



# Indigenous Health and Well-being

This report was prepared in accordance with commitments  
in the 2005 *Transformative Change Accord*.

## Final Update

July 1, 2018



Office of the  
Provincial Health Officer



First Nations Health Authority  
Health through wellness

## Forward message from the project team:

The following report was prepared in accordance with the *Transformative Change Accord: First Nations Health Plan*, and was completed in July 2018. The report and its findings were presented to the Tripartite Committee for First Nations Health on September 19, 2018, but not publically released until December 2018. During this period of time, joint projects between the Office of the Provincial Health Officer and the Office of the Chief Medical Officer have continued to progress, with the following developments:

- Completion of a joint report focused on Indigenous women's health has been delayed from 2018 to a release in 2019.
- A baseline measure for childhood obesity was not released in Summer 2018, but is anticipated to be released in Fall 2019 within the Population Health and Wellness Agenda baseline report.
- A mechanism for collecting data regarding the number of practicing certified First Nations health care providers is underway and is anticipated to be released in Fall 2019 within the Population Health and Wellness Agenda baseline report.

## Table of Contents

<b>Executive Summary</b> .....	<b>1</b>
<b>Introduction</b> .....	<b>2</b>
The Indigenous Population of BC.....	2
Changes to First Nations Health Governance.....	2
Background.....	3
<b>Measuring Progress</b> .....	<b>4</b>
Terminology .....	4
Data Source .....	4
First Nations Health Indicators and Targets.....	4
Commitments by BC's Provincial Health Officer.....	5
Indigenous Health Physician Advisor.....	5
Health Status Reports .....	5
Measuring Progress .....	5
1. Life Expectancy .....	7
2. Mortality Rate.....	9
3. Youth Suicide Rate.....	11
4. Infant Mortality Rate.....	13
5. Diabetes Prevalence .....	15
6. Childhood Obesity .....	18
7. Number of Practising, Certified First Nations Health Care Professionals .....	18
<b>The Next 10 Years</b> .....	<b>19</b>
The First Nations Population Health and Wellness Agenda.....	19
Selection of the Indicators .....	19
<b>Conclusion and Summary</b> .....	<b>21</b>
<b>Appendix A: Data Sources –</b> .....	<b>22</b>
The First Nations Client File .....	22
Governance of the First Nations Client File.....	22
Data Challenges and Limitations .....	22
<b>References</b> .....	<b>24</b>

## Executive Summary

The *Transformative Change Accord (TCA)*, released in 2005, identified improving health outcomes for First Nations peoples as a key priority and commitment in BC. The subsequent document the *Transformative Change Accord: First Nations Health Plan (TCA:FNHP)*, released in 2006, set out specific health targets to achieve by 2015 on seven indicators: 1) life expectancy; 2) mortality rate; 3) youth suicide rate; 4) infant mortality rate; 5) diabetes prevalence; 6) childhood obesity; and 7) practising, certified First Nations health care professionals. TCA:FNHP's overarching goal was to close the gap in health status between First Nations and other British Columbians. This final interim update shows progress made towards achieving the established targets for these indicators. It also introduces a suite of 22 new indicators that will be monitored for the next 10 years, beginning in 2019.

This report provides the following findings:

- **Life expectancy** among Status First Nations<sup>a</sup> has improved since the baseline year, but the gap has increased; as a result, this indicator did not meet the TCA:FNHP target.
- The **age-standardized mortality rate** of Status First Nations has improved somewhat since the baseline year but the gap has increased; as a result, this indicator did not meet the TCA:FNHP target.
- The **youth suicide rate** of Status First Nations has decreased since the baseline year. While the gap has been reduced, this indicator did not quite meet the TCA:FNHP target.
- The **infant mortality rate** among Status First Nations decreased in some years, but overall did not improve since the baseline year, and the gap has increased; as a result, this indicator not meet the TCA:FNHP target.
- The **diabetes prevalence rate** among Status First Nations has continued to increase, but the rate of increase has decelerated, resulting in a reduction in the gap. Therefore, this indicator met (and exceeded) the TCA:FNHP target.

---

<sup>a</sup> See Terminology sub-section for discussion of terms used in this report.

The report also provides an update on

- Work completed to develop a baseline and an ongoing mechanism for collecting relevant data on **childhood obesity** among Status First Nations.
- Work done to develop a baseline and an ongoing mechanism for collecting relevant data on the number of **practising, certified First Nations health care professionals** in BC, as well as work done to increase that number.

This report shows that most targets were not met by 2015; however, these indicators reflect a number of other determinants of health that are heavily influenced by factors outside of the health system, and some are broad and may require more time to change. Focusing too heavily on targets can minimize the tremendous amount of work that has occurred at a health systems level and governance level to address inequities. Therefore, while most indicators did not meet their bold targets, there has been meaningful improvement experienced in other areas.

In addition to summarizing achievements in health targets, this report also identifies some areas where more work is needed to continue toward improvement and gap reduction in health status between Status First Nations and other residents of BC. With the establishment of the First Nations Health Authority and its partnerships with the Office of the Provincial Health Officer and First Nations communities across BC, we are well-positioned as a province to understand progress and challenges in health outcomes for Indigenous people in BC, and to work collaboratively to address the challenges and make meaningful improvements. Increased awareness of systemic racism and Indigenous rights, coupled with the Federal and Provincial Government's commitments towards reconciliation, will also play a role in closing socio-economic gaps and will contribute to improving Indigenous people's health outcomes.

## Introduction

Commitments to improving health outcomes for First Nations people in BC were agreed to in the 2005 *Transformative Change Accord* (TCA). In 2006, a follow-up document, the *Transformative Change Accord: First Nations Health Plan* (TCA:FNHP) set out specific commitments to achieve targets on seven health indicators by 2015: 1) life expectancy; 2) mortality rate; 3) youth suicide rate; 4) infant mortality rate; 5) diabetes prevalence; 6) childhood obesity; and 7) practising, certified First Nations health care professionals. This interim update is the final iteration of this reporting series on the seven health indicators laid out in the TCA:FNHP, and reports on data up to 2015. This includes data analyses on the first five indicators, programming developments on the last two, and an overall assessment of whether the established targets for 2015 were achieved. Additionally, this report introduces the expanded suite of indicators that the Provincial Health Officer (PHO) and First Nations Health Authority (FNHA) commit to monitoring for the next 10 years.

### The Indigenous Population of BC

According to Statistics Canada, in 2016, there were 1,673,785 Indigenous people (First Nations, Métis, and Inuit) living in Canada.<sup>1</sup> Among these, 270,585 resided in BC.<sup>2</sup> This is 5.8 per cent of the province's population,<sup>3</sup> which is an increase of 38.5 per cent since the TCA was established in 2005.<sup>4</sup> Among BC's Indigenous population in 2016, 63.8 per cent (172,520) were First Nations people, 33.0 per cent (89,405) were Métis, and 0.6 per cent (1,615) were Inuit.<sup>5</sup> Statistics Canada reports that within the First Nations population, 72.8 per cent (125,635) had Registered or Treaty Indian status, as defined under the federal *Indian Act*.<sup>6</sup> This report focuses on a population of 161,239 with registered status who are captured in the provincial data set of the First Nations Client File. This figure differs from that provided by Statistics Canada for various reasons. Please see Data Source and Appendix A for more information.

Over time, there has been progress in many areas of Indigenous health and well-being in BC, including improved health outcomes (e.g., diabetes), as well as greater autonomy and self-

determination in health service governance and delivery. Indigenous communities continue to demonstrate leadership and resiliency in their health journeys. Many partnerships have been created and strengthened with a shared vision of closing the gap in health status between Indigenous groups and other BC residents. Despite these improvements, disparities in health persist, and—as this report shows—First Nations people in BC still experience higher rates of poor health than other residents. This is due in part to the ongoing institutionalized racism embedded in the health care system, as well as broader impacts from violent, systemic racism—including harmful multigenerational impacts on the lives of Indigenous people—due to the Indian residential school system and the Indian reserve system.

### Changes to First Nations Health Governance

The FNHA, established in 2013, is the first province-wide health authority of its kind in Canada. It provides a health governance structure that gives First Nations peoples in the province more control over health care spending and health service delivery. The FNHA's vision is for healthy, self-determining, and vibrant First Nations children, families, and communities. The FNHA and its vision are guided by directives and values that enable communities and nations to provide service in a way that meets local needs.

In December 2014, the FNHA created the Office of the Chief Medical Officer (CMO), led by Dr. Evan Adams. The CMO's role is to provide health and wellness leadership, and to honour and promote both traditional Indigenous and Western approaches to health, wellness, medicines, and healing. The CMO acts as the FNHA's representative on public health matters, and builds strong relationships with First Nations communities and other partners to advance high-quality and culturally safe clinical care, programs, services, and policies for First Nations peoples in BC. The CMO's office will report independently on the health status of the First Nations population in BC, as well as in collaboration with the PHO's office. The result will be twofold:

(1) independent reporting will ensure that First Nations have control over how the story of their own health is told; and (2) collaboration with the PHO's office will ensure that a First Nations perspective is reflected in related provincial health status reports.

## **Background**

In 2001, the PHO released a report entitled *The Health and Well-being of Aboriginal People in British Columbia*. This report drew attention to significant gaps in health outcomes between Indigenous people and other BC residents, and made recommendations that were developed with assistance from BC First Nations and related organizations.

In March 2005, First Nations leaders and the Province of British Columbia agreed to a New Relationship guided by principles of trust, recognition, and respect for Indigenous rights and title. In November 2005, the Province of British Columbia, the First Nations Leadership Council, and the Government of Canada signed the TCA, which affirmed the parties' commitment to close the gaps in the social and economic well-being of First Nations people—specifically in education, health, housing, and economic opportunities—over the following 10 years.

Building on the TCA, the TCA:FNHP was developed by the First Nations Leadership Council and the provincial government and was released in November 2006. The TCA:FNHP identifies priority actions to close the health gap between First Nations and other BC residents. First Nations leadership and the provincial government agreed to be jointly accountable for the outcomes of this plan. The plan identifies 29 specific actions in four areas, with seven performance indicators (identified earlier) to be tracked to measure progress in closing the health gap and improving the health of the First Nations population in BC.

## Measuring Progress

### Terminology

The term “Status Indian” refers to those who are eligible to receive the provisions of the *Indian Act*, while “Non-Status Indians” are those who do not meet the criteria for registration or who have chosen not to be registered. While the term Status Indian is a legal term, it can have negative and harmful impacts due to its historical colonial origin. Therefore for the purpose of this report, the term “Status First Nation” will be used in place of Status Indian. However, we recognize and acknowledge that a more meaningful solution is to change the terminology in legislation, which is rooted in a colonial history that is not appropriate to perpetuate.

In recognition of more respectful and appropriate terminology, the more inclusive term “Indigenous” will be used. Indigenous includes Status First Nations, Non-Status First Nations, Métis, and Inuit peoples.

### Data Source

At this time, data captures an incomplete picture of the Indigenous population of BC based on the legal distinctions identified in the previous section. For example, a person who identifies as First Nations but is not registered and therefore not a Status Indian is not captured in health administrative data sets (like those used for this report) as a First Nations person. This is because the main source of data regarding Indigenous people in BC that is available to use in analyses of health administrative data is the First Nations Client File (FNCF). The FNCF is based on a matching process between the BC Client Roster and the list held by Indigenous and Northern Affairs Canada of individuals with registered status—as identified by the terms of the *Indian Act*. (For more information about data sources and analyses, see Appendix A.)

While the data may reflect only a partial view of Indigenous people in BC, in many cases the historical context and social determinants of health are more broadly applicable. Therefore, analyses presented here for the Status First Nations population also, at times, offer discussion with

more inclusive language (Indigenous) in association with general trends and wider program and policy implications for Indigenous people in BC.

### First Nations Health Indicators and Targets

Data were available for five of the seven indicators for the duration of the 10-year TCA reporting timeframe, and partners determined associated targets for reducing the gaps. While the targets set out in the TCA:FNHP use varying terminology (shown in the list of indicators below), analyses presented in this report focus on the comparison between Status First Nations and other residents of BC. See Appendix A for more information.

The indicators and targets established in the TCA:FNHP are as follows:<sup>b</sup>

1. ***Life expectancy at birth***  
*Decrease the gap in life expectancy between Status Indians and other British Columbians by 35 per cent by 2015.*
2. ***Mortality rate (deaths due to all causes)***  
*Reduce the gap in mortality rates between Status Indians and other British Columbians by 35 per cent by 2015.*
3. ***Youth suicide rate***  
*Reduce the gap in youth suicide rates between First Nations and other British Columbians by 50 per cent by 2015.*
4. ***Infant mortality rate***  
*Reduce the gap in infant mortality between First Nations and other British Columbians by 50 per cent by 2015.*
5. ***Diabetes prevalence***  
*Reduce the gap in the prevalence of diabetes between First Nations and other British Columbians by 33 per cent by 2015.*
6. ***Childhood obesity***  
*Develop a baseline and an ongoing mechanism for collecting data relevant to childhood obesity.*

---

<sup>b</sup> Terminology used here is the language from the original TCA:FNHP indicators; these will be reported on as “Status First Nations”.

7. ***Number of practising, certified First Nations health care professionals***  
*Develop a baseline and an ongoing mechanism for collecting data relevant to the number of certified health care professionals in BC who are First Nations, and the number of those who are actually practising.*

The PHO and FNHA acknowledge that these targets are ambitious for the 10-year timeframe allocated, but this report will show that there have been meaningful improvements in the health and well-being of Status First Nations peoples in BC and progress toward many of these targets.

## **Commitments by BC's Provincial Health Officer**

The TCA:FNHP also specifies two actions for which the PHO is directly responsible: (1) the PHO will appoint an Aboriginal physician to advise on Aboriginal health issues; (2) the PHO will issue Aboriginal health status reports every five years, with interim updates every two years.

### **Indigenous Health Physician Advisor**

As reported in previous updates, in 2007, the BC provincial government created a position for an Aboriginal physician/Deputy PHO to work alongside the PHO. The position had specific responsibilities for monitoring and reporting on the health and well-being of Aboriginal people in BC and for tracking the progress of these performance measures. In 2007, Dr. Evan Adams was appointed to the position; he became a Deputy PHO in 2012 and remained with the Office of the PHO until moving to the FNHA in 2014. In October 2015, the PHO appointed Dr. Danièle Behn-Smith as the new Aboriginal Physician Advisor for BC. In alignment with the shift in language discussed earlier in this report, in 2017 this position title changed to Indigenous Health Physician Advisor.

### **Health Status Reports**

The PHO issued the first interim update on the TCA health indicators in 2007. In 2009, the PHO released the more extensive and comprehensive report, *Pathways to Health and Healing – 2nd Report on the Health and Well-being of Aboriginal People in British Columbia*. In 2012, a second interim update was released to report on progress and data up to 2010. In 2015, a third interim update was released to report on data up to 2013. The current report presents the fourth and final update of the seven

selected health status indicators. This includes updated data and analyses up to 2015 for the five indicators for which data are available, progress reports on the other two, and an overall assessment as to whether the 2015 targets were achieved.

Currently, a comprehensive report on Indigenous women's health is in development with a planned release later in 2018. This report will provide an in-depth examination of progress and challenges in closing the gap between the health status of Indigenous women and other women in BC.

The PHO and FNHA have agreed to continue to jointly monitor the health and well-being of First Nations people in BC through an expanded suite of health indicators for the next 10 years. The new indicators are introduced in this report, and the baseline report for that suite of indicators will be released in 2019.

## **Measuring Progress**

In this report, two figures are presented for each of the first five indicators. One provides current data for both Status First Nations and other residents of BC for the indicator. The second figure provides a series of projected trend lines.

The indicator targets were established using data from 1993 up to and including the baseline TCA year (2005), in order to generate projections for Status First Nations and other residents for 2015. This provides a picture of the anticipated gap if no actions were taken and establishes a static baseline. Since the targets are various reductions to health indicator gaps, the numeric value for each target is generated based on a percentage reduction from that baseline gap projected for 2015. Having a static baseline allows for a clear determination of movement toward or away from targets through comparisons between the baseline projection and the new projection lines created at different interim update points.<sup>c</sup>

---

<sup>c</sup> This methodology does not account for values that do not proceed according to the baseline projection for other residents.

Projection lines	Meaning
	<p><b>Status First Nations Trend Before TCA</b>            Black data points are values among Status First Nations for the year or group of years indicated. These data points up to and including 2005 were used to generate the black trend line—this is the baseline trend/projection for Status First Nations.</p>
	<p><b>Other Residents Trend Before TCA</b>            Blue data points are values among other residents of BC for the year or group of years indicated. These data points up to and including 2005 were used to generate the blue trend line—this is the baseline trend/projection for other residents.</p>
	<p><b>Status First Nations TCA Target</b>            The dashed red line represents the original indicator target for 2015. It is shown as a linear path from the baseline year value to the 2015 target value.</p>
	<p><b>2010 Status First Nations Projection</b>            The purple line shows the 2015 projection for Status First Nations as calculated at the time of the second interim update using data up to 2010.</p>
	<p><b>2013 Status First Nations Projection</b>            The green line shows the 2015 projection for Status First Nations as calculated at the time of the third interim update using data up to 2013.</p>
	<p><b>2015 Status First Nations Projection</b>            The orange line shows the 2015 projection for Status First Nations as calculated for the current update using data up to 2015.</p>

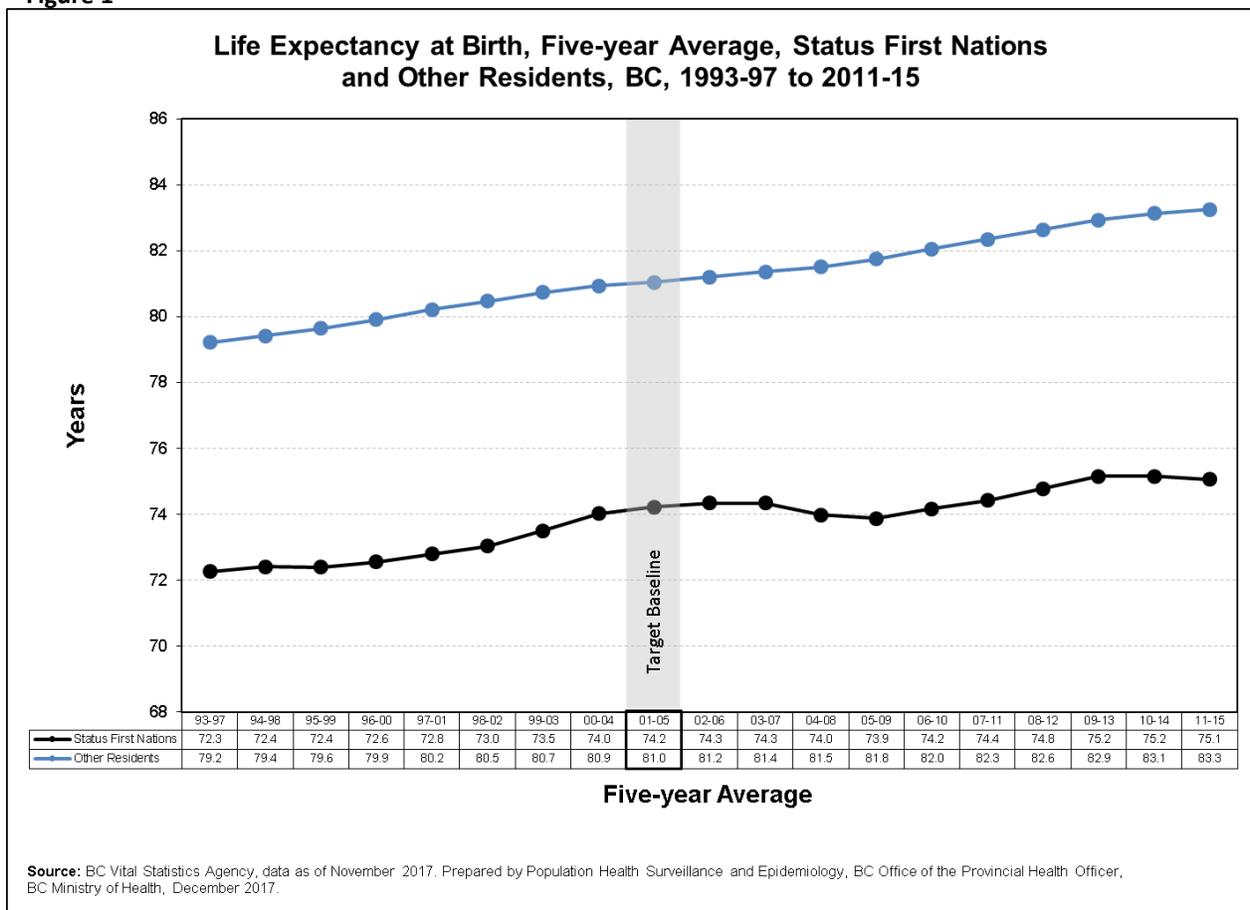
# 1. Life Expectancy

Life expectancy is the expected number of years of life remaining at a given age; for this report it is expected years of life at birth.<sup>7</sup> The target identified in the TCA:FNHP is a 35 per cent reduction in the gap in life expectancy between Status First Nations and other BC residents by 2015.

has improved since the TCA baseline year (2001-05), but not since the last update (2009-13). The average life expectancy for Status First Nations in the most recent period is 75.1 years, compared to 83.3 years for other residents. This is an increase of 0.8 years from the baseline of 74.2 years<sup>d</sup> for Status First Nations, which is considerably smaller than the 2.21 year increase for other residents during the same period.

Figure 1 illustrates life expectancy at birth for five-year aggregate periods from 1993-97 to 2011-15. Life expectancy of Status First Nations

Figure 1



<sup>d</sup> Numbers presented in text are calculated based on unrounded numbers from data analyses; as such, they may differ slightly if reproduced with the rounded numbers provided in the figures.

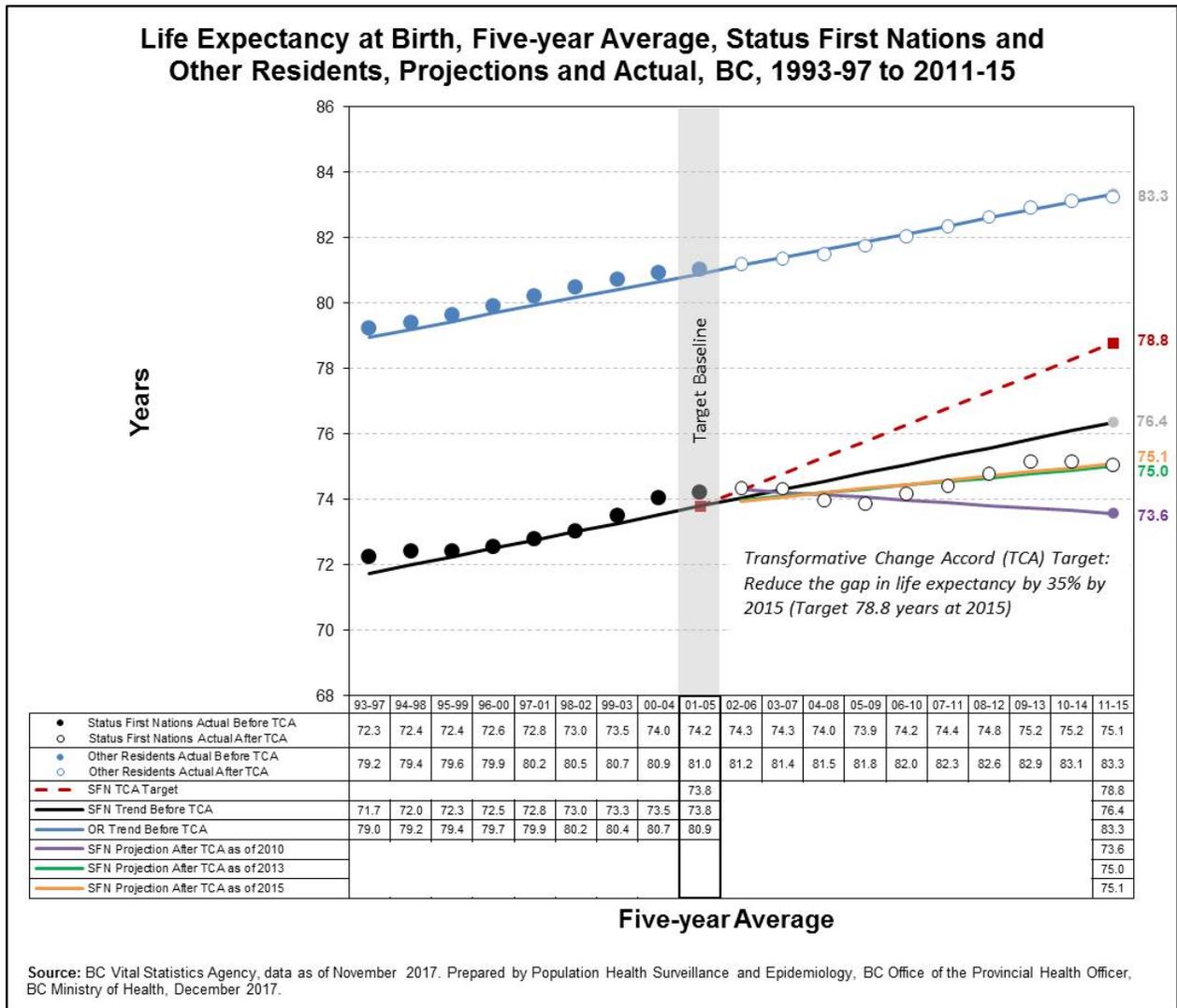
Figure 2 shows that in 2011-15, life expectancy among Status First Nations dropped slightly in the most recent year, but overall there was an increase over the time period. Despite this progress, this indicator did not achieve the targeted 35 per cent reduction in the gap with other residents.

At the beginning of the TCA target timeframe (2001-05), the projected gap for 2015 was 6.98 years.<sup>e</sup> The targeted 35 per cent reduction of the gap would result in a gap of 4.56 years, or

78.8 years of life expectancy. At this time, data show that the actual gap in 2015 is 8.2 years, which is an increase of 17.3 per cent from what was projected.

It should be noted that some indicators in this report impact the trajectory of others; for example, one way to further increase life expectancy is to improve the infant mortality rate and decrease the youth suicide rate (see indicators 3 and 4).

Figure 2



<sup>e</sup> Numbers presented in text are calculated based on unrounded numbers from data analyses; as such, they may differ slightly if reproduced with the rounded numbers provided in the figures.

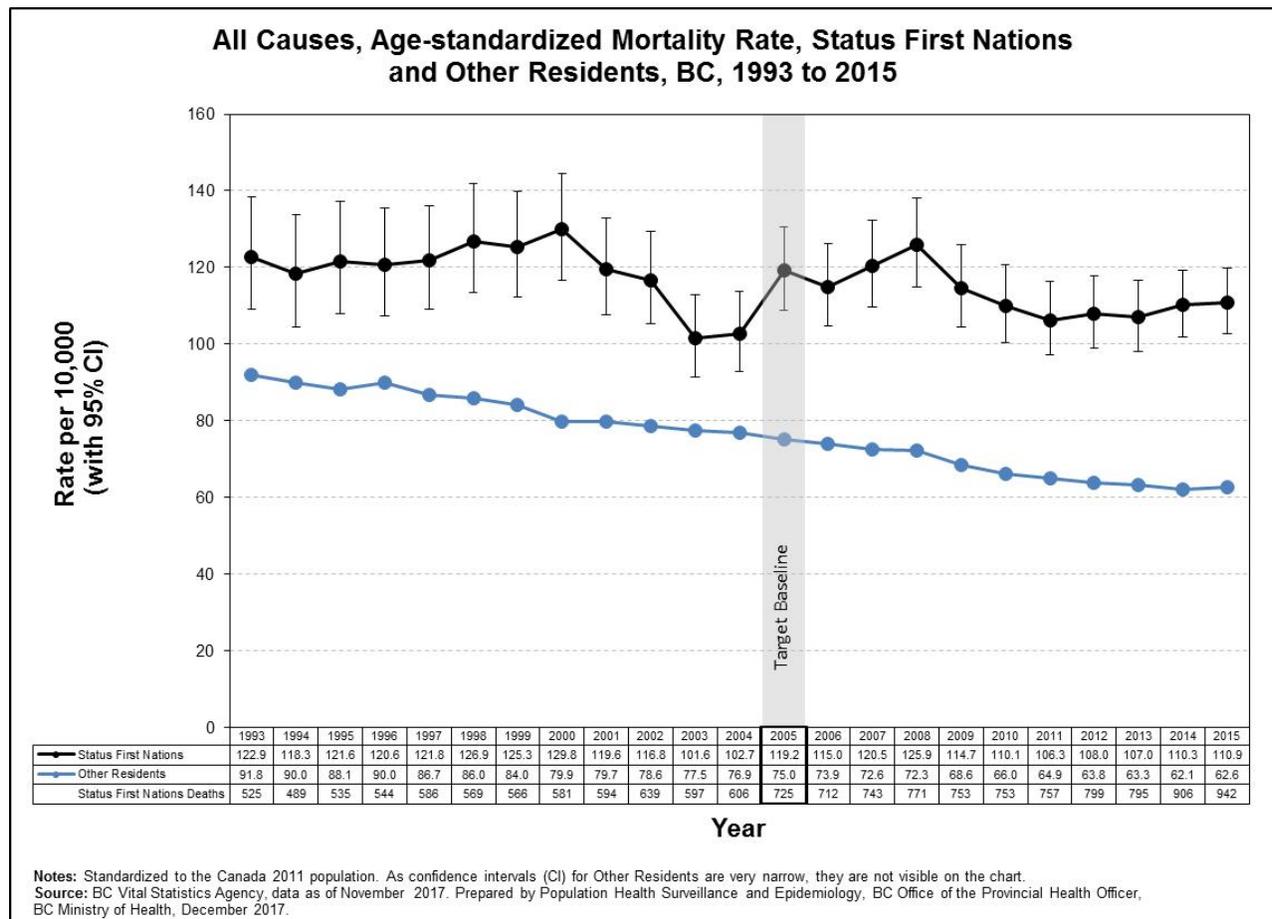
## 2. Mortality Rate

The age-standardized mortality rate (ASMR) measures the number of deaths due to all causes, expressed as a rate per 10,000 population. The TCA:FNHP target is a 35 per cent reduction in the gap in mortality rates between Status First Nations and other BC residents by 2015.

Figure 3 illustrates ASMR each year from 1993 to 2015. ASMR for Status First Nations has

fluctuated over time but continues its downward trend overall. It has improved somewhat since the baseline year (2005) but not since the last update year (2013). ASMR for Status First Nations decreased from 119.2 deaths per 10,000 population in 2005, to 110.9 deaths per 10,000 in 2015. By comparison, ASMR for other residents has decreased more steadily, and by 2015 was 62.6 per 10,000.

Figure 3



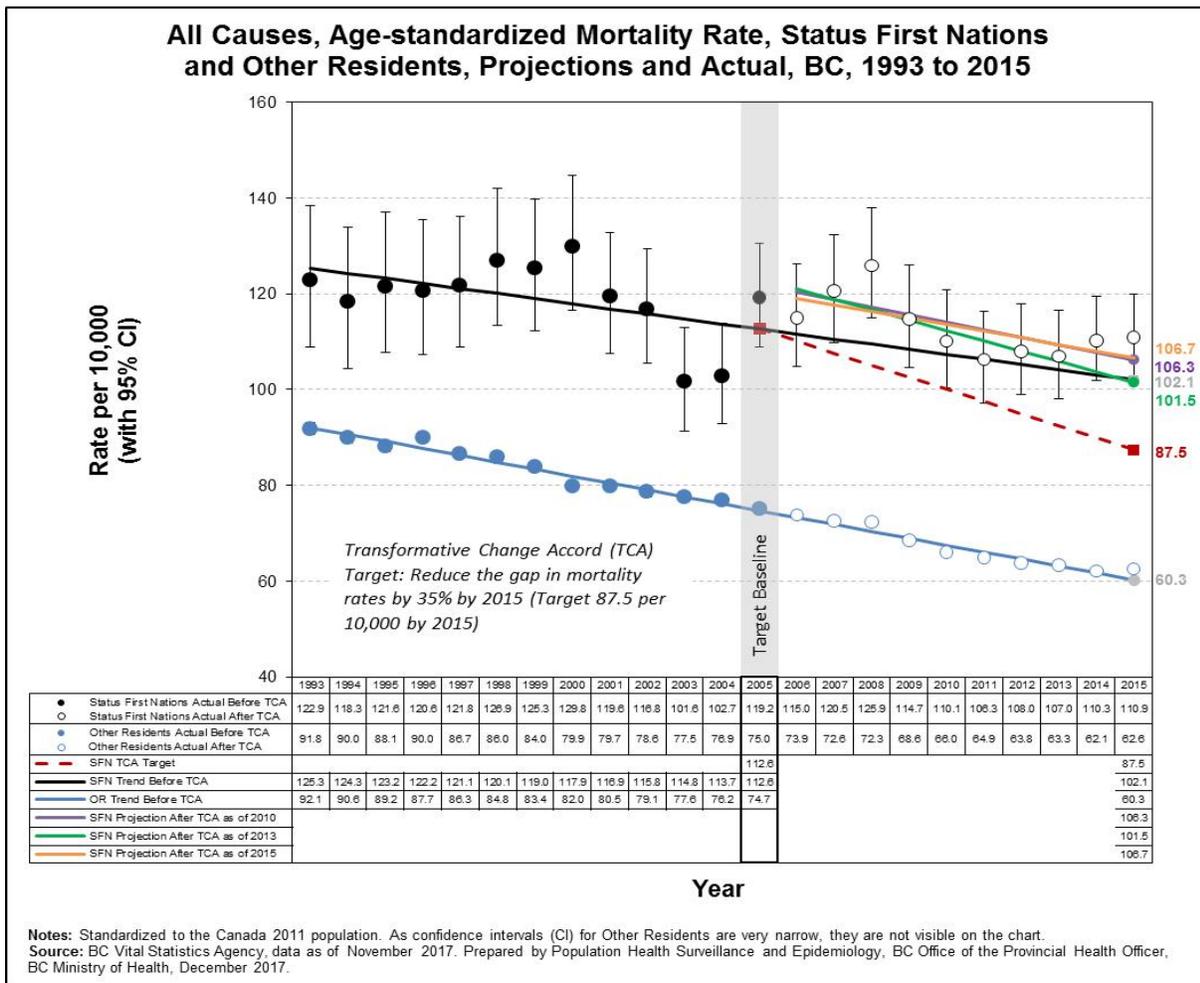
As shown in Figure 4, ASMR for Status First Nations decreased, but less than for other residents. This indicator did not achieve the targeted 35 per cent reduction in the gap with other residents.

At the beginning of the TCA 10-year timeframe (2005), the projected disparity for 2015 was anticipated to be 41.8 per 10,000,<sup>f</sup> which would have meant Status First Nations having an ASMR that was 69 per cent higher than other BC residents. If the targeted 35 per cent reduction had been achieved, the gap would have been 27.1 per 10,000, with an ASMR of 87.5 per 10,000 for Status First Nations. This would have been 45.0 per cent higher than the rate for other residents.

At this time, data show that in 2015 the actual ASMR for Status First Nations is 110.9 per 10,000, and the gap is now 48.3 per 10,000. This reflects an increase in the gap of about 15.7 per cent from what was originally projected, rather than a decrease. Stated another way, Status First Nations now have an ASMR that is 77 per cent higher than other residents.

As previously identified, while a comprehensive discussion of causes and explanations of trends are beyond the scope of this report, it should be noted that reductions in other indicators, such as youth suicide and infant mortality rate, would contribute to decreases in ASMR (see indicators 3 and 4).

Figure 4



<sup>f</sup> Numbers presented in text are calculated based on unrounded numbers from data analyses; as such, they may differ slightly if reproduced with the rounded numbers provided in the figures.

### 3. Youth Suicide Rate

The youth suicide rate represents deaths among youth age 15–24 who deliberately take their own lives, expressed as a rate per 10,000 population. The target identified in the TCA:FNHP is a 50 per cent reduction in the gap in youth suicide rates between First Nations and other BC residents by 2015.

Year-to-year variation in the small number of youth suicide deaths among Status First Nations can cause volatility in the rate and large confidence intervals. Therefore, the Status First Nations rate should be interpreted with caution.

Figure 5 presents youth suicide rates for five-year aggregate periods from 1993-97 to 2011-15. The suicide rate for Status First Nations youth has fluctuated over time but shows an overall downward trend in the number of deaths and the rate per 10,000. The suicide rate for Status First Nations youth age 15–24 decreased by 1.04 per 10,000 population from the baseline—from 3.81 per 10,000 (2001-05) to 2.77 per 10,000 (2011-15).

Figure 5

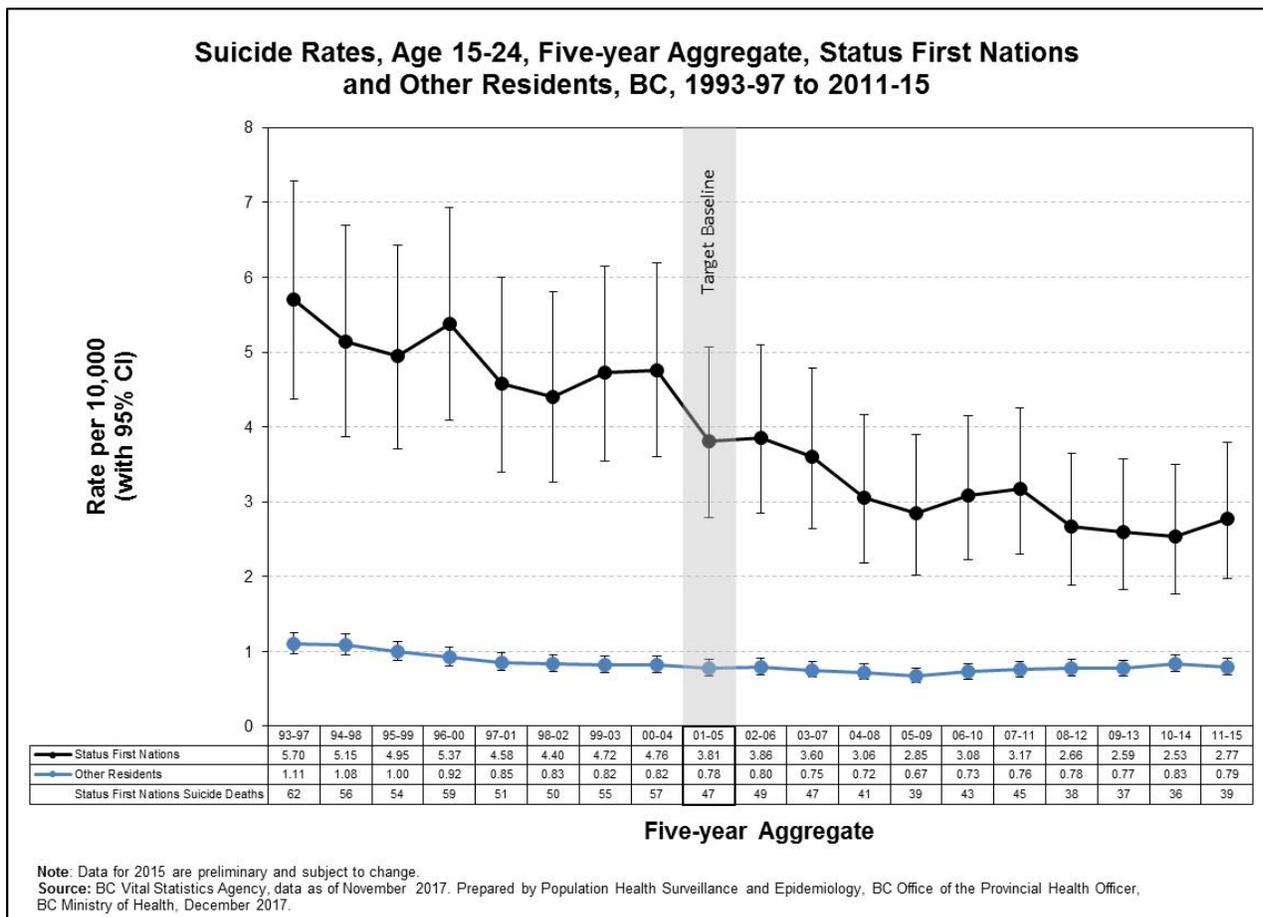


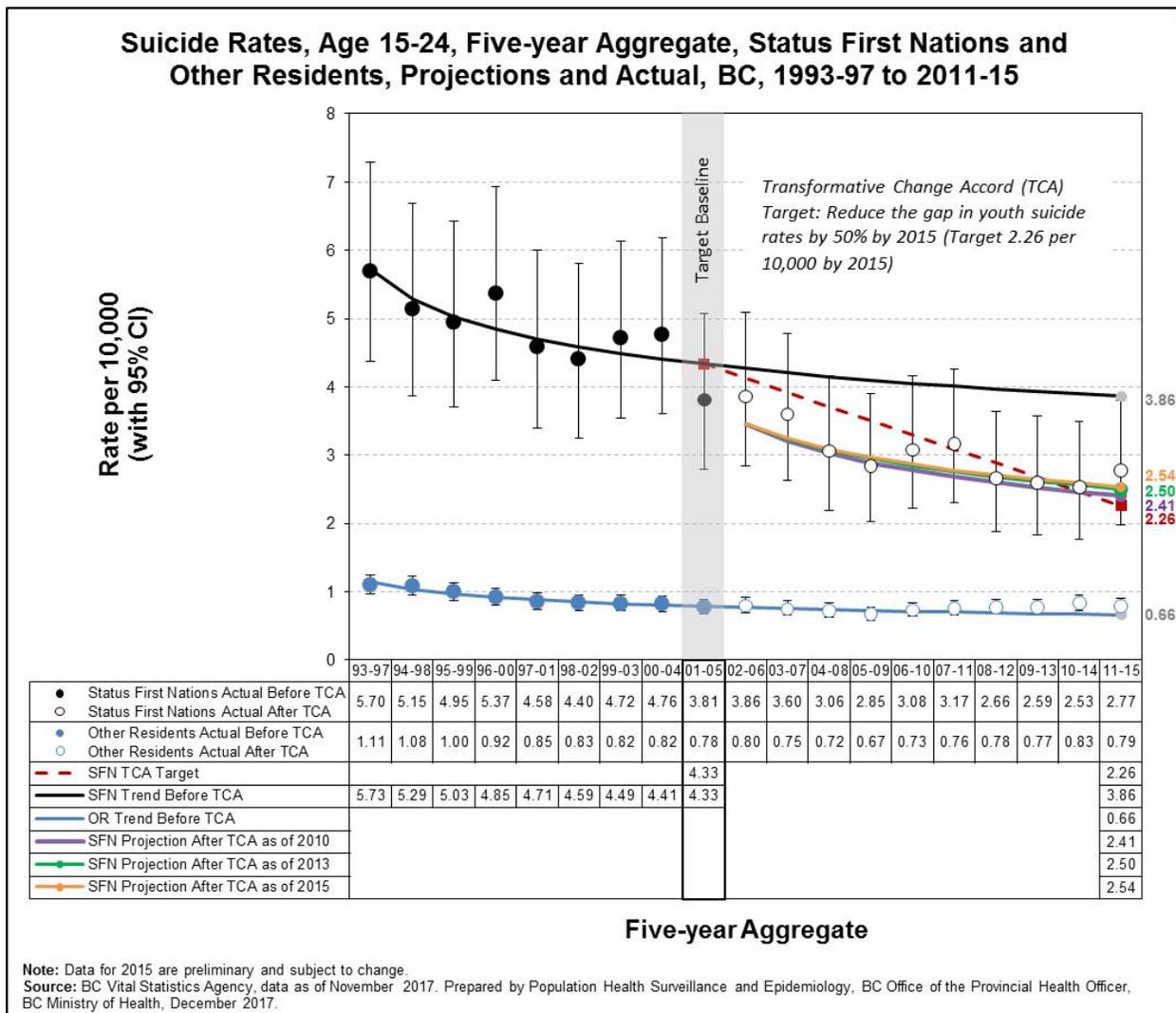
Figure 6 shows that the youth suicide rate among Status First Nations has decreased substantially over time and continued a downward trend with each interim update report, while the rate for other BC residents has remained fairly stable. Despite this success, this indicator did not quite reach the targeted 50 per cent reduction in the gap with other residents.

10,000. The targeted 50 per cent reduction of the gap would result in a gap of 1.60 per 10,000, or 2.26 Status First Nations youth suicides per 10,000.

At this time, data show that the actual gap in 2015 is 1.98 per 10,000, which is a decrease of 38.0 per cent from the gap that was originally projected for 2015. Therefore, while this result falls short of the targeted 50 per cent reduction, it represents considerable success achieved in 10 years.

At the beginning of the TCA target timeframe (2001-05), the projected gap for 2015 was 3.20 per

**Figure 6**



## 4. Infant Mortality Rate

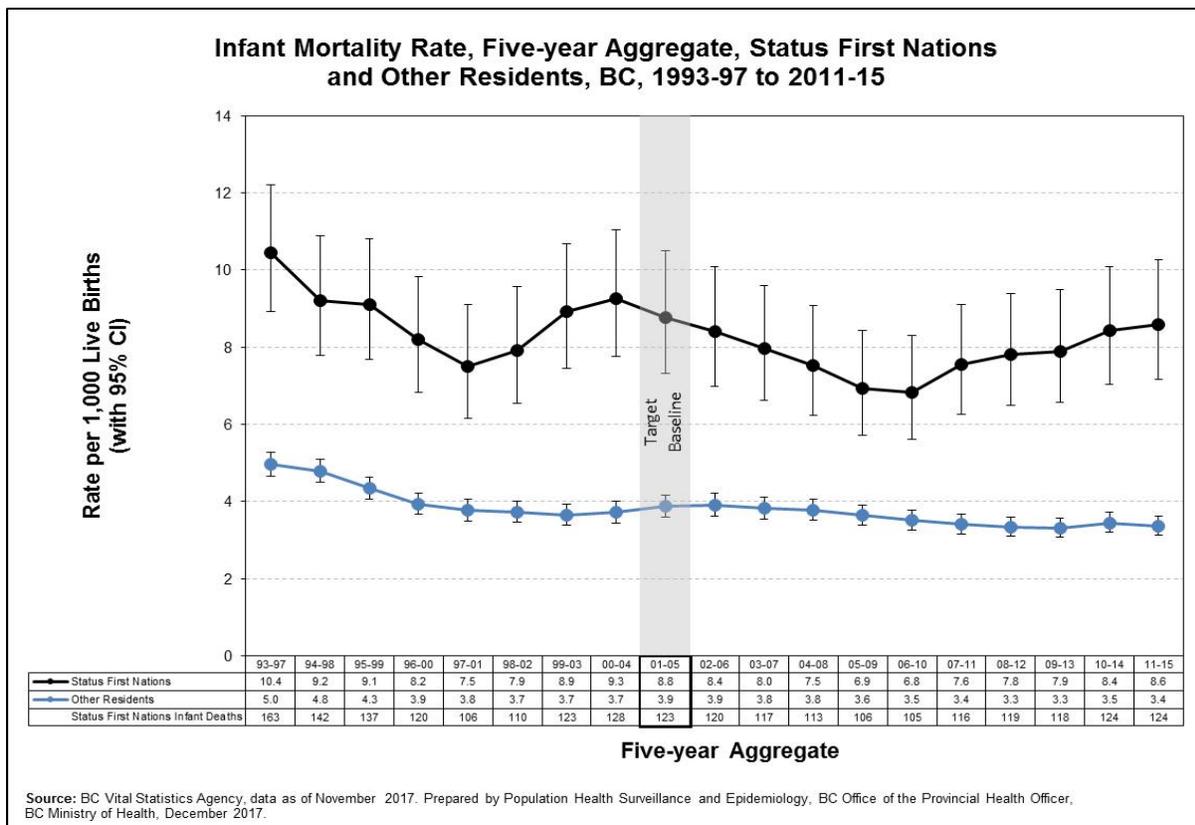
The infant mortality rate refers to the number of infants who die during the first year of life, per 1,000 live births. The target identified in the TCA:FNHP is a 50 per cent reduction in the gap in infant mortality rates between First Nations and other BC residents by 2015.

Year-to-year variation in the small number of infant deaths among Status First Nations can cause volatility in the rate and large confidence intervals around the rate. Consequently, the Status First Nations rate should be interpreted with caution. Additionally, an issue with the current FNCF was previously identified in which an increasing number of Status First Nations infants were not being included in the FNCF. While this issue has largely been remedied, it may still have a small impact on this indicator by reducing the number of live births identified as Status First

Nations infants (the denominator), and artificially increasing the Status First Nations infant mortality rate, particularly after 2012. See Appendix A for more information.

Figure 7 illustrates the infant mortality rate for five-year aggregate periods from 1993-97 to 2011-15. The infant mortality rate for Status First Nations has fluctuated over time but has not shown sustained improvement since the baseline. The 2001-05 baseline rate of 8.8 per 1,000 initially decreased to a low of 6.8 per 1,000 in 2006-10, but has increased since that time.<sup>8</sup> At 124 deaths, and 8.6 deaths per 1,000 live births in 2011-15, the number and rate of infant deaths in the latest reporting period is now slightly lower than the baseline, but the gap between the populations persists.

Figure 7



<sup>8</sup> Numbers presented in text are calculated based on unrounded numbers from data analyses; as such, they may differ slightly if reproduced with the rounded numbers provided in the figures.

Figure 8 shows an increase in the infant mortality rate for Status First Nations, moving away from the 2015 target with each interim update report, which may be due to an overall increase in infant mortality among Status First Nations during the last five aggregate periods, or the result of aforementioned data issues. During this timeframe, the infant mortality rate among other BC residents declined slightly. As such, the targeted gap reduction of 50 per cent was not achieved.

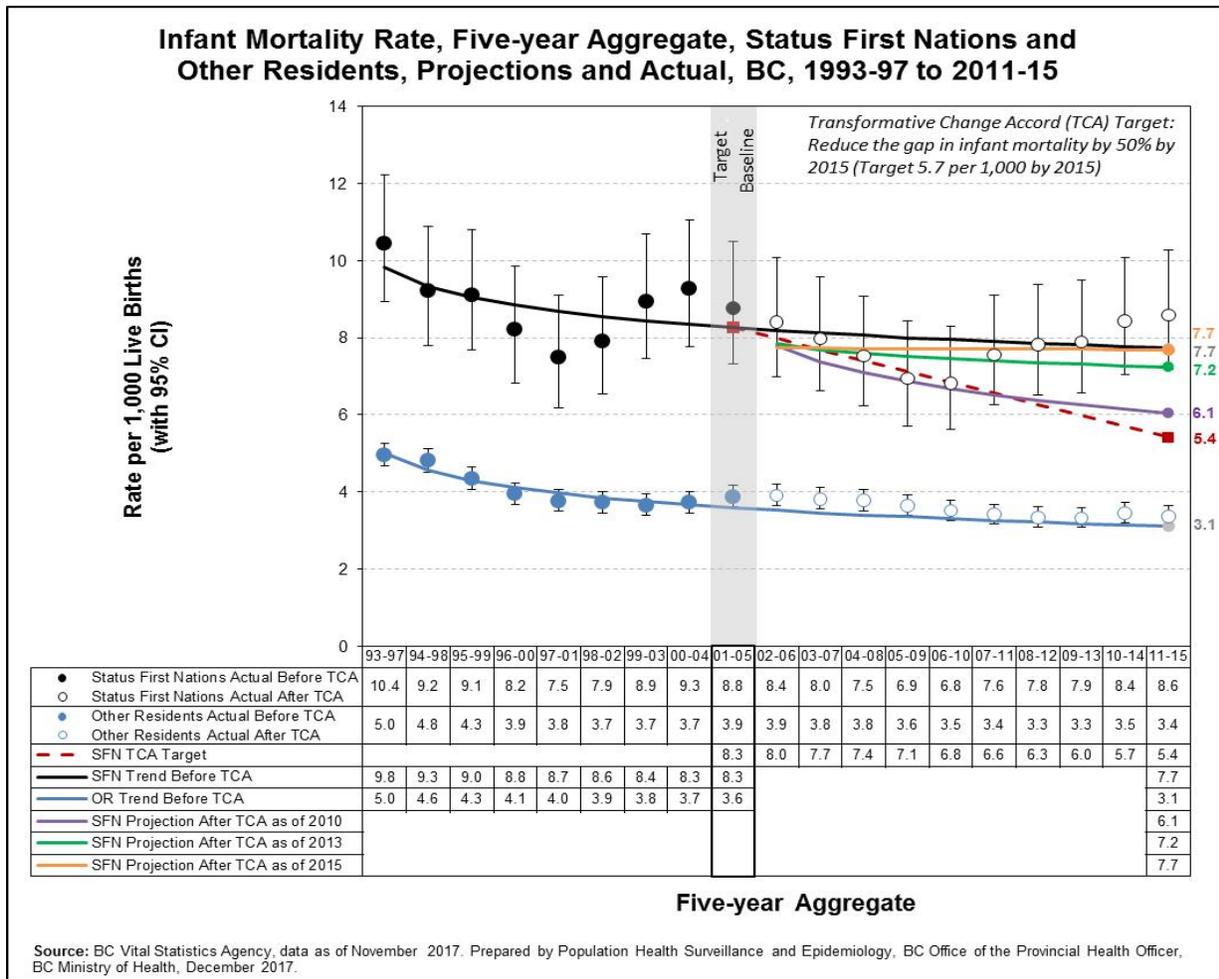
50 per cent reduction of the gap would result in a gap of 2.31 per 1,000, or a Status First Nations infant mortality rate of 5.42 per 1,000 live births.

At this time, data show that the actual gap in 2015 is 5.22 per 1,000 live births. This is an increase of 13.0 per cent from the gap that was originally projected for 2015.

As noted earlier, the limitation of the current FNCF is likely to artificially increase the Status First Nations infant mortality rate, particularly since 2012, but the data is of high enough quality to be valid.

At the beginning of the TCA target timeframe (2001-05), the projected gap for 2015 was 4.62 per 1,000 live births.<sup>h</sup> The targeted

**Figure 8**



<sup>h</sup> Numbers presented in text are calculated based on unrounded numbers from data analyses; as such, they may differ slightly if reproduced with the rounded numbers provided in the figures.

## 5. Diabetes Prevalence

Diabetes is a chronic condition of high blood sugar that has complex causes—including lifestyle and environmental causes, genetic influences, and other factors—which results in ineffective use of insulin in the body. Diabetes prevalence reflects known/diagnosed cases of people living with diabetes. The target identified in the TCA:FNHP is a 33 per cent reduction in the gap in the prevalence of diabetes between First Nations and other BC residents by 2015.

Over the last several years, increased testing for diabetes across BC has generated a more accurate picture of diabetes in BC. This will improve the actual prevention and management of the disease in the long term, but it contributes to an apparent rate increase in the short term. As such, the increases in the age-standardized diabetes prevalence rates for both Status First Nations and

other residents are due, at least in part, to this increased testing and identification of people living with diabetes.

Figure 9 illustrates that from fiscal year 1993/94 to 2015/16, both Status First Nations and other BC residents experienced an increase in the age-standardized prevalence rates of diabetes. For Status First Nations, the rate increased to 10.7 cases per 100 population in 2015/16 from the baseline of 8.7 cases per 100 in 2005/06. The rate of increase appears to be slowing among both groups over the last four years. The increase in prevalence rate is slightly larger among Status First Nations compared to other residents, resulting in a somewhat larger gap between the groups than in previous years; however, with the deceleration in this increase in recent years, the growth in this gap appears to be curbing.

Figure 9

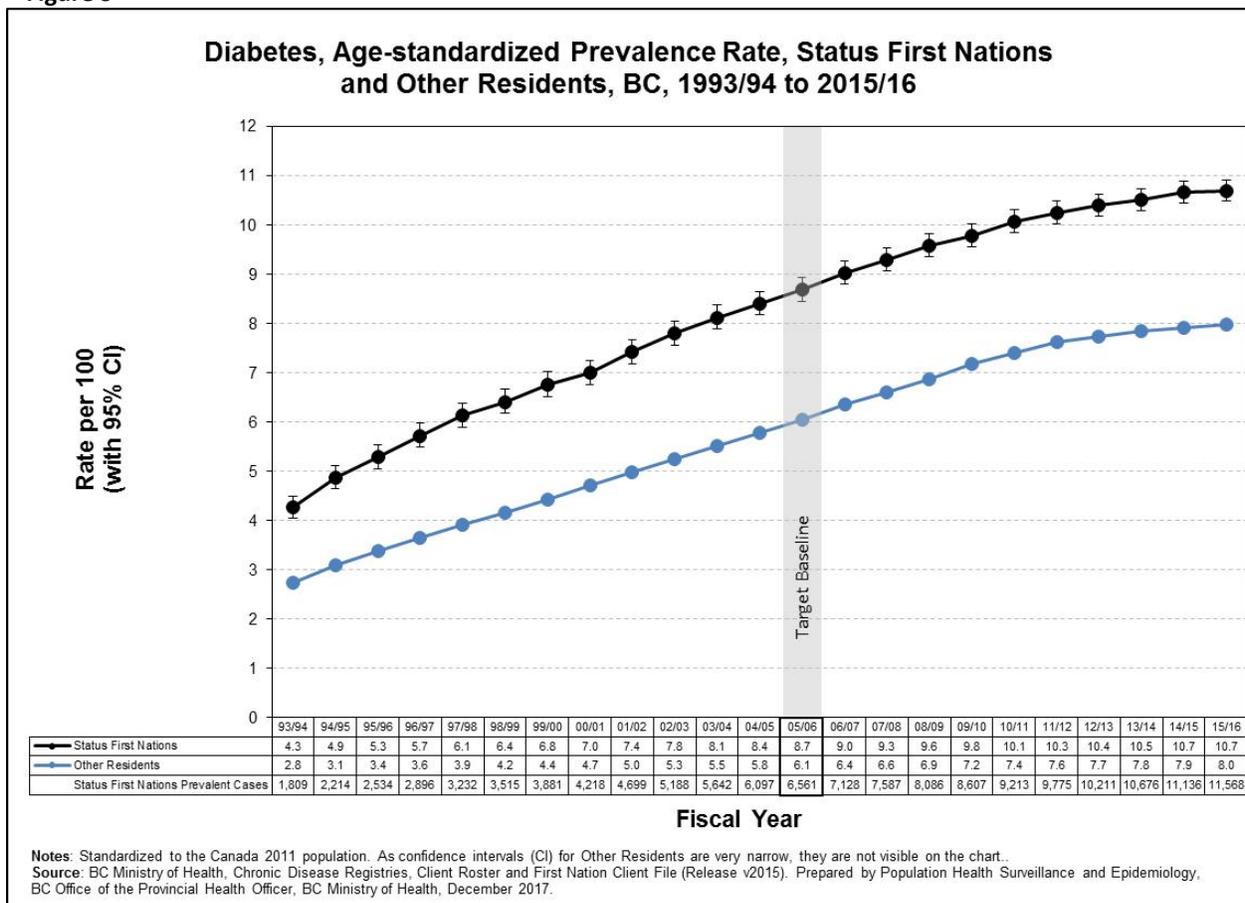


Figure 10 shows that the projections of the diabetes prevalence rates for Status First Nations and other residents prior to the baseline (Status First Nation (SFN) Trend Before TCA, and OR Trend Before TCA) were on diverging paths, creating a continuous widening of the projected gap over time. There has now been a reduction in the projected gap to a level where the targeted 33 per cent reduction has been achieved and, in fact, exceeded.

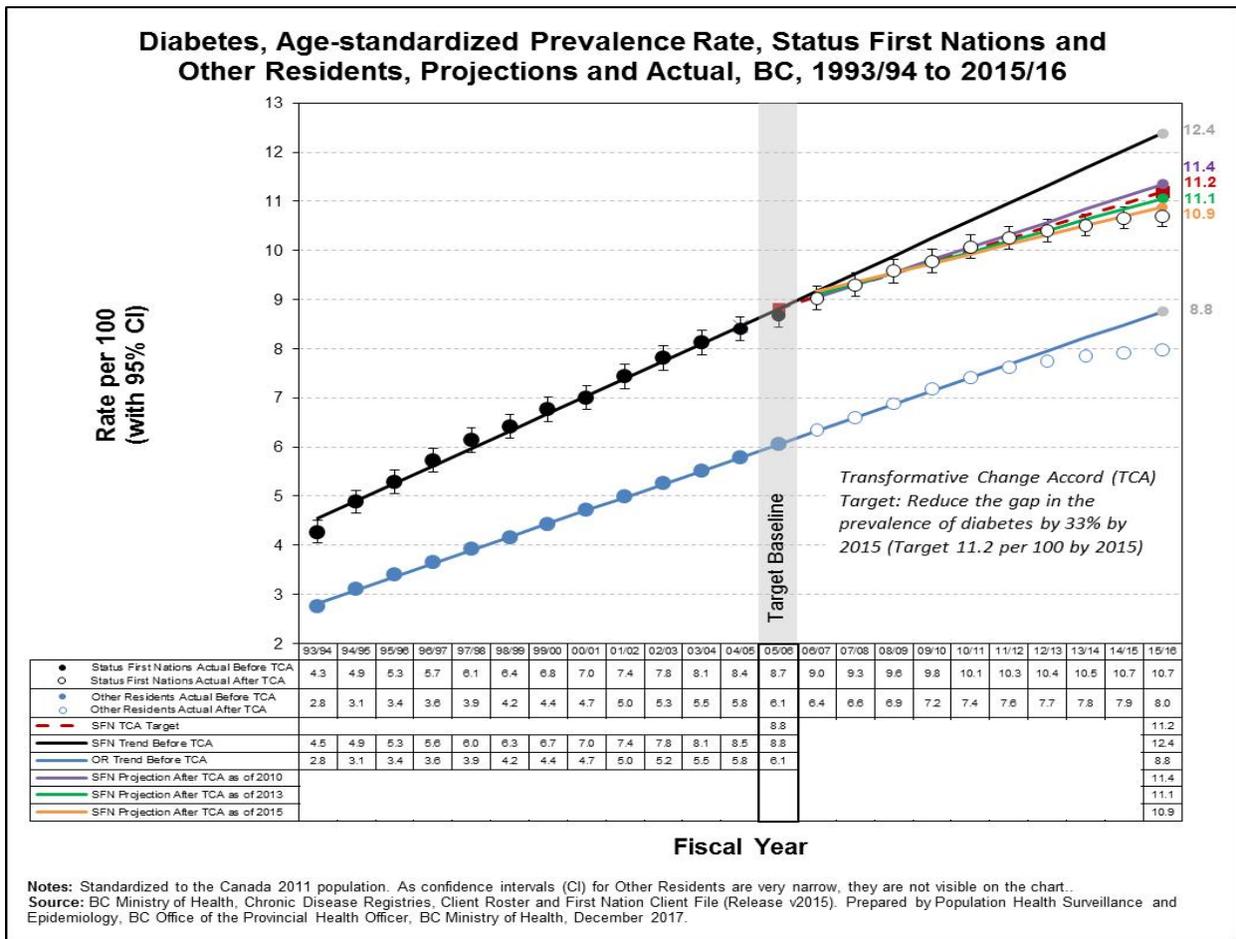
At the beginning of the TCA target timeframe (2005/06), the projected diabetes prevalence rate for Status First Nations by 2015 was 12.4 per 100 population, with a projected gap of 3.62 per 100 from other residents. The targeted 33 per cent reduction of the gap would result in a gap of only 2.43 per 100, or a diabetes prevalence rate of 11.2 per 100 for Status First Nations.<sup>i</sup> The prevalence

rate among Status First Nations moved well below the target of 11.2, to 10.7 per 100 population in 2015. This means the gap was reduced to 1.7 per 100—a reduction of 46.6 per cent from what was projected. However, because the rate increase for other BC residents also slowed in the last four years, this gap reduction should be interpreted with caution.

In relative terms, in 2005, the Status First Nations rate was 43 per cent higher than the rate for other residents, while in 2015, the Status First Nation rate was 34 per cent higher than the rate for other residents.

Among the TCA indicators, diabetes prevalence is the indicator that has shown the greatest success in comparison to the respective targets.

Figure 10

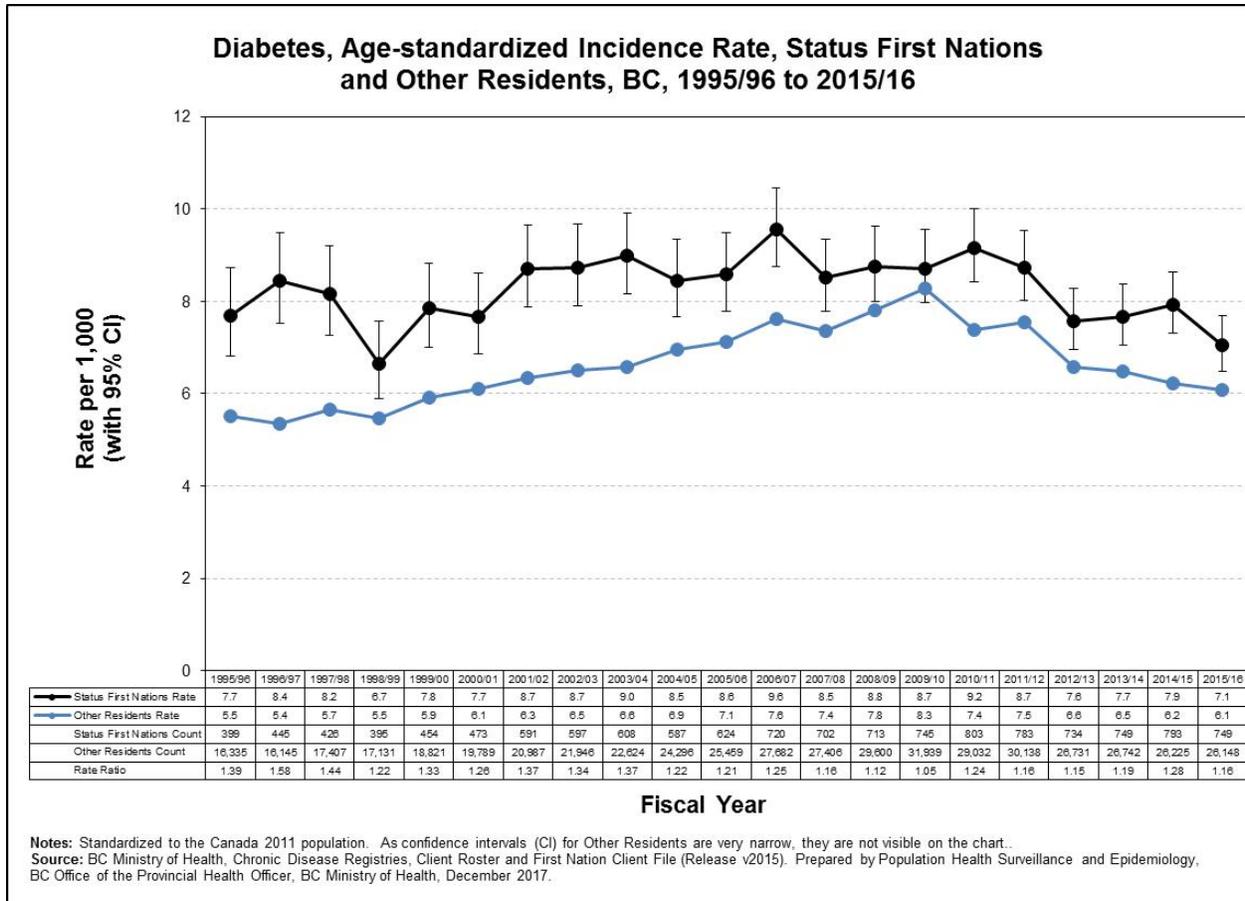


<sup>i</sup> Numbers presented in text are calculated based on unrounded numbers from data analyses; as such, they may differ slightly if reproduced with the rounded numbers provided in the figures.

While further exploration of indicators is beyond the scope of this report, Figure 11 presents diabetes incidence rates (rate of newly diagnosed cases) for Status First Nations and other residents. Similar to the trends seen in Figure 9, this figure shows that there was a steady increase in the diabetes incidence rate among Status First Nations

from 1995/96 to 2010/11, followed by a substantial drop off. This suggests that the impact of increased testing and related identification of people living with diabetes may now have peaked, and/or that improvements in lifestyle and environmental factors are showing preventative benefits.

**Figure 11**



## 6. Childhood Obesity

Childhood obesity has the potential for both immediate and long-term effects on health and well-being. At the time of the TCA there were no routinely collected measures of childhood obesity among First Nations peoples in BC. Therefore, the target identified in the TCA:FNHP was to develop a baseline and an ongoing mechanism for collecting relevant data.

In accordance with this target, a baseline measure of childhood obesity among First Nations children in BC is currently being developed by the FNHA as part of a broader initiative to collect child health data. The FNHA is leading the development, implementation, analysis, and reporting of the First Nations Regional Health Survey. This survey includes an age-specific health questionnaire with questions about a child's height and weight. The answers can be used to calculate Body Mass Index (BMI), thereby determining the prevalence of childhood obesity. However, there are challenges with using BMI to identify obesity among children. Since the percentage of body fat in children changes as they grow, and because there are differences in body fat between the sexes, BMI cannot be considered a direct measurement of obesity in children. To account for these differences, the most current age- and sex-specific BMI charts available are being used.

In October 2015, the FNHA launched the survey in communities. Data collection is now complete, and analyses were underway at the time of this report. The FNHA aims to release the provincial-level and regional-level reports by summer 2018.

## 7. Number of Practising, Certified First Nations Health Care Professionals

Increasing the number of trained First Nations health care professionals was one of the four areas for action identified in the TCA:FNHP to help close the health gap between Status First Nations and other BC residents. At the time of the TCA:FNHP, there was no accurate information on the number of certified health care professionals in BC who were First Nations, or the number who were actively practising. Therefore, the target identified in the

TCA:FNHP was to develop a baseline and an ongoing mechanism for collecting this information.

In recent years, regional health authorities in BC began to identify how many First Nations and Indigenous health care providers they employ (through self-identification); however, a reliable baseline for measuring an increase in the number of these professionals is not yet available.

While the establishment of this baseline is underway, the FNHA has begun work to increase the number of practising, certified First Nations health care professionals in several ways:

- **Committing itself to recruiting and hiring First Nations health care professionals** – The FNHA is committed to recruiting and hiring candidates with a variety of educational and professional backgrounds who fit well with the organization's culture. As of March 2017, one-third of FNHA staff self-identify as First Nations and 35 per cent are Status First Nations. The FNHA offers many professional development opportunities that contribute to the retention of qualified, practising, certified First Nations health care professionals.
- **Building partnerships with scholarship and bursary providers to assist health care students who are First Nations** – Through partnerships with the First Nations Education Steering Committee, First Nations Schools Association, UBC Summer Science initiative, and the New Relationship Trust, the FNHA invested more than \$850,000 to promote health and science-related careers, provide scholarships and bursaries, and support health and wellness education for First Nations students.
- **Working with regional health authorities to support First Nations recruitment programs** – The FNHA has partnered with several regional health authorities to offer First Nations-specific recruitment programs that provide opportunities for First Nations candidates to work for health authorities. This includes participating in career fairs that encourage First Nations youth to study in health science fields, and staying connected with students to enable them to successfully transition into health authority positions.

## The Next 10 Years

### The First Nations Population Health and Wellness Agenda

This is the final iteration of the interim update series that has reported on the seven indicators and targets established in the TCA:FNHP to reduce the gaps in health outcomes between Indigenous and non-Indigenous populations. The FNHA’s Office of the CMO and the Office of the PHO have worked together to develop a new suite of indicators to continue monitoring the health of First Nations people in BC. The goal was to make the indicators meaningful to FNHA and First Nations communities in BC. This was accomplished by building upon the existing seven indicators, incorporating a First Nations perspective on health, and adding indicators that focus on health and wellness.

The new suite of indicators incorporates 15 additional measures that reflect a First Nations perspective of health and wellness and a strengths-based approach to health. These indicators were selected through an extensive process of consultation with experts, collaboration between project teams, investigation into potential data sources, and use of previous community engagement work. The result was an indicator selection framework and a final suite of 22 indicators that span five areas of health and wellness inspired by the First Nations Perspective of Wellness. This project—and the resulting indicators—is entitled the “First Nations Population Health and Wellness Agenda”.

The indicator selection framework and the 22 indicators were presented by the CMO of FNHA, in collaboration with the PHO, at Gathering Wisdom in November 2016. A baseline report for the 22 indicators will be produced jointly by the Offices of the PHO and CMO for the fall of 2019, and will include a commitment to continue joint production of interim progress updates.

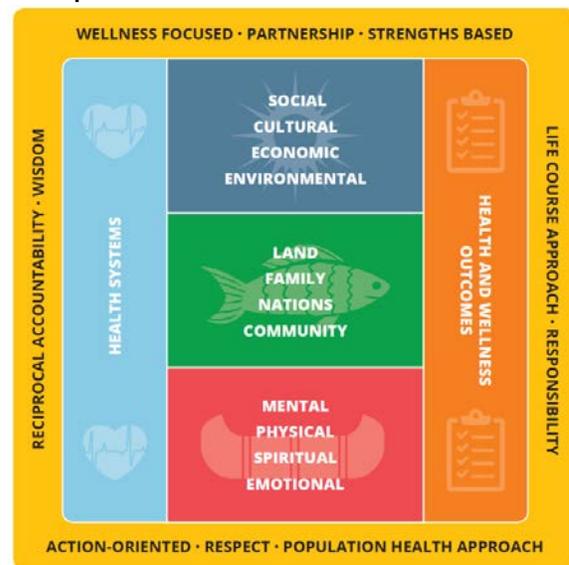
### Selection of the Indicators

The Indicators Working Group was established by the Offices of the CMO and PHO, and included representatives from several areas within FNHA, the Ministry of Health, and the Office of the

PHO. This group was tasked with developing the new suite of indicators, including a conceptual framework for indicator selection and the final list of new indicators.

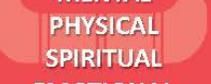
Figure 12 presents the conceptual framework established by the Indicator Working Group to guide their work on the indicators. The outer ring reflects the core values and principles of the partnership (reciprocal accountability, wisdom, respect, and responsibility) and of the indicator selection (wellness-focused, strengths-based, life course approach, population health approach, action-oriented). The inner boxes represent the five dimensions of health and wellness that are represented in the new suite of indicators. The dimensions contain themes that reflect the depth and breadth of topics within that dimension. The five dimensions, as well as the themes, are inspired by the BC First Nations Perspective of Wellness.

**Figure 12. CMO-PHO Partnership and Indicator Conceptual Framework**



Through the work of the Indicators Working Group, and the final decisions by FNHA and PHO executives, the Offices of the CMO and PHO selected 15 new indicators to complement the original seven TCA:FNHP indicators. The new suite of 22 indicators, presented in Figure 13, will utilize data from approximately 10 different sources.

**Figure 13. First Nations Population Health and Wellness Agenda**

THEME	INDICATOR	SOURCE	LEAD
 SOCIAL CULTURAL ECONOMIC ENVIRONMENTAL	<b>Education</b> (Graduation rates)	MEd	PHO
	<b>Food security</b> (Affordability of balanced diet)	CCHS+RHS	FNHA
	<b>Adequacy of housing</b>	Census	FNHA
	<b>Cultural Wellness</b> (Composite measure: language; traditional foods; medicine/healing; community belonging; traditional spirituality)	RHS	FNHA
 HEALTH SYSTEMS	<b>Experience of cultural safety and humility in receiving health services</b>	PREMS	PHO
	<b>Avoidable hospitalizations</b>	DAD/FNCF	PHO
 LAND, FAMILY NATIONS COMMUNITY	<b>Community strength and resilience</b>	(TBD)	(TBD)
	<b>Ecological health</b>	(TBD)	FNHA
 MENTAL PHYSICAL SPIRITUAL EMOTIONAL	<b>Level of physical activity</b>	CCHS+RHS	FNHA
	<b>Children with healthy teeth</b>	MoH Dental Survey	PHO
	<b>Smoking rates of commercial tobacco</b>	CCHS+RHS	FNHA
 HEALTH & WELLNESS OUTCOMES	<b>Infants born at a healthy birth weight</b>	VSA/FNCF	PHO
	<b>Alcohol-related deaths</b>	VSA/FNCF	PHO
	<b>Serious injuries requiring hospitalization</b>	DAD/FNCF	PHO
	<b>Self-reported mental well-being</b>	CCHS+RHS	FNHA
 TRANSFORMATIVE CHANGE ACCORD FN HEALTH PLAN	<b>Infant mortality</b>	VSA/FNCF	PHO
	<b>Children with healthy Body Mass Index (BMI)</b>	CCHS	FNHA
	<b>Youth suicide</b>	VSA/FNCF	PHO
	<b>Diabetes prevalence</b>	DAD/FNCF	PHO
	<b>Age-standardized mortality rate</b>	VSA/FNCF	PHO
	<b>Life expectancy</b>	VSA/FNCF	PHO
	<b>Number of practising, certified FN Health Care Providers</b>	(TBD)	(TBD)

**Acronyms:**

CCHS = Canadian Community Health Survey  
 DAD = Discharge Abstract Database  
 FNCF = First Nations Client File  
 FNHA = First Nations Health Authority  
 MEd = Ministry of Education

MoH = Ministry of Health  
 PHO = Provincial Health Officer  
 PREMS = Patient Reported Experience Measures  
 RHS = First Nations Regional Health Survey  
 VSA = Vital Statistics Agency

Additional information about these indicators will be provided in the baseline report in the fall of 2019. This will include further detail about the

selection of the indicators, new targets for the subsequent 10 years, and an explanation of how each indicator will be measured.

## Conclusion and Summary

This report is the final progress update on the seven selected indicators in the *Transformative Change Accord: First Nations Health Plan* (TCA:FNHP) for the initial monitoring period. It includes data analyses for the five indicators for which data were available (life expectancy, mortality rate, youth suicide rate, infant mortality rate, and diabetes prevalence) and programming developments on the last two (childhood obesity and practising, certified First Nations health care professionals).

Analyses provided in this report show that while there has been improvement among the indicators, five of the seven indicators did not meet their targets. A summary of progress is provided in Figure 14.

**Figure 14: Indicator Progress Summary**

Indicator	2015 Target Value for First Nations	2015 Actual Value for First Nations	Gap Reduction Target for 2015 First Nations - Other Residents	Actual Gap Reduction Achieved by 2015 First Nations - Other Residents	Target Achieved? × not achieved ≈ some improvement but target not met ✓ target met
Life expectancy at birth (age)	78.8	75.1	↓ 35%	↑ 17.3%	×
Age-standardized mortality rate (deaths due to all causes) (per 10,000 population)	87.5	110.9	↓ 35%	↑ 15.7%	×
Youth (age 15–24) suicide rate (per 10,000 population)	2.26	2.77	↓ 50%	↓ 38.0%	≈
Infant mortality rate (per 1,000 live births)	5.4	8.6	↓ 50%	↑ 13.0%	×
Diabetes prevalence rate (per 100 population)	11.2	10.7	↓ 33%	↓ 46.6%	✓
Indicator	Goal		Progress		Target Achieved?
Childhood obesity measure development	Develop a baseline and an ongoing mechanism for collecting relevant data.		Developed and implemented data collection; baseline anticipated Summer 2018.		✓
Number of practising, certified First Nations health care professionals	Develop a baseline and an ongoing mechanism for collecting relevant data.		Not yet available.		×

## Appendix A: Data Sources –

### The First Nations Client File

The First Nations Client File (FNCF) is currently the best available method for accessing accurate health information for the identifiable majority of First Nations people residing in BC and their entitled descendants. The FNCF is a cohort of registered Status First Nations (“Status Indians”) who have lived in BC at some point since 1992, and their unregistered children who may be eligible for Status under the *Indian Act*. The FNCF is created annually and is the product of a multi-step probabilistic record linkage between an extract of the Indigenous and Northern Affairs Canada Indian Registry, the BC Ministry of Health Client Roster, and BC Vital Statistics birth and death records.

Together, the FNCF and Client Roster serve as the denominator—or Status First Nations population—used in analyses throughout this report. For this report, linkages were made with three datasets within the Ministry of Health’s HealthIdeas data warehouse: the Discharge Abstract Database (hospitals), Medical Services Plan (physician billing), and PharmaNet (pharmacy dispensing).

### Governance of the First Nations Client File

The FNCF is owned by the First Nations Health Authority (FNHA) and is in the custody of the Ministry of Health. It is governed by the Data and Information Planning Committee, which consists of representatives from the FNHA, BC Ministry of Health, and Health Canada. The Committee meets bi-monthly to review FNCF data access requests and to develop policy regarding health data linkages. The Committee has established processes and procedures for the submission and review of FNCF data access requests, balancing the need for high-quality First Nations health data with the need to protect individual and community privacy and to respect the principles of First Nations health information governance. First Nations health information governance refers to the structure, process, and protocols by which First Nations in BC have access to First Nations data, and it ensures that there is influential

involvement in decision-making regarding the appropriate and respectful collection, use, disclosure, and stewardship of that information. This governance structure also recognizes that such information is integral to First Nations policy, funding, and health outcomes. The intended use of the FNCF cohort is to provide information about the health and well-being of First Nations people to support health planning, surveillance, and evaluation.

### Data Challenges and Limitations

As with any data analyses, this report has been subject to some challenges and limitations with the data presented. First, the datasets are live and are therefore subject to change as open or unresolved cases are resolved and/or corrected retroactively. Additionally, the standard population used to age-standardize rates was updated from the 1991 standard population used in other iterations of this report structure, to the 2011 standard population now available. Therefore, while consistent methodology is applied for interim reports, data are re-run and presented again in the current report. Second, there is a possibility that data on deaths that occur outside of BC will be missed, which can result in seemingly long-lived cohort members. Third, the FNCF count of Status First Nations in BC is dependent upon an individual’s decision to register as a Status Indian, under the *Indian Act*, and legislative entitlement changes can affect an individual’s eligibility to have status if they decide to register. As a result, the population within the FNCF may change from year to year for reasons other than births, deaths, and migration. In addition to these issues, the availability of the FNCF is dependent upon the availability and quality of the datasets required for the linkages.

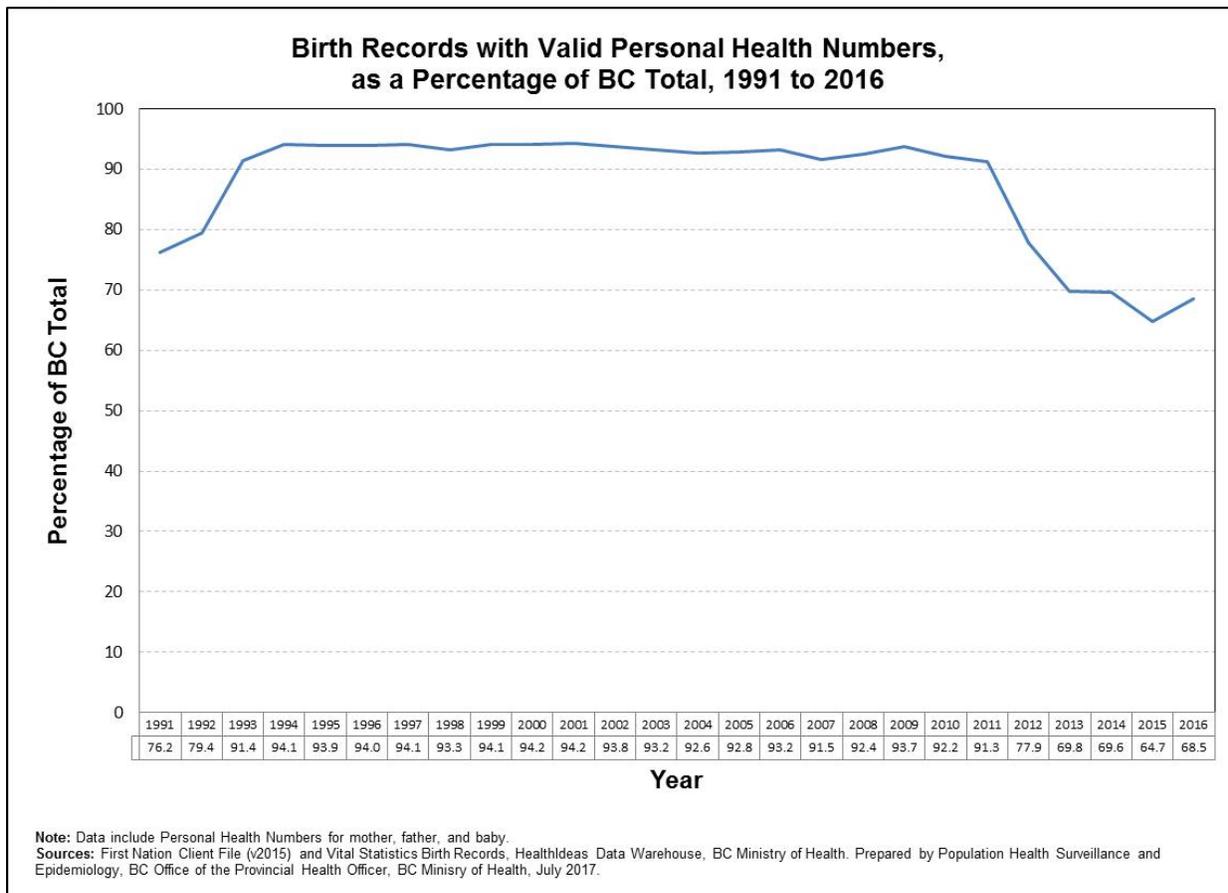
In addition to these usual challenges and considerations with data, an issue was identified in the FNCF when producing this report. A limitation with respect to the completeness of the FNCF has been identified in which the quality of Vital Statistics birth records (specifically Personal Health Number data) has been declining since 2012. Accurate Personal Health Numbers (PHNs) on birth records are needed to calculate the eligibility of dependants for registered status. As a result, it appears—incorrectly—that the number

of Status First Nations infants born has been decreasing since that time. Figure 15 shows that the number of infants born to First Nations families—where either one or both parents is/are First Nation—appears to have been decreasing since 2012. This means that Status First Nations infants are increasingly underrepresented over time in BC. This will affect indicators of life expectancy and age-standardized mortality, but have the greatest impact on the accuracy of the infant mortality rate.

implemented; as a result, data should be used and interpreted with caution—particularly data focused on infants. The PHO office, Health System Information, Analysis, and Reporting Division (HSIAR) at the Ministry of Health, and the Vital Statistics Agency are committed to resolving data quality issues, and have formed a joint working group that is currently working to improve data accuracy of PHNs and other data fields on Vital Statistics birth and death records.

A solution is in progress at the time of this report’s release, but it has not yet been fully

**Figure 15**



## References

- <sup>1</sup> Statistics Canada. Aboriginal peoples in Canada: key results from the 2016 census. The Daily. Ottawa, ON: Statistics Canada; 2017 Oct 25 [cited 2018 May 08]. Available from: <http://www.statcan.gc.ca/daily-quotidien/171025/dq171025a-eng.htm>.
- <sup>2</sup> Statistics Canada. 2016 Census topic: Aboriginal peoples [Internet]. Ottawa, ON: Statistics Canada; [cited 2018 May 04]. Available from: <http://www12.statcan.gc.ca/census-recensement/2016/rt-td/ap-pa-eng.cfm?GEOCODE=59>.
- <sup>3</sup> Percentage calculated based on data obtained from the following references: BC Statistics. 2016 Census: population and dwelling counts [issue #17-01]. Victoria, BC: BC Stats; [released 2017 Feb 08]; and Statistics Canada. 2016 Census topic: Aboriginal peoples [Internet]. Ottawa, ON: Statistics Canada; [cited 2018 May 08]. Available from: <http://www12.statcan.gc.ca/census-recensement/2016/rt-td/ap-pa-eng.cfm?GEOCODE=59>.
- <sup>4</sup> Statistics Canada. Aboriginal peoples in Canada: key results from the 2016 census. The Daily. Ottawa, ON: Statistics Canada; 2017 Oct 25 [cited 2017 Nov 10]. Available from: <http://www.statcan.gc.ca/daily-quotidien/171025/dq171025a-eng.htm>.
- <sup>5</sup> Statistics Canada. Focus on geography series, 2016 census [Internet]. Ottawa, ON: Statistics Canada; [modified 2017 Apr 29; cited 2017 Nov 10]. Available from: <http://www12.statcan.gc.ca/census-recensement/2016/as-sa/fogs-spg/Facts-PR-Eng.cfm?TOPIC=9&LANG=Eng&GK=PR&GC=59>.
- <sup>6</sup> Statistics Canada. Focus on geography series, 2016 census [Internet]. Ottawa, ON: Statistics Canada; [modified 2017 Apr 29; cited 2017 Nov 10]. Available from: <http://www12.statcan.gc.ca/census-recensement/2016/as-sa/fogs-spg/Facts-PR-Eng.cfm?TOPIC=9&LANG=Eng&GK=PR&GC=59>.
- <sup>7</sup> BC Stats. Vital statistics [Internet]. Victoria, BC: BC Stats; [cited 2017 Jan 17]. Available from: <http://www.bcstats.gov.bc.ca/StatisticsBySubject/Demography/VitalStatistics.aspx>.