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Acronyms:
FH: Fraser Health
FNHA: First Nations Health Authority
IH: Interior Health
NH: Northern Health
PHSA: Provincial Health Services Authority
VCH: Vancouver Coastal Health
VIHA: Island Health
BCCDC: BC Centre for Disease Control
BC-CfE: BC Centre for Excellence in HIV/AIDS
MSP: Medical Services Plan
DAD: Discharge Abstract Database
Goal 1: Reduce the number of new HIV infections in British Columbia

Figure 1: New HIV diagnoses in B.C. by health authority (2012-13 to 2015-16)

<table>
<thead>
<tr>
<th></th>
<th>Interior</th>
<th>Fraser</th>
<th>Vancouver Coastal</th>
<th>Island Health</th>
<th>Northern</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-13</td>
<td>8</td>
<td>42</td>
<td>129</td>
<td>24</td>
<td>10</td>
</tr>
<tr>
<td>2013-14</td>
<td>15</td>
<td>71</td>
<td>146</td>
<td>32</td>
<td>16</td>
</tr>
<tr>
<td>2014-15</td>
<td>19</td>
<td>62</td>
<td>145</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>2015-16</td>
<td>20</td>
<td>62</td>
<td>114</td>
<td>28</td>
<td>7</td>
</tr>
</tbody>
</table>

Total number of new HIV diagnoses in 2015/16: **232**

**Notes:**
Newly diagnosed HIV infections are a proxy for assessing new or incident infections in British Columbia. Location is determined by residence of the person if available, or the location of provider if not. People who did not reside in British Columbia are excluded (2 people in 2014/15). There is one case not included in 2015/16 where the residence of the person could not be confirmed.

**Data source:** BCCDC Public Health Laboratory

**Limitations:**
BCCDC works to confirm that new diagnoses are not attributed to someone who has been previously diagnosed in another jurisdiction. Therefore, the number of new diagnoses may decrease with further refinement by BCCDC in the months following the end of a fiscal year, and may not mirror the number identified in a previous report.
Goal 2: Improve the quality, effectiveness and reach of HIV prevention services

TARGET: BY 2020, THERE WILL BE EQUITABLE REACH OF HARM REDUCTION SUPPLIES PROPORTIONATE TO POPULATION DENSITY IN EACH LOCAL HEALTH AREA IN THE PROVINCE.

Regional rates of distribution by health authority region

Table 1: Rate of distribution of harm reduction supplies by health region in 2015-16

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of Sterile needles/syringes distributed (2015/16)</th>
<th>Rate of distribution per 1,000 PWID in 2015-16</th>
<th>Number of condoms distributed (2015/16)</th>
<th>Rate of distribution per 100,000 people (14 and older) in 2015-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior</td>
<td>1,286,700</td>
<td>229,768</td>
<td>982,364</td>
<td>152,687</td>
</tr>
<tr>
<td>Fraser</td>
<td>1,322,178</td>
<td>99,412</td>
<td>496,924</td>
<td>33,690</td>
</tr>
<tr>
<td>Vancouver Coastal</td>
<td>6,445,600</td>
<td>499,659</td>
<td>Unable to report</td>
<td>Unable to report</td>
</tr>
<tr>
<td>Vancouver Island</td>
<td>1,679,487</td>
<td>246,983</td>
<td>549,936</td>
<td>81,706</td>
</tr>
<tr>
<td>Northern</td>
<td>470,950</td>
<td>142,712</td>
<td>261,868</td>
<td>112,721</td>
</tr>
</tbody>
</table>

By Local Health Area

Interior Health

Unable to report syringe/needle distribution or condom distribution by local health area Fraser Health
Fraser Health

Figure 2: Rate of sterile syringe/needle distribution per 100,000 people in Fraser Local Health Areas, 2015-16

Table 2: Sterile needle/syringes provided by local health area, population and rate for 2015/16

<table>
<thead>
<tr>
<th>Region</th>
<th>Syringe/needle combos distributed 2015/16</th>
<th>Estimated population of people who inject drugs in the local health area</th>
<th>Rate of distribution per 1,000 PWID in 2015-16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggassiz/Harrison</td>
<td>120</td>
<td>89</td>
<td>1,348</td>
</tr>
<tr>
<td>Delta</td>
<td>190</td>
<td>525</td>
<td>362</td>
</tr>
<tr>
<td>S. Surrey/White Rock</td>
<td>342</td>
<td>403</td>
<td>849</td>
</tr>
<tr>
<td>Hope</td>
<td>15163</td>
<td>87</td>
<td>174,287</td>
</tr>
<tr>
<td>Burnaby</td>
<td>19736</td>
<td>1096</td>
<td>18,007</td>
</tr>
<tr>
<td>Chilliwack</td>
<td>20275</td>
<td>800</td>
<td>25,344</td>
</tr>
<tr>
<td>Mission</td>
<td>34214</td>
<td>497</td>
<td>68,841</td>
</tr>
<tr>
<td>Coquitlam</td>
<td>48,087</td>
<td>1144</td>
<td>42,034</td>
</tr>
<tr>
<td>New Westminster</td>
<td>50378</td>
<td>674</td>
<td>74,745</td>
</tr>
<tr>
<td>Langley</td>
<td>61049</td>
<td>820</td>
<td>74,450</td>
</tr>
<tr>
<td>Maple Ridge</td>
<td>64437</td>
<td>876</td>
<td>73,558</td>
</tr>
<tr>
<td>Abbotsford</td>
<td>139066</td>
<td>1456</td>
<td>95,512</td>
</tr>
<tr>
<td>Surrey</td>
<td>933558</td>
<td>3977</td>
<td>234,739</td>
</tr>
</tbody>
</table>

Unable to report condom distribution by local health area.

Vancouver Coastal Region
Unable to report syringe/needle distribution by local health area, and unable to report on condom distribution.

Island Health
Unable to report syringe/needle distribution or condom distribution by local health area.

Northern Health
Unable to report syringe/needle distribution or condom distribution by local health area.
Definitions:

*Sterile needles*: total of needle/syringe combinations (1/2 cc and 1 cc) and syringes alone (3cc and 5 cc)

*Condoms*: total of male condoms (lubricated, non-lubricated, and flavored) and female condoms

**Population**:

- condoms (14-99);
- sterile needles: Health authority partners committed to gathering a more accurate estimate of the population who inject drugs. The Centre for Global Public Health (University of Manitoba) engaged with regional and provincial health authorities, in collaboration with the Pacific AIDS Network, to estimate the population of people who inject drugs in each health authority. Based on recommendations of the advisory committee for this work (run by PHSA), estimates were generated based on findings from the 2016 BC Hepatitis Testers Cohort (Janjua et al., 2015) were used as the lower limits for the PWID population size estimates for each region. The figures were adjusted for 10% under-testing, based on results from the latest I-Track Phase 3 (2010-2012) which reported that only about 90% of clients of sentinel harm reduction distribution sites have ever tested for hepatitis C

Examples of activities by regional and provincial health authorities to enhance reach of harm reduction supplies in 2015/16:

**Interior Region**

- Implemented a new tracking system to facilitate supply distribution measurement to allow enhanced evaluation and planning.
- Partnered with public health staff in Salmon Arm and East Kootenay region to broaden knowledge with community partners and peer groups regarding awareness, distribution and use of harm reduction supplies relevant to each community.
- In the Okanagan region, the peer support program mobilized to better inform and advocate for enhanced services, and local community-based organizations worked to extend after-hours services for people who inject drugs.

**Fraser Region**

- Increased funding to SANSU to expand services and engagement of people who use drugs in Surrey and Langley.
- Increased the number of positions focused on harm reduction to 1.8 FTE in Fraser South.
- Expanded satellite sites of syringe and condom distribution.
- Increased access and distribution by conducting a condom campaign for different target populations.

**Vancouver Coastal Region**

- Ongoing support, education and engagement for over 250 harm reduction supply distribution sites and over 45 active take home naloxone sites.
- In February 2016, VCH delivered Take Home Naloxone training and harm reduction supply access information at the BC Educators’ Forum to promote effective STBBI, HIV, hepatitis C and harm reduction education with Indigenous peoples of B.C.
- A harm reduction policy was developed to:
  - promote an understanding among VCH staff of the over-arching principles of harm reduction in service provision;
  - support the integration of harm reduction principles and practices in all clinical policies, procedures, guidelines and hiring processes in VCH; and
achieve better outcomes for clients through provision of harm reduction services in VCH, that are based on best practices and reliable emerging evidence.

**Vancouver Island Region**

- Develop safe and supportive access across all participating harm reduction sites by emphasizing how supplies are made accessible.
- Provide education and engagement among a wide range of Island Health staff, from clerical to clinical staff, counselors, coordinators, managers and nurses, as well as to First Nation health centres and other community organizations.
- Continue enhanced supply and accessibility of glass stems and inhalation supplies to support the achievement of equitable regional access.
- Commenced harm reduction roundtable meetings in four communities, covering south and central Vancouver Island, with regular meetings on a monthly or bi-monthly schedule.
- Significant expansion of the Take Home Naloxone program from 7 to 43 sites, including four First Nation health centres.
- Introduction of enhanced quarterly reporting process for all primary and satellite harm reduction sites, including data on number of needles/syringes distributed and collected and number of glass stems distributed.
- Developed a robust overdose data surveillance and reporting system involving data from: Island Health ER Departments, BC Coroner Services, BC Ambulance Services, Victoria Police Department, and Online Reports from Island Health staff and other key stakeholders.

**Northern Region**

- Released the HIV and HCV Regional Implementation Plan in November 2015, which focused on collaborative action and alignment with From Hope to Health.
- Created a full-time harm reduction and sexual reproductive health regional nursing lead position to improve tracking of the reach of harm reduction supplies, and build harm reduction knowledge and capacity within primary care and interprofessional teams.
- Initiated a request for proposals (RFP) process for community partners and First Nations health organizations that focused on improving access to harm reduction supplies through community-based HIV and hepatitis C services. The RFP was developed in partnership with service providers and the First Nations Health Authority.

**Provincial**

- Launched PEEP, an initiative to establish a peer engagement network with best practice recommendations so service providers can work with peers in their communities to better meet local needs - See more at: [http://towardtheheart.com/ezine/9/research-and-surveillance#sthash.PbxU1t5.dpuf](http://towardtheheart.com/ezine/9/research-and-surveillance#sthash.PbxU1t5.dpuf)
TARGET: BY 2020, 90 PER CENT OF PEOPLE ON HIV TREATMENT IN EACH HEALTH REGION WILL BE VIRALLY SUPPRESSED.

Table 3: Proportion of people on HIV treatment with suppressed viral load by region (2015-16)

<table>
<thead>
<tr>
<th>Region</th>
<th>Target for the region</th>
<th>Proportion with a suppressed viral load (baseline)</th>
<th>Proportion with a suppressed viral load (2015/16)</th>
<th>Change over baseline (increase/ decrease)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior</td>
<td>90%</td>
<td>78%</td>
<td>80%</td>
<td>↑</td>
</tr>
<tr>
<td>Fraser</td>
<td>90%</td>
<td>73%</td>
<td>85%</td>
<td>↑</td>
</tr>
<tr>
<td>Vancouver Coastal</td>
<td>90%</td>
<td>86%</td>
<td>87%</td>
<td>↑</td>
</tr>
<tr>
<td>Vancouver Island</td>
<td>90%</td>
<td>71%</td>
<td>82%</td>
<td>↑</td>
</tr>
<tr>
<td>Northern</td>
<td>90%</td>
<td>60%</td>
<td>66%</td>
<td>↑</td>
</tr>
<tr>
<td>B.C.</td>
<td>90%</td>
<td>82%</td>
<td>85%</td>
<td>↑</td>
</tr>
</tbody>
</table>

Notes:
This measure has been amended to a hard target of 90 per cent in each region to align with UNAIDS 90-90-90.
Snapshot in time measurement: Total number of people active in the HIV Drug Treatment program as of March 31, 2015.
Data source: BC-CfE Drug Treatment program.

Definitions:
Total number of people considered active in the Drug Treatment program (as of March 31, 2015): Included are individuals who:
- Have been on any antiretroviral drug through the BC-CfE Drug Treatment program any day in the fiscal year; or
- Started antiretroviral drug before the beginning of the fiscal year and were not deceased before the end of the fiscal year (so they have a full year of follow-up).

Suppressed viral load: having an undetectable episode (two or more consecutive plasma viral load tests with a result of ≤200 copies/ml) longer than three months in the fiscal year.

Baseline: 2009-10 for Vancouver and Northern regions, 2012-13 for others.
Goal 3: Diagnose those living with HIV as early as possible in the course of their infection

Figure 3: Stage of infection at diagnosis, British Columbia (2012-13 to 2015-16)

Figure 4: Stage of infection at diagnosis, Interior region (2012-13 to 2015-16)
Figure 5: Stage of infection at diagnosis, Fraser region (2012-13 to 2015-16)

Figure 6: Stage of infection at diagnosis, Vancouver Coastal region (2012-13 to 2015-16)
Definitions:

<table>
<thead>
<tr>
<th>Classification*</th>
<th>Stage of HIV Infection at time of Diagnosis definitions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 0 (acute)</td>
<td>Laboratory criteria met for acute HIV infection or previous negative or indeterminate HIV test within 180 days of first confirmed positive HIV test.</td>
</tr>
<tr>
<td>Stage 1</td>
<td>Stage 0 not met, and CD4 cell count ≥500</td>
</tr>
<tr>
<td>Stage 2a</td>
<td>Stage 0 not met, and CD4 cell count 350-499</td>
</tr>
<tr>
<td>Stage 2b</td>
<td>Stage 0 not met, and CD4 cell count 200-349</td>
</tr>
<tr>
<td>Stage 3 (advanced)</td>
<td>Stage 0 not met, and CD4 cell count &lt;200</td>
</tr>
<tr>
<td>Stage unknown</td>
<td>Stage 0 not met, and no information available on CD4 cell count</td>
</tr>
</tbody>
</table>
Notes:
Data source: BCCDC Public Health Laboratory
Changes have recently been implemented in the STOP Quarterly Monitoring report (as of 2016Q1) as well as the BCCDC HIV Annual Report (as of 2015). AIDS case reporting has been removed from case definitions of Stage 1 to Stage Unknown.

Limitations:
Excludes people where stage of infection at diagnosis isn’t known. People diagnosed in 2016 (January 1 – March 31) are more likely to be missing a CD4 count associated with their positive HIV test, due to data lag at BCCDC Public Health Laboratory. BCCDC works to confirm that new diagnoses are not attributed to someone who has been previously diagnosed in another jurisdiction. Therefore, the number of new diagnoses may decrease with further refinement by BCCDC in the months following the end of the fiscal year. Numbers may be revised in the next progress report.

Proportion of new diagnoses with unlinked staging information in B.C. in 2015/16:

<table>
<thead>
<tr>
<th>Interior</th>
<th>Fraser</th>
<th>Vancouver Coastal</th>
<th>Vancouver Island</th>
<th>Northern</th>
<th>B.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5%</td>
<td>19%</td>
<td>15%</td>
<td>57%</td>
<td>0%</td>
<td>20%</td>
</tr>
</tbody>
</table>

Lack of data linkage of CD4 result and HIV testing between VIHA and BCCDC Public Health Laboratory increases this proportion in the Island region. As a result, people in the Vancouver Island region may not benefit from monitoring and resultant program shifts to better reach people.
MILESTONE 1:

A) BY 2020, RATES OF HIV TESTING IN EACH HEALTH SERVICE DELIVERY AREA WILL BE AT OR ABOVE 3,500 PER 100,000 PEOPLE

B) BY 2020, EACH HEALTH SERVICE DELIVERY AREA WILL HAVE INCREASED HIV TESTING BY AT LEAST 50 PER CENT.

TEST RATES

Figure 9: Interior region - test rate per 100,000 people, by health service delivery area (FY 2012-13 – FY 2015-16)

Figure 10: Fraser region - testing rate per 100,000 people, by health service delivery area (FY 2012-13 – FY 2015-16)
**Please note VIHA testing data includes prenatal testing done at Victoria General Hospital, and therefore is an overreporting of HIV testing.**

Figure 11: Vancouver Island region – testing rate per 100,000 people, by health service delivery area (FY 2012-13 – FY 2015-16)

Figure 12: Vancouver Coastal region – testing rate per 100,000 people, by health service delivery area (FY 2009-10 – FY 2015-16)
Figure 13: Northern region – testing rate per 100,000 people, by health service delivery area (FY 2009-10 – FY 2015-16)

Testing Episodes

Table 4: Testing episodes in pilot areas since 2009

<table>
<thead>
<tr>
<th>Health Service Delivery Area</th>
<th>2009-10 # of testing episodes</th>
<th>2015-16 # of testing episodes</th>
<th>% Increase in testing episodes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vancouver</td>
<td>49,063</td>
<td>140,760</td>
<td>187%</td>
</tr>
<tr>
<td>Northern Interior</td>
<td>3,699</td>
<td>8,297</td>
<td>124%</td>
</tr>
</tbody>
</table>
Figure 14: Per cent increases in HIV testing since before the provincial program (2012-13)

Table 5: Testing episodes by HSDA since before the provincial program (FY 2012-13) and FY 2015-16

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>East Kootenay</th>
<th>Kootenay Boundary</th>
<th>Okanagan</th>
<th>Thompson Cariboo Shuswap</th>
<th>Fraser East</th>
<th>Fraser North</th>
<th>Fraser South</th>
<th>Van</th>
<th>North Shore/Coast Garibaldi</th>
<th>South Vancouver Island</th>
<th>Central Vancouver Island</th>
<th>North Vancouver Island</th>
<th>Northwest</th>
<th>Northeast</th>
<th>Northern Interior</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline 2012-13</td>
<td>1421</td>
<td>1825</td>
<td>8999</td>
<td>4579</td>
<td>5995</td>
<td>22798</td>
<td>17176</td>
<td>91114</td>
<td>4602</td>
<td>8865</td>
<td>14247</td>
<td>6393</td>
<td>3174</td>
<td>2129</td>
<td>1813</td>
</tr>
<tr>
<td>2015-16</td>
<td>3024</td>
<td>3782</td>
<td>17125</td>
<td>10644</td>
<td>9545</td>
<td>31906</td>
<td>26869</td>
<td>140760</td>
<td>19280</td>
<td>23951</td>
<td>21130</td>
<td>11922</td>
<td>5110</td>
<td>2755</td>
<td>2214</td>
</tr>
<tr>
<td>% Change</td>
<td>113%</td>
<td>107%</td>
<td>90%</td>
<td>59%</td>
<td>66%</td>
<td>319%</td>
<td>54%</td>
<td>170%</td>
<td>48%</td>
<td>86%</td>
<td>61%</td>
<td>29%</td>
<td>22%</td>
<td>52%</td>
<td></td>
</tr>
</tbody>
</table>

Per cent increase in absolute testing episodes
Impact of B.C.’s HIV Testing Guidelines on HIV test rates

In 2014, the Office of the Provincial Health Officer released HIV Testing Guidelines that identified the need for all British Columbians between the ages of 18-70 to be offered an HIV test at least every five years. To assess the impact of these guidelines on HIV testing, Figure 23 shows the rates of HIV testing for people aged 18-70 for 2015/16 as compared to the year prior to release of the Guidelines (2013-14).

Figure 15: HIV Testing rate per 100,000 of people between 18-70 years old, by HSDA: 2013-14 (darker) vs. 2015-16 (lighter)

Table 6: Testing episodes by HSDA, for people 18-70 years of age, baseline (FY 2013-14) and FY 2015-16

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>East Kootenay</th>
<th>Kootenay Boundary</th>
<th>Okanagan</th>
<th>Thompson Cariboo Shuswap</th>
<th>Fraser East</th>
<th>Fraser North</th>
<th>Fraser South</th>
<th>Richmond</th>
<th>Vancouver</th>
<th>North Shore/Coast</th>
<th>Garibaldi</th>
<th>South Vancouver Island</th>
<th>Central Vancouver Island</th>
<th>North Vancouver Island</th>
<th>Northwest</th>
<th>Northern Interior</th>
<th>Northeast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline 2013-14</td>
<td>1461</td>
<td>1925</td>
<td>9401</td>
<td>5348</td>
<td>6345</td>
<td>25366</td>
<td>19342</td>
<td>5986</td>
<td>101163</td>
<td>10237</td>
<td>14650</td>
<td>7039</td>
<td>3813</td>
<td>2103</td>
<td>6346</td>
<td>1835</td>
<td></td>
</tr>
<tr>
<td>2015-16</td>
<td>2772</td>
<td>3415</td>
<td>15480</td>
<td>9534</td>
<td>6757</td>
<td>29433</td>
<td>25114</td>
<td>15602</td>
<td>123877</td>
<td>20490</td>
<td>19645</td>
<td>10844</td>
<td>4743</td>
<td>2548</td>
<td>7687</td>
<td>2083</td>
<td></td>
</tr>
<tr>
<td>% Change</td>
<td>90%</td>
<td>77%</td>
<td>65%</td>
<td>78%</td>
<td>38%</td>
<td>16%</td>
<td>30%</td>
<td>161%</td>
<td>22%</td>
<td>100%</td>
<td>34%</td>
<td>54%</td>
<td>24%</td>
<td>21%</td>
<td>21%</td>
<td>13%</td>
<td></td>
</tr>
</tbody>
</table>
Notes:
Data source: BCCDC Public Health Laboratory (testing episodes); B.C. Stats (population).
Vancouver Island Health regions include both BCCDC Public Health Laboratory and Victoria General Laboratory testing volumes combined for one total.

Definitions:
*Testing episode:* all HIV tests (point of care and laboratory) conducted for an individual in a 30-day period (as a follow-up or simultaneous HIV test may be required to clarify test results within this period). This includes non-unique testers outside this 30 day period (for example, someone who is tested in February and again in September is counted as two testing episodes).

Testing episodes 18-70 years: HIV tests ordered where the birthdate of the individual indicates they fall between 18-70 years (based on HIV Testing Guidelines for B.C.).

*Location:* defined as the where the ordering physician is located. If this is missing, the individual’s residence is used.

*Population:* 
*Testing episode rate:* All genders, 18-99 years
*Testing episodes 18-70 years:* Population is all genders, 18-70 years.

Limitations:
Tests performed at Victoria General Hospital Laboratory are not linked with testing episodes through BCCDC Public Health Laboratory. Therefore, if an individual tested at Victoria General Hospital and again through BCCDC Public Health Laboratory within 30 days, this would show as two episodes instead of one.

Testing done through Victoria General Hospital includes prenatal testing. Therefore the number of HIV tests and the testing rate in three Island Health HSDAs is slightly overreported (approximately 2-3 tests per quarter).
TARGET: BY 2020, HIV TESTING WILL ACCOMPANY ALL TESTING FOR SEXUALLY TRANSMITTED INFECTIONS AND HEPATITIS C.

Figure 16: Proportion of people tested for hepatitis C with an associated HIV test, by region and B.C. (FY 2012-13 – FY 2015-16)

Figure 17: Proportion of people tested for syphilis that had an associated HIV test, by region and B.C. (FY 2012-13 – FY 2015-16)

Notes:
Data source: BCCDC Public Health Laboratory.
People with a diagnosis of HIV infection at least 14 days prior to the testing episode were excluded

Definitions:
Hepatitis C virus test with associated HIV test: HIV tests two weeks before or two weeks after hepatitis C sample collected/received.
Syphilis test with associated HIV test: HIV test two weeks prior or two weeks after syphilis sample collected/received.

Limitations:
The definition for this target was developed and refined over the time of the STOP HIV/AIDS pilot by the BCCDC and the BC-CfE during the STOP HIV/AIDS pilot. This includes the consideration that Individuals tested for HIV
infection outside the window of inclusion but having a previous HIV test may be considered by health care practitioners are being recently tested. However, in this dataset they are considered as not having a current HIV test.

HIV tests associated with syphilis tests and hepatitis C tests performed by Victoria General Hospital are not included.

Chlamydia, gonorrhea and hepatitis B testing associated with HIV is not included as these are completed by private labs. BCCDC is working to link data with private labs, as well as with Victoria General Hospital for future reports.

Testing done concurrently where the HIV test was done anonymously or non-nominally are not linked and therefore are not captured.
MILESTONE 2: BY 2020, MORE THAN 50 PER CENT OF PEOPLE IN EACH HEALTH AUTHORITY DIAGNOSED WITH HIV WILL BE IDENTIFIED IN EARLY STAGES OF INFECTION (ACUTE PHASE INFECTION OR CD4 >500 MM³)

Figure 18: Proportion of people diagnosed early in their infection where CD4 is known at diagnosis, by region and B.C. (FY 2012-13 – FY 2015-16)

Notes:
Data source: BCCDC Public Health Laboratory.

Definitions:
Early in the course of infection: CD4 at diagnosis of greater than or equal to 500mm³
“Missing”: people whose positive HIV test does not have an associated CD4 measurement.

Limitations:
More than half of people diagnosed in VIHA have unlinked staging data, likely due to the fact that VIHA data is not yet linked to BCCDC Public Health Laboratory databases to connect CD4 and HIV testing. Small total numbers of new diagnoses in Northern and Interior regions result in changes over time that appear more significant than they are. This target does not identify people diagnosed in acute stages (ie: where a CD4 may not be linked because they were identified through targeted testing for acute seroconversion).

BCCDC works to confirm that new diagnoses are not attributed to someone who has been previously diagnosed in another jurisdiction. Therefore, the number of new diagnoses may decrease with further refinement by BCCDC in the months following the end of the fiscal year. Numbers may be revised in the next progress report.

Proportion of people “missing” in 2015/16 data:

<table>
<thead>
<tr>
<th>Region</th>
<th>Interior</th>
<th>Fraser</th>
<th>Vancouver Coastal</th>
<th>Vancouver Island</th>
<th>Northern</th>
<th>B.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion</td>
<td>5%</td>
<td>19%</td>
<td>15%</td>
<td>57%</td>
<td>0%</td>
<td>20%</td>
</tr>
</tbody>
</table>

FROM HOPE TO HEALTH: PROGRESS REPORT 2015/16 – SOURCE DATA 24
TARGET: BY 2020, LESS THEN 10 PER CENT OF PEOPLE IN EACH HEALTH AUTHORITY WILL BE DIAGNOSED WHILE LIVING WITH ADVANCED HIV INFECTION.

Figure 19: Proportion of people diagnosed late in their infection (where CD4 at diagnosis is known), region and B.C. (FY 2012-13 – FY 2015-16)

Notes:
Data source: BCCDC Public Health Laboratory.

Definitions:
Late in the course of infection: CD4 at diagnosis of lesser than or equal to 200/mm³

Limitations:
57 per cent of new diagnoses are missing CD4 in Vancouver Island Health, likely due to the fact that Island Health data is not yet linked to BCCDC Public Health Laboratory databases to connect CD4 and HIV testing. Small total numbers of new diagnoses in Northern and Interior regions resulted in changes over time that appear more significant than they are.

BCCDC works to confirm that new diagnoses are not attributed to someone who has been previously diagnosed in another jurisdiction. Therefore, the number of new diagnoses may decrease with further refinement by BCCDC in the months following the end of the fiscal year. Numbers may be revised in the next progress report.

Proportion of people “missing” in 2015/16 data:

<table>
<thead>
<tr>
<th>Region</th>
<th>Interior</th>
<th>Fraser</th>
<th>Vancouver Coastal</th>
<th>Vancouver Island</th>
<th>Northern</th>
<th>B.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5%</td>
<td>19%</td>
<td>15%</td>
<td>57%</td>
<td>0%</td>
<td>20%</td>
</tr>
</tbody>
</table>
Goal 4: Improve quality and reach of HIV support services for those living with and vulnerable to HIV

Figure 20: B.C. – British Columbia cascade of care (left), by gender (right) (year ending 2015-16)

Figure 21: Interior region cascade of care (left), by gender (right) (year ending 2015-16)
Figure 22: Fraser region cascade of care (left), by gender (right) (year ending 2015-16)

Figure 23: Vancouver Coastal region cascade of care (left), by gender (right) (year ending 2015-16)
Figure 24: Vancouver Island region cascade of care (left), by gender (right) (year ending 2015-16)

Figure 25: Northern region cascade of care (left), by gender (right) (year ending 2015-16)
Notes:
Data is for the period 2015 Q2 to 2016 Q1

Data sources:
- British Columbia Centre for Excellence Drug Treatment Program (DTP) Database (ARV use, viral load and CD4 count)
- Administrative Data (i.e., MSP physician billing database, Discharge Abstracts Database, PharmaNet database, B.C. Vital Statistics)

NB: Transgender have been assigned to their biological sex.

Limitations:
Please refer to the BC-CfE technical report for described limitations.¹
HA assignment is based on the most recent HA of residence of the patient, if not available of the HIV-care provider. If the most recent HA of residence is not updated then the designated HA may be incorrect.
Note that the number of people in each region in the cascade is often extrapolated from multiple areas, whereas other targets in this report are concretely measured over the course of the fiscal year. Cascade data is important to note trends and assess gaps in care, but does not accurately reflect a proportion of people living with HIV in B.C. who are not reached by any services. Other targets in this report aim to better report on those gaps.

Definitions:²

<table>
<thead>
<tr>
<th>HIV-diagnosed</th>
<th>Defined as the first instance of one of the following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(i) confirmed HIV-positive test</td>
</tr>
<tr>
<td></td>
<td>(ii) detectable pVL2</td>
</tr>
<tr>
<td></td>
<td>(iii) HIV-related MSP billing or hospitalization</td>
</tr>
<tr>
<td></td>
<td>(iv) reported AIDS-defining illness</td>
</tr>
<tr>
<td></td>
<td>(v) antiretroviral treatment dispensation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Linked to HIV care</th>
<th>Among diagnosed cases; defined as:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(i) Among those with confirmed HIV test: the first instance of HIV-related service¹ following HIV diagnosis.</td>
</tr>
<tr>
<td></td>
<td>(ii) Among those with no confirmed HIV test: the first instance of HIV-related service ≥ 30 days following derived HIV diagnosis date.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Retained in HIV care</th>
<th>Among individuals linked to HIV care; defined as:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(i) HIV-related physician visits OR diagnostic tests (CD4 or pVL) ≥ three months apart within the calendar year OR</td>
</tr>
<tr>
<td></td>
<td>(ii) At least two antiretroviral drug dispensations ≥ three months apart, within the calendar year.</td>
</tr>
</tbody>
</table>

| On antiretroviral therapy | Among those in need of antiretroviral therapy; defined as receiving at least two antiretroviral drug dispensations ≥ three months apart, within the calendar year. |

| Adherent to therapy | Among individuals on antiretroviral therapy; defined as having at least 80 per cent adherence³ in the calendar year, or from the point of antiretroviral initiation for those beginning therapy within the calendar year. |

| Undetectable plasma viral load | Among individuals adherent to therapy, defined as having no detectable pVL³ over a period ≥ three months in duration within the calendar year. |

MILESTONE 3: BY 2020, THERE WILL BE ZERO CASE REPORTS OF PEOPLE WHO WERE DIAGNOSED EARLY THAT PROGRESSED TO ADVANCED HIV INFECTION.

Table 7: AIDS case reports for people originally diagnosed early in the course of their infection by region and B.C. (2010/11 to 2014/15)

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Interior</th>
<th>Fraser</th>
<th>Vancouver Coastal</th>
<th>Island Health</th>
<th>Northern</th>
<th>B.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010/11</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>2011/12</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2012/13</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2013/14</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>2014/15</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Notes:
Data source: BCCDC Public Health Laboratory.

Definition:
*Early in the course of infection*: Acute infection or CD4 at diagnoses is greater than or equal to 500/mm³

Limitations:
AIDS case reports sometimes have a significant time lag. As such, the most complete fiscal year available at the time of this report was the second program year (2014/15). Data on this measure continues to be updated for previous years as cases are identified.

This indicator relies on CD4 count at diagnoses. B.C. and other jurisdictions now offer drug treatment regardless of CD4 count due to ART’s ability to prolong life and prevent transmission. As a result, the number of new diagnoses where a CD4 count is available may decrease in the coming years.

As well, the methods of data collection for this indicator are changing, and will affect future reporting of the number of AIDS cases linked with CD4 count.

Diagnosis linked to stage of infection has only been available since 2010.
MILESTONE 4: BY 2020, AT LEAST 90 PER CENT OF THOSE MEDICALLY ELIGIBLE TO ACCESS HIV TREATMENT IN EACH HEALTH AUTHORITY WILL BE ON TREATMENT.

Figure 26: Proportion of people known to be living with HIV accessing drug treatment as of March 31, 2015, by region and B.C. (FY 2011-12 to FY 2014-2015)

Notes:
Snapshot in time measure: People accessing the BC-CfE HIV Drug Treatment program as of March 31 in the fiscal year. Data updated as of November 21, 2016.

Data sources:
- BC-CfE Drug Treatment program (people on treatment).

Definitions:
Region is based on a person’s address on March 31st of each year.

On treatment (as of March 31 of the fiscal year): If the individual has been on any antiretroviral therapy any day in March AND any day in April.

Living with HIV: Inclusion in the STOP HIV/AIDS Evaluation cohort and still alive. This is determined by:
- Positive HIV confirmatory test with BCCDC Public Health Laboratory;
- HIV associated billing through MSP or Discharge Abstracts Database; OR
- Record of ever being on the BC-CfE HIV Drug Treatment program.

BCCfE then works to identify the likelihood that someone with an MSP/Discharge Abstracts Database billing item is likely to be living with HIV (Nosyk et al., 2011). The Drug Treatment program data is updated monthly by BC Vital Statistics to identify people who have died.
Loss to follow up is defined as not having ANY contact with the health care system (DAD, MSP, Pharmanet, CFE) in the 18 months prior to March 31st, 2015.

Assumptions:
Medically eligible: Assumed to be approximately 100 per cent for this reporting, as the number of people not medically eligible is likely very low (BC-CfE, 2011). It is assumed that no more than 10 per cent of people medically eligible for HIV drug therapy will be unwilling to take it.

Limitations:
Because the STOP HIV/AIDS evaluation cohort includes Ministry of Health administrative databases, as well as requires the application of an algorithm to identify people living with HIV in B.C., there is a data lag for reporting. Therefore, the cohort can only be characterized for this report up to March 31, 2015.
TARGET: BY 2020, AT LEAST 75 PER CENT OF ALL PEOPLE NEWLY DIAGNOSED WITH HIV WILL ENGAGE IN PARTNER NOTIFICATION.

Figure 27: Proportion of people newly diagnosed with HIV who participated in partner notification activities, by region (FY 2012-13 – FY 2015-16)

Figure 28: Proportion of notifiable contacts who were subsequently tested (when information available), by region and B.C. (FY 2013-14 – FY 2015-16)
Notes:
Data source: Participation in partner notification: health authority reports
Proportion of notifiable contacts: BCCDC Public Health Laboratory (HIV Case report forms)

Definition:
Participating in partner notification: includes people who are approached to participate, and are willing to participate in the process, yet do not have any partners to notify. This could be because they do not have names for contacts, or the contacts are no longer living.

Limitations:
Participation in partner notification: There is wide variation among regions in what is considered participation in partner notification. Participation in this service is voluntary. There is movement between these two regions for testing, diagnosis and public health follow up, particularly between VCH and FH, which means that people diagnosed in one region are followed by public health in another. Some regions numbers may include people who were approached to participate and wished to, but ultimately declined public health assistance, or said they didn’t want to participate when in fact they had no contacts to identify or were otherwise unable to identify them. Wide fluctuations may result from small absolute numbers in some areas of the province.

Proportion of notifiable contacts who were subsequently tested (when information available): overall, low percentages of HIV case report forms have this portion of the form filled out, therefore this may be an under or over estimation biased by the collection of the information. This data was first available 2013-14.

TARGET: BY 2020 50 PER CENT MORE PEOPLE WILL BE RECEIVING STANDARD OF CARE LABORATORY MONITORING

Table 8: Progress on the proportion of people not receiving standard laboratory monitoring, by region, baseline and FY 2015-16

<table>
<thead>
<tr>
<th>Region</th>
<th>Target for region</th>
<th>Proportion not receiving standard lab monitoring (baseline*)</th>
<th>Proportion not receiving standard lab monitoring (2015/16)</th>
<th>Change over baseline (↑/↓)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interior</td>
<td>7%</td>
<td>14%</td>
<td>16%</td>
<td>↑</td>
</tr>
<tr>
<td>Fraser</td>
<td>5%</td>
<td>9%</td>
<td>9%</td>
<td>-</td>
</tr>
<tr>
<td>Vancouver Coastal</td>
<td>3%</td>
<td>5%</td>
<td>8%</td>
<td>↑</td>
</tr>
<tr>
<td>Vancouver Island</td>
<td>7%</td>
<td>13%</td>
<td>13%</td>
<td>-</td>
</tr>
<tr>
<td>Northern</td>
<td>11%</td>
<td>16%</td>
<td>24%</td>
<td>↑</td>
</tr>
<tr>
<td>B.C.</td>
<td>4%</td>
<td>8%</td>
<td>10%</td>
<td>↑</td>
</tr>
</tbody>
</table>

Notes:
Snapshot in time measurement: Total active on the HIV Drug Treatment program as of March 31, 2015.
The original target was to increase the proportion of people receiving standard laboratory monitoring by 50 per cent. This was changed for reporting purposes to decrease the proportion not receiving standard laboratory monitoring in the first program year.
Data source: BC-CfE Drug Treatment program
*Baseline year for Vancouver Coastal and Northern Health is 2008/09. Baseline is 2012/13 for B.C. and all remaining health authorities.
Definitions:

Total number of people considered active in the Drug Treatment program (as of March 31, 2015): Included are individuals who:

- Have been on any antiretroviral drug through the BC-CfE Drug Treatment program any day in the fiscal year; or
- Started antiretroviral drug before the beginning of the fiscal year and didn’t die before the end of the fiscal year (so they have a full year of follow-up).

Receiving standard of care lab monitoring: having two or more plasma viral load tests more than three months apart in the fiscal year.

Target for region: a 50 per cent decrease from their baseline, rounded to the nearest per cent.