

# **FOREWORD**

HIV Pre-exposure prophylaxis (PrEP) is a biomedical strategy for HIV prevention consisting of the use of antiretrovirals by HIV-negative individuals who are at high risk of acquiring HIV infection [1]. Specifically, PrEP refers to the ongoing use of emtricitabine/tenofovir initiated prior to and continued after potential exposure to HIV as a means of preventing infection from establishing within the individual's body [1].

In January 2018, a province-wide HIV PrEP program was implemented in British Columbia (BC), Canada, to complement current overarching HIV prevention strategies, namely Treatment as Prevention (TasP®), alongside traditional harm reduction and safer sex measures. Thus, BC residents are eligible to receive publicly funded PrEP, via the BC Centre for Excellence in HIV/AIDS (BC-CfE) PrEP program, in accordance with BC-CfE PrEP Guidelines [2].

As part of the BC-CfE's mandate to monitor and evaluate HIV treatment and prevention programs in BC, the BC-CfE was tasked with identifying and developing appropriate PrEP monitoring and evaluation indicators to be reported on a regular basis. The process of producing these quarterly PrEP indicators also allows for the assessment of limitations in data capture and supports the development of strategies to improve timely and complete data capture. Please note that any comments and queries regarding this report should be forwarded to info@bccfe.ca.

\* Please note that all information presented in this report is generated from a live database, which is updated on a regular basis. As such, the data presented for previous quarters is subject to changes over time as new information becomes available in the live database.



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# **ACRONYMS**

ADR	Adverse Drug Reaction
Ag/Ab	Antigen/Antibody
ART	Antiretroviral Therapy
ВС	British Columbia
BC-CfE	British Columbia Centre for Excellence in HIV/AIDS
BCCDC	British Columbia Centre for Disease Control
ВСМоН	British Columbia Ministry of Health
DFA	Direct Fluorescent Antibody
EIA	Enzyme Immunoassay
gbMSM	Gay, Bisexual, and Other Men who have Sex with Men
HIRI-MSM	HIV Incidence Risk Index for Men who have Sex with Men
HIV	Human Immunodeficiency Virus
NAAT	Nucleic Acid Amplification Testing
nPEP	Non-Occupational Post-Exposure Prophylaxis
OPTIONS	Optimizing Prevention Technology Introduction on Schedule
PCR	Polymerase Chain Reaction
PrEP	Pre-Exposure Prophylaxis
PWID	People Who Inject Drugs
Q	Calendar Quarter
RPR	Rapid Plasma Reagin
STI	Sexually Transmitted Infections
STOP HIV/AIDS	Seek and Treat for Optimal Prevention of HIV/AIDS
TasP	Treatment as Prevention
TGW	Transgender Women



#### **ACKNOWLEDGEMENTS AND CONTRIBUTIONS**

The BC-CfE, with input from representatives from key collaborators, including the Health Authorities, British Columbia Ministry of Health (BCMoH), and the British Columbia Centre for Disease Control (BCCDC), is responsible for the conception, preparation, and ongoing review of this quarterly report. The BC-CfE provides the data and outputs for all indicators. Specifically, the data were procured from the BC-CfE PrEP Program database. The BC-PrEP Program database is linked to a centralized BC-CfE registry, which stores data from various sources relevant to this report, including the following:

- BC-CfE Drug Treatment Program (e.g., demographic, clinical, antiretroviral medication dispensation data).
- BC-CfE Pharmacovigilance Initiative (e.g., clinician-reported antiretroviral adverse drug reaction data).
- BC Vital Statistics (e.g., mortality data for the purposes of censoring clients appropriately).
- Providence Health Care Laboratory Interface (e.g., testing data from multiple laboratory sites, including the British Columbia Centre for Disease Control [BCCDC] Public Health Laboratory).
- The College of Physicians and Surgeons of BC (e.g., physician-related data to determine type of physician [family physician vs specialist physician]).

Collectively, these aforementioned data sources are linked into a secure and computerized database. Privacy and confidentiality are matters which are taken very seriously and strict rules and procedures are applied to ensure that the information stored is secure. Data for persons in BC accessing PrEP outside the BC-PrEP Program (e.g., 3rd party private insurers, non-insured health benefits, cash-paying clients) are not captured in this report.

The Seek and Treat for Optimal Prevention of HIV/AIDS® (STOP HIV/AIDS) Technical Monitoring Committee is responsible for oversight of this monitoring report. Mr. Nic Bacani and Mr. Jason Trigg performed the analysis of the indicators under the guidance and support of Dr. Junine Toy, Dr. Viviane Dias Lima, and Mr. Paul Sereda. This report was conceived and led by Dr. Rolando Barrios and Dr. Julio Montaner.



#### INDICATOR DEVELOPMENT AND REVISION

The indicator development process began with engagement of the STOP HIV/AIDS Technical Monitoring Committee, composed of clinicians, clinical researchers, epidemiologists, statisticians, and other public health experts in the field. Select members of this working group, located at the BC-CfE, conducted a review of the literature on existing monitoring and evaluation indicators utilized in the field of HIV/AIDS surveillance and PrEP. The published and grey literature was thoroughly searched for relevant monitoring and evaluation literature. Among other sources, the following key sources were referred to at the time of indicator development: Centers for Disease Control and Prevention's Framework for Program Evaluation in Public Health [3], Treatment as Prevention Process Monitoring Indicators developed by the STOP HIV/AIDS Study Group [4], the WHO Implementation Tool for Pre-Exposure Prophylaxis of HIV Infection [5], and the Optimizing Prevention Technology Introduction on Schedule (OPTIONS) Review and Documentation of Monitoring and Evaluation of Indicators for Oral PrEP [6]. Our indicators were then disseminated to all members of the STOP HIV/AIDS technical monitoring committee for review and feedback.

Effectively, there was collaboration with an interdisciplinary working group to develop a set of evidence-based indicators that will contribute to the establishment of a monitoring and evaluation process for the BC-PrEP program. It is recognized that periodic review and refinement of these indicators will be required for a robust monitoring and evaluation system.

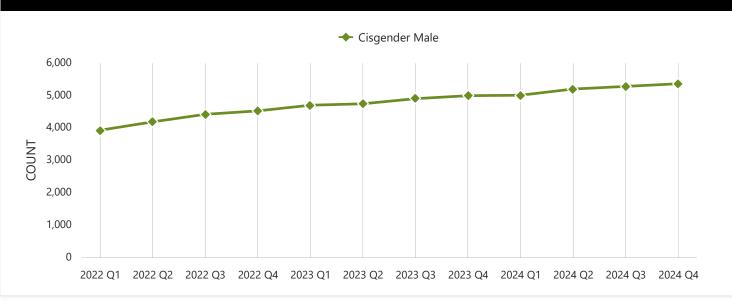
# Client Demographic Monitoring Indicators Clinical Monitoring Indicators

#### CLIENT DEMOGRAPHIC INDICATORS

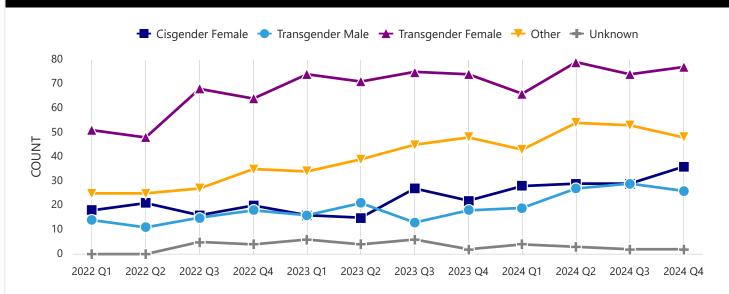
# INDICATOR 1. CLIENT GENDER IDENTITY<sup>1</sup>

This indicator describes the gender identity of unique BC-PrEP clients who were dispensed PrEP by calendar quarters. By clicking the indicator heading, you will be redirected to the full technical definition.





# FIGURE 1.2. BC-PrEP CLIENTS DISPENSED PrEP BY GENDER IDENTITY EXCEPT CISGENDER MALES (COUNT)



<sup>1</sup> The BC-PrEP database does not capture longitudinal gender identity information, thus only the most recent gender identity recorded can be reported.



The number of BC-PrEP clients in each quarter represent unique clients (i.e., each client was only counted once per quarter). The percentages were not graphed given the particularly low percentages of BC-PrEP clients in most categories.

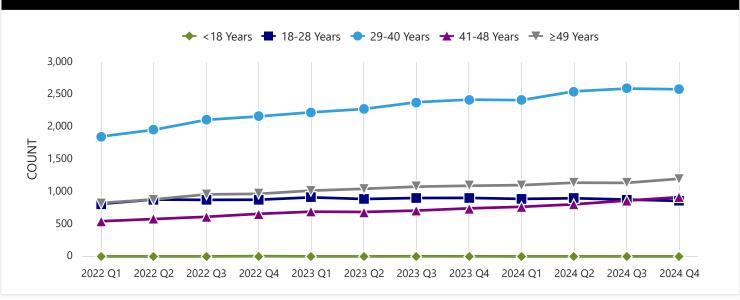
Gender Identity	2022	2022	2022	2022	2023	2023	2023	2023	2024	2024	2024	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	N	N	N	N	N	N	N	N	N	N	N	N
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Cisgender	3931	4189	4422	4528	4703	4747	4906	4998	5010	5203	5283	5367
Male	(97)	(98)	(97)	(97)	(97)	(97)	(97)	(97)	(97)	(96)	(97)	(97)
Cisgender	18	21	16	20	16	15	27	22	28	29	29	36
Female	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(0)	(1)	(1)	(1)	(1)
Transgender	14	11	15	18	16	21	13	18	19	27	29	26
Male	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1)	(1)	(0)
Transgender	51	48	68	64	74	71	75	74	66	79	74	77
Female	(1)	(1)	(1)	(1)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other	25	25	27	35	34	39	45	48	43	54	53	48
	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Unknown	0 (0)	0 (0)	5 (0)	<5 (0)	6 (0)	<5 (0)	6 (0)	<5 (0)	<5 (0)	<5 (0)	<5 (0)	<5 (0)



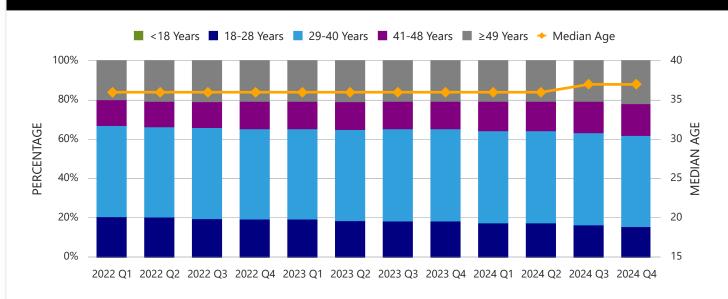
# INDICATOR 2. CLIENT AGE<sup>2</sup>

This indicator describes the age of unique BC-PrEP clients who were dispensed PrEP by calendar quarters. By clicking the indicator heading, you will be redirected to the full technical definition.





## FIGURE 2.2 BC-PrEP CLIENTS DISPENSED PrEP BY AGE GROUP (PERCENTAGE)



Note: BC= British Columbia; PrEP= Pre-Exposure Prophylaxis; Q= Calendar quarter, Q1= January to March, Q2= April to June, Q3= July to September, Q4= October to December.

2 The number of BC-PrEP clients in each quarter represent unique clients (i.e., each client was only counted once per quarter).

Age	2022	2022	2022	2022	2023	2023	2023	2023	2024	2024	2024	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	N	N	N	N	N	N	N	N	N	N	N	N
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
<18 Years	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
18-28	813	879	873	876	913	887	903	904	889	899	879	859
Years	(20)	(20)	(19)	(19)	(19)	(18)	(18)	(18)	(17)	(17)	(16)	(15)
29-40	1852	1954	2108	2162	2225	2277	2380	2421	2412	2549	2591	2580
Years	(46)	(46)	(46)	(46)	(46)	(46)	(47)	(47)	(47)	(47)	(47)	(46)
41-48	545	578	612	659	692	688	708	743	766	806	862	915
Years	(13)	(13)	(13)	(14)	(14)	(14)	(14)	(14)	(15)	(15)	(16)	(16)
≥49 Years	827	881	958	966	1017	1044	1078	1091	1102	1139	1136	1200
	(20)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(21)	(22)
Median Age	36	36	36	36	36	36	36	36	36	36	37	37

#### INDICATOR 3. HEALTH AUTHORITY (CLIENTS' RESIDENCE AND PROVIDERS' PRACTICE)<sup>3</sup>

This indicator describes the BC-PrEP clients' health authority of residence and their providers' health authority of practice among those who were dispensed PrEP by calendar quarters. By clicking the indicator heading, you will be redirected to the full technical definition.

# FIGURE 3.1. BC-PrEP CLIENTS DISPENSED PrEP BY CLIENTS' HEALTH AUTHORITY OF RESIDENCE (COUNT)

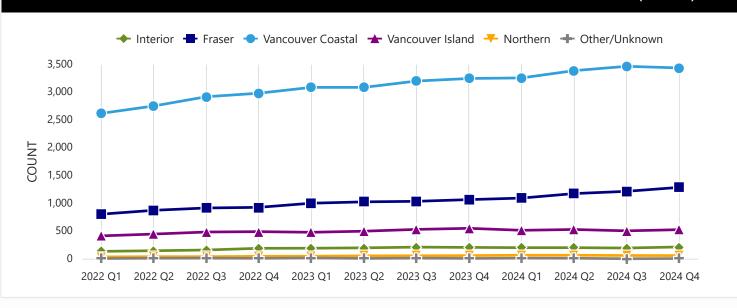
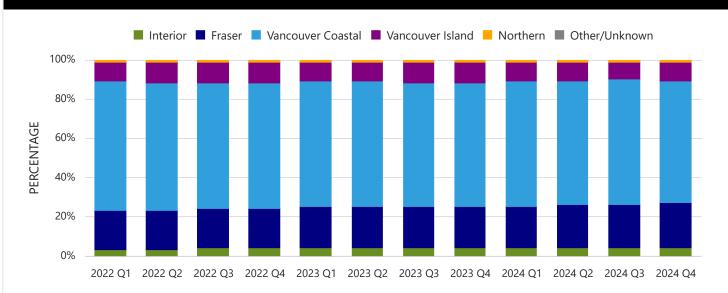


FIGURE 3.2. BC-PrEP CLIENTS DISPENSED PREP BY CLIENTS' HEALTH AUTHORITY OF RESIDENCE (PERCENTAGE)

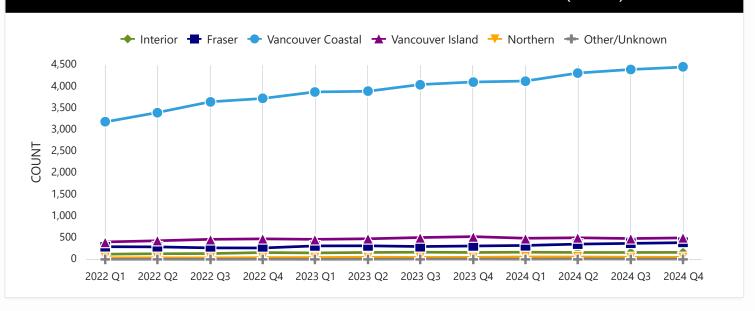


<sup>3</sup> The number of BC-PrEP clients in each quarter represent unique clients (i.e., each client was only counted once per quarter).

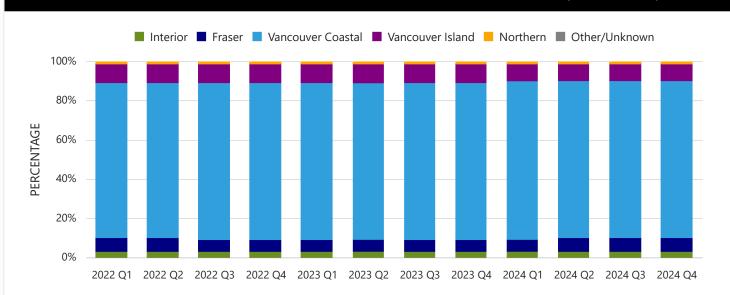
Clients' Health Authority of Residence	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Interior	140	150	163	194	196	202	216	211	205	206	200	219
	(3)	(3)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Fraser	808	879	920	931	1007	1031	1040	1071	1099	1179	1220	1291
	(20)	(20)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(22)	(22)	(23)
Vancouver Coastal	2624	2756	2923	2986	3092	3091	3205	3252	3262	3393	3471	3442
	(65)	(64)	(64)	(64)	(64)	(63)	(63)	(63)	(63)	(63)	(63)	(62)
Vancouver Island	418	451	487	495	483	502	535	554	518	533	508	530
	(10)	(11)	(11)	(11)	(10)	(10)	(11)	(11)	(10)	(10)	(9)	(10)
Northern	39	44	43	50	52	59	60	63	69	70	65	64
	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other/Unknown	10	14	17	13	19	12	16	11	17	14	6	10
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)



## FIGURE 3.3. BC-PrEP CLIENTS DISPENSED PrEP BY PROVIDERS' HEALTH AUTHORITY (COUNT)



# FIGURE 3.4. BC-PrEP CLIENTS DISPENSED PrEP BY PROVIDERS' HEALTH AUTHORITY (PERCENTAGE)



<sup>3</sup> The number of BC-PrEP clients in each quarter represent unique clients (i.e., each client was only counted once per quarter).

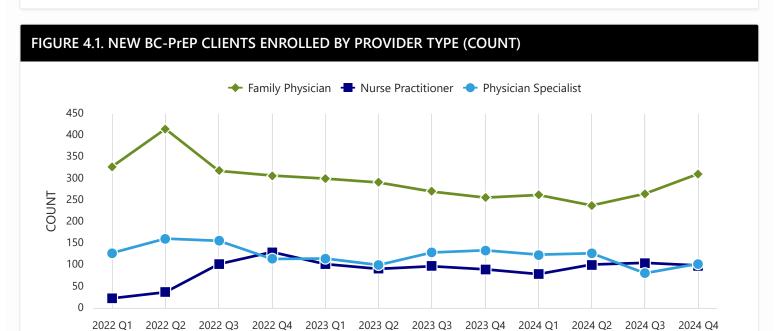
Providers' Health Authority of Residence	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Interior	121	131	135	158	150	160	166	161	166	160	160	162
	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Fraser	293	289	267	265	312	315	298	310	322	354	371	388
	(7)	(7)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(7)	(7)	(7)
Vancouver Coastal	3181	3401	3648	3724	3878	3891	4047	4107	4130	4314	4396	4452
	(79)	(79)	(80)	(80)	(80)	(79)	(80)	(80)	(80)	(80)	(80)	(80)
Vancouver Island	404	432	465	475	464	477	507	527	489	501	483	498
	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(9)	(9)	(9)	(9)
Northern	38	37	35	42	43	49	46	48	57	56	51	47
	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other/Unknown	<5 (0)	<5 (0)	<5 (0)	5 (0)	<5 (0)	5 (0)	8 (0)	9 (0)	6 (0)	10 (0)	9 (0)	9 (0)



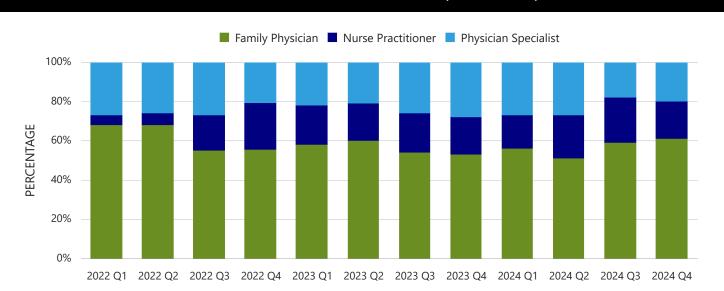
#### PROGRAMMATIC INDICATORS

#### INDICATOR 4. NEW BC-PrEP CLIENTS ENROLLED BY PROVIDER TYPE<sup>4</sup>

This indicator describes the type of provider enrolling new clients into the BC-PrEP program by calendar quarters. By clicking the indicator heading, you will be redirected to the full technical definition.



# FIGURE 4.2. NEW BC-PrEP CLIENTS ENROLLED BY PROVIDER TYPE (PERCENTAGE)



<sup>\*</sup>The BC-CfE's educational initiative that expanded the role of nurse practitioners to prescribe PrEP launched in the fall of 2018.



<sup>4</sup> Includes BC-PrEP clients who have an authorized PrEP Enrolment & Prescription Request form regardless if PrEP was subsequently dispensed. It was not possible to stratify this indicator by clinic type as the BC-PrEP program is currently unable to accurately determine specific models of care on an ongoing basis.

Provider Type	2022	2022	2022	2022	2023	2023	2023	2023	2024	2024	2024	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	N	N	N	N	N	N	N	N	N	N	N	N
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Family	328	415	318	307	300	291	270	256	262	238	265	311
Physician	(68)	(68)	(55)	(56)	(58)	(60)	(54)	(53)	(56)	(51)	(59)	(61)
Nurse	23	37	102	130	102	91	97	90	79	101	105	99
Practitioner	(5)	(6)	(18)	(24)	(20)	(19)	(20)	(19)	(17)	(22)	(23)	(19)
Physician	128	161	156	114	115	100	129	134	124	127	81	103
Specialist	(27)	(26)	(27)	(21)	(22)	(21)	(26)	(28)	(27)	(27)	(18)	(20)



## NDICATOR 5. NEW BC-PrEP CLIENTS ENROLLED BY HEALTH AUTHORITY<sup>5</sup>

This indicator describes enrolment patterns of new clients in the BC-PrEP program by calendar quarters. By clicking the indicator heading, you will be redirected to the full technical definition.

FIGURE 5.1. NEW BC-PrEP CLIENTS ENROLLED RESIDING IN VANCOUVER COASTAL (COUNT)

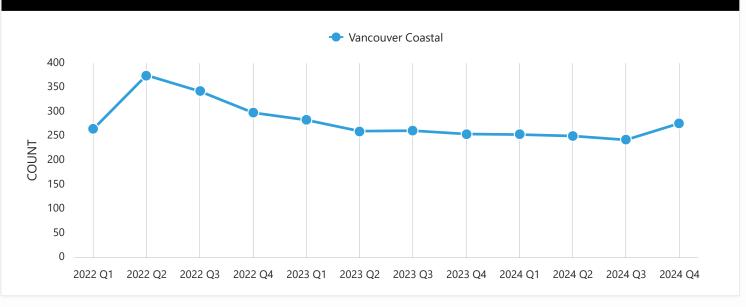
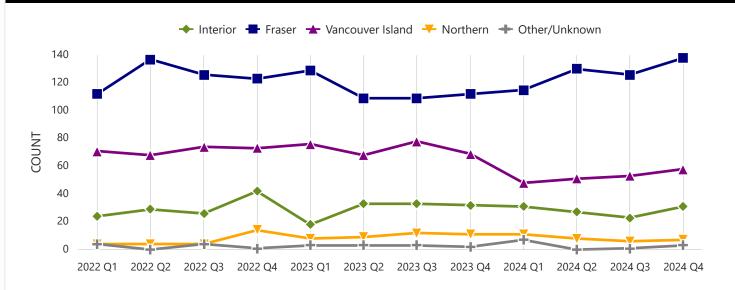


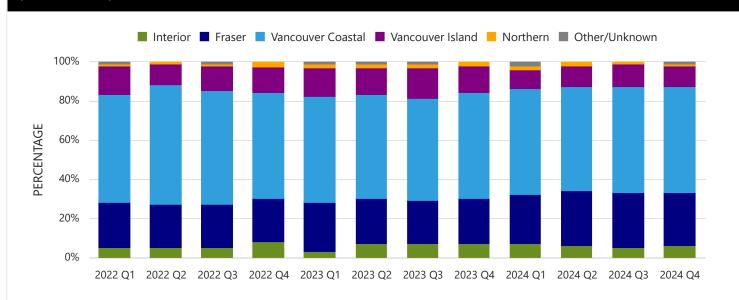
FIGURE 5.2. NEW BC-PrEP CLIENTS ENROLLED BY CLIENTS' HEALTH AUTHORITY OF RESIDENCE EXCEPT VANCOUVER COASTAL (COUNT)



Note: BC= British Columbia; PrEP= Pre-Exposure Prophylaxis; Q= Calendar quarter, Q1= January to March, Q2= April to June, Q3= July to September, Q4= October to December.

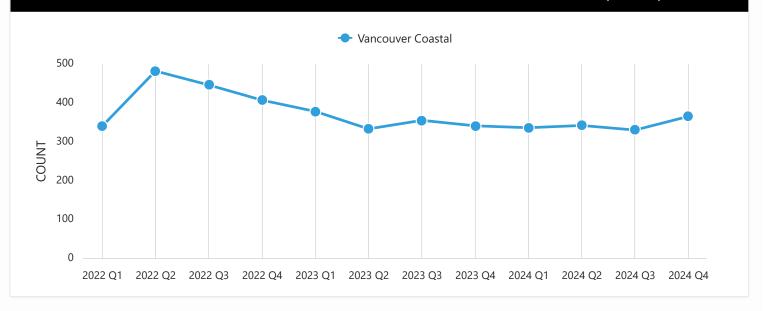
5 Includes BC-PrEP clients who have an authorized PrEP Enrolment & Prescription Request form regardless if PrEP was subsequently dispensed. In the event that BC-PrEP clients were re-enrolled into the program after a period of discontinuation, only the first ever authorization will be counted.

# FIGURE 5.3 NEW BC-PrEP CLIENTS ENROLLED BY CLIENTS' HEALTH AUTHORITY OF RESIDENCE (PERCENTAGE)

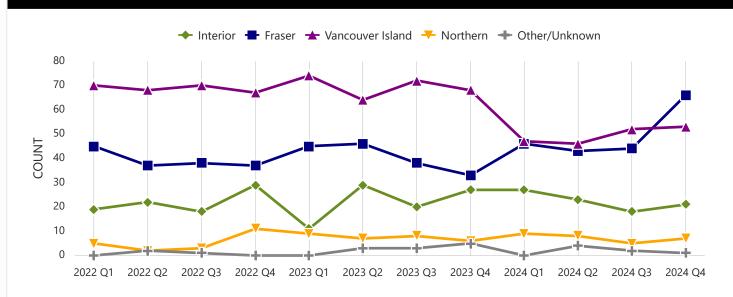


Clients' Health Authority of Residence	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Interior	24	29	26	42	18	33	33	32	31	27	23	31
	(5)	(5)	(5)	(8)	(3)	(7)	(7)	(7)	(7)	(6)	(5)	(6)
Fraser	112	137	126	123	129	109	109	112	115	130	126	138
	(23)	(22)	(22)	(22)	(25)	(23)	(22)	(23)	(25)	(28)	(28)	(27)
Vancouver Coastal	264	375	342	298	283	260	261	254	253	250	242	276
	(55)	(61)	(59)	(54)	(55)	(54)	(53)	(53)	(54)	(54)	(54)	(54)
Vancouver Island	71	68	74	73	76	68	78	69	48	51	53	58
	(15)	(11)	(13)	(13)	(15)	(14)	(16)	(14)	(10)	(11)	(12)	(11)
Northern	<5	<5	<5	14	8	9	12	11	11	8	6	7
	(1)	(1)	(1)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(1)	(1)
Other/Unknown	<5 (1)	0 (0)	<5 (1)	<5 (0)	<5 (1)	<5 (1)	<5 (1)	<5 (0)	7 (2)	0 (0)	<5 (0)	<5 (1)

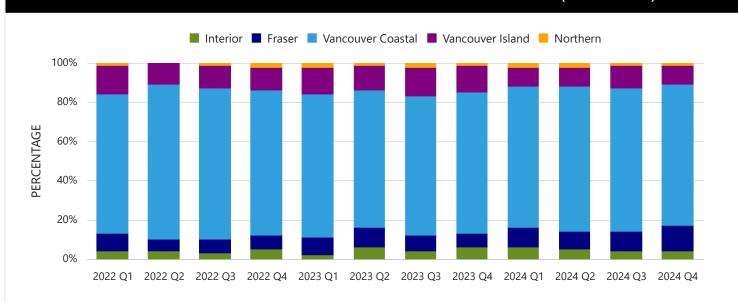
## FIGURE 5.4. NEW BC-PrEP CLIENTS ENROLLED BY A PROVIDER IN VANCOUVER COASTAL (COUNT)



# FIGURE 5.5. NEW BC-PrEP CLIENTS ENROLLED BY PROVIDERS' HEALTH AUTHORITY EXCEPT VANCOUVER COASTAL (COUNT)



# FIGURE 5.6 NEW BC-PrEP CLIENTS ENROLLED BY PROVIDERS' HEALTH AUTHORITY (PERCENTAGE)

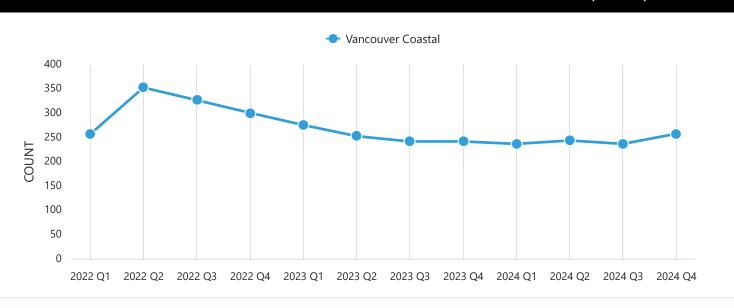


Providers' Health Authority	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Interior	19	22	18	29	11	29	20	27	27	23	18	21
	(4)	(4)	(3)	(5)	(2)	(6)	(4)	(6)	(6)	(5)	(4)	(4)
Fraser	45	37	38	37	45	46	38	33	46	43	44	66
	(9)	(6)	(7)	(7)	(9)	(10)	(8)	(7)	(10)	(9)	(10)	(13)
Vancouver Coastal	340	482	446	407	378	333	355	341	336	342	330	365
	(71)	(79)	(77)	(74)	(73)	(69)	(72)	(71)	(72)	(73)	(73)	(71)
Vancouver Island	70	68	70	67	74	64	72	68	47	46	52	53
	(15)	(11)	(12)	(12)	(14)	(13)	(15)	(14)	(10)	(10)	(12)	(10)
Northern	5	<5	<5	11	9	7	8	6	9	8	5	7
	(1)	(0)	(1)	(2)	(2)	(1)	(2)	(1)	(2)	(2)	(1)	(1)
Other/Unknown	0 (0)	<5 (0)	<5 (0)	0 (0)	0 (0)	<5 (1)	<5 (1)	5 (1)	0 (0)	<5 (1)	<5 (0)	<5 (0)

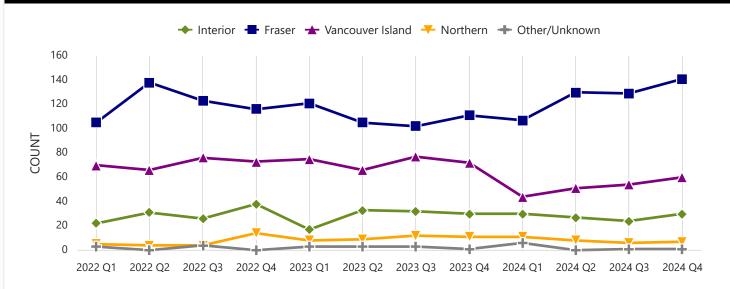
#### INDICATOR 6. NEW BC-PrEP CLIENTS DISPENSED PrEP6

This indicator describes the BC-PrEP clients' health authority of residence and their providers' health authority of practice among those who were dispensed PrEP by calendar quarters. By clicking the indicator heading, you will be redirected to the full technical definition.

#### FIGURE 6.1. NEW BC-PrEP CLIENTS DISPENSED PrEP RESIDING IN VANCOUVER COASTAL (COUNT)



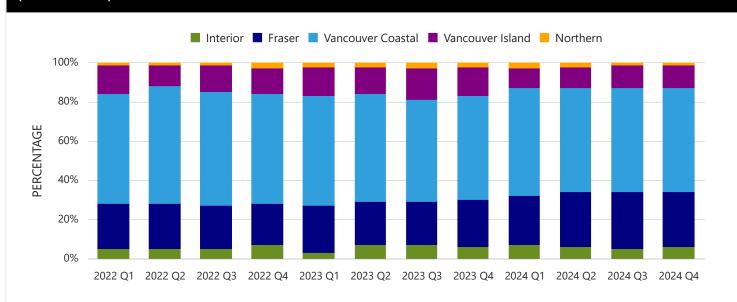
# FIGURE 6.2. NEW BC-PrEP CLIENTS DISPENSED PREP BY CLIENTS' HEALTH AUTHORITY OF RESIDENCE EXCEPT VANCOUVER COASTAL (COUNT)



Note: BC= British Columbia; PrEP= Pre-Exposure Prophylaxis; Q= Calendar quarter, Q1= January to March, Q2= April to June, Q3= July to September, Q4= October to December.

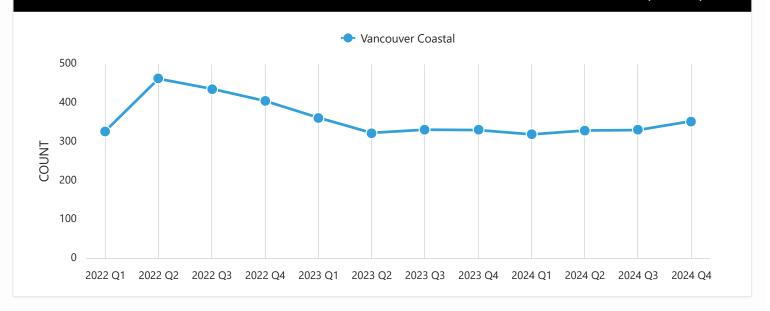
6 In the event that BC-PrEP clients were re-enrolled into the program after a period of discontinuation, only the first ever authorization will be counted.

# FIGURE 6.3 NEW BC-PrEP CLIENTS DISPENSED PREP BY CLIENTS' HEALTH AUTHORITY OF RESIDENCE (PERCENTAGE)

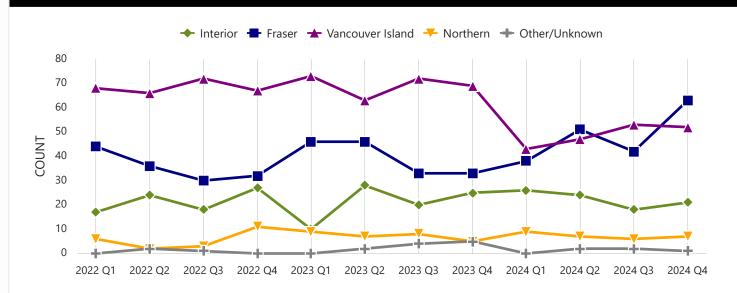


Clients' Health Authority of Residence	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Interior	22	31	26	38	17	33	32	30	30	27	24	30
	(5)	(5)	(5)	(7)	(3)	(7)	(7)	(6)	(7)	(6)	(5)	(6)
Fraser	105	138	123	116	121	105	102	111	107	130	129	141
	(23)	(23)	(22)	(21)	(24)	(22)	(22)	(24)	(25)	(28)	(29)	(28)
Vancouver Coastal	257	353	327	301	276	253	242	242	237	244	237	258
	(56)	(60)	(58)	(56)	(55)	(54)	(52)	(52)	(54)	(53)	(53)	(52)
Vancouver Island	70	66	76	73	75	66	77	72	44	51	54	60
	(15)	(11)	(14)	(13)	(15)	(14)	(16)	(15)	(10)	(11)	(12)	(12)
Northern	5	<5	<5	14	8	9	12	11	11	8	6	7
	(1)	(1)	(1)	(3)	(2)	(2)	(3)	(2)	(3)	(2)	(1)	(1)
Other/Unknown	<5	0	<5	0	<5	<5	<5	<5	6	0	<5	<5
	(1)	(0)	(1)	(0)	(1)	(1)	(1)	(0)	(1)	(0)	(0)	(0)

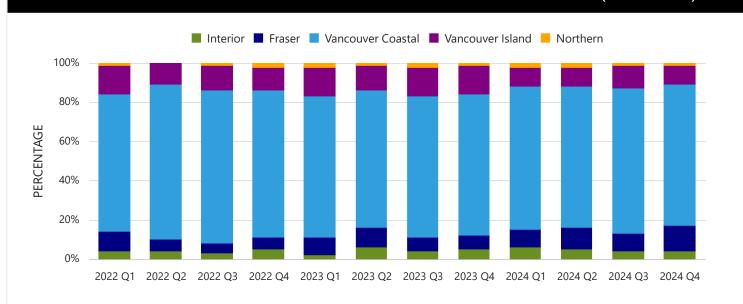
## FIGURE 6.4. NEW BC-PrEP CLIENTS DISPENSED PREP BY A PROVIDER IN VANCOUVER COASTAL (COUNT)



# FIGURE 6.5. NEW BC-PrEP CLIENTS DISPENSED PREP BY PROVIDERS' HEALTH AUTHORITY EXCEPT VANCOUVER COASTAL (COUNT)



# FIGURE 6.6 NEW BC-PrEP CLIENTS DISPENSED PrEP BY PROVIDERS' HEALTH AUTHORITY (PERCENTAGE)

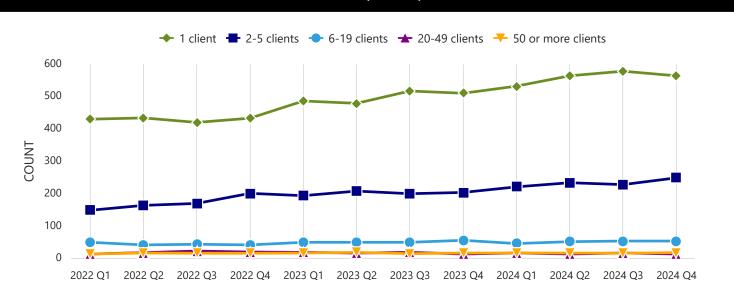


Providers' Health Authority	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Interior	17	24	18	27	10	28	20	25	26	24	18	21
	(4)	(4)	(3)	(5)	(2)	(6)	(4)	(5)	(6)	(5)	(4)	(4)
Fraser	44	36	30	32	46	46	33	33	38	51	42	63
	(10)	(6)	(5)	(6)	(9)	(10)	(7)	(7)	(9)	(11)	(9)	(13)
Vancouver Coastal	327	462	436	405	362	323	331	330	319	329	330	353
	(71)	(78)	(78)	(75)	(72)	(69)	(71)	(71)	(73)	(72)	(73)	(71)
Vancouver Island	68	66	72	67	73	63	72	69	43	47	53	52
	(15)	(11)	(13)	(12)	(15)	(13)	(15)	(15)	(10)	(10)	(12)	(10)
Northern	6	<5	<5	11	9	7	8	5	9	7	6	7
	(1)	(0)	(1)	(2)	(2)	(1)	(2)	(1)	(2)	(2)	(1)	(1)
Other/Unknown	0 (0)	<5 (0)	<5 (0)	0 (0)	0 (0)	<5 (0)	<5 (1)	5 (1)	0 (0)	<5 (0)	<5 (0)	<5 (0)

# INDICATOR 7. BC-PrEP CLIENTS PER PROVIDER<sup>7</sup>

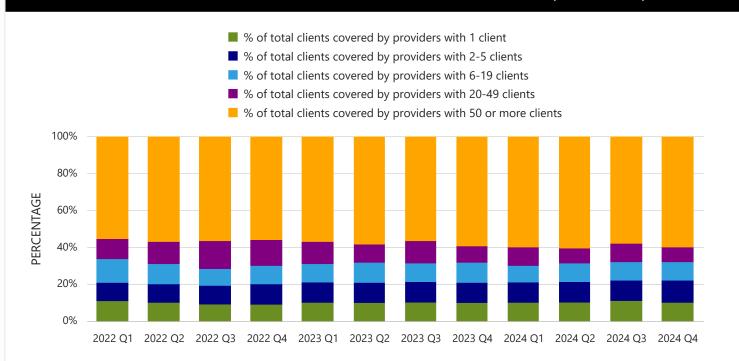
This indicator describes the volume of BC-PrEP clients who were dispensed PrEP per distinct provider by calendar quarters. By clicking the indicator heading, you will be redirected to the full technical definition.





Clients	2022	2022	2022	2022	2023	2023	2023	2023	2024	2024	2024	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	N	N	N	N	N	N	N	N	N	N	N	N
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
1 client	430	434	420	433	486	479	517	510	532	564	578	564
	(65)	(64)	(62)	(61)	(63)	(62)	(65)	(64)	(64)	(64)	(65)	(63)
2-5 clients	149	164	170	201	194	208	200	204	221	234	228	249
	(23)	(24)	(25)	(28)	(25)	(27)	(25)	(25)	(27)	(27)	(26)	(28)
6-19 clients	50	42	44	42	50	50	50	56	46	52	54	54
	(8)	(6)	(7)	(6)	(7)	(6)	(6)	(7)	(6)	(6)	(6)	(6)
20-49 clients	14	18	23	20	19	17	19	14	17	14	17	14
	(2)	(3)	(3)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
50 or more clients	14	17	16	16	17	19	15	17	17	17	16	18
	(2)	(3)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)

## FIGURE 7.2. TOTAL BC-PrEP CLIENTS COVERED BY PROVIDER VOLUME CATEGORY (PERCENTAGE)



Provider Volume Category	2022 Q1 % of total clients covered	2022 Q2 % of total clients covered	2022 Q3 % of total clients covered	2022 Q4 % of total clients covered	2023 Q1 % of total clients covered	2023 Q2 % of total clients covered	2023 Q3 % of total clients covered	2023 Q4 % of total clients covered	2024 Q1 % of total clients covered	2024 Q2 % of total clients covered	2024 Q3 % of total clients covered	2024 Q4 % of total clients covered
Providers with 1 client	11	10	9	9	10	10	10	10	10	10	11	10
Providers with 6-19 clients	13	11	9	10	10	11	10	11	9	10	10	10
Providers with 20-49 clients	11	12	15	14	12	10	12	9	10	8	10	8
Providers with 2-5 clients	10	10	10	11	11	11	11	11	11	11	11	12
Providers with 50 or more clients	56	57	56	56	57	59	56	60	60	60	58	60

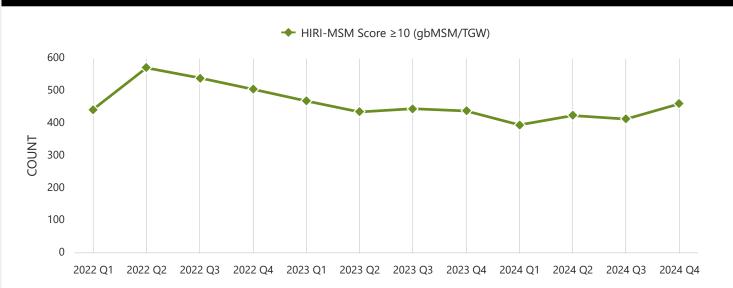
#### INDICATOR 8. KEY QUALIFYING HIV RISK FACTOR(S) REPORTED AT BC-PrEP PROGRAM ENROLMENT $^8$

This indicator summarizes the six key qualifying HIV risk factors reported at enrolment into the BC-PrEP program among clients who were dispensed PrEP for the first time by calendar quarters. This indicator presents this aforementioned information in two parts:

- a. Clients who qualified under each key qualifying HIV risk factors at enrolment, respectively. Note that providers could specify more than one applicable key HIV risk factor, thus these categories are not mutually exclusive.
- b. Clients belonging to different categories of key qualifying HIV risk factor(s) specified at enrolment by BC-PrEP providers. This measure reflecting the exact key qualifying risk factor(s) specified for each client was presented as a cumulative count updated quarterly. Thus, clients cannot belong to more than one category.

By clicking the indicator heading, you will be redirected to the full technical definition.

# FIGURE 8.1. NEW BC-PrEP CLIENTS WITH A QUALIFYING RISK FACTOR OF HIRI-MSM SCORE ≥10 REPORTED AT ENROLMENT (COUNT)

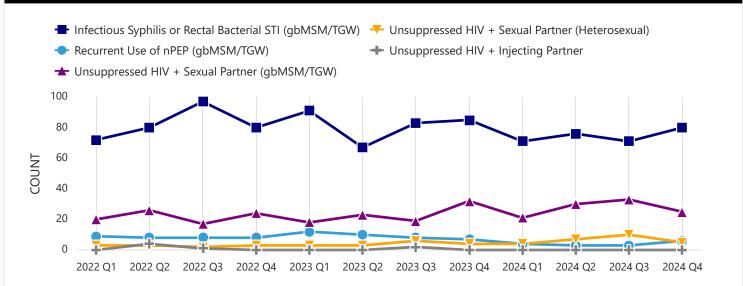


Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; HIRI-MSM= HIV incidence risk index for men who have sex with men; gbMSM= cis and transgender gay and bisexual men who have sex with men; TGW= transgender women; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.



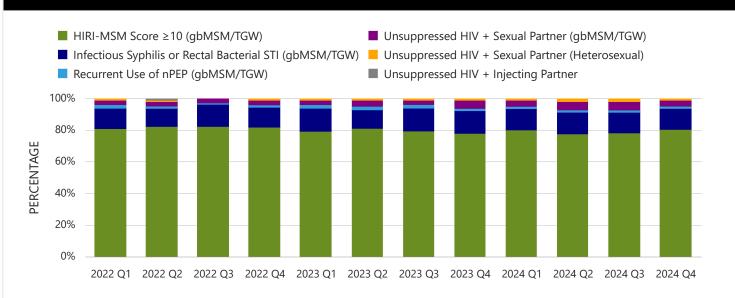
<sup>8</sup> This indicator solely focused on representing the distribution of the six aforementioned key qualifying HIV risk factors; this was due to the exceptionally low counts corresponding to other risks. Clients who qualified based on other risks remained in the denominator. The key qualifying HIV risk factors were strictly derived from provider-reported information which is not verified by any other means

# FIGURE 8.2. NEW BC-PrEP CLIENTS BY NON-MUTUALLY EXCLUSIVE KEY QUALIFYING HIV RISK FACTORS REPORTED AT ENROLMENT EXCEPT HIRI-MSM SCORE (COUNT)



Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; HIRI-MSM= HIV incidence risk index for men who have sex with men; STI= sexually transmitted infection; gbMSM= cis and transgender gay and bisexual men who have sex with men; TGW= transgender women; nPEP= non-occupational post-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.

# FIGURE 8.3. NEW BC-PrEP CLIENTS BY NON-MUTUALLY EXCLUSIVE KEY QUALIFYING HIV RISK FACTORS REPORTED AT ENROLMENT (PERCENTAGE)



Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; HIRI-MSM= HIV incidence risk index for men who have sex with men; STI= sexually transmitted infection; gbMSM= cis and transgender gay and bisexual men who have sex with men; TGW= transgender women; nPEP= non-occupational post-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.

Key Qualifying HIV Risk Factors	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
HIRI-MSM Score ≥10 (gbMSM/TGW)	443 (96)	571 (96)	540 (96)	505 (93)	469 (94)	435 (93)	445 (95)	438 (94)	395 (91)	424 (92)	413 (92)	460 (93)
Infectious Syphilis or Rectal Bacterial STI (gbMSM/TGW)	72 (16)	80 (14)	97 (17)	80 (15)	91 (18)	67 (14)	83 (18)	85 (18)	71 (16)	76 (17)	71 (16)	80 (16)
Recurrent Use of nPEP (gbMSM/TGW)	9 (2)	8 (1)	8 (1)	8 (1)	12 (2)	10 (2)	8 (2)	7 (1)	<5 (1)	<5 (1)	<5 (1)	6 (1)
Unsuppressed HIV + Sexual Partner (gbMSM/TGW)	20 (4)	26 (4)	17 (3)	24 (4)	18 (4)	23 (5)	19 (4)	32 (7)	21 (5)	30 (7)	33 (7)	25 (5)
Unsuppressed HIV + Sexual Partner (Heterosexual)	<5 (1)	<5 (1)	<5 (0)	<5 (1)	<5 (1)	<5 (1)	6 (1)	<5 (1)	<5 (1)	7 (2)	10 (2)	5 (1)
Unsuppressed HIV + Injecting Partner	0 (0)	<5 (1)	<5 (0)	0 (0)	0 (0)	0 (0)	<5 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

# FIGURE 8.4. NEW BC-PrEP CLIENTS WHO QUALIFIED WITH THE FOLLOWING CATEGORIES OF KEY HIV RISK FACTOR(S) REPORTED AT ENROLMENT (Q4 2024 CUMULATIVE COUNT)

- HIRI-MSM Score ≥10 (gbMSM/TGW)
- Infectious Syphilis or Rectal Bacterial STI (gbMSM/TGW)
- Recurrent Use of nPEP (gbMSM/TGW)
- Unsuppressed HIV+ gbMSM/TGW Sexual Partner
- Unsuppressed HIV+ Heterosexual Sexual Partner
- HIRI-MSM Score ≥10 & Infectious Syphilis or Rectal Bacterial STI (qbMSM/TGW)
- HIRI-MSM Score ≥10 & Recurrent Use of nPEP (gbMSM/TGW)
- HIRI-MSM Score ≥10 & Unsuppressed HIV+ gbMSM/TGW Sexual Partner (gbMSM/TGW)
- HIRI-MSM Score ≥10 & Infectious Syphilis or Rectal Bacterial STI & Recurrent Use of nPEP (gbMSM/TGW)
- HIRI-MSM Score ≥10 & Infectious Syphilis or Rectal Bacterial STI & Unsuppressed HIV+ gbMSM/TGW Sexual Partner



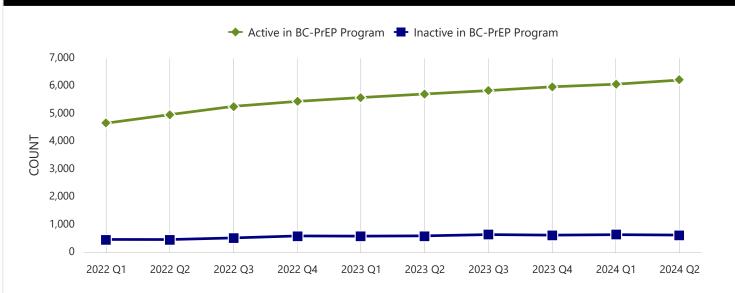
Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; HIRI-MSM= HIV Incidence Risk Index for men who have sex with men; STI= sexually transmitted infection; gbMSM= cis and transgender gay and bisexual men who have sex with men; TGW= transgender women; nPEP= non-occupational post-exposure prophylaxis; Q= calendar quarter; Q2= April to June

Key Qualifying HIV Risk Factor(s) Categories	Cumulative Number of Clients End of Q4 2024 (%)
HIRI-MSM Score ≥10 (gbMSM/TGW)	10305 (72)
Infectious Syphilis or Rectal Bacterial STI (gbMSM/TGW)	246 (2)
Recurrent Use of nPEP (gbMSM/TGW)	14 (0)
Unsuppressed HIV+ gbMSM/TGW Sexual Partner	61 (0)
Unsuppressed HIV+ Heterosexual Sexual Partner	68 (0)
HIRI-MSM Score ≥10 & Infectious Syphilis or Rectal Bacterial STI (gbMSM/TGW)	2116 (15)
HIRI-MSM Score ≥10 & Recurrent Use of nPEP (gbMSM/TGW)	164 (1)
HIRI-MSM Score ≥10 & Unsuppressed HIV+ gbMSM/TGW Sexual Partner (gbMSM/TGW)	499 (4)
HIRI-MSM Score ≥10 & Infectious Syphilis or Rectal Bacterial STI & Recurrent Use of nPEP (gbMSM/TGW)	81 (1)
HIRI-MSM Score ≥10 & Infectious Syphilis or Rectal Bacterial STI & Unsuppressed HIV+ gbMSM/TGW Sexual Partner	54 (0)
Other (not graphed)	622 (4)

#### INDICATOR 9. BC-PrEP CLIENT STATUS (ACTIVE VS INACTIVE)9

This indicator describes patterns of program status (i.e., active vs inactive) among BC-PrEP clients by calendar quarter. By clicking the indicator heading, you will be redirected to the full technical definition

#### FIGURE 9.1. BC-PrEP CLIENTS BY PROGRAM STATUS (COUNT)



Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.

9 BC-PrEP program discontinuations and restarts are not well captured due to information lag and provider underreporting.

BC-PrEP program re-enrolment for those who restarted PrEP is only required if >6 months elapses beyond the expected refill date, if the client restarts PrEP after formal discontinuation, or if the client returns to BC after having moved out of province.

Given these limitations, it was entirely possible that a client may have discontinued and restarted PrEP within the 6-month window between 2 dispensations.

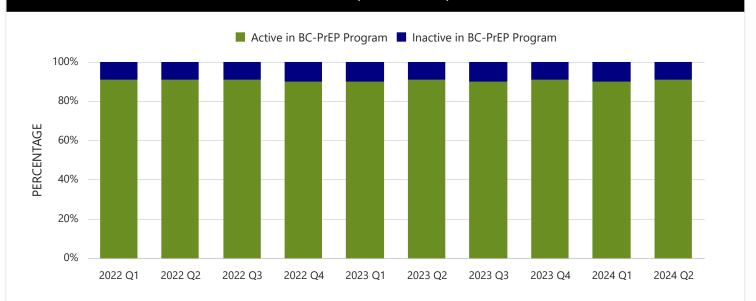
It is also possible that some clients who do not use PrEP on a daily basis remain engaged in PrEP care after >6-month gap in dispensing window.

Since the definition of inactive status requires >6 months with no dispensed PrEP prescription, this indicator was lagged by 6 months to allow for the possibility of meeting this definition or allow for increased capture of formal provider feedback from the PrEP Prescription Late Refill form.

Important note: The definitions of active and inactive are routinely being assessed in depth and may be updated in the future.



# FIGURE 9.2 BC-PrEP CLIENTS BY PROGRAM STATUS (PERCENTAGE)

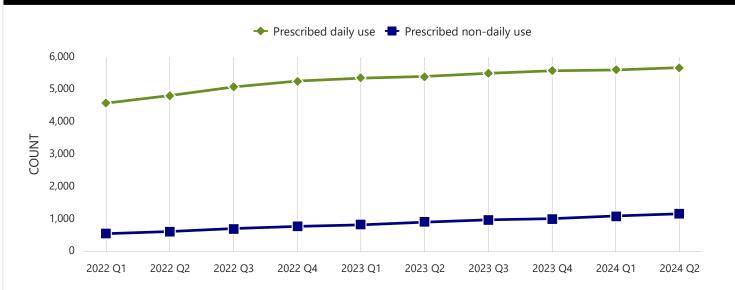


BC-PrEP Program Status	N	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)
Active	4658	4965	5262	5440	5582	5708	5831	5967	6059	6210
	(91)	(91)	(91)	(90)	(90)	(91)	(90)	(91)	(90)	(91)
Inactive	471	467	524	595	591	599	646	625	642	630
	(9)	(9)	(9)	(10)	(10)	(9)	(10)	(9)	(10)	(9)

#### INDICATOR 10. PREP USAGE TYPE AMONG BC-PrEP CLIENTS<sup>10</sup>

This indicator describes patterns of the PrEP usage type (i.e., daily use vs non-daily use) among active BC-PrEP program clients. By clicking the indicator heading, you will be redirected to the full technical definition.

# FIGURE 10.1. PrEP USAGE TYPE AMONG BC-PrEP CLIENTS (COUNT)



Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.

10 Important note: Non-daily use is likely more prevalent than reflected by the directions indicated on the prescription.

This indicator was lagged by 6 months, given that much of this data is derived from the PrEP Late Refill Notification form, which is sent after a 3-5-month lapse after the expected PrEP refill date.

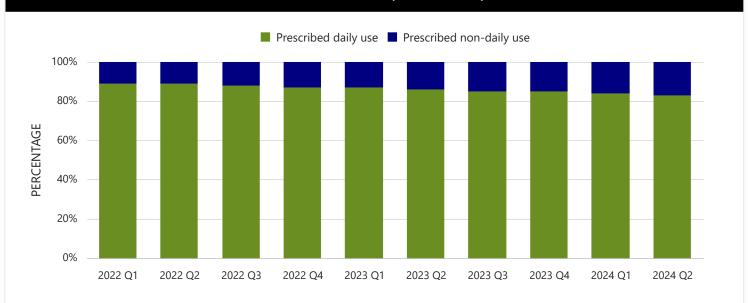
These reported PrEP usage categories do not provide comprehensive detail pertaining to specific patterns of PrEP medication use by clients.

Initially, per past guidelines, the forms did not allow for formal prescribing or reporting of non-daily use. However, since the 2019 guidelines update, the forms have been gradually updated. Thus, we anticipate that the capture of formal non-daily use will improve.

BC-PrEP program discontinuations and restarts are not well captured due to information lag and provider underreporting



### FIGURE 10.2 Prep USAGE TYPE AMONG BC-Prep CLIENTS (PERCENTAGE)



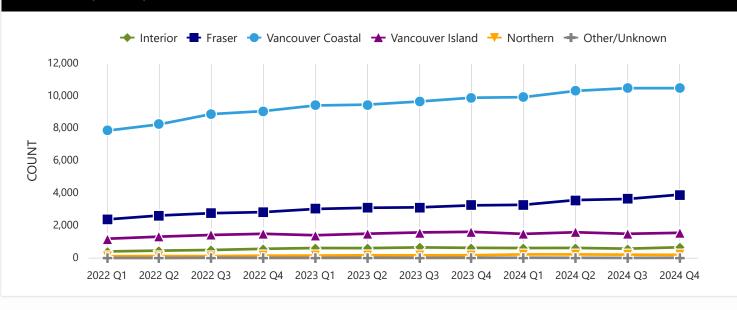
Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December

PrEP Usage Type	2022	2022	2022	2022	2023	2023	2023	2023	2024	2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	N	N	N	N	N	N	N	N	N	N
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Prescribed daily use	4579	4814	5078	5261	5350	5402	5500	5578	5603	5676
	(89)	(89)	(88)	(87)	(87)	(86)	(85)	(85)	(84)	(83)
Prescribed non-daily use	550	618	708	774	823	905	977	1014	1098	1164
	(11)	(11)	(12)	(13)	(13)	(14)	(15)	(15)	(16)	(17)

#### INDICATOR 11. PREP QUANTITY DISPENSED (PER 30-TABLET SUPPLY)<sup>11</sup>

This indicator describes patterns of PrEP quantity (per 30-tablet supply) dispensed by pharmacy by calendar quarters. By clicking the indicator heading, you will be redirected to the full technical definition.

# FIGURE 11.1. PrEP QUANTITY (PER 30-TABLET SUPPLY) DISPENSED BY CLIENTS' HEALTH AUTHORITY OF RESIDENCE (COUNT)



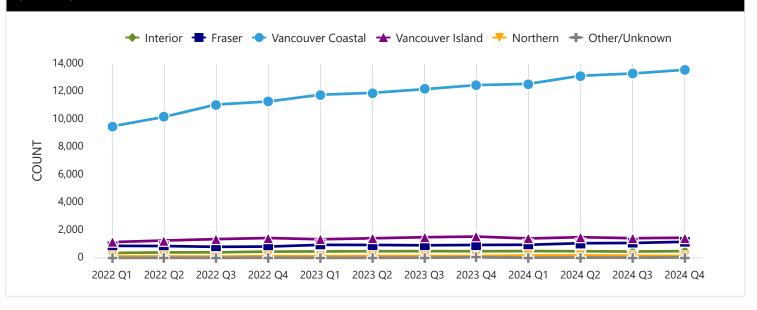
# FIGURE 11.2. PrEP QUANTITY (PER 30-TABLET SUPPLY) DISPENSED BY CLIENTS' HEALTH AUTHORITY OF RESIDENCE (PERCENTAGE)



11 This measure does not count tablets that were initially filled but not picked up by clients if known.

Clients' Health Authority of Residence	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Interior	413	461	499	572	624	615	660	633	624	627	584	664
	(3)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)	(4)
Fraser	2390	2629	2770	2840	3035	3104	3133	3255	3288	3585	3652	3918
	(20)	(21)	(20)	(20)	(21)	(21)	(21)	(21)	(21)	(22)	(22)	(23)
Vancouver	7868	8258	8890	9075	9423	9475	9668	9899	9935	10324	10487	10487
Coastal	(66)	(64)	(65)	(64)	(64)	(64)	(63)	(63)	(64)	(63)	(64)	(62)
Vancouver Island	1193	1323	1429	1500	1410	1504	1582	1624	1497	1596	1500	1561
	(10)	(10)	(10)	(11)	(10)	(10)	(10)	(10)	(10)	(10)	(9)	(9)
Northern	114	130	125	149	155	173	172	179	227	229	210	198
	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other/Unknown	7	<5	16	10	11	16	13	15	23	17	13	18
	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)

# FIGURE 11.3. PrEP QUANTITY (PER 30-TABLET SUPPLY) DISPENSED BY PROVIDERS' HEALTH AUTHORITY (COUNT)



# FIGURE 11.4. PrEP QUANTITY (PER 30-TABLET SUPPLY) DISPENSED BY PROVIDERS' HEALTH AUTHORITY (PERCENTAGE)



Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.

Providers' Health Authority	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Interior	360	400	407	463	476	483	495	485	502	485	464	492
	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
Fraser	876	862	801	823	947	938	916	943	953	1063	1085	1168
	(7)	(7)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(7)	(7)
Vancouver	9484	10160	11048	11274	11755	11893	12161	12454	12540	13123	13290	13556
Coastal	(79)	(79)	(80)	(80)	(80)	(80)	(80)	(80)	(80)	(80)	(81)	(80)
Vancouver Island	1146	1256	1364	1438	1347	1418	1498	1543	1404	1498	1423	1456
	(10)	(10)	(10)	(10)	(9)	(10)	(10)	(10)	(9)	(9)	(9)	(9)
Northern	113	113	100	131	126	141	137	144	176	184	164	143
	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)
Other/Unknown	6 (0)	14 (0)	9 (0)	18 (0)	6 (0)	14 (0)	21 (0)	37 (0)	19 (0)	24 (0)	21 (0)	31 (0)



### **CLINICAL MONITORING INDICATORS**

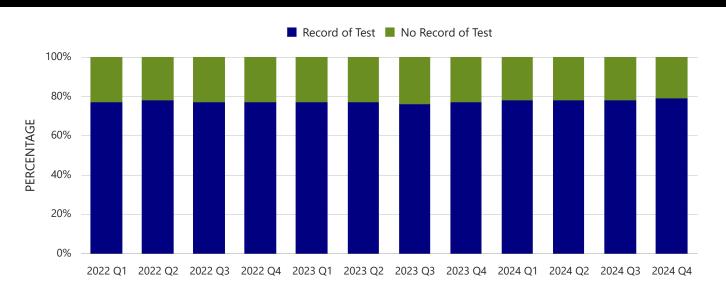
### INDICATOR 12. INFECTIOUS SYPHILIS TESTING AND INCIDENT CASES<sup>12</sup>

This indicator describes two important aspects of syphilis screening in the context of PrEP use among active BC-PrEP clients:

- a. Whether an infectious syphilis test occurred within a 30-day window prior to a dispensed PrEP prescription, while allowing for a 15-day grace period following the dispensation date.
- b. The incident infectious syphilis cases detected among active BC-PrEP clients by calendar quarters.

By clicking the indicator heading, you will be redirected to the full technical definition.

# FIGURE 12.1. RECORD OF SYPHILIS TEST SURROUNDING A DISPENSED PREP PRESCRIPTION AMONG BC-PrEP CLIENTS (PERCENTAGE)



Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.

For the syphilis testing indicator, only syphilis serology tests were considered when determining a record of testing.

The algorithm applied to ascertain incident cases of infectious syphilis has been outlined in the **Appendix**.

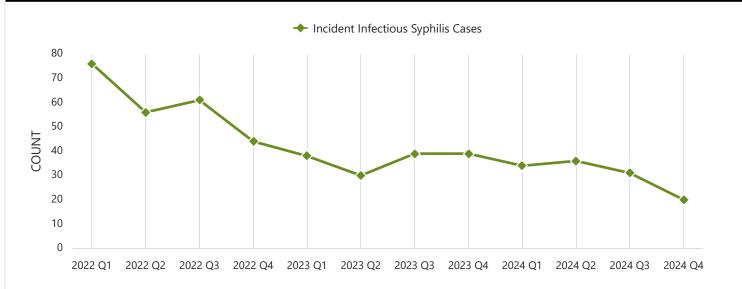
Syphilis serology testing is centralized at the British Columbia Centre for Disease Control (BCCDC); It is estimated that  $\geq$ 95% of all test performed in the province are captured via the laboratory linkage. Testing performed on a non-nominal basis is not captured.

<sup>12</sup> The 30-day window prior to dispensation was supplemented with a 15-day grace period following the dispensation date in order to account for a potential information lag in syphilis testing.

Syphilis Test Status	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Record of	3365	3636	3817	3910	4069	4096	4273	4282	4336	4562	4584	4721
Test	(77)	(78)	(77)	(77)	(77)	(77)	(76)	(77)	(78)	(78)	(78)	(79)
No Record of Test	999	1016	1155	1175	1190	1215	1368	1275	1224	1258	1294	1289
	(23)	(22)	(23)	(23)	(23)	(23)	(24)	(23)	(22)	(22)	(22)	(21)



## FIGURE 12.2. INCIDENT INFECTIOUS SYPHILIS CASES AMONG BC PrEP CLIENTS (COUNT)



Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.

Incident Infectious Syphilis Cases	2022 Q1 N	2022 Q2 N	2022 Q3 N	2022 Q4 N	2023 Q1 N	2023 Q2 N	2023 Q3 N	2023 Q4 N	2024 Q1 N	2024 Q2 N	2024 Q3 N	2024 Q4 N
Incident Cases	76	56	61	44	38	30	39	39	34	36	31	20

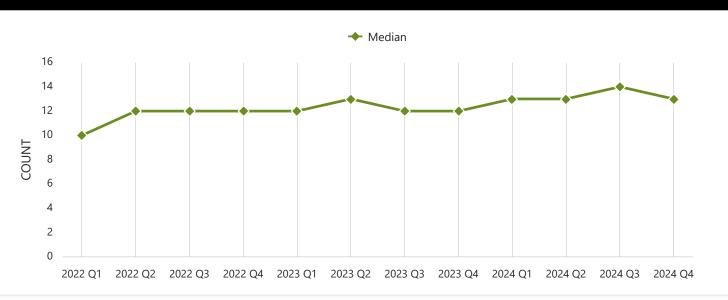
## INDICATOR 13. HIV TESTING<sup>13</sup>

This indicator describes two important aspects of HIV testing in the context of PrEP use among active BC-PrEP clients:

- a. Days between the most recent negative HIV test and the date of the first dispensed PrEP prescription.
- b. Whether an HIV test occurred within a 30-day window prior to a dispensed PrEP prescription, while allowing for a 15-day grace period following the dispensation date.

By clicking the indicator heading, you will be redirected to the full technical definition.

# FIGURE 13.1. DAYS FROM MOST RECENT NEGATIVE HIV TEST AND THE FIRST DISPENSED PRESCRIPTION AMONG BC-Prep CLIENTS (COUNT)



Number of Days	2022 Q1 N	2022 Q2 N	2022 Q3 N	2022 Q4 N	2023 Q1 N	2023 Q2 N	2023 Q3 N	2023 Q4 N	2024 Q1 N	2024 Q2 N	2024 Q3 N	2024 Q4 N
25th Percentile	7	8	8	8	9	9	8	9	8	9	9	9
75th Percentile	16	18	18	18	18	19	18	19	18	19	20	19
Median	10	12	12	12	12	13	12	12	13	13	14	13

<sup>13</sup> The 30-day window prior to dispensation was supplemented with a 15-day grace period following the dispensation date in order to account for a potential information lag.

Point-of-care testing results do not qualify as confirmed negative HIV serology.

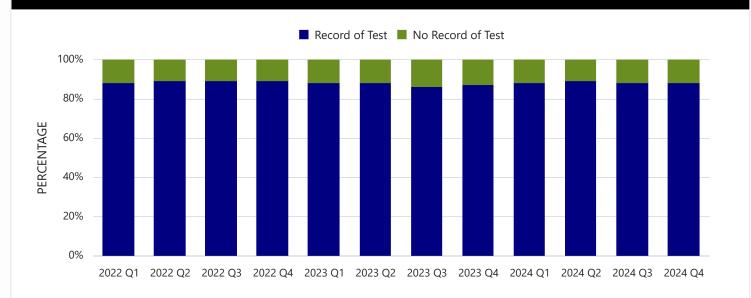
HIV serology testing is mainly centralized at the BCCDC; It is estimated that  $\geq$ 95% of all HIV tests performed in the province are captured via the laboratory linkage.

Screening testing performed on a non-nominal basis is not be captured, additionally, the capture of screening tests from Vancouver Island Health Authority was incomplete.

Given that we only have the sample collection date available to calculate the number days between the most recent negative HIV test and the date of the first dispensed PrEP prescription, this calculation includes the time required for the test to be processed and results to get back to the provider.



# FIGURE 13.2. RECORD OF HIV TEST SURROUNDING A DISPENSED PrEP PRESCRIPTION AMONG BC-PrEP CLIENTS



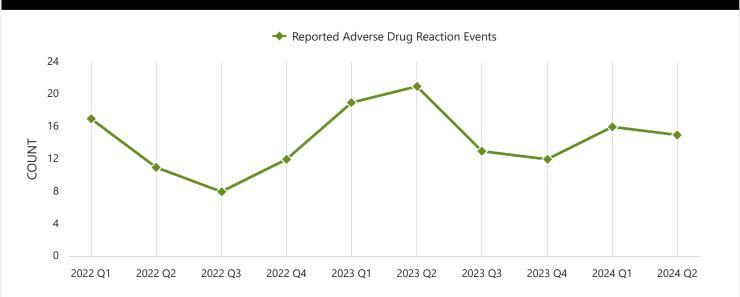
Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.

HIV Test Status	2022 Q1 N (%)	2022 Q2 N (%)	2022 Q3 N (%)	2022 Q4 N (%)	2023 Q1 N (%)	2023 Q2 N (%)	2023 Q3 N (%)	2023 Q4 N (%)	2024 Q1 N (%)	2024 Q2 N (%)	2024 Q3 N (%)	2024 Q4 N (%)
Record of	3844	4143	4410	4509	4614	4658	4855	4856	4891	5153	5147	5307
Test	(88)	(89)	(89)	(89)	(88)	(88)	(86)	(87)	(88)	(89)	(88)	(88)
No Record	520	509	562	576	645	653	786	701	669	667	731	703
of Test	(12)	(11)	(11)	(11)	(12)	(12)	(14)	(13)	(12)	(11)	(12)	(12)

## INDICATOR 14. ADVERSE DRUG REACTION EVENTS<sup>14</sup>

This indicator describes patterns of ADR events among active BC-PrEP clients by calendar quarter. By clicking the indicator heading, you will be redirected to the full technical definition.

### FIGURE 14. ADVERSE DRUG REACTIONS REPORTED AMONG BC-PrEP CLIENTS (COUNT)



Note: BC= British Columbia; PrEP= pre-exposure prophylaxis; Q= calendar quarter; Q1= January to March; Q2= April to June; Q3= July to September; Q4= October to December.

Number of ADR Events	2022 Q1 N	2022 Q2 N	2022 Q3 N	2022 Q4 N	2023 Q1 N	2023 Q2 N	2023 Q3 N	2023 Q4 N	2024 Q1 N	2024 Q2 N
ADR Events	17	11	8	12	19	21	13	12	16	15

<sup>14</sup> This indicator was lagged by 6 months, given that much of this data is derived from the PrEP Late Refill Notification form, which is sent after a 3-5 month lapse after the expected PrEP refill date.

ADR reports are also evaluated by a Pharmacovigilance clinical reviewer prior to inclusion in the PrEP report.

Reports of ADRs are voluntarily submitted by health care providers, patients, and caregivers, and may underestimate actual incidence.

Due to the time delay in receiving some ADR reports, some PrEP participants may have already discontinued PrEP by the time the report was received.

Reported ADR events do not necessarily result in BC-PrEP program discontinuation for the clients affected.

More detailed PrEP adverse drug reactions information is available in the BC-CfE Pharmacovigilance Annual Report.



## **APPENDIX: INDICATOR TECHNICAL DEFINITIONS**

## **INDICATOR 1. CLIENT GENDER IDENTIY**

Rationale	It is essential for HIV prevention programs, including the BC-PrEP program, to consider and meet the specific needs of clients with regards to sociocultural gender identity differences (i.e., gender-responsive programming) to enhance impact [7]. This information may inform practices relating to the more effective provision of gender-affirming care, which is crucial for optimal uptake and utilization of PrEP in BC [8].
Description of Measure	This indicator describes the gender identity of unique BC-PrEP clients who were dispensed PrEP by calendar quarters.
Definition/ Calculation	The gender identity of unique BC-PrEP clients was obtained and reported by the provider via the PrEP Enrolment & Prescription Request form or the PrEP Prescription Refill form. This indicator was based on the most recent recorded client gender identity information at the time of report production. The reporting calendar quarters were based on the PrEP prescription dispensation date.  Measurement  Displayed as a count and percentage (percentage only shown in the corresponding table).  Numerator: Number of unique BC-PrEP clients dispensed PrEP, whose most recent recorded gender identity corresponds to the following categories within the specified quarter:  Cisgender male Cisgender female Transgender female Transgender female Unknown  Denominator: Total number of unique BC-PrEP clients who were dispensed PrEP within the specified quarter.
Cautionary Notes: Use and Interpretation	<ul> <li>The BC-PrEP database does not capture longitudinal gender identity information, thus only the most recent gender identity recorded can be reported.</li> <li>The number of BC-PrEP clients in each quarter represent unique clients (i.e., each client was only counted once per quarter).</li> <li>The percentages were not graphed given the particularly low percentages of BC-PrEP clients in most categories.</li> </ul>
Reporting Timeframe	Quarterly



## INDICATOR 2. CLIENT AGE

Rationale	Age represents an important demographic variable which contributes to the comprehensive understanding of the population accessing PrEP via the BC-PrEP program. In this context, this information can potentially identify gaps in access and uptake of PrEP in various age sub-populations, and potentially inform targeted action.
Description of Measure	This indicator describes the age of unique BC-PrEP clients who were dispensed PrEP by calendar quarters.
Definition/ Calculation	Age was derived from the date of birth reported by the provider via the PrEP Enrolment & Prescription Request form or the PrEP Prescription Refill form. The age presented corresponds to that reported at the time of the PrEP prescription dispensation within the reporting quarter. The reporting calendar quarters were based on the PrEP prescription dispensation date. The age categories were chosen to be generally consistent with age risk categories represented in the HIV Incidence Risk Index for Men Who Have Sex with Men (HIRI-MSM) [9].  Measurement  Displayed as a count and percentage.  Numerator: Number of unique BC-PrEP clients dispensed PrEP, whose age corresponds to the following categories within the specified quarter:  • <18 years • 18-28 years • 29-40 years • 29-40 years • 29-40 years • 29-40 years  Denominator: Total number of unique BC-PrEP clients who were dispensed PrEP within the specified quarter.
Cautionary Notes: Use and Interpretation	The number of BC-PrEP clients in each quarter represent unique clients (i.e., each client was only counted once per quarter).
Reporting Timeframe	Quarterly



## INDICATOR 3. HEALTH AUTHORITY (CLIENTS' RESIDENCE AND PROVIDERS' PRACTICE)

Rationale	BC-PrEP clients' health authority of residence and their providers' health authority of practice provides crucial geographical information which may be instrumental in discerning the heterogeneity in geographical uptake of PrEP across the province.
Description of	This indicator describes the BC-PrEP clients' health authority of residence and their providers' health
Measure  Definition/ Calculation	authority of practice among those who were dispensed PrEP by calendar quarters.  The clients' health authority of residence and the providers' health authority of practice were obtained and reported by the provider via the PrEP Enrolment & Prescription Request form or the PrEP Prescription Refill form. The health authority corresponds to the one reported at the time of the PrEP prescription dispensation. The reporting calendar quarters were based on the PrEP prescription dispensation date.  Measurement  Displayed as a count and percentage.  Numerator: Number of unique BC-PrEP clients dispensed PrEP, whose health authority of residence (numerator 1) and providers' health authority of practice (numerator 2), respectively, corresponds to the following categories within the specified quarter:  Interior  Fraser  Vancouver Coastal  Vancouver Coastal  Northern  Other/Unknown  Denominator: Total number of unique BC-PrEP clients who were dispensed PrEP within the specified quarter.
Cautionary Notes: Use and Interpretation	The number of BC-PrEP clients in each quarter represent unique clients (i.e., each client was only counted once per quarter).
Reporting Timeframe	Quarterly



## INDICATOR 4. NEW BC-PrEP CLIENTS ENROLLED BY PROVIDER TYPE

Rationale	Describing the type of healthcare provider enrolling new clients into the BC-PrEP program allows program administrators to identify patterns of referral practices among specific provider types across the province. From a programmatic standpoint, it is important to be aware of these patterns in order to identify and address any potential gaps in the delivery of this intervention.
Description of	This indicator describes the type of provider enrolling new clients into the BC-PrEP program by calendar
Measure	quarters.
Definition/ Calculation	New BC-PrEP clients authorized for enrolment were ascertained via the first authorized PrEP Enrolment & Prescription Request form for each unique client. Provider type was ascertained as follows: physicians and nurse practitioners were differentiated based on the enrolling provider information (e.g., College ID Number and Medical Services Commission number) obtained from the aforementioned forms. Physician category (i.e., family physician vs specialist physician) was identified via a data linkage with the College of Physicians and Surgeons of British Columbia). The reporting calendar quarters were based on the date of enrolment authorization.  Measurement  Displayed as a count and percentage.  Numerator: Number of new authorized BC-PrEP clients who were enrolled by a provider belonging to the following categories within the specified quarter:  Family Physician  Nurse Practitioner  Specialist Physician
	<b>Denominator</b> : Total number of new BC-PrEP clients authorized for enrolment within the specified quarter.
Cautionary Notes: Use and Interpretation	<ul> <li>Includes BC-PrEP clients who have an authorized PrEP Enrolment &amp; Prescription Request form regardless if PrEP was subsequently dispensed.</li> <li>It was not possible to stratify this indicator by clinic type as the BC-PrEP program is currently unable to accurately determine specific models of care on an ongoing basis.</li> <li>The BC-CfE's educational initiative that expanded the role of nurse practitioners to prescribe PrEP only launched in the fall of 2018.</li> </ul>
Reporting Timeframe	Quarterly



## INDICATOR 5. NEW BC-PrEP CLIENTS ENROLLED BY HEALTH AUTHORITY

Rationale	Describing enrolment patterns of new clients into the BC-PrEP program allows program administrators to identify trends in enrolment across the province.	
Description of Measure	This indicator describes enrolment patterns of new clients in the BC-PrEP program by calendar quarte	
	New BC-PrEP clients authorized for enrolment were ascertained via the first authorized PrEP Enrolment & Prescription Request form. The reporting calendar quarters were based on the date of BC-PrEP program authorization.	
Definition/ Calculation	Measurement Displayed as a count and percentage. Numerator: Number of new BC-PrEP clients authorized for enrolment whose health authority of residence (numerator 1) and providers' health authority of practice (numerator 2), respectively, corresponds to the following categories within the specified quarter:  Interior Fraser Vancouver Coastal Vancouver Island Northern Other/Unknown  Denominator: Total number of new BC-PrEP clients authorized for enrolment within the specified quarter.	
Cautionary Notes: Use and Interpretation	<ul> <li>Includes BC-PrEP clients who have an authorized PrEP Enrolment &amp; Prescription Request form regardless if PrEP was subsequently dispensed.</li> <li>In the event that BC-PrEP clients were re-enrolled into the program after a period of discontinuation, only the first ever authorization will be counted.</li> </ul>	
Reporting Timeframe	Quarterly	



## INDICATOR 6. NEW BC-PrEP CLIENTS DISPENSED PrEP

	Describing patterns of new BC-PrEP clients enrolled who were dispensed PrEP for the first time allows
Rationale	•
Description of Measure  Definition/ Calculation	program administrators to identify trends in PrEP initiation across the province.  This indicator describes patterns of new BC-PrEP clients enrolled who were dispensed PrEP for the first time by calendar quarters.  The first PrEP prescription dispensation dates among new BC-PrEP clients authorized for enrolment were ascertained via the first authorized and dispensed PrEP Enrolment & Prescription Request form. The reporting calendar quarters were based on the date of first PrEP prescription dispensation. The clients' health authority of residence and the providers' health authority of practice were obtained and reported by the provider via the abovementioned form. The clients' and providers' health authority correspond to the one reported at the time of the first PrEP prescription dispensation.  Measurement  Displayed as a count and percentage.  Numerator: Number of new BC-PrEP clients dispensed PrEP for the first time, whose health authority of residence (numerator 1) and providers' health authority of practice (numerator 2), respectively, corresponds to the following categories within the specified quarter:
	<ul> <li>Interior</li> <li>Fraser</li> <li>Vancouver Coastal</li> <li>Vancouver Island</li> <li>Northern</li> <li>Other/Unknown</li> </ul> Denominator: Total number of new BC-PrEP clients dispensed PrEP for the first time within the specified
	quarter.
Cautionary Notes: Use and Interpretation	In the event that BC-PrEP clients were re-enrolled into the program after a period of discontinuation, only the first ever authorization will be counted.
Reporting Timeframe	Quarterly



## INDICATOR 7. BC-PrEP CLIENTS PER PROVIDER

Rationale	Providers play an important role in disseminating information regarding PrEP as an HIV prevention method. This is due to their relevant clinical training and ability to link individuals to PrEP and engage in ongoing monitoring of the client. In addition, from a programmatic standpoint, client volume information may provide insights into capacity of the BC-PrEP program.
Description of Measure	This indicator describes the following aspects of client volume among providers:  a. The volume of BC-PrEP clients who were dispensed PrEP per distinct provider by calendar quarters.  b. The proportion of BC-PrEP clients covered by provider volume category.
	The number of BC-PrEP clients who were dispensed PrEP was ascertained by identifying the dispensed date of the PrEP Enrolment & Prescription Request form or the PrEP Prescription Refill form for each client. The distinct provider was determined based on provider information (e.g., College ID Number and Medical Services Commission number) obtained from the aforementioned forms. The reporting calendar quarters were based on the PrEP prescription dispensation date.
	<ul> <li>Measurement</li> <li>a. Displayed as a count and percentage (percentage only shown in the corresponding table).</li> <li>Numerator: Number of distinct providers whose volume of BC-PrEP program client(s) dispensed PrEP corresponds to the following categories within the specified quarter:</li> </ul>
Definition/ Calculation	<ul> <li>1 client</li> <li>2-5 clients</li> <li>6-19 clients</li> <li>20-49 clients</li> <li>≥50 clients</li> </ul>
	<ul> <li>Denominator: Total number of new BC-PrEP clients dispensed PrEP for the first time within the specified quarter.</li> <li>b. Displayed as a percentage.</li> <li>Numerator: Number of BC-PrEP program clients covered by each of the abovementioned provider volume category.</li> <li>Denominator: Total number of BC-PrEP program clients dispensed PrEP within the specified quarter.</li> </ul>
Cautionary Notes: Use and Interpretation	These categories were informed and established on the basis of the data distribution.
Reporting Timeframe	Quarterly



## INDICATOR 8. KEY QUALIFYING HIV RISK FACTOR(S) REPORTED AT BC-PrEP PROGRAM ENROLMENT

Rationale	Daily PrEP is recommended for cis and transgender gay and bisexual men who have sex with men (gbMSM) and transgender women (TGW), heterosexual men and women, and persons who inject drugs (PWID) at high risk of acquiring HIV infection in accordance with BC-CfE PrEP guidelines [2]. These guidelines specify six key qualifying HIV risk factors which establish the eligibility for BC-PrEP program enrolment.
Description of Measure	This indicator summarizes the six key qualifying HIV risk factors reported at enrolment into the BC-PrEP program among clients who were dispensed PrEP for the first time by calendar quarters. This indicator presents this aforementioned information in two parts:
	<ul> <li>a. Clients who qualified under each key qualifying HIV risk factors at enrolment, respectively. Note that providers could specify more than one applicable key HIV risk factor, thus these categories are not mutually exclusive.</li> <li>b. Clients belonging to different categories of key qualifying HIV risk factor(s) specified at enrolment by BC-PrEP providers. This measure reflecting the exact key qualifying risk factor(s) specified for each client was presented as a cumulative count updated quarterly. Thus, clients cannot belong to more than one category.</li> </ul>
Definition/ Calculation	<ul> <li>Key qualifying HIV risk factors reported at program enrolment were obtained and reported by the provider via the first authorized PrEP Enrolment &amp; Prescription Request form among BC-PrEP clients dispensed PrEP. The reporting calendar quarters were based on the first PrEP prescription dispensation date.</li> <li>Qualifying HIV risk factors among cis and transgender gbMSM and TGW</li> <li>Condomless anal sex (reported at program enrolment) in conjunction with one or more of the following criteria constitute a qualifying HIV risk factor for cis and transgender gbMSM and TGW: <ul> <li>a. Infectious syphilis or rectal bacterial sexually transmitted infection (STI), particularly if diagnosed in the preceding 12 months.</li> <li>b. Use of non-occupational post-exposure prophylaxis (nPEP) on more than one occasion.</li> <li>c. In an ongoing sexual relationship with an HIV-positive partner who is not receiving stable antiretroviral therapy (ART) and/or does not have an HIV viral load &lt;200 copies/mL.</li> <li>d. HIV Incidence Risk Index for men who have sex with men (HIRI-MSM) score ≥10.</li> </ul> </li> </ul>
	Qualifying HIV risk factor among heterosexual men and women  Condomless vaginal or anal sex (reported at program enrolment) in conjunction with the following criterion constitute a qualifying HIV risk factor for heterosexual men and women:  a. In an ongoing sexual relationship with an HIV-positive partner who is not receiving stable ART and/or does not have an HIV viral load <200 copies/mL.
	Qualifying HIV risk factor among PWID  Shared injection equipment (reported at program enrolment) in conjunction with the following criterion constitute a qualifying HIV risk factor for PWID:
	a. Having an HIV-positive injecting partner who is not receiving stable ART and/or does not have an HIV viral load <200 copies/mL.

	<u>Measurement</u>
Definition/ Calculation	<ul> <li>a. Displayed as a count and percentage.</li> <li>Numerator: Number of BC-PrEP clients dispensed PrEP for the first time who qualified under each key qualifying HIV risk factor at enrolment within the specified quarter. Providers could select more than one applicable HIV risk factor; thus, these categories are not mutually exclusive.</li> <li>Denominator: Total number of BC-PrEP clients dispensed PrEP for the first time within the specified quarter.</li> <li>b. Displayed as a count and percentage (percentage only shown in the corresponding table).</li> <li>Numerator: Number of BC-PrEP clients dispensed PrEP for the first time belonging to each category of key qualifying HIV risk factor(s) specified at enrolment (including different combinations). Categories of key qualifying HIV risk factor(s) with &lt;5 clients were not displayed.</li> <li>Denominator: Total number of BC-PrEP clients dispensed PrEP for the first time at the end of the most recent available quarter.</li> </ul>
Cautionary Notes: Use and Interpretation	<ul> <li>This indicator solely focused on representing the distribution of the six aforementioned key qualifying HIV risk factors; this was due to the exceptionally low counts corresponding to other risks. Clients who qualified based on other risks remained in the denominator.</li> <li>The key qualifying HIV risk factors were strictly derived from provider-reported information which is not verified by any other means.</li> </ul>
Reporting Timeframe	Quarterly



## INDICATOR 9. BC-PrEP CLIENT STATUS (ACTIVE VS INACTIVE)

Rationale	Retention in PrEP care is a key step in the HIV prevention strategy ultimately aimed at HIV elimination through prevention of transmission in the population. Therefore, dedicated efforts should be put toward ensuring optimal retention of client in the BC-PrEP program.
Description of Measure	This indicator describes patterns of program status (i.e., active vs inactive) among BC-PrEP clients by calendar quarter.
Definition/ Calculation	BC-PrEP clients are considered to have active program status starting from the date of the first PrEP prescription dispensation until the date of formal program discontinuation or the date in which the client's prescription has lapsed >6 months. The BC-PrEP program inactive date was ascertained as follows:  • The formal notification date of BC-PrEP program discontinuation obtained from the PrEP Prescription Refill form or the PrEP Late Refill Notification form.  • Determined by >6 months between 2 PrEP prescription periods before the last date of the most recent quarter reported.  • Determined by >6 months lapse beyond the expected PrEP refill date occurring before the cutoff date based on the most recent quarter reported, and no formal notification of program discontinuation has been received (i.e., lost to follow-up).  Measurement  Displayed as a count and percentage.  Numerator: Number of BC-PrEP clients corresponding to the following program status categories within the specified quarter:  • Inactive status in BC-PrEP program  • Active status in BC-PrEP program  Denominator: Total number of BC-PrEP clients within the specified quarter.
Cautionary Notes: Use and Interpretation	<ul> <li>BC-PrEP program discontinuations and restarts are not well captured due to information lag and provider underreporting.</li> <li>BC-PrEP program re-enrolment for those who restarted PrEP is only required if &gt;6 months elapses beyond the expected refill date, if the client restarts PrEP after formal discontinuation, or if the client returns to BC after having moved out of province.</li> <li>Given these limitations, it was entirely possible that a client may have discontinued and restarted PrEP within the 6-month window between 2 dispensations.</li> <li>It is also possible that some clients who do not use PrEP on a daily basis remain engaged in PrEP care after &gt;6-month gap in dispensing window.</li> <li>Since the definition of inactive status requires &gt;6 months with no dispensed PrEP prescription, this indicator was lagged by 6 months to allow for the possibility of meeting this definition or allow for increased capture of formal provider feedback from the PrEP Prescription Late Refill form.</li> <li>Important note: The definitions of active and inactive are routinely being assessed in depth and may be updated in the future.</li> </ul>
Reporting Timeframe	Quarterly



## INDICATOR 10. Prep usage type among BC-Prep clients

Rationale	PrEP usage type refers to the approach by which PrEP is utilized by active BC-PrEP program clients, i.e., daily use (i.e., continuous use) bs non-daily use (i.e., intermittent, or on-demand use). This information may be particularly useful for evaluating patterns of PrEP usage over time.
Description of Measure	This indicator describes patterns of the PrEP usage type (i.e., daily use vs non-daily use) among active BC-PrEP program clients.
Definition/	BC-PrEP clients are considered active starting from the date of the first PrEP prescription dispensation until the date of program discontinuation or the date in which the client has been lost to follow-up, as previously defined. Among active BC-PrEP program clients, daily use vs non-daily use of PrEP was ascertained and calculated as follows:  Measurement  Displayed as a count and percentage.  Numerator: Number of active BC-PrEP clients corresponding to the following PrEP usage type categories within the specified quarter:  • Prescribed daily use: Active BC-PrEP clients who were formally prescribed PrEP for daily use and
Calculation	<ul> <li>Prescribed daily use: Active BC-PrEP clients who were formally prescribed PrEP for daily use and the BC-PrEP program did not receive a formal notification from the corresponding provider indicating non-daily use</li> <li>Prescribed non-daily use: Active BC-PrEP clients who were prescribed PrEP for non-daily use (e.g. intermittent), or clients who were initially prescribed daily use, but the BC-PrEP program received a formal notification from the corresponding provider indicating non-daily use. The effective date for clients prescribed non-daily use is the date when the BC-PrEP program was first formally notified that the client is being prescribed PrEP for use on a non-daily basis (via the Prescription Request Form, or PrEP Late Refill Notification Form).</li> <li>Denominator: Total number of active BC-PrEP clients within the specified quarter.</li> </ul>
Cautionary Notes: Use and Interpretation	<ul> <li>Important note: Non-daily use is likely more prevalent than reflected by the directions indicated on the prescription.</li> <li>This indicator was lagged by 6 months, given that much of this data is derived from the PrEP Late Refill Notification form, which is sent after a 3-5-month lapse after the expected PrEP refill date.</li> <li>These reported PrEP usage categories do not provide comprehensive detail pertaining to specific patterns of PrEP medication use by clients.</li> <li>Initially, per past guidelines, the forms did not allow for formal prescribing or reporting of non-daily use. However, since the 2019 guidelines update, the forms have been gradually updated. Thus, we anticipate that the capture of formal non-daily use will improve.</li> <li>BC-PrEP program discontinuations and restarts are not well captured due to information lag and provider underreporting.</li> </ul>
Reporting Timeframe	Quarterly



## INDICATOR 11. Prep quantity dispensed (per 30-tablet supply)

Rationale	Monitoring and assessing geographical variation in the quantity of PrEP (per 30-tablet supply) dispensed	
Rationale	by pharmacy may potentially inform program planning.	
<b>Description of</b>	This indicator describes patterns of PrEP quantity (per 30-tablet supply) dispensed by pharmacy by	
Measure	calendar quarters.	
	PrEP quantity (per 30-tablet supply) dispensed by pharmacy was ascertained by dividing the total number of tablets ever dispensed by a unit of 30 tablets. The reporting calendar quarters were based on the date in which the dispensed PrEP prescription was picked up by the corresponding client if known, otherwise defaults to the date of prescription fill (dispensed).	
	<u>Measurement</u>	
	Displayed as a count and percentage.	
	<b>Numerator</b> : PrEP quantity (per 30-tablet supply) dispensed for BC-PrEP clients whose health authority of	
Definition/	residence (numerator 1) and providers' health authority of practice (numerator 2), respectively,	
Calculation	corresponds to the following categories within the specified quarter:	
	Interior	
	• Fraser	
	Vancouver Coastal	
	Vancouver Island	
	Northern	
	Other/Unknown	
	<b>Denominator</b> : Total number of 30-tablet supply units dispensed.	
Cautionary Notes: Use and Interpretation	This measure does not count tablets that were initially filled but not picked up by clients if known.	
Reporting Timeframe	Quarterly	



## INDICATOR 12. INFECTIOUS SYPHILIS TESTING AND INCIDENT CASES

Rationale	Regular follow-up monitoring while on PrEP is crucial to providing optimal care to clients. It includes regular full sexually transmitted infections (STI) screening from all appropriate body sites [2]. It is recommended that an STI screen be performed from all appropriate body sites every three months to allow for timely diagnosis and treatment of incident STI among BC-PrEP program clients. Due to limited capture of gonorrhea and chlamydia testing in our database, only syphilis is presented in the report.	
Description of Measure	This indicator describes two important aspects of syphilis screening in the context of PrEP use among active BC-PrEP clients:  a. Whether an infectious syphilis test occurred within a 30-day window prior to a dispensed PrEP prescription, while allowing for a 15-day grace period following the dispensation date.  b. The incident infectious syphilis cases detected among active BC-PrEP clients by calendar quarters.	
	Syphilis testing and incident cases data among active BC-PrEP clients were ascertained via data from the laboratory linkage. Active refers to clients who have not discontinued the program or were not lost to follow-up, as previously defined. The reporting calendar quarter was based on the date of testing or incident case. The date utilized for the dispensed PrEP prescription was the date in which the PrEP prescription was picked up by the corresponding client if known, otherwise defaults to the date of prescription fill.	
Definition/ Calculation	a. Syphilis testing surrounding a dispensed PrEP prescription  Displayed as a count and percentage (count only shown in the corresponding table)  Numerator: Among active BC-PrEP clients, the number of dispensed PrEP prescriptions  (including initial prescriptions and refills) in which a record of syphilis testing was present within a 30-day window prior to dispensation, while allowing for a 15-day grace period following the dispensation date, within the specified quarter.	
	<ul> <li>Record of Test</li> <li>No Record of Test</li> <li>Denominator: Total number of dispensed PrEP prescriptions among active BC-PrEP clients within the specified quarter.</li> <li>b. Syphilis incident cases         Displayed as a count. The number of active BC-PrEP clients who had an incident syphilis case within the specified quarter.     </li> </ul>	
Cautionary Notes: Use and Interpretation	<ul> <li>The 30-day window prior to dispensation was supplemented with a 15-day grace period following the dispensation date in order to account for a potential information lag in syphilis testing.</li> <li>For the syphilis testing indicator, only syphilis serology tests were considered when determining a record of testing.</li> <li>The algorithm applied to ascertain incident cases of infectious syphilis has been outlined in the Appendix.</li> <li>Syphilis serology testing is centralized at the British Columbia Centre for Disease Control (BCCDC); It is estimated that ≥95% of all test performed in the province are captured via the laboratory linkage. Testing performed on a non-nominal basis is not captured.</li> </ul>	
Reporting Timeframe	Quarterly	

### INFECTIOUS SYPHILIS INCIDENCE CASE-FINDING ALGORITHM (v. September 27, 2022)

1. The following lab tests are extracted:

Test Code	Test Name	Sample Type
TPE1	T. pallidum EIA	Blood
RPR2	Rapid Plasma Reagin	Blood
RPR3	Rapid Plasma Reagin Titer	Blood
TPPA	T.pallidum Particle Agglutination	Blood
TPLIAR	T. pallidum IgG LIA	Blood
TPPT	Treponema pallidum NAAT or Treponema pallidum PCR	Swab
DFATP	Treponema pallidum DFA	Swab
DFTP	T.pallidum Darkfield Exam	Swab

2. Test results are categorized:

Test Code	Possible Results	
TPE1	0 – Negative/non-reactive	
TPPA	1 – Positive/reactive	
TPLIAR	2 – Borderline/equivocal	
RPR2	0 – Negative/non-reactive 1 – Positive/reactive	
TPPT		
DFATP		
DFTP*		
RPR3	Titer Ratio 1:R, R is an integer power of 2	

\*As of writing, all valid test results for DFTP tests (among PREP participants) are negative, and are thus excluded from the remainder of this algorithm; in the unlikely event that a valid, non-negative result appears in the laboratory data in the future, DFTP tests would be treated identically to DFATP tests in the remainder of this algorithm.

- 3. Records are ordered chronologically, and tests done on the same day are grouped as a visit.
  - a. Algorithm must start at the earliest visit having:
    - o TPE1 result or
    - o positive RPR2
  - b. Discard any visit occurring before the earliest visit identified in 3 a)
- 4. Look for any visit with negative swab results and no other test results on the same day; these visits are discarded, as the results aren't informative, and can interfere with the algorithm (can lead to false interpretation of cleared infection, see step 10):
  - TPPT = 0 or DFATP = 0 and no TPE1/RPR2/RPR3/TPPA/TPLIAR on same day, then discard TPPT/DFATP



- 5. Create a flag EVER\_SYPH representing whether the participant has ever had syphilis at each visit:
  - Set EVER SYPH = 0
  - If at the first visit, TPE1 is null and RPR2 = 1 then EVER\_SYPH = 1
  - Otherwise, starting from first visit, until last visit:

```
o If TPE1 = 1 or 2, and:
```

- RPR2 = 1 and any RPR3 result, or
- TPPA = 1 or TPLIAR = 1 o then EVER\_SYPH = 1
- If EVER\_SYPH = 1, then EVER\_SYPH = 1 for all subsequent visits

Note: do not look at swab tests for determining first-ever syphilis infection; must look at blood tests only.

- 6. Create a flag SYPH\_STATUS representing infectious status of participant infectious (1) or non-infectious (0) at each visit. This flag will be updated for all visits in the next steps 7-10.
- 7. Set status to non-infectious for visits where participant is infection-naïve:
  - If EVER\_SYPH = 0 then SYPH\_STATUS = 0
- 8. Identify incidence cases resulting from first-ever syphilis infections, flag the incidence case (INC\_SYPH = 1) and set status to infectious:
  - If EVER\_SYPH = 1 and previous visit EVER\_SYPH = 0 then INC\_SYPH = 1 and SYPH\_STATUS = 1
- 9. Set status to infectious for visits with positive swab results (occurring on or after first-time infection):
  - If EVER\_SYPH = 1 and (TPPT = 1 or DFATP = 1) then SYPH\_STATUS = 1
- 10. Sequentially identify SYPH\_STATUS for remaining visits:
  - First visit needs to have SYPH\_STATUS set; if SYPH\_STATUS is not already set:

```
o If RPR3 < 1:4 then SYPH_STATUS = 0
```

- o If RPR3 >= 1:4 then SYPH\_STATUS = 1
- For remaining visits:
  - o If at previous visit SYPH\_STATUS = 0:
    - Set SYPH\_STATUS = 0 for subsequent visits until you reach a visit with:

```
o a 4-fold increase of RPR3, with RPR3 >= 1:4, or
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```
o TPPT = 1 or DFATP = 1
```

o then set  $SYPH\_STATUS = 1$ 

- o If at previous visit SYPH\_STATUS = 1:
  - Set SYPH\_STATUS = 1 for subsequent visits until you reach a visit with:
    - o a 4-fold decrease of RPR3, or
    - o RPR3 < 1:4
      - o then set  $SYPH_STATUS = 0$

**Note:** Although positive swab results are sufficient for a SYPH\_STATUS switch from non-infectious to infectious, negative swab results alone are insufficient for a SYPH\_STATUS switch from infectious to non-infectious.

- 11. Identify and flag incidence cases as a result of going from non-infectious to infectious status:
  - If SYPH\_STATUS = 1 and previous visit SYPH\_STATUS = 0, then INC\_SYPH = 1



## INDICATOR 13. HIV TESTING

Rationale	In accordance with the BC-CfE PrEP guidelines [2], clients must undergo HIV testing to ascertain negative status prior to initiating PrEP. It is also recommended that PrEP prescriptions be renewed only after repeat HIV testing confirms that the BC-PrEP client remains HIV-negative.	
	This indicator describes two important aspects of HIV testing in the context of PrEP use among active BC-PrEP clients:	
Description of Measure	<ul> <li>a. Days between the most recent negative HIV test and the date of the first dispensed PrEP prescription.</li> <li>b. Whether an HIV test occurred within a 30-day window prior to a dispensed PrEP prescription, while allowing for a 15-day grace period following the dispensation date.</li> </ul>	
	HIV testing data among active BC-PrEP clients were ascertained via data from the laboratory linkage. Active refers to clients who have not discontinued the program or were not lost to follow-up as previously defined. The reporting calendar quarter was based on the date of HIV testing. The date utilized for the dispensed PrEP prescription was the date in which the PrEP prescription was picked up by the corresponding client if known, otherwise defaults to the date of prescription fill.  Measurement  Displayed as a count and percentage.	
	a. Days between the most recent negative HIV test and the date of the first dispensed PrEP	
Definition/ Calculation	prescription  Displayed as a count in days (median, 25th percentile and 75th percentiles). Calculation: Among active BC-PrEP clients, we subtracted the date of the most recent negative HIV test (i.e., negative antigen/antibody [Ag/Ab] test result or negative HIV nucleic acid amplification [NAAT]) from the date of the first dispensed PrEP prescription.  b. HIV testing surrounding a dispensed PrEP prescription  Displayed as a count and percentage (count only shown in the corresponding table)  Numerator: Among active BC-PrEP clients, the number of dispensed PrEP prescriptions (including initial prescriptions and refills) in which a record of HIV testing was present within a 30-day window prior to dispensation, while allowing for a 15-day grace period following the dispensation date, within the specified quarter.	
	<ul><li>Record of Test</li><li>No Record of Test</li></ul>	
	<b>Denominator</b> : Total number of dispensed PrEP prescriptions among active BC-PrEP clients within the specified quarter.	
Cautionary Notes: Use and Interpretation	<ul> <li>The 30-day window prior to dispensation was supplemented with a 15-day grace period following the dispensation date in order to account for a potential information lag.</li> <li>Point-of-care testing results do not qualify as confirmed negative HIV serology.</li> <li>HIV serology testing is mainly centralized at the BCCDC; It is estimated that ≥95% of all HIV tests performed in the province are captured via the laboratory linkage.</li> <li>Screening testing performed on a non-nominal basis is not captured, additionally, the capture of screening tests from Vancouver Island Health Authority was incomplete.</li> <li>Given that we only have the sample collection date available to calculate the number days between the most recent negative HIV test and the date of the first dispensed PrEP prescription, this calculation includes the time required for the test to be processed and results to get back to the provider.</li> </ul>	
Reporting Timeframe	Quarterly	

## **INDICATOR 14. ADVERSE DRUG REACTION EVENTS**

Rationale	The demonstrated effectiveness of PrEP in preventing HIV transmission among high risk individuals has led to scale-up of PrEP coverage in BC. In this context, safety concerns in the form adverse drug reactions (ADR) must be at the forefront of PrEP clinical care and monitoring.
Description of Measure	This indicator describes patterns of ADR events among active BC-PrEP clients by calendar quarter.
Definition/ Calculation	An "adverse drug reaction" includes side effects or medication intolerance possibly associated with PrEP medication, as reported by a healthcare provider or the BC-PrEP client.
	Counts of ADR events among active BC-PrEP program clients were extracted from the BC-CfE Pharmacovigilance Initiative database. This patient safety monitoring program receives ADR reports from the following data sources:
	<ul> <li>PrEP Prescription Refill form</li> <li>PrEP Late Refill Notification form</li> <li>ADR reports submitted directly by healthcare providers or PrEP clients</li> </ul>
	Active refers to clients who have not discontinued the program or were not lost to follow-up, as previously defined.
	Measurement Displayed as a count. The number of reported ADR events among active BC-PrEP program within the specified quarter. These counts exclude duplicate reports of the same event, or ADRs classified as being unlikely to be associated with PrEP medication (based on Pharmacovigilance causality classification criteria). ADR counts in the reporting calendar quarter are based on the date of the reported ADR event.
Cautionary Notes: Use and Interpretation	<ul> <li>This indicator was lagged by 6 months, given that much of this data is derived from the PrEP Late Refill Notification form, which is sent after a 3-5-month lapse after the expected PrEP refill date. ADR reports are also evaluated by a Pharmacovigilance clinical reviewer prior to inclusion in the PrEP report.</li> <li>Reports of ADRs are voluntarily submitted by health care providers, patients, and caregivers, and may underestimate actual incidence.</li> <li>Due to the time delay in receiving some ADR reports, some PrEP participants may have already</li> </ul>
	<ul> <li>discontinued PrEP by the time the report was received.</li> <li>Reported ADR events do not necessarily result in BC-PrEP program discontinuation for the clients affected.</li> <li>More detailed PrEP adverse drug reactions information is available in the BC-CfE Pharmacovigilance Annual Report.</li> </ul>
Reporting Timeframe	Quarterly



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