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

The Primary Health Care 2019–20 System Performance

Report: Executive Summary

Nova Scotia Health | Primary Health Care

Date of release: March 2021





This document is an executive summary only.

Please refer to the full **Technical Document** for further details and detailed specifications for the indicators and data sources.

### **ACKNOWLEDGEMENTS:**

The Current State Assessment of the Primary Health Care System in Nova Scotia, 2019-20 Update was completed as a result of data contributions from many Primary Health Care leaders, providers, researchers, and partners.

### **RECOMMENDED CITATION:**

Primary Health Care, Nova Scotia Health (2021). Current state assessment of the primary health care system in Nova Scotia: The primary health care 2019-20 system performance report. Nova Scotia: Primary Health Care, Nova Scotia Health.

### FOR FURTHER INFORMATION:

For information about any of the concepts included in this paper, please contact: <a href="mailto:primaryhealthcare@nshealth.ca">primaryhealthcare@nshealth.ca</a>

### **EXECUTIVE SUMMARY**

### 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 during their lives. Nova Scotia Health has been moving forward in a purposeful and planned way toward a broad vision for a strengthened primary health care system. The primary health care system in Nova Scotia has undergone transformational change over the last several years through investments to strengthen collaborative family practice teams and infrastructure for the community-based primary health care system. This has occurred alongside a focus to strengthen the supports available for Nova Scotians to live well and manage their chronic conditions. The COVID-19 pandemic has showed us there is great potential to rapidly innovate and enhance how we do our work virtually.

Together with clinicians, patients, and families, we have continued to explore how we enhance the quality of our programs and services to support a safe, person-centred, quality-oriented primary health care system. Monitoring the performance of the primary health care system through ongoing evaluation, data analytics, and research to support data-driven decision making, effectiveness, and the monitoring of key performance indicators are critical components of ensuring a high quality primary health care system.

To measure the effectiveness of the ongoing system transformation in primary health care, Nova Scotia Health Primary Health Care (PHC) released a report outlining a novel system-level evaluation framework, process for indicator identification and selection, and measurement of 28 priority indicators using readily available data sources at the time of Nova Scotia Health's formation. Published in 2019, the *Current State Assessment of the Primary Health Care System in Nova Scotia* served as a baseline assessment of the primary health care system in Nova Scotia at the time of Nova Scotia Health's formation, as well as a foundation for future measurement.

The current report presents an update of the 28 priority indicators using the most recent available data as of March 31, 2020. Comparisons with previous years are made where data is available. For detailed background on the development of the system-level evaluation framework and process for indicator selection, please see the first release of the Current State Assessment available on the Nova Scotia Health website here.

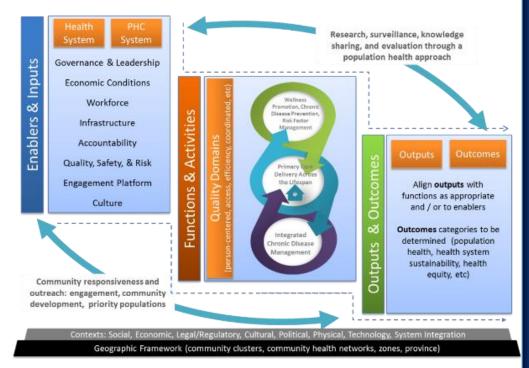
This series of system performance reports will continue to serve as the foundation for future measurement and evaluation related to the transformation of the NS primary health care system over time. We would like to thank all stakeholders who participated in this work and provided data to support the updated report. It is our commitment to work together with all stakeholders as part of our quality and system performance journey; we must continue to focus on a strong foundation of quality to support sustainable transformation of the primary health care system in Nova Scotia.

<sup>&</sup>lt;sup>1</sup> Depending on data availability, data sources aligned with key indicators between the first report and the data sources used with the present update may vary. Careful consideration should be taken when comparing data across years. For full details on the data sources, please refer to the enclosed Technical Report. Although some changes in data sources may occur, the goal was to maintain the integrity of the intent of the indicator and what it was chosen to measure.

### 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 Nova Scotia Health and considers the broader geographic, economic, and social context in Nova Scotia (Figure 1). The development of the Nova Scotia Health PHC System-level Evaluation Framework was guided and influenced by key documents, guiding frameworks, and stakeholder input.

Figure 1: Nova Scotia Health 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 Nova Scotia Health 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.

### 2019-20 UPDATED PHC SYSTEM CURRENT STATE ASSESSMENT HIGHLIGHTS

The literature identifies the importance of monitoring change over time as it relates to reorienting health systems and strengthening primary health care, as outomes can take time to emerge (Shi, 2012; Friedburg et al., 2010). Although it has been a relatively short period of time since our first report, there are several changes to note in the selected indicators, particularly those relating to structural measures. Highlights since the first release of the Current State Assessment are identified below.

### **HIGHLIGHTS**

- The primary health care system in NS has experienced **substantial growth** over the past five years. For example:
  - ✓ The number of collaborative family practice teams has more than doubled since FY2015-16, increasing by 120% from 39 to 86 teams. [Indicator 3]
  - ✓ In FY2018-19, 28.1% of the population in Nova Scotia was served by a collaborative family practice team. This number is expected to have grown since FY2018-19 given the continued growth in collaborative family practice teams since that time. [Indicator 16]
  - ✓ NS Health Primary Health Care has grown and expanded the workforce of interprofessional team members working collaboratively with family physicians and others, with over 150 clinical staff, including nurse practitioners, family practice nurses, licensed practical nurses, social workers, and dietitians, being hired through the new investment from government since 2017. [Indicator 4]
  - ✓ The number of family physicians working in team-based care has increased by 137% since Nova Scotia Health's formation, with approximately 377 family physicians working in collaborative family practice teams as of March 31, 2020, up from approximately 159 in FY2015-16. [Indicator 22]
  - ✓ NS Health Primary Health Care has instituted more programs and initiatives for populations experiencing vulnerabilities, increasing the number of programs, initiatives, or services available from 17 to 38 (124% increase) since 2017. [Indicator 8]
- **Governance structures** and **payment models** are important enablers for collaborative, team-based care and there have been changes in these enablers reflecting changing models of care delivery:
  - ✓ Since the new investment in collaborative family practice teams, the distribution of governance models for primary care delivery has changed, with co-leadership (64%) now surpassing turn-key (27%) as the primary governance model in Nova Scotia for collaborative family practice teams in FY2019-20. [Indicator 2]
  - ✓ Fee-for-service remains the predominant remuneration method for family physicians in Nova Scotia. However, there has been a 39% growth in the number of family physicians remunerated through alternative payment plans in the last 5 years. [Indicator 1]
- Regarding access to primary health care:
  - ✓ The number of Nova Scotians self-reporting they had a regular health care provider was 85.6% in 2019, which is on par with the national rate of 85.5%. This number has dropped by 3.5% from 88.7% in 2015. As of March 31, 2020, there was 5.0% of Nova Scotians who identified that they were seeking a primary care provider by registering on the Need a Family Practice Registry. [Indicator 5]
  - ✓ More Nova Scotians are reporting that they did not have difficulties getting the health care or advice they needed, indicating we are doing better with access, according to our latest

- Patient Experience Survey, which shows 17% fewer Nova Scotians reporting that they had difficulties accessing the care they needed from 2017 to 2019. [Indicator 26]
- ✓ We have observed substantial differences in the number of family physicians accepting new patients in Nova Scotia between 2015 and 2019; however, this indicator should be interpreted with caution due to the differences in the data source between the two years' of data. In a 2019 Commonwealth Fund survey, 24.4% of NS family physicians responded that they are accepting new patients, either unconditionally or with exceptions, which represents a 64% decrease from 2015's data obtained through the MAAP-NS research study.
- ✓ According to the 2019 Commonwealth Survey, the majority of family physicians in Nova Scotia (67%) reported spending 45 hours per week or more in direct patient care and 53.5% reported that they provide appointments after 6pm at least one evening during the week, Monday to Friday. [Indicator 12, 18]
- ✓ There is a gap in the availability of current, accurate data related to wait times for routine and urgent primary care in Nova Scotia. Previously, we had reported on this indicator using data from the MAAP-NS research study (2015); however, no comparable data source was available to report on this indicator at a systematic level in 2019-20 to gauge Nova Scotian's ability to access routine and urgent primary care. [Indicator 19]
- The primary health care system requires **continued investment** to observe the benefits achieved in other countries with a strong foundation of primary health care (i.e., better population health outcomes, reduced inequities in population health, and lower rates of hospitalization resulting in reduced health care costs).
  - ✓ In 2019-20 the budget for the Primary Health Care program within Nova Scotia Health was \$63.2M, which equates to spending \$68 per person (or \$6.8M per 100,000 people) on primary health care programs and services. This is up from \$36 per person (or \$3.6M per 100,000 people) at the time of Nova Scotia Health's formation. It is important to note that these per capita spending figures *excludes* spending on physician services and MSI billings, which is the predominant source of primary health care expenditures for the population. [Indicator 13]
- Supporting the population to **live well and and manage their chronic conditions** are core functions of the primary health care system.
  - ✓ 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) has decreased by more than half, from 5.3% (FY2013-14) to 2% (FY2017-18). This is based on self-reported data for a sample of the population, so the statistic should be interpreted with that in mind. [Indicator 24]
  - ✓ Since 2017, 29% more patients have reported that they were 'always or sometimes' encouraged to go to a specific group, program or class to help them manage their health concerns as part of our Patient Experience Survey. [Indicator 10]
- The scope of services provided by primary health care providers is an important part of assessing the **comprehensiveness** attribute of the primary health care system.
  - ✓ The 2019 Commonwealth Fund Survey provided continued indication that primary care providers in Nova Scotia provide a wide variety of services to patients and providers were well-prepared or somewhat prepared to manage care for patients with: chronic conditions (100%), mental illness (96.7%), substance-abuse-related issues (85.9%), palliative care needs (90.8%), and dementia (91.8%).

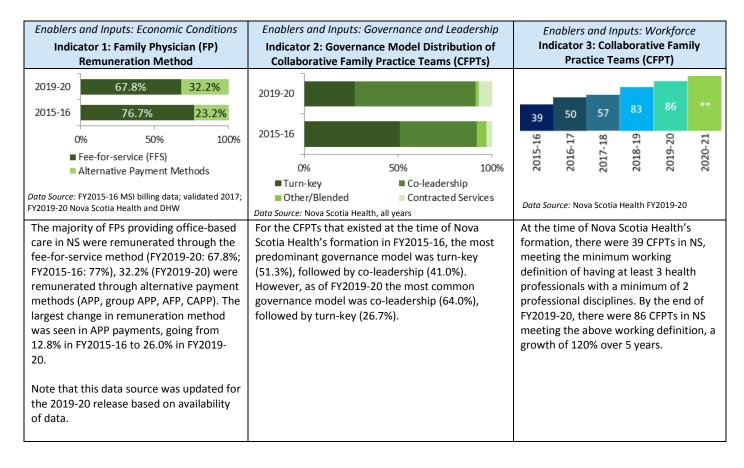
- ✓ Of note, 35.8% of respondents reported that they were not prepared to offer services to patients requesting medical assistance in dying and 11.8% of respondents reported that they were not prepared to offer services to patients with substance use related issues, indicating areas for further investigation in NS. [Indicator 11]
- ✓ As part of this same survey, only 10% of providers indicated that they were providing video consultations for patients, which given the COVID-19 pandemic and the rapid introduction of virtual care, makes this an indicator to monitor over time.
- Ensuring that our programs and services remain patient-centred and take into account the diverse backgrounds of all of the populations we serve is a critical component of the primary health care system.
  - ✓ Primary Health Care reports consistently high results when it comes to staff taking patients' cultural values and those of their family or caregiver into account. 96.4% of patients reported that this was the case in our latest 2019 Patient Experience Survey. [Indicator 9]
  - ✓ Having patients as active partners in their care is an important element of communication and patient-centred care. 95.5% of patients reported that their health care provider/team involved them in making decisions about their care in our latest Patient Experience Survey. [Indicator 27]
  - ✓ In addition to partnering with patients in their care, Primary Health Care has also valued partnering with patients and families at a system-level through the engagement of patient and family advisors in a variety of planning, quality, and safety initiatives. As of 2020, there were at least 40 patient and family advisors involved in PHC initiatives across Nova Scotia. [Indicator 14]
- Influenza has the potential to impact high-risk groups, such as seniors, and was selected as a condition to monitor due to the importance of vaccination in primary health care and other community settings, such as pharmacies:
  - ✓ Over the last 5 years, the national rate of influenza immunization in individuals aged 65 and older has increased (to 70.3% FY2019-20 from 64.6% in FY2015-16), while the rate in Nova Scotians in this age group has decreased (to 61.7% FY2019-20 from 68.4% in FY2015-16), indicating an area of improvement for Nova Scotia. [Indicator 21]
- There has been substantial change in the **EMR landscape** in Nova Scotia over the past two years with the sun-setting of some EMR systems and the introduction of new vendors:
  - ✓ In 2017, the predominant EMR in the province was Nightingale on Demand (80% of users) and in 2020, the predominant EMR is Telus' MedAccess (67% of users), followed by QHR's Accuro (31% of users).
  - ✓ EMR use in Nova Scotia remains high, with 83.1% of family physicians and 100% of Nova Scotia health-employed nurse practitioners using an EMR. [Indicator 15]
- Primary Health Care has continued to grow its research profile, ensuring PHC researchers are
  actively involved in leading and partnering on research grants and contributing to the literature
  through publication.
  - ✓ Over 100 staff and physician leaders from Nova Scotia Health's Primary Health Care Program and Dalhousie University's Department of Family Medicine (DFM) have research profiles, which is up from 60 individuals in 2016-17, representing a 67% increase.
  - ✓ Nova Scotia Health PHC staff, DFM and CoR-PHC are reporting over \$1,000,000 in CIHR funded grants in FY2020-21, and have completed 15 ethic submissions and 25 research publications in the past year. [Indicator 7 & 20]

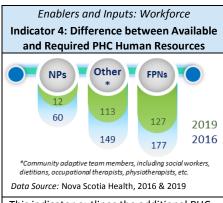
- **Teaching and learning** remains a priority of the primary health care system when it comes to training future health professionals, such as family physicians and nurse practitioners:
  - √ 36 family medicine residents (PGY2) completed training in NS family practices in the 2019-20 academic year, which is 5 more residents than 2016-17, indicating increased training capacity for family medicine.
  - √ 90 nurse practitioner students completed preceptorships in Primary Health Care in the 2019-20 academic year. [Indicator 6]
- Given primary health care is the foundation of the health care system, it is important to monitor select indicators in other parts of the health care system to assess the impact that the primary health care system may be having in these areas:
  - ✓ We have observed improvements in the rate of hospitalization for ambulatory care sensitive conditions. In FY2018-19 the rate of hospitalization for ambulatory care sensitive conditions in patients younger than age 75 decreased to 341 per 100,000 people, from 355 per 100,000 people. [Indicator 25]
  - ✓ Looking at the percentage of Emergency Department (ED) visits across the province *may* be 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. It is important to note that many ED visits triaged as CTAS level 4 or 5 may be very appropriate for an ED setting. The number of ED visits in Nova Scotia triaged as CTAS level 4 or 5 decreased slightly to 43.3% in FY2019-20 from 46.9% in FY2016-17. [Indicator 23]
- The overall **patient safety culture** within the organization is something that is critical to monitor over time to ensure safe, high-quality care and a just-culture for staff and physicians.
  - ✓ In the latest 2020 Patient Safety Culture survey, Primary Health Care showed improvements in the number of staff responding positively to measures of patient safety culture when compared to the previous survey in 2018. The majority of responses (52%) were considered positive in 2020 (i.e., green flags) and work is ongoing to continue to improve patient safety culture. [Indicator 28]

This executive summary provides a snapshot of the 28 indicators updated as part of the 2019-20 primary health care system current state assessment. Aligning with each component of the system-level evaluation framework (Figure 1), indicators are organized by the following three types: (1) Enablers and Inputs; (2) Functions and Activities; and (3) Outputs and Outcomes. The technical report provides detail related to the background and current context of primary health care in Nova Scotia, as well as information related to the indicator data sources and calculation methodology, along with detailed results.

# 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.





This indicator outlines the additional PHC health human resources required, by professional discipline, to support the population, based on PHC planning parameters. For all three professional discipline categories, the additional resources required has decreased from 2016 to 2019, indicating more professionals were hired during this time period.

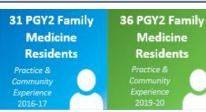
### Enablers and Inputs: Workforce Indicator 5: Population with a Regular **Healthcare Provider**



Data Source: Canadian Community Health Survey, 2015-2019

In 2015, 88.7% of Nova Scotians who responded to the CCHS indicated that they had a regular health care provider. This was above the national rate of 83.3% Canadians. However, this decreased to 85.6% in 2019, which is approximately equivalent to Canada's rate of 85.5%.

### Enablers and Inputs: Workforce **Indicator 6: Family Medicine and Nurse Pracititioner Learners**



Data Source: Dalhousie University, 2016-17 & 2019-20; HSPnet database. 2019-20.

During the 2016-17 academic year, there were approximately 31 medical residents completing training in Nova Scotia family medicine practices. The number of medical residents completing training in Nova Scotia family medicine practices increased to 36 in the 2019-20 academic year, a difference of 5 PGY2 residents. As well, 90 nurse practitioner students completed preceptorships in PHC in the 2019-20 academic year.

### Enablers and Inputs: Research, Surveillance, Knowledge Sharing and Evaluation Indicator 7: Research Capacity (Participation and Partnerships)



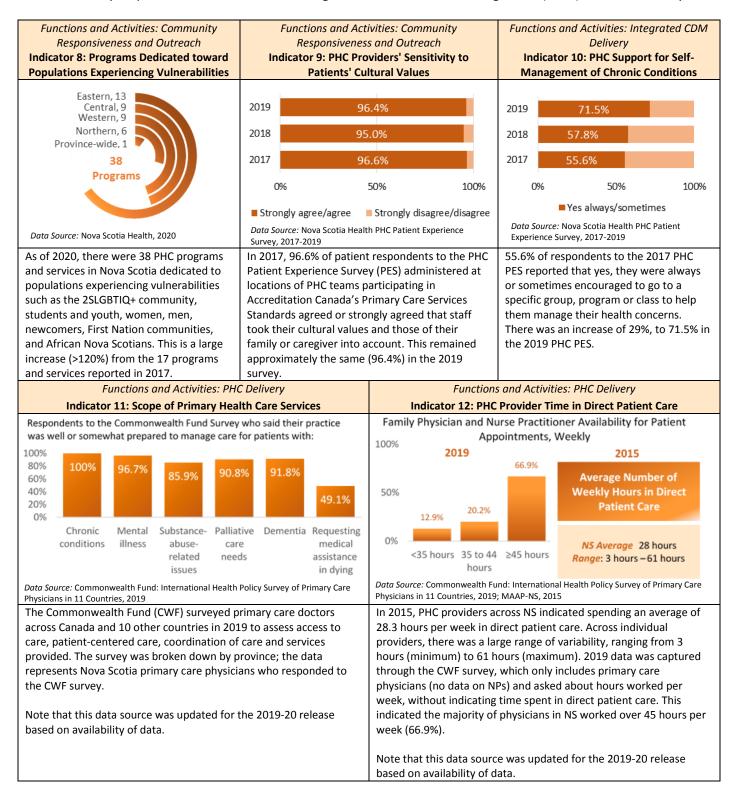
Data Source: CoR-PHC; BRIC-NS; NSHRF; CIHR; NSHARF; FY2016-17 & FY2020-21

Approximately 60 PHC staff and physician leaders from the Nova Scotia Health and Dalhousie Family Medicine (DFM) have research profiles. Other results included 50-100 research activities and 15 research study partnerships, for FY2016-17. Over 100 staff and physician leaders from Nova Scotia Health and DFM have research profiles in FY2020-21, a 67% increase from FY2016-17.

**Note:** We are unable to report the number of research activities and research study partnerships for FY2020-21 due to a lack of available data.

### **Functions & Activities**

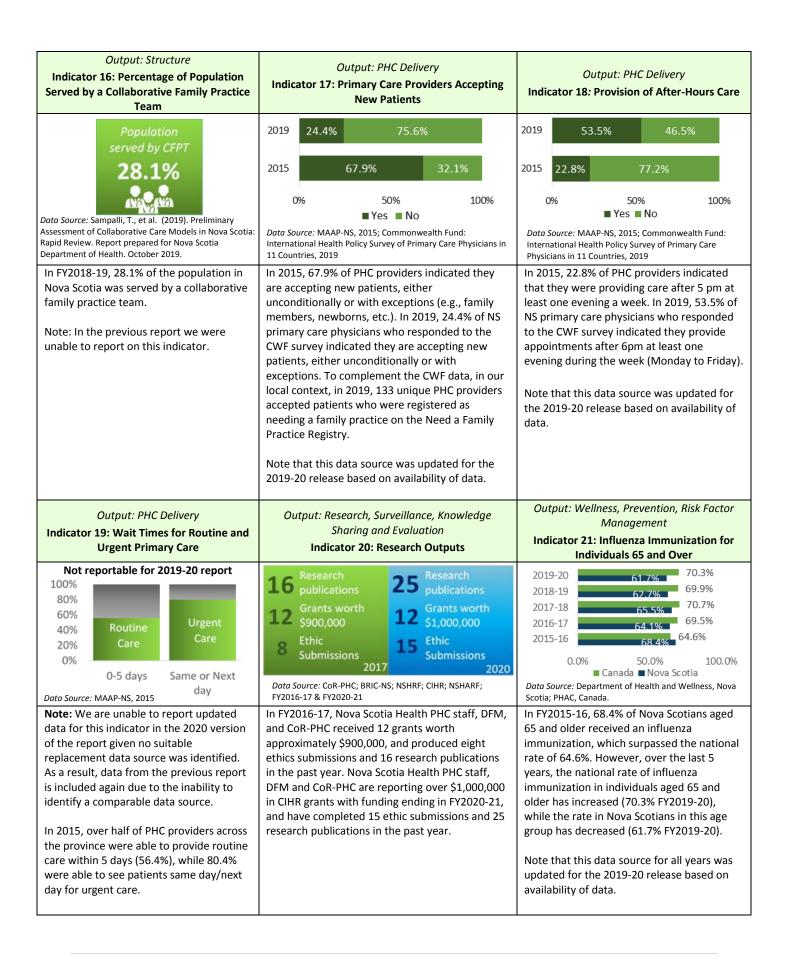
The next five indicators are classified as functions and activities and align with the framework domains: community responsiveness and outreach, integrated chronic disease management (CDM) and PHC delivery.



## 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 Indicator 13: Per Capita Primary Health Care Expenditures	Output: Engagement Platform Indicator 14: Patient Participation in Activities	Output: Infrastructure Indicator 15: PHC Physician use of Electronic Medical Record (EMR)
2015-16 2019-20 \$36 \$68  per Nova Scotian  Data Source: Primary Health Care, Nova Scotia Health, 2015-16 & 2019-20	Quality and Safety  Patient Experience Survey Redesign  Medication Self- Management Working Group COVID-related activities  Data Source: Primary Health Care, Nova Scotia Health, 2018-2020	Provincial EMR Use  2017 2019 2020  86.6% 85.7% 83.1%  Data Source: Department of Health & Wellness, 2017 & 2020; Commonwealth Fund: International Health Policy Survey of Primary Care Physicians in 11 Countries, 2019; Primary Health Care, Nova Scotia Health 2020,
Primary Health Care's budget was \$33.3M at the time of Nova Scotia Health's formation in 2015-16. This equated to Nova Scotia Health 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). In 2019-20 PHC's budget increased by 90% to \$63.2M, which equates to spending \$68 per person (or \$6.8M per 100,000 people) on primary health care programs and services (based on a population of 923,598, Census, 2016).  *excludes spending on physician services and MSI billings, which is the predominant source of primary health care expenditures for the population.	At the time of the previous report, recruiting patient and family advisors (PFAs) in PHC planning and quality was in its early stages. In the last three years (2018-2020), PFAs have been involved in Quality and Safety committees across all zones, as well as a number of other PHC initiatives. As of 2020, there are 40 PFAs involved in PHC initiatives across Nova Scotia.	In 2017, approximately 86.6% of FPs in the province were on an EMR. Of all physicians using an EMR, 79.9% used Nightingale on Demand. Of the NS primary care physicians who responded to the CWF survey in 2019, 85.7% indicated using an EMR in their practice. In 2020, approximately 83.1% of FPs in the province used an EMR, with 66.9% using Telus' Med Access and the remainder predominately using QHR's Accuro (31.1%). In addition, 100% of Nova Scotia Health's PHC nurse practitioners use an EMR.  Note that this data source was updated for the 2019-20 release based on availability of data.



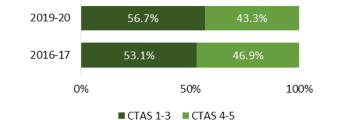
### Output: Workforce

# Indicator 22: Family Physicians Working in Collaborative Family Practice Teams

### **Outcome: Across Functions**

**Indicator 23:** Use of Emergency Department for Minor Complaints





Data Source: Primary Health Care, Nova Scotia Health, FY2015-16 & FY2019-20

Data Source: EDIS, Meditech, and STAR data, Nova Scotia Health, FY2016-17 & FY2019-20

At the time of Nova Scotia Health's formation, there were approximately 159 family physicians working in 39 collaborative family practice teams. As of March 31, 2020, there were approximately 377 family physicians working in 86 CFPTs, a 137% increase in family physicians working in team-based care. Note this is an <a href="mailto:estimated head-count">estimated head count</a> of family physicians only and does represent full-time equivalents.

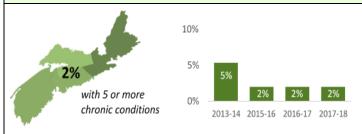
Almost half (46.9%) of all Emergency Department (ED) visits across the province in FY2016-17 were triaged as semi-urgent (CTAS level 4) or non-urgent (CTAS level 5), according to the Canadian Triage and Acuity Scale. The number of ED visits in Nova Scotia triaged as CTAS level 4 or 5 decreased slightly to 43.3% in FY2019-20.

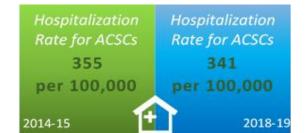
### Outcome: Across Functions

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





Data Source: Canadian Community Health Survey, FY2013-14 to FY2017-18

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 5.3% in Nova Scotia in FY2013-14. Over the years this has decreased by more than half to 2% (FY2017-18).

Data Source: Canadian Community Health Survey FY2014-15 & FY2018-19

In FY2014-15, Nova Scotia recorded a hospitalization rate for

ambulatory care sensitive conditions of 355 hospitalizations per 100,000 people in patients younger than age 75. In FY2018-19 the rate of hospitalization for ambulatory care sensitive conditions in patients younger than age 75 decreased to 341 per 100,000 people.

Note that this data source was updated for the 2020 release based on availability of data.

