

# Human Immunodeficiency Virus (HIV) Treatment

## Why Is This Important?

The clinical management of HIV infection involves a spectrum of care from testing and diagnosis to linkage, engagement, initiation of antiretroviral therapy, successful treatment, and retention in care. This spectrum of care is often referred to as the HIV "care cascade."<sup>7</sup> The viral load (vL) test measures the amount of HIV in blood by counting the number of copies of the virus.<sup>8</sup> HIV is monitored by taking vLs and CD4 blood tests at intervals throughout ongoing treatment. CD4 cells are a type of white blood cell that fights infection. Low CD4 levels (< 200 cells per ml of blood) are important predictors of acquired immunodeficiency syndrome (AIDS) and its complications, including death.<sup>4</sup>

Effective antiretroviral therapy reduces HIV vL to undetectable levels (<40 copies/mL), and also reduces the transmissibility of HIV. This means people can live healthier lives with HIV. Scaling up early antiretroviral therapy has been proposed as a strategy to lower the number of new HIV infections at the population level.

References: [About the Data](#)

## What Is Being Done?

[Saskatchewan HIV Collaborative](#)

[Positive Living Program](#)

[Westside Clinic](#)

[Front Line](#)

[HIV Case Management](#)

[Clinical Care](#)

[Nursing Care](#)

## To Learn More:

Chief Medical Health Officer's [Call to Action](#)

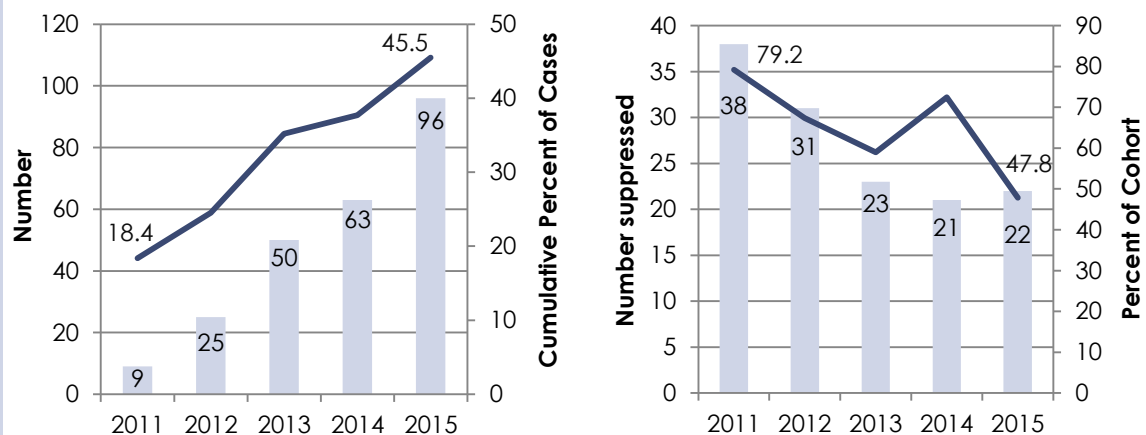
[Luvlynn's Story](#): A personal story of living with HIV in our Region.

## Highlights

### Less than half of HIV positive patients are receiving effective treatment.

- Forty-five percent of all newly reported individuals reported since 2011 had undetectable viral loads (vL) at the end of 2016. This represents 96 of 211 individuals with at least one vL test ([About the Data](#)). The cumulative percentage of individuals with undetectable vL has improved each year (*first graph, Figure 1*).
- Clients diagnosed for longer have had more time to receive anti-retroviral treatment. The second graph in Figure 1 shows that among clients reported in 2011, 79.2% (38) had undetectable vL at the end of 2016 compared to 47.8% (22) of clients reported in 2015.
- In 2015, 21.6% of individuals had low initial CD4 counts (<200) indicating diagnosis after the disease had progressed (*Figure 2*). In 2014 37.5% of clients had low CD4 counts. Correspondingly, more clients reported CD4 counts of 350 or more, indicating earlier diagnosis and better immune health at time of diagnosis.
- Engagement and retention in care remain a challenge (see [HIV treatment](#)).

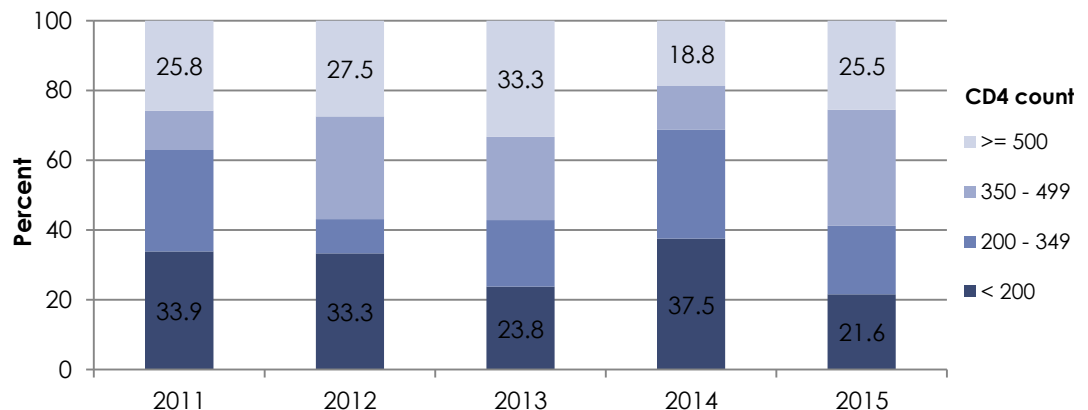
**Figure 1: Cumulative Percent\* of Newly Reported HIV with Undetectable vL and Percent Annual Cohort^ with Undetectable vL, Saskatoon Health Region, 2011 to 2015**



\*Most recent vL as measured end of December each year

^Most recent as measured in November 2015

**Figure 2: Percent of Initial CD4 Cell Count Test Results by Year of HIV Diagnosis, Saskatoon Health Region, 2011 to 2015**



Source: Population and Public Health