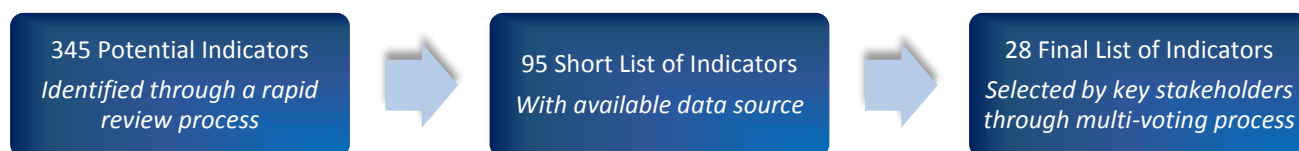
*Figure 1: NSHA PHC System-Level Evaluation Framework*



**Enablers and inputs** *are the resources and supports that are needed to carry out the activities of PHC delivery in Nova Scotia. Enablers are required from a PHC system orientation perspective as well as the broader health system.*
**Activities related to the key functions** *of the PHC system as defined by the NSHA are reflected in the center and around the diagram.*
**Outputs** *include the products and services delivered as part of the PHC system, as well as the outputs of the enablers.*
**Outcomes** *are what are achieved at an individual, population and system level as a result of the outputs of the enablers and the PHC system.*

## 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*



**345 Potential Indicators**
*Identified through a rapid review process*

**95 Short List of Indicators**
*With available data source*

**28 Final List of Indicators**
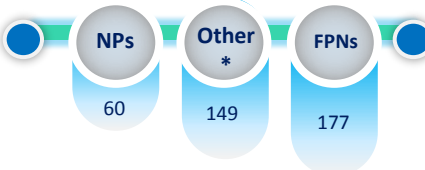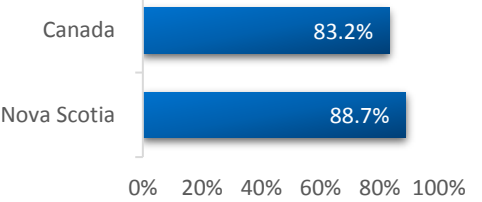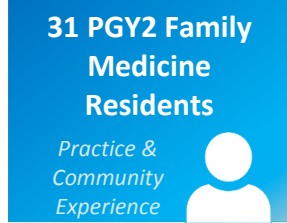*Selected by key stakeholders through multi-voting process*

## 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).
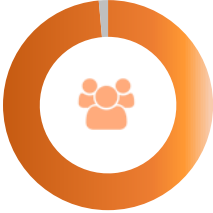
## Enablers & Inputs

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*<br>**Indicator 1: Family Physician (FP) Remuneration Method** | *Enablers and Inputs: Governance and Leadership*<br>**Indicator 2: Governance Model Distribution of Collaborative Family Practice Teams (CFPTs)** | *Enablers and Inputs: Workforce*<br>**Indicator 3: Collaborative Family Practice Teams (CFPT)** |
|---|---|---|
| Alternative payment methods **23%**  Fee-for service **77%**<br>*Data Source:* FY15-16 MSI billing data; validated 2017 | ■ Turn-key  ■ Co-leadership  ■ Other/Blended  ■ Contracted Services<br>*Data Source:* Nova Scotia Health Authority 2015-16 | 39 (2015-16)  50 (2016-17)  57 (2017-18)  83 (2018-19)  88 (2019-20)  ++ (2020-21)<br>*Data Source:* Nova Scotia Health Authority 2015-16 |
| 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). | 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. | 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. |

| *Enablers and Inputs: Workforce*<br>**Indicator 4: Difference between Available and Required PHC Human Resources** | *Enablers and Inputs: Workforce*<br>**Indicator 5: Population with a Regular Healthcare Provider** | *Enablers and Inputs: Workforce*<br>**Indicator 6: Family Medicine Learners** |
|---|---|---|
| **NPs** 60  **Other*** 149  **FPNs** 177<br><br>*Community adaptive team members, including social workers, dietitians, occupational therapists, physiotherapists, etc.*<br>*Data Source:* Nova Scotia Health Authority, 2016 | Canada **83.2%**<br>Nova Scotia **88.7%**<br>0% 20% 40% 60% 80% 100%<br>*Data Source:* Canadian Community Health Survey, 2015 | **31 PGY2 Family Medicine Residents**<br>*Practice & Community Experience*<br>*Data Source:* Dalhousie University, 2016-17 |
| The additional PHC health human resources required, by professional discipline, to support the population based on PHC planning parameters. | 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. | During the 2016-2017 academic year, there were approximately 31 medical residents completing training in Nova Scotia family medicine practices. |

| *Enablers and Inputs: Research, Surveillance, Knowledge Sharing and Evaluation*<br>**Indicator 7: Research Capacity (Participation and Partnerships)** | |
|---|---|
| 60 staff and physician leaders with research profiles<br><br>50-100 research activities<br><br>15 research study partnerships | 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.<br><br>*Data Source:* CoR-PHC, 2017; BRIC-NS, 2017; NSHRF, 2017; CIHR, 2017; NSHARF, 2017 |

## 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.

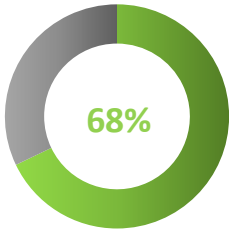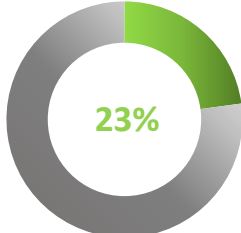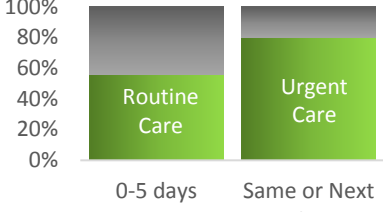| *Functions and Activities: Community Responsiveness and Outreach*<br>**Indicator 8: Programs Dedicated toward Priority Populations** | *Functions and Activities: Community Responsiveness and Outreach*<br>**Indicator 9: PHC Providers' Sensitivity to Patients' Cultural Values** | *Functions and Activities: Integrated CDM Delivery*<br>**Indicator 10: PHC Support for Self-Management of Chronic Conditions** |
|---|---|---|
| Central, 6<br>Western, 4<br>Eastern, 3<br>Northern, 3<br>Province-wide, 1<br>**17 Programs**<br>*Data Source:* Nova Scotia Health Authority, 2017 | **97%** of patients agreed or strongly agreed their PHC providers took their cultural values into account<br>*Data Source: NSHA* PHC Client Experience Survey, 2017 | **55%** of patients were always or sometimes encouraged to go to self-management programs<br>*Data Source: NSHA* PHC Client Experience Survey, 2017 |
| 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. | 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. | 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. |

| Functions and Activities: PHC Delivery | Functions and Activities: PHC Delivery |
|---|---|
| **Indicator 11: Scope of Primary Health Care Services** | **Indicator 12: PHC Provider Time in Direct Patient Care** |
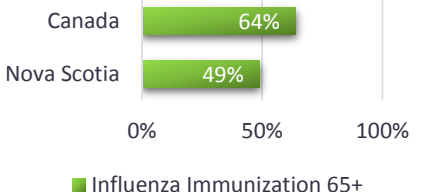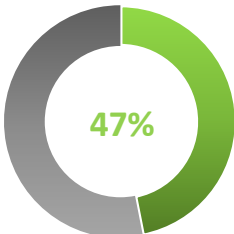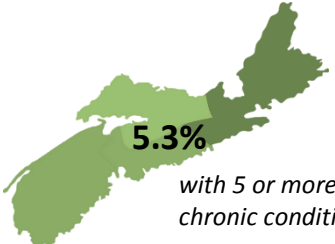
Top 5 Most Commonly Offered Primary Care Services in NS offered by Family Physicians and Nurse Practitioners

| 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% |

*Data Source:* MAAP-NS, 2015

Family Physician and Nurse Practitioner Availability for Patient Appointments, Weekly

**Average Number of Weekly Hours in Direct Patient Care**

*Nova Scotia Average*: 28 hours | *Range*: 3 hours – 61 hours

| *Western* | *Northern* | *Eastern* | *Central* |
|---|---|---|---|
| 27 hours | 31 hours | 24 hours | 29 hours |

*Data Source:* MAAP-NS, 2015

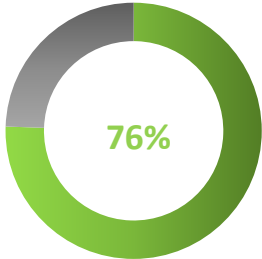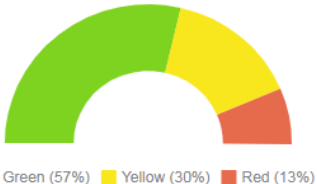| | |
|---|---|
| The MAAP-NS study looked at the scope of services provided by PHC providers (family physicians, nurse practitioners) in 2015 to assess comprehensivess of services provided. The most commonly offered services are relatively consistent across zones. | In 2015, PHC providers across NS 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). |

## 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.

| Output: Economic Conditions | Output: Engagement Platform | Output: Infrastructure |
|---|---|---|
| **Indicator 13: Per Capita Primary Health Care Expenditures** | **Indicator 14: Patient Participation in Activities** | **Indicator 15: PHC Physician use of Electronic Medical Record (EMR)** |

| | | |
|---|---|---|
| **$36** *per Nova Scotian* | *Examples of Activities:* Understanding health status, Quality Teams, Patient Experience Surveys, Blood pressure checks and cancer screening, Model design for Community Health Teams, Community Engagement, Programs Evaluation | *Provincial EMR Use* **87%** |
| *Data Source:* Primary Health Care, NSHA, 2015-16 | *Data Source:* Primary Health Care, NSHA, 2017 | *Data Source:* Department of Health & Wellness, 2017 |
| 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). *\*excludes spending on physician services and MSI billings* | 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. | 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. |

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

| *Output: PHC Delivery* **Indicator 17: Primary Care Providers Accepting New Patients** | *Output: PHC Delivery* **Indicator 18: Provision of After-Hours Care** | *Output: PHC Delivery* **Indicator 19: Wait Times for Routine and Urgent Primary Care** |
|---|---|---|
| **68%** *Data Source:* MAAP-NS, 2015 | **23%** *Data Source:* MAAP-NS, 2015 | Routine Care / Urgent Care; 0-5 days / Same or Next day *Data Source:* MAAP-NS, 2015 |
| In 2015, 68% of PHC providers indicated they are accepting new patients, either unconditionally or with exceptions (e.g., family members, newborns, etc.). | In 2015, 23% of PHC providers indicated that they were providing care after 5 pm at least one evening a week. | 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. |
| *Output: Research, Surveillance, Knowledge Sharing and Evaluation* **Indicator 20: Research Outputs** | *Output: Wellness, Prevention, Risk Factor Management* **Indicator 21: Influenza Immunization for Individuals 65 and Over** | *Output: Workforce* **Indicator 22: Family Physicians Working in Collaborative Family Practice Teams** |
| **16** Research publications **12** Grants worth $900,000 **8** Ethic Submissions *Data Source:* CoR-PHC, 2017; BRIC-NS, 2017; NSHRF, 2017; CIHR, 2017; NSHARF, 2017 | Canada 64% Nova Scotia 49% ■ Influenza Immunization 65+ *Data Source:* CPCSSN, 2016 and CIHI, 2016 | **159** Family Physicians Working in **39** Collaborative Family Practice Teams *Data Source:* Primary Health Care, NSHA, 2015-16 |
| 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. | 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. | 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. |
| *Outcome: Across Functions* **Indicator 23:** Use of Emergency Department for Minor Complaints | *Outcome: Across Functions* **Indicator 24:** Prevalence of Individuals with Self-Reported Five or more Chronic Conditions | *Outcome: Integrated Chronic Disease Management Programs and Services* **Indicator 25:** Ambulatory Care Sensitive Conditions (ACSC) Hospitalization Rate |
| **47%** *Data Source:* EDIS, Meditech, and STAR data, Nova Scotia Health Authority, 2017 | **5.3%** *with 5 or more chronic conditions* *Data Source:* Canadian Community Health Survey, 2013 | *Hospitalization Rate for ACSCs* **355 per 100,000** *Data Source:* CIHI 2014-15 |
| 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%). | 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. | 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. |

| Outcome: Primary Care Delivery Across the Lifespan<br>**Indicator 26:** PHC Patient Access to Health Care | Outcome: Primary Care Delivery Across the Lifespan<br>**Indicator 27:** Patient Involvement in Decisions about their Care and Treatment | Outcome: Quality, Safety, and Risk<br>**Indicator 28:** Patient Safety Culture |
|---|---|---|
| **76%**<br><br>Data Source: NSHA PHC Client Experience Survey, 2017 | **96%**<br><br>*Data Source:* QUALICOPC (Quality and Costs of Primary Care) Canada, 2013 | ■ Green (57%) ■ Yellow (30%) ■ Red (13%)<br><br>Patient Safety Culture Flags<br>*Data Source:* NSHA Patient Safety Culture Survey, 2016 |
| 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. | 96% of patients in NS indicated that their doctor involved them in making decisions about treatment and/or health related goals at their visit. | 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. |

## 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. This executive summary provides high level summary of the process, PHC system-level evaluation framework, and a snapshot of the 28 indicators that were short-listed through the process and their 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).

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.