

Local Health Area Profile - 2021

Kettle Valley

This profile provides an overview of the Kettle Valley Local Health Area population in the areas of:

**Population Health | Health & Social Status | Acute Care
Home & Community Care | Mental Health & Substance Use | Health Characteristics**

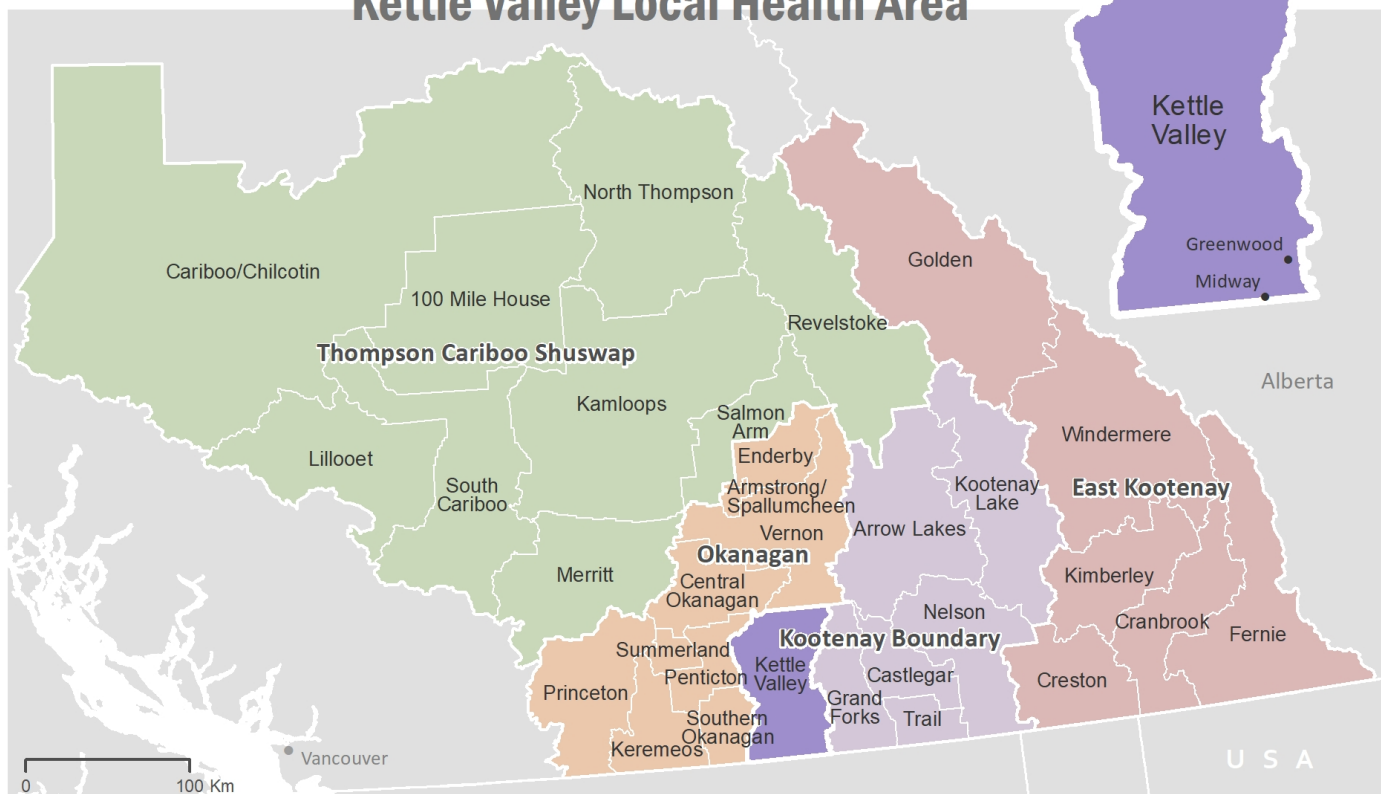
The health indicators provided within this document are based on a conceptual framework developed by the Canadian Institute for Health Information (CIHI). This framework reflects the principle that health is not determined solely by medical care, but by a range of individual and population, social, and economic factors.

Unless otherwise stated, all data, figures, and tables, are presented at the Local Health Area (LHA) level.

The Interior Health Data & Analytics Services Department produces a number of utilization and service reports. In addition to this Local Health Area Profile, 1) Health Service Delivery Area (HSDA), 2) Interior Health Authority, and 3) Facility Profiles can be found on the [Interior Health website](#).

NOTE: On March 16, 2020, a public health emergency was declared in British Columbia due to the COVID-19 global pandemic. Data from 2019/20 Q4 and onwards may have been impacted by changes in medical services in response to the COVID-19 Pandemic.

Interior Health Authority Kettle Valley Local Health Area



More information is available upon request from Interior Health's Data & Analytics Services Department.

Inquiries and comments can be addressed via email, IHAnalyticsandReporting@interiorhealth.ca.



Population Health

Population Health statistics provide information about past, present, and future demographics, with breakdowns by age, sex, and geographic region. These indicators include population counts, growth rates and densities, as well as vital statistics relating to births and deaths. Population health information comes from Population Extrapolation for Organizational Planning with Less Error (PEOPLE), provided by BC Stats. This information includes estimates of past populations (1976 - 2020) and projections for the future populations (2021 - 2041) based on migration, employment, and growth trends.

FIGURE 1. Population by Local Health Area in the Kootenay Boundary HSDA, 2021

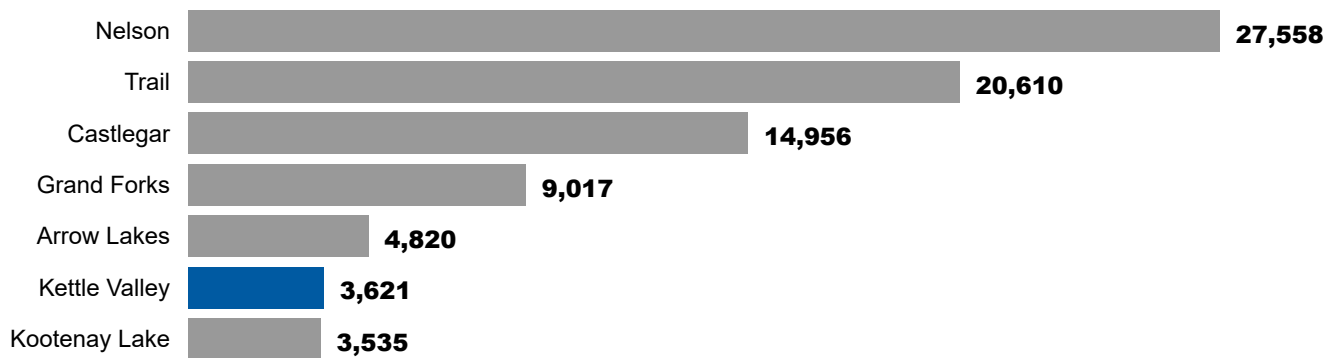


FIGURE 1. This graph compares Local Health Area populations within the Kootenay Boundary Health Service Delivery Area.

SOURCE. PEOPLE 2021, BC Stats

TABLE 1. Population Density, 2021

| | |
|-------------------------|--------------|
| Population | 3,621 |
| Area (Sq. Km) | 4,347 |
| Pop. Density per Sq. Km | 1 |

TABLE 1. Population density represents the number of people living within one square kilometre. Lower densities indicate more rural areas which typically have lesser access to health services, while those living in urbanized areas with higher population densities typically have greater access to health services. The Interior Health population density is 4 people per Sq. Km.

SOURCE. Summary Statistics, PEOPLE 2021, BC Stats

TABLE 2 . Projected Population Growth, 2021 - 2026

| | |
|----------|--------------|
| All Ages | -3.9% |
| 65+ | 19% |
| 75+ | 52% |
| 85+ | 84% |

TABLE 2. Population growth rates project the change in size of each age group over the next five years. These projections reflect a forecasting model that accounts for the trends in migration, employment, and past population change.

SOURCE. PEOPLE 2021, BC Stats

TABLE 3. Life Expectancy, 2020

| | Female | Male | Average |
|------------------|-----------|-----------|-----------|
| Kettle Valley | 87 | 77 | 81 |
| British Columbia | 86 | 80 | 83 |

TABLE 3. Life expectancy can be viewed as a gauge of population health. It measures average lifespan from birth, of persons currently residing in a particular health region. In some cases, N/A values indicate limited data availability due to small populations.

SOURCE. Demography and Population Statistics, BC Stats, March 2021



FIGURE 2. Age Demographic Trends, 1991 - 2041

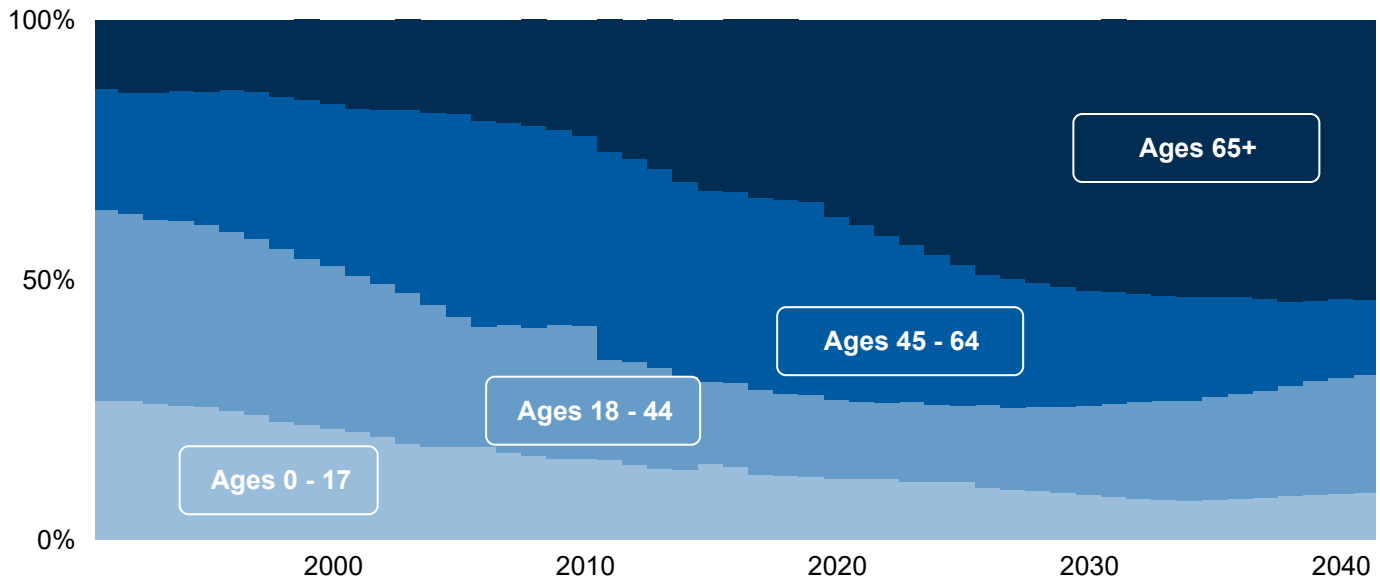


FIGURE 2. Demographic trends over 50 years estimate (1991-2020) and project (2021-2041) the fluctuation of age groups within a population. Overall trends across Interior Health indicate a growth in the population ages 65+ and a decline in the population under age 45 between 1991 and 2041.

SOURCE. PEOPLE 2021, BC Stats

FIGURE 3. Population Pyramid, 2021

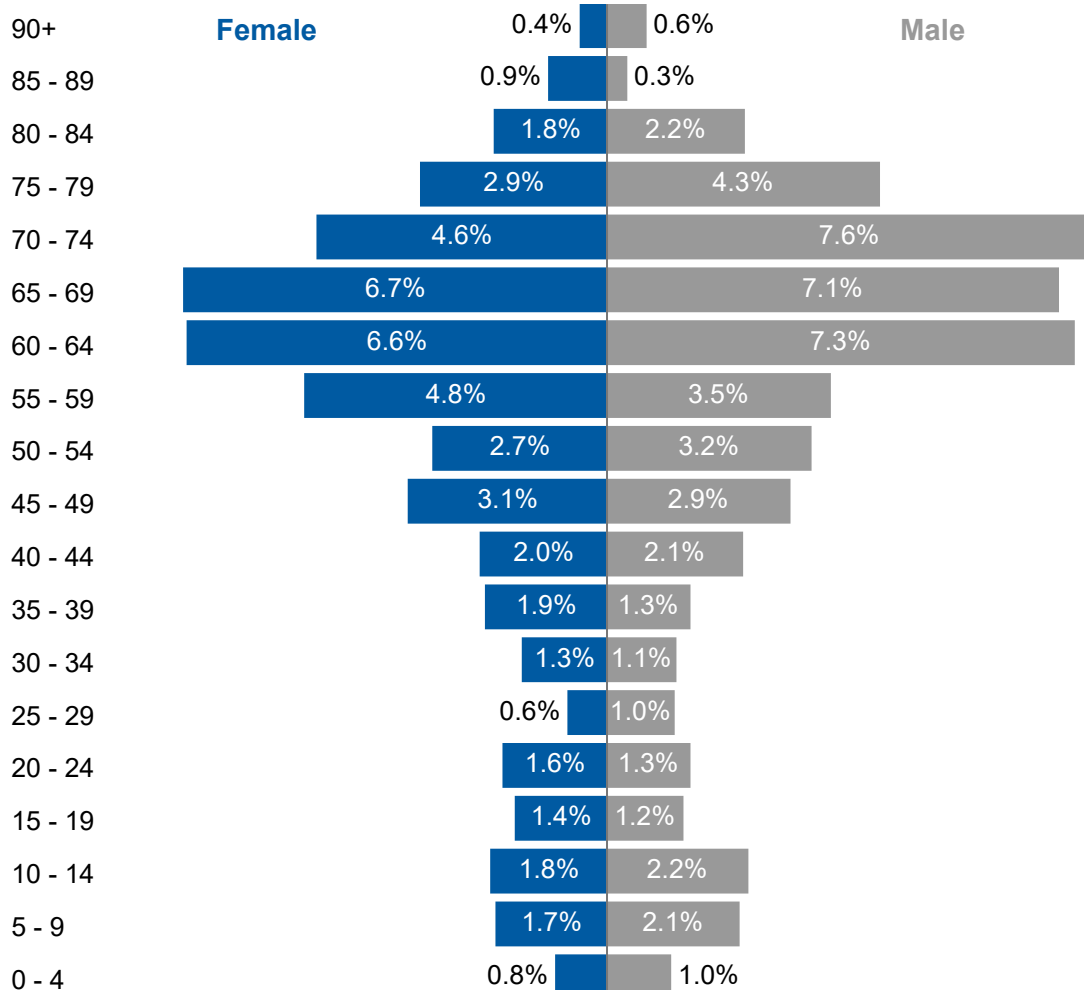


FIGURE 3. Population pyramids are commonly used by demographers to identify the age and gender make-up of a population. A pyramid with a wide base indicates a younger population, while a top heavy pyramid indicates an aging population with a longer life expectancy. The latter is becoming more common in developed nations with highly educated populations.

SOURCE. PEOPLE 2021, BC Stats



FIGURE 4. Median Age and Median Age at Death, 2021

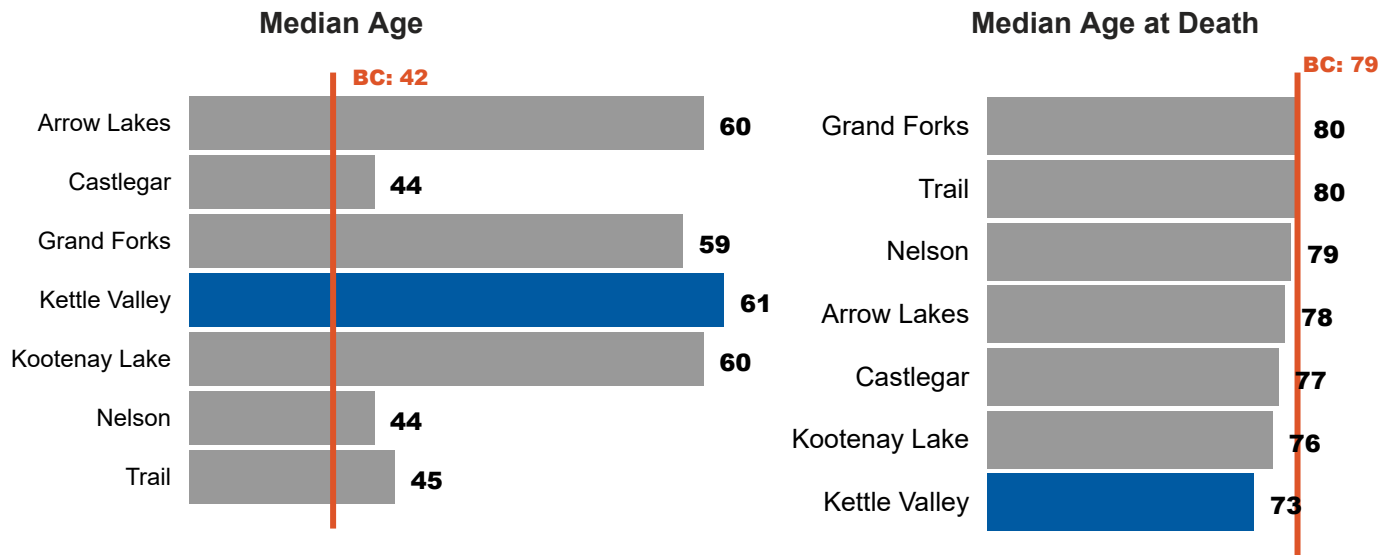


FIGURE 4. Median age (MA) and median age at death (MAD) indicate the age of a population compared to life expectancy in Local Health Areas. Median age at death varies by up to seven years depending on place of residence.

SOURCE. PEOPLE 2021, BC Stats, Population Health Surveillance and Epidemiology, Office of the Provincial Health Officer, September 2022

FIGURE 5. Standardized Mortality Ratio (SMR), 2021



FIGURE 5. Standardized Mortality Ratio (SMR) compares the number of deaths that occurred in a geographic region to the expected number of deaths for that region, based on provincial age specific mortality rates. This indicator is now being reported annually, rather than the aggregating of a 5 year period reported in previous years

SOURCE. Population Health Surveillance and Epidemiology, Office of the Provincial Health Officer, September 2022

FIGURE 6. Up-to-date Immunizations at 2 Years, 2021



FIGURE 6. The proportion of children with up-to-date immunizations at 2 years of age. For details visits [Childhood Immunization Coverage Dashboard](#).

SOURCE. Panorama, BC Centre for Disease Control



Health & Social Status

Health & Social Status provides a snapshot of indicators that reflect health and environmental conditions experienced by people across Interior Health. Some key indicators measure early childhood vulnerabilities, low birth weight, and chronic disease prevalence which represents a growing economic and health care concern.

TABLE 4. Vulnerable Kindergarten Aged Children, 2011 - 2019

| | Wave 5, 2011 - 2013 | Wave 6, 2013 - 2016 | Wave 7, 2016 - 2019 |
|------------------|---------------------|---------------------|---------------------|
| Kettle Valley | 39% | 42% | 43% |
| Interior Health | 30% | 30% | 32% |
| British Columbia | 33% | 32% | 33% |

TABLE 4. The Early Development Instrument (EDI) is a questionnaire that measures the vulnerability of kindergarten aged children across five domains: Physical Health & Well Being, Social Competence, Emotional Maturity, Language & Cognitive Ability, and Communication Skills & General Knowledge. Vulnerable kindergarten aged children refers to the proportion of children who are identified as vulnerable in one or more domains.

SOURCE. Early Development Instrument, Human Early Learning Partnership, University of British Columbia, Waves 5 - 7, 2011 - 2019

FIGURE 7. Percentage of Live Births, Weighing Less Than 2500g, 2019 - 2021

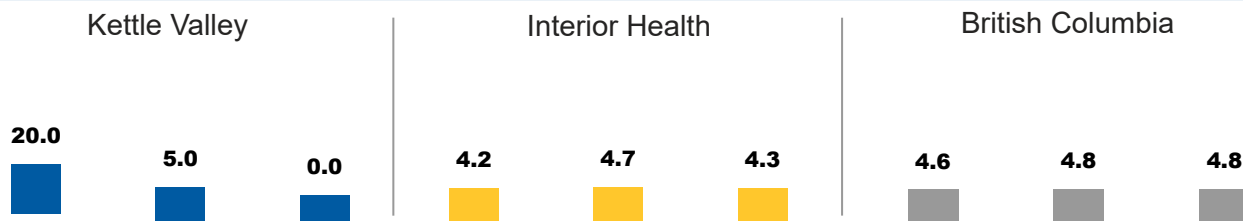


FIGURE 7. Measures the percentage of live births that weight less than 2500g . Low birth weight is an important indicator of mortality, morbidity, and disability in infancy and childhood. Risk factors associated with low birth weight include: socio-economic disadvantage, poor health and nutrition of women during pregnancy, smoking while pregnant, consumption of drugs and alcohol while pregnant, and experiencing abuse while pregnant.

SOURCE. Population Health Surveillance and Epidemiology, Office of the Provincial Health Officer, September 2022

FIGURE 8. Chronic Disease Crude Prevalence Rates, 2018/19

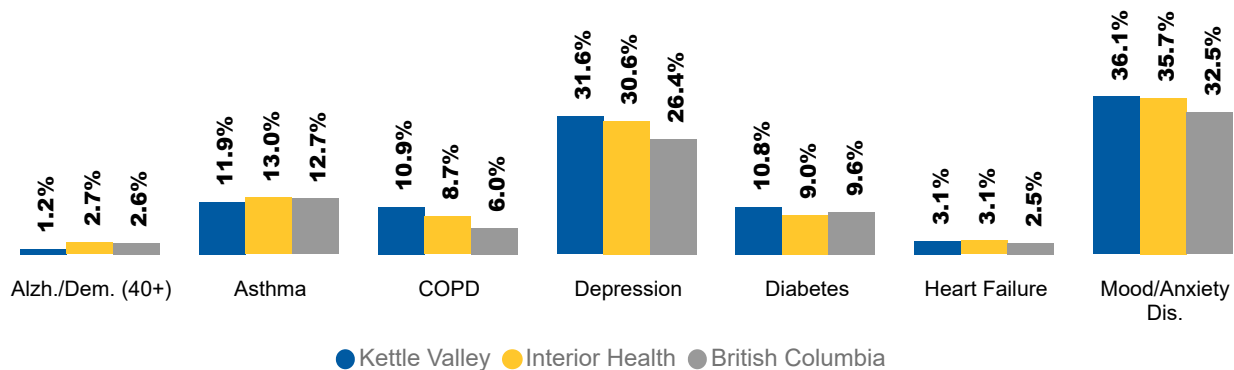


FIGURE 8. The chronic diseases displayed above represent health conditions affecting many Interior Health residents. As the Interior Health population ages, the prevalence of these diseases is expected to grow. The 2020 World Health Organization (WHO) report on noncommunicable disease identifies primary modifiable behavioral and metabolic risk factors including: tobacco use, unhealthy diet, lack of physical activity, harmful use of alcohol, obesity, raised blood pressure, and raised cholesterol. **Mood/Anxiety Dis:** Mood/Anxiety Disorder. **Alzh./Dem. (40+):** Alzheimer's/Dementia (40+).

SOURCE. Chronic Disease Registry, Ministry of Health, 2018/19; Population aged one year and older.



Acute Care

Acute Care indicators measure the quality of health care with regards to health service access, efficiency, and utilization. These indicators are often expressed as age standardized rates per 1,000 population. Age standardization facilitates comparisons of health care service use across a variety of geographic regions and accounts for differences in age distribution between populations.

FIGURE 9. Age Standardized Utilization Rates per 1,000 Population, 2018/19 - 2020/21

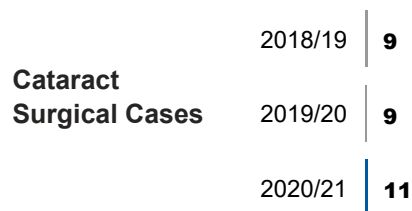
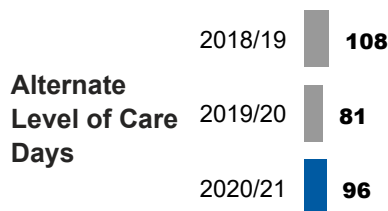
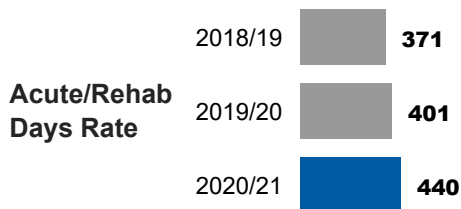
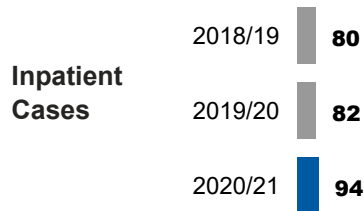
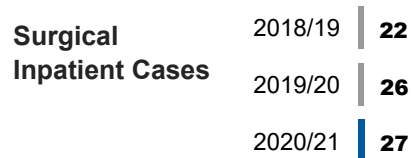
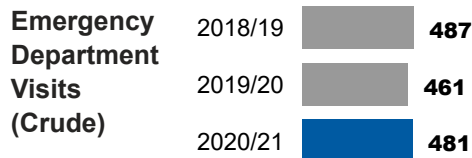


FIGURE 9. Age standardized utilization rates are used to compare health care service use across geographic regions with varying demographic profiles. These rates adjust for differences in age breakdowns of each (newborns excluded). They represent rates that would be observed if the region's population experienced the same age specific utilization rates as the entire province. Note that the ED visits rate is not age standardized and includes unscheduled visits to all EDs within a given LHA.

SOURCE. Health Ideas Summary Reports, Ministry of Health | PEOPLE 2021, BC Stats



FIGURE 10. Inpatient Referral Patterns by Hospital, 2020/21

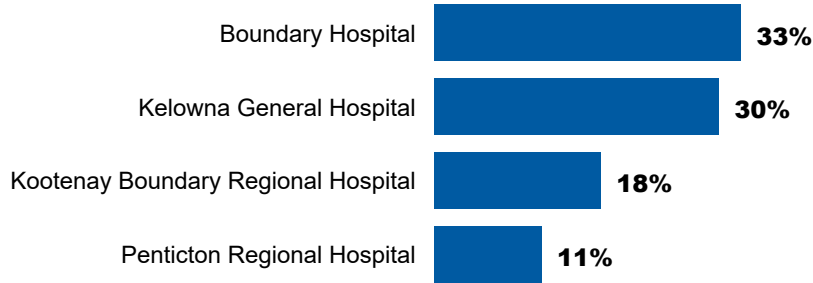


FIGURE 10. Inpatient referral patterns identify which hospitals residents from a LHA visit most frequently (newborns excluded). The horizontal bars show the proportion of inpatients who travel from a given LHA to each facility or region. Note that totals may not add up to 100 percent as only the most common hospitals are shown.

SOURCE. Discharge Abstracts Database (DAD), Ministry of Health, 2020/21

FIGURE 11. Acute/Rehab Days per 1,000 Population, 2016/17 - 2020/21

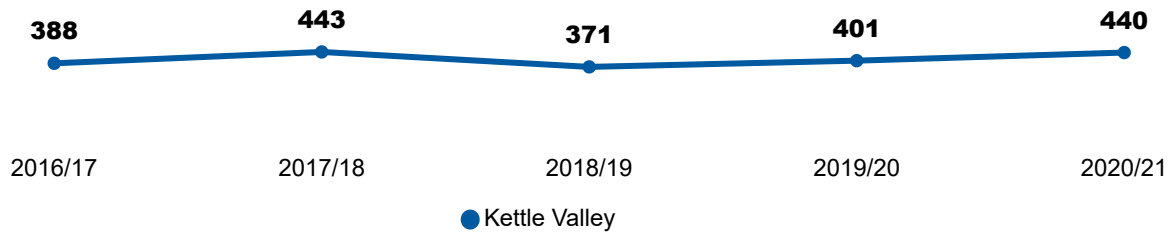


FIGURE 11. The age standardized Acute/Rehab days rate per 1,000 population rates indicate whether a LHA is performing as expected.

SOURCE. Health Ideas Summary Reports, Ministry of Health | PEOPLE 2021, BC Stats

FIGURE 12. ALC Days per 1,000 Population, 2016/17 - 2020/21

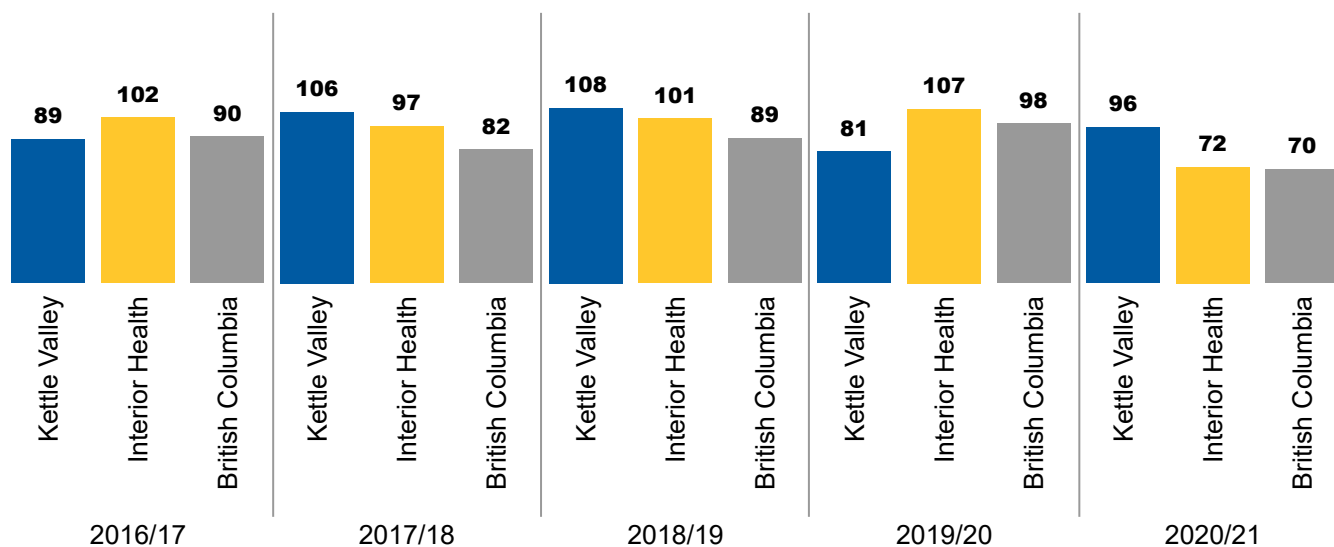


FIGURE 12. Alternate Level of Care (ALC) refers to the time that a patient spends in hospital after their acute care needs have been met. These patients remain in hospital due to lack of other care options. ALC days are an important measure of the appropriate use of acute care resources.

SOURCE. Health Ideas Summary Reports, Ministry of Health | PEOPLE 2021, BC Stats



Home & Community Care

Home & Community Care indicators represent Long-term Care and Home Health services provided by Interior Health. Home & Community Care offers a variety of at-home and community services to people with acute, chronic, palliative or rehabilitative health care needs. Interior Health supports the philosophy: at home, with appropriate supports, is the best place to recover from illness and injury, manage chronic conditions, and live out final days.

TABLE 5. Home & Community Care Quick Stats, 2018/19 - 2020/21

| Per 1,000 Population | | | | Per 1,000 Population, Ages 75+ | | | |
|---------------------------|---------|---------|---------|--------------------------------|---------|---------|---------|
| | 2018/19 | 2019/20 | 2020/21 | | 2018/19 | 2019/20 | 2020/21 |
| Case Managed Clients | 10 | 10 | 11 | Adult Day Service Clients | 3 | 5 | 0 |
| Case Managed Visits | 54 | 42 | 58 | Adult Day Service Days | 50 | 94 | 0 |
| Community Rehab Clients | 6 | 4 | 7 | Assisted Living Clients | 20 | 16 | 8 |
| Community Rehab Visits | 13 | 5 | 25 | Assisted Living Days | 3,494 | 2,461 | 1,853 |
| Home Care Nursing Clients | 20 | 19 | 22 | Home Support Clients | 80 | 69 | 68 |
| Home Care Nursing Visits | 206 | 222 | 288 | Home Support Hours | 12,862 | 11,624 | 9,366 |
| | | | | Long-term Care Days | 35,055 | 32,514 | 30,490 |

TABLE 5. Home & Community Care measures are based on the number of clients, visits, and days utilized per 1,000 population. Long-term care days include convalescent, respite, end of life, and complex care. Home support rates include long-term, short-term, and end of life care.

SOURCE. HCC Universe | PEOPLE 2021, BC Stats

FIGURE 13. Assisted Living, Long-term Care, & Short Stay Beds per 1,000 Population Ages 75+, 2019/20 - 2020/21

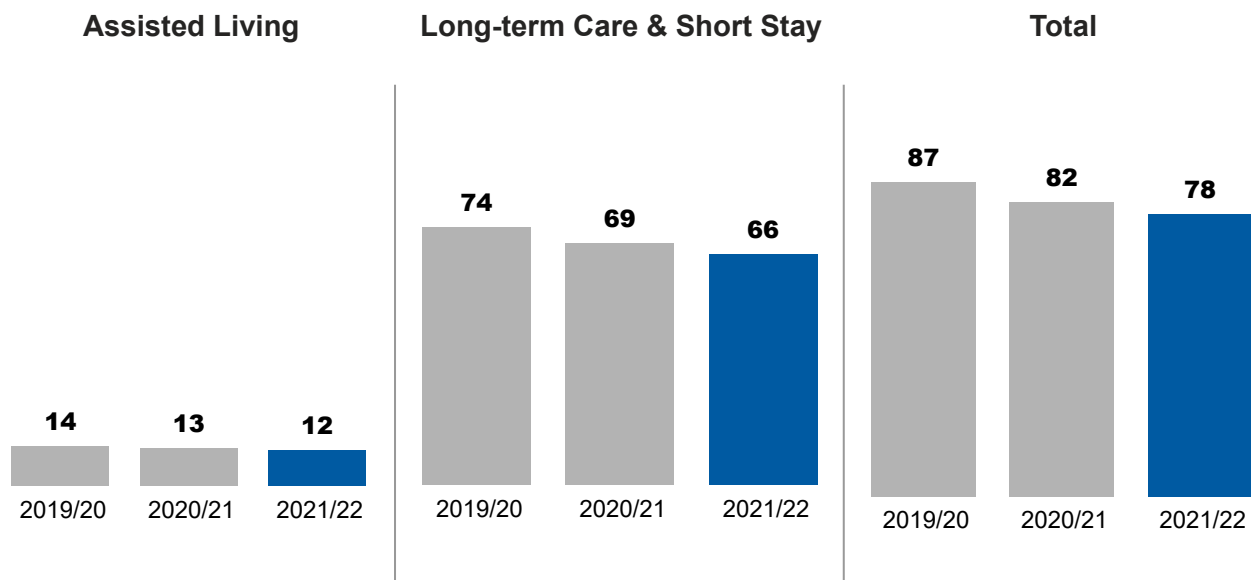


FIGURE 13. All bed counts include permanent and temporary beds and reflect the population ages 75+. Long-term care and short stay beds exclude family care and group home beds. Long-term care and short stay beds include convalescent, respite, end of life, and flex beds.

* Kettle Valley & Grand Forks LHAs have been grouped together; Nelson & Kootenay Lake LHAs have been grouped together due to small values.

SOURCE. Long-term Care Bed Inventory | PEOPLE 2021, BC Stats



Mental Health and Substance Use

Interior Health offers an array of community, acute and tertiary Mental Health and Substance Use (MHSU) services to people with mild, moderate or severe mental illnesses.

TABLE 6. Number of MHSU Beds, 2021/22



TABLE 6. Total MHSU bed count excludes room count, supported independent living beds, and BC Housing Unit and Provincial Health beds. Acute care delivers necessary treatment for disease or severe episode of illness for a short period of time. Community care is delivered in private homes, retirement communities, residential or long-term care homes, and community clinics. Tertiary care delivers highly specialized services designed for individuals with severe illness that have not responded to treatment.

SOURCE. MSHU Bed Information Reports - MoH Community Care Analytics

FIGURE 14. Number of Active MHSU Clients per 1,000 Population, 2018/19 - 2020/21

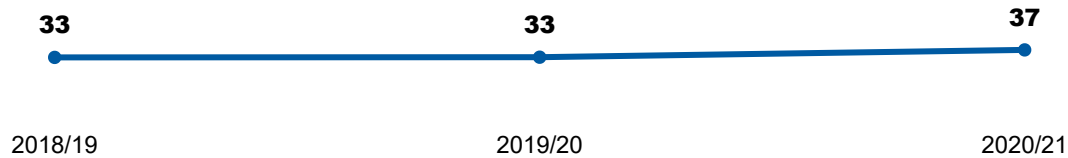


FIGURE 14. All population data is based on July 1st of the calendar year. Rates are calculated using active MHSU community clients.

SOURCE. IH Data Warehouse - MHSU Universe, PEOPLE 2021,BC.

TABLE 7. MHSU Community Service Days by Core Service, 2018/19 - 2020/21

| Core Service | 2018/19 | 2019/20 | 2020/21 |
|--|---------|---------|---------|
| Access | 335 | 300 | 411 |
| Counselling & Treatment Services | 292 | 241 | 348 |
| Intensive Case Management | 7 | | 2 |
| MHSU Crisis Response | 6 | 25 | 17 |
| Seniors Mental Health & Substance Use Services | 11 | 8 | 12 |
| Substance Use Counselling & Treatment Services | 121 | 172 | 116 |
| Treatment, Support & Recovery | 381 | 509 | 665 |

TABLE 7. A service day is a distinct date in which a charting instance was recorded on a clients file. MHSU community clients can be registered in multiple programs at one time and therefore could be counted in multiple fiscal years and categories.

SOURCE. IH Data Warehouse - MHSU Universe

TABLE 8. MHSU Community Active Clients by Core Service, 2018/19 - 2020/21

| Core Service | 2018/19 | 2019/20 | 2020/21 |
|--|---------|---------|---------|
| Access | 78 | 74 | 80 |
| Counselling & Treatment Services | 28 | 29 | 29 |
| Intensive Case Management | 2 | | 1 |
| MHSU Crisis Response | 4 | 9 | 8 |
| Seniors Mental Health & Substance Use Services | 1 | 1 | 1 |
| Substance Use Counselling & Treatment Services | 12 | 13 | 12 |
| Treatment, Support & Recovery | 23 | 22 | 29 |

TABLE 8. Active clients in MHSU community data are clients who had at least one service day in the fiscal year reported. Clients with an open registration, but with no activity were excluded.

SOURCE. IH Data Warehouse - MHSU Universe



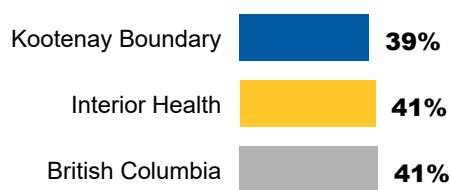
Health Characteristics

Health Characteristic indicators are derived from the Canadian Community Health Survey (CCHS), a cross-sectional survey about health status, health care utilization, and determinants of health. CCHS indicators are self-reported by survey respondents. In some cases, data quality is compromised by small sample sizes. This information is only available by the Health Service Delivery Area.

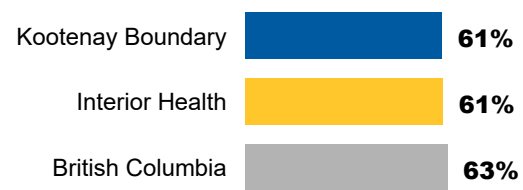
Kettle Valley is in the Kootenay Boundary Health Service Delivery Area.

FIGURE 15. Health Characteristic Indicators, 2019 - 2020

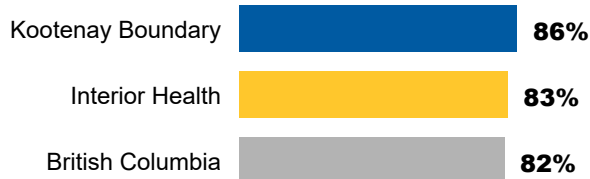
Body Mass Index Overweight/Obese (Ages 18+)



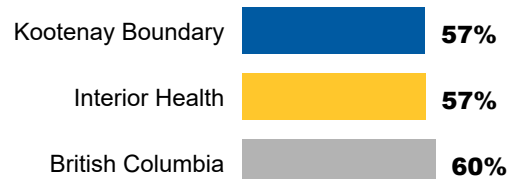
Mental Health, Very Good or Excellent



Has Regular Healthcare Provider



Health, Very Good or Excellent



Heavy Drinking



Smoking, Daily or Occasional

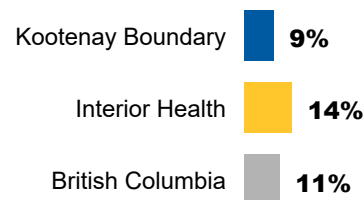


FIGURE 15. Health Characteristic Indicators provide self-reported information about the health of the individuals aged 12+, unless stated otherwise. The 'Fruit and Vegetable Consumption, less than 5 servings', 'Body Mass Index Overweight/Obese (Ages 18+)' and 'Physical Activity, Less Than 150 Mins/Week (Ages 18+)'.
SOURCE. Canadian Community Health Survey 2019 - 2020, Table 13-10-0113-01 (formerly CANSIM 105-0509).