

Table 1. Summary of definitions and outputs from four HIV continuums of care which used data from the USA, Canada, Denmark, and France.

Author, Country, Journal, Year	Data Source	Data Presented	Estimated HIV-Infected population	Diagnosed	Linked	Retained	ART Indicated	On ART	ART Adherence	Virologic Suppression
Hall et al. JAMA Intern Med. 2013	National HIV Surveillance System (NHSS) Behavioural Risk Factor Surveillance System Medical Monitoring Project database	Continuum for USA in 2009.	NHSS data was used to estimate the HIV infected population. 1, 148, 200 (100%) estimated HIV-infected population in 2009.	The number of HIV diagnoses was obtained from the NHSS. 82% of infected individuals were diagnosed.	Having ≥1 CD4 or VL test result within three months after diagnosis. 66% of infected individuals were linked to HIV care.	Having ≥1 medical care visit between January and April 2009. 37% of infected individuals were retained in care.	Not included in the continuum.	Medical record documentation of any ART prescription in the past 12 months. 33% of infected individuals were on ART.	Not included in the continuum.	Medical record documentation of the most recent VL as ≤200 copies/mL. 25% of infected individuals achieved viral suppression.
Nosyk et al., British Columbia, Canada, Lancet Infectious Diseases, 2014	Linked-population level database	Longitudinal data from 1996-2011.	HIV prevalence estimates from Public Health Agency of Canada. 11, 700 (100%) estimated HIV-infected population in 2011.	The first instance of any one of: • a confirmed HIV-positive test • detectable VL† • an HIV-related MSP billing or hospital admission • a reported AIDS-defining illness • ARV dispensation 71% of infected individuals were diagnosed.	The first instance of an HIV-related service‡ following HIV diagnosis: (i) Among those with a confirmed HIV test; (ii) Among those without a confirmed HIV test: ≥ 30 days following the derived HIV diagnosis date. 67% of infected individuals were linked to care.	(i) HIV-related physician visits OR diagnostic tests (CD4 or VL) ≥3 months apart within the calendar year OR (ii) >2 ART drug dispensations ≥3 months apart, within the calendar year. 57% of infected individuals were retained in care.	Defined as meeting the primary or secondary IAS-USA initiation criteria within the calendar year in 2011. 53% of infected individuals were ART indicated.	Having >2 ARV drug dispensations ≥3 months apart, within the calendar year. 51% of infected individuals were on ART.	Having >80% adherence in the calendar year, or from the point of ARV initiation for those beginning therapy within the calendar year. 44% of infected individuals were ART adherent.	Among individuals adherent to therapy, defined as having no detectable pVL ³ over a period ≥3 months in duration within the calendar year. 35% of infected individuals achieved viral suppression in 2011.

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Helleberg et al. Sweden and Denmark PlosOne, 2013	Swedish-Danish HIV Cohort (a population-based nationwide cohort study of all HIV-infected individuals who have been treated at Danish HIV centres) database.	Continuum for Denmark in 2010.	Not included in the continuum.	HIV diagnoses were obtained from the annual national HIV surveillance reports 1995-2010. <i>100% of diagnosed individuals in 2010.</i>	The number of individuals enrolled in the Danish HIV Cohort Study diagnosed from 1995 to 2010. <i>95% of diagnosed individuals were linked to care.</i>	Having either visited an HIV care center and/or having a VL or CD4 count within 13 months before July 1 st , 2010. <i>88% of diagnosed individuals were retained in care.</i>	Not included in the continuum.	The number on ART. <i>73% of diagnosed individuals were on ART.</i>	Not included in the continuum.	VL <500 copies/mL at the last measurement. <i>70% of diagnosed individuals achieved viral suppression.</i>
Supervie et al., France, CROI 2013	The French health insurance scheme; The FHDH-ANRS-CO4 cohort (which is representative of HIV patients in care in France).	Continuum for France in 2010.	Estimated infected population back-calculated from HIV surveillance data. <i>149,900 (100%) estimated HIV-infected population in 2010.</i>	HIV-infected individuals in care: data from the French health insurance scheme on the number of individuals having long-term disease agreement for HIV; all HIV-infected individuals newly enrolled in care in France are eligible for long-term disease agreement for HIV. <i>81% of infected individuals were diagnosed.</i>	-The authors only showed “in care” and did not differentiate between linked and retained. -Defined as all individuals enrolled in the French health insurance scheme as having long-term disease agreement for HIV. <i>74% of infected individuals were “in care”.</i>		<i>Not included in the continuum.</i>	On cART for greater than 6 months. <i>60% of infected individuals were on ART.</i>	Not included in the continuum.	VL <50 copies/mL. <i>52% of infected individuals achieved viral suppression.</i>

MSP=medical services plan. ART=highly active antiretroviral therapy. IAS=International AIDS Society. VL=plasma viral load *Unpublished data (Archibald C, Public Health Agency of Canada, personal communication). †Based on plasma viral load testing technology available at the time of measurement; virological suppression thresholds: <500 copies per mL for 1996, <400 copies per mL for 1997-98, and <50 copies per mL for 1999-2011. ‡Plasma viral load test, CD4 cell count, HIV-related physician visit, or antiretroviral drugs dispensed. §Refers to the number of days of drugs dispensed, divided by the total number of days in care.