

Saskatchewan progress towards reaching the UNAIDS 90-90-90 targets



August 2018

The Joint United Nations Programme on HIV/AIDS (UNAIDS) has set a global goal to end the AIDS epidemic as a public health threat by 2030. To monitor progress towards this goal, UNAIDS established “90-90-90” treatment targets for 2020:

- 90% of people with HIV are diagnosed;
- 90% of those diagnosed are on treatment; and
- 90% of those on treatment are virally suppressed.

Progress to reach the UNAIDS targets

Provinces and territories, including Saskatchewan, contributed data to the Public Health Agency of Canada’s (PHAC) initiative to monitor Canada’s progress in achieving the UNAIDS global goal. PHAC released a public report in December, 2016 which provided national results on the 90-90-90 targets using data from 2014. The methodology was further refined and as a result, the 2014 national indicator results have been recalculated. In **July 2018**, PHAC released the 2016 results and the revised 2014 results.

The full report is available at <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/summary-estimates-hiv-incidence-prevalence-canadas-progress-90-90-90.html>.

Figure 1 provides the 2014 and 2016 90-90-90 indicators for Saskatchewan and the 2016 results for Canada. **Table 1** provides the 90-90-90 indicators for Saskatchewan and Canada for 2016. **Table 2** provides the 2014 indicators for Saskatchewan and Canada (recalculated).

Figure 1: Provincial and National 90-90-90 Indicators, 2016 and provincial indicators, 2014

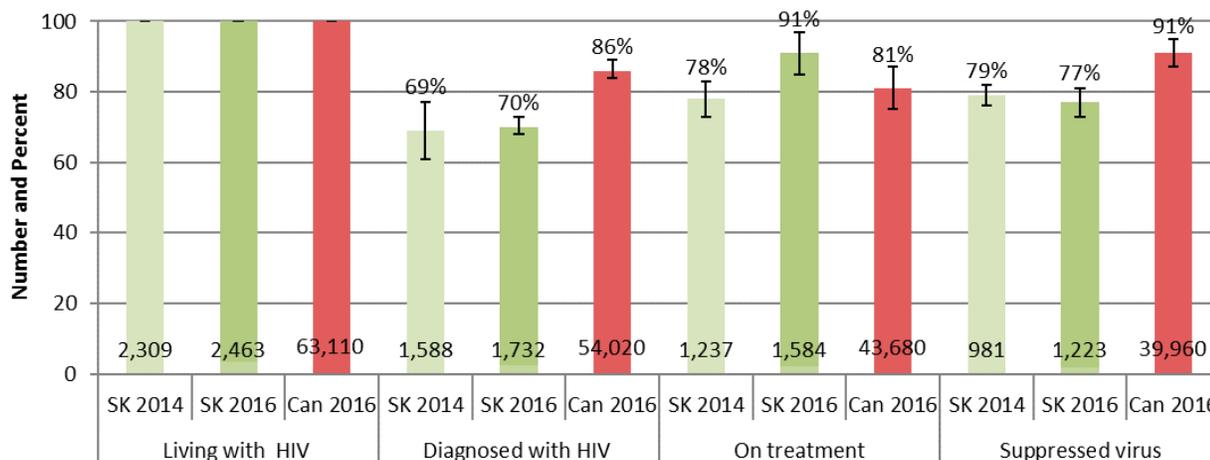


Table 1: Provincial and National 90-90-90 Indicators - 2016

	Saskatchewan		Canada ¹	
	Estimate	Range*	Estimate	Range*
Number of people living with HIV ²	2,463	2,245 – 2,760	63,110	55,500 – 70,720
Number of people living with HIV who are diagnosed ¹	1,732	1,630 – 1,880	54,020	49,200 – 59,320
First 90: Proportion of people living with HIV who are diagnosed³	70%	68% – 73%	86%	78% – 94%
Number of people diagnosed with HIV who are on treatment ⁴	1,584	N/A	43,680	40,520 – 47,000
Second 90: Proportion of people diagnosed with HIV who are on treatment⁵	91%	85% – 97%	81%	75% – 87%
Number of people on treatment with a suppressed viral load ⁶	1,223	N/A	39,960	38,000 – 41,500
Third 90: Proportion of people on treatment who have suppressed viral load⁷	77%	73% – 81%	91%	87 – 95%

*The provincial reportable disease system, similar to most other jurisdictions, does not record previously diagnosed HIV positive individuals who move into the province. Similarly, HIV positive residents who move out of the province are also not tracked. Although deaths from HIV and AIDS tend to be reported to the province, mandatory death reporting due to notifiable diseases did not come into effect until 2015. For these reasons, an actual number for those living with HIV or diagnosed to have HIV cannot be obtained so a range was estimated and the midpoint used for the indicator calculations.

¹ <https://www.canada.ca/content/dam/phac-aspc/documents/services/publications/diseases-conditions/summary-estimates-hiv-incidence-prevalence-canadas-progress-90-90/pub-eng.pdf>

² Calculations are based on PHAC modeling for the period ending December 31, 2016

³ Calculation: $\frac{\text{Number of persons living with HIV who are diagnosed}}{\text{Number of persons living with HIV}} \times 100$

⁴ Number of people diagnosed with HIV with at least one prescription filled for HIV medication in 2016 (*Drug Plan and Extended Benefits Branch*)

⁵ Calculation: $\frac{\text{Number of persons diagnosed with HIV on treatment}}{\text{Number of persons living with HIV who are diagnosed}} \times 100$

⁶ Number of people with at least one prescription filled for HIV medication with viral load considered to be suppressed (no longer or unlikely to transmit HIV) in 2016 (*Row Romanow Provincial Laboratory data*)

⁷ Calculation: $\frac{\text{Number of persons with a suppressed HIV viral load}}{\text{Number of persons diagnosed with HIV on treatment}} \times 100$

Table 2: Provincial and National (recalculated) 90-90-90 Indicator - 2014

	Saskatchewan		Canada ¹	
	Estimate	Range*	Estimate	Range*
Number of people living with HIV ^{2,3}	2,309	N/A	60,165	52,900 – 67430
Number of people living with HIV who are diagnosed ^{1,3}	1,588	N/A	50,539	N/A
First 90: Proportion of people living with HIV who are diagnosed⁴	69%	61% – 79%	84%	77% – 91%
Number of people diagnosed with HIV who are on treatment ⁵	1,237	N/A	N/A	N/A
Second 90: Proportion of people diagnosed with HIV who are on treatment⁶	78%	73% – 83%	78%	73% – 83%
Number of people on treatment with a suppressed viral load ⁷	981	N/A	N/A	N/A
Third 90: Proportion of people on treatment who have suppressed viral load⁸	79%	76% – 82%	89%	86 – 92%

*The provincial reportable disease system, similar to most other jurisdictions, does not record previously diagnosed HIV positive individuals who move into the province. Similarly, HIV positive residents who move out of the province are also not tracked. Although deaths from HIV and AIDS tend to be reported to the province, mandatory death reporting due to notifiable diseases did not come into effect until 2015. For these reasons, an actual number for those living with HIV or diagnosed to have HIV cannot be obtained so a range was estimated and the midpoint used for the indicator calculations.

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² Calculations are based on PHAC modeling for the period ending December 31, 2014

³ Saskatchewan estimates based on *Row Romanow Provincial Laboratory data*. As PHAC modeling was not used, indicators were not recalculated using the revised PHAC estimates.

⁴ Calculation: $\frac{\text{Number of persons living with HIV who are diagnosed}}{\text{Number of persons living with HIV}} \times 100$

⁵ Number of people diagnosed with HIV with at least one prescription filled for HIV medication in 2014 (*Drug Plan and Extended Benefits Branch*)

⁶ Calculation: $\frac{\text{Number of persons diagnosed with HIV on treatment}}{\text{Number of persons living with HIV who are diagnosed}} \times 100$

⁷ Number of people with at least one prescription filled for HIV medication with viral load considered to be suppressed (no longer or unlikely to transmit HIV) in 2014 (*Row Romanow Provincial Laboratory data*)

⁸ Calculation: $\frac{\text{Number of persons with a suppressed HIV viral load}}{\text{Number of persons diagnosed with HIV on treatment}} \times 100$

A comparison of the Saskatchewan 2014 and 2016 90-90-90 indicator estimates show:

- a 1% increase (69% to 70%) in the percent of HIV positive people diagnosed;
- a 13% increase (78% to 91%) in the percent of HIV positive people on treatment; and
- a 2% decrease (79% to 77%) in the percent of people on treatment who have achieved viral suppression.

Although there were 242 more individuals in 2016 reported to have a suppressed viral load (981 to 1,223), the increased in people on treatment (1,237 to 1,584) caused a decrease in the percent achieving viral suppression. These indicators are developed using modeling and data with limitations. When comparing results, the results should be interpreted within the context of calculated ranges around each of the measures (See Tables 1 and 2) that account for methodology limitations. The ranges around two of the three indicators for the two time periods overlap, making it difficult to determine if the changes are meaningful.

Similarly, where the national and provincial indicators overlap, it is difficult to determine if Saskatchewan's indicators differ from the national indicators. For 2016, Saskatchewan rated lower in the percentage of people living with HIV who are diagnosed and for those who are on treatment achieving viral suppression. However, we are higher than the national estimate in connecting those who are HIV positive to treatment.

The national results should be interpreted with caution as data completeness, data sources, methods and definitions differ from province to province, as well as from country to country. These indicators are a starting point to monitor our progress, recognizing that the data and methods used to calculate the indicators will be refined and improved in the future.

We know that Saskatchewan faces risk factors and circumstances that create barriers for individuals to access HIV testing, care and treatment. These risk factors and circumstances include:

- high rates of HIV transmission amongst those who self-report Indigenous ethnicity and the stigma and discrimination that prevent and delay these individuals from accessing services;
- high rates of drug addiction which contribute to transmission through injection drug use;
- geographical challenges for rural and remote residents to access services; and
- mobility, which leads to individuals being "lost to follow up".

Provincial Efforts to Reach the 90-90-90 Targets

Initiatives to increase awareness of HIV and to increase testing will continue to be key interventions to improving our provincial indicators. It is important for individuals to know their HIV status in order to make informed choices about what is best for their health. Injection drug use is a primary driver of HIV transmission in Saskatchewan. The complex issues faced by many individuals who inject drugs means that it is more challenging for these individuals to access and remain on HIV treatment.

In 2018, full coverage of HIV medications and additional funding to community organizations for support services were announced. Efforts continue in conjunction with federal, provincial, community and Indigenous partners to improve access to testing and clinical interventions in alignment with best practice strategies and the UNAIDS 90-90-90 targets. In addition, with our partners, we will continue our efforts to engage, educate and support individuals and communities to prevent transmission of HIV.