Our Cowichan Communities Health Network

COWICHAN COMMUNITIES HEALTH PROFILE

January 2021

Acknowledgements

This report is an update to the June 2014 Cowichan Communities Health Profile and was developed by Our Cowichan Communities Health Network (Our Cowichan) and partners with support from Island Health. Our Cowichan would like to thank the community, key stakeholders and their organizations and associations for their role in developing this Health Profile for the Cowichan region. This profile provides an updated overview of the health and well-being of people in the Cowichan region and is intended as a framework for Our Cowichan and the many dedicated organizations throughout the region who are working to develop programs to improve the health of our communities and residents.

ABOUT OUR COWICHAN COMMUNITIES HEALTH NETWORK:

Our Cowichan Communities Health Network includes individuals, groups and organizations. We share a commitment to facilitating connections for good health within our communities. Our common ground is the 12 Key Determinants of Health adopted by the Public Health Agency of Canada.

For good health, people need more than good health care: they also need adequate income, employment, education, social connections and healthy places to live. In fact, all 12 Determinants interact and affect health. By considering the whole picture and working together, all people of Cowichan communities can enjoy better health.

VISION:

All people of the Cowichan Communities enjoy health and wellbeing.

MISSION:

We are a collaborative network of organizations and individuals who facilitate dialogue, learn, share information and generate action on the 12 determinants of health.

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Executive Summary

Project Summary

From 2019-2021, Island Health supported the Our Cowichan Communities Health Network (Our Cowichan) to update the Health Profile for the Cowichan region (an area coinciding with the Cowichan Valley Regional District boundaries) that was first completed in 2014 by Golder Associates Ltd. (Golder). The Health Profile is based on a framework of 12 Key Determinants of Health outlined by the Public Health Agency of Canada (2013). The profile incorporates an overview of all the determinants and how the region measures up to the province, the Regional District of Nanaimo, and the Island Health Region; and how sub-regions compare to each other (local health areas, census subdivisions, or school district boundaries).

This project serves to address the first goal of the OCCHN's strategic plan which is to establish priorities for evidence-based action.

Process

A Co-op student was hired to support the project, an update to the 2014 profile, in the Fall of 2019 (hosted by Island Health, with in-kind supervision from the Population Health Assessment, Surveillance and Epidemiology Team within the Office of the Chief Medical Health Officer). The project was overseen by a Health Profile Planning sub group of Our Cowichan. This work was completed in the Fall of 2020. The framework for the "12 Key Determinants" categories established in 2014 by Golder in collaboration with the Asset Mapping Committee of the network formed the basis for the 2014 Health Profile and was kept consistent for the 2021 Health Profile.

Data from secondary sources (Statistics Canada and Island Health) were updated where available. Literature review was undertaken to update the context and understanding for each of the 12 Key Determinants from the 2014 Health Profile.

Primary data collection to provide updated information from the 2014 community wide health survey has not yet been conducted at the time of publication of the 2021 Health Profile. The 2014 survey included base information on gender, age, community of residence, national origin; perception of personal health and wellness resources; and community physical environment being and health behaviours; access to healthy options and resources; and community physical environment.

Findings and Conclusions

Comparatively, the region is doing as well or better than the provincial average in many of the 12 Key Determinants; and where the region lags, the trend is generally toward improvement.

Health Status

Overall Life expectancy at birth has consistently been lower in the Cowichan Valley compared to Island Health and BC. After a steady improvement over the past 25 years, life expectancy decreased between 2016 and 2018 but increased in 2019 with rates comparable to Island Health.

Areas where improvements are needed in population health status include addressing rates of teen mothers, preterm births, low birth weight babies and the proportion of women who smoke during pregnancy. The region experiences high rates of child hospitalizations for injuries and poisoning (Cowichan Valley South and West), high rates of child respiratory disease hospitalizations (all Cowichan LHAs), high rate of circulatory diseases (all Cowichan LHAs), and a high rate of alcohol related deaths (all Cowichan LHAs).

Income and Social Status

The Income inequality gap has narrowed with a slight increase. Median household and median individual incomes have increased in the CVRD in the general and Aboriginal population (Except Duncan). Median income of lone parent families has increased.

The percentage of the population receiving temporary income assistance has decreased, while the percentage of population receiving disability assistance has increased.

The percentage of people, children and youth in the CVRD who are low income has remained steady, with the highest rates in Duncan.

Employment and Working Conditions

The labour force participation rate for the general population was stable in the CVRD with similar averages, with the lowest labour participation rate in Duncan. The percentage of labour force in full time positions decreased while the Employment Insurance (EI) recipient rate declined but remained above the provincial average. Duncan has had a consistently higher business formation rate compared to the CVRD and BC since 2014.

Education and Literacy

High school graduation rates in the Nanaimo Ladysmith School District and Cowichan Valley School District remain little changed since 2008. Although the rate is improving, many of the Aboriginal population are without a high school diploma.

Childhood Experiences

The Early Development Instrument (EDI), which measures vulnerability in one or more domain of early childhood development, has worsened for the Cowichan Valley South, remained constant in Cowichan Valley North (Ladysmith) and improved in Cowichan Valley West (Lake Cowichan).

The number of children and youth in need of protection is significantly higher in Cowichan Valley North. The number of children and youth in care was also significantly higher across all three Cowichan LHAs compared to provincial and Island Health averages. The Cowichan and Ladysmith LHAs had over twice as many children in care than the provincial rate.

Physical Environments

Settlement patterns in the region are primarily low density with a limited number of areas with sufficiently high densities and land use mixes to support and encourage active forms of transportation such as walking and cycling. Duncan had the highest proportion of the labour forces biking, walking or taking public transit as their main mode of commuting to work compared to all other areas in Cowichan.

Air and water quality are important environmental concerns. The population affected by total boil days is higher in the Cowichan Valley compared to Island Health.

Crime rates increased in the Cowichan region, with property crime rates and crimes against the person increasing between 2018 and 2019.

The proportion of housing in need of repair was highest in Duncan and Lake Cowichan. Home ownership rates remained steady and the percentage of owner and tenant households spending 30% or more of their income on shelter decreased.

Social Supports and Coping Skills

In the CVRD, 15% of families were lone-parent families. The city of Duncan had the highest proportion of both female and male lone parents in 2016.

The City of Duncan reported the highest proportion of seniors living alone with nearly half of all seniors living alone, well above the provincial average.

The region's most recent homelessness survey (2020) identified 129 individuals who were experiencing homelessness, which is likely an underestimate due to the lack of access to communities because of the COVID-29 pandemic.

The average monthly food cost was $1,019 in 2017, which has increased substantially since 2011.

There was on average 920 domestic violence incidents between 2016-2018 with women predominantly being victims of abuse.

Voter turnout in the CVRD has been stronger for provincial elections compared to local elections.

Healthy Behaviours

Breastfeeding rates at 1 week, 6 months and 12 months were highest in Duncan and comparable to Island Health rates. Breastfeeding rates were lower in Cowichan and Ladysmith and below Island Health rates.

The percentage of women who smoked during pregnancy was highest in Cowichan West and South; Cowichan North had a similar rate to the Island Health rate.

Health Services

The Ladysmith LHA had higher proportions of emergency visits per 1,000 for every age group compared to the Vancouver Island average.

Biology and Genetic Endowment

No relevant issues were identified for this project.

Gender

It is noted that women's median income earnings are lower than men's, a trend that is similar to provincial and national norms.

Culture

Racism and cultural misunderstandings between health professionals and the patient increase the likelihood of poorer health status, marginalization within the health care system and increased risk of and experiences of racism for this population.

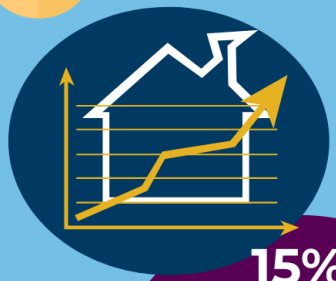
Race/Racism

This is the latest addition to the determinants of health framework and we are just at the beginning of the journey to gather and assess the data. In the words of Gwen Phillips (Ktunaxa Nation), "We are not measuring race, we are measuring racism. Racism is a systems failure; that must be made clear when talking about race-based data." She goes on to add that it requires a shift of our frame for data gathering and analysis from a paternalistic "Big Brother" model to the "grandmother perspective"; a shift from control to care.

We will aspire to work towards the recommendations we are reading in the Document from British Columbia's Office of the Human Rights Commissioner to the Province of BC, titled "Disaggregated demographic data collected in British Columbia: The grandmother perspective" (September. 2020) https://bchumanrights.ca/wp-content/uploads/BCOHRC_Sept2020_Disaggregated-Data-Report_FINAL.pdf

OBSERVATIONS AND CONCLUSIONS

Income and Social Status



2010-2015
Median Income of households, individuals and lone parent families have increased in the CVRD

15%
of people in the CVRD were low income in 2015
Duncan: 28% (highest)
Ladysmith 11.8% (lowest)

21%
of children and youth in the CVRD were living in low income families in 2015

Employment and Working Conditions

2014-2019
Business formations in Duncan were highest

47%
Worked full-time in the CVRD
% of labour force in full-time positions decreased from 2011-2016

Labour Force Participation
CVRD
57%
Aboriginal
54%

EI Rate
EI recipient rate in CVRD declined from 2014 to 2019

Education and Literacy

High school completion rates (Cowichan Valley School District)

All Students
81%
Indigenous Students
58%
CVRD
18%

Ladysmith had the highest proportion with post -secondary qualification
Lake Cowichan: lowest

Without highschool diploma:
Duncan: highest (23%)

Childhood Experiences

2016-2019
Cowichan Valley North and South have the highest percentage of children that were vulnerable on the EDI index

2018
All the cowichan areas had higher numbers of children and youth in need of care

OBSERVATIONS AND CONCLUSIONS

Physical Environments

77% owned a home in the CVRD in 2016

Housing Affordability increased for home owners and tenants in 2016

The proportion of houses needing repair was higher in the CVRD than the provincial average in 2016

2017-2019
Boil water days affected more people in the Cowichan Valley than Island Health

Healthy Behaviours

More women reported smoking while pregnant in all three Cowichan areas

The Cowichan Valley had lower breastfeeding rates in 2018 to 2019 than Island Health

Alcohol sales in Cowichan Valley West/Lake Cowichan were higher than BC, 2014-2018

Social Supports and Coping Skills

61% of individuals in the CVRD were married or common-law in 2016

43.4% Duncan: lowest

Seniors living alone
24% CVRD 2016
50% Duncan 2016

Duncan had the highest female and male lone parent families in 2016

15% of families in the CVRD were lone-parent

Health Services

The Cowichan Valley had a higher rate of GP Attachment

The Cowichan Valley had higher number of unscheduled emergency room and urgent care visits

Gender

Women in the CVRD are less likely to be employed, are less likely to hold a full-time job and earn less money compared to their male counterparts

Current Strengths and Areas to be Addressed

To augment the data within this document it is important to describe the positive, initiatives undertaken in the Cowichan Region and efforts still required to address gaps.

Key Determinant 1: Income and Social Status

Reflection on Strengths

In 2018, Economic Development Cowichan embarked on an ambitious 4-year Strategic Plan to refine the focus of economic development in the region. In this time, Cobble Hill, Cowichan Bay, and Shawnigan Village have all completed Design Charrettes, generating community-led visions of future development. 2018 saw publication of the Ladysmith Economic Development Strategy, and the Cowichan Lake Region now has a Hiking & Cycling Tourism Action Plan.

The 2019 Cowichan Industrial Land Use Strategy is being used to help identify employment opportunities and shape the future of land use in the region.

The Cowichan Tech Strategy (2017) provided a blueprint for the burgeoning tech ecosystem in Cowichan. Implementation of the strategy is underway on several fronts to support growth of secure high-paying jobs in Cowichan.

Within Agriculture, the BC Landmatching Program was establishedwith the support of the Cowichan Valley Regional District and others, providing land matching and business support services to new farmers looking for land to farm, and landowners seeking someone to farm their land. Cowichan also continues to advance food processing capacity in the region.

In 2020, the wine industry celebrated recognition of the Cowichan Valley sub-geographical indication (sub-GI), an official and protected term under B.C. law used to help consumers identify B.C. wines.

The valley hosts premier outdoor concerts, Annual Duncan Daze, 151 years of Cowichan Exhibition, 111 years of Cobble Hill Fair, 33 years of Ladysmith Festival of Lights all which draw thousands of participants and boost local economies

Since 2017, Cowichan sub-regions and Indigenous communities have continued to have a proactive approach to shaping their economic future.

Meanwhile, Cowichan area First Nations have made significant economic development advances, including Coast Salish Development Corporation's significant progress on the Stz'uminus First Nation's Oyster Bay Development, Malahat Nation's Malahat Business Park and the Malahat Skywalk, and Cowichan Tribes adopting a land code.

Areas for Improvement

For a strong economy and healthy Income and Social Status, planning and development must include local governments, First Nations, community partners, and businesses using a collective impact lens to enhance opportunities among sectors and communities. A regional poverty reduction strategy should also be explored.

Key Determinant 2: Employment and Working Conditions

Reflection on Strengths

The number of businesses and employment opportunities continues to grow.

The Cowichan Campus of Vancouver Island University provides trades training for local students in partnership with school districts.

Significant employers supporting the economic foundation of Cowichan communities include industries such as Catalyst, Western Forest Products, and Mosaic Forest Management. Other large employers include Cowichan Tribes, Island Health, School Districts 79 and 68, Local Governments, and a growing retail sector. Small business remains a critical asset, responsible for many jobs across the region.

Areas for Improvement

The percentage of the labour force in part-time positions increased from 2011 to 2016 in the Cowichan Valley, with 58.1% of people working part-time. Transition of part time positions into more full-time positions would improve the ability to earn a living wage in the region.

Key Determinant 3: Education and Literacy

Reflection on Strengths

The BC Ministry of Education recognizes the rapid pace of change and is modernizing the BC curriculum to better prepare our children for the future. School District 79 has recently completed their strategic plan, Our Story is Beyond Education, built on recent transformational work within the district that supports its priorities.

This Strategic Plan was developed through the most comprehensive, future-focused engagement exercise the District has ever undertaken, in which learners, staff, parents, and community shared their vision for the future.

School District 68 (Nanaimo/Ladysmith), has also worked to complete their strategic plan to help lead student learners into the future with their 2019-2023 Strategic Plan.

Literacy goes beyond reading, writing, and numeracy. Physical literacy is a key component of healthy lifestyles and lifelong activity. The efforts of Play Cowichan to enhance physical literacy across the region is an asset.

Quw'utsun Smun'eem (Our Cowichan Children) Elementary School opened its current school in May 2003. Quw'utsun Smun'eem now teaches Kindergarten to Grade Four in six classrooms. Quw'utsun Smun'eem staff have worked diligently to develop an academic program that focuses on improving reading and math, emphasizing literacy, and integrating Cowichan teachings and the Hul'qumi'num language into the curriculum. Quw'utsun Smun'eem is a community school, with parents helping in special events throughout the year.

Areas for Improvement

Funding for many literacy programs has decreased over the past number of years, including cancellation of the Success By 6 and Make Children First initiatives. Advocating for early childhood specialists and other community resources for early literacy programming will greatly improve the future success and wellbeing of children and youth in the region.

Our School Districts' continued efforts to support Indigenous learning environments and success improving graduation rates remains a priority.

Key Determinant 4: Childhood Experiences

Reflection on Strengths

Many children can play and explore in the open spaces, forests, and beaches found throughout the region.

The many amazing programs and services in the Cowichan Region for early childhood development include arts, drama, music, sports, and other activities. Early learning programs such as Wendy's House Play and Discovery Centre, StrongStart early learning programs, Ladysmith Family and Friends, Mother Goose Programs, Born Healthy, Le'lum'uylh Child Development Centre, Sundrops Child Development Centre and many other local organizations and resources support children and their families. Most programs are free or accept small donations from those who are able to contribute, and many provide healthy food and clothing for those who may require it.

Collaborative initiatives such as Play Cowichan (Physical Literacy) bring together local governments, Our Cowichan Health Network, School Districts, Recreation, Cowichan area First Nations, Early Childhood Educators and Island Health to coordinate and enhance physical activities, policies and opportunities for children. Engagement of different cultures and minority populations in recreation and organized sports support healthy futures for all. Outdoor recreation and organized sports can be found across the Cowichan Region but not all are affordable or accessible for some.

Cowichan Intercultural Society provides child care and child minding so newcomer parents can take language classes and programs to aid their integrating into Canadian society.

Areas for Improvement

Work has begun to bring stakeholders together to address the disproportionate number of child apprehensions in the Cowichan region. Continued efforts to reduce poverty and inadequate housing, to enhance maternal health, to strengthen families, and to reduce apprehensions are critical.

One in five families in the Cowichan region have an unmet need for child care. Recommendations outlined in Cowichan Region Child Care Plan include a need for 765 additional spaces over the next 10 years (290 infant and toddler, 108 preschool and 367 school aged). Safe, accessible and affordable child care requires access to a living wage, professional training and development for early childhood educators.

The loss of initiatives such as Success By 6 and Make Children First along with funding and service cuts have seriously affected parents and families with young children. Collective efforts to build capacity within the early childhood sector should remain a priority.

All programs, services, and supports must consider the inclusion of children with special needs and cultural diversity.

Key Determinant 5: Physical Environments

Reflection on Strengths

Cowichan boasts abundant natural beauty, world class recreation, mountain biking and hiking trails, winning wineries, craft breweries and distilleries. Its residents respect and appreciate nature and seek to protect it. Numerous groups, agencies, and volunteers, including Somenos Marsh Society, Gary Oak Reserves, Cowichan Estuary Nature Centre, Cowichan Watershed Stewardship, and Cowichan Regional Airshed Roundtable, are working to protect, create, and maintain our resources. The Cowichan Land Trust holds 28 conservation covenants in the CVRD. Policy changes to reduce open burning and enhancements to alternatives for reducing land/yard waste have been undertaken across the Cowichan Region. Provincial and local policies have been developed to protect watersheds, parks, and natural environments.

A 2018 municipal election referendum in the CVRD created a housing service. In addition to direct rental support, permanent affordable housing units and apartments will increase throughout the region.

Areas for Improvement

Preparation for climate change over time needs to consider drought, water pollution, extreme weather events, land development, food security, air pollution and loss of wildlife. Stewardship of our lakes, rivers, and watersheds to mitigate climate change impacts requires all levels of government and community involvement. Enhanced community education regarding climate change needs to come from all levels of government, and must include our youth as environmental stewards to encourage behaviour changes in generations that follow.

Increased transit ridership is required for a robust system and expansion of routes within the region.

Key Determinant 6: Social Supports and Coping Skills

Reflection on Strengths

Small communities, close neighbourhoods, and people coming together to give back to those in need are a foundation of the Cowichan region. People of all ages engage in many sport and outdoor activities, gather to support each other, and often take on multiple roles. Cowichan boasts strong volunteer, non-profit, and grass roots sectors. Collaboration is a strength across the region, illustrated by the new Hospice House, opening in the fall of 2020, for which over $9.6 million dollars was raised in community. Other examples include the community support of Nourish Cowichan that feeds hundreds of school children and their families each year, or Meals on the Ground, 100% run by caring community members who feed homeless people every week.

Community, local government, and health services often work together in Collective Impact Initiatives. Multiple community partners are engaged in the Eldercare Project in Cowichan (EPIC), Play Cowichan-Physical Literacy, Cowichan Community Action Team, Cowichan Housing and Homelessness Coalition, and Our Cowichan Communities Health Network, bringing together many local organizations, local governments, Health and community members to explore health issues, identify health concerns, plan actions that enhance healthy living, health care, and health service delivery. Policy changes and regional actions from collective efforts have been able to bring resources and programs to the region that benefit many.

Areas for Improvement

Collaborative efforts in health, education, and community services are required for early identification and treatment for those who experience anxiety and depression. Public awareness campaigns are needed to reduce stigma and highlight the importance of mental health.

Misinformation and stigma can negatively affect those struggling for support. More public dialogues are required to improve engagement and communications among sectors and the broader public.

Joint planning and funding of initiatives and projects will help to reduce duplication and increase resources where needed. Financial and human resources capacity are required for agencies, local governments, and health to better work together.

Key Determinant 7: Healthy Behaviours

Reflection on Strengths

Use of the Overdose Prevention Site in the Cowichan region is higher compared to other Vancouver Island communities. Harm reduction measures are saving lives. The caring relationships between staff and community members has been key in the success of the program.

Smoking rates have a profound impact on citizens across all communities, especially pregnant women. Efforts to implement or update smoking bylaws have begun in the City of Duncan and Town of Ladysmith, and further cessation and awareness strategies are under development.

The participation of children, youth, and adults in recreation and sports is evident throughout the region in both organized and unorganized activities.

Areas for Improvement

Schools provide some of the only meals that some children have during the day due to poverty and/or unemployment. Ongoing efforts via Nourish Cowichan, the Starfish Back Pack program, and supports offered via Cowichan Green Community and school districts require the ongoing support of governments and communities.

The Cowichan Region exceeds the BC average in mood and anxiety disorders, depression, hypertension, asthma, and chronic obstructive pulmonary disease. Preventive measures in early intervention, public health, community resources and supports are required by all. Historically Cowichan has been underserved in relation to mental health supports and services, and although this is improving it requires resources to meet demand. Collaborative efforts that include partnerships in health, education, and community services are required for early identification and treatment to address anxiety and depression. Public awareness campaigns are needed to reduce stigma and highlight the importance of mental health.

31% of youth report vaping, with a growing number using nicotine products. Enhanced collective efforts are needed to increase education and reduce youth vaping. Increased enforcement and improved policies are required regarding marketing and targeting youth to prohibit youth purchase of vaping products and to remove nicotine from vaping products.

Providing opportunities for supervised consumption and access to harm reduction in communities outside of the downtown Duncan area will enhance services and improve access across the region while reducing the impact on a single neighbourhood.

A wholistic approach across the social determinants of health to address healthy behaviours and modifiable risk factors require collaboration and multiple approaches. Building on the foundation of current collective impact initiatives and providing capacity for expansion will result in healthier outcomes in the future.

Key Determinant 8: Health Services

Reflection on Strengths

In recent years, community partners in health and social services have enhanced coordination to improve community members' access to the necessities of life, and to services and amenities to stay healthy. With a strong network of stakeholders, Our Cowichan and multiple partners in health, government, and community can identify gaps and collaborate with agencies and institutions to align to meet the needs of community members across the social determinants of health. The Cowichan Primary Care Network (PCN), funded by the British Columbia Ministry of Health and the result of a partnership of the Cowichan Division of Family Practice, Island Health, First Nations Health Authority (with participation from Cowichan Tribes, Stz'uminus, Penelakut, Dididaht, Malahat, Pacheedaht, Halalt, Lyackson and Lake Cowichan First Nations), Our Cowichan and many other community groups, has moved from the planning stages into the "early action" or implementation stage. PCNs are intended make it easier to find a primary care provider (Physicians or Nurse Practitioners) as we know many people in Cowichan do not have one and as a result rely on walk in clinics or emergency departments when they need health care. The PCN also aims to improve access so that you can see your provider when you need to and that you feel safe from a cultural perspective. Significant efforts and funding have been allocated to the Cowichan region and include the following:

- Purchase of the land for the new Cowichan District Hospital which is now in the planning phase;
- Sobering and Assessment Centre 2016;
- Overdose Prevention Site 2017;
- Cowichan's own Medical Health Officer 2017;
- Cowichan Hospice House 2020;
- Mental Health and Substance Use Wellness Centre 2021;
- Primary Care Network supporting unattached patients, 2020; and
- Extensive work with Island Health in Health and Care Planning Ongoing.

Areas for Improvement

Mental Health supports including early identification and interventions must be enhanced beginning in childhood. There is a need to address stigma in relation to mental health at a regional level. Awareness and anti-stigma campaigns will help those struggling with mild to moderate mental health challenges to reach out.

COPD and asthma remain disproportionality high in the Cowichan Region; continued efforts are required to address open burning and the impact of pm2.5 from woodstoves, and educational campaigns and cessation initiatives in relation to smoking and vaping products should be enhanced.

Alcohol and substance misuse continue to have a significant impact on many in the Cowichan Region. An integrated system that includes early identification, access to treatment, opioid agonist therapy, mental health services, and recovery support should be enhanced. Regional campaigns to address the impacts of trauma and stigma is a first step in addressing addiction.

Attracting more physicians, health providers and specialists to meet the growing population and needs in our region continues to be a challenge. Promoting the Cowichan Valley and its assets as well as access to housing and child care will help to draw new professionals to our region.

Key Determinant 9: Biology and Genetic Endowment

No relevant issues were identified.

Key Determinant 10: Gender

Reflection on Strengths

Representation in our local governments, (directors, councillors and mayors) is close to equal between males and females in this current term.

Gender is more than being born or identifying as male or female, and awareness and acceptance of the LGBTQ2+ community continues to grow. In 2019 the Cowichan Pride Society was established. Local governments acknowledge the LGBTQ2+ community with pride flags flown at government buildings and institutions, and painting rainbow sidewalks throughout the region. The first Cowichan Pride Festival was held in 2019 in Duncan led by youth, and the Sylvan United Church hosts an Affirmation Celebration.

Areas for Improvement

Foundational and ongoing training and education about working with people who identify as LGBTQ2+ should be expanded. This should include education built into all community organizations' on-boarding process. Hiring and employment efforts should ensure that an organization's staff reflects the diversity of the community being served.

Education and awareness of opportunities for women in the workforce is critical, as they are less likely to hold full time employment.

Key Determinant 11: Culture

Reflection on Strengths

The Cowichan region includes eight First Nations Communities as well as Métis residents, of which Cowichan Tribes with over 4900 members, is the largest in British Columbia. Traditional language and cultural customs are alive and celebrated, and elders are active and respected. Members are supported by strong communities that take care of each other. Reawakening culture, song, dance, language and heritage is growing each year.

Cowichan has an active and robust intercultural community with many newcomers moving into the region each year. The Cowichan Intercultural Society has provided over 35 years of immigrant and settler services. Committed volunteers help newcomers find employment, fill out documents to reunite with families, and arrange interpreters. Others teach cross cultural awareness through schools and community events. 21 staff speak more than 10 languages, and in 2018-2019 served 430 clients. Multiculturalism has been a long-standing asset to the Cowichan region as the Paldi Sikh Temple celebrated its 100th year in 2019. The Sikh community continues to work together and recently provided over 800 meals to frontline staff during the initial days of the COVID Crisis.

The region boasts arts and cultural societies, festival of murals, totem tours, fine arts shows and the Cowichan Valley Performing Arts Foundation enriches the lives of Cowichan Valley youth through bursaries and scholarships dedicated to performing arts.

Areas for Improvement

Support for programs that include cultural teachings, song, dance, and food within early childhood and school programs to enhance knowledge of others is important in helping to build an equitable and inclusive community. Efforts to highlight and share traditional stories, food, and teachings within the context of our organizations throughout the community should be continued.

There is a need to enhance regional opportunities for cultural events, activities and to come together to learn and celebrate differences.

Collectively, we must continue to learn about the Colonial history of Indigenous people to better understand the importance and significance of First Nations culture in our region, and to find ways to answer the Truth and Reconciliation Calls to Action.

The Cowichan region is rich in history but development can be very damaging. Protecting and preserving cultural sites, historical buildings and artifacts will help to connect community members to the richness of the diversity of those who were here before us.

Key Determinant 12: Race / Racism

Reflection on Strengths

We live, work and play on the traditional, unceded territories of eight First Nations: Cowichan (Cowichan Tribes), Ditidaht, Penelakut, Halalt, Stz'uminus, Lake Cowichan, Lyackson and Malahat. Racism and racial discrimination is completely unacceptable. We have a long way to go in ending racism, but as we learn more, we progress in our efforts to promote acceptance of all people.

Many efforts have been made to bring together Indigenous and Non-Indigenous community members to improve cultural knowledge and relationships with Cowichan communities. Through the Cultural Connections program, Cowichan residents have come together to learn about colonization and its impact on Indigenous people. Over 12,000 people have participated in the Village Project: Journey of Our Generation workshops, including most Grade 10s in School District 79. Government officials and community leaders have participated in Hul'qumi'num language classes. Several hundred people have participated in Cowichan 101 activities like canoe trips, field trips and medicine walks and gatherings such as the Q'ushin'tul gathering. The Stz'uminus Nation Health Centre (S'ulxen:n) and FNHA (regional office located at Oyster Bay) participate in the Ladysmith Interagency Committee co-hosted by LRCA and the Ladysmith CHC. This has resulted in collaborative food security programs and plans for future community dialogues with Stz'uminus members. School District 68 (Ladysmith) has implemented new land and language-based learning programs and is creating policy and procedures around Indigenous students as a lens for all future policy-making.

Areas for Improvement

We will work to better address systemic racism by providing space for conversation, to learn, to identify where racism exists, and to act to change our ways.

In the spring of 2020, a global movement was ignited to end institutionalized and systemic racism; this resonated deeply with many in this region. Colonial practices, language and policies are embedded within our communities, organizations and institutions. We acknowledge that there are impacts of racism in our region. We have more to learn about the profound extent of racism.

It is recommended that local governments and community partners work with the Cowichan Intercultural Society on the Equity and Inclusion Task Force and support the mechanism for consultation with a network of groups and individuals involved in the struggle against racism and discrimination (e.g., NGOs, Aboriginal organizations, youth, artists, police services, the judiciary, provincial and territorial human rights commissions *etc.*).

Establish and support, in collaboration with community organizations, a monitoring and rapid response system or network to identify and respond to acts of racism, hate crimes, and incidents, including bringing such incidents to the attention of the appropriate authorities.

Introduction

Project Overview

Our Cowichan Communities Health Network (OCCHN) was established in 2009 to facilitate a sense of shared responsibility for the region's overall health and well-being and to improve the quality of health-related decisions and health services within the Cowichan region.

The OCCHN's Three Year Strategic Plan (2019-2022) has five goals:

1. Establish priorities for evidence-based action,
2. Advance community education on prevention, wellness and health promotion,
3. Advocate for appropriate health services for all citizens
4. Leverage existing resources, and
5. Enhance the network's operations.

As part of the OCCHN's mission to act as a local catalyst for action, OCCHN developed a health determinants profile for the Cowichan region, geographically coinciding with the Cowichan Valley Regional District (CVRD). This work was initially undertaken in 2014 by Golder Associates Ltd. (Golder) and updated with the support of Island Health in 2019/20. This profile provides a tool for Cowichan region residents, agencies and community leadership to help identify factors that may need attention in order to improve local health and well-being. This report presents the status of factors in the Cowichan region that comprise the determinants of health recognised by the Public Health Agency of Canada (Public Health Agency of Canada, 2013). It is acknowledged there have been changes to Key Determinants of Health Frameworks since 2013, by the Public Health Agency Canada as well as other national, international and local agencies. These frameworks may categorize the determinants of health into different domains than the framework used in this document.

According to the World Health Organization, the promotion of health goes beyond mere health care; health cannot be separated from other policy objectives. The way society functions and is organized also has implications for peoples' health, including work and leisure (World Health Organization, 2014a).

The Senate Sub-Committee on Population Health estimated that 50% of a population's health status is attributable to social and economic conditions, with the health system accounting for 25%, biology and genetics endowment for 15%, and physical environment for 10% (The Standing Senate Committee on Social Affairs, Science and Technology, 2009). In Canada, health and socio-economic status are highly correlated, with the largest health disparities seen in the First Nations and Métis population (de Laplante et al., 2013).

This health profile is intended to be a "living document" to guide health and wellness planning throughout the Cowichan region.

The OCCHN website (www.ourcchn.ca) lists a wide range of community assets and links to the Pathways Community Service Directory (https://pathwaysbc.ca/cowichan).

Data Sources

Available data were reviewed at the local and sub-regional level and an online review of related academic literature and similar studies was conducted to develop the indicators for inclusion in this project.

Secondary data sources include:

- Statistics Canada Census and National Household Survey Profiles (2011, 2016)
- Statistics Canada Aboriginal Population Profile (2016)
- Statistics Canada, Canadian Community Health Survey (2017/18)
- British Columbia (BC) Statistics
- British Columbia (BC) Vital Statistics Agency
- BC Assessment Authority
- BC Ministry of Education
- Social Planning Cowichan
- Cowichan Green Community
- University of British Columbia's Human Early Learning Partnership (UBC HELP)

A complete list of information sources is provided in the References section on Page 148.

Aboriginal Specific Data

Because over 20% of BC's Indigenous population lives on Vancouver Island and almost 10,000 individuals in the CVRD self-identified as an Aboriginal person in the 2016 Census, select indicators were reported for the Indigenous or First Nations communities' populations where data were available, to better illustrate and understand their particular circumstances (Statistics Canada, 2017). By identifying and acknowledging key issues that impact health and well-being of Indigenous and non-Indigenous populations, it is our hope that this report will provide a basis to identify solutions in partnership with First Nations communities to improve the health of all people throughout the region.

It is well known that Indigenous communities have endured various hardships (Truth and Reconciliation Commission of Canada, n.d.). More recently a number of efforts are being made to bridge Indigenous and community needs with other communities in ways that engage Indigenous Peoples on their own terms.

Understanding history allows one to recognize the strength and reliance demonstrated by so many First Nations individuals, families and communities. Some traditions have remained strong over time, such as the value of family, community, and relationship to nature. These values are significant strengths for First Nations communities' health and well-being and the CVRD as a whole. There is a need to acknowledge these strengths as well as the cultural differences between communities. As youth in other communities continue to move away, the highest proportion of youth in First Nations communities in the CVRD represents one of the region's key strengths.

Geography

Our Cowichan Communities Health Network lies solely within the boundary of the CVRD, and covers twenty-nine census subdivisions (see map).

As this report is designed for use by a wide range of users, the emphasis is on making information as accessible as possible through the use of charts and figures.

Depending on the type of data presented in each figure or chart, results for these groups are provided as a sum or average of the available data from the communities that make up the group.

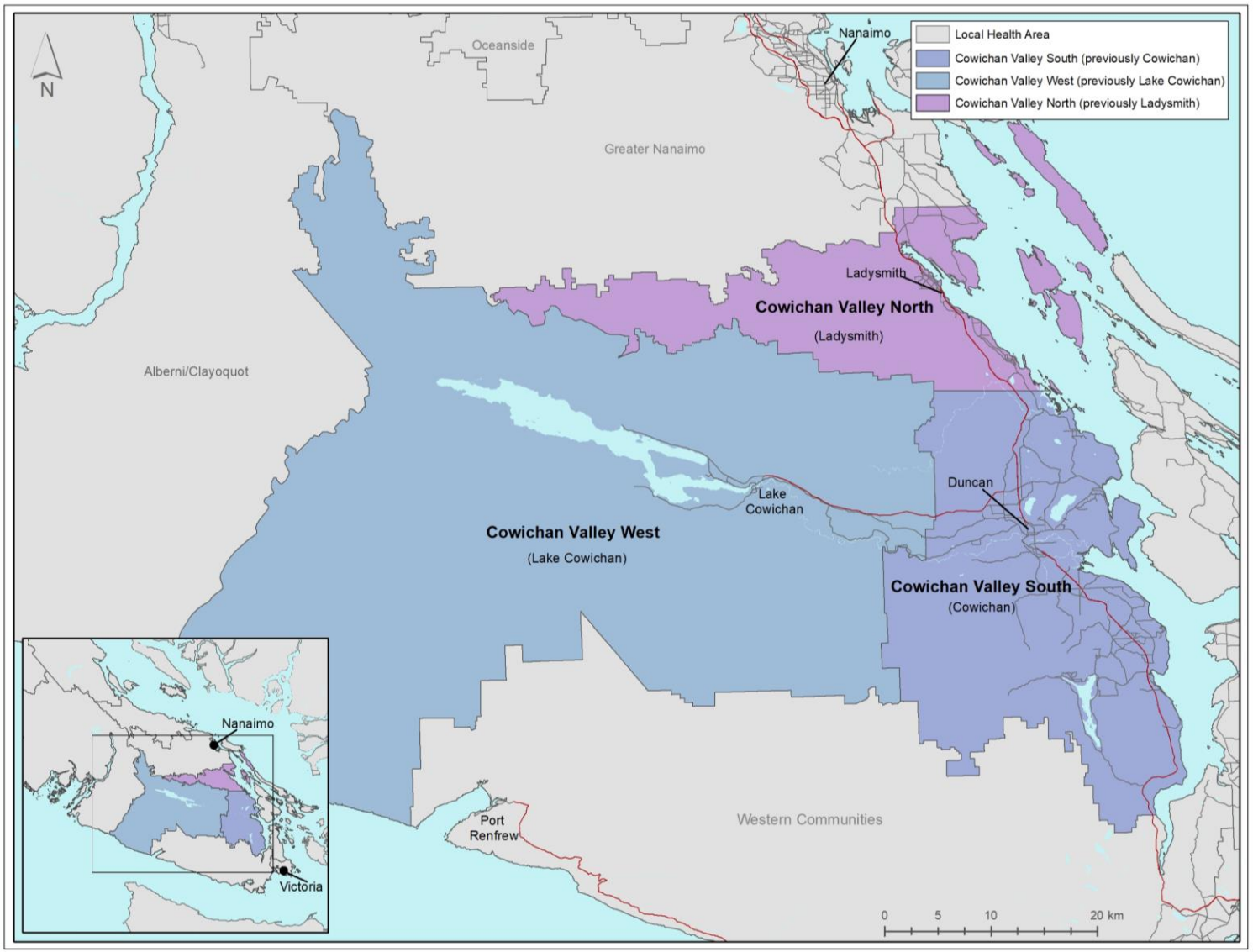


Table 1: Census Subdivisions and Groupings

Group Name	Census Subdivisions	
Cowichan Valley Regional District (CVRD)	Cowichan Valley Regional District	
Duncan	City of Duncan	
Ladysmith	Town of Ladysmith	
Lake Cowichan	Town of Lake Cowichan	
North Cowichan	District Municipality of North Cowichan	
Regional District Electoral Areas	Cowichan Valley A Cowichan Valley B Cowichan Valley C Cowichan Valley D Cowichan Valley E	Cowichan Valley F Cowichan Valley G Cowichan Valley H Cowichan Valley I
First Nations Communities	Chemainus 13 Cowichan Cowichan Lake Est-Patrolas 4 Halalt 2 Kil-pah-las 3 Malachan 11 Malahat 11	Oyster Bay 12 Penelakut Island 7 Portier Pass 5 Shingle Point 4 Squaw-hay-one 11 Theik 2 Tsussie 6 Tzart-Lam 5

Data for some topics is available only by Health Service Delivery Area (HSDA), Local Health Area (LHA), or School District. Their boundaries do not completely correlate with census subdivision boundaries, as provided in the following table and maps.

Data for BC and the Nanaimo Regional District (RDN), as well as North and South Island HSDAs, has been included for some indicators to provide a basis for comparison with that obtained for Cowichan.

Table 2: Health Service Delivery Areas, Local Health Areas and School Districts

Health Service Delivery Area	Local Health Areas		
Central Vancouver Island	▪ Cowichan Valley South (formerly Cowichan) LHA (421) ▪ Cowichan Valley North (formerly Ladysmith) LHA (423) ▪ Cowichan Valley West (formerly Lake Cowichan) LHA (422)	*Also includes the following LHAs not in the CVRD:*	▪ *Greater Nanaimo LHA (424)* ▪ *Alberni-Clayoquot LHA (426)* ▪ *Oceanside LHA (425)*
Local Health Area	**Cowichan Valley Communities**		
Cowichan Valley South/ Cowichan LHA (421)	▪ City of Duncan ▪ Mill Bay/ Malahat Area A ▪ Theik 2 ▪ Tsussie 6 ▪ Cowichan 1	▪ Shawnigan Lake Area B ▪ Cobble Hill Area C ▪ Tzart-Lam 5 ▪ Kil-Pah-las 3	▪ Cowichan Bay Area D ▪ Sahtlam / Glenora / Cowichan Station Area E ▪ Est-patrolas 4
Cowichan Valley North/ Ladysmith LHA (423)	▪ Town of Ladysmith ▪ Oyster Bay 12 ▪ Portier Pass 5 ▪ Chemainus 13 ▪ North Oyster/ Yellow Point Area H	▪ North Oyster/ Diamond Area H ▪ Penelakut Island 7 ▪ Shingle Point 4	▪ Saltair / Gulf Islands Area G ▪ Halalt 2 ▪ Squaw-hay-one 11
Cowichan Valley West/ Lake Cowichan LHA (422)	▪ Town of Lake Cowichan ▪ Malachan 11 ▪ Cowichan Lake	▪ Youbou / Area I	▪ Cowichan Lake South / Area F
School District	**Cowichan Valley Communities**		
Cowichan Valley School District	▪ City of Duncan ▪ Town of Lake Cowichan ▪ District Municipality of North Cowichan ▪ Mill Bay / Malahat Area A	▪ Shawnigan Lake Area B ▪ Cobble Hill Area C ▪ Cowichan Bay Area D ▪ Sahtlam / Glenora / Cowichan Station Area E	▪ Cowichan Lake South / Area F ▪ Saltair / Gulf Islands Area G ▪ Youbou / Area I
Nanaimo-Ladysmith School District	▪ Town of Ladysmith	▪ Saltair / Gulf Islands Area G (North)	▪ North Oyster/ Yellow Point Area H

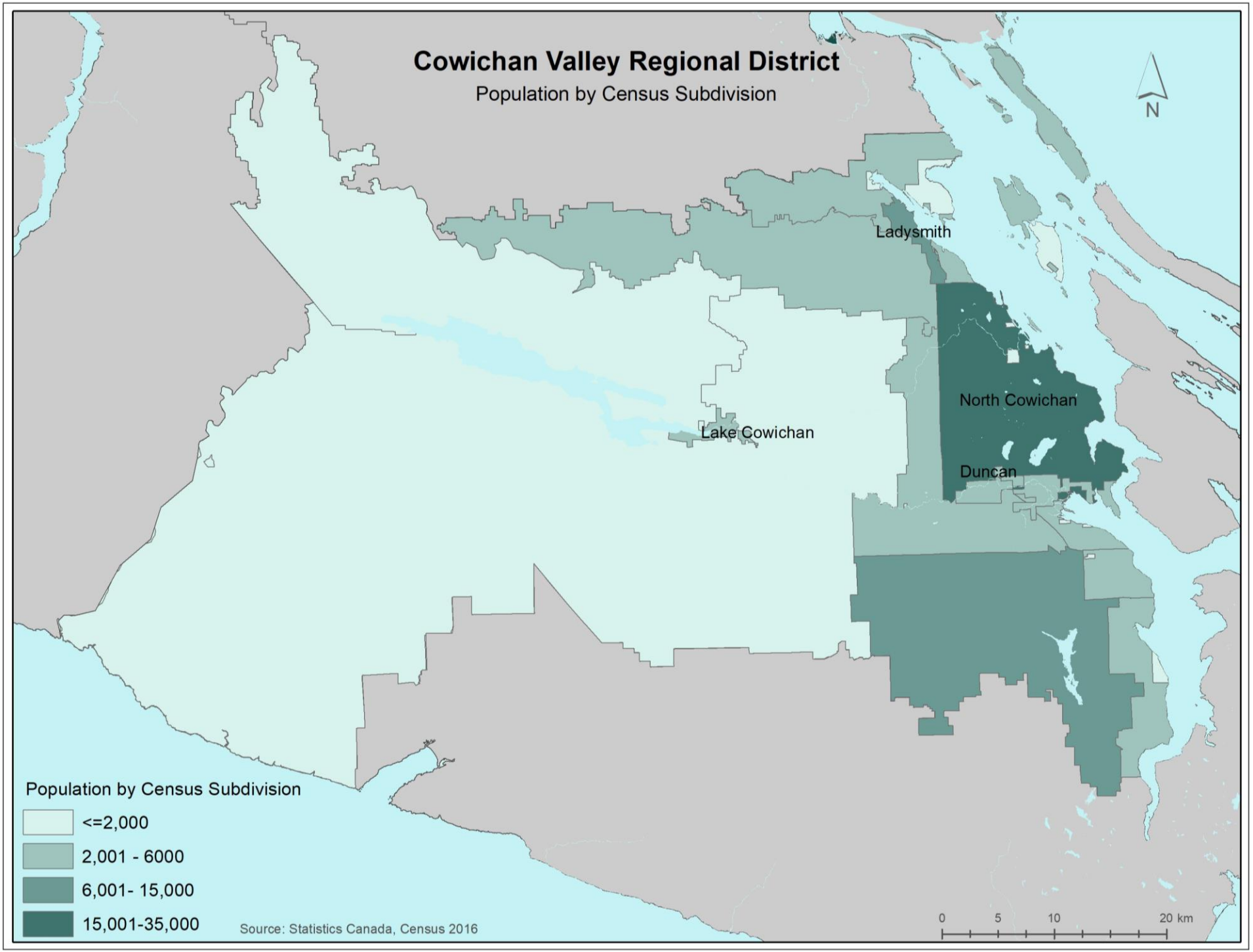
Explanation of Geography and Census Data

While the information in this health profile represents the available data, there are differences in census survey participation and reporting by census year.

Table 3: Populations included in the Census and Aboriginal Population Profile by census year (2011 and 2016)

	Included Population (2016 census)	Included Population (2011 census)	Percent change between 2011 and 2016 for Total Population	Included Aboriginal Population (2016 Census)	Included Aboriginal Population (2011 NHS)	Percent change between 2011 and 2016 for Aboriginal Population
CVRD	83,739	80,332	4.07%	9,660	8,525	11.75%
Duncan	4,944	4,932	0.24%	630	485	23.02%
Ladysmith	8,537	7,921	7.22%	665	440	33.83%
North Cowichan	29,676	28,807	2.93%	2,380	1,985	16.60%
Lake Cowichan	3,226	2,974	7.81%	310	205	33.87%

Source: Statistics Canada 2011 Census Profiles, 2016 Census Profiles, and NHS, 2011


Cowichan Valley Regional District
Population by Census Subdivision
N
Ladysmith
North Cowichan
Lake Cowichan
Duncan
Population by Census Subdivision
<=2,000
2,001 - 6000
6,001- 15,000
15,001-35,000
Source: Statistics Canada, Census 2016
0
5
10
20 km

Population

Demographics

Although the Census, conducted every 5 years, provides the most accurate counts of the population in a particular region, more up to date estimates within the province of BC are calculated by BC Stats between census years. The 2018 CVRD population was estimated to be 90,380 while the population of Island Health was estimated to be 835,871 (BC Stats P.E.O.P.L.E. 2019). As the figures below illustrate, the largest demographic group in the Cowichan region is the 55-69- year age range. (BC Stats P.E.O.P.L.E. 2019).

Figure 1: Cowichan Valley Population Pyramid (2018)

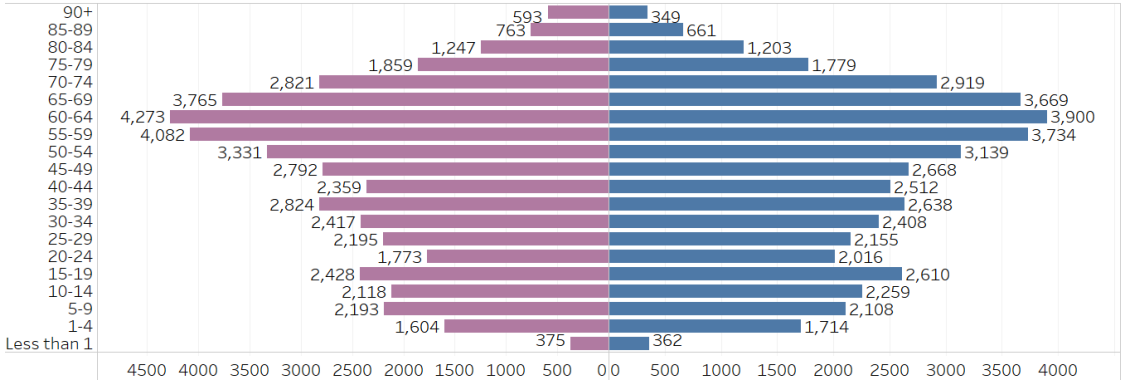
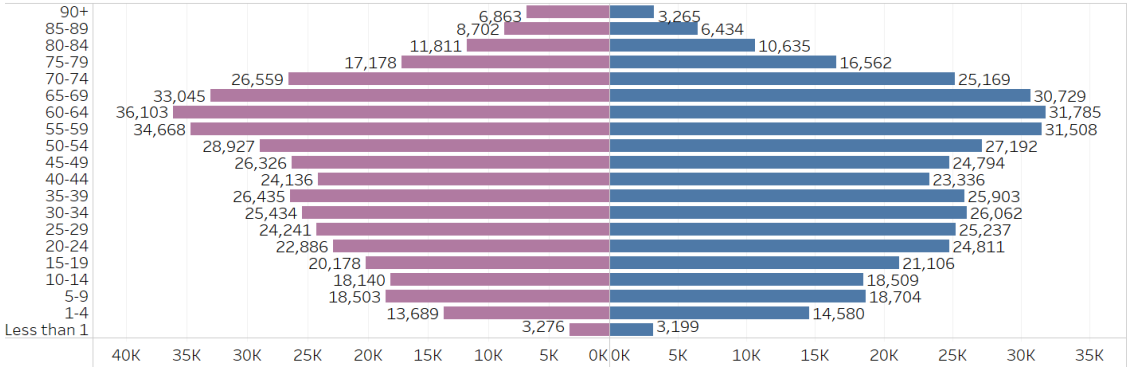


Figure 2: Island Health Population Pyramid (2018)



Source: BC Statistics, PEOPLE data 2019 https://bcstats.shinyapps.io/popProjApp/

Population Projections

The population projections for the CVRD demonstrate that the population is expected to grow by 7,088 people between 2018 and 2028. In the CVRD, the 75+ population is projected to increase by 76.17% by 2028. The 0 – 19 age and 45 – 64 age ranges are expected to decrease during this same time period. A similar trend is predicted to occur across Island Health, except with a small increase in the 0 -19 age range.

Figure 3: Populations projection for CVRD and Island Health (2018-2028)

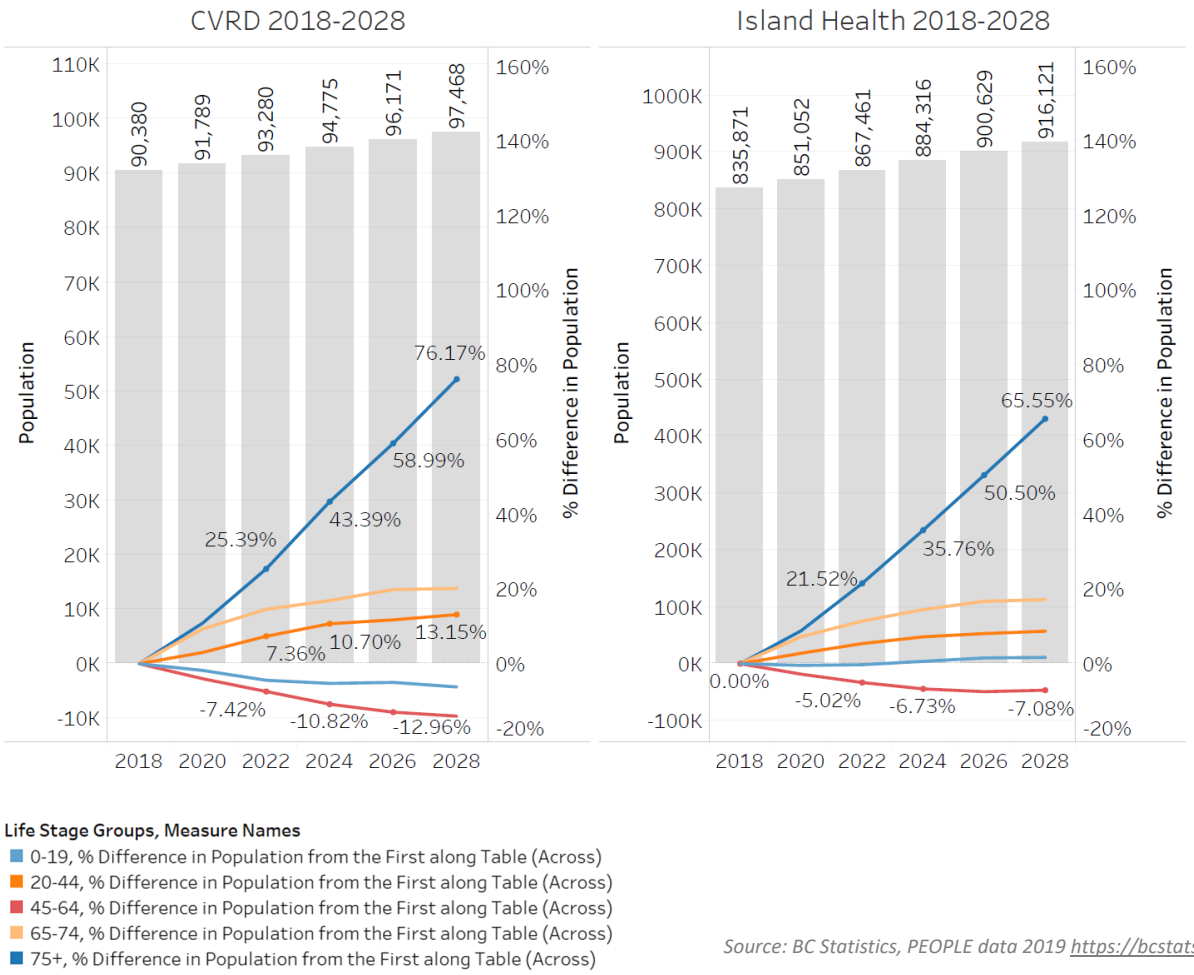
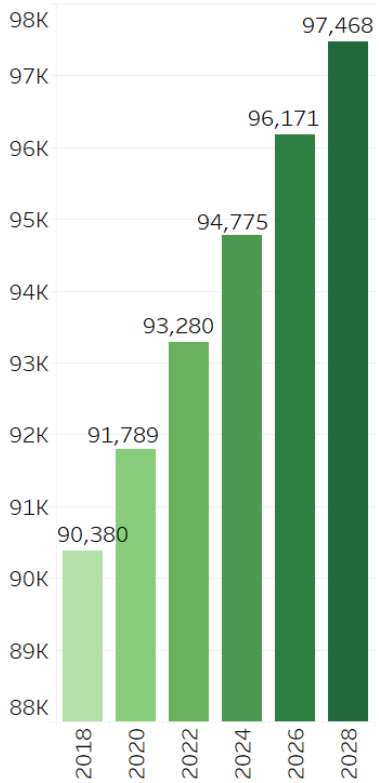


Figure 4: CVRD Population Projections (2018-2028)



Source: BC Statistics, PEOPLE data 2019 https://bcstats.shinyapps.io/popProjApp/

Languages

The most common mother tongue languages spoken in the Cowichan region are English, German, French, Dutch, and Punjabi (Panjabi). There are also a number of individuals (655) who speak more than one language. However, the vast majority of people in the region speak English. Additional information on the use of traditional First Nations languages is provided under Key Determinant 11: Culture.

Table 4: Most common Mother Tongue Languages in the Cowichan Valley

Mother tongue language (the first language that an individual learns at home)	Number of people who speak the language as their mother tongue	% of total population who speaks the language as their mother tongue
English	75,860	90.6%
German	1,015	1.2%
French	995	1.2%
Dutch	650	0.8%
Punjabi (Panjabi)	500	0.6%
Aboriginal Languages	380	0.5%

Source: Statistics Canada, 2016.

Current Health Status

Overview of Regional Health

Cowichan Valley residents are a relatively healthy population. The life expectancy in the Cowichan Valley in 2019 was 82 years, comparable to that for Island Health (82.4 years) and 83 years for BC.

Notably however, in both 2016 and 2018, Cowichan Valley experienced a decrease in life expectancy, likely attributable in large part to an increase in illicit drug toxicity deaths, disproportionately affecting the 30-59-year-old age groups. Similar decreases have been seen across Island Health and BC, but not quite so pronounced as the decrease of 1.4 years in the Cowichan Valley between 2017 and 2018.

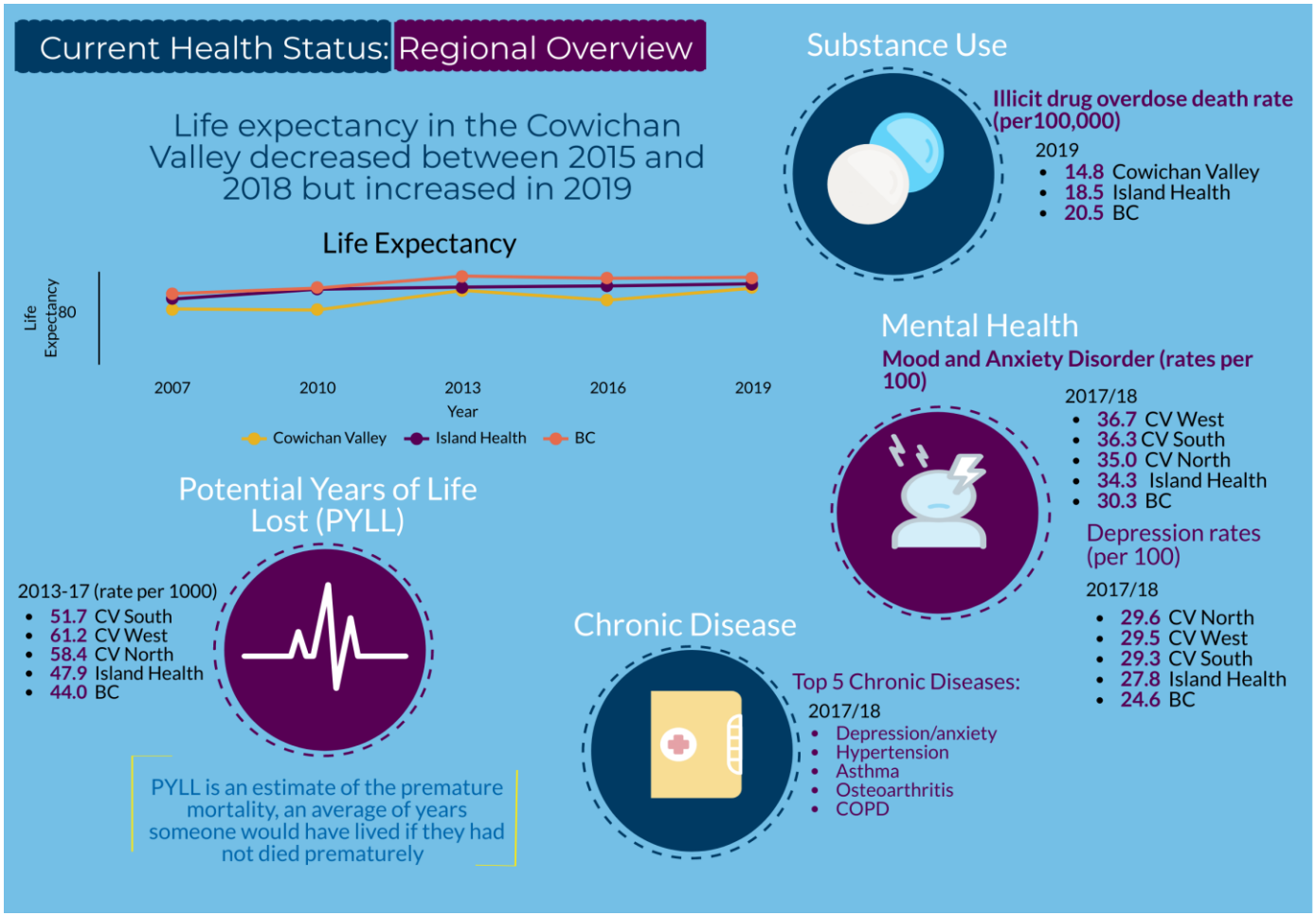
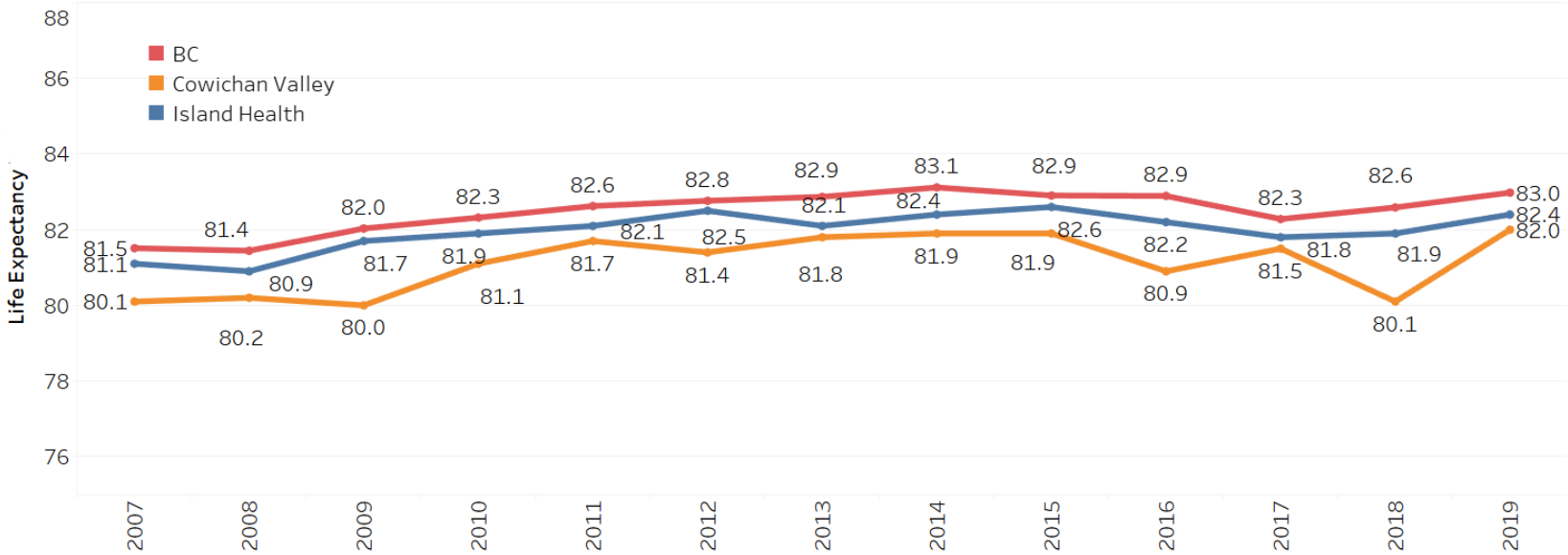


Figure 5: Life expectancy of Cowichan Valley residents compared to Island Health and BC (2007-2019)



Source: BC Vital Statistics

When looking to specific types of health indicators, such as healthy behaviours, chronic disease, child health and mortality, there is some variation in health status across Cowichan Valley LHAs and compared to Island Health overall. For example, with respect to infant and child health, while infant mortality is relatively lower or comparable to Island Health, with some exceptions the rates of smoking during pregnancy, births to teen mothers, preterm births and low birth weight babies tend to be higher than the Island Health region as a whole.

Child hospitalization rates for respiratory disease are higher across all Cowichan Valley LHAs compared to Island Health; child hospitalizations for injury and poisoning are higher in Cowichan Valley South and West but comparable to Island Health for Cowichan Valley North. The Early Development Index – a measure of early childhood development – indicates the estimated proportion of pre-school children who are vulnerable in a particular area. There was greater vulnerability on one or more areas for Cowichan Valley South and North as compared to Island Health but lower vulnerability for Cowichan Valley West.

Self-perceived general and mental health (measured at the Central Vancouver Island-level) is slightly poorer than for BC overall whereas measures of healthy behaviours such as consumption of fruit and vegetables and moderate or active leisure time physical activity are higher for Central Vancouver Island compared to BC

Similar to Island Health, the top four chronic diseases seen in the Cowichan Valley in 2017/18 are: depression/anxiety, hypertension, asthma and osteoarthritis. The proportions of the population ever diagnosed with depression/anxiety, asthma and COPD are higher across all Cowichan Valley LHAs compared to the Island Health region as a whole.

Since 2000, the prevalence of asthma in the Cowichan Valley and the Island Health region has nearly doubled. In 2008, the prevalence of asthma in the Cowichan Valley (11.3 per 100) was similar to the Island Health prevalence overall (11.1 per 100). Since 2008 however the prevalence of asthma in the Cowichan Valley has consistently exceeded that of the Island Health region overall.

Alcohol and tobacco can have a large impact on the health of a population. Hospitalizations related to alcohol and tobacco use are one way to measure this impact. All Cowichan Valley LHAs had a higher rate of alcohol-related hospitalizations than Island Health and BC. Tobacco-related hospitalizations were higher in Cowichan Valley South and West but lower in Cowichan Valley North compared to Island Health and BC. Alcohol-related mortality was lower in Cowichan Valley South and West compared to Island Health but higher in Cowichan Valley North whereas the opposite was seen for tobacco related mortality which was higher for Cowichan Valley South and West but lower in Cowichan Valley North compared to Island Health and BC.

Overall age-adjusted mortality rates in the Cowichan Valley region are similar to Island Health and BC with the exception of Cowichan Valley North which is higher. However, all three LHAs in the region have higher person years of life lost (PYLL) due to all causes. This latter measure is a way of giving more weight to deaths that occur in younger people. So, while the mortality rate may be similar, more deaths are occurring among younger people. Maligant Neoplasms (cancer) is the leading cause of PYLL across all Cowichan Valley LHAs and is comparable to Island health (with Cowichan Valley West being slightly higher), followed by diseases of the circulatory system (e.g., heart disease, hypertension) and suicide. PYLL due to diseases of the circulatory system and suicide are both higher across all Cowichan Valley LHAs compared to Island Health and BC.

Table 5: Self Reported Health & Health Behaviours

	Central Island	BC
Perceived health, % very good or excellent	56.5%	60.3%
Perceived mental health, % very good or excellent	66.8%	67.0%
Physical activity, 150 minutes per week, adult (18 years and over)	65.3%	64.8%
Fruit & vegetable consumption, 5 times or more per day	37.2%	30.8%
Influenza immunization in the past 12 months (%)	36.4%	34.3%
Smoking status, % current smoker, daily or occasional	12.6%	12.6%
Breast milk feeding initiation	92.1%	96.6%
Exclusive breastfeeding, at least 6 months	49.1%	48.7%

Source: Statistics Canada, Canadian Community Health Survey: Central Island HSDA Health Characteristics (2017/2018), Table: 13-10-0113-01

Note: Values for indicator 'Fruit & vegetable consumption, 5 or more times per day' is from 2015/16 Canadian Community Health Survey.

Table 6: Maternal and Child Health

	Cowichan Valley South	Cowichan Valley West	Cowichan Valley North	Island Health
Infant Mortality - deaths of infants under 1 year of age (rate per 1,000 live births)	3.3		4.0	4.0
Maternal smoking, % reporting smoking during current pregnancy (2)	14.0	23.5	9.0	10.0
Preterm births, gestational age less than 37 weeks, per 1,000 live births (1)	95.6	78.3	108.3	82.7
Low birth weight, less than 2,500 grams, per 1,000 live births (1)	50.8	69.6	74.9	53.8
Caesarean section rate, per 1,000 live births (1)	243.4	282.6	244.7	291.8
Mothers, under 20 years, per 1,000 live births (1)	34.3	26.1	49.5	26.2
Mothers, 35 years and over, per 1,000 live births (1)	175.1	147.8	168.4	227.9
Injury and poisoning hospitalizations, per 1,000 children aged 0-14 (3)	6.5	6.4	5.5	5.6
Respiratory diseases hospitalizations, per 1,000 children aged 0-14 (3)	14.2	10.2	15.3	9.0
Kindergarten children, vulnerable on one or more domains, % (4)	34.0	16.0	43.0	32.5

Sources: (1) Vital Statistics, 2013-17; (2) Perinatal Registry, 2013/14-2017/2018; (3) Ministry of Health Ideas, 2016/17-2017//2018; (4) Early Development Instrument, 2016-19

Table 7: Chronic Disease Prevalence (age-standardized rate per 100)

	Cowichan Valley South	Cowichan Valley West	Cowichan Valley North	Island Health	BC
Chronic Obstructive Pulmonary Disease	9.0	10.2	6.6	5.3	5.1
Diabetes	7.1	7.4	7.0	6.9	8.0
Osteoarthritis	10.0	11.1	10.4	9.1	8.5
Asthma	13.5	13.8	15.7	13.1	12.3
Hypertension	22.3	22.8	21.9	21.2	22.5

Source: Ministry of Health Chronic Disease Registries, 2017/2018

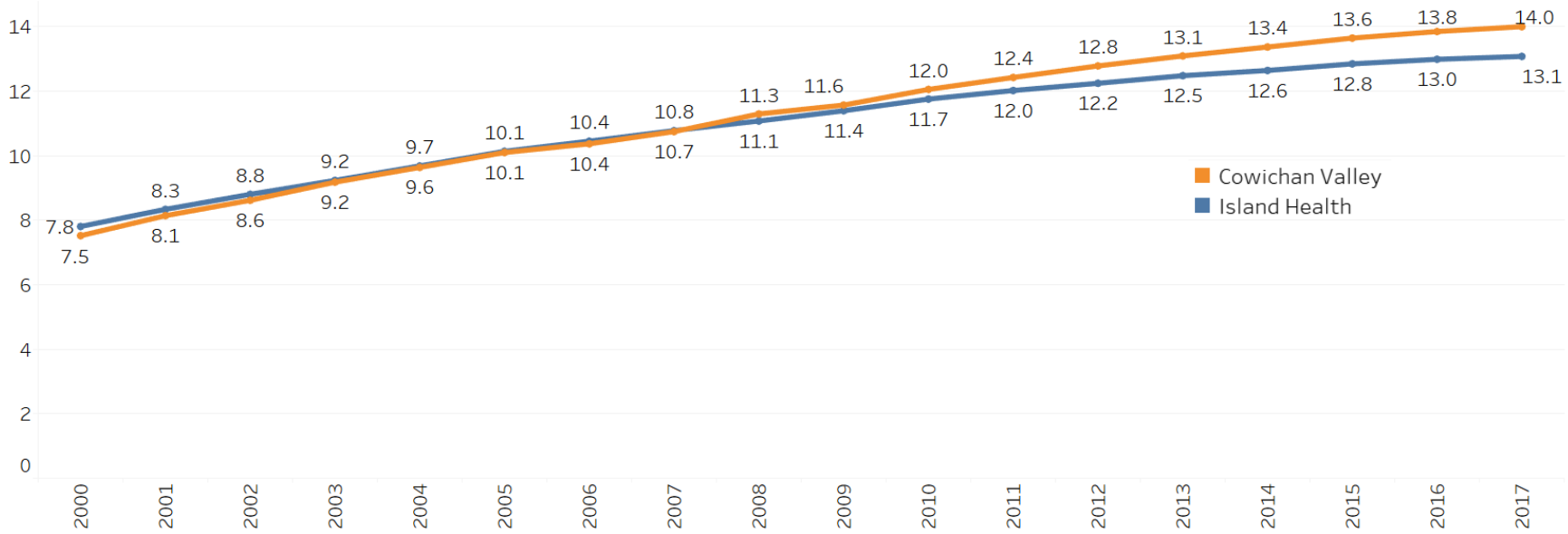
Table 8: Mental Health Morbidity Prevalence (age-standardized rate per 100)

	Cowichan Valley South	Cowichan Valley West	Cowichan Valley North	Island Health	BC
Episodic Depression	8.2	7.8	8.7	8.6	7.2
Episodic Mood & Anxiety Disorders	12.7	13.1	12.1	12.2	10.2
Depression	29.3	29.5	29.6	27.8	24.6
Mood & Anxiety Disorders	36.3	36.7	35.0	34.3	30.2

Note: Prevalence of Mood & Anxiety Disorders includes prevalence of Depression and prevalence of Episodic Mood & Anxiety Disorders includes prevalence of Episodic Depression.

Source: Ministry of Health Chronic Disease Registries, 2017/2018

Figure 6: Age-standardized prevalence (per 100) of asthma in Cowichan Valley and Island Health (2000 – 2017)



Source: Ministry of Health Chronic Disease Registry, 2017/18

Table 9: Substance Use Morbidity and Mortality Prevalence (rate per 100,000)

	Cowichan Valley South	Cowichan Valley West	Cowichan Valley North	Island Health	BC
Alcohol-related deaths	89.2	74.2	113.0	94.6	83.0
Tobacco-related deaths	138.7	145.9	124.0	132.9	127.7
Alcohol-related hospitalizations	521.1	625.2	472.2	440.6	397.0
Tobacco-related hospitalizations	557.0	502.8	436.7	443.4	491.5

Source: Canadian Institute for Substance Use Research, 2016

Table 10: Mortality (age-standardized rate per 10,000)

	Cowichan Valley South	Cowichan Valley West	Cowichan Valley North	Island Health	BC
Mortality	68.7	64.1	77.4	66.8	64.5

Source: Vital Statistics, 2013-2017

Table 11: Potential Years of Life Lost (age-standardized rate per 1,000) All Cause and Top 5 Causes, 5-year aggregate (2013-17)

	Cowichan Valley South	Cowichan Valley West	Cowichan Valley North	Island Health	BC
Motor Vehicle Accidents	2.8	3.1	5.7	1.5	1.6
Diseases of the Digestive System	3.1	2.5	4.6	2.8	2.2
Suicide	5.0	5.6	7.0	3.9	3.2
Diseases of the Circulatory System	7.1	9.1	7.4	5.7	5.2
Malignant Neoplasms	13.7	17.4	12.2	14.1	13.0
All Cause	51.7	61.2	58.4	47.9	44.0

Source: Vital Statistics, 2013-2017

Specific Populations and Emerging Issues

First Nations Health and Wellness

In 2019, the BC First Nations Health Authority released the results of Phase 3 of the First Nations Regional Health Survey (2015-2017). This survey focussed on health and wellness, including traditional wellness, mental health and wellness, primary health care, and diabetes in First Nations people living on reserve and in northern communities. The health and wellness of First Nations people "has been rooted in their connection to the land and their communities. Time spent connecting to the land, providing for and enjoying traditional diets and ceremonial practices continue to form the foundations of physical, mental, spiritual and emotional wellbeing" (First Nations Regional Health Survey, 2017).

There were 1297 First Nations people from 25 communities in the Vancouver Island (VI) Region that participated and the survey's findings for the Vancouver Island Region are summarized by the 4 key interest areas identified by representatives from the VI Region:

- Traditional wellness: 67% of adults said they had often eaten traditional foods in the past year; 10% of adults can understand and speak a First Nations language at an intermediate or fluent level; youth and children were reported to learn about their culture from grandparents and parents.
- Mental health and wellness: 82% of adults and 85% of youth said their mental health was good, however 17% of adults and 12% of youth said they had attempted suicide. 83% of adults felt a strong sense of belonging in their community.
- Primary health care: 54% of adults rated the quality of health care services in their community as good and 72% of adults received health care services in the past year. Barriers to care identified included cost, lack of access, and inability to arrange transportation.
- Diabetes: 9% of adults have been diagnosed with diabetes and 81% of adults with diabetes reported that it led them to adopt a healthier lifestyle.

For more detailed results, refer to the full report, available here: https://www.fnha.ca/Documents/FNHA-First-Nations-Regional-Health-Survey-Phase-3-2015-2017-Vancouver-Island-Region.pdf

Substance Use and the Opioid Crisis

On April 14, 2016 a public health emergency was declared under the Public Health Act due to the significant rise in opioid-related overdose deaths reported in B.C. since the beginning of 2016. The declaration of a public health emergency under the Act allows for real-time information to be collected, reported and analyzed across the health system, to identify immediately where risks are arising and take proactive action to warn and protect people who use drugs. The BC Coroners Service publishes regular reports on illicit drug toxicity deaths across the province: https://www2.gov.bc.ca/gov/content/life-events/death/coroners-service/statistical-reports. They define illicit drug toxicity deaths as those "involving street drugs (controlled and illegal drugs: heroin, cocaine, MDMA, methamphetamine, illicit fentanyl, etc.), medications that were not prescribed to the decedent but obtained/purchased on the street, from unknown means or where origin of drug not known, combinations of these with prescribed medications". BC Emergency Health Service also provides regular reports on Paramedic Attended Overdose Events while the BC Ministry of Health provides regular reports on the number of prescribers of Opioid Agonist Treatment and the number of clients receiving treatment. This information, plus the number of lifesaving naloxone kits that are distributed and statistics from Overdose Prevention Sites (OPS) is summarized by the BC Centre for Disease Control for the province, with breakdowns by Health Authority Health Service Delivery Area: http://www.bccdc.ca/health-professionals/data-reports/overdose-response-reports

Island Health summarizes data for the region monthly, including visits to Island Health Emergency Departments following overdose: https://www.islandhealth.ca/about-us/medical-health-officers/population-health-statistics-publications

In response to the increase in opioid-related overdose deaths in the Cowichan Region specifically, an Overdose Prevention Site (OPS) opened in Duncan in September 2017. The purpose of the site is to allow people to use illicit drugs under the supervision of trained staff to monitor overdose risk and provide rapid intervention if required. From its opening in September 2017 to June 30, 2020 Duncan's OPS site has had 62,360 visits. The Canadian Mental Health Association also provides a Sobering and Assessment Center in the Cowichan Valley, located in Duncan. This center is open year-round and provides a safe place for individuals (ages 17 years and over) to sober up from alcohol and/or drug use. Since its opening in December 2016, the Sobering and Assessment Center has had 4,138 visits up to November 15, 2019.

The overdose crisis continues to disproportionately impact the Cowichan Valley, which experienced an Illicit Drug Toxicity Death rate of 35.4 per 100,000 population in 2018, higher than that of Island Health and BC overall. Although rates decreased in 2019, the time of publication of this report, rates had increased again in 2020 with a rate of 30.4 deaths per 100,000 population for Central Vancouver Island between January and June 2020 (Source: BC Coroner's Service Illicit Drug Toxicity Deaths in BC Report for January 1, 2010 – June 30, 2020).

IMPACTS OF SUBSTANCE USE

Addiction is a chronic brain disease that causes compulsive activity despite health, social and legal consequences. The spectrum of substance use, caused by a variety of factors, can lead to long term negative consequences that can be deadly even for occasional recreational or first-time users.

Community efforts to address substance use to date have largely included; harm reduction measures such as the Overdose Prevention Site, Sobering and Assessment Program, sheltering programs, Mental Health and Substance Use services, Outreach Teams and supports for housing. The Cowichan Community Action Team (CAT) works with over 70 stakeholders that collectively work to support the social determinants of health and to develop collective community strategies that can help decrease problematic substance use

Women's Shelter Visits

200

2018-2020

Opioid Crisis

Illicit drug overdose death rate (per100,000)

2019

- **14.8** Cowichan Valley
- **18.5** Island Health
- **20.5** BC

Smoking Rates

% of youth that that had ever tried smoking

2018

- **34%** of SD79 Cowichan Valley
- **24%** of Island health
- **18%** of BC

% of youth that that had ever tried vape/vapestick(w/nicotine)

2018

- **31%** of SD79 Cowichan Valley
- **25%** of Island health
- **21%** of BC

Alcohol related deaths (rate per 100,000)

Alcohol related deaths are higher in Cowichan

Overdose Prevention Site Visits

Sobering Centre

2019

230 individuals used the sobering centre

190 were accepted and diverted from RCMP cells, 46 were declined

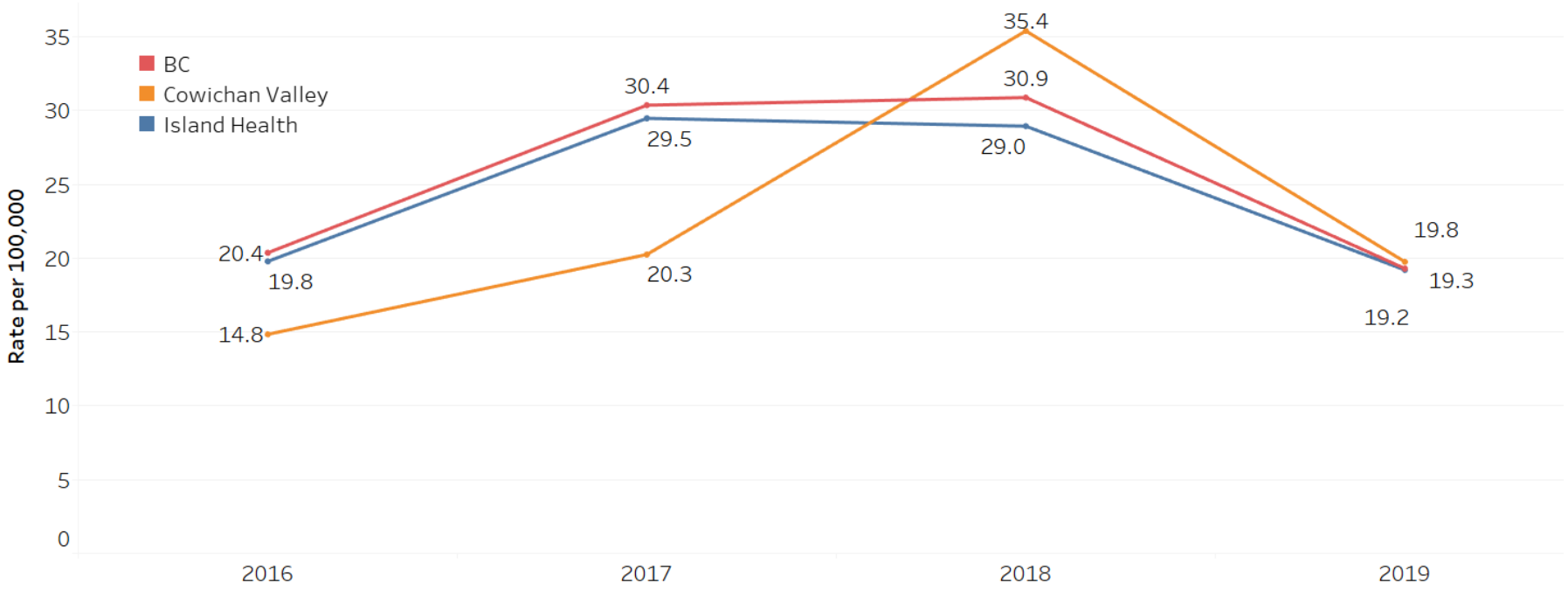
Alcohol Intoxications

2019

Liquor intoxications in public (# of arrests)

- **168** Male
- **35** Female
- **16** Youth

Figure 7: Illicit Drug Toxicity Deaths, rate per 100,000 population (2016-2019)



Source: BC Coroner's Service (provided by Island Health), 2020

Air Quality

Outdoor air quality is impacted by a variety of sources including emissions from industry, forest fires, cars and the burning of wood and other products. In 2010, a new monitoring station was installed by the BC Ministry of Environment and Climate Change Strategy (ENV) in Duncan. The station provides information about the quality of air in the Cowichan Valley through continuous monitoring of levels of fine particulate matter ($PM_{2.5}$), ground-level ozone (O3) and priority substances such as Nitrogen Dioxide (NO_2) (ENV, 2010). In addition, low-cost PurpleAir monitors are being used throughout the Cowichan Valley to measure concentrations of $PM_{2.5}$.

Real-time air quality data for the region can be found on the CVRD's Air Quality Map (https://www.cvrd.bc.ca/2187/Air-Quality-Map) and the PurpleAir Network Sensor Map (https://www.purpleair.com/map?opt=1/mAQI/a10/cC0#10/48.7424/-123.7897)

The known and suspected health effects of $PM_{2.5}$ exposure include acute respiratory disease, chronic obstructive pulmonary disease (COPD), asthma, eye irritation, bronchitis, pneumonia, and an increase in all-cause mortality. Unborn children, pregnant women, children, seniors, people with pre-existing respiratory diseases and/or cardiovascular disease, and people of low socioeconomic status are all more susceptible to the negative health effects of poor air quality (ENV, 2019). From a fine particulate perspective, air quality is generally good during the warm season (except for wildfire smoke impacts) but can become degraded during the colder months due to a change in meteorology and the additional sources of air pollution such as wood smoke and vehicle exhaust.

Concentrations of O_3 and NO_2 are consistently below provincial and Federal ambient Air Quality Objectives (AQO) in the Cowichan Valley. In 2018, fine particulate matter ($PM_{2.5}$) exceeded the daily average Provincial AQO during both the summer (wildfire smoke impacts) and winter seasons (ENV, 2019). The Provincial AQO was only exceeded once in 2018 outside of the wildfire season (BC MoE, 2019).

See Physical Environments chapter for specific data related to air quality in the Cowichan Valley.

In an effort to reduce smoke pollution, the Cowichan Valley Regional District recently enacted a bylaw which bans the open burning of garbage and regulates the burning of yard waste. The bylaw is intended to improve air quality in the region and address any health impacts that are linked to smoke pollution. Additional bylaws intended to contribute to better outdoor air quality have been adopted by individual cities and towns in the Cowichan region including bylaws related to open burning, smoking in public places, idling vehicles and the installation of wood burning appliances.

Understanding indoor air quality is equally as important to outdoor air quality as people spend significant time in offices, schools and homes. Important indoor air pollutants include mold, carbon monoxide, radon, synthetic organic compounds in paints, furniture, fabrics and office furniture, and asbestos.

The Cowichan Airshed Roundtable

Local air quality stewards, First Nations, and local and provincial government are working collaboratively to improve air quality in the Cowichan Valley. Their accomplishments to date include installing air quality monitoring stations, adopting bylaws for open burning, launching a woodstove exchange/replacement program, forming an Airshed Protection Roundtable, installing the PurpleAir Network, and developing Cowichan's Regional Airshed Protection Strategy (https://www.cvrd.bc.ca/2180/Airshed-Protection). Moving forward, the partners plan to foster behavioural changes of open burners and woodstove operators to ensure people are burning less often and are burning smarter, and to promote community champions seeking to improve air quality in the region.

Vaping

The number of youths who vape is increasing rapidly. The 2018 BC Adolescent Health Survey found that 31% of youth (grades 7-12) in School District 79 (Cowichan Valley) reported using a vape stick or pen with nicotine in the past month (reported by Island Health with permission from SD79). For Central Vancouver Island Health Service Delivery Area overall, 26% of youth reported vaping with nicotine compared to 25% for Island Health and 21% for BC overall. The Canadian Student Tobacco, Alcohol and Drugs Survey 2018-19 found even higher results with 26% of BC students grade 7-12 having reported use of e-cigarettes with nicotine in the past 30 days (13.6% for grades 7-9 and 36.8% for grades 10-12). The percentage of BC youth (grades 7-12) who reported e-cigarette use (with or without nicotine) in the past month increased from 12.5% to 27.6% between 2016-2017 and 2018-2019. This is concerning, as there are significant concerns about the health impacts of youth vaping. For example, use of vapour products may make youth more likely to begin cigarette smoking and nicotine can impair normal brain development and make youth susceptible to other addictions.

Further research will add to the knowledge on the short- and long-term health impacts of vaping. Recent reports of serious lung damage and death following the use of vapour products in the United States have brought intense attention to the risks of vaping in British Columbia, the Provincial Health Officer has ordered that any vaping-related lung injury be promptly reported for investigation, and to date one case has been confirmed and additional probable cases may be confirmed. Island Health will work along with provincial partners to distribute relevant updates about whether particular vaping products are implicated as the investigation into these cases continues. In partnership with School District 79, Our Cowichan Communities Health Network, Island Health, Medical Health Officer, BC Lung Association and First Nations Health Authority a vaping task force has been established to begin addressing the increase in vaping at the community level.

12 Key Determinants of Health

The 2014 Cowichan Communities Health Profile was based on an analytical framework outlined by the Public Health Agency of Canada (2013), which described 12 Key Determinants of Health.

This framework was used by Island Health and was chosen to provide a more in-depth picture of health in the region. The 12 Key Determinants of Health provides an overview of the standard physical and medical aspects of health, but also a better understanding of other critical factors that contribute to individual and community health and wellbeing in the Cowichan region.

In 2020, this profile is based on an updated framework and regrouping of 12 Key Determinants described in more detail in the following pages.

Determinants of Health Framework for this Profile

This section includes a description of each of the 12 Key Determinants and an in-depth review of how the Cowichan region fares for each of the determinants. The in-depth reviews, organized by the 12 Key Determinants, include a brief description of the significance of the key determinant, expressed in global terms; identifies key findings in an infographic; includes a table identifying the individual determinants within each "key determinant" field along with a descriptor and relevance to health and well-being. Further, the data collected for each particular determinant are expressed in chart form, organized by sub-regions and Statistics Canada data collection years for comparison. For comparison purposes data from the Regional District of Nanaimo (RDN), the Province (BC), and Island Health are also shown.

1. **Income and Social Status:** Evidence suggests that higher social and economic status leads to better health. A higher income leads to safer housing, better education, appropriate food security and improved access to health care. Studies suggest that the distribution of income in a given society may be a more important determinant of health than the total amount of income earned by society members. Large gaps in income distribution led to increases in social problems and poorer health among the population as a whole.
2. **Employment and Working Conditions:** People who have control over their work and who have less stress in their jobs are healthier than those who have stressful, unhealthy or dangerous jobs or who are unemployed.
3. **Education and Literacy:** Effective education, starting in infancy and through adulthood, is a key contributor to health. Education contributes to wealth and health by equipping people with the skills needed to solve problems and have a sense of control over their lives. It also provides people with the skills needed to get a job and earn an income.
4. **Childhood Experiences (previously Healthy Child Development):** The culmination of early childhood experiences shapes an individual's health and wellbeing throughout their lives. The other key determinants of health play a role in healthy child development including access to safe, clean homes, education, nutritious foods and access to medical care.
5. **Physical Environments:** Contaminants in air, water and food can cause adverse health effects. Additionally, given that over 80% of Canadians live in urbanized areas and spend 90% of their time indoors, we recognize that the built environment including housing, transportation and the design of communities can impact health and safety, including physical activity and mental and social well-being.

   A significant body of research points to greater physical activity and improved health for people living in more dense, mixed use neighbourhoods and for people who have access to active forms of transportation (walking, cycling, and transit).
6. **Social Supports and Coping Skills (previously Social Environment and Personal Health and Coping Skills):** Informal social support from families, communities and friends is associated with better health, as is a provision of formal social care and support. The caring and respect in social relationships can act as a buffer to adverse health events.

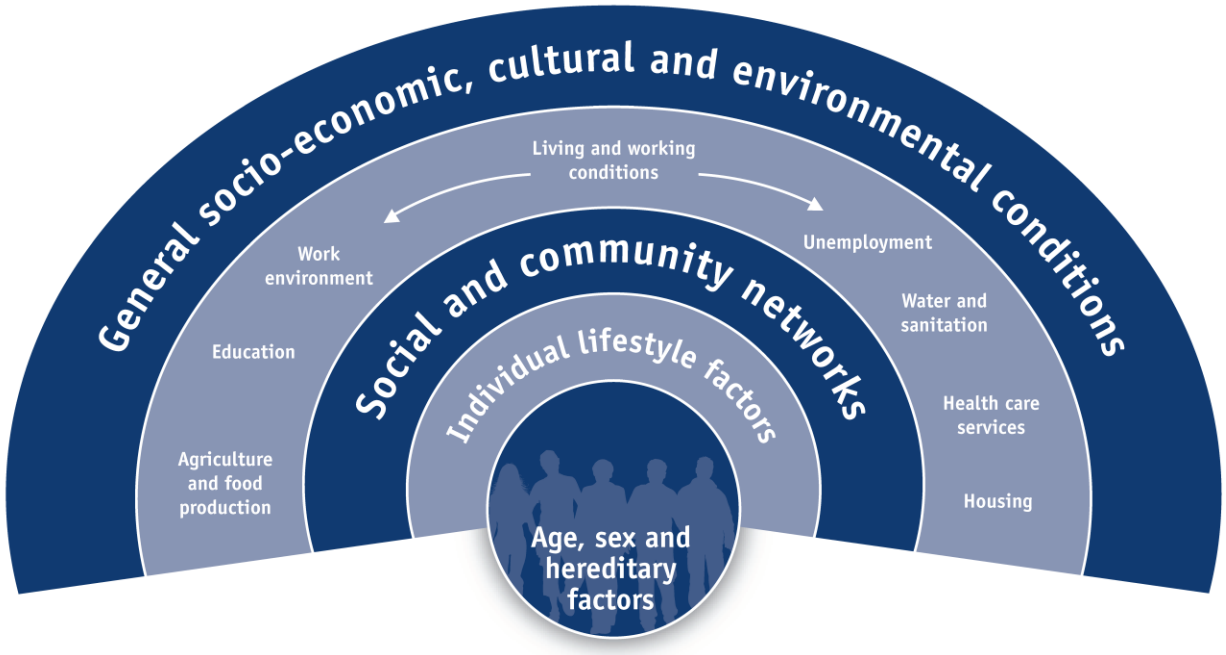
   Social stability, strong social policies, and safe and cohesive communities characterize a supportive society that reduces risks to wellness.

7. **Healthy Behaviours (previously Personal Health and Coping Skills):** Personal life choices can shape an individual's health. A growing body of evidence suggests that these life choices are often shaped by the socioeconomic and physical environments in which people live, work and play.
8. **Health Services:** Population health is increased with access to health services, particularly those aimed at prevention and health promotion.
9. **Biology and Genetic Endowment:** The basic biology and genetic make-up of an individual are fundamental in determining health outcomes for an individual and may predispose individuals to particular diseases.
10. **Gender:** Many health issues are known to be a function of gender-based social status as many health system priorities are influenced by social and cultural attitudes based on gender. Culturally accepted binary views of gender have had significant negative impacts on the health of gender variant people.
11. **Culture:** Culture shapes who we are and how we live and therefore influences our health. Some cultural groups may face greater challenges in accessing health care due to various barriers (e.g., stigmatization, stereotyping and a lack of culturally appropriate health care and services).
12. **Race/Racism:** Canada is a multicultural society with the ethnic and racial makeup of its population rapidly changing. Racialized Canadians experience lower rates of income, higher rates of unemployment, and lower occupational status that threaten not only their physical, mental, and social health, but also the overall health and well-being of Canadian society.

Other Determinants of Health Frameworks

There have been many different frameworks developed and used throughout Canada around the world by different sectors to help improve understanding and provide visual representation of the determinants of health. The framework used in this profile as well the previous version in 2014 is an "Explanatory Framework" but frameworks can also be Interactive, Action-Oriented or any combination of the three. In 2015, the Canadian Council on Social Determinants of Health (CCSDH) undertook a review of existing frameworks with the intention "to support policy-makers, researchers, practitioners and others working to advance action on the determinants of health". They reviewed 36 frameworks with an in-depth review of 7 frameworks based on their relevance to the Canadian context. The result was the document "A Review of Frameworks on the Determinants of Health" with the accompanying "Compendium of Frameworks on the Determinants of Health".

One of the frameworks reviewed, the "Wider Determinants of Health Model" is perhaps the most widely known and widely used of all models on the determinants of health which identifies the environmental, social and individual influences in addition to sectors that can hinder or enhance the health status of individuals and populations.



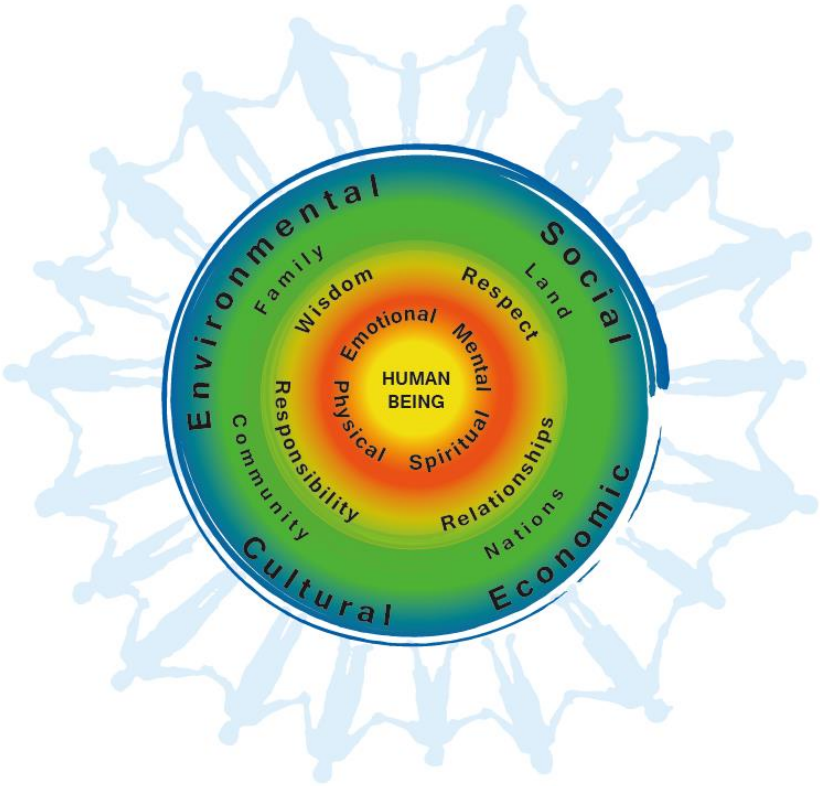
BC First Nations Perspective on Health and Wellness

In BC, the First Nations Health Authority has a visual that aims to "depict and describe the First Nations Health Authority Vision of Healthy, Self-Determining and Vibrant BC First Nations Children, Families and Communities". This could be described as an Explanatory and Interactive framework for the determinants of health.

"*The First Nations Perspective on Health and Wellness is wholistic and includes the physical, mental, spiritual and emotional aspects of well-being. Wellness goes beyond the individual to include the family, extended family, community and Nation. A healthy, well and balanced life includes living in harmony with all of creation, including all living things and the spirit world. Sustaining these relationships has formed the foundation of First Nations wellness for thousands of years."* (First Nations Regional Health Survey, 2017).

This perspective includes the belief that a person's health is interconnected with their surroundings, including the following factors of income, environment, education, and community connections. The First Nations Regional Health Survey Report acknowledges that some of aforementioned factors contribute to health and wellness while others present a challenge to optimal health and wellness. Additionally, the report calls for the strengthening of self-determination of First Nations people to address the causes of health inequalities amongst First Nations people in BC.

The health inequities experienced by First Nations people in BC are imbedded due to the ongoing effects of colonialism. The enhancement of traditional territories, teachings and wellness practices build the strength of First Nations people, additionally *"hope and optimism for the future contribute to mental wellbeing and good physical health"* (First Nations Regional Health Survey, 2017).



Source: https://www.fnha.ca/wellness/wellness-and-the-first-nations-health-authority/first-nations-perspective-on-wellness

Key Determinant 1: Income and Social Status

Economic uncertainty negatively affects mental and physical health at the individual, family, and community levels (World Health Organization, 2014a). When economies contract and incomes decline or disappear altogether, available spending for goods or services that foster good health and quality of life may also decrease (Bryant et al., 2002). For each increasing income bracket, it has been shown that Canadians experience less sickness, longer life expectancies and improved health (Public Health Agency of Canada, 2013). Canadians in the lowest income group live 11.3 fewer healthy years than those in the highest income groups (PHAC et al., 2018).

It is also important to understand that a more unequal society can generate greater risk for health across all income levels, including "low decreased overall life satisfaction, low levels of social cohesion, decreased public participation, greater mistrust and an overall reduction in the quality of social relations" (Wilkinson et al., 2011).

Data from a public survey conducted by the Canadian Medical Association found 70% of Canadians earning more than $60,000 considered their health excellent or very good while 40% of people earning $30,000 or less considered their health excellent or good (CMA et al., 2013).

Key Findings:

- Between 2010 and 2015, the median after-tax income of households in the CVRD rose by 10 percent from $52,157 to $57,738.
- Median incomes in the CVRD, Duncan, Ladysmith, Lake Cowichan, and North Cowichan rose consistently between 2010 and 2015.
- Between 2010 and 2015, the median after-tax income of individuals identifying as Aboriginal in the CVRD rose by 22.5% from $15,347 to $18,803.
- Median incomes for individuals identifying as Aboriginal rose consistently between 2010 and 2015 in the CVRD and all communities except Duncan.
- Using the low-income measure after-tax (LIM-AT) prevalence, 15.3% of people in the CVRD were identified as low income in 2015 (highest at 28% in Duncan and lowest at 11.8% in Ladysmith).
- Median After-Tax income of lone-parent families rose 13% 2010 and 2015 in the CVRD, increases were seen for Duncan, Lake Cowichan, North Cowichan while Ladysmith has remained unchanged. All areas are below the BC-median After-Tax income, except Ladysmith.
- In 2015, 21% of the children and youth in the CVRD were living in low-income families; the highest proportion of children living in low-income families were 38.8% in Duncan in 2015.
- Income inequality increased slightly in the CVRD between 2010 and 2015. The CVRD's average household income exceeded its median income by 15.3 % in 2010 and 16.9% in 2015, significantly less for BC as a whole (22.74%).
- The percentage of the population receiving temporary income assistance decreased in the CVRD between 2014 and 2019 from 2.6% to 2.0%.
- The percentage of the population receiving disability assistance increased in the CVRD between 2014 and 2019 from 3.3% to 3.4%.

Key Determinant 1: Income and Social Status

Economic uncertainty negatively affects mental and physical health at the individual, family and community levels (WHO, 2014 a)

For each increasing income bracket, Canadians experience less sickness, longer life expectancies and improved healh (PHAC 2013)

Income

15% of people in the CVRD were low income in 2015
Duncan: 28% (highest)
Ladysmith 11.8% (lowest)

21% of children and youth in the CVRD were living in low income families in 2015
Duncan : 39% (highest)

Temporary Income Assistance

Decreased in the CVRD between 2014-2019

Income Inequality

Income inequality slightly increased in the CVRD from 2010-2015

Disability Assistance

% receiving disability assistance increased from 2014-2019

Median Individual Income

BC
2015: **$ 29,783**

BC Aboriginal
2015: **$22,682**

Median individual and household income in the CVRD rose consistently between 2010-2015

CVRD
2010: **$26,061**
2015: **$29,120**
11 % increase

CVRD Aboriginal
2010: **$15,347**
2015: **$18,803**
22.5% increase

Lone Parent Income

Median incomes of lone income families has risen between 2010 and 2015

CVRD
2010: **$38,288**
2015: **$42,441**
13 % increase

Median Household Incomes

BC
2015: **$61,280**

CVRD
2010: **$52,157**
2015: **$57,783**
10 % increase

Table 12: Income and Social Status Indicators Overview

Indicator Name	Indicator Description	Relevance to Health and Well-being
Local Economy		
Median After-Tax income	▪ Median income is the amount that divides the income distribution into two equal groups—half having income above that amount, and half having income below that amount, 2010, 2015 ▪ Median income of the Aboriginal population, 2010, 2015	▪ Economic instability can contribute to poor physical and mental health (Public Health Agency of Canada, 2013).
Low income persons	▪ Percentage of the population considered low income based on the after-tax low-income measure (LIM-AT), 2010, 2015 ▪ The LIM-AT is a fixed percentage (50%) of median adjusted after-tax income of households observed at the person level, where 'adjusted' indicates that a household's needs are taken into account.	▪ Persons facing unemployment and economic instability are at higher risk for mental health problems and poorer physical health outcomes (Public Health Agency of Canada 2013).
Median After-Tax Income of Lone-parent Economic Families	▪ Identifies the level of financial stability among families with one wage earner, 2010, 2015	▪ Lower income persons are at higher risk of poorer health outcomes as there is less money available for quality housing, nutritious food, recreation, and other elements that contribute to health and well-being (Public Health Agency of Canada, 2013). ▪ Lone-parent families are more likely to be low income compared to two-parent families; lower

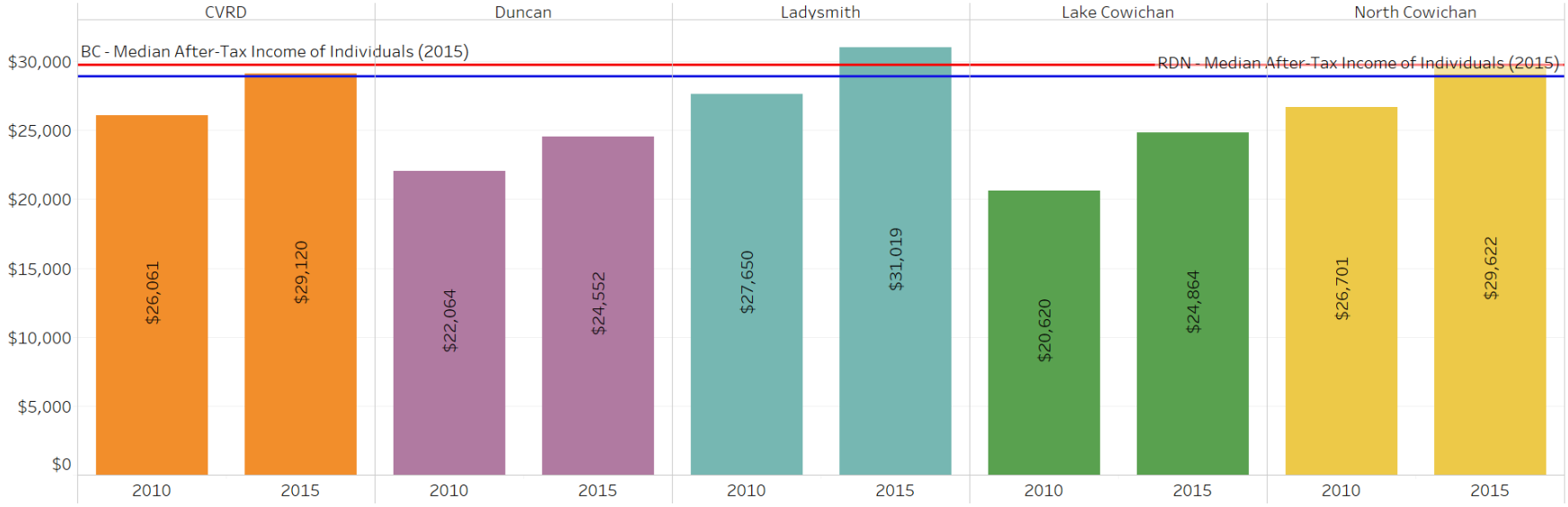
Indicator Name	Indicator Description	Relevance to Health and Well-being
Children aged 17 and under living in low income families	▪ Prevalence of children living in low-income families based on LIM-AT, 2010, 2015	income persons are at higher risk of poorer health outcomes (Public Health Agency of Canada, 2013). ▪ Income inequality is the extent to which income is distributed unevenly in a community, region or province. High income inequality has negative physical and mental health consequences for communities as a whole (Public Health Agency of Canada, 2013).
Income inequality	▪ Difference between average (mean) and median household incomes, expressed as a percentage. ▪ Average income is the arithmetic mean income. ▪ Median income is the amount that divides the income distribution into two equal groups—half having income above that amount, and half having income below that amount. It is often reported in the media as the "average" income because statistical agencies typically report the median income.	
Percent of population on BC Government income assistance by Local Health Area (LHA)	▪ Percentage of the population receiving Temporary Assistance under the BC Employment and Assistance Program. Income assistance usage is measured quarterly, for residents aged 19 to 64.	▪ People receiving social assistance tend to have lower health outcomes (Public Health Association of British Columbia, 2008).

Income and Inequality

Median After-Tax Income of Individuals

Between 2010 and 2015, the median after-tax income of individuals in the CVRD rose by 11.7% from $26,061 to $29,120, this slightly exceeded the median income in RDN ($28,963) but was slightly lower than BC ($29,783). All Cowichan communities experienced a rise in median income of individuals between 2010 and 2015. In 2015, Ladysmith's median after-tax income of individuals ($31,019) was higher than both BC and RDN.

Figure 8: Median After-Tax Income of Individuals (2010, 2015)

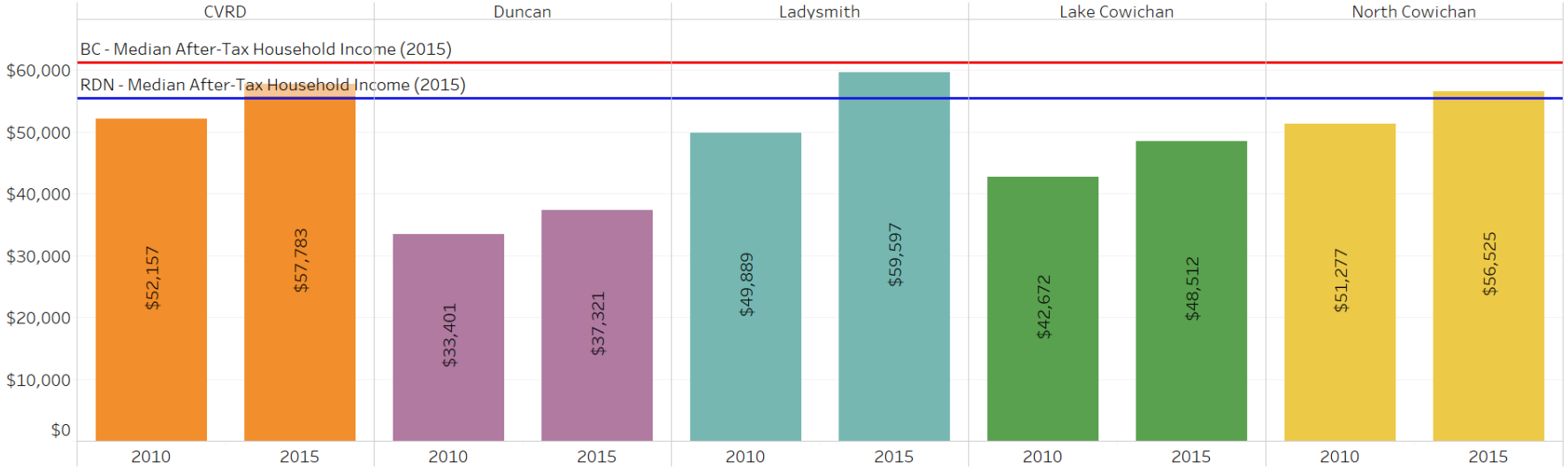


Source: National Household Survey 2011, Statistics Canada Census 2016

Median After-Tax Income of Households

Between 2010 and 2015, the median after-tax income of households in the CVRD rose by 10 percent from $52,157 to $57,738 which is close to the Regional District of Nanaimo's (RDN) median of $55,521, but below the BC median of $61,280. Median after-tax household income rose in each of the CVRD communities between 2010 and 2015. The median household incomes in Duncan and Lake Cowichan were consistently below the CVRD and BC median incomes in the past decade.

Figure 9: Median After-Tax Income of Households (2010, 2015)

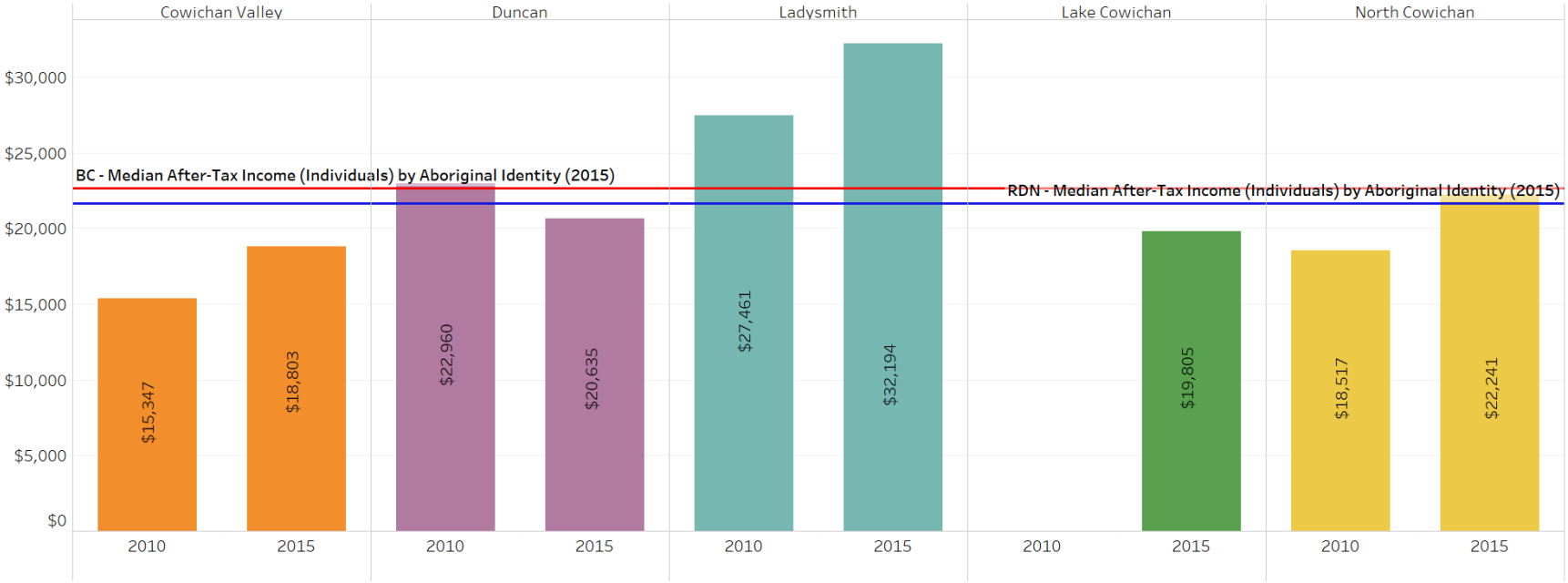


Source: National Household Survey 2011, Statistics Canada Census 2016

Median After-Tax Income of Individuals Identifying as Aboriginal

Between 2010 and 2015, the median after-tax income of individuals identifying as Aboriginal in the CVRD rose by 22.5% from $15,347 to $18,803, below the median in the Regional District of Nanaimo ($21,675) and BC ($22,682). All Cowichan communities experienced a rise in median income of individuals identifying as Aboriginal between 2010 and 2015, with the exception of Duncan which saw a decrease of 10%. The median income for individuals identifying as Aboriginal in Ladysmith was $32,194 which was higher than all of the Cowichan communities, RDN, BC as well as the median after-tax income for individuals in the general population overall. No value was available for Lake Cowichan for 2010.

Figure 10: Median Individual After-Tax Income by Aboriginal Identity (2010, 2015)

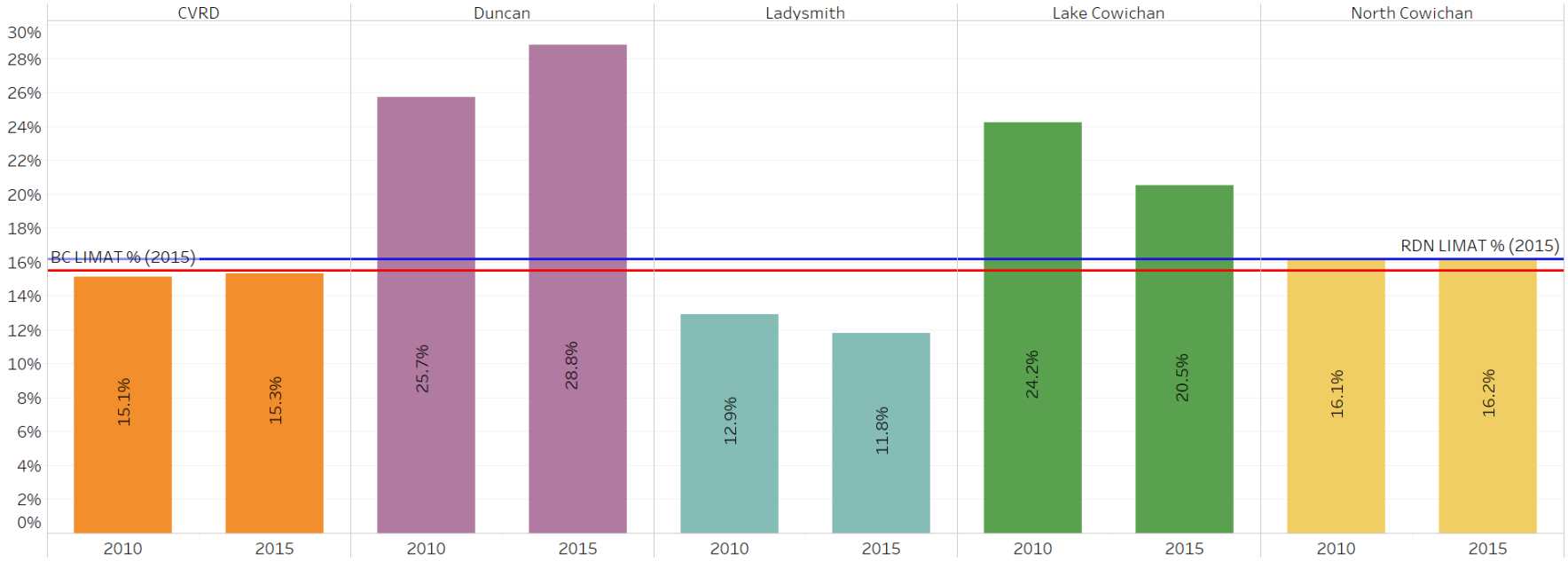


Source: National Household Survey, 2011 and Aboriginal Population Profile, 2016

Low Income Persons

Using the low-income measure after-tax (LIM-AT) prevalence, 15.1% of people in the CVRD were identified as low income in 2010 and 15.3% in 2015, which was just below the BC 2015 prevalence of 15.5%. Duncan and Lake Cowichan had greater proportions of low-income persons, 28.8% and 20.5% in 2015, respectively, than RDN and BC. Ladysmith had the lowest prevalence of low income in 2010 (12.9%) and 2015 (11.8%). The prevalence of low income in North Cowichan was 16.2% in 2015, just above the BC prevalence and below the RDN prevalence.

Figure 11: Low Income Measure, After-Tax, Prevalence, 2010, 2015



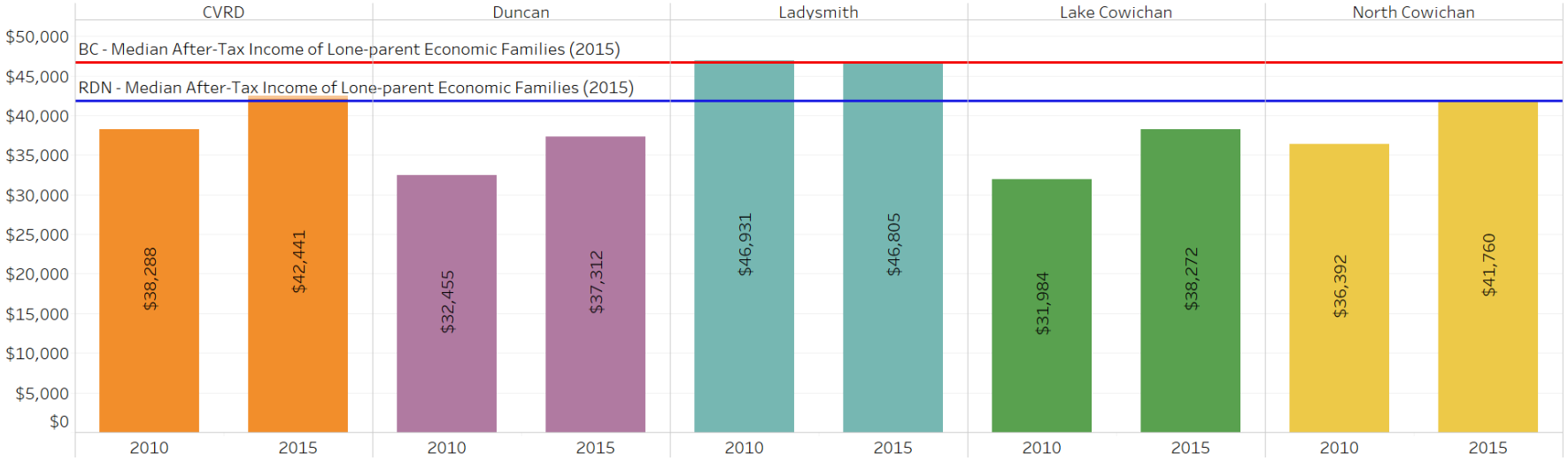
Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Note: The Low-income measure, after tax, refers to a fixed percentage (50%) of median adjusted after-tax income of households observed at the person level, where 'adjusted' indicates that a household's needs are taken into account. The household after-tax income is adjusted by an equivalence scale to take economies of scale into account. This adjustment for different household sizes reflects the fact that a household's needs increase, but at a decreasing rate, as the number of members increases. (Statistics Canada, 2016) https://www12.statcan.gc.ca/nhs-enm/2011/ref/dict/fam021-eng.cfm

Median After-Tax Income of Lone-parent Economic Families

The median family income of CVRD lone-parent families rose from $38,288 in 2010 to $42,441 in 2015, which was similar to the Regional District of Nanaimo's average, but below BC's average of $46,668. Lone-parent families in Duncan, Lake Cowichan, and North Cowichan experienced increases in income between 2010 and 2015. The lone-parent median income rose by 20% from $31,984 to $38,272 between 2010 and 2015 in Lake Cowichan, the largest increase amongst the Cowichan communities. However, all communities, except for Ladysmith, fell below the BC and Nanaimo Regional District.

Figure 12: Median After-Tax Income of Lone-parent Economic Families (2010, 2015)



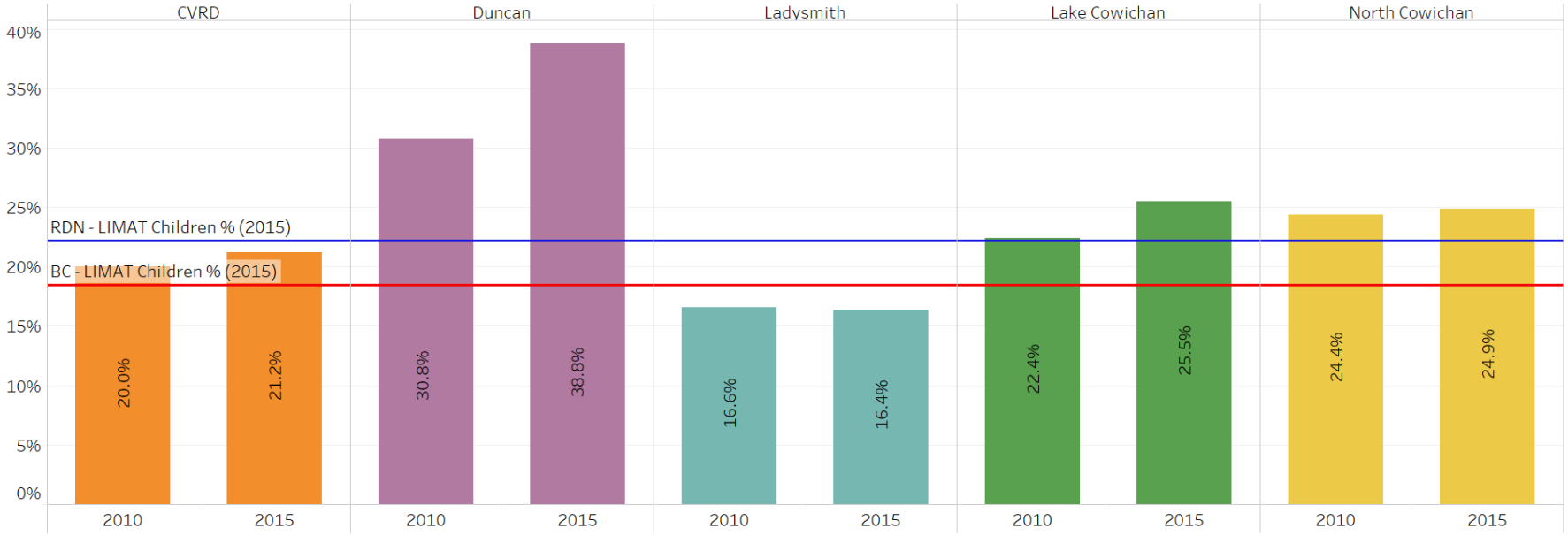
Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Note: Economic family is defined as a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law union, adoption of a foster relationship. By definition, all persons who are members of a census family are also members of an economic family. https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/fam011-eng.cfm

Children Aged 17 and Under Living in Low Income Families

In 2015, 21.2% of the children and youth in the CVRD were living in low-income families, this is slightly higher than the prevalence of 20% in 2010. The prevalence of children and youth in low-income families in the CVRD exceeded the 2015 BC prevalence of 18.5% but was lower than the Nanaimo Regional District prevalence of 22.2%. The proportion of children living in low-income families was highest in Duncan, where 38.8% of children lived-in low-income families in 2015. Duncan, Lake Cowichan, and North Cowichan prevalence of children and youth living in low-income families exceeded that of the province and RDN. The prevalence of children and youth living in low-income families was lowest in Ladysmith in both 2010 (16.6%) and 2015 (16.4%).

Figure 13: Prevalence of Children (Aged 17 and under) Living in Low-Income Families based on LIM-AT (2010, 2015)



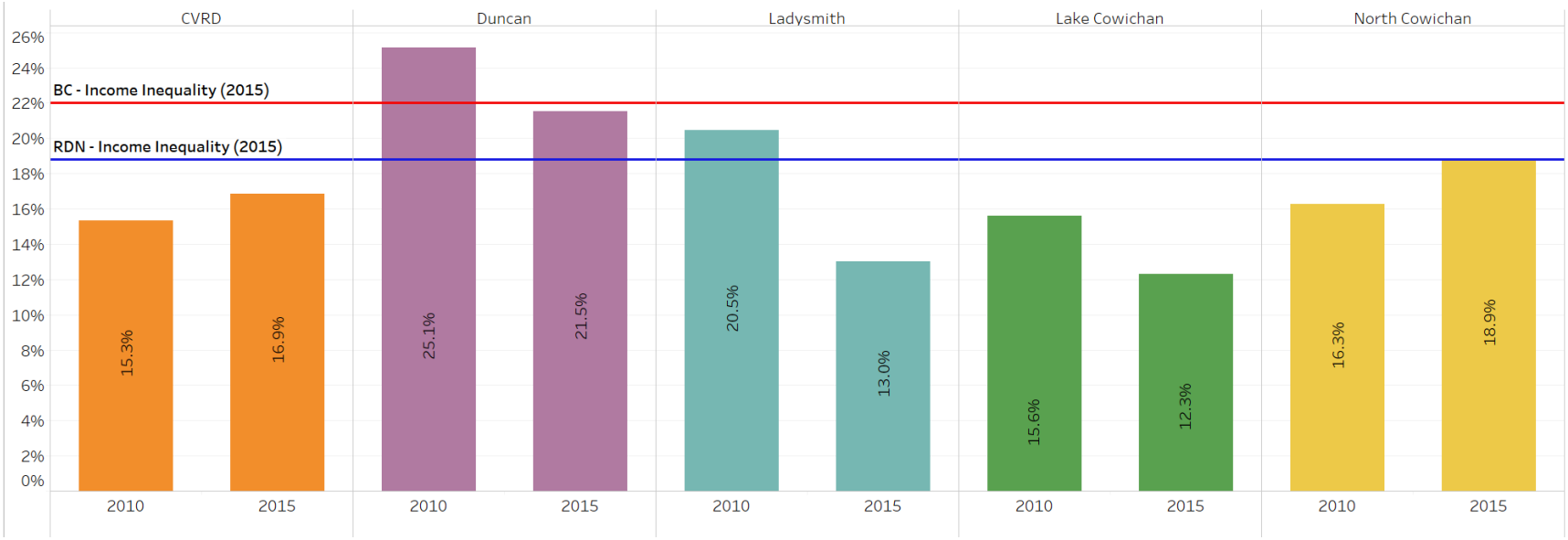
Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Income Inequality - Households

The gap between average and median incomes is used to measure income inequality, with an excess of average over median income demonstrating income inequality and an increasing gap over time indicating growing income inequality.

Household income inequality increased slightly in the CVRD between 2010 and 2015. The CVRD's average household income exceeded its median income by 15.3% in 2010 and 16.9% in 2015, significantly less than for BC as a whole (22.7%) and RDN (19.3%). Duncan experienced the greatest difference between average and median family incomes in 2015, exceeding the provincial level. In 2015, the income gap between average and median household incomes in Duncan, Ladysmith and Lake Cowichan decreased significantly and income inequality in Ladysmith and Lake Cowichan was below the RDN and BC values. In 2015, North Cowichan's average income exceed its median income by 18.9%, below the RDN and provincial values.

Figure 14: Household Income Inequality (2010, 2015)

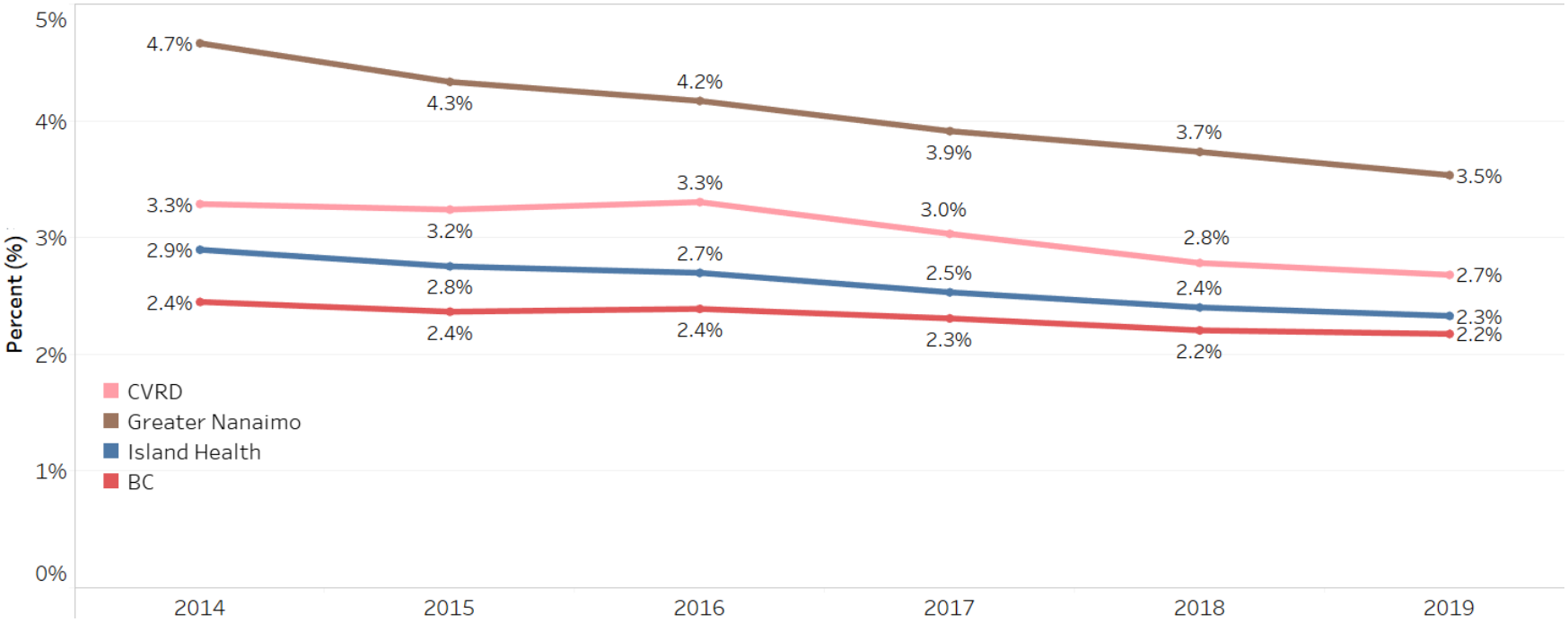


Source: National Household Survey, 2011 & Statistics Canada Census, 2016 (Calculated by [Ave. Income – Med. Income] / Med. Income.

BC Government Social Assistance

Between 2014 and 2019 the percent* of the CVRD population receiving temporary income assistance declined from 3.3% to 2.7% but remained above the Island Health and BC averages. The values were consistently lower than those for Greater Nanaimo. During the same time period, the percent of the CVRD population receiving disability insurance increased from 4.2% to 4.6%. Values for the CVRD were comparable to Island Health but higher than BC and lower than Greater Nanaimo.

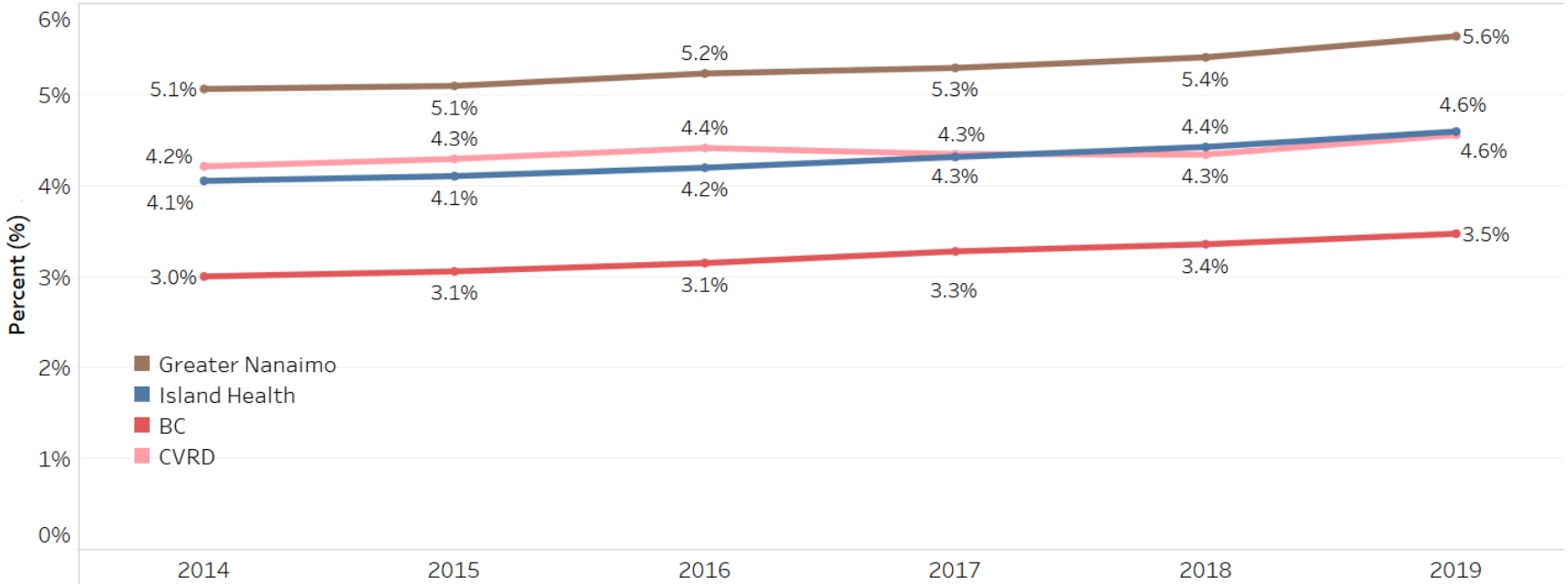
Figure 15: Percent of Population receiving BC Government Temporary Income Assistance (2014 to 2019)



Source: BC Ministry of Social Development and Poverty Reduction, 2020

* The percent of the population receiving temporary income assistance is calculated by dividing the number of income assistance recipients by the total population 0-64 years of age.

Figure 16: Percent of Population Receiving BC Government Disability Assistance (2014 to 2019)



Source: BC Ministry of Social Development and Poverty Reduction, 2020

Key Determinant 2:
Employment and Working Conditions

Active labour force participation has a significant effect on the mental and physical health of workers and their families. Paid work not only provides income necessary to meet health needs, but also provides a sense of identity and purpose, opportunities for personal growth, and supportive social contacts.

Stable, secure employment provides families and individuals with financial security, social status and more opportunities for self-development. On the other hand, precarious employment can negatively influence health, for example, not being able to afford housing and access to nutritious food. These impacts also negatively impact mental health (Marmot et al., 2008).

People living in the most materially deprived areas- with the highest levels of individuals without a high school diploma, highest unemployment rates and lowest incomes have higher suicide rates (PHAC, 2018) and are twice as likely to die prematurely (BC CDC, 2019).

Key Findings:

- The labour force participation rate in the CVRD was stable around 57% between 2011 and 2016. Labour force participation was lowest in Duncan in 2016 (49.4%). Labour force participation for the Aboriginal population was very similar to the total population.
- The percentage of labour force in full-time positions decreased from 2011 to 2016 in the Cowichan Valley. In 2016, 46.9% of people in the labour force worked full-time.
- The Employment Insurance (EI) recipient rate in the CVRD was above the BC average between 2014 and 2019, but declined from 3.2% to 2.6%. In 2019 the EI recipient rate was 2.6% for CVRD compared to 2.4% for BC.
- Between 2011 and 2016, the CVRD's labour force numbers in the 15 years and over age group increased by 2.4%; Lake Cowichan experienced a large increase in its labour force between 2011 and 2016.
- Between 2014 and 2019, the rate of business formations per 1000 people was consistently higher for Duncan than that for BC. The rate in 2019 was 3.5 for the CVRD, 23.6 for Duncan and 8.8 for BC.
- In 2016, 76% of the labour force was in the Service-producing sectors while 24% was in the goods producing sectors.

Key Determinant 2: Employment and Working Conditions

Active labour force participation has a significant effect on the mental and physical health of workers and their families

Unemployment and Underemployment

47%

Worked full time in the CVRD

% of labour force in full-time positions decreased from 2011-2016

Unemployed persons have lower life expectancies and suffer more health problems than people who have jobs (PHAC, 2013)

Labour Force

Participation

57%
CVRD

Growth

2.4%
CVRD

2011-2016

Lake Cowichan
19%

Duncan
49%
Lowest Aboriginal CVRD
54%

Industry

2016

Goods-Producing (24%)

Service Producing Sectors (76%)

CVRD EI Recipient Rate

2014-2019

2019 CVRD 2.6%

vs 2019 BC 2.4%

Business Formations per 1000 people 2019

2014-2019

CVRD : 3.5

Duncan: 23.6

BC: 8.8

Table 13: Employment and Working Conditions Indicator Overview

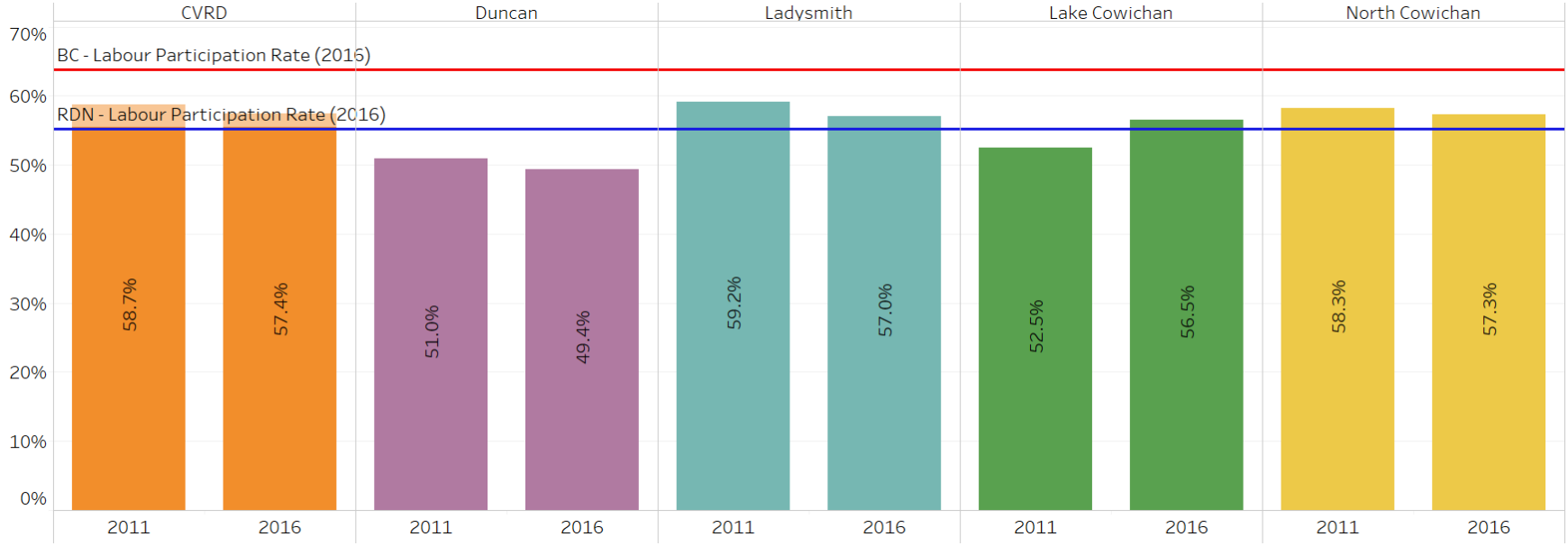
Indicator Name	Description	Relevance to Health and Well-being
Labour Force Participation		
Labour force participation rate	▪ The percentage of working-age persons who are employed or unemployed but seeking employment, 2011, 2016	▪ Research shows that employment positively affects physical and mental health (Public Health Agency of Canada, 2013).
Aboriginal labour force participation	▪ The percentage of Aboriginal people who are employed or unemployed but seeking employment, 2011, 2016	
Unemployment and Underemployment		
Percent of Labour Force in part-time and full-time positions	▪ The percentage of the labour force that is employed part-time compared to the percentage of the labour force that is employed full-time, 2011, 2016	▪ Unemployment and underemployment are associated with poorer health (Public Health Agency of Canada, 2013).
Employment insurance recipient rate	▪ The percentage of residents aged 15 to 64 years accessing provincial employment insurance benefits.	▪ People receiving social assistance tend to have lower health outcomes (Public Health Association of BC, 2008).
Local Economy		
Labour force growth	▪ The change in the population of the prime working age group (15 years and over), 2006-2011, 2011-2016	▪ A vibrant and growing economy that generates new employment opportunities can help prevent mental and physical health issues Associated with unemployment (Public Health Agency of Canada, 2013).
North American Industry Classification System (NAICS) Sector	▪ The proportion of the labour force working in a particular sector, 2016	
Business formations	▪ Total business formations per thousand persons in the CVRD, 2014-2018	

Labour Force Participation

Labour Force Participation Rate

In 2016, the CVRD had a labour force participation rate of 57.4% which was down slightly from 2011 (58.7%) but just above that of RDN (55%). The CVRD rate in 2016 was below BC's average of 64.0%. Labour force participation in 2016 was lowest in the City of Duncan (49.4%), all Cowichan communities with the exception of Duncan, exceeded the RDN's labour force participation rate.

Figure 17: Labour Force Participation Rate (2011, 2016)

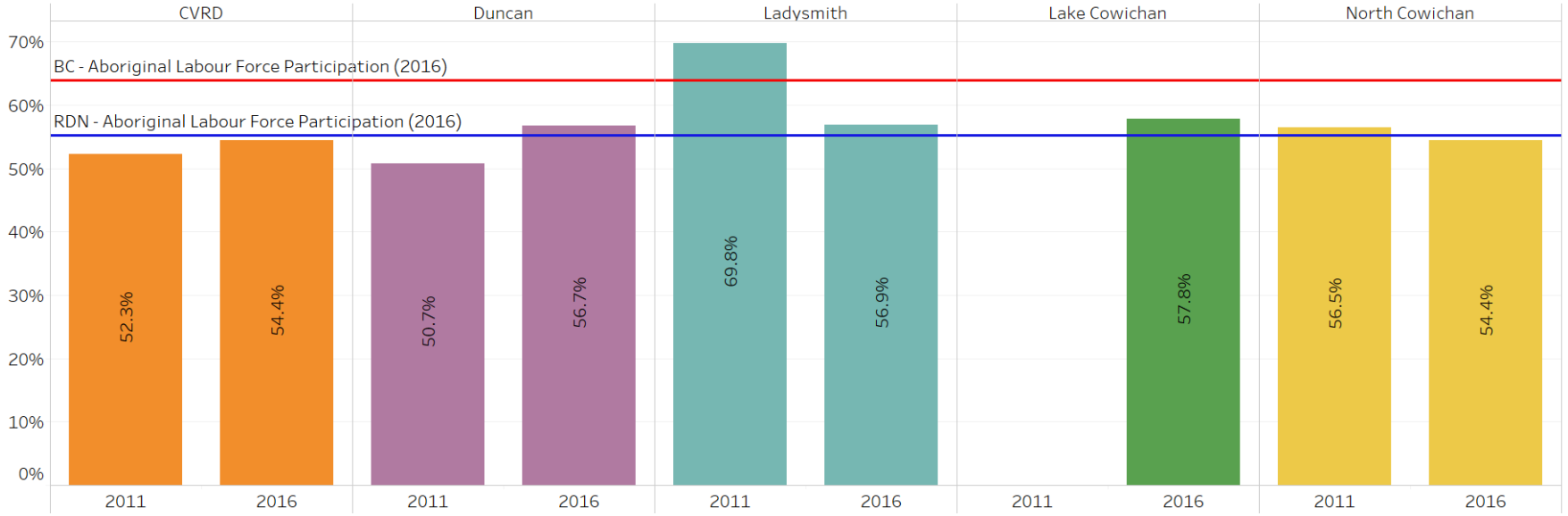


Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Aboriginal Labour Force Participation

Between 2011 and 2016, the labour force participation rate for individuals who self-identify as Aboriginal in the CVRD rose from 52.3% to 54.4%, and was comparable to the rate for Nanaimo Regional District but remained below the 2016 BC rate of 63.9%. The rate in Ladysmith declined drastically from 69.8% in 2011 to 56.9% in 2016 whereas the rate for the City of Duncan increased from 50.7% to 56.7% and the rate for North Cowichan declined slightly.

Figure 18: Aboriginal Labour Force Participation Rate (2011, 2016)



Source: Statistics Canada, NHS Aboriginal Population Profile 2011, Aboriginal Population Profile, 2016

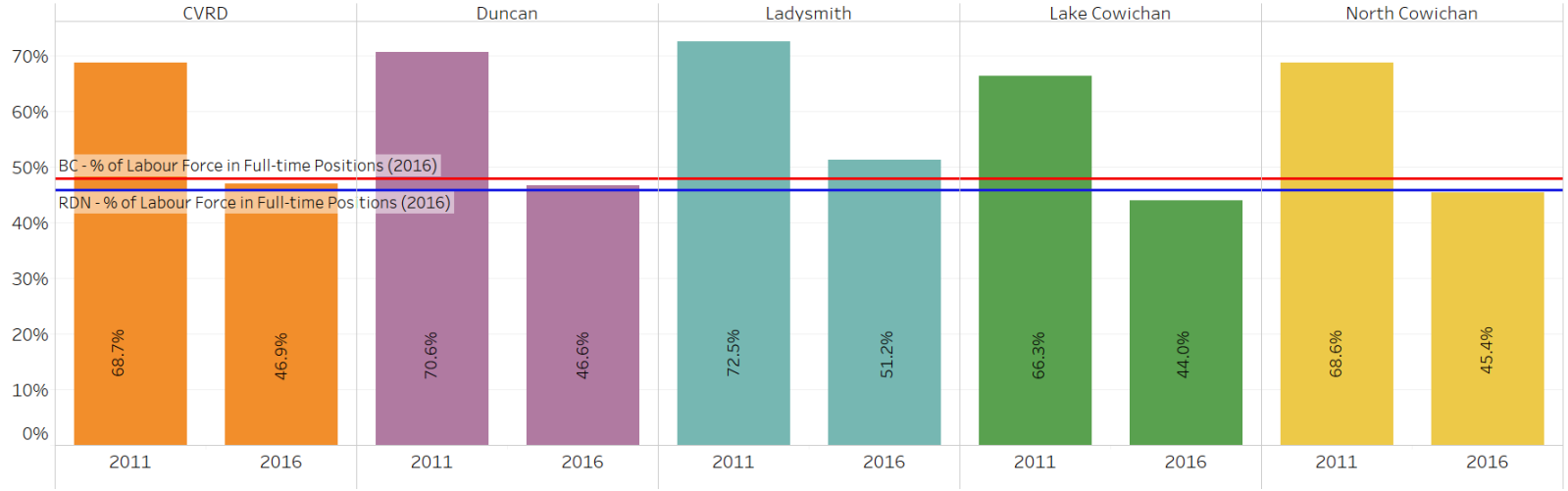
Note: 2011 Aboriginal Labour Force Participation Rate data not available for Lake Cowichan.

Unemployment and Underemployment

Full-Time and Part-Time Work

In the 2016 census, 46.9% of the labour force in CVRD was reported to have worked full-time, just below the provincial rate (47.9%) and just above the RDN rate (45.8%). The proportion of the labour force working full-time in 2016 was fairly similar between Duncan, Lake Cowichan and North Cowichan with only Ladysmith having more than 50% of the labour force working full-time. The proportion of the labour force working full-time declined substantially between 2011 and 2016 (68.7% to 46.9% for the CVRD) indicating a shift from full-time to part-time and/or temporary work.

Figure 19: Percentage of Labour Force who worked Full-time (2011, 2016)

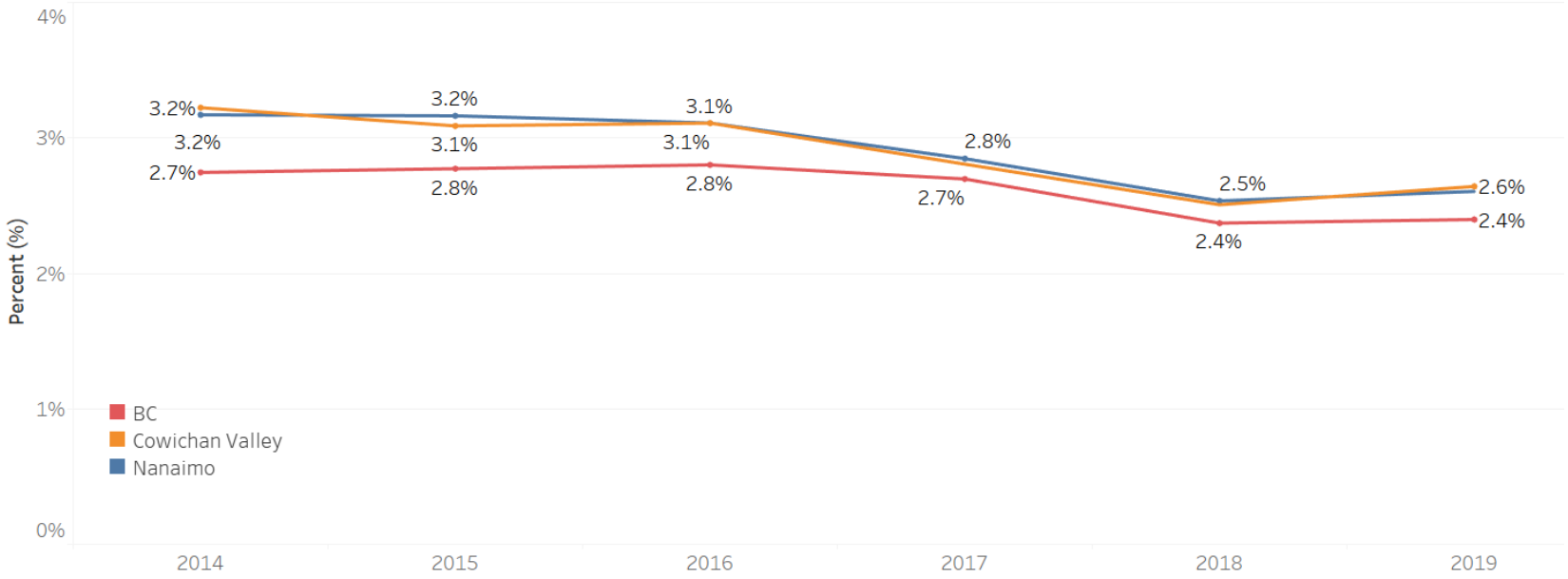


Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Employment Insurance Recipient Rate

Persons who have lost their employment and meet work eligibility conditions can receive financial support benefits through the Employment Insurance (EI) program. The chart below shows EI beneficiaries in the CVRD as a percentage of the population aged 15 to 64 years. While the CVRD has experienced higher EI recipient rates between 2014 and 2019 compared to the province, the CVRD and BC rates have been converging over time. In 2019, the CVRD had an average monthly EI recipient rate of 2.6%, which was comparable to that for the RDN and only slightly higher than the provincial average of 2.4%.

Figure 20: Employment Insurance Recipient Rate (2014-2019)



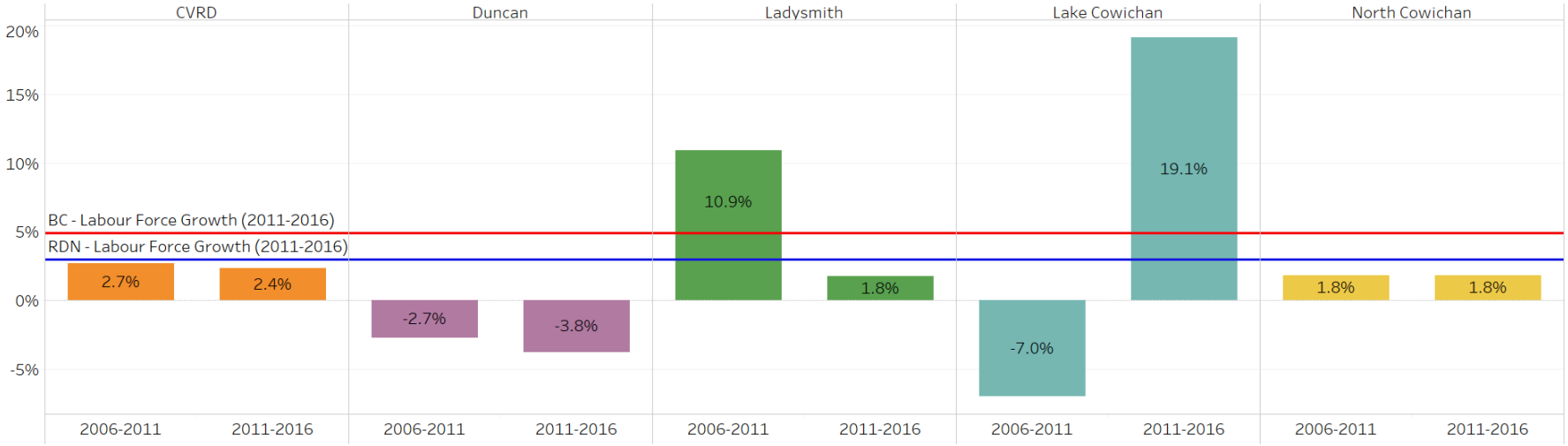
Source: Calculated from Statistics Canada 2020 Table 14-10-0323-01 and BC Stats Population Estimates

Local Economy

Labour Force Growth

Between 2011 and 2016, the CVRD's labour force numbers in the 15 years and over age group increased by 2.4%, while the size of the province's labour force in this age range increased by 5.0% and RDN's labour force increased by 3.0%. Duncan's labour force decreased by 3.8% and Ladysmith's labour force increased slightly by 1.8%. Lake Cowichan experienced the greatest growth in its labour force with a 19.1% increase between 2011 and 2016.

Figure 21: Percent Change in Labour Force (ages 15 years and over), 2006-2011 and 2011-2016

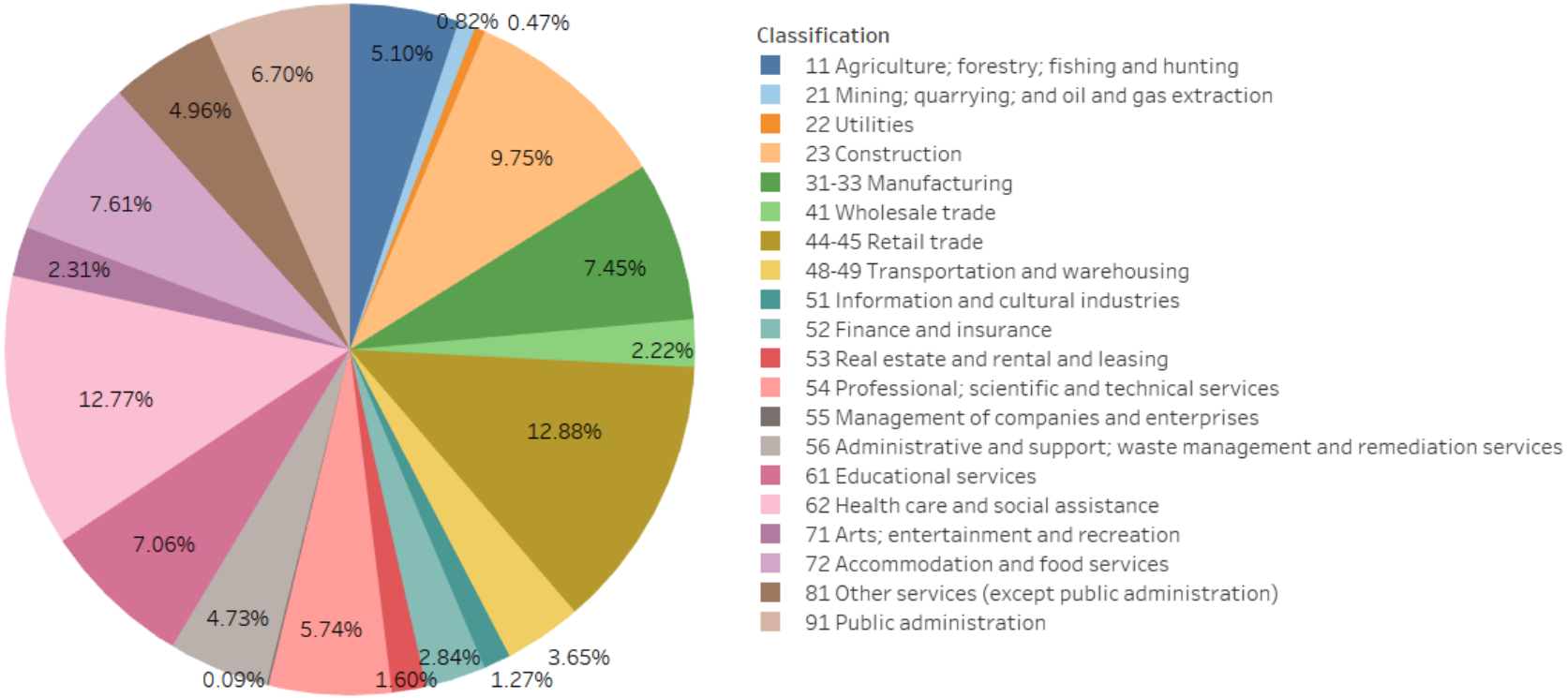


Source: Calculated from National Household Survey, 2011 and Statistics Canada Census, 2016.

Job Sector

The largest proportion (76%) of the CVRD labour force in 2016 is part of the Service-Producing sectors (NAICS classifications 41-91) as opposed to the Goods-Producing sectors (NAICS classifications 11-33), with the largest single sector represented being Health care and social assistance (12.7%).

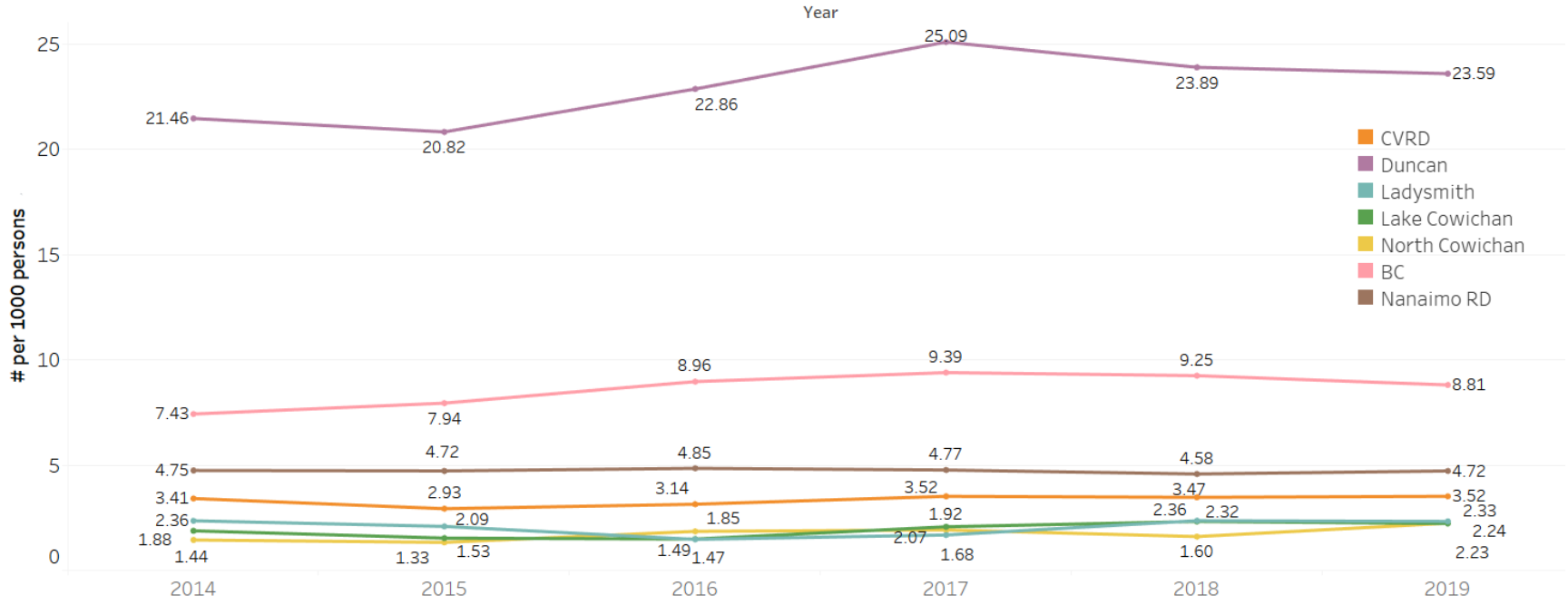
Figure 22: CVRD Labour Force population, 15 years and over by Industry (North American Industry Classification System (NAICS 2012), 2016



Business Formations

The CVRD's business formation rate (per 1000 persons) was approximately half that for BC over the 2014 to 2019 time period*. However, the City of Duncan consistently achieved more than double the BC rate during the same time period, with between 20.8 to 25.1 business formations for every thousand people. In 2019, a total of 326 businesses opened in the CVRD.

Figure 23: Business Formations per Thousand Persons (2014-2019)



Source: https://www2.gov.bc.ca/gov/content/data/statistics/economy/business-formations-failures

* Business formations per thousand persons is calculated by dividing the number of business formations by the total population and multiplied by a thousand

Labour Force Growth Trends

According to the CVRD Industrial Land Use Strategy, between 2011 and 2016, more than 27% of labour force growth that was seen in the Cowichan Valley, was in the goods-producing sectors while 73% was in the service producing sectors. The goods-producing sector in the Cowichan Valley saw the largest labour force increase in Construction and Manufacturing; whereas the service-producing sector saw an increase in Administrative and Support Services and Accommodation and Food Services. Activities related to Mining, Quarrying, and Gas Extraction grew by 58.5% while Information Technology and Cultural Industries grew by 39.4%. Public Administration, Arts, Entertainment and Recreation, and Real Estate sectors saw a decrease in a labour force participation between 2011 and 2016 (CVRD Industrial Land Use Strategy, 2019).

The major business projects taking place in the CVRD include:

- In Duncan, the Cowichan Valley Regional Hospital District replacement project.
- In Duncan, the new Cowichan Highschool replacement project https://news.gov.bc.ca/releases/2019EDUC0140-002445
- In Ladysmith, the Waterfront Area Plan.
- In Duncan, the Best Western Cowichan Valley Inn recently underwent a major 4 million dollar make-over.
- In Mill Bay, Brentwood College School recently built a brand new 60,000 sq. ft. athletics facility.
- The Oyster Bay Development Plan.

Key Determinant 3: Education and Literacy

Effective education, starting in infancy and through adulthood, is a key contributor to health. Education and literacy contribute to wealth and health by equipping people with the skills needed to problem solve and have a sense of control over their lives (Public Health Agency of Canada, 2013).

Educational attainment has far-reaching effects on an individual's socio-economic status, increasing opportunities for employment, and the ability to access and understand information (Ibid). In addition, people with higher levels of education tend to have better access to healthy environments, make healthier lifestyle choices such as not smoking, and are better able to prepare their children for school (Ibid).

Lower education attainment was associated with decreased life expectancy, lower self-rated mental health and increased chronic diseases. A gradient of inequalities was seen by socio-economic status (PHAC, 2018).

Key Findings:

- High school six-year completion rates in 2019 were 81.1% in the Cowichan Valley School District, 76.4% in the Nanaimo-Ladysmith School District, and 85.4% for BC overall.
- High school six-year completion rates for Indigenous students in 2019 were 58.3% in the Cowichan Valley School District, 69.2% in the Nanaimo-Ladysmith School District, and 69.1% for Indigenous students in BC overall.
- In 2016, the percentage of individuals without a high school diploma was 18.1% in the CVRD, it was highest in Duncan (22.9%) and Lake Cowichan (20.8%) communities and lowest in Ladysmith (15.3%).
- In 2016, the percentage of Indigenous students without a high school diploma was 22.5% in the CVRD, higher than BC (18%) and RDN (18.4%) proportion. It was highest in Duncan (26.9%) and lowest in Ladysmith (19.3%).
- In 2016, the proportion of the population with post-secondary qualifications was 52.9% in the CVRD, it was highest in Ladysmith (56.1%) and lowest in Lake Cowichan (44.1%).

Determinant 3: Education & Literacy

Lower education attainment was associated with decreased life expectancy, lower self-rated mental health and increased chronic diseases (PHAC, 2018).

2019

Six year high school completion rates

All students

- 85% BC
- Cowichan Valley School District: 81%
- Nanaimo-Ladysmith School District: 76%

Indigenous Students

- 69% BC
- Cowichan Valley School District: 58%
- 69% Nanaimo-Ladysmith School District

2016

Population without a high school diploma

Indigenous Students

- CVRD: 22.5%
- 18% BC
- Highest 26.9% Duncan
- 19.3% Ladysmith Lowest

All students

- CVRD: 18.1%
- 15.3% Ladysmith Lowest
- Highest 22.9% Duncan

Proportion of the population with post-secondary qualifications

2016

- 53% CVRD
- Highest 56% Ladysmith
- Lowest 44% Lake Cowichan

Table 14: Education Indicator Overview

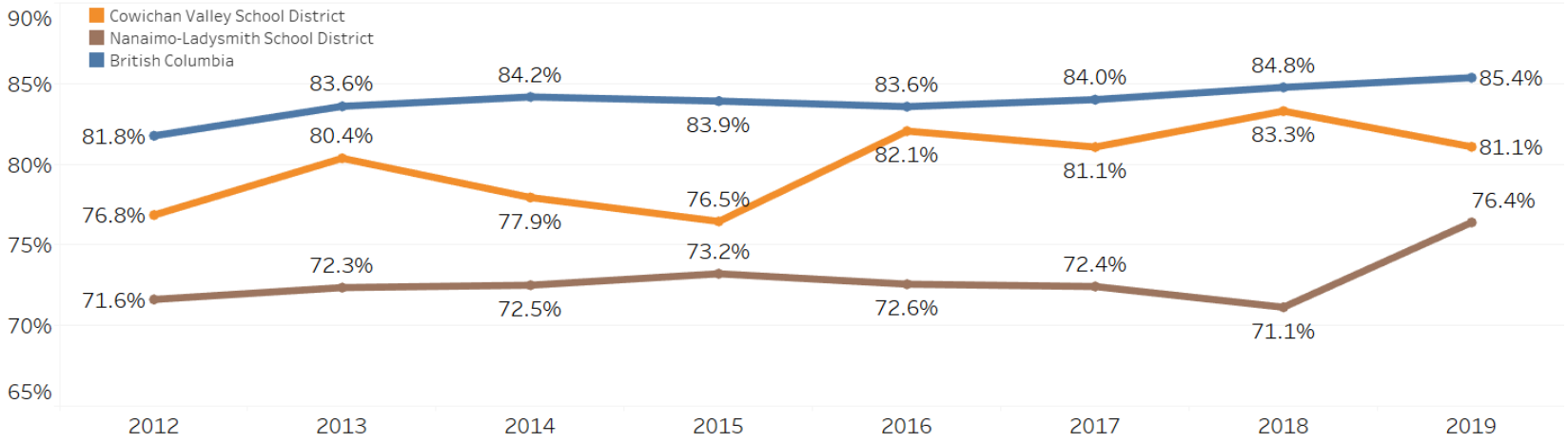
Indicator Name	Description	Relevance to Health and Well-being
High school six-year completion rate	▪ The percentage of students that has completed a four-year high school program within six years (i.e., within 150% of the normal time for completion) ▪ All students and Indigenous students, 2014-2019	▪ Those who fail to complete secondary education are more likely to be unemployed and face poor health outcomes (Region of Waterloo Public Health, 2011).
Population without a high school diploma	▪ The percentage of the general population that has not graduated from high school or a high school-equivalent program. ▪ Total population and Aboriginal population, 2011, 2016	
Percent of total population aged 15 years and over with post-secondary qualifications	▪ The percentage of the general population that has graduated from a trade, college, or university program, 2011, 2016	▪ Those with post-secondary education are less likely to be unemployed, which contributes to better health outcomes (Public Health Agency of Canada, 2013).

Educational Attainment

High School Completion - All Students

High school completion rates in the Cowichan Valley school district improved overall between 2012 and 2019 with a peak of 83.3% in 2018. The Nanaimo-Ladysmith school district also experienced an increase in high school completion rates between 2012 and 2019 with a peak of 76.4% in 2019, however, its completion rates are consistently below those of the Cowichan Valley school district. Both school districts had lower high school completion rates than the province, Nanaimo-Ladysmith was 9 percentage points and Cowichan Valley was 4.3 percentage points below the provincial completion rate of 85.4% in 2019.

Figure 24: High School Six Year Completion Rate – All Students (2012 to 2019)

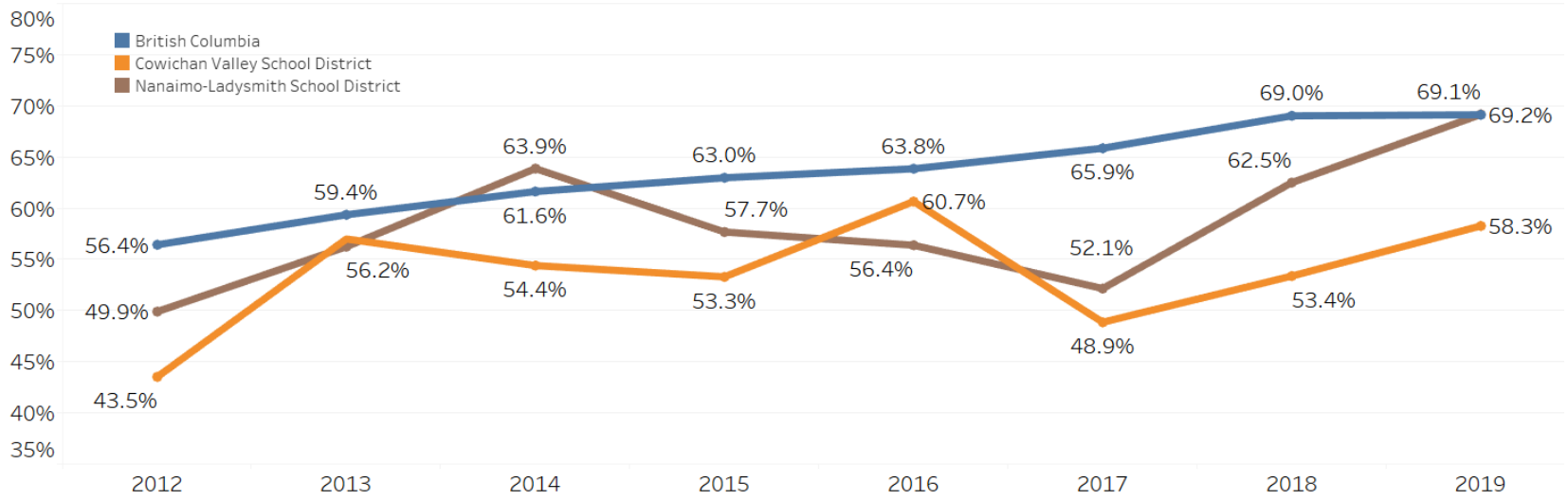


Source: BC Ministry of Education, 2020

High School Completion - Indigenous Students

High school completion rates for Indigenous students in the Cowichan Valley school district improved overall from 43.5% in 2012 and to 58.3% in 2019 with a peak of 60.7%. Similar improvements were seen in the Nanaimo-Ladysmith school district with a peak of 69.2% in 2019 (up from 49.9% in 2012). Both school districts had lower high school completion rates for Indigenous students than the province overall until 2019 when the completion rate for Indigenous students in Nanaimo-Ladysmith slightly surpassed that of BC Indigenous students overall (69.1%).

Figure 25: High School Six Year Completion Rate – Indigenous Students (2012 to 2019)

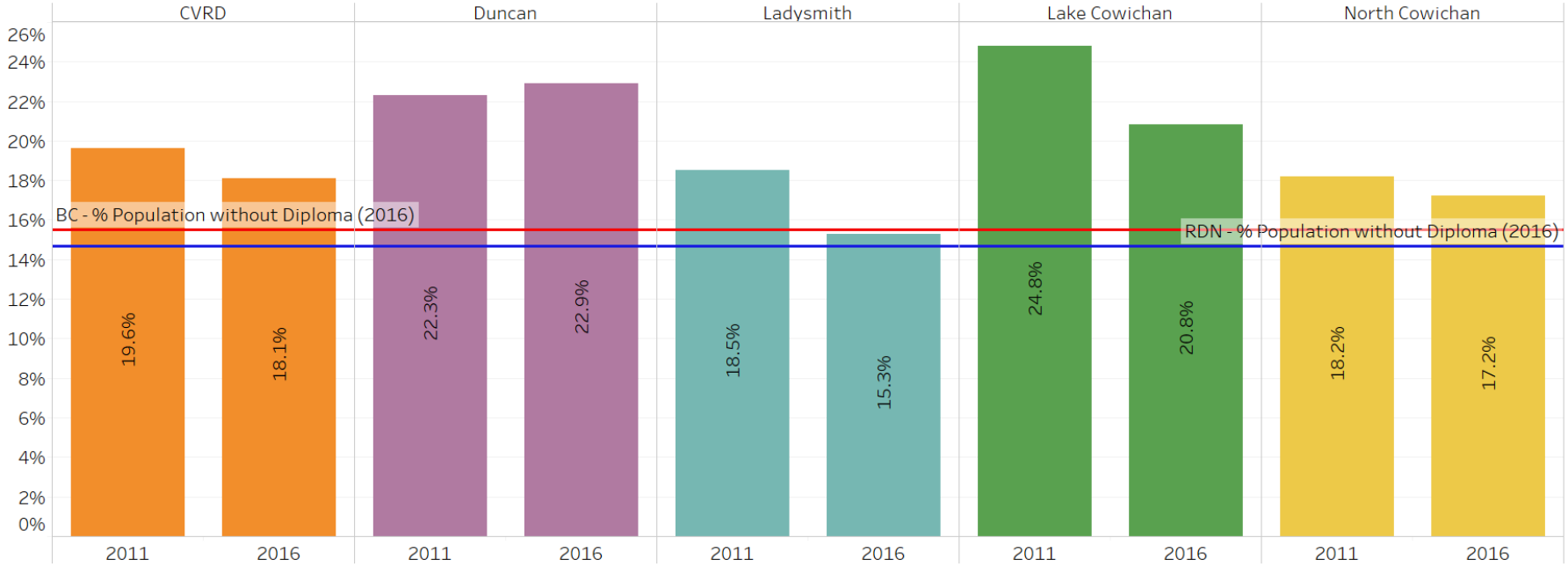


Source: BC Ministry of Education, 2020

Total Population without a High School Diploma

The proportion of CVRD residents without a high school diploma has decreased slightly from 19.6% in 2011 to 18.1% in 2016, but still sits above the provincial average of 15.5%. In 2016, with the exception of Ladysmith, all CVRD communities had higher percentage of people without a high school diploma than in BC and RDN. The largest improvement was seen in Lake Cowichan where the percentage of total population without a high school diploma fell by 4 percentage points from 2011 to 2016.

Figure 26: Percentage of Total Population without a High School Diploma (2011, 2016)

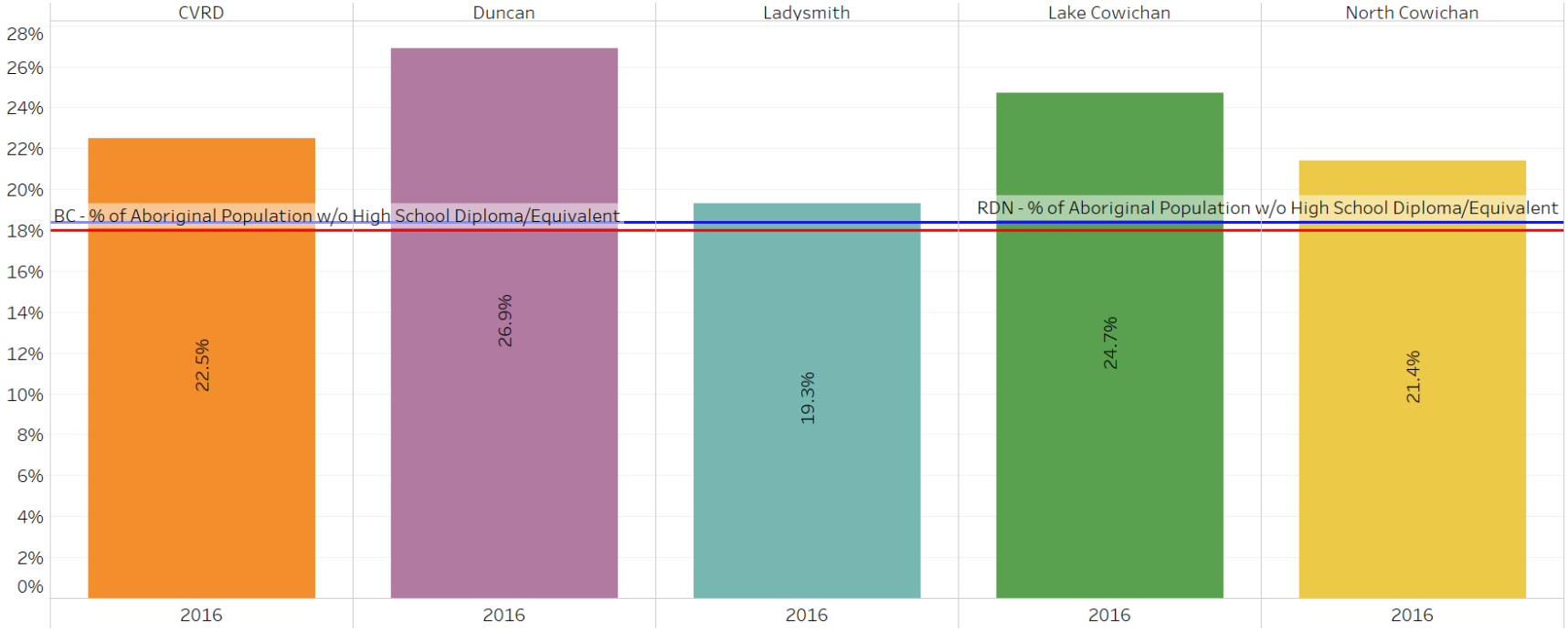


Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Aboriginal Population without a High School Diploma

Among the Aboriginal population of the CVRD, the proportion without high school diplomas was 22.5% in 2016, higher than the BC (18%) and RDN (18.4%) proportions. The proportion of the Aboriginal population without a high school diploma in Duncan was 26.9%, while Lake Cowichan was 24.7%. Ladysmith (19.3%) and North Cowichan (21.4%) had the lowest percent of Aboriginal population without a high school diploma in 2016.

Figure 27: Percent of Aboriginal Population without a High School Diploma (2016)

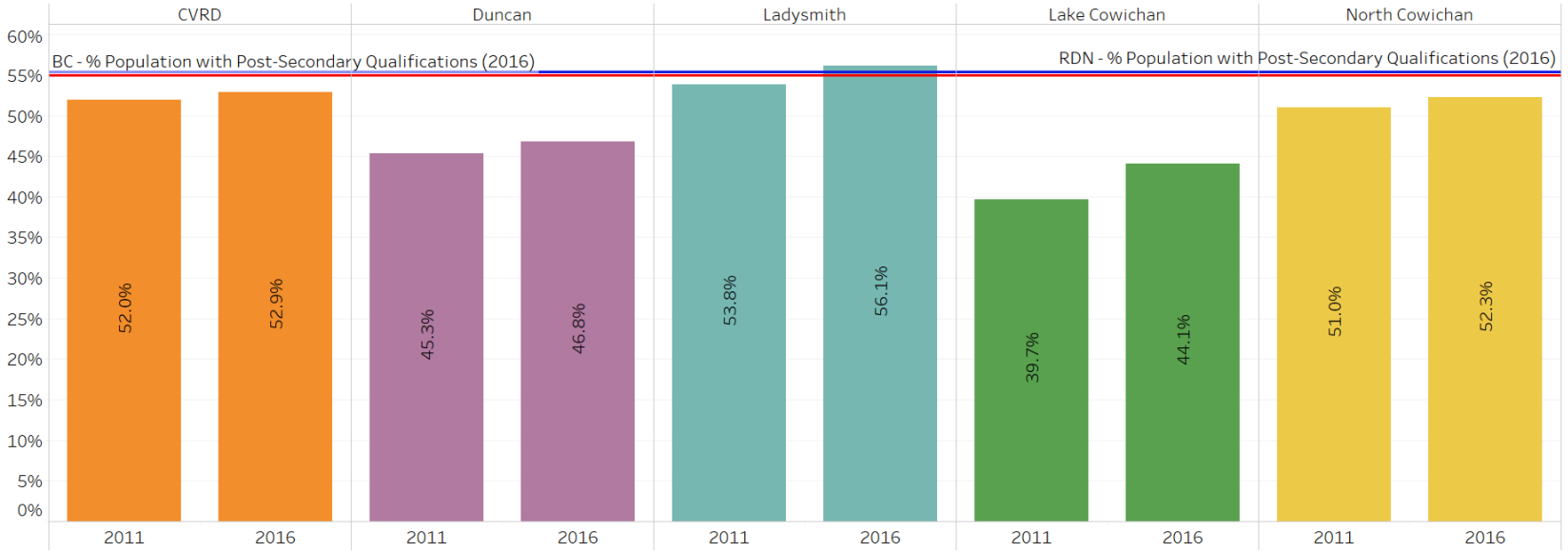


Source: Aboriginal Population Profile, 2016

Total Population with Post-secondary Qualifications

Post-secondary qualifications refer to trade certificates or college/university certificates, diplomas, or degrees. The proportion of trade, college and university graduates in the CVRD increased slightly between 2011 and 2016, from 52% to 52.9% but remained below the BC average (55%) and the Regional District of Nanaimo's average (55.4%). In 2016, post-secondary attainment rates in the Cowichan Valley ranged from 44.1% in Lake Cowichan to 56.1% in Ladysmith. Between 2011 and 2016, the proportion of the population in the CVRD, Duncan, Ladysmith, Lake Cowichan, and North Cowichan with post-secondary qualifications increased.

Figure 28: Percent of Total Population with Post-secondary Qualifications (2011, 2016)



Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Key Determinant 4: Childhood Experiences

Early childhood is a crucial time period to lay the foundation of experiences that will optimize the lifelong development of child's health. Early childhood development is widely understood to be strong predictor of health outcomes in adulthood (Rious &Hay, 1993). Children who experience health inequities in early childhood are more likely to experience negative health outcomes and these experiences will also dictate education and economic opportunities.

In Canadian provinces, children's well-being is measured using the Early Development Instrument (EDI). Vulnerabilities on the EDI scores, in particular social and emotional development scores, in kindergarten children in British Columbia have been associated with increased risk of mental health conditions, such as anxiety diagnosis and depressive symptoms, at age 14 years (Thomson et al., 2019). Lower socioeconomic status, such as poverty proxies and lone parent proxies, have also been shown to have detrimental effects on children's emotional development scores and mental health conditions in British Columbia (Guhn et al., 2020). Children living in the most materially and socially deprived neighborhoods are more likely to experience developmental vulnerabilities in Canada (PHAC, 2018).

Key Findings:

- The Cowichan Valley West/Lake Cowichan LHA saw an improvement in the EDI measurement between 2016 and 2019 of kindergarteners rated vulnerable in one or more domains (physical, social, emotional, language, and communication), although large variations exist due to small numbers.
- Cowichan Valley North exceeded the provincial (33.4%) proportions of kindergarten children rated as vulnerable on one or more domains by almost 10 percentage points.
- The Cowichan Valley South remained stable from 2016 to 2019; coinciding with the provincial proportions with saw slightly elevated proportions of vulnerable children on one or more domain during this time
- The number of children and youth (ages 0-18) in need of protection is significantly higher in the Cowichan Valley North Local Health Area (54.1 per 1,000 children), nearly double the provincial average (29.5 per 1,000) as of 2017.
- The number of children and youth (ages 0-18) in care was significantly higher across all three Cowichan Valley local health areas than the provincial and Island Health rates in 2016, 2017, and 2018.

Key Determinant 4: Childhood Experiences

Early childhood development is widely understood to be strong predictor of health outcomes in adulthood (Rioux & Hay, 1993). It is measured using the Early Development Instrument (EDI).

Rate per 1000

54.1 CV North
33.2 CV South
29.2 CV West
41.3 Island Health
29.5 BC

2017

Children and youth in need of protection is higher in Cowichan Valley North compared to BC

Rate per 1000

26.3 CV West
24.2 CV South
14.5 CV North
11.4 Island Health
6.9 BC

2018

Children and youth in care is higher in all the Cowichan areas

EARLY DEVELOPMENT INDEX

Measured at Kindergarten
Domains: Social, emotional, physical, language and communication

BC: **33%** were vulnerable in one or more domain

Cowichan Valley West

16% were vulnerable in one or more domain

EDI measurement scores **improved** between 2016-2019

Cowichan Valley North

43% were vulnerable in one or more domain

EDI measurement scores **worsened** between 2016-2019

Cowichan Valley South

34% were vulnerable in one or more domain

EDI measurements remained **constant** during 2016-2019

Table 15: Childhood Development Indicator Overview

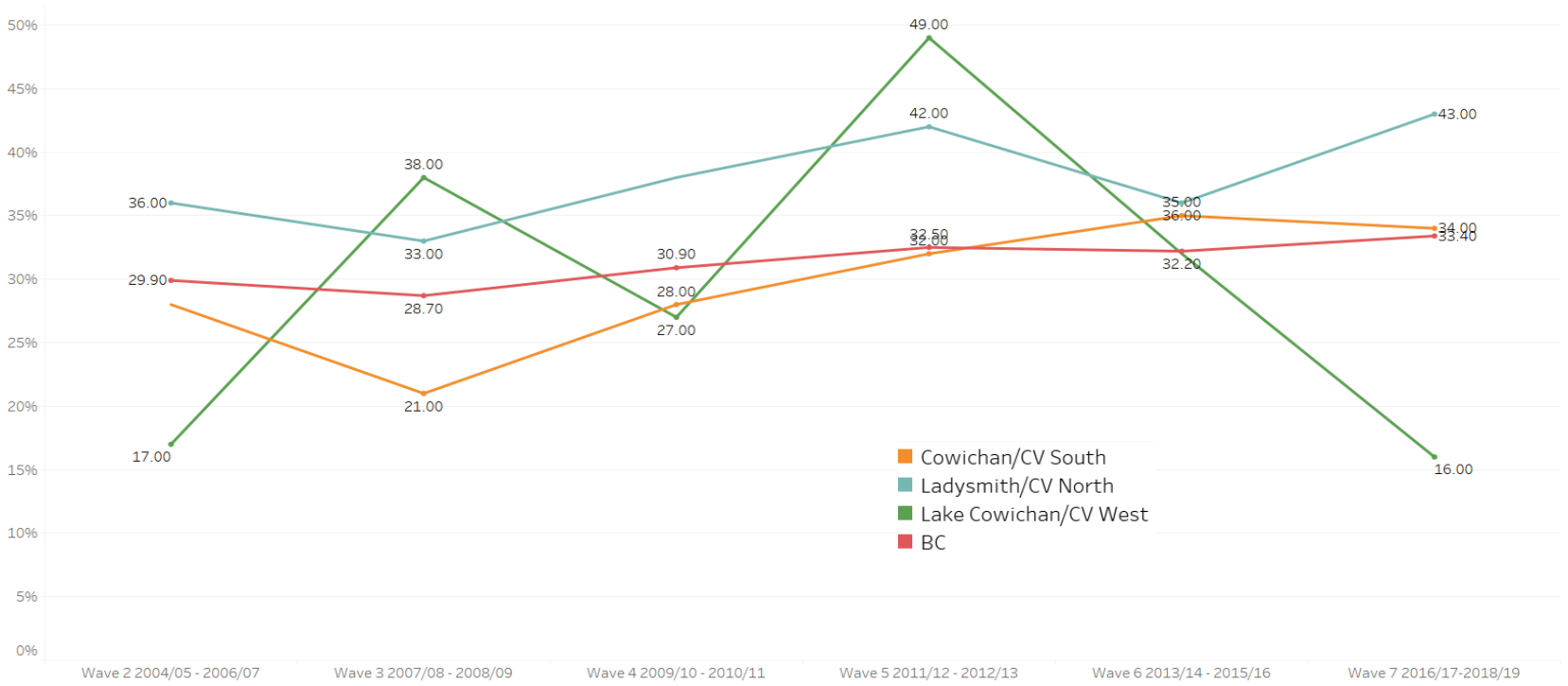
Indicator Name	Description	Relevance to Health and Well-being
Kindergarten children rated as vulnerable on one or more domains	▪ The EDI is a tool created to assess key areas of early child development and vulnerability. Vulnerability is defined as "the portion of the population which, without additional support and care, may experience future challenges in school and society" (University of British Columbia n.d.).	▪ EDI vulnerability measurements are understood to be strong forecasters of social, health and education outcomes in adulthood (University of British Columbia, n.d.).
Children in need of protection	▪ Children and youth (ages 0 – 18) in need of protection per 1000 (2016, 2017), Ministry of Children and Family Development	▪ Children with broken families or in care may experience loneliness and therefore a reduction in their sense of belonging. This lack of social relationships is known to contribute to a decrease in health (Holt-Lunstad, 2010).
Children in care	▪ Children and youth (ages 0 – 18) in care per 1000 (2016, 2017, 2018) Ministry of Children and Family Development	

Early Development Instrument (EDI) Overall Vulnerability

The EDI questionnaire, completed by kindergarten teachers in BC for all of their students, measures five domains of early child development that are known to be good predictors of adult health, education and social outcomes, these core areas are: physical, social, emotional, language, and communication. Results are collected in "waves," containing data from numerous consecutive school years. This report uses EDI data from Wave 2 to Wave 7, covering the 2004/05 to 2018/19 academic years.

Vulnerability in one or more domain has generally increased for Cowichan Valley South and North from Wave 2 to 7. Although there has been considerable fluctuation year to year, the percent vulnerable on one or domain for Cowichan Valley West is lower for wave 7 than it was for wave 2. In 2016/17 to 2018/19 the percent vulnerable on one or more domain was lower than BC overall in Cowichan Valley West but higher in Cowichan Valley North and South.

Figure 29: Kindergarten Children rated as vulnerable on one or more domains



Source: Early Development Index, University of British Columbia

Children in Care and Children in Need of Protection

The proportion of children (aged 0 to 18 years) in need of protection has increased in the Cowichan Valley South and Cowichan Valley North LHAs between 2016 and 2017. Cowichan Valley North exceeded the provincial rate of 29.5 per 1000 and the Island Health rate of 41.3 per 1000. In 2018, all of the Cowichan LHAs have more children and youth in care than Island Health (11.4 per 1000) and BC (6.9 per 1000). Cowichan Valley South/Cowichan LHA has experienced a steady increase from 2016 to 2018 while Cowichan Valley North/Ladysmith LHA saw a decrease during the same timeframe. In 2018, Cowichan Valley South/Cowichan LHA and Cowichan Valley West/Lake Cowichan LHA exceeded the number of children and youth in care in Island Health by 12.8 and 14.9 children and youth per 1000, respectively.

Figure 30: Children & Youth (0 to 18 years) in Need of Protection per 1000 (2016, 2017)

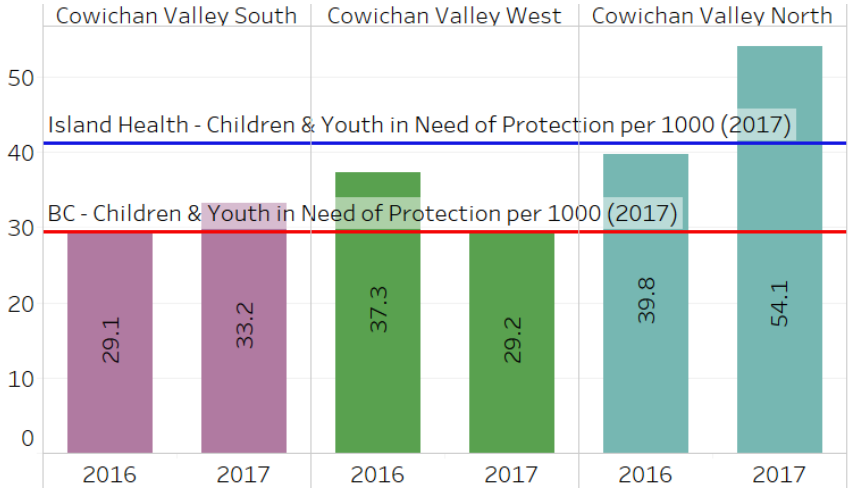
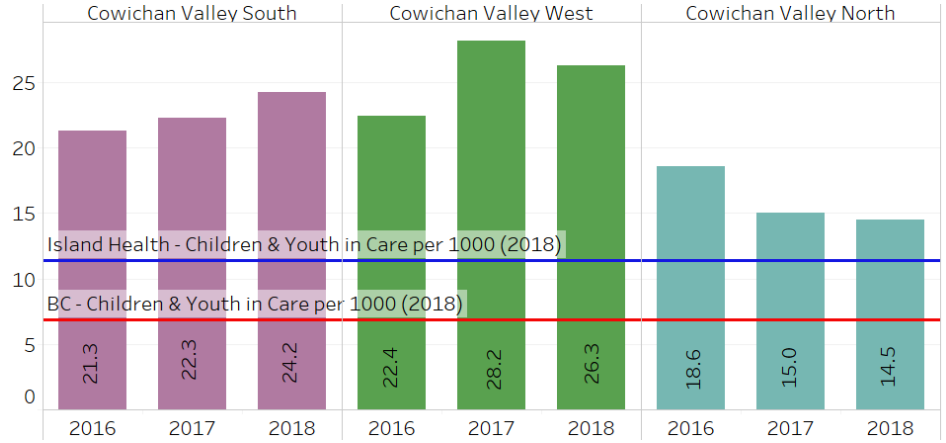


Figure 31: Children & Youth (0 to 18 years) in Care per 1000 (2016/17, 2017/18, 2018/19)



Source: Ministry of Children & Family Development, 2016, 2017, 2018

Key Determinant 5: Physical Environments

The physical environment is known to be an important determinant of health. Exposure to contaminants in air, water, food and soil can cause numerous negative health effects (Public Health Agency of Canada, 2013).

In addition to the health issues related to environmental contamination, there are also factors related to the built environment to consider. These include the direct physical impacts of indoor air quality, poor heating or ventilation in buildings, hazards from road infrastructure, balanced population density in neighborhood designs, and healthy active public transportation systems. The built environment also has indirect impacts on individual's health and well-being and mental health and well-being (BC Children's Hospital, 2019) through the quality of available housing and community safety and accessibility (including transportation and mobility) (Royal Society for Public Health, 2012). In Canada, housing below standards is more prevalent among people of the lower income group than higher income group. (PHAC, 2018)

Beyond the more local and direct impacts of the physical environment, there is growing concern that we are changing the local, regional and ultimately global ecosystems in ways that damage the basic life support systems of the planet. Indicators of local ecological sustainability also need to be included in the assessment of health status, reflecting local greenhouse gas emissions, evidence of climate change, depletion of key renewable and non-renewable resources—such as farmland, forests, fisheries-- emissions of solid, liquid and toxic wastes, and loss of habitat, species and biodiversity.

Key Findings:

- The population affected by total boil days is higher in the Cowichan Valley compared to Island Health in 2017-2019
- Crimes rates increased in the Cowichan Region between 2018-2019
- The property crime rate increased from 30.7 crimes per 1,000 population to 39.5 crimes per population from 2018 to 2019
- The rate for crimes against the person increased from 7.0 crimes per 1,000 population to 10.4 crimes per population from 2018 to 2019
- The proportion of housing in need of repair was higher as a whole for the CVRD compared to the Nanaimo Regional District and provincial average, with highest rates seen in Duncan and Lake Cowichan.
- The rate of home ownership remained steady between 2011 and 2016 in all communities.
- 77% owned a home in the CVRD in 2016 (low of 54% in Duncan and a high of 81% in Ladysmith)
- The percentage of owner and tenant households spending 30% or more of their income on shelter costs decreased between 2011 and 2016 – in 2016 17% of Owner households in the CVRD spent >30% of income on housing and 44% of tenant households did
- Median monthly rent costs increased between 2011 and 2016, but remained lower than the median rental costs in BC and RDN average.

Key Determinant 5: Physical Environments

The physical environment is known to be an important determinant of health. Exposure to contaminants in air, water, food and soil can cause numerous negative health effects (Public Health Agency of Canada, 2013).

Housing

Rental Costs

Median monthly rent costs increased from 2011-2016

Home Ownership Rate

77% owned a home in the CVRD in 2016

remained the same between 2011-2016

lowest: 54% Duncan
highest: 81% Ladysmith

Water Quality

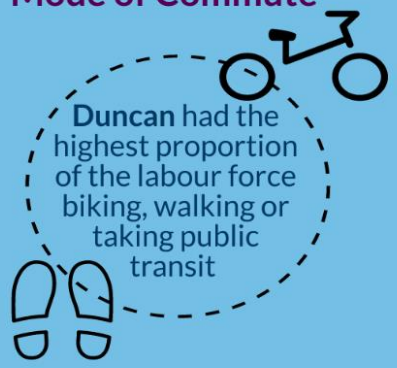
The population affected by total boil days is higher in the Cowichan Valley compared to Island Health from 2017-2019

Housing Affordability

17% of **owner** households in the CVRD spent >30% of income on housing

44% of **tenant** households in the CVRD spent >30% of income on housing

Mode of Commute



Duncan had the highest proportion of the labour force biking, walking or taking public transit

Crime

Crime rates increased in the Cowichan Region 2018-2019

Property crime rate (per 1000 population)
2018: **30.7**
2019: **39.5**

Crimes against persons (per 1000 population)
2018: **7.0**
2019: **10.4**

Housing Quality

The proportion of houses needing repair was higher in the CVRD than the provincial average in 2016

Table 16: Physical Environment Indicator Overview

Indicator Name	Description	Relevance to Health and Well-being
Human and Environmental Health		
Air Quality	▪ Annual $PM_{2.5}$ Average with and without Wild Fire Smoke	▪ It is well documented that air pollution from both indoor and outdoor sources can contribute to a variety of illnesses and premature deaths in Canadians; improving air quality would result in a large health benefit to citizens (CMA, 2008). ▪ Clean air, water, and soil are essential to the health of citizens and ecosystems of the Cowichan region.
Water Quality	▪ Population affected by boil water days in the Cowichan Valley	
Transportation and Mobility		
Active mode of commute	▪ % of employed labour force aged 15 years and over in private households who reported walking, biking or using public transit as their main mode of commuting to work (Census 2016)	▪ Transportation systems are known to be a significant determinant of health both directly as they relate to levels of pollution and accidents, as well as indirectly as they relate to and impact the layout of urban areas (Royal Society for Public Health, 2012).
Community Safety		
Property Crime	▪ Identifies the number of property crime incidences by category	▪ A safe community allows individuals to move around more freely and access resources that are essential to good health.
Crimes Against the Person	▪ Identifies the number of crimes against the person by category	

Indicator Name	Description	Relevance to Health and Well-being
Built Environment		
Density	▪ Population density by census subdivision.	▪ The denser a neighbourhood or community is, the easier it is for residents to reach their destinations using active means of transportation, such as walking, cycling and public transit, thereby encouraging more physical activity than in car-dependent neighbourhoods and communities.
Housing Quality	▪ Percentage of dwellings in need of major repair.	▪ Homes in need of major repair may be unsafe to inhabit and may have issues such as poor air quality that contribute to poor health.
Housing Affordability		
Home-ownership Rate	▪ The proportion of households that own their own dwelling.	▪ Households with the economic stability and income levels to invest in residential property tend to have better health outcomes.
Residential Selling Price	▪ Average residential selling price, 2014-2018	
Percent of households spending 30% or more of household total income on shelter costs	▪ The percentage of households that must allocate more than a third of their income to housing.	▪ When housing values and shelter costs are high or when more than 30% of a household's income is spent on shelter, it may be difficult to access other determinants of health, such as nutritious food or recreation (Bryant et. al, 2002). ▪ This is particularly important for groups who have less overall income, such as low-income households, individuals and families on income assistance, seniors, and youth/young adults.
Average and median monthly shelter costs for rented dwellings	▪ The average and median price of rent by community.	

Human and Environmental Health

Water Quality

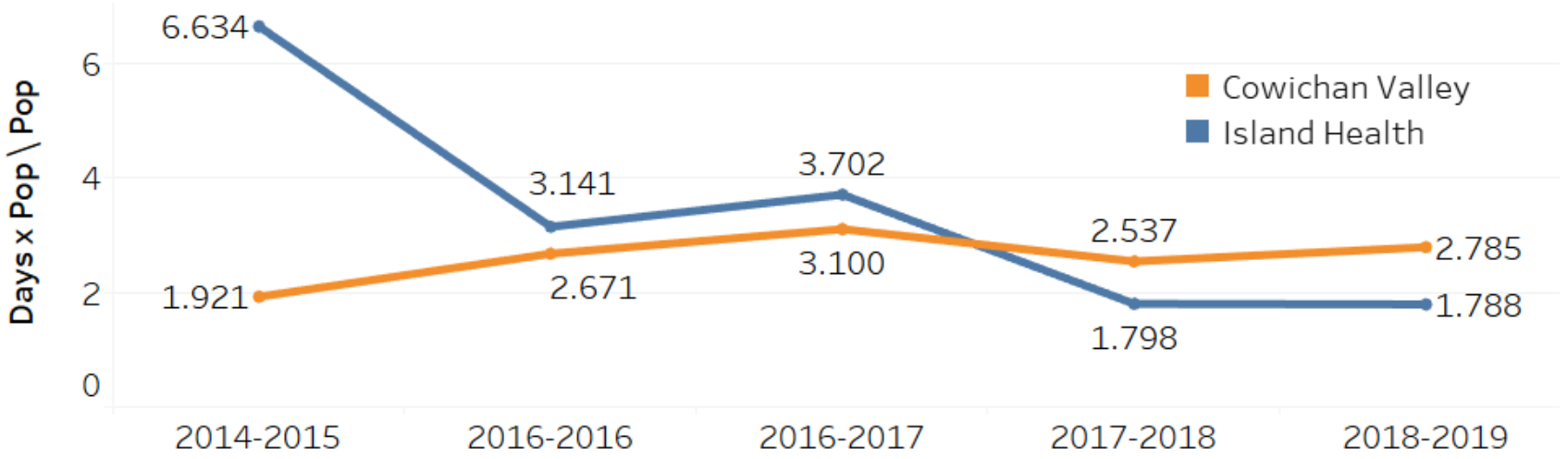
Water quality is the biological, physical and chemical content of water. These parameters can be impacted both naturally (e.g., increased precipitation and other seasonal changes) and through human interactions (e.g., oil spills and improper waste management). Water quality is monitored in Canada to understand potential issues that may cause concern for both ecological and human health (Environment Canada, 2013). Water quality guidelines, standards or criteria are available both provincially and federally; these include guidelines for freshwater, marine water, groundwater and drinking water for a variety of land uses.

Boil Water Notices, Water Quality Advisories and Do Not Use Water Notices are issued by the water supplier when there is an increased health risk associated with use of drinking water, as indicated by routine monitoring or other indications. Advisories are lifted when conditions resulting in the advisory have resolved and testing has confirmed the system is in performing properly. Current Drinking Water Notices are available here: https://www.healthspace.ca/clients/viha/VIHA_website.nsf/Water-List-Boil?OpenView&count=100

The impact of water quality advisories is a function of both the duration of the advisory as well as the number of people affected. For example, a water supply system with a small population on a long-term boil water notice can have a similar impact to that of a large water supply on a short-term boil water notice when both are measured in terms of people-days at risk.

Island Health monitors drinking water quality at the population level by analyzing the total number of days in which Public Notices for water quality (Boil Water Notices, Water Quality Advisories and Do Not Use Notices) were in effect, multiplied by the population affected for individuals served by water supply systems within Island Health. The chart below demonstrates the population affected by boil water days in the Cowichan Valley, compared to Island Health communities overall. In 2018/19 there were 2.8 Water Quality advisory days per person in the Cowichan Valley compared to 1.8 for Island Health overall. There has been a decreasing trend for Island Health overall since 2014/15 whereas Cowichan Valley has seen an overall increase from 1.9 to 2.8 between 2014/15 and 2018/19.

Figure 32: Population Affected x Water Quality Advisory/Boil Water Notice Days in Range / Total Population



Source: Island Health, 2019

Water Quality and Climate Change

It is expected that water quality in the region will deteriorate due to climate change, including erosion of upland soils, algal blooms, and flash foods. It is likely that existing water treatment facilities may not be adequate to hand the increased demands of climate change and its effects on water quality. The CVRD Climate Adaption Strategy has identified flood management and drainage and servicing water and sewer infrastructures as priorities (Climate Projections for the CVRD, 2019) (https://www.cvrd.bc.ca/climate).

South Sector Liquid Waste Management Planning

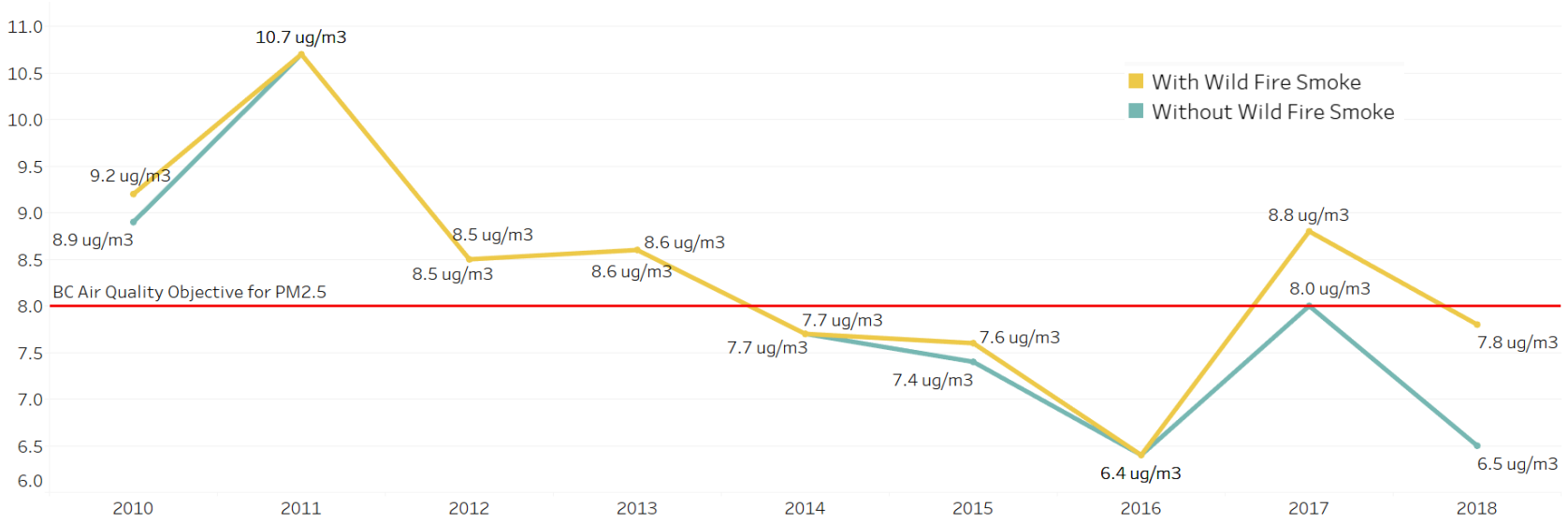
Due to the increase in population growth in the Cowichan Valley and sewer systems that do not meet regulatory standards for discharge, there have been exceedances in water quality objectives in South Cowichan (CVRD, 2019). The CVRD is working to create a Liquid Waste Management Plan with input from the public to improve water quality (https://www.cvrd.bc.ca/sewage).

Air Quality

Outdoor air quality is impacted by a variety of sources including emissions from industry, forest fires, cars and the burning of wood and other products. In 2010, a new monitoring station was installed by the BC Ministry of Environment and Climate Change Strategy (ENV) in Duncan. The station provides information about the quality of air in the Cowichan Valley through continuous monitoring of levels of fine particulate matter ($PM_{2.5}$), ground-level ozone (O3) and priority substances such as Nitrogen Dioxide (NO_2) (ENV, 2010). In addition, low-cost PurpleAir monitors are being used throughout the Cowichan Valley to measure concentrations of $PM_{2.5}$.

The Provincial Air Quality Objective (AQO) for $PM_{2.5}$ is 8.0 ug/m^3 (annual average). Between 2010 and 2013, the annual average concentration of $PM_{2.5}$ was above the Provincial AQO both with and without the inclusion of wild fire smoke (Figure 33). In 2011, the $PM_{2.5}$ concentration average reached a high of 10.7 ug/m^3. In 2014, the average concentration of $PM_{2.5}$ decreased to 7.7 ug/m^3 and it continued to decrease to a low of 6.4 ug/m^3 in 2016. In 2017, the average concentration of $PM_{2.5}$ rose to 8.8 ug/m^3 with wild fire smoke and 8.0 ug/m^3 without wild fire smoke, exceeding the AQO. In 2018 however, the average concentration of $PM_{2.5}$ fell below the Provincial AQO.

Figure 33: Annual $PM_{2.5}$ Average with and without Wild Fire Smoke – Cairnsmore/College Street (2010-2018)



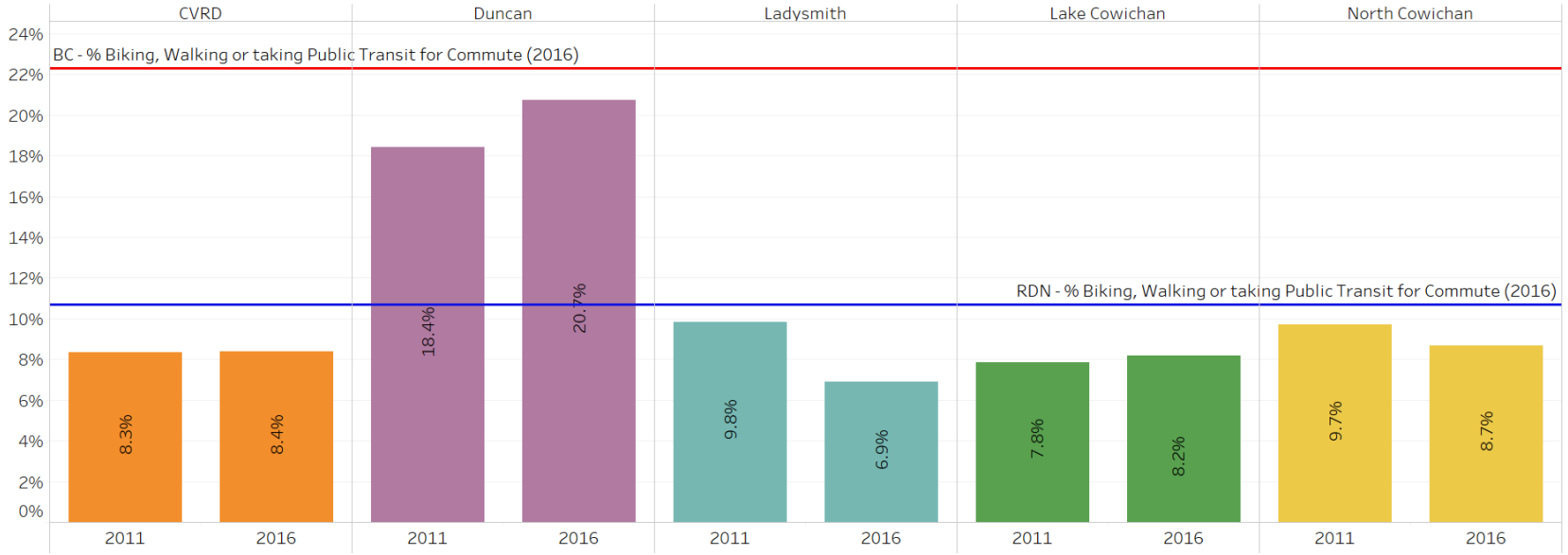
Source: Ministry of Environment and Climate Change Strategy, 2019

Transportation and Mobility

Mode of Commuting

The proportion of the labour force reporting biking, walking or taking public transit as their main mode of commuting to work was 8.4% for the CVRD in 2016, a slight increase from 8.3% in 2011. Duncan had the highest proportion at 20.8% while Ladysmith had the lowest at 6.9%. All Cowichan Valley municipalities had a lower percentage of commuters biking, walking or taking public transit compared to Nanaimo and BC overall in 2016, with the exception of Duncan which was higher than Nanaimo but slightly below BC (22.3%)

Figure 34: Proportion of the Labour Force, aged 15 years and over, reporting Biking, Walking or Public Transit as Main Mode of Commute (2011, 2016)



Source: Statistics Canada, National Household Survey 2011 and Census 2016

Community Safety

There are many organizations dedicated to community safety in the CVRD. In 2008, the Safer Futures 'Making the Links' project team and the Cowichan Women Against Violence Society prepared the Cowichan Region Safety Lens for the Community Safety Advisory Committee. The Safety Lens (2008) provides a framework for local governments, planners, and developers to integrate safety into decision making, social infrastructure (e.g., services, affordable housing, training, etc.) and physical infrastructure (e.g., design of buildings, parking, sidewalks, land use, etc.).

RCMP Report on Crime and Safety in the Cowichan Region

(Provided by North Cowichan/Duncan RCMP-GRC, November 19, 2019)

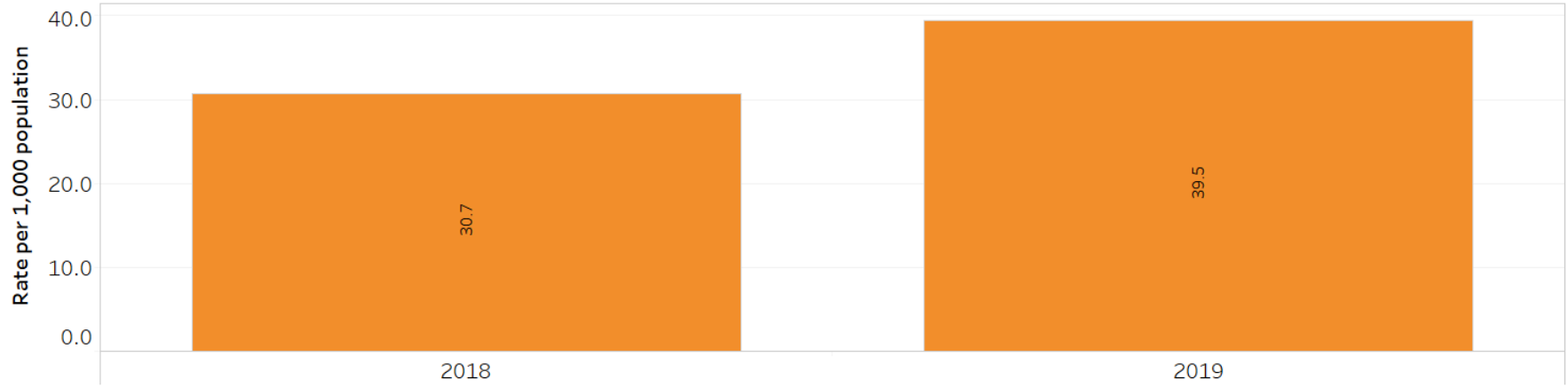
North Cowichan/Duncan RCMP continues to be very busy operational detachment with a large volume of files, criminal investigations and prisoners. Current Community Policing Priorities are listed below, in no particular order, and are paired with current initiatives the RCMP are working on to assist in addressing them.

1. Public Disorder and Safety: This continues to be a concern in the community and a policing priority. RCMP are working closely with Municipal and City Bylaw, and private security contractors on the Corridor Safety Initiative, including managing large groups of people camping on Lewis St in North Cowichan by the shelter.
2. Property Crime: There continues to be a large amount of Property crime. Project developed with local big box stores to reduce shoplifting complaints. Officers targeting prolific offenders including a prolific shoplifter program, and officers continue large amounts of focused policing by patrols in problem areas.
3. Mental Health: People needing police assistance in a Mental Health crisis take up a lot of police resources in the Cowichan Valley. Our Car 60 program – pairing an officer with a Psychiatric Nurse from Island Health has been successful and we are looking at expanding the program. There has been a lot of work done with Duncan Mental Health and Emergency Physicians to reduce officer time in the Emergency Department and to meet regarding individual, chronic, client needs.
4. Domestic Violence: A Continuing concern in the region.
5. Drugs/Problem Properties: RCMP are working closely with community partners as part of the Opioid Crisis response to Overdose deaths, including ongoing investigations and enforcement on drug traffickers in the region. RCMP are working closely with Municipal bylaws on problem properties associated to the drug trade and other crimes.
6. Missing Persons: There is always a high number of high-risk missing persons in the valley, especially high-risk youth living in care. RCMP have worked closely with Cowichan Tribes and Ministry of Children & Family Development in the last year on care and reporting agreements for youth that are frequently reported missing, and have made progress in this area.
7. Traffic Safety: Is a community concern that is routinely identified as such via consultation groups. Traffic enforcement and projects are being developed and implemented weekly, including targeting impaired driving, distracted driving, speed, and most recently school bus safety. This saw the detachment partnering with SD79 on monitoring school buses on their routes, watching for vehicles passing them.
8. First Nations Community Policing: RCMP are working on improving relations with Cowichan Tribes, especially with youth and elders. RCMP are also working with Cowichan Tribes on chronic high-risk missing youth, and working on property crime, public disorder and other priorities within Cowichan Tribes.

Crimes Against Property

The number and rate (per 1,000 population) of crimes against property (includes break and enter, theft and mischief to property) in the Cowichan Region increased from 30.7 per 1,000 in 2018 to 39.5 per 1,000 in 2019. The largest number of crimes in this category in 2019 was for mischief to property (1410 of 3657 crimes). The largest increases between 2018 and 2019 were seen in mischief to property (97%) and break and enter other (non-business, non-residential) at 34%.

Figure 35: Property Crime (per 1000 population), Cowichan Region 2018 and 2019

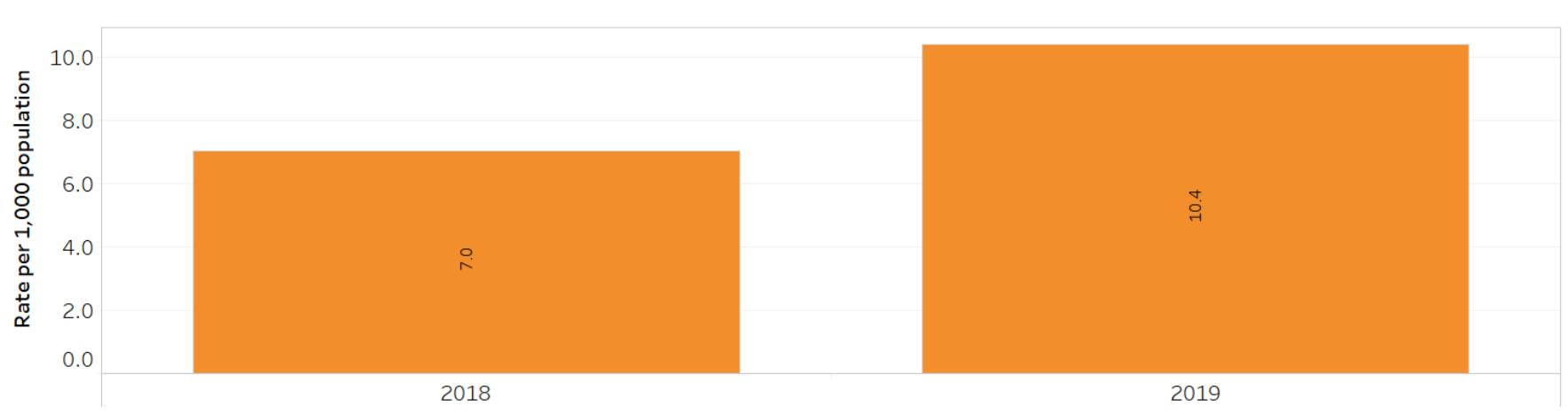


Source: RCMP North Cowichan/Duncan Detachment, 2020

Crimes Against the Person

The number and rate (per 1,000 population) of crimes against the person (includes arson, assault, robbery, sex offences and weapons offences) in the Cowichan Region increased from 7.0 per 1,000 in 2018 to 10.4 per 1,000 in 2019. The largest number of crimes in this category in 2019 was for assaults (657 of 966 crimes). The largest increases between 2018 and 2019 were seen in arson (67%), assaults (56% increase) and weapons offences (48%).

Figure 36: Crimes Against the Person (per 1000 population), Cowichan Region 2018 and 2019



Source: RCMP North Cowichan/Duncan Detachment, 2020

Built Environment

Population Density

Overall, the population density of the CVRD is low at 24.1 people per square km in 2016, compared to 76.4 people per square km in the Regional District of Nanaimo. The relative low density is due in part, to the vast privately held forest lands comprising the majority of the region. Settled areas, however, are also characterised by low densities that range primarily between 50 and 500 people per square km. Only the Town of Ladysmith and City of Duncan have moderate and high densities of 712 and 2,387 people per square km, respectively. The nature of census tract boundaries, which frequently encompass largely unpopulated areas, fails to capture neighbourhoods that are densely populated and serve to promote physical activity. Higher density, mixed use areas include the communities of Cowichan Bay, downtown Duncan, the village of Crofton, downtown Chemainus, the core of Ladysmith, and the central urban neighbourhood of Lake Cowichan.

As a characteristic of mixed-use neighbourhoods, the relationship between population density and health is well documented. British Columbia's Provincial Health Services Authority (2007) summarizes this connection as follows:

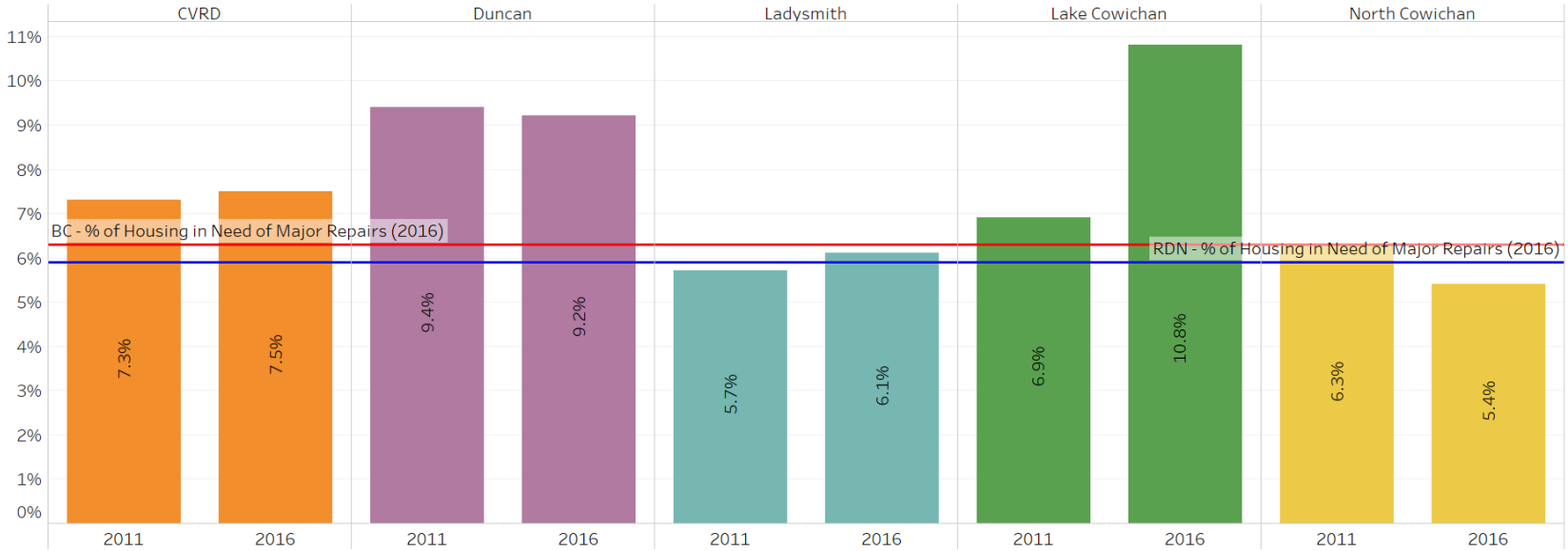
- walkable neighbourhoods are associated with changes towards more active travel behaviour;
- walkable neighbourhoods are associated with lower body weights;
- increased density is associated with less pollution;
- pedestrian-friendly streetscapes encourage physical activity;
- pedestrian-friendly streetscapes are associated with fewer traffic accidents and less crime; and,
- public transit encourages physical activity.

Another important health impact of density is the increased risk of social isolation for seniors in low density areas. As seen in the percentage of seniors living alone (under Key Determinant 6: Social Supports and Coping Skills), there is a high proportion of seniors living alone in most communities throughout the region.

Housing Quality

In 2016, across the CVRD more houses were in need of major repair than in the BC. Between 2011 and 2016, the percentage of houses in need of major repair remain consistent with the exception of Lake Cowichan which experienced an increase of nearly four percentage points.

Figure 37: Housing in need of major repair (2011) and (2016)



Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Housing Affordability

Compared to the province, the CVRD has more affordable housing. In 2016, 17% of owner households in the CVRD were spending 30% of more of their income on shelter, approximately 4 percentage points less than the rate for BC, which stands at 20.7%. In 2016, 44% of tenant households were spending 30% or more of their income on shelter in comparison to 43.3% of BC tenant households.

The stress associated with housing affordability can have negative physical and mental health outcomes (Ontario Public Health Association, n.d.). When housing is less affordable, spending on other goods and services that can influence health and quality of life, such as food and recreation, may be reduced (Bryant et. al, 2002). Also, low-income housing may be of poor quality or located in less healthy areas, another threat to health.

In 2019, the Cowichan Housing Association published the "Cowichan Attainable Housing Strategy" in which they outlined the challenges presented by population growth, an aging population, and decreasing rental vacancies (2019). Additionally, Cowichan Housing Association outlined an Attainable Housing Strategy compromised of four objectives:

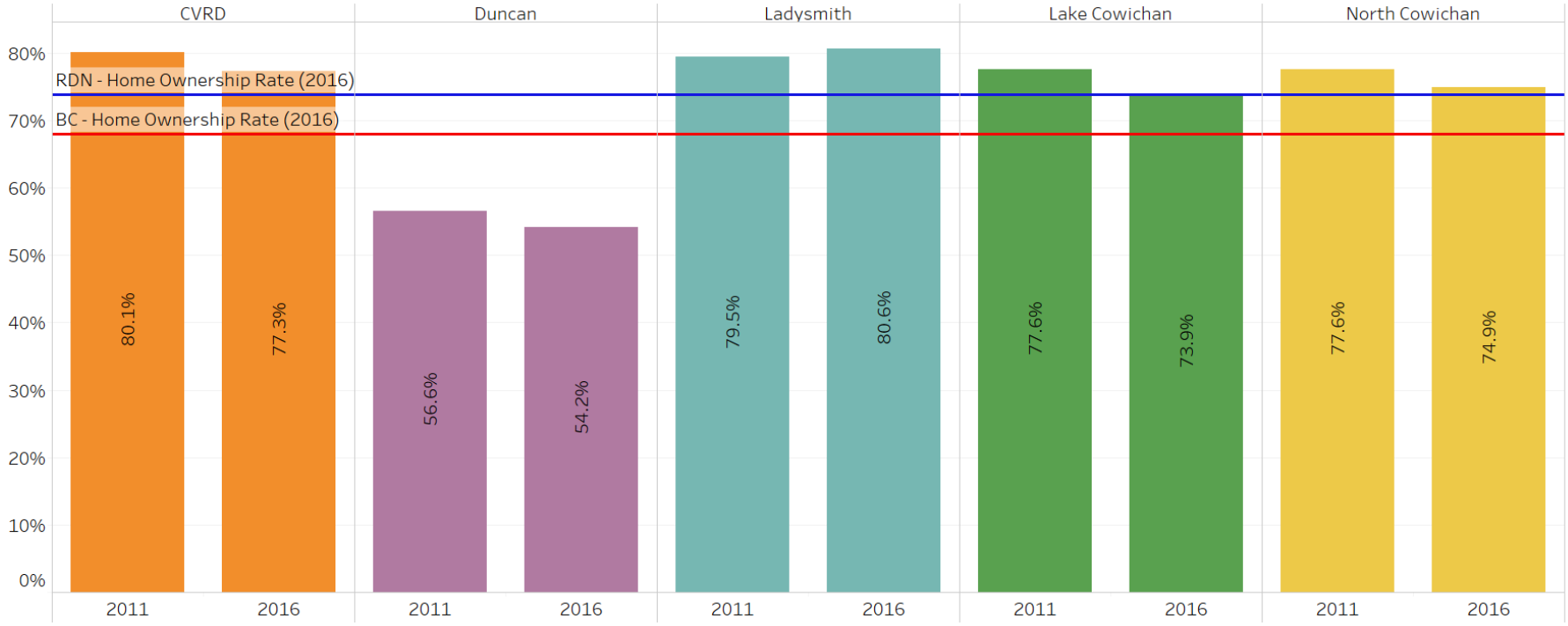
- Build community capacity,
- Strengthen partnerships and collaboration,
- Enhance community engagement, awareness and advocacy, and
- Enhance local government policy frameworks that promote increased supply and improved housing affordability (2019).

Homelessness, seniors housing and residential care are covered under Key Determinant 6: Social Supports and Coping Skills.

Percent of Owned Homes

The majority of CVRD households owned their homes in 2011 (80.1%) and 2015 (77.3%), exceeding the 2015 provincial average (68%) by over 10 percentage points and then RDN percentage (73.9%). Duncan had the lowest levels of home ownership across all Cowichan communities, 56.6% in 2011 and 54.2% in 2015. Ladysmith, Lake Cowichan, and North Cowichan exceeded both the 2015 provincial percentage and the 2015 RDN percentage of home ownership.

Figure 38: Home Ownership Rate (2011 and 2016)

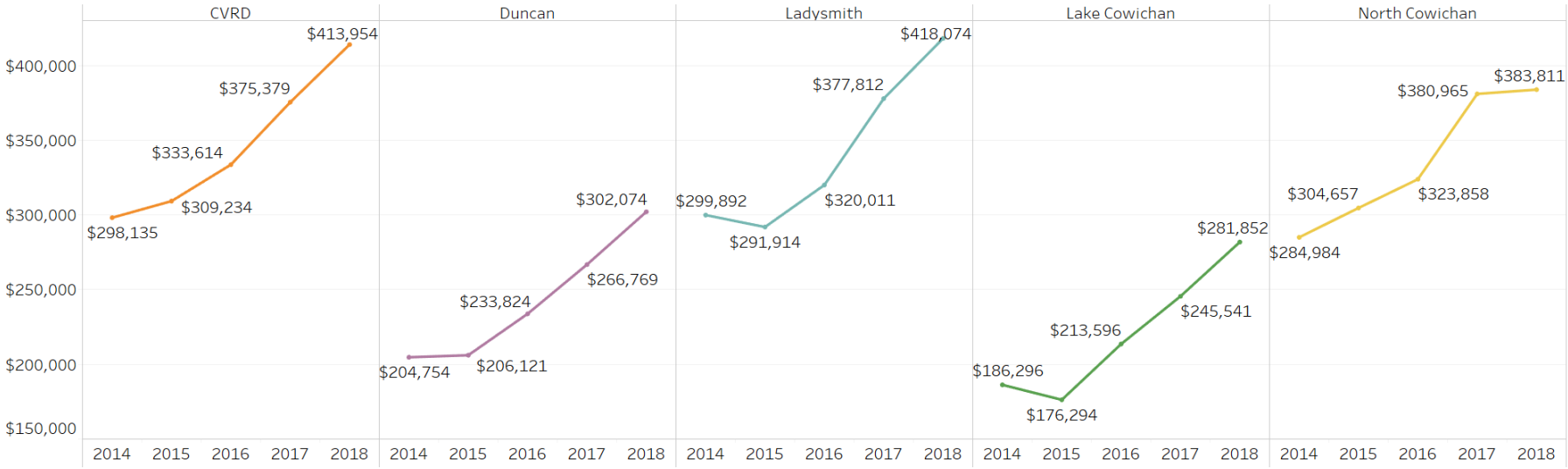


Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Average Residential Dwelling Selling Price

Average residential dwelling prices have increased in the Cowichan Valley, from $298,135 to $413,954 in 2018 (BC Assessment Authority, 2018). Ladysmith experienced a similar increase in average residential dwelling prices to the CVRD over the same time period. Duncan, Lake Cowichan, and North Cowichan experienced a similar increase, though the average residential selling prices are much lower than CVRD and Ladysmith.

Figure 39: Average Residential Dwelling Selling Price (2014-2018)

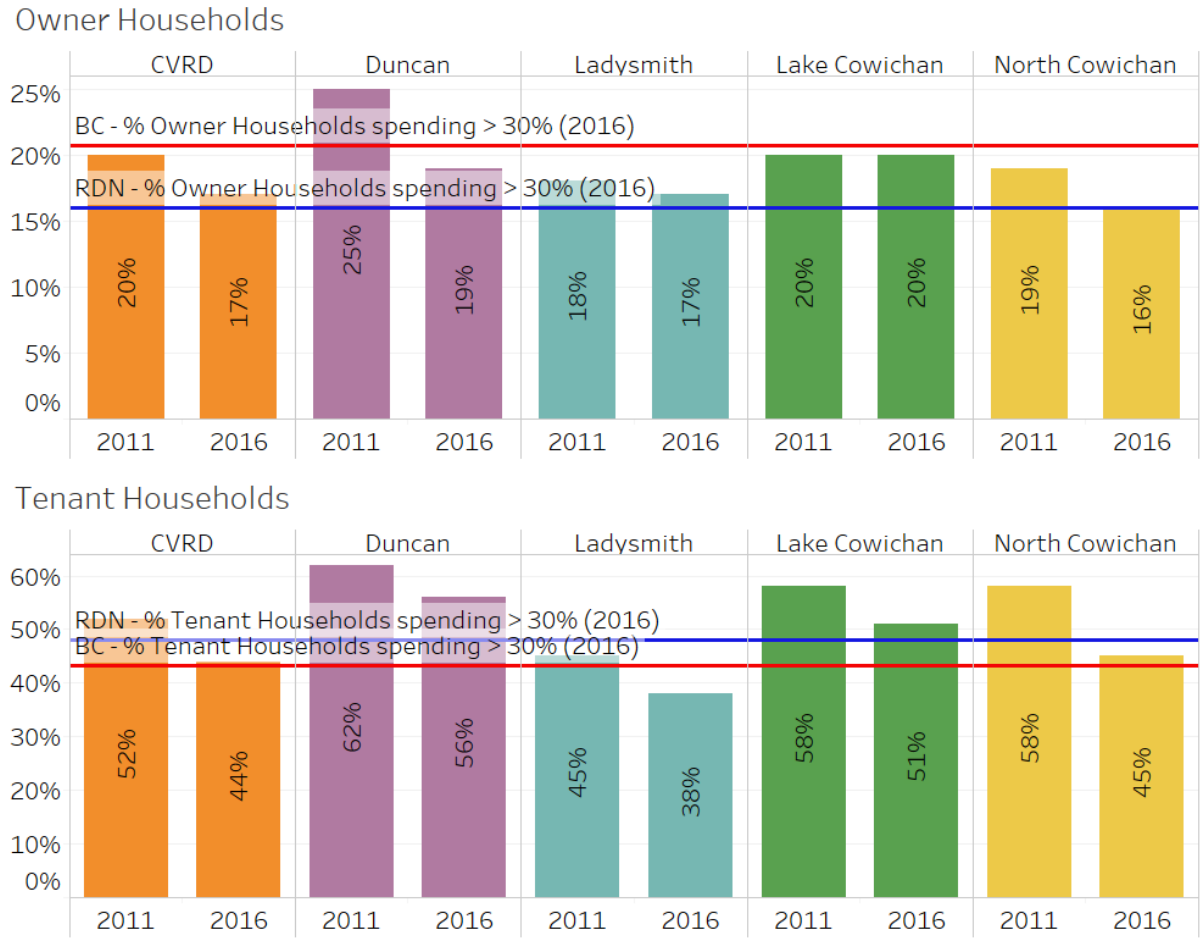


Source: BC Assessment Authority; Cowichan Housing Association

Households Spending 30% or More of Household Total Income on Shelter Costs

Between 2011 and 2016, CVRD saw a decrease in the percent of owner and tenant households spending more than 30% of their income on shelter costs. Across all communities, including BC and RDN, tenant households spent much more on shelter costs than owner households. Duncan and Lake Cowichan were the least affordable communities, their rate of unaffordability exceeded the rate in BC and RDN. In Duncan, 19% of owner households and 56% of tenant households spent more than 30% of their income on shelter costs in 2016. Lake Cowichan was similar with 20% and 51% of owner and tenant households experiencing unaffordability.

Figure 40: Percent of Owner & Tenant Households Spending 30% or more of Total Income on Shelter Costs (2011, 2016)



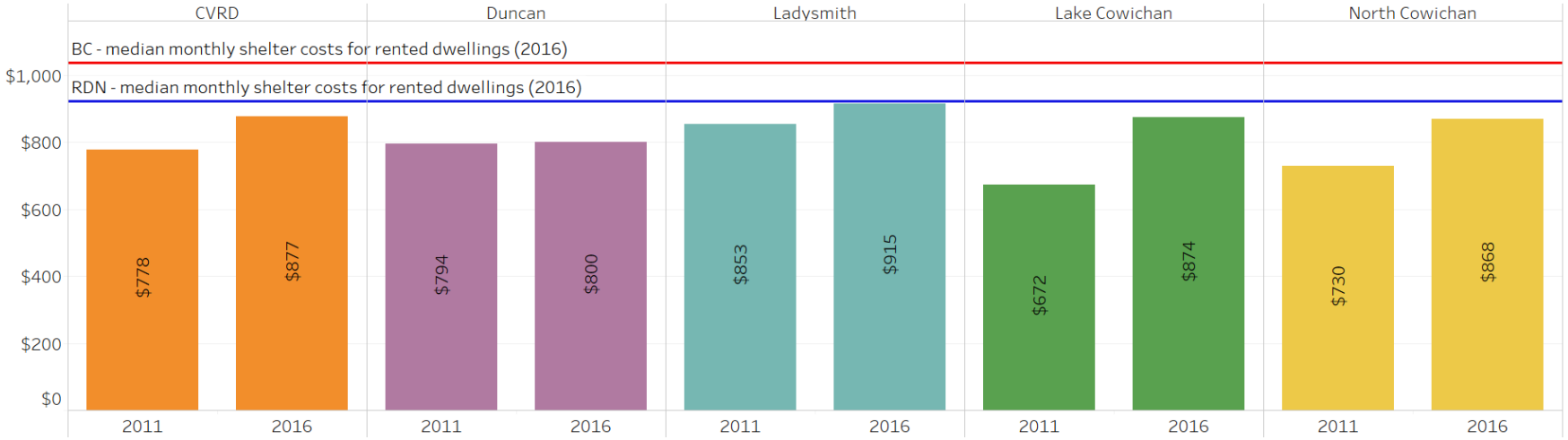
Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Note: The affordability threshold was set by the Canadian Mortgage and Housing Corporation (CMHC) in 1986.

Median Monthly Shelter Costs for Rented Dwellings

CVRD median monthly rent costs increased between 2011 and 2016, but were lower than the median rental costs in BC and RDN. With the exception of Duncan, the median rent was less than the average rent in 2016 for all Cowichan communities.

Figure 41: Median Monthly Shelter Costs for Rented Dwellings (2011, 2016)



Source: National Household Survey, 2011 & Statistics Canada Census, 2016

Key Determinant 6: Social Supports and Coping Skills

A healthy community can be characterized as one in which there is a high level of citizen action and engagement (Hancock, 1999 as cited in VCH, 2009). Social stability, strong social policies, and safe and cohesive communities can reduce risks to individual health and well-being (Ibid). By looking at health as a shared concern, communities can address broader social issues as well as improve the health of individual citizens. Creating shared resources and working together to build relationships is a key step in improving the health of those living in the Cowichan region.

Informal social support from families, communities and friends is associated with better health, as is a provision of formal social care and support. The caring and respect in social relationships can act as a buffer to adverse health events. For example, a study out of the US found that group membership and high levels of trust were associated with lower mortality rates (Public Health Agency of Canada, 2013). Lack of such membership, on the other hand, has been linked to various ill effects on health and well-being (Baumeister, 1995). Multiple studies in the United States have shown that people with larger social networks tended to have lower premature death rates; and people with low levels emotional support and little social participation had higher rates of mortality (Public Health Agency of Canada, 2013).

Household food insecurity negatively impacts physical, mental and social health. In Canada, 1 in 8 households are food insecure. Canadians who are more food insecure have shown to be more likely to die prematurely than food secure Canadians (Men at al., 2020).

Key Findings:

- 15% of families in the CVRD in 2016 were lone-parent families.
- The proportion of female lone-parents in the CVRD (11.3%), was lower than the provincial average (11.9%) in 2016.
- The proportion of male lone-parents in the CVRD (3.8%), was higher than the provincial average (3.2%) in 2016.
- The City of Duncan had the highest proportion of both female and male lone-parents in 2016.
- The proportion of individuals in the CVRD who were married or living in common law in 2016 (61.4%) and individuals who were separated/divorced/widowed (17.2%) were comparable to provincial averages. The City of Duncan had the lowest proportion of married or living in common law relationships (43.4%) and the highest proportion of separated/divorced/widowed individuals (33.7%) in 2016.
- Seniors who live alone represent approximately 24% of the population aged 65 and over in the CVRD (2016). Nearly half of all seniors lived alone in Duncan (2016).
- The Point-in-Time Homeless count (2020) counted or surveyed 189 individuals; preliminary results from 2020 counted 129 individuals but this is likely to be an underestimate due to the COVID-19 pandemic.
- As of September 2019, Island Health administers 624 long-term care and assisted living units/beds within the three Cowichan Valley LHAs, along with 88 new long-term care beds and 55 assisted living units expected by 2021.
- In 2015-2016 6% of Central Vancouver Island HSDA was moderately or severely food insecure.
- The average monthly food costs for a family of four in BC was $1,019 in 2017 and this has largely increased since 2011. Within Island Health, this cost is slightly higher with an average of $1,043 per month in 2017.
- Between 2016-2018, there was on average 920 domestic violence related incidents where women were twice as likely to be victims compared to men.
- CVRD voter turnout is generally low for local elections; however, the CVRD voter turnout for provincial elections was 68% in 2018, which is slighter higher than the provincial turnout.

Key Determinant 6: Social Supports & Coping Skills

Relationships

CVRD

61% of individuals were married or common-law in 2016

43% Duncan Lowest

17% of individuals were separated/divorced or widowed in 2016

34% Duncan Highest

Homelessness & Housing

A point-in-time survey found 129 individuals were homeless in Cowichan in 2020

Studies have shown that people with larger social networks tended to have lower premature death

Social stability, strong social policies, and safe and cohesive communities can reduce risks to individual health and well-being.

Civic Engagement

CVRD: 68% voter turn out for 2017 provincial election

Local election voter turn out in 2018: lowest in North Cowichan (35%) and highest in Lake Cowichan (49%)

Violence against women

CVRD

2016-2018: Average of 920 domestic violence incidents

Average is 2x the number of female victims than male

Food Security

2017

$1019 Average monthly food costs in BC

2017

82% of individuals had enough desired foods to eat in central Vancouver Island

Seniors who lived alone

24% in the CVRD 2016

Duncan

49% Highest in Duncan 2016

Long-term care (LTC) and Assisted Living (AL)

CVRD

2019: 624 LTC/AL

2021: 88 new LT bed and 55 AL units expected

15% of families in the CVRD were lone-parent

Lone Parents

The proportion of female lone-parents in the CVRD (11.3%) was lower to BC (11.9%) in 2016

The proportion of male lone-parents in the CVRD (3.8%) was higher than BC (3.2%) in 2016

Duncan had the highest % female and male lone parent families in 2016

Table 17: Social Supports and Coping Skills Indicator Overview

Indicator Name	Description	Relevance to Health and Well-being
Families and Households		
Lone parent families	▪ The percentage of lone parent families in the region (separated by male and female lone-parent families).	▪ The structure of families (single-parent versus two-parent) is less important to a child's health and well-being than the environment that a child experiences. For instance, a calm and loving lone-parent home can provide a healthier environment for a child than a conflicted two-parent family (Underdown, 2007). However, single-parents often face greater financial challenges due to the difficulty of balancing employment and childcare responsibilities and lower income persons are at higher risk of poorer health outcomes (Public Health Agency of Canada, 2013). ▪ Single female parents in Canada are three times as likely to be poor than single male parents (21% versus 7% in 2008) (Statistics Canada, 2011a).
Relationship status	▪ The percentage of people in the region who are married or living with a common law partner, single or never married, and separated, divorced or widowed.	▪ Relationship status can impact an individual's overall health and well-being. Studies of Canadian families and households suggest that life strains tend to be more significant for individuals who are single versus those who are married or living with common law partners (Marks & Lambert, 1996). ▪ Individuals who have undergone a relationship change, such as divorce, separation, or widowhood, tend to experience negative effects to their psychological well-being (Ibid). ▪ However, there are also some cases where single individuals reported better well-being than those in relationships due to greater autonomy and personal growth (Ibid).

Indicator Name	Description	Relevance to Health and Well-being
Seniors living alone	▪ The percentage of seniors in the region who live alone as opposed to living with relatives or non-relatives.	▪ Seniors living alone face a greater risk of falls, are more prone to malnutrition, and have a higher risk of depression due to loneliness and isolation (Public Health Agency of Canada, 2010). Those without social support networks also may be more likely to engage in high-risk activities as they don't have people to turn to for emotional or physical support (Ibid).
Homelessness and Housing		
Point-in-Time Homeless Count	▪ The number of individuals identified in a 24-hour period who were identified as experiencing absolute homelessness, hidden homelessness, or who were precariously housed.	▪ Access to affordable and adequate housing (including supportive housing as required) plays a significant role in the health and well-being of individuals and is especially important for those who face greater financial challenges such as youth, seniors, low income households, and people living with or recovering from mental and/or physical health problems (Public Health Agency of Canada, 2013; Mental Health Commission of Canada, n.d.).
Number of homeless shelter spaces and temporary supportive housing	▪ The number of shelter spaces and availability of supportive housing for people with mental or physical health issues, including victims of abuse.	
Precarious housing	▪ Current and future estimates of precarious housing (housing that is unaffordable, in poor quality, or overcrowded) in the region.	
Culturally appropriate housing	▪ An overview of issues related to culturally appropriate housing in the region.	▪ Access to housing that is safe, affordable, and culturally appropriate if the foundation for a healthy community (Social Planning Cowichan, 2014a).

Indicator Name	Description	Relevance to Health and Well-being
Long-Term Care and Assisted Living Beds Available	▪ The number of long-term care, group homes, and assisted living units/beds	▪ The availability of seniors' housing and residential care spaces determines whether individuals can remain in their community (where they have access to their social support networks) as they age.
Food Security		
Access to foodbanks	▪ The number of and usage of foodbanks in the Cowichan Region.	▪ Children living in families with lower incomes are at a greater risk of experiencing negative health outcomes and poor living conditions than those in higher-income families (Ross & Roberts, 1999). ▪ Having access at all times to food that is safe, nutritious, affordable, and culturally appropriate is important for health and well-being (Public Health Agency of Canada, 2013).
Food security	▪ Percentage of households reporting that have enough food to eat (and that the food they have is the kind they want to eat) as well as the average monthly cost of food.	
Monthly Food Costs	▪ Average monthly food costs for a family of four in BC, 2009-2017	
Access to locally produced food	▪ Local farms and food producers throughout the region.	▪ Local food production helps to improve food security by increasing access to fresh, nutritious foods (Dietitians of Canada, 2011). It can also help to encourage healthy eating, stimulate the local economy, create opportunities for community bonding and socialization, promote opportunities to maintain connections to the land, and reduce the amount of greenhouse gas (GHG) emissions related to the transportation of food from other regions (Provincial Health Services Authority, 2011).

Indicator Name	Description	Relevance to Health and Well-being
Vulnerability		
Domestic violence	▪ An overview of domestic abuse resources in the CVRD.	▪ Domestic violence can result in physical, sexual, or psychological harm or suffering for victims (Canadian Women's Foundation, 2014). Exposure to violence (directly or indirectly through witnessing domestic violence) can impact children's brain development and lead to long-term behavioural and psychological problems.
Civic Participation and Planning		
Voter turn-out	▪ The percentage of eligible voters who voted at the last election; identification of participation rates in community organizations.	▪ Voter turnout and volunteerism have traditionally been used as indicators of community participation (Vancouver Coastal Health, 2009).
Planning and policy	▪ The presence of community plans and policy addressing health.	▪ Policies and planning being undertaken for a community that focus on increasing positive social environments can contribute to the health and well-being of the citizens.

Families and Households

Lone Parent Families

In 2016, 15% of all census families living in private household in the CVRD were lone-parent families; 11.3% of these census families were female lone-parent families and 3.8% were male lone-parent families. As a proportion of all lone-parent families, 74.7% were female lone-parent families. The proportion of female and male lone-parent families (as a proportion of all census families in private households) is highest in Duncan. Female lone-parent families are more common than male lone-parent families in the Cowichan communities. Duncan and Lake Cowichan greatly exceed the provincial and RDN percentage of female and male lone-parent families while the CVRD has more male lone-parent families than the provincial and RDN percentage.

Figure 42: Female Lone-Parent Families (2011, 2016)

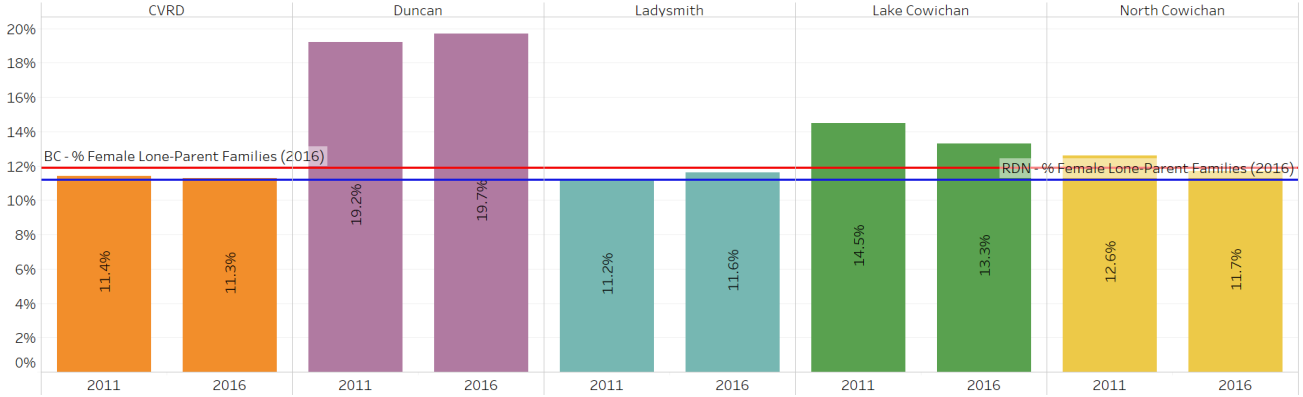
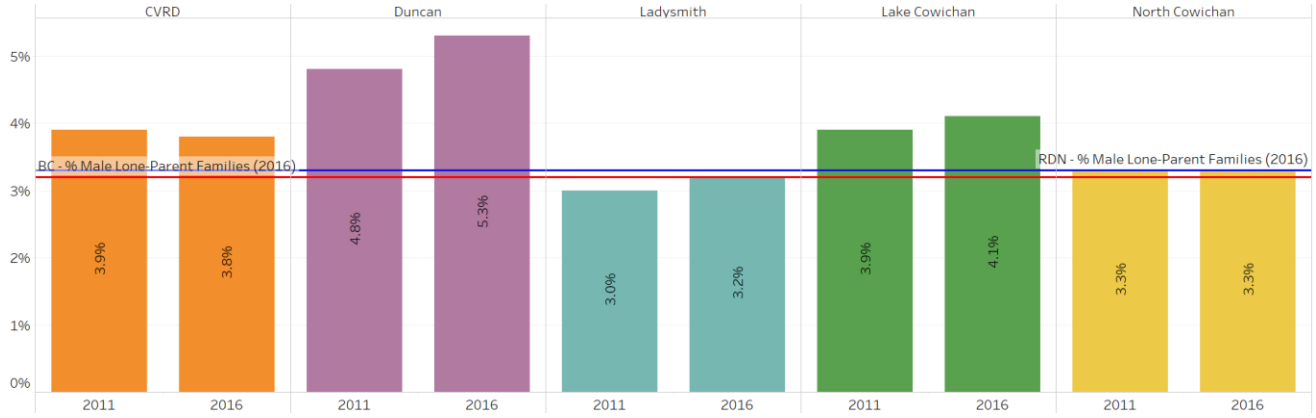


Figure 43: Male Lone-Parent Families (2011, 2016)



Source: Statistics Canada Census, 2011 & Statistics Canada Census, 2016

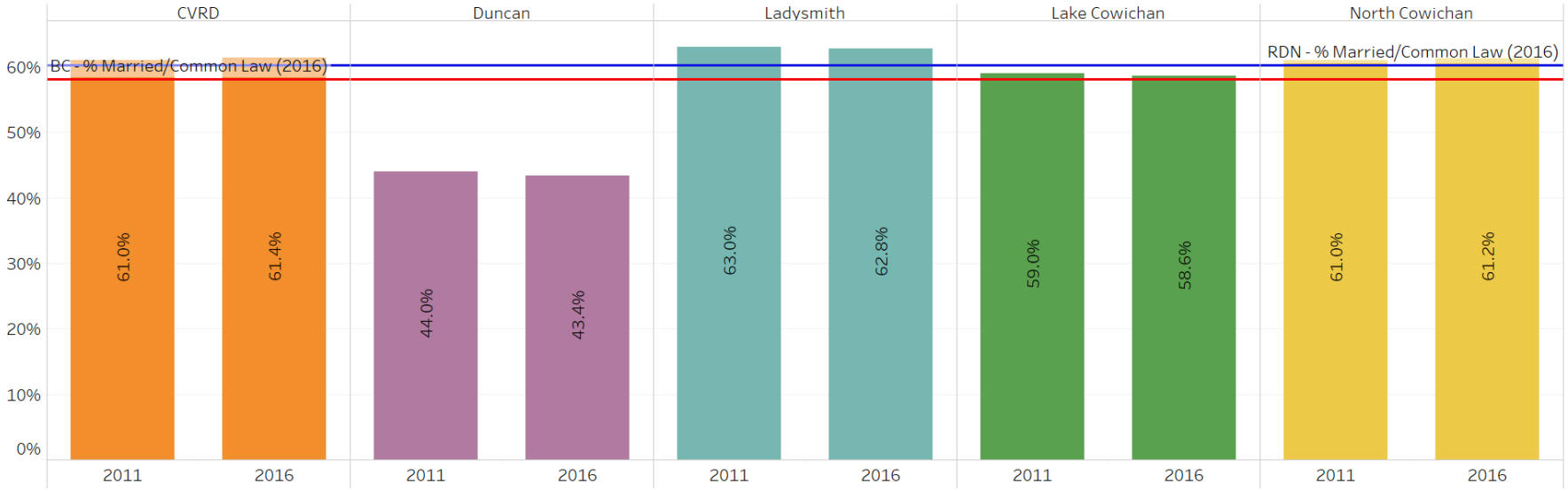
Relationship Status

Individuals who are married or living with a common law partner represent just over 60% of the population in the region, comparable to that of the province and the Regional District of Nanaimo. Individuals in married or common-law 43%) common law relationships are less common in the City of Duncan.

The proportion of individuals who are single and have never been married is highest in Duncan and Lake Cowichan and lowest in Ladysmith. All Cowichan communities fall beneath the provincial average.

Individuals who have undergone relationship changes, such as separation, divorce, or widowhood, are fairly similar across the region including BC and RDN, however, a much higher proportion of the population in Duncan is separated, divorced, or widowed.

Figure 44: Percentage of Population Aged 15 and Over - Married or Living with Common Law Partner (2011, 2016)



Source: Statistics Canada Census, 2011 & Statistics Canada Census, 2016

Figure 45: Percentage of Population Aged 15 and Over – Single, Never Married (2011, 2016)

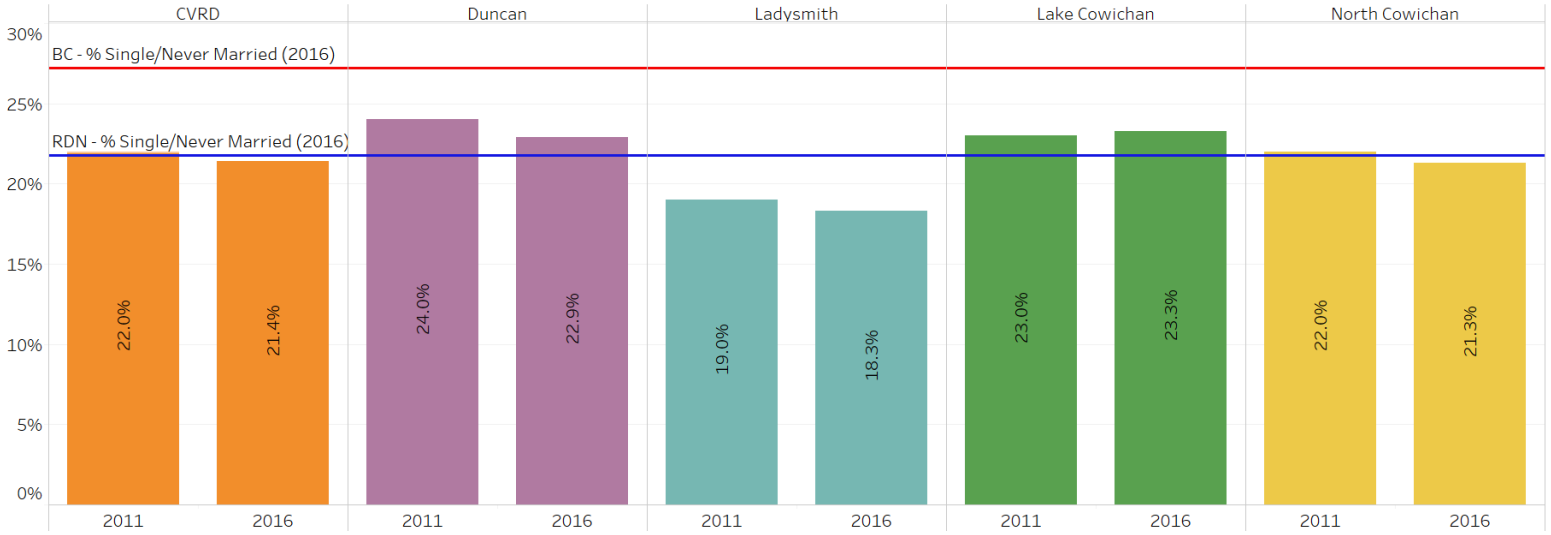
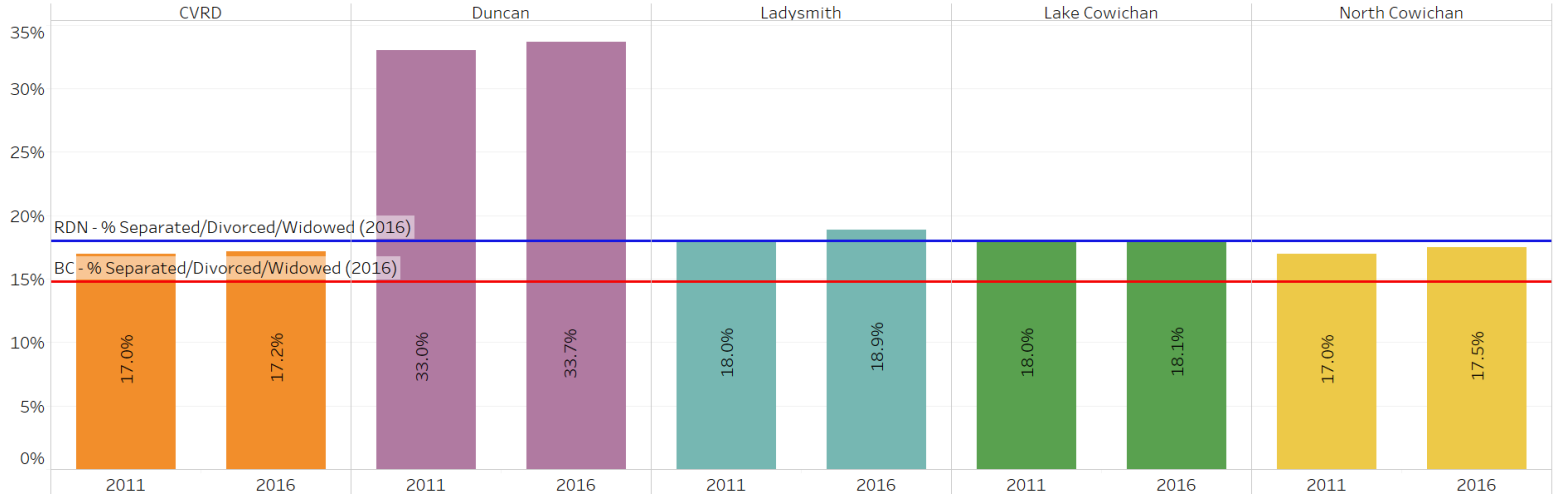


Figure 46: Percentage of Population Aged 15 and Over – Separated, Divorced, or Widowed (2011, 2016)

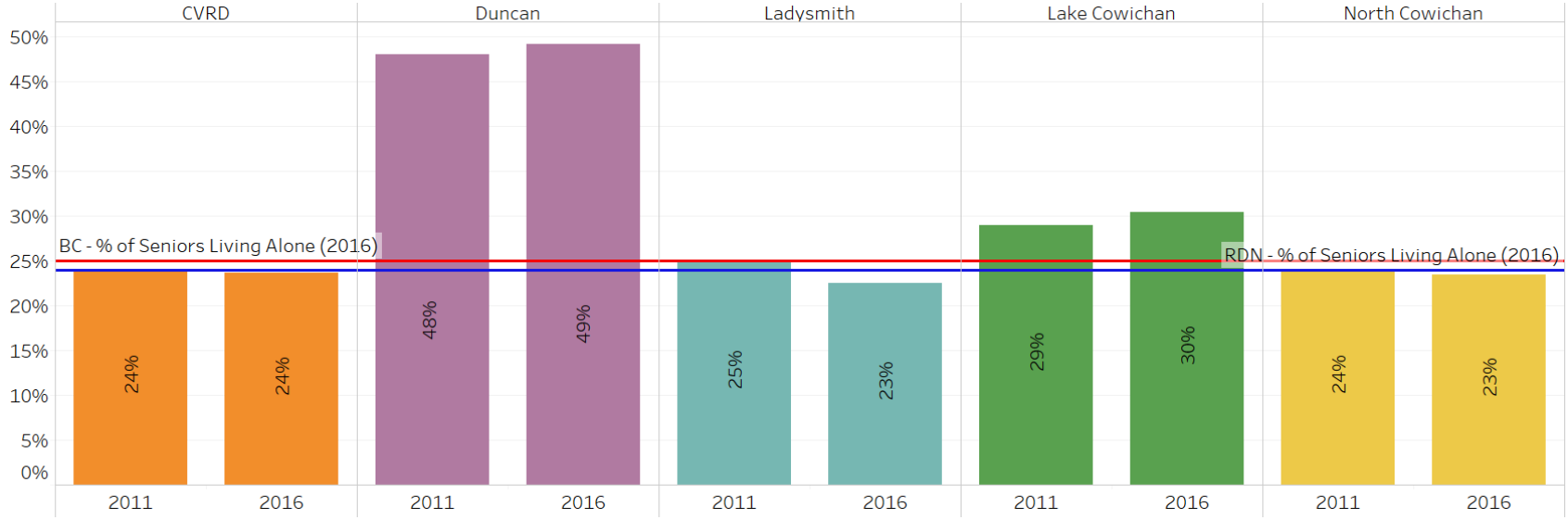


Source: Statistics Canada Census, 2011 & Statistics Canada Census, 2016

Seniors Living Alone

Seniors who live alone represent approximately 24% of the population aged 65 and over in the region. This is just above the provincial average (in 2016) and the same as the average for RDN (in 2016). Seniors in the City of Duncan are more likely to live alone than in other communities across the region. In 2016, nearly half of all seniors lived alone in Duncan.

Figure 47: Percentage of Individuals 65 and Over Living Alone (2011, 2016)



Source: Calculated from Statistics Canada Census, 2011, Statistics Canada Census, 2016 Catalogue No. 98-400-X2016231

Homelessness and Housing

As with housing, homelessness is a complicated issue that requires an examination of the root causes. Homelessness is not an issue that is limited to single community; it is a region-wide social problem that affects all communities within the CVRD. As such, no single community or organization can address this issue alone. It will require the skills and knowledge of many organizations and community members and collaboration at both community and regional levels.

Quality, affordable housing is critical to healthy communities and a healthy region, and it is important to recognize not only those who face absolute homelessness, but also the larger group who face relative homelessness or are at risk due to precarious housing. Homelessness prevention is a critical step in addressing broad social problems in the CVRD.

"Housing first" is an important new approach to homelessness with compelling results across Canada and the US (Mental Health Commission of Canada, n.d.). This approach focuses on providing permanent housing as a first step for those in need as opposed to the traditional models that require people to transition through a series of steps before finding permanent homes. "Housing first" promotes self-sufficiency and focuses on quality of life and social support rather than sobriety or program participation (Canadian Alliance to End Homelessness, n.d.). Once a permanent home is established, individuals have the stability they need to then access the treatments and support systems they choose to help them with mental or physical health problems.

In 2018, the Cowichan Housing Association published a report titled "CLOSE TO HOME: Housing First for Youth in the Cowichan Region" which outlined priority actions to address the "sheer lack of housing options and services in the Cowichan Region for youth". These actions include the creation of respite housing, a youth home, transitional housing, scatter site housing, and permanent supported housing through collaborative work (Cowichan Housing Association, 2018).

Homeless Counts

Preliminary results from the most recent homeless count in the Cowichan Valley identified 129 individuals who were experiencing homelessness. This is likely to be an underestimate since only 8 of 16 communities were able to conduct their counts due to the COVID-19 pandemic.

In August 2017, a 24-hour count of homeless people took place in Duncan-North Cowichan core area, Ladysmith, Chemainus, Lake Cowichan, and Mill Bay. A winter count was conducted in February 2017 in the Duncan-North Cowichan core area. The count was constrained to a 24-hour period to avoid counting people more than once. At the same time, a Housing Needs Survey was also conducted with people who were experiencing hidden homelessness, or who were at risk of becoming homeless. A total of 189 people were either counted or surveyed in 2017, of these, 90 people self-identified as Aboriginal (Emmanuel, 2017).

Homeless Shelter Spaces and Temporary Supportive Housing

The Canadian Mental Health Association (2019), through its Warmland House in Duncan, provides a number of homeless shelter spaces as well as transitional housing units that allow individuals stay for up to two years to help obtain housing stability and work towards permanent housing. The Warmland House also provides in-house services including a nurse practitioner and a chiropractor. In addition, the Cowichan Women Against Violence Society provides temporary shelter for women and children experiencing or at risk of abuse or violence.

Table 18: Overview of CVRD Homeless Shelter Spaces and Temporary Supportive Housing (2019)

Community Resources	Number of Units
Warmland House homeless shelter beds and emergency beds	30 emergency shelter beds
	24 minimal barrier transitional housing studio apartments
	10 additional emergency beds in the event of extreme weather
Somenos Transition House temporary shelter (up to 30 days) for victims of abuse	10 beds
Women's Night Shelter	15 beds
Ladysmith Resources Centre Association Cold Weather Shelter	10 beds (November 1 – March 31)

Table 19: Ladysmith Resources Centre Association Cold Weather Shelter Total Guests and Nights Open (2015/16 – 2018/19)

Year	Total Guests	Total Nights Open
2015/16	171	83
2016/17	193	114
2017/18	650	121
2018/19	970	136

Seniors Housing

Housing options for seniors in the CVRD include the following: standard market housing; independent living suites where the majority of residents are 65 or over, meals are provided on site, and residents receive less than 1.5 hours of healthcare per day; non-market, subsidized independent living suites; and heavy care spaces (i.e., full-time residential care). As other sections of the report focus on standard market housing, this section will focus on housing that is specifically for seniors.

Between 2012 and 2013, vacancy rates for independent living suites in Central Vancouver Island have gone down as the number of seniors and demand for seniors housing has risen (Canadian Mortgage and Housing Corporation, 2013). Average rents for seniors housing rose 1.4% in 2013 with over three quarters of the independent living suites in Central Vancouver Island renting for $2,400 or more per month (Ibid.). These trends indicate the demand for seniors housing will continue to grow in the region, and affordable housing options for seniors will continue to be an important priority for residents throughout the CVRD.

Seniors Long-Term Care and Assisted Living Options

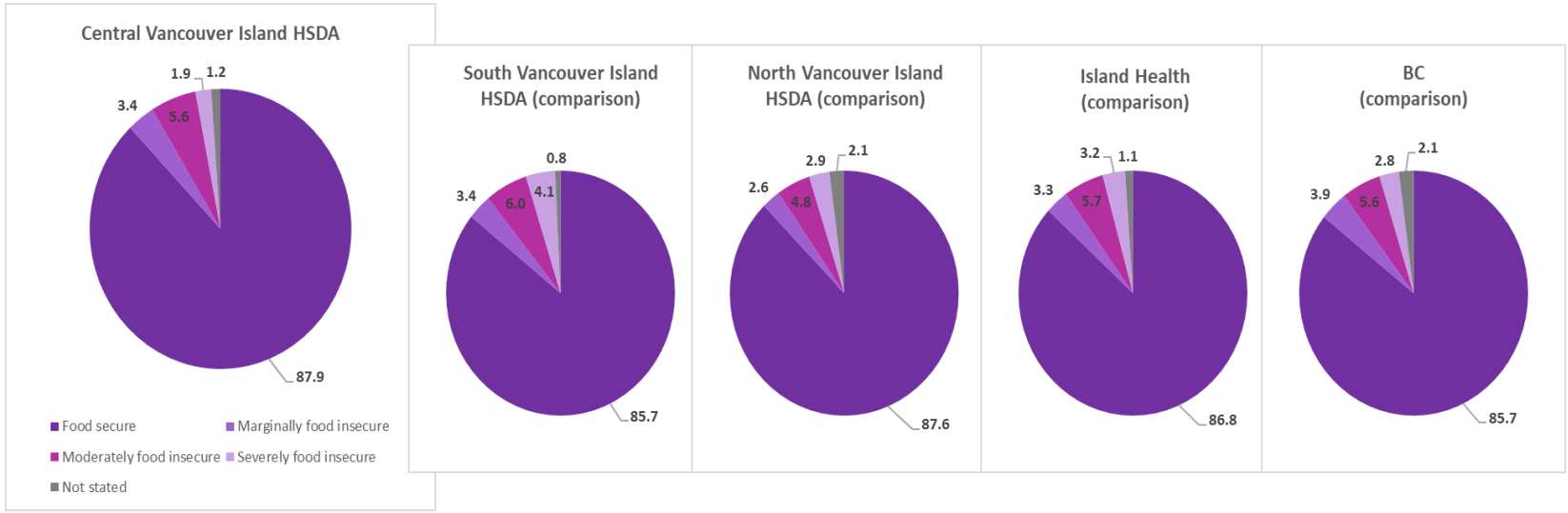
As of September 2019, Island Health administers 624 long-term care and assisted living units/beds within the three Cowichan Valley Local Health Areas (LHAs), or 9.83% of the total 6,349 Island Health units/beds on Vancouver Island. The total 75+ population on Vancouver Island in 2019 was 84,901 of which 10.6% lived in the CVRD.

Of the 624 long-term care units/beds, 483 are permanent complex care and 141 are assisted living units/beds. 424 of these units/beds are located in the Cowichan Valley South/Cowichan and Cowichan Valley West/Lake Cowichan LHAs and 200 are located in Cowichan Valley North/Ladysmith LHA. (Short term, group home, family care home, activation, palliative, and respite beds are excluded from these values). For the most current information, consult the Island Health website: https://www.islandhealth.ca/learn-about-health/home-care-assisted-living-long-term-care/long-term-care-options and the Long-Term Care and Assisted Living Bed Summary: https://editwww.islandhealth.ca/sites/default/files/home-care/documents/hcc-bed-inventory.pdf As of September 17, 2020, the average wait time for Island Health Long-Term Care homes in the Cowichan Valley ranged from 3-18 months depending on the Care Home (https://www.islandhealth.ca/sites/default/files/long-term-care/documents/current-average-wait-times-long-term-care-homes.pdf)

Food Security

In the central Vancouver Island region, 87.9% of individuals were food secure, 3.4% were marginally food insecure, 6% were moderately food insecure and 1.9% were severely food insecure. Most notably, rates in the Central Vancouver Island for severely food insecure were lower than Island Health and BC.

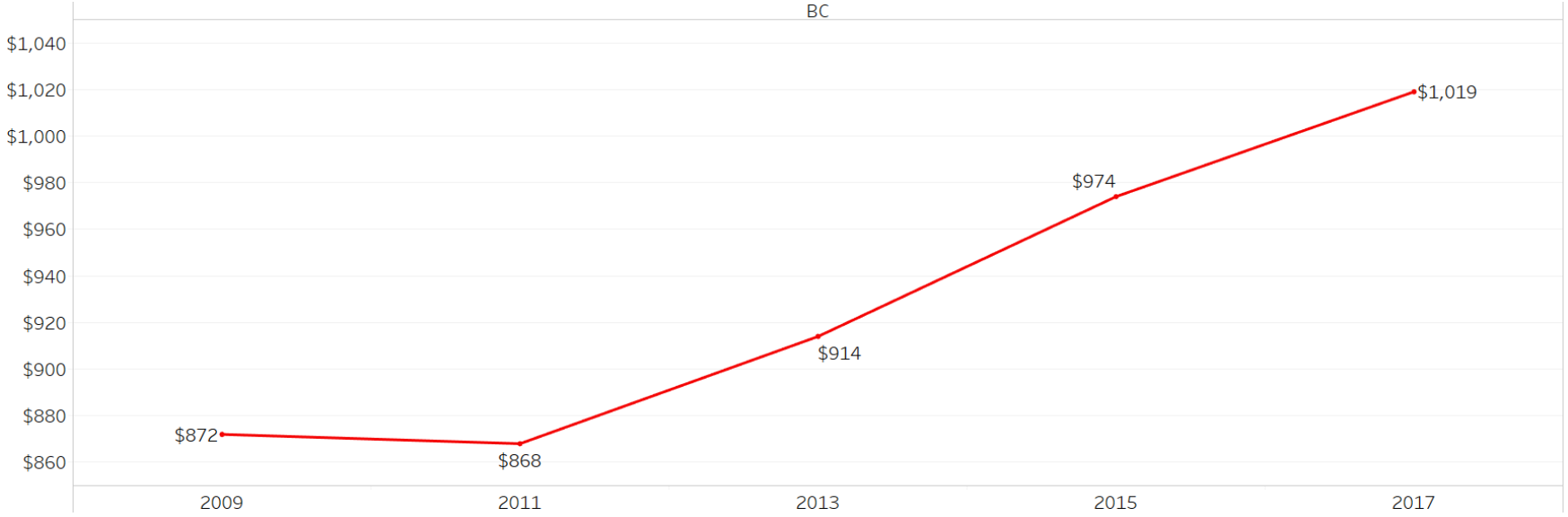
Figure 48: Food Security and Insecurity, Central Vancouver Island Compared to Island Health HSDAs, Island Health and BC (2018)



Source: Vancouver Island Health Authority (2012)

The cost of food has risen in recent years. In 2009, the average monthly cost to feed a family of four (two parents and two children) in British Columbia was $872; by 2017, the average cost increased to $1,019. Within Island Health, this cost is slightly higher with an average of $1,043 per month in 2017, the highest in the province except for Vancouver Coastal Health ($1,056) (BC CDC, 2018). Between 2015 and 2017, Island Health experienced the greatest change in monthly food costs with an increase of $78 (BC CDC, 2018). Increased food costs do not affect everyone in the same way, those with low incomes are affected most significantly by the increasing cost of food in BC (BC CDC, 2018). Research demonstrates that household income is a better predictor of food security than the cost of food (BC CDC, 2018).

Figure 49: Average monthly cost of food for a family of four in British Columbia (2009-2017)



Source: BC Centre for Disease Control. (2018). Food Costing in BC 2017: Assessing the affordability of healthy eating. Vancouver, B.C.: BC Centre for Disease Control, Population and Public Health Program.

Access to Foodbanks

There are many foodbanks and meal programs in the Cowichan Valley:

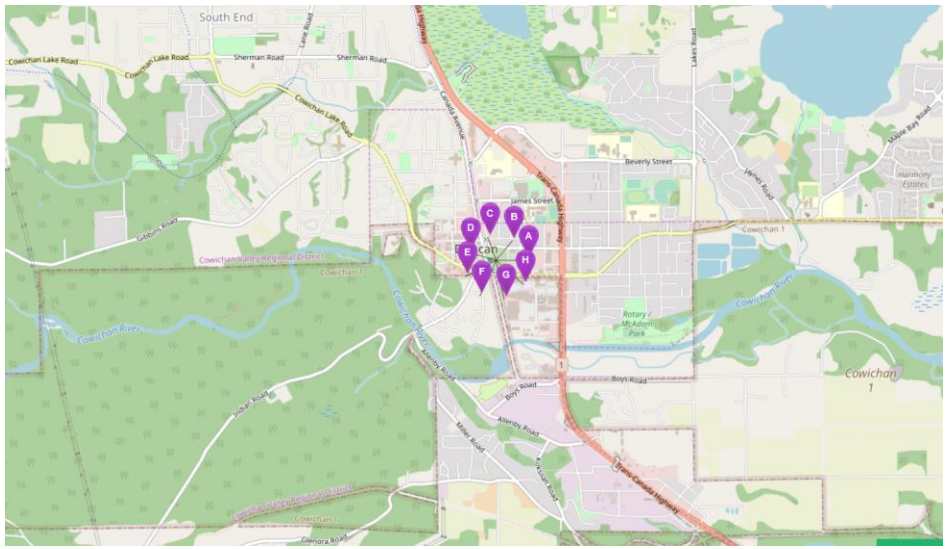
- Ladysmith Resources Center Association
- CMS Food Bank Society
- Lake Cowichan Food Bank Society
- Chemainus Harvest House Food Bank
- The Duncan Food Bank
- Ladysmith Secondary School Hunger Bites Program
- Meals on the Ground

Between 2005 and 2018, the CMS Food Bank in Mill Bay between 3,600 and 4,580 clients each year, including 1,500 to 2,000 children per year. In 2018, the Ladysmith Resources Center served an average of 85 households per week. The Cowichan Seniors Community Foundation provides a Meals on Wheels program for seniors or persons residing in the Cowichan Valley in need of a nutritious meal and a friendly check-in. In 2018, Meals on Wheels provided 3,244 meals and had 52 unique clients.

Access to Locally Produced Food

The BC Food Atlas has identified 8 local food security programs in the Cowichan Valley, all located in Duncan. An interactive map of these farms and food producers is available through the BC Food Atlas. All of these programs are run by the Cowichan Green Community, a non-profit focused on environmental sustainability. Numerous residents at the community workshops identified local food and agriculture as a key strength for the region, suggesting that access to local food is available in most communities. The four local farmers' markets in Ladysmith, Chemainus, South Cowichan and Duncan increase access for people unable to purchase food directly from local farms (BC Association of Farmers' Markets, 2013). In addition, the Farmers' Market Nutrition and Coupon Program at the Duncan Farmers' Market helps to support low-income families and seniors gain free access to local food as well as nutritional information and recipes (Cowichan Green Community, n.d.).

Figure 50: Local farms and food producers (2019)



A – Cowichan Incubator Seed Farm

B – Cow-op.ca Online Farmer's Market

C – Cowichan Food Security Coalition

D - Free Community Cooking Classes

E – FoodFit

F – Food Recovery Project (Refresh Cowichan)

G – Food Preservation

H – Food Preservation

Source: BC Food Atlas, 2019

Domestic Violence and Violence Against Women

Domestic violence is a serious issue across Canada as well as the CVRD. The Canadian Women's Foundation (2014) reports that while men can also be victims of domestic abuse, over 83% of all police-reported domestic assaults in Canada are against women:

- Aboriginal women in Canada are 3.5 times more likely to be victims of violence than non-Aboriginal women and are 8 times more likely to be killed by their intimate partners (Ibid).
- Immigrant women, women with disabilities, and younger women are also more likely to experience domestic violence in Canada; violent crime rates are nearly double for women aged 15 to 24 compared to women aged 35 to 44 (Ibid).
- There is evidence to suggest that women who are abused will stay with their abuser because they believe that if they leave, it will lead to a life of poverty for her children (Canadian Women's Foundation, n.d.).

Domestic violence also impacts children; even if children aren't direct victims of abuse, those who witness violence at home are more likely to grow up to become victims or abusers and have twice as many psychiatric disorders as children from non-violent homes (Ibid). Eighty percent of local child protection cases list domestic violence as one of the risk factors.

Violence against women particularly intimate partner violence and sexual violence against women - are major public health problems and violations of women's human rights (World Health Organization, 213). The Cowichan Women Against Violence Society (n.d. (b)) states that in the Cowichan Valley, reported incidents of violence against women are twice the provincial average. In 2009, Duncan established a designated Domestic Violence Court and the North Cowichan RCMP established a Domestic Violence Unit (Cowichan Women Against Violence Society, n.d. (b)).

However, it is important to note that only 22% of domestic violence incidents and 10% of sexual assaults are reported to police, so the actual statistics are likely much higher (Canadian Women's Foundation, 2014). Over 1,000 women access the Cowichan Women Against Violence Society's services every year (Cowichan Women Against Violence Society, n.d. (b)). This is a significant issue for the region, and one that impacts the health and well-being of many individuals and families throughout the CVRD.

Domestic Violence and Violence Against Women Services and Resources

Somenos Transition House provides 24/7 emergency shelter and support for women (with or without children) needing safety from violence and abuse.

Homeless Prevention Program assists women using Society programs to obtain secure housing, life skills support and rent supplements in the private housing market.

Women's Night Shelter provides homeless Cowichan women with a warm place to sleep, shower, clothing as well as dinner and breakfast

Poverty Law Advocacy supports individuals with information and guidance regarding income security and financial issues, landlord/tenant, employment issues.

Horizons Pre-Employment Program is designed to support women's entrance or return to the workforce. Pre-employment supports (according to individual needs) are provided as well.

Community-Based Victim Services provides assistance to victims of emotional, physical or sexualized abuse and/or violence.

Holding Your Own in Relationship Group is a drop-in educational workshop for women experiencing relationship threats, conflict, abuse and/or violence.

Children and Youth Counselling Program provides one-on-one trauma counselling for children and you along with parenting support.

Strengthening Families Group is a 9-week group for parents and children discussing various questions around violence and abuse and its impact on children and parenting.

Teen Healthy Relationship conducts violence prevention workshops in local schools.

Stopping the Violence Program offers longer term counselling to support women to explore and understand how they have been impacted by abuse/ violence and supports them regain a sense of safety and control in their lives.

RCMP Domestic Violence Investigations & Programs Summary

The Cowichan Valley continues to experience high rates of domestic violence in the area with women predominantly being the victims of abuse. Police in the valley are working hard to investigate these crimes with the goals of holding offender's accountable and to provide support and safety for victims. Total domestic related incidents have remained constant from 2016-2018 in the Cowichan Valley, with female victims continually being disproportionally affected. The Domestic Violence Unit (DVU) conducts thorough reviews on domestic violence incidents and ensures RCMP and local policy is adhered to in a timely manner. Police take these crimes very seriously given the potential for lethality and work closely with community agencies in the valley. The Domestic Violence court, held every second week adopts a collaborative, therapeutic approach to sentencing offenders who plead guilty to domestic violence offences.

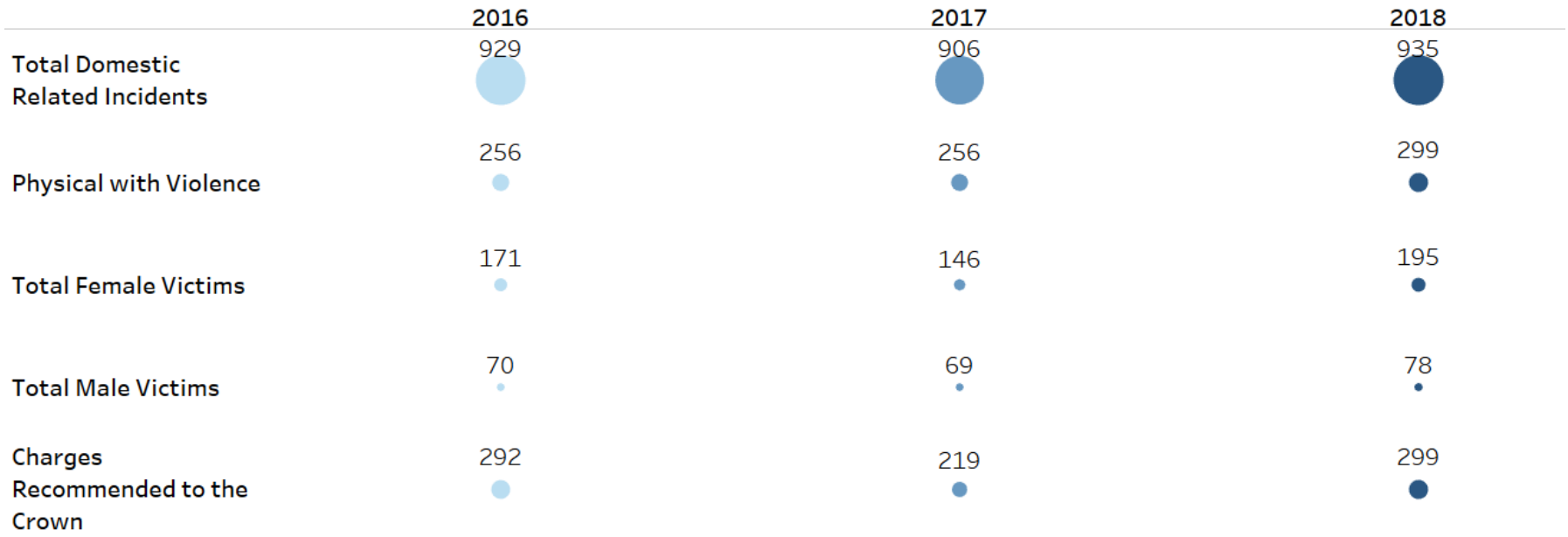
The Domestic Violence Unit has been able to connect with some of the most vulnerable victims that would likely not have otherwise cooperated with a police investigation. Police work with community agencies to facilitate a safe place for victims to come forward and share their experience. Police work tirelessly on domestic violence investigations and rely on the support of community agencies to assist victims in hopes of promoting empowerment and ending the cycle of violence.

Interagency Case Assessment Team (ICAT) established in 2014 continues to have success in the Cowichan Valley and referrals have increased since its implementation. ICAT is a coordinated safety plan for victims at highest risk of serious bodily harm or death. ICAT partners with local agencies, including; child welfare, health, social service, victim support and other local agencies. In the valley, positive growth has been seen amongst agencies committing to enhanced interventions for victims and monitoring, management and support for offenders. In 2019, ICAT has worked on 28 referrals, the highest amount thus far and will continue to work with victims and offenders to reduce domestic violence.

A Violence against Women in Relationship (VAWIR) committee was established in the valley in 2014 which is a collaborative and justice response. The committee has various community representatives from Transition Houses, Counselling and Outreach, Community and Police based Victim Services, Social Service agencies and representatives from the Justice system (Crown, Police and Probation). The goal is to provide effective community responses that will help to reduce the incidences of violence against women.

Currently, in 2019, VAWIR will be conducting community presentations during the 16 Days of Activism against Gender-based Violence which begins November 25th and ends December 10th. The presentation is a Neighbours, Friends and Families and Co-Workers campaign to increase awareness of the signs associated with relationship violence and information for at-risk persons or concerned family or friends.

Figure 51: Domestic violence in the Cowichan Valley (2016, 2017, 2018)



Source: Cowichan Valley, RCMP (2019)

Civic Participation and Planning

Voter Turnout

Voter turnout in the CVRD is low for local municipal and electoral area elections. Roughly one third of eligible voters vote in local elections.

Table 20: Summary of Voter Turnout for General Local Government Elections (2014, 2018)

Area	Voter Turn-Out	
	2014	2018
City of Duncan	31.21%	37.83%
Town of Ladysmith	43.78%	31.16%
Town of Lake Cowichan	40.65%	49.15%
District Municipality of North Cowichan	35.21%	35.13%

Source: Civic Info, 2014, 2018

Provincial elections, on the other hand, have historically received greater participation than municipal elections. In the 2017 provincial election, CVRD had a voter turn-out rate of 68% which was 7 percentage points higher than the province's voter turn-out.

Table 21: Summary of Voter Turnout for Provincial General Elections (1996 to 2013)

Region	% of eligible voters					
	1996	2001	2005	2009	2013	2017
Cowichan Valley*	74%	77%	72%	63%	62%	68%
BC	71.5%	71%	58%	51%	55%	61%

Source: Elections BC, 2017; Elections BC, 2013; Elections BC, 2009; Elections BC, 2005; Elections BC, 2001; Elections BC, 1996.

**Note: In 2005 and earlier, the Cowichan Valley Voting Area was referred to as the Cowichan-Ladysmith Voting Area*

Presence of Community Plans and Policy Addressing Health

There are numerous regional and municipal plans, strategies and studies that address health and well-being in the CVRD. While this list is not exhaustive, it provides an overview of the efforts of local and regional governments to address the health of CVRD residents.

Regional plans, strategies and studies (CVRD, n.d.) provide guidance for region-wide sustainability and policy to support economic, environmental, and community social health and well-being.

Environmental:

- CVRD Climate Action Revenue Incentive Program (2018)
- Climate Projections for the CVRD (2017)
- New Normal Cowichan
- Cowichan's Regional Airshed Protection Strategy
- Sh-hwuykwselu (Busyplace) Stormwater Management & Mitigation Plan
- CVRD South Sector Liquid Waste Management Planning
- Cowichan Adaptation Strategies: A Plan to Develop Climate Change Adaptation Strategies for Agriculture (2013)
- CVRD Burning and Air Quality
- CVRD State of the Environment (2010)
    - 2014 Update to State of the Environment Report
- Cowichan Basin Water Management Plan (2007)
    - Cowichan Basin Water Management Actions Progress Update (2015)
- Lower Cowichan-Koksilah Integrated Flood Management Plan (2009)
- Cowichan Watershed Atlas: an interactive online map of watersheds in the region

Economic:

- CVRD's Modernized Official Community Plan (2019) – Population, Housing & Employment Projections
- Economic Development Cowichan Strategic Plan (2018-2022)
    - Best for Business Cowichan
- Ladysmith Economic Development Strategy (2018)
- North Cowichan Economic Development Work Plan (2010)

Community Social Health and Well-being:

- North Cowichan Safer Community Plan (2019)
- CVRD Regional Affordable Housing Needs Assessment (2014)
- Duncan Area Active Transportation Plan (2014)
- Cowichan Region Safety Lens Framework (2008)
- Comprehensive Bike Network Map
- 12 Big Ideas for a Strong Resilient Community: a website to inform and educate about sustainability in the region

Municipal plans, strategies and studies (CVRD, n.d.): provide guidance for sustainable growth and development in each community including land use planning, environmental and agricultural protection, housing, economic, and social health and well-being.

Official Community Plans:

- Town of Lake Cowichan Official Community Plan Bylaw No. 1022 (2019)
- District of North Cowichan Official Community Plan Bylaw No. 3450 (2011)
    - District of North Cowichan Council is in the process of creating a new Official Community Plan
- City of Duncan Official Community Plan Bylaw No. 2030 (2007)
    - City of Duncan Council is in the process of creating a new Official Community Plan
- Town of Ladysmith Official Community Plan Bylaw No. 1488 (2018)
- South Cowichan Official Community Plan Bylaw No. 3510 (Electoral Areas A, B, and C)
- Electoral Area D – Cowichan Bay Official Community Plan Bylaw No. 3605
- Electoral Are E – Cowichan Station/Sahtlam/Glenora Official Community Plan Bylaw No. 1490
- Electoral Area F – Cowichan Lake South/Skutz Falls Official Community Plan Bylaw No. 1945
- Electoral Area G – Saltair/Gulf Islands Official Community Plan Bylaw No. 2500
- Electoral Area H – North Oyster/Diamond Official Community Plan Bylaw No. 1497
- Electoral Area I – Youbou/Meade Creek Official Community Plan Bylaw No. 2650

Other Community Sustainability Plans:

- City of Duncan Integrated Community Sustainability Plan (2013)
- Town of Ladysmith Sustainability Action Plan (2013-2016)

CVRD communities also have numerous initiatives related to social, environmental and economic well-being that can be found on their local websites:

- City of Duncan: www.duncan.ca
- Town of Ladysmith: www.ladysmith.ca
- Town of Lake Cowichan: www.town.lakecowichan.bc.ca
- District Municipality of Lake Cowichan: www.northcowichan.bc.ca
- Electoral Areas: www.cvrd.bc.ca
- First Nations communities: www.cowichantribes.com

Key Determinant 7: Healthy Behaviours

Personal health and coping skills are actions that individuals can take to promote self-care and prevent disease, develop self-reliance and the ability to solve problems, and make choices that can have a positive impact on their health and well-being (Public Health Agency of Canada, 2013).

As with all of the determinants of health, there is a connection between a person's personal coping skills and many of the other determinants of health. For example, supportive social networks and physical environments that encourage walking and cycling can enhance a person's ability to make healthy decisions (Public Health Agency of Canada, 2013).

Key Findings:

- The percentage of infants being breastfed in Cowichan at 1 week, 6 months, and 12 months was consistently lower than Island Health. Within Cowichan, Ladysmith had a lower percentage of infants being breastfed at 1 week; whereas Duncan was comparable to Island Health at 1 week, 6 months and 12 months.
- The percentage of women who reported smoking while pregnant was higher in all three Cowichan Valley LHAs than the province and Island Health as a whole from 2014 to 2018. The Lake Cowichan/Cowichan Valley West LHA had the highest proportion of women who smoked during pregnancy (23.5%).
- Alcohol sales per capita were higher than the province in Cowichan Valley South/Cowichan and Cowichan Valley West/Lake Cowichan in 2017. Sales in Cowichan Valley North/Ladysmith were lower than the provincial and Island Health sales rate.

Key Determinant 7: Healthy Behaviours

Healthy behaviors as a social determinant can be correlated with other factors such as income, education, employment, culture, and social environment. Health-related behaviours such as physical activity, fruit and vegetable intake, smoking, alcohol use, and sleeping habits are significant and, presumably, modifiable behavioural predictors of numerous health outcomes.

Smoking During Pregnancy

The percentage of women who reported smoking while pregnant was highest in Cowichan North and Cowichan South

CV West: **23.5%**
CV South: **14%**
CV North: **9%**
Island Health: **10%**

Alcohol Use

Alcohol sales per capita in were highest in the Cowichan Valley West/Lake Cowichan

Cowichan Valley West has a high tourist/recreation destination including music festivals that drive alcohol sales

rate per 1000

CV West: **18.6**
CV South: **11.6**
CV North: **8.1**
Island Health: **11.6**
BC: **9.4**

2014-2018

Breastfeeding Practices

2018-2019

The Cowichan Valley has lower breastfeeding rates than Island Health during the first year of life

Breastfeeding rates at 6 months 2018-2019

74% Duncan
74 % ladysmith
70 % Cowichan
75 % Island Health

Table 22: Healthy Behaviours Indicator Overview

Indicator Name	Description	Relevance to Health and Well-being
Breastfeeding Practices	▪ The percentage of infants being exclusively and non-exclusively breastfed at 6 months and 12 months of age.	▪ Breastfeeding during the first six months is recommended, with the exception of a few select medical conditions, for healthy infant growth and development (World Health Organization and UNICEF, 2003). A joint statement from Health Canada, the Canadian Paediatric Society, Dieticians of Canada, and the Breastfeeding Committee for Canada (n.d.) recommends exclusive breastfeeding for the first six months and breastfeeding with complementary feeding for the first two years to provide proper nutrition, immunologic protection, and healthy growth and development for infants and toddlers.
Alcohol and Tobacco Use	▪ The percentage of women who reported smoking during pregnancy (by local health area) (2014-2018). ▪ Alcohol sales per capita (by local health area) (2014) as well as the average number of times per week survey respondents consumed alcohol in the past 12 months.	▪ Tobacco products and second-hand smoke are known to contribute to an individual's risk for lung cancer, chronic bronchitis, emphysema and cardiovascular disease (Vancouver Coastal Health, 2009). ▪ Over-consumption of alcohol is known to put people at higher health risks for a variety of reasons including alcoholic liver cirrhosis, suicide, motor vehicle collisions and falls (Vancouver Coastal Health, 2009).
Youth Vaping		▪ Youth are at most risk using vapour products with nicotine due to the developing brain up until age 25. Nicotine changes the way synapses are formed altering adolescent brain development impacting concentration, impulse control, decision-making, cognitive performance, mood, and nicotine withdrawal. Youth who use vapour products with nicotine are at increased risk to use other substances such as alcohol, tobacco and cannabis. ▪ Nicotine is highly addictive, causes physical dependence and has detrimental effects on developing fetuses.

Breastfeeding Practices

Exclusive breastfeeding (the infant receives no food or liquid other than breast milk) during the first six months is important for a child's short and long-term health (Health Canada et al., n.d.). However, the introduction of complementary foods (foods and liquids other than breast milk) may be introduced a few weeks before or after the six-month mark, depending on the infant's readiness (World Health Organization and UNICEF, 2003). The percentage of infants being breastfed in Cowichan at 1 week, 6 months, and 12 months was consistently lower than Island Health. Ladysmith had a lower percentage of infants being breastfed at 1 week; whereas Duncan was comparable to Island Health at 1 week, 6 months and 12 months.

Figure 52: Breastfeeding Practices at 1 week, 6 months, and 12 months (January 1, 2018 – August 31, 2019)

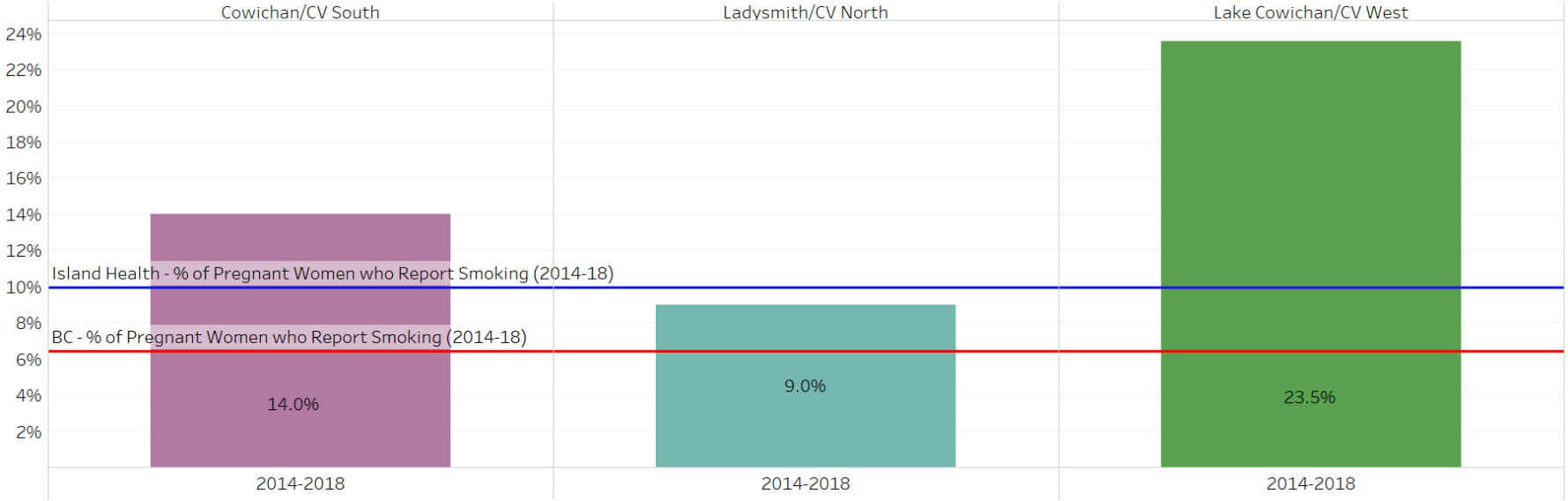
	Cowichan	Duncan	Ladysmith	Island Health
% BF at 1 week	90.5%	95.8%	85.2%	94.5%
% BF at 6 months	69.7%	74.2%	73.8%	75.2%
% BF at 12 months	44.0%	55.2%	55.6%	58.5%

Source: Panorama Public Health Information System, Island Health, 2019

Smoking during Pregnancy

The percentage of women who reported smoking during pregnancy was higher in Cowichan Valley areas than the province in 2014 to 2018. The Cowichan Valley North/Ladysmith LHA was below the Island Health average of 9.96%. The Cowichan Valley South/Cowichan LHA exceeded the Island Health average by four percentage points. The Cowichan Valley West/Lake Cowichan LHA exceeded the Island Health average by close to fourteen percentage points.

Figure 53: Percentage of pregnant women who reported smoking any time during current pregnancy (5-year aggregate, 2014-2018)

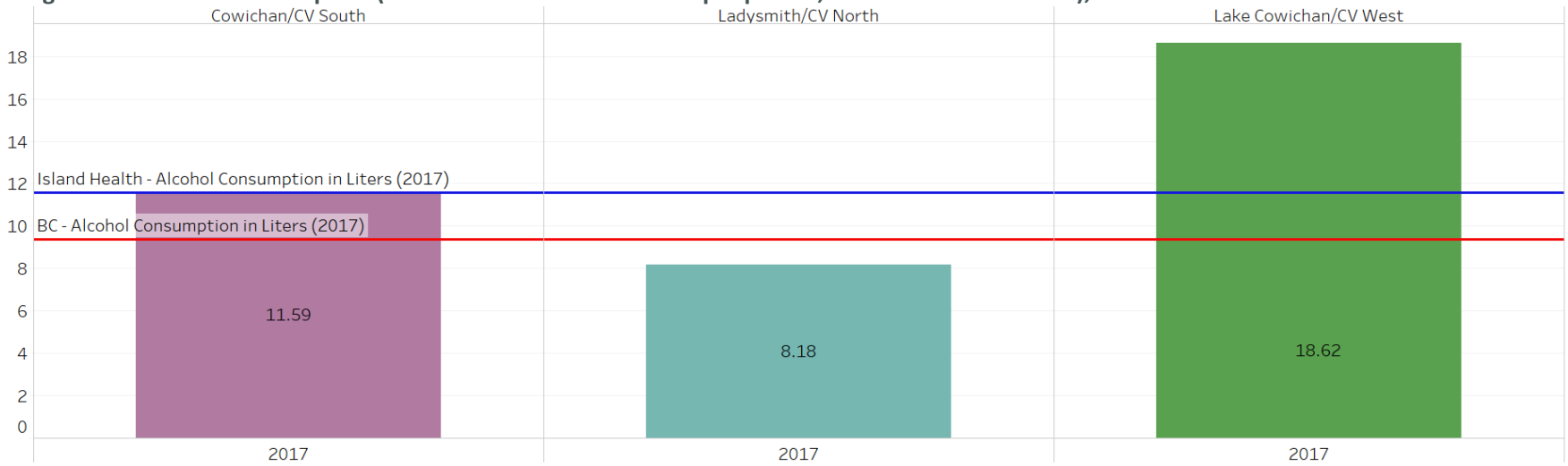


Source: Perinatal Registry, 2014-2018

Alcohol Consumption

In 2017, alcohol sales per 1,000 were higher in Cowichan Valley South/Cowichan and Cowichan Valley West/Ladysmith than the provincial rate of 9.39 per 1,000. Cowichan Valley North/Ladysmith had the lowest alcohol sales, 8.18 per 1000 in 2017, well below both the Island Health and provincial rate.

Figure 54: Alcohol Consumption (litres of absolute alcohol sold per person, 1L = 58 standard drinks), 2017



Source: AOD, 2017

Key Determinant 8: Health Services

Access to health services contributes to the overall health of a population (Public Health Agency of Canada, 2013). Access to high quality universal health care is a basic human right with the intent that everyone has equal access to services that protect their health at all socioeconomic levels. These health services can range from access to preventative care such as population screening for illnesses or immunization to treatment for various conditions. Providing health services for a community is only part of the picture. For health services to be effective, community members must be aware of them, able to reach them physically (or digitally), and be able to afford them. While Canadians have the benefit of universal health care, not all individuals have access to services such as eye care, dentistry, mental health counselling, and prescription drugs.

Nevertheless, issues remain in Canada. Lower income earners are less likely to see a specialist or fill a prescription and more likely to wait to see a physician (Mikkonen et al., 2010).

Key Findings:

- All three Cowichan Valley LHAs exceeded the provincial (63.9%) and Island Health (64.9%) proportion of the population attached to a physician at the General Practitioner (GP) level in 2017.
- The Cowichan Valley North/Ladysmith LHA had a significantly higher number of unscheduled emergency room and urgent care centre visits (963.8 per 1,000) compared to the other Cowichan LHAs and Island Health (466.9 per 1,000).

Key Determinant 8: Health Services

Access to health services contributes to the overall health of a population (Public Health Agency of Canada, 2013). These health services can range from access to preventative care such as population screening for illnesses or immunization to treatment for various conditions

Providing health services for a community is only part of the picture. For health services to be effective, community members must be aware of them, able to reach them physically (or digitally), and be able to afford them. While Canadians have the benefit of universal health care, not all individuals have access to services such as eye care, dentistry, mental health counselling, and prescription drugs.

Attachment to General Practitioner (GP)

Attachment rates are higher in the Cowichan Valley compared to Island Health and BC

CV West: **73%**
CV North: **70%**
CV South: **69%**
Island Health: **65%**
BC: **64%**

Unscheduled Emergency and Urgent Care Visits(per 1,000)

Unscheduled emergency and urgent care visits are higher in Cowichan Valley North and CV South compared to Island Health

CV North: **964**
CV South: **521**
CV West: **496**
Island Health: **467**

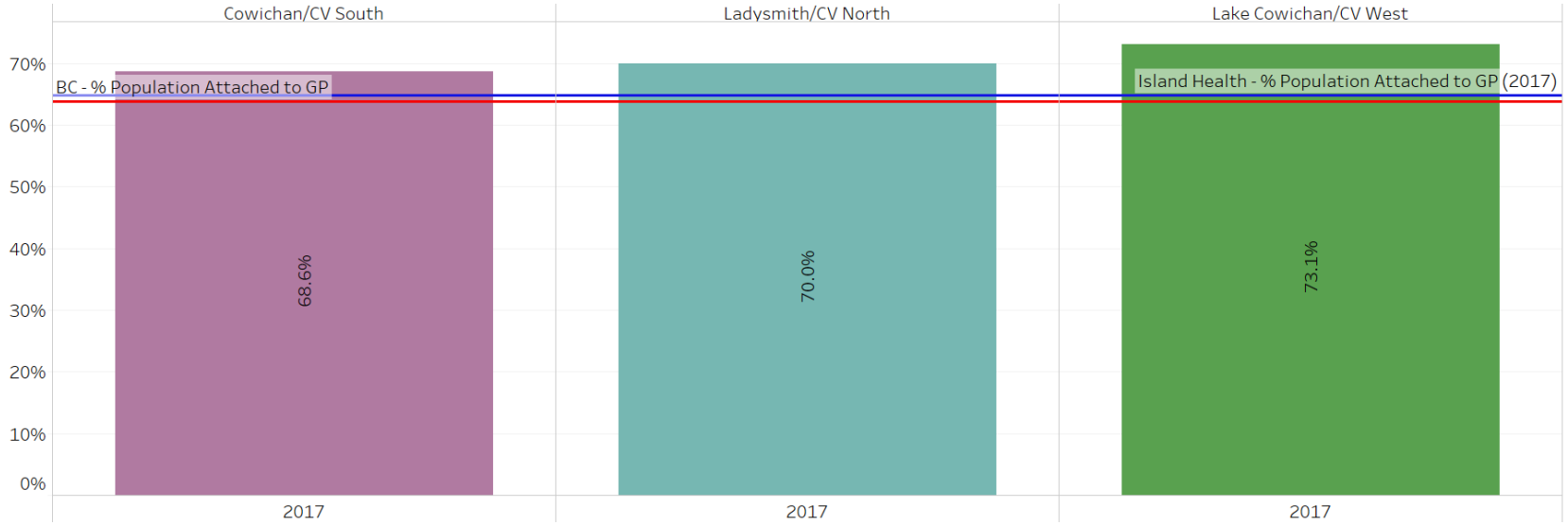
Table 23: Health Services Indicator Overview

Indicator Name	Description	Relevance to Health and Well-being
Regular family doctor and complementary health care	▪ The percentage of population attached at the GP level (2017 ▪ The percentage of respondents who utilize complementary or alternative health care services.	▪ Physicians and other health-care providers have a role in detecting and treating disease, but also in promoting health and wellbeing of their clients (The College of Family Physicians of Canada, 2005).
Emergency Department and Urgent Care Centre Visits	▪ Unscheduled emergency department and urgent care visits per 1000 (2018)	▪ Understanding the types of health services that are utilized in the region can help to plan for future services to best suit the unique needs of Cowichan residents.

Attachment to a General Practitioner

Attachment at the GP level is lowest in the Cowichan Valley South LHA with 68.6% of the population attached as of 2017. Attachment at the GP level was higher in Cowichan Valley North (70%) and Cowichan Valley West (73.1%).

Figure 55: Percentage of population attached at the GP level (2017)

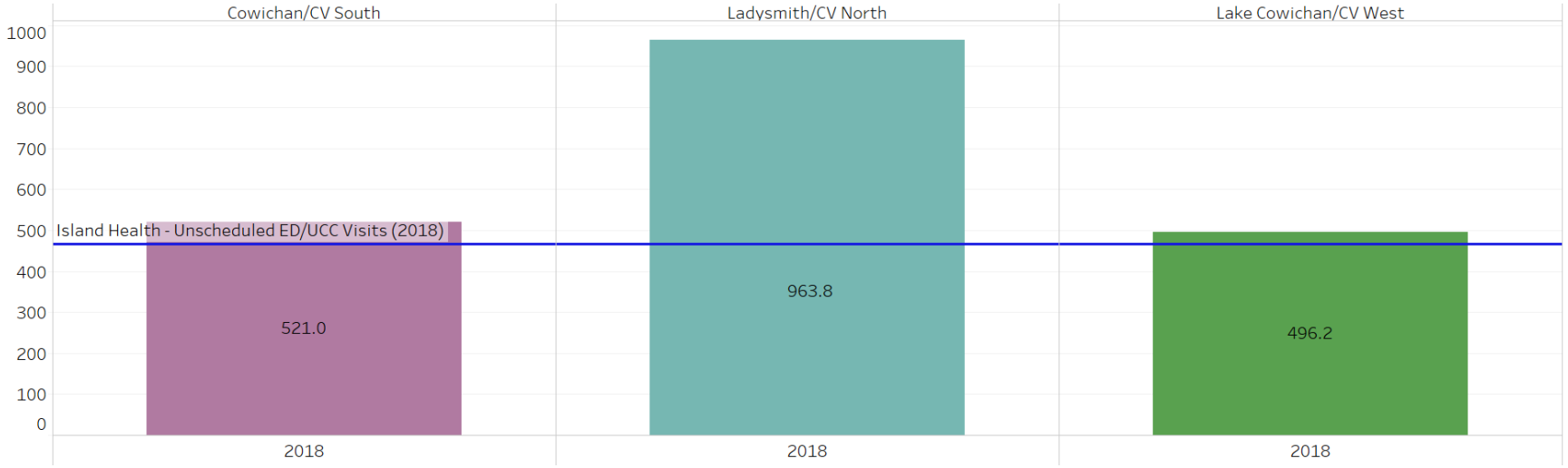


Source: Ministry of Health, 2017

Unscheduled Emergency Dept. or Urgent Care Centre Visits

The number of unscheduled emergency room and urgent care centre visits per 1,000 people was highest in the Cowichan Valley North/Ladysmith LHA in 2018 than any other Cowichan LHA and Island Health. The Cowichan Valley West/Lake Cowichan and Cowichan Valley South/Cowichan LHAs were above the Island Health average (466.9 per 1,000) but well below the average for the Cowichan Valley North/Ladysmith LHA.

Figure 56: Unscheduled Emergency Dept. or Urgent Care Centre visits (rate per 1,000 population), 2018



Source: Island Health IDEAS, 2018

Key Determinant 9: Biology and Genetic Endowment

No relevant issues were identified.

Key Determinant 10: Gender

The vast majority of data gathered on gender refers specifically to binary definitions of male and female. Less studied, but equally important are the impacts of sexual orientation and gender identity and expression on health. At this point in time, we do not have any data specific to the Cowichan Valley. It was only in May 2018 that Statistics Canada began offering a third option for gender. Their new classification system now includes options of male, female and a new "gender diverse" or non-binary category. The agency's official definition of gender diverse includes "persons whose current gender was not reported exclusively as male or female … persons who were reported as being unsure of their gender, persons who were reported as both male and female, or neither male nor female." Health Authorities in BC are just now following suit to capture similar data around the determinants of health.

Research is needed to better understand the barriers and promoters of health for people in LGBTQ2+ communities in Cowichan and across Canada. In the absence of specific data on sexual orientation or gender identity/expression, we must continue to consider the impact of policies, decisions and resource allocation on gender and sexually diverse populations and find ways to address those differences to promote better health and wellbeing for all Cowichan Valley residents.

Many health issues are known to be a function of gender-based social status (Public Health Agency of Canada, 2013). Gender is composed of many different facets including behaviours, biology, hormonal attributes, social roles, attitudes and physical attributes and cannot simply be defined by a person's sex (Davidson, 2006).

Gender can have a direct effect on health through biological differences between different sexes which is discussed further in the "biology and genetic endowment" determinant. However, gender can also have an indirect effect on health and wellbeing as a result of differences in social constructs. That is, the relative values, power, and influence that society defines for different genders.

In Canada and within the Cowichan communities, gender plays a role in employment outcomes for an individual. As illustrated in Figure 57, women in the CVRD are less likely to be employed than men and are less likely to hold full-time jobs than men. Additionally, differences in wages as a result of gender are still apparent. As discussed previously, income is known to be related to health and thus reduced wages and opportunities to work would put women at a disadvantage in terms of health and wellbeing as compared to men.

On the other hand, women are known to live longer than men; life expectancy for males in BC is 80 years versus 84 years for females (Statistics Canada, 2012d), and women experience lower levels of cardiovascular disease and many cancers (de Kretser, 2010).

Gender can also influence health behaviours and men in particular exhibit differences in how they seek out help, how they communicate their health needs and how they access the services that are available (Lutfiyya, 2014). It has been documented that men are less likely to admit to and seek help for a problem and they underutilize available and accessible health care (Ibid). This issue was also raised by workshop participants who noted that many men face greater challenges in overcoming shame and emotional pain associated with poor mental or physical well-being, as well as issues of family or community wellbeing, due to social and cultural expectations.

Although Statistics Canada only presents data for males and females, it is recognized that other genders require due consideration in planning and policy creation. Transgender and gender variant persons have been shown to experience adverse health outcomes that are unlikely to be as a result of biology or genetics and are more likely as a result of gender discrimination (Scout, 2005). They are likely to face unique challenges when seeking health care, employment and support from social systems (Lombardi, 2001; Scout, 2005). More recent studies have shown the profound health-care discrimination experienced by transgender people (Kcomt, 2019, Heng, Heal, Banks & Preston, 2018). Transgender and gender non-conforming people face stigma and discrimination from a wide variety of sources and through numerous social realms (Cruz, 2014). Other studies have shown that the impact of anticipated bias from the health care system is a very significant deterrent to seeking care (Walker, Powers & Witten, 2017).

Regardless of the way a person self represents (man, woman, transgender or otherwise), the social and cultural influences on this representation has an effect on their health (Lutfiyya 2014). Aside from the biological differences, people of different genders grow up differently and experience life differently. As such, gender appropriate care policies need to be considered to address these differences and move towards better health and wellbeing for all Cowichan community residents.

Key Determinant 10: Gender

Many health issues are known to be a function of gender-based social status (PHAC, 2013). Gender is composed of many different facets including behaviours, biology, hormonal attributes, social roles, attitudes and physical attributes and cannot simply be defined by a person's sex (Davidson et al, 2006)

Although Statistics Canada only presents data for males and females, it is recognized that other genders require due consideration in planning and policy creation. Transgender and gender variant persons have been shown to experience adverse health outcomes that are unlikely to be as a result of biology or genetics and are more likely as a result of gender discrimination (Scout, 2005). They are likely to face unique challenges when seeking health care, employment and support from social systems (Lombardi, 2001; Scout, 2005).

Employment and Income

Women in the CVRD are less likely to be employed, are less likely to hold a full-time job and earn less compared to men

CVRD

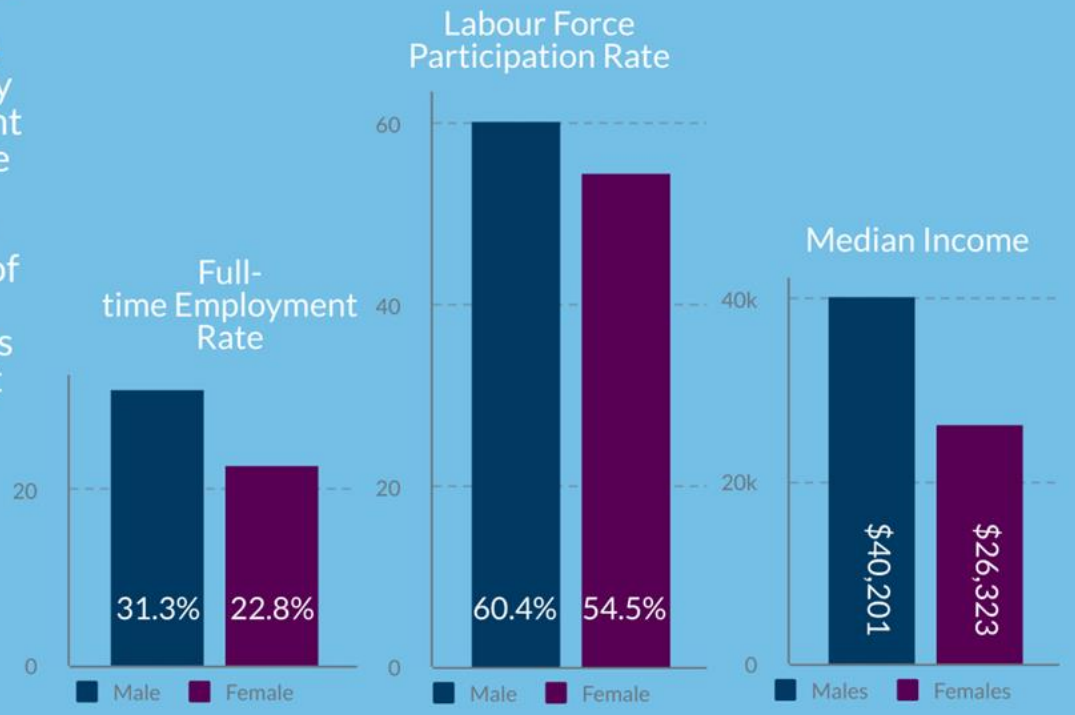


Table 24: Gender Indicator Overview

Indicator Name	Description	Relevance to Health and Well-being
Full-time Employment Rate	▪ The percentage of the labour force that is employed that is employed full-time, stratified by sex, 2015.	▪ Unemployment and under employment are associated with poorer health (Public Health Agency of Canada 2013).
Labour Force Participation	▪ The percentage of working-age persons who are employed or unemployed but seeking employment, stratified by sex, 2015.	▪ Research shows that employment positively affects physical and mental health (Public Health Agency of Canada 2013).
Median After-Tax Income of Individuals	▪ Median income is the amount that divides the income distribution into two equal groups — half having income above that amount, and half having income below that amount, stratified by sex, 2015.	▪ Income is known to be related to health and thus reduced wages and opportunities to work would put women at a disadvantage in terms of health and wellbeing as compared to men.

Gender Differences between Median Income, Full-time Employment Rate and Labour Force Participation

In the CVRD, male individuals held a higher percentage of full-time employment (31.3%) compared to women (22.8%) in 2016. In 2016, the labour force participation rate was higher in male individuals (60.4%) compared to female individuals (54.5%). The median after-tax income of individuals was higher in male individuals ($40,201) than female individuals ($26,323) in 2016.

Figure 57: CVRD Female versus Male Employment and Income Characteristics (2016)

Source: Statistics Canada, 2016.

Key Determinant 11: Culture

Culture incorporates a mix of beliefs and behaviours that define the values of communities and social groups. There are visible and non-visible signs of culture. Visible signs include language, dress, food, and rituals. Non-visible indicators include perceptions of time, notions of modesty, reactions to physical space, and how emotions are managed. Culture influences health and the management of illness, and issues related to culture can sometimes heighten risk or impact care. Culture may influence, for example, beliefs about what causes disease, whether to engage in certain health promotion activities or seek advice regarding health concerns, as well as whether treatment options are followed.

The influence of culture on health is vast. It affects perceptions of health, illness and death, beliefs about causes of disease, approaches to health promotion, how illness and pain are experienced and expressed, where patients seek help, and the types of treatment patients prefer.

Cultural misunderstandings can affect the ability of health professionals to assist their clients or patients in achieving optimal health. For example, health professionals may view clients or patients who are culturally different from themselves as unintelligent or of differing intelligence, irresponsible, or disinterested in their health. This can result in poor health status, marginalization within the health care system, increased risk, and experiences of racism for the patient.

There is growing recognition of the need for culturally safe, patient-centered care in improving the health outcomes of minority populations, particularly Indigenous populations. The health status of Indigenous populations is well below the national average both in Canada and the United States. The experience of many Indigenous populations with the mainstream health care system has been negative, often due to cultural differences. Frequently, cultural differences and the inability of health care providers to appropriately address these differences have contributed to high rates of noncompliance, reluctance to visit mainstream health facilities, and feelings of fear, disrespect, and alienation.

For many Indigenous people, the almost complete lack of recognition of culture as a determinant of health and the lack of access to culturally competent care results in an alienating and disheartening experience.

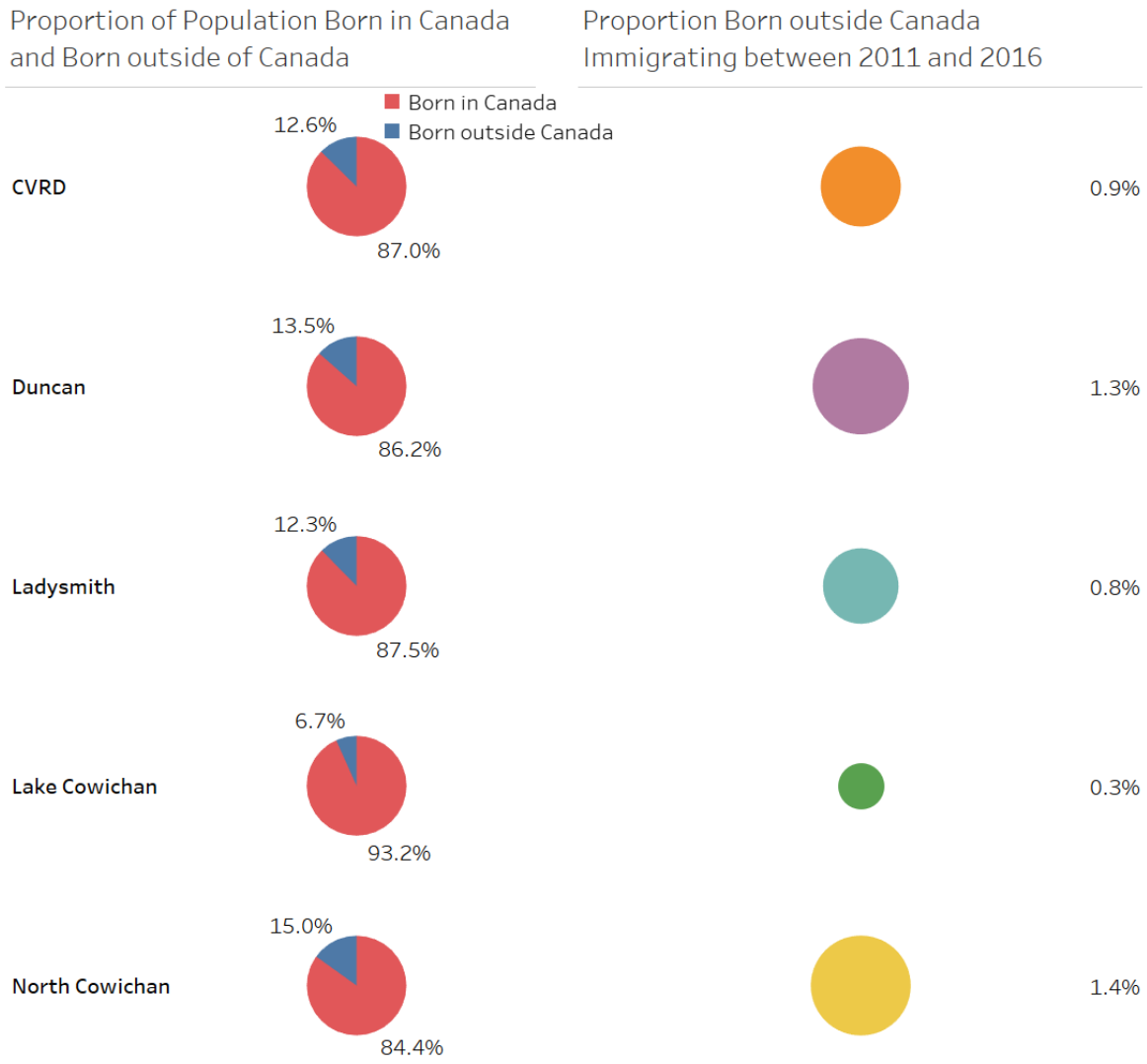
Diversity and Immigration in the Cowichan Valley

The following is an overview of diversity in the Cowichan Valley:

- Immigrants comprise 12% of the total population in the Cowichan Valley
- 60% of immigrants in Cowichan are between 15 – 44 years old
- Immigrants in Cowichan originate from a total of 45 countries and speak 60 different languages
    - Many countries have more than one language and individuals are multi-lingual.
    - Many immigrants are English Language Learners (ELL).
- 60% of immigrants in Cowichan come from Europe
- Cowichan is home to 23 Syrian refugee families, 115 people in total (arrived between 2015 – present), not including two families who moved out of area (for employment). Some of the Syrian refugee families arrived as government-sponsored while others were sponsored by community members.
    - There are now 9 children born in the Cowichan Valley from within this Syrian cohort
    - almost all have at least one adult family member employed
    - 10 are living with disabilities
- 6% of the population, have a mother tongue other than English or French
- German is the most common non-English, non-French first language, followed by Dutch, Punjabi, Chinese languages (Mandarin and Cantonese most common), and Tagalog.
- The number of male and female immigrants is virtually equal - No data available (yet) for non- or bi-gendered identities
- Educational levels rise with each generation of immigrants (i.e., Immigrant children and grandchildren are likely to have more education than their parents). In contrast, children of Canadian-origin parents tend to have the same education as their parents.
- Unique needs of newcomers:
    - Systems are often very different across different countries; patience and explanations are needed. This doesn't mean that people aren't intelligent, capable and savvy; just that the systems they are used to navigating are different than systems here.
    - Language can be a barrier, but again some patience can go a long way. Accents are assets! They indicate perhaps a different world view, access to international markets, or a multilingual employee.
    - Cowichan Intercultural Society can assist with interpretation, translation or other supports for newcomers accessing services needed for their settlement journey (i.e., call on us as a resource)
    - Foreign qualification recognition remains a huge challenge (think of the Vancouver taxi driver who was a physician or architect in home country)
    - Cultural norms may differ, for example around eye contact or physical contact, gender relations, power differences, etc.
    - Loss of personal and family support
    - Newcomers may face discrimination or racism

Source: Cowichan Intercultural Society, 2019; Syrian Cohort (data comes from Cowichan Intercultural Society); Statistics Canada. 2017. Cowichan Valley, RD [Census division], British Columbia and Saskatchewan [Province] (table). Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017. https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E (accessed December 4, 2019).

Figure 58: Proportion of Population Born in Canada and Born Outside of Canada



Source: BC Stats

Key Determinant 12: Race/Racism

In Canada, a person's colour, religion, culture or ethnic origin often depicts health inequities among the social determinants of health, such as social inclusion, economic outcomes, personal health and access to quality healthcare and services. In racialized and Indigenous people, these discrepancies are most evident and disproportionately affect health outcomes (CPHA, 2018). In addition to looking at race as a deterrent to health, another primary risk factor contributing to poor health is the presence of racism.

Racism, a falsely constructed injustice based on deeply engrained assumptions about a person's value in society, which has been used as an excuse for an inequitable distribution of resources and disparities (Loppie et al., 2014) has been shown to harm health through multiple pathways. These pathways in which racism leads to health inequities includes: psychological stress due to living in a racist environment, unequal economic opportunities, inequitable access to education and social resources, inadequate housing, environmental toxin exposures, victimization through traumas related to spousal and sexual abuse, violence and mistrust of the health care system (Brondolo, Gallo, & Myers, 2009; Krieger, 2003).

The most blatant display of racism in Canada both systemically and at the individual level occur in the treatment of Indigenous people and anti-black racism, which is evident in the disproportionate representation of these population in lower social gradients, lower education rates, higher incarceration rates and unemployment (CPHA, 2018). The intergenerational effects of racism on Indigenous people's health are evident in health inequities, most concerning in the areas of: colonial policies, limited food security, inadequate living conditions and substandard healthcare (CPHA, 2018). Disrespectful treatment by healthcare providers is one of the main barriers when Indigenous populations access health care services. Systemic discrimination and disrespectful treatment can discourage Indigenous people from reaching out and accessing said services (McConkey & Wylie, 2019). Nestel et al., reviewed the impact of race and racism on Canadian's health and found racialized individuals experience wage and employment inequities, with significant declines in earnings for all racialized people compared to individuals of (white) British origin. Immigrants of visible minority and Canadian born racialized individuals also face substantial wage disparities (Nestel et al., 2012), of note, these discrepancies are not in part due to education attainment as immigrants have a higher percentage of individuals with a university degree (Nestel et al., 2012). In addition, some diseases have been linked to racial/ethnic profiles such as a cardiovascular diseases, cancer, HIV/AIDS, diabetes, mental health and domestic abuse (2012). BC's Office of the Human Rights Commissioner just released a series of recommendations for new legislation in a report requested by the Premier. This report highlights the importance of safe collection of disaggregated data to address systemic racism. ("Disaggregated demographic data collected in British Columbia: The grandmother perspective" (September. 2020, bchumanrights.ca/datacollection). This data allows us to better understand the challenges we face. For example, only 25% of Indigenous communities in BC have basic internet access, more than 40% of homeless youth identify as LGBTQ2S+. These are examples of data we are missing that are so necessary for "revealing inequalities and relationships between categories."

Progress on Actions and New Action Areas in 2020

Since 2014 the following are a few of the actions have been undertaken as collaborative community projects:

For Seniors

- Eldercare Project in Cowichan has been established- Collective impact initiative that brings together partners in Community, Island Health, physicians and communities to identify frail and isolated seniors and to connect, align and collaborate to enhance supports
- Primary Care Network established
- 88 Residential Care and 55 Assisted Living units are under construction at the New Hamlets for seniors

For Homeless and Precariously Housed

- Housing and Homelessness Coalition Established
- Plan to address homelessness completed
- Housing Service to support housing development and housing supports established via referendum in CVRD
- 100 supported housing units announced for 2021
- 100 individuals housed in temporary COVID Shelter program starting in May 2020
- New Affordable Housing development for vulnerable community members under construction in Ladysmith
- New Supported Housing project for women fleeing violence to begin construction

Mental Health and Substance Use

- Sobering and Assessment Centre opened in 2016
- Overdose Prevention Site opened in 2017
- Community Action Team Funding began in 2018
- Cowichan Vision for Community Wellness completed in 2019
- Cowichan Wellness and Recovery Centre under development to open in 2021

For Women

- Efforts to address the number of child apprehensions underway
- Women's Health Collective established

For Children

- Opening of Wendy's House Play and Discovery Centre
- Expansion of StrongStart Programs in outlying communities
- Implementation of Physical Literacy initiative that has resulted in Play Cowichan and multiple community partners working collaboratively to address children's physical activity
- Sundrops Child Development Centre (via Clements Centre Society) to expand into new facility

For Communities

- Primary Care Network Established 2020
- Hospice House opened November 2020
- Cowichan District Hospital Replacement under development
- New Cowichan District High School under development

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