Preventing & Reducing Homelessness:
An Integrated Data Project

2019 Homeless Cohort Phase 1 Findings

BC HOUSING

BRITISH COLUMBIA

Acknowledgements

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Executive Summary

Homelessness continues to be a major challenge in British Columbia; for those who are living it every day, as well as for the communities in which they live. Establishing a new methodology to measure homelessness can help the province better understand, respond to, and prevent homelessness in B.C.

The Integrated Data Project is a multi-ministry and multi-year initiative. Phase 1 defines the research cohort of de-identified individuals (de-identified data means that personal identifiers, such as a name or address, are removed) who experienced homelessness in B.C. in 2019. By providing a comprehensive, robust and reliable dataset linking cross-ministry, national and provincial partner administrative datasets, the project will help the province better understand, respond to, and prevent homelessness in B.C.

The Integrated Data Project, for the first time, offers an annual estimate of homelessness in the province using administrative data. This is a different methodology from the Point-In-Time (PiT) Homeless counts. It is commonly accepted that PiT counts are undercounts of the population experiencing homelessness. The Integrated Data Project and PiT counts are unique and complementary, and both contribute to a better understanding of homelessness in B.C.

Phase 1, defining the 2019 Homeless Cohort, integrates three sets of data for: BC Housing Homeless Individuals & Families Information System (HIFIS) shelter use, British Columbia Employment and Assistance program (BCEA) with No Fixed Address (NFA) and the Ministry of Health Medical Services Plan (MSP) demographic client registry.

To be included in the 2019 Homeless Cohort, an individual at minimum: received income assistance (BCEA) and had NFA for three consecutive months, stayed one night in a BC Housing-affiliated shelter or had both experiences.

> Phase 1 findings provide an annual estimate of the cumulative number of people who experienced homelessness within a given year, the 2019 Homeless Cohort, in addition to monthly averages. This estimate, collected for the first time in B.C., is more extensive than existing Point-in-Time count data.

Overview of Limitations

- If a person did not access services (shelter and/or BCEA), they're not included in the cohort.

- A person's location is determined by the place they accessed services, which may not always align with the community they identify with.

- The 2019 Homeless Cohort is limited in capturing those under 19 and those above 65. Services used for the definition of homelessness have age requirements: BCEA program eligibility is 19-65 and some shelters are 19+.

- Gender is identified as 'male' or 'female' in the BC Central Demographic file. This reflects available data and aligns with safe disclosure practices where non-binary data were available.

- Phase 1 does not describe Indigenous homelessness. By working with Indigenous partners, future phases will include an exploration of Indigenous homelessness.

Results

- A total of about 23,000 people experienced homelessness for some period of time in 2019

- On average, 9,300 unique people experienced homelessness each month

- 48% experienced chronic homelessness (six months or more)

- 52% experienced non-chronic homelessness

- Males are overrepresented in homelessness data

- The demographic distribution of the annual 2019 count was similar to the 2018 PiT count

- The majority of the cohort stayed in the Greater Vancouver, Fraser Valley and Capital region census divisions

- A per capita analysis identified that Fraser-Fort George, Cariboo and Alberni-Clayoquot census divisions have the highest proportion of homelessness based on population

The Integrated Data Project, for the first time, offers an annual estimate of homelessness in the province using administrative data and enabling policy makers and service providers to start looking at trends across the province.

The annual and monthly estimate together demonstrate that there is a flow of individuals in and out of homelessness each month and highlights the magnitude of the challenge on an annual basis. Understanding the fluctuations throughout the year is added insight, as PiT count methodology in particular is unable to capture flows as it does not follow individuals.

The demographic findings (gender and age) demonstrate similarities between the 2019 Homeless Cohort and the 2018 PiT count. Both are different from the general B.C. population demographics in 2019.

Embedded in these findings are many individual stories of homelessness in the province. The quantitative results in this report are an important step to understanding their experiences.

In future phases, data gathered from the services utilized across public sector entities will allow for a greater understanding of the demographic characteristics of this population, and the pathways by which people enter homelessness. This information will provide insights into the cross-government interventions that can support people to access secure, stable housing, exit homelessness and remain stably housed.

Background

Homelessness continues to be a major challenge in British Columbia; for those who are living it every day, as well as for the communities in which they live. Additionally, quantifying the experience of homelessness is a complex challenge; there are limited data available on people experiencing homelessness.

The Preventing & Reducing Homelessness Integrated Data Project (the Integrated Data Project) was initiated by the Province to provide a comprehensive, robust and reliable linked dataset to help the Province better understand, respond to, and prevent homelessness in B.C.

Point in Time (PiT) Homeless counts are the current baseline data source for understanding the scope of homelessness in B.C. The PiT counts are commonly recognized as an undercount of the population experiencing homelessness, as they are a snapshot and do not adequately capture hidden homelessness.

The Integrated Data Project is a new methodology which, for the first time, provides an estimate of the number of people who have experienced homelessness across the province at some point throughout the year. Phase 1 findings provide an annual estimate of the cumulative number of people who experienced homelessness within a given year, the 2019 Homeless Cohort, in addition to monthly averages. This estimate, available for the first time, is more comprehensive than existing Point-in-Time count data.

In the future, this estimate will allow policy makers and service providers to monitor trends to enhance the understanding of homelessness in B.C. and support work to more effectively address and prevent it.

Project outline

The Integrated Data Project has four phases across multiple years. The structure of the integrated dataset, linking various de-identified administrative datasets (data with personal identifiers, such as a name or address, are removed) on individuals across multiple agencies, provides a method to retrospectively measure and monitor longitudinal service use before, after and during the experience of homelessness.

There are four phases of the Integrated Data Project::

» **Phase 1:** Establish the study population; the Homeless Cohort.

» **Phase 2:** Examine service utilization to identify potential patterns in the study population.

» **Phase 3:** Identify patterns of service use as people enter and exit the experience of homelessness, and potential points of intervention.

» **Phase 4:** Predict demand on services and evaluate the impact of policies and programs.

In addition to providing more information about homelessness, this work will highlight roles of different parts of government and its partners in preventing and responding to homelessness, as well as identify opportunities for coordinating across government to design policies, programs and services to more effectively address homelessness.

This report includes findings from Phase 1 of this project.

Cross-Agency Team

The Integrated Data Project was initiated in 2019 and is a partnership between the Ministry of the Attorney General and Responsible for Housing, the Ministry of Social Development and Poverty Reduction, the Ministry of Citizens' Services and BC Housing. These groups represent the current cross-agency team.

Data Innovation Program

The project is enabled by the Data Innovation Program, a data integration and analytics program for the B.C. government. While every B.C. ministry collects and manages its own data, the Data Innovation Program provides securely linked and de-identified data from multiple ministries, giving government analysts a broader understanding of complex issues.

The Data Innovation Program is based on world-leading best practices for managing safe access to confidential or sensitive data, following the Five Safes model to protect data and reduce the risk of sensitive data being accessed or used inappropriately. The Office of the Human Rights Commissioner (OHRC) recently recognized the B.C. government's Data Innovation Program as an example of a strong approach to protecting the privacy of demographic data across public bodies.

The OHRC has also called the program, "a good model" for equity-seeking research. Future work on this project can align with anti-racism initiatives as datasets are revised to collect race-based data, with the purpose of understanding the impacts of racism and addressing systemic inequalities, for example.

The data science work is conducted by the Data Science Partnership program, a service provided through the Digital Platform and Data Division of the Office of the Chief Information Officer, Ministry of Citizens' Services, which aims to accelerate adoption of a data-driven digital government by providing data science support to ministries.

Methodology & Limitations

This is a brief overview of Phase 1 methodology, for analytic detail please see the Technical Document.

Data available through the Data Innovation Program are always de-identified to protect privacy. This means identifiers such as names and personal health numbers are removed and replaced by a project-specific "study ID" used to link individuals across data sets in the secure analytical environment.

Publicly available, open-licensed population estimates from Statistics Canada were used to compare demographic characteristics of the estimated 2019 homeless population to the B.C. provincial population.

Phase 1 combines administrative datasets to define the unique number of individuals who experienced homelessness between January and December 2019, the 2019 Homeless Cohort. The year 2019 was selected as the baseline for the Homeless Cohort as this is the year with the most complete data, and when the majority of BC Housing-affiliated emergency shelter program providers implemented the Homeless Individuals and Families Information System (HIFIS) for data monitoring.

Integrated Data & PiT Counts

The Integrated Data Project and the PiT counts capture a unique and complementary sample of the homeless population. Each data source has a distinct methodology. Each methodology can fill gaps in the other and enhance our understanding of homelessness in B.C.
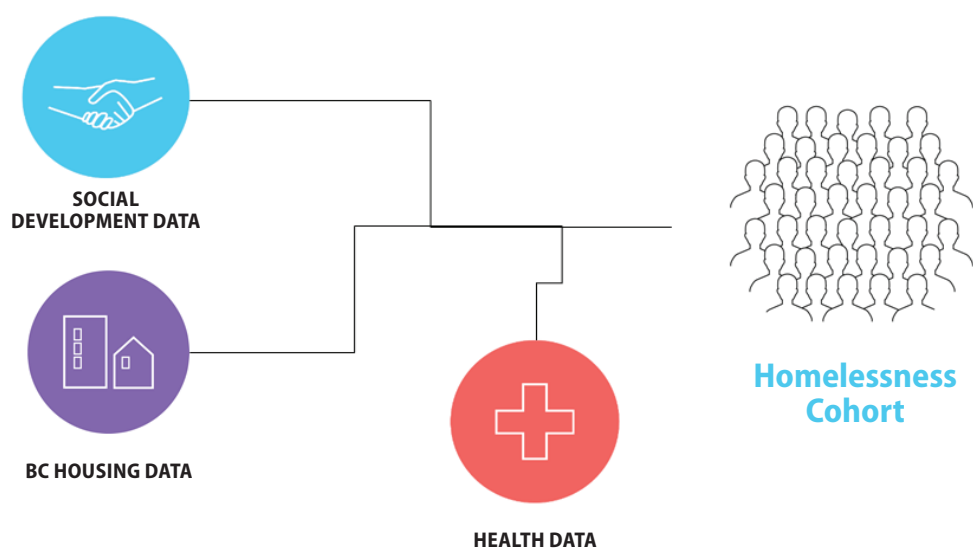
» The PiT count estimates the number of people who experience homelessness on a single day (24-hour period) in specific communities and relies on enumeration and survey methods. The counts likely identify a minimal number and tend to capture visible homelessness.

» The Integrated Data Project summarizes all 365 days of 2019. It includes counts of individuals from across B.C. and uses administrative data sources to determine the estimate. The integrated dataset captures those who interact with the shelter system and income assistance programs, and who meet a set of defined criteria.

The PiT counts and the Integrated Data Project have the same goals – to quantify homelessness in B.C., examine demographics and monitor trends so as to inform policies, programs and services.

Analytical Definition

Phase 1, defining the 2019 Homeless Cohort, integrates the datasets for: British Columbia Employment Assistance (BCEA) Program with No Fixed Address (NFA); and BC Housing Homeless Individuals and Families Information System (HIFIS) shelter use; along with the Ministry of Health Medical Services Plan (MSP) client registry as the population directory – which is how the datasets are linked.

Figure 1. Integrated Data - 2019 Homeless Cohort

To be included in the 2019 Homeless Cohort an individual at minimum must have:

1. Spent three consecutive months on income assistance with a NFA flag

2. Stayed one night in a BC Housing-affiliated shelter, or

3. Had both experiences

Using both the BCEA-NFA data and BC Housing shelter data to define the Homeless Cohort means there are three ways one can 'enter' the population – appearing in both the HIFIS and BCEA-NFA datasets, or in just the BCEA-NFA or just the HIFIS dataset (see Figure 1).

Table 1. Categories of homelessness: chronic & non-chronic

Data Source	Non-Chronic Homelessness	Chronic Homelessness
No Fixed Address	3-5 months consecutive NFA	6-12 months consecutive NFA
1+ Shelter Visit	180 or fewer days in a shelter OR 1-2 unique visits to a shelter (separated by 30 days)	more than 180 days in a shelter OR 3 or more unique visits to a shelter (separated by 30 days)
Both	As per above	As per above

The definitions of homelessness are based on the BC Housing definition[1]. Employment and Social Development Canada definition (ESDC) of homelessness and chronic homelessness. The experience of homelessness is categorized as either non-chronic homelessness or chronic homelessness.

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1   BC Housing Definition: Chronic Homelessness means an individual has experienced Homelessness for six (6) months or more in the past 12 months (i.e. has spent more than one hundred and eighty (180) cumulative nights in a shelter or place not fit for human habitation) AND/OR has experienced homelessness 3 or more times in the past year, where on each occasion, the individual was housed for at least 30 days before the next episode of homelessness occurs. This also includes individuals exiting institutions (e.g. mental health facilities, hospitals, correctional institutions and children leaving care) who have a history of chronic homelessness and cannot identify a fixed address upon their release.

Overview of Phase 1 Datasets

BCEA Program, Ministry of Social Development and Poverty Reduction

The length of time spent with NFA for BCEA clients is part of the integrated dataset. Selecting three consecutive months for NFA reduces the likelihood of administrative errors and has been used as a homeless indicator in previous research by the Ministry of Social Development and Poverty Reduction.

The BCEA Program provides income assistance to those who are unable to fully participate in the workforce and disability assistance to Persons with Disabilities (PWD) to provide greater independence for people with disabilities. Income and disability assistance are provided directly to the client via direct deposit or cheque. Clients are required to provide an address to receive the shelter portion of income and disability assistance. Clients without an address are noted as NFA.

It should be noted there is a financial incentive to provide an address while eligible for income assistance ($375/month shelter).

Emergency Shelter Program, BC Housing

The length of time spent in a BC Housing-affiliated shelter is part of the integrated dataset. Staying one night in a BC Housing-affiliated shelter indicates an individual would have been unhoused.

Emergency shelters are temporary but immediate places to stay for anyone who is homeless or at risk of homelessness. BC Housing-affiliated shelters offer emergency shelter services across the province. The 2019 Homeless Cohort includes data from 114 shelters across B.C.

The Emergency Shelter Program is a provincial program monitored by BC Housing using HIFIS. Shelter stays are reported through HIFIS.

Client Registry MSP, Ministry of Health

The BC Central Demographic file was used for date of birth information, and for gender when data were not available from either the BCEA or the HIFIS datasets. The derivation of the gender information is outlined in greater detail in the project technical documentation.

Data Limitations

The Integrated Data Project uses administrative datasets and therefore only includes individuals who access the services. For the 2019 Homeless Cohort, individuals who have not accessed a shelter or income or disability assistance are not included in the estimate. Additionally, a person's location is determined by the place they accessed services, which may not always align with the community they identify with.

Service use definitions of homelessness may not align directly with the experience of homelessness. Definitions are based on BC Housing and ESDC definitions.

The 2019 Homeless Cohort is limited in capturing those under 19 and those above 65. Generally, clients receiving income or disability assistance are between the ages of 19-64. Someone becomes eligible for the BCEA Program at 19, and federal Old Age Security (OAS) and Guaranteed Income Supplement (GIS) activates at 65. Additionally, some shelters may be 19+.

Currently, gender is identified as 'male' or 'female' in the BC Central Demographic file. This reflects available data and aligns with safe disclosure practices where non-binary data were available. As datasets are revised across government to recognize non-binary definitions of gender, a more appropriate portrayal of gender diversity can be brought into this project work. For future phases, this applies to race-based data as well – if datasets are revised to capture race-based data, analyses can be brought into this project work.

Additionally, Phase 1 does not describe Indigenous homelessness, where a significant portion of the population experiencing homelessness in B.C. identifies as Indigenous. This overrepresentation is an indicator of the legacy of colonialism, manifested in a multitude of adverse social and economic conditions including poverty, systemic racism, intergenerational trauma, separation from culture and land, and poorer health, educational and employment outcomes. By working with Indigenous partners, future phases will include an exploration of Indigenous homelessness.
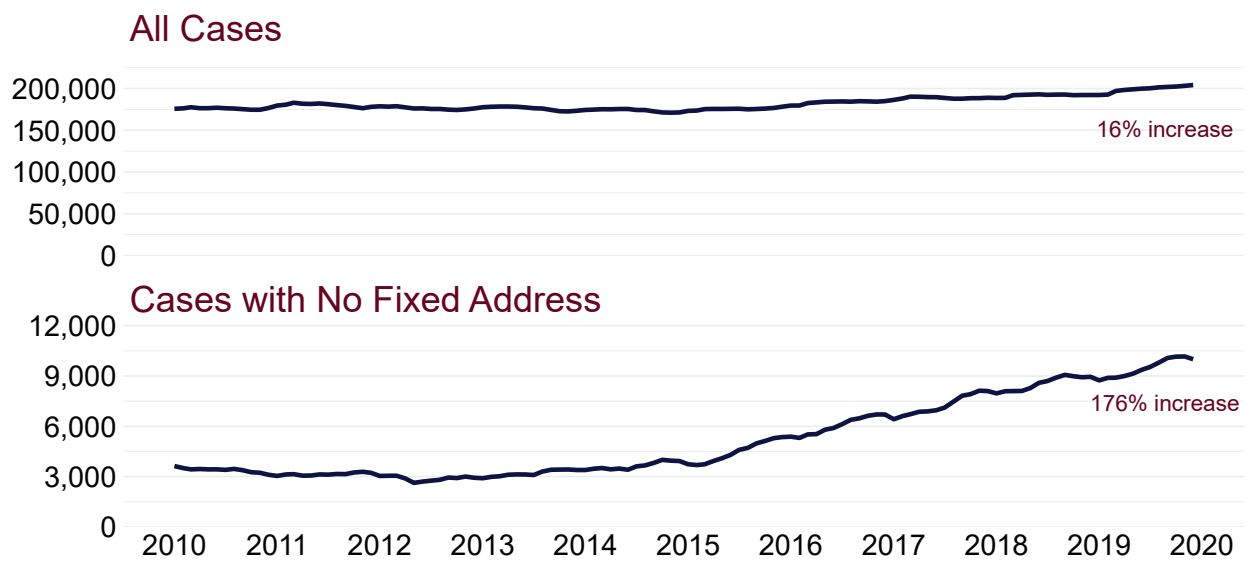
Results

Understanding the Data Sources

Each dataset provides insight into the clients accessing services. Figures 3 and 4 represent all clients accessing the services, not just the individuals that make up the 2019 Homeless Cohort.

BCEA-NFA Data

Looking at all BCEA cases over the past 10 years, the rate of increase is in line with the rate of B.C. population growth (16% compared to 14% respectively) (Figure 2). What stands out is that the cases with NFA have increased exponentially, at 10 times the rate compared to the growth in BCEA cases. A dramatic increase can be seen in 2016.

Figure 2. Total BCEA cases over time (2010-2019)

All Cases

16% increase

Cases with No Fixed Address

176% increase

The percent change in cases is provided for the 2010 to 2019 period
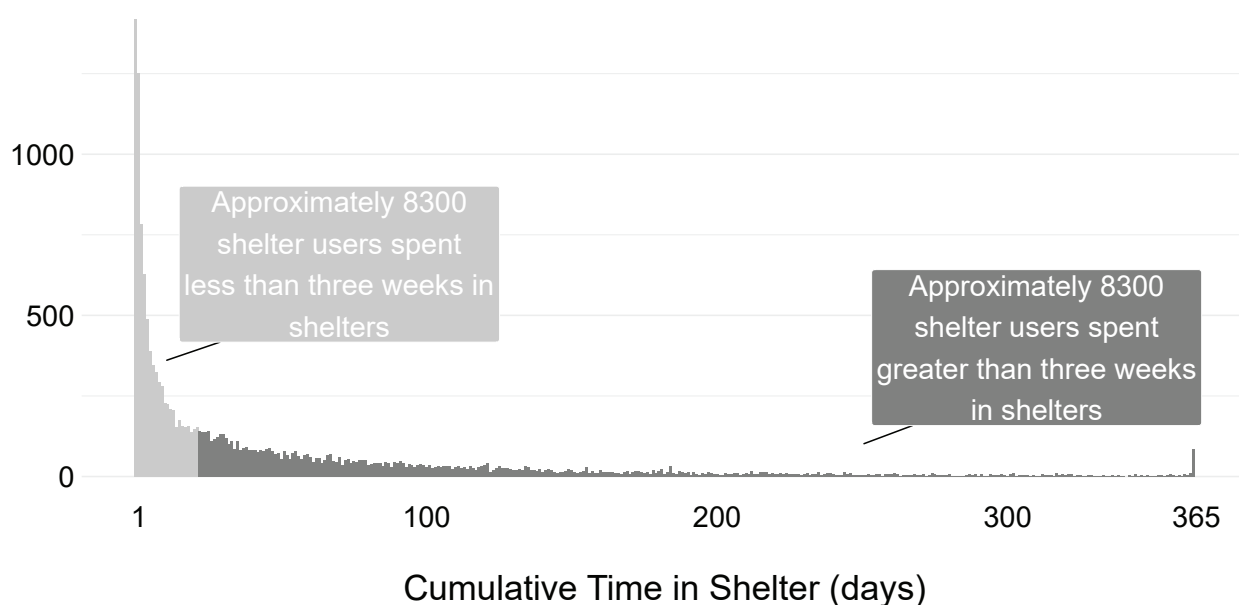
Shelter Use Data

The total number of shelter users in 2019 was approximately 16,600 individuals across the 114 shelter locations in B.C. Not all shelter users are included in the 2019 Homeless Cohort as some could not be linked to the population directory.

In 2019, half of shelter users spent less than three weeks in shelters over the year and the other half spent more than three weeks in shelters. Additionally, approximately 1,420 individuals stayed in a shelter for one to 24 hours, and 85 individuals stayed in a shelter for 364-365 days in 2019.

The graph below (Figure 3) demonstrates that shelters serve populations with different needs. There was a high number of individuals using shelters for both shorter and longer periods in 2019.

Figure 3. Pattern of shelter use for 2019

2019 Homeless Cohort

Annual Estimate

For the first time, through the Integrated Data Project, B.C. has an annual provincial estimate of homelessness. This new approach to measuring homelessness identifies how many unique individuals experienced homelessness at some point between January and December 2019. This is referred to as the 2019 Homeless Cohort.

As noted, this annual estimate should not be compared to the PiT count as they use different methodologies and measure different time periods.

The annual estimate for the 2019 Homeless Cohort is approximately 23,000 people. The annual estimate allows for monitoring of trends and better understanding flows into and out of homelessness.

Across the two homelessness categories, chronic and non-chronic, the number of individuals was relatively evenly distributed. Approximately 52% of the 2019 Homeless Cohort experienced non-chronic homelessness and 48% experienced chronic homelessness.

Table 2. 2019 Homeless Cohort – annual estimate

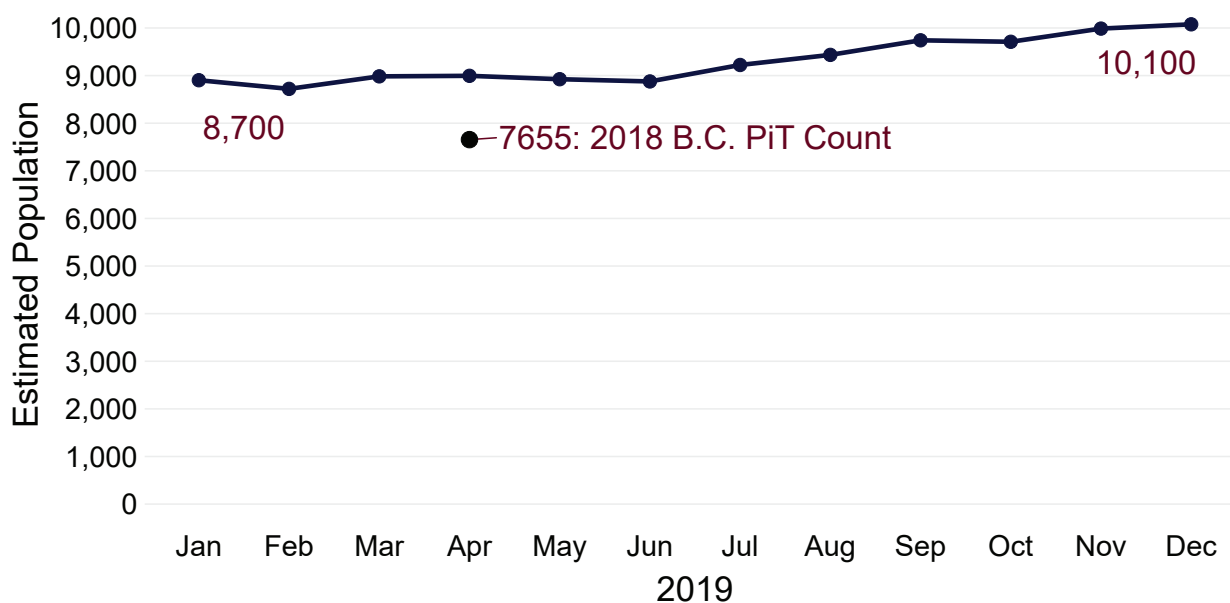| Definition	Approximate Population
2019 Homeless Cohort (Annual Total)	23,000
Non-Chronic Homelessness	12,000
Chronic Homelessness	11,000

Monthly Estimate

On average, approximately 9,300 people experienced homelessness each month. Monthly population estimates (Figure 4) include the total number of individuals who experienced homelessness for each month of 2019. The number of individuals who experienced homelessness ranged from 8,700 to just over 10,000, with an upward trend later in the year. When compared to the annual estimate, this highlights that there is a flow of individuals in and out of homelessness each month and highlights the magnitude of the challenge on an annual basis. Understanding the fluctuations throughout the year is added insight, in particular, PiT count methodology is unable to capture flows as it does not follow individuals.

The graph below (Figure 4) demonstrates that more people were included in the 2019 Homeless Cohort in November and December.

The 2018 PiT[2] count is included in Figure 4 because a monthly estimate is more aligned with the 24-hour snapshot rather than the annual estimate. The expectation is that while they use different methods, they are capturing the same general population.

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2   The 2018 Provincial PiT Homeless Counts are the provincial baseline. 2020-21 Provincial Homeless PiT Counts were released in Summer 2021. These numbers reflect counts conducted in 2020 and 2021 and can be used when looking at the refreshed 2020 Homeless Cohort.

Figure 4. 2019 Homeless Cohort – monthly estimates

Homelessness Service Use (Income Assistance & Shelter Use)

There are three possible ways to be included in the 2019 Homeless Cohort. Approximately 42% of the 2019 Homeless Cohort accessed income assistance, were listed as NFA for three or more months and did not use a shelter in 2019. Approximately 28% of the 2019 Homeless Cohort accessed a shelter 2019 and were not on income assistance. Approximately 30% were matched across both data sources, meaning they accessed income assistance, were flagged as NFA for three or more months and had at least one shelter visit in 2019.

Table 3. 2019 Homeless Cohort – data source

Service Use Definition	Percentage
3+ months NFA income assistance	42%
1+ shelter visit	28%
NFA & shelter visit	30%

Demographics

Demographic information is available for over 99% of the cohort. Only a small number (97 individuals) did not have gender or age information associated.
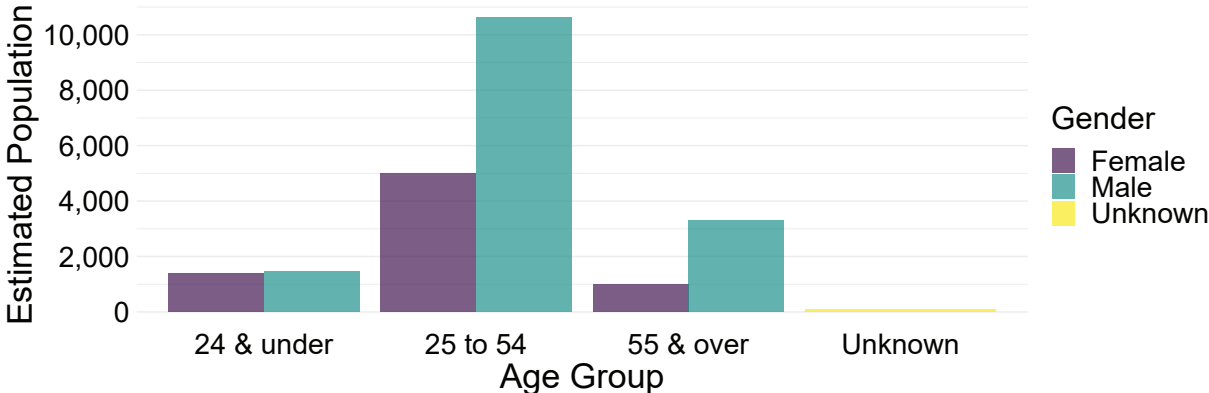
As noted in the Methodology & Data Limitation section, demographics include gender with binary options due to what is available in the administrative datasets. BC Housing does capture non-binary self-reported gender identity, however a quick analysis indicated that the number of individuals in the 2019 Homeless Cohort self-reporting as non-binary is small – less than 1%. Due to data privacy and safe disclosure standards, this information is not reportable.

In Figure 5, the results highlight that males make up two-thirds of the Homeless Cohort. Males aged 25-54 make up 46% of the 2019 Homeless Cohort, almost double the number of females in the same group. For those individuals 55 and over, males represent an even larger proportion.

For ages 24 and under, the population is split approximately equally between males and females.

Older and younger people are underrepresented in the homeless population. The under 24 group represents approximately 13% of the cohort, the over 55 group represents approximately 19% of the cohort. This underrepresentation could be because of the limitations noted earlier in the report under Data Limitations.

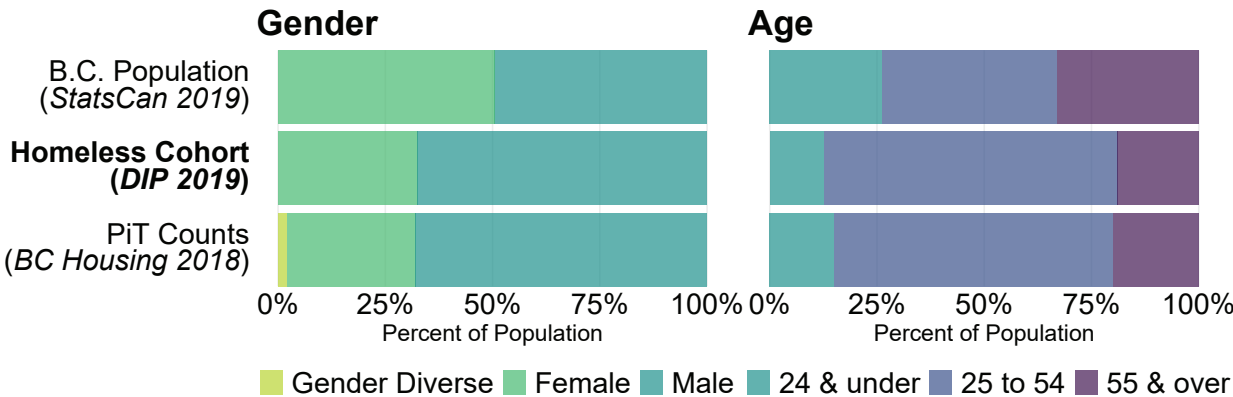**Figure 5.** 2019 Homeless Cohort – age & gender

When comparing the demographics for the 2019 Homeless Cohort, the 2018 PiT counts and B.C. Population 2019 (Figure 6), the results demonstrate similarities between the 2019 Homeless Cohort and the 2018 PiT count.

The distribution of males and females within the 2019 Homeless Cohort is very similar to the pattern observed with the 2018 PiT count. When compared to the population of B.C., the results highlight that males are overrepresented in both homeless populations whereas the population of B.C. is an even 50% split. The age distribution of the 2019 Homeless Cohort is similarly distributed to the PiT count.

There is an underrepresentation of older and younger people in the homeless cohort when compared to the population of B.C.

The similarities in the demographic data provide us with confidence that the Integrated Data Project definition of homelessness is capturing the same individuals/themes as the PiT counts, as intended.

Figure 6. Demographic Comparison between 2019 Homeless Cohort, 2018 PiT Count & 2019 B.C. Population
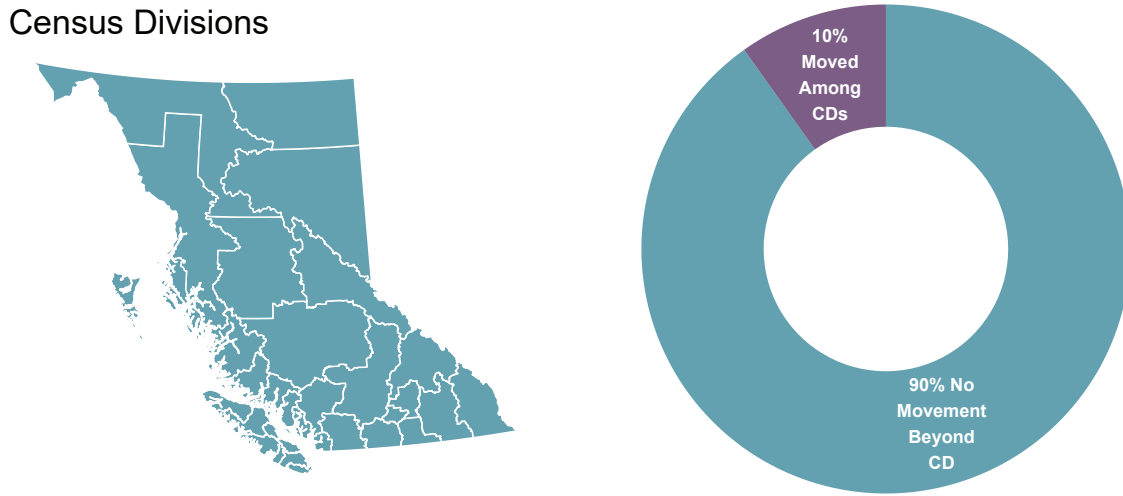

Movement

The geospatial location of the 2019 Homeless Cohort is aggregated to the census division level for safer disclosure practices. This significantly reduces the potential for reidentification at the community level, particularly in small communities where other general characteristics of the homeless population may generally be known.

Location is determined by where the services (shelter and income assistance) were accessed in 2019. Shelter use data was selected as the preferred source for location. For the 42% of the cohort that entered the cohort only due to their NFA identification from the SDPR BCEA data, the SDPR/Service BC office where the clients claimed their monthly cheque was used as the source for location.
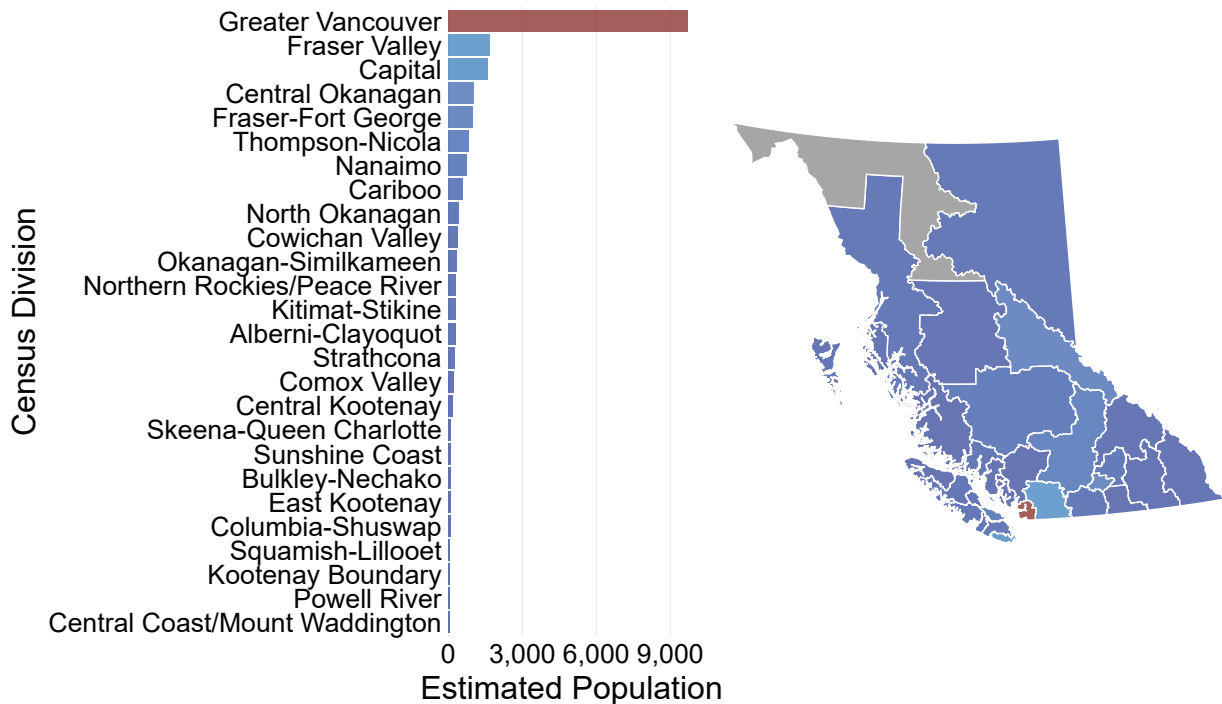
The majority of the cohort did not move between census divisions in 2019. In 2019, 90% of the 2019 Homeless Cohort accessed services in one census division, while 10% accessed services in more than one census division.

Figure 7. 2019 Homeless Cohort movement among census divisions (CD)

Census Divisions

10% Moved Among CDs
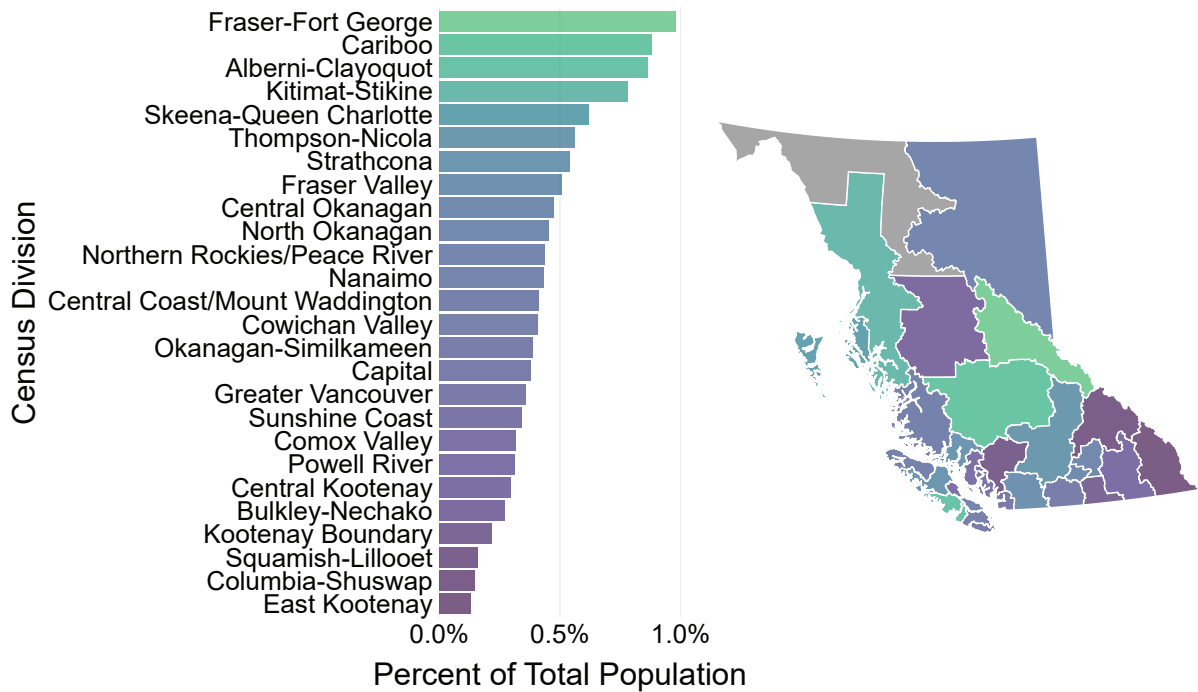
90% No Movement Beyond CD

Among the population that did not move census divisions (90% of the 2019 Homeless Cohort), the majority accessed services in Greater Vancouver, followed by the Fraser Valley, the Capital region and the Central Okanagan (see Figure 8). Greater Vancouver has nearly five times the number of people experiencing homelessness than the next highest census division, which is the Fraser Valley.

Figure 8. 2019 Homeless Cohort estimated population by census division (non-movers)

Looking at the location of the 2019 Homeless Cohort on a per capita basis, there is a different geographic distribution across the province (Figure 9). On a per capita basis, Fraser-Fort George, Cariboo and Alberni-Clayoquot have the highest proportion of homelessness, based on their population.

Figure 9. 2019 Homeless Cohort per capita estimated population by census division (non-movers)

Conclusion

For the first time, through the Integrated Data Project, B.C. has an annual provincial estimate of homelessness, using a new methodology. This new approach to measuring homelessness identifies how many unique individuals experienced homelessness at some point between January and December 2019.

The newly available annual and monthly estimates together demonstrate that there is a flow of individuals in and out of homelessness each month and highlight the magnitude of the challenge on an annual basis. Understanding the fluctuations throughout the year is added insight, because PiT count methodology in particular is unable to capture flows as it does not follow individuals.

The demographic findings (gender and age) demonstrate similarities between the 2019 Homeless Cohort and the 2018 PiT count, and both are different from the general B.C. population in 2019.

Embedded in these findings are many individual stories of homelessness in the province. The quantitative results in this report are an important step to understanding their experiences.

In future phases, data gathered from the services utilized across public sector entities will allow for a greater understanding of the demographic characteristics of this population, and the pathways by which people enter homelessness. This information will provide insights into the cross-government interventions that can support people to access secure, stable housing, exit homelessness and remain stably housed.

As this is an ongoing research project, further information on the homeless cohort will be available in the future. This will include an updated cohort with additional years of data, i.e., 2020 data as well as additional variables and modeling as part of Phases 2, 3 and 4. Future phases will also include further investigation into Indigenous homelessness in collaboration with Indigenous partners.