



2021-2024

Community Health Needs Assessment

*Presented to Douglas, Grant, Lincoln,
Okanogan Counties Public Hospital District
No. 6 Board of Commissioners*

February 22, 2021

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I. OVERVIEW

Coulee Medical Center (CMC) is a 25-bed Trauma Level IV Critical Access Hospital (CAH) located in Grand Coulee, Washington. The Hospital is owned and operated by Douglas, Grant, Lincoln, Okanogan Counties Public Hospital District #6 (the District). As the name suggests, the hospital serves a large geography located across the juncture of four very sparsely populated Counties in North Central Washington. A portion of the Confederated Tribes of the Colville Reservation is within the District's boundaries. The closest inpatient hospitals are located in Brewster and Davenport; both at a distance of more than 50 miles, and 55-60 minutes travel time. The next higher level service hospital is located in Spokane, a distance of 85 miles, and with a travel time, under ideal circumstances, in excess of 90 minutes.

More than 80 years ago, and concurrent with the construction of Grand Coulee Dam, Mason City Hospital was built to meet the need for quality healthcare for the people building and subsequently operating the Grand Coulee Dam. The Dam is one of the world's largest hydroelectric projects.

Constructed in 1934, the hospital was originally a two-story wood frame building located adjacent to the Dam. In 1960, Mason City Hospital became the privately-owned Coulee Community Hospital and was relocated to a new location in the city of Grand Coulee. In 1990, the Hospital sought, and the voters approved, the creation of a Public Hospital District to provide tax revenue to support operations.

In 2010, the District built a new 66,000-square-foot replacement hospital complete with state-of-the-art technology, equipment, and exam rooms. Known today as Coulee Medical Center, the Hospital includes inpatient care, emergency room care, surgery, swing beds, women's health and birthing services, lab, radiology and other diagnostic services, family medicine clinics (in Coulee City and Grand Coulee) that include behavioral health, and specialty clinics.

This Community Health Needs Assessment (CHNA) was prepared during the COVID-19 pandemic. The Pandemic, and more recently the vaccine distribution, greatly impacted our ability to partner with the community in the same robust manner that we did in prior CHNAs, but we still relied on publicly available data collected and distributed by our various Public Health Departments and our regional Accountable Community of Health. We also solicited and secured input on health needs and priorities from social service and health providers as well as other community and civic organizations and the general public.

Health Facilities Planning & Development, a consulting firm in Seattle, Washington with more than 30 years of experience working with Washington hospitals and data, facilitated the CHNA process and supported CMC in finalizing the CHNA.

II. 2017 CHNA AND ACCOMPLISHMENTS

CMC's 2017 CHNA identified and prioritized needs related to health care access, health status and health behaviors in the District. The 2017 CHNA's three priorities were:

1. Chronic Disease Prevention, Management and Education to Support Healthy Living
2. Behavioral Health, and
3. Elderly Care

Table 1 below identifies the implementation strategies connected to each of the 2017 CHNA priorities and the accomplishments achieved to date related to each priority and strategy.

**Table 1
2017 CHNA Accomplishments**

Identified Priority	Implementation Strategies	Accomplishments
<p>Chronic Disease Prevention, Management And Education to Support Healthy Living</p>	<ul style="list-style-type: none"> ▪ Recruit providers and use recruitment and loan repayment programs to attract. ▪ Evaluate the feasibility of establishing an FQHC. ▪ Align with Medicaid transformation strategies by embedding care coordinators into clinics. Evaluate cost and benefit of adding community health workers. Risk-stratify patients. ▪ Consider community gardens to increase access to affordable, healthy fruits and vegetables. ▪ Grow outreach programs that promote healthy eating and healthy lifestyles. ▪ Work with State Dental Foundation for training on fluoride treatment in primary care. 	<p>Recruited three new primary care providers: an OB/Family Practice (FP) physician, an OB/FP physician (qualified for the National Health Service Corp Loan Repayment Program), and a FP Physician Assistant.</p> <p>Hired a RN Care Coordinator embedded in primary care to oversee transitional care management and chronic disease management programs-</p> <ul style="list-style-type: none"> ▪ Transitional care management (TCM) program focuses on reducing readmissions, supporting patients after discharge, and coordinating with community providers to improve outcomes. ▪ Chronic disease management (CCM) program established through work with the ACO. Focuses on connecting patients with the resources needed to effectively manage chronic conditions. <p>A Community Health Worker and Social Worker are part of a multidisciplinary care team with the RN Care Coordinator and primary care providers to support patients in TCM and CCM programs– including addressing social determinants of health (transportation/food) and helping with insurance/financial paperwork, etc.</p> <p>Received-Accreditation by American Diabetes Association as a Diabetes Education Center – only accredited center between Wenatchee and Spokane.</p> <ul style="list-style-type: none"> ▪ Provided Diabetes/Nutrition Education sessions at the Colville Tribe and Senior Center. <p>Community started farmer’s market for local farms to sell produce in Grand Coulee every Saturday.</p> <p>Through partnership with the Acora Foundation, nursing staff and providers trained to provide fluoride treatments, oral exams, and oral health education at well child visits.</p> <p>FQHC was determined not to be the most feasible</p>

Identified Priority	Implementation Strategies	Accomplishments
Behavioral Health	<ul style="list-style-type: none"> ▪ Partner with Tribe and schools to provide outreach and education. ▪ Per Medicaid transformation, embed behavioral health providers in primary care. May require both in-person and telepsych. ▪ Provide ACES training to providers. ▪ Identify partners and pursue more behavioral health and substance abuse programming 	<p>option compared to maintaining RHC certification.</p> <p>Started providing Telepsychiatry in December, 2018.</p> <p>Established Collaborative Care Program in September of 2020 (team- based approach to behavioral health services – using evidence-based therapy and/or medication and psychiatry consultation to primary care).</p> <ul style="list-style-type: none"> ▪ Received UW AIMS Grant for technical assistance, training, and data. ▪ Hired Psychiatrist; started in January 2020 – provides psychiatric consultations/planning/trauma training to providers. ▪ Hired Behavioral Health Care Manager; started in 8/2020. ▪ Program now open to all provider patient panels. <p>Awarded North Central Accountable Community of Health opioid grant.</p> <ul style="list-style-type: none"> ▪ Partnered with Colville Tribe and UW AIMS to provide Medication Assisted Treatment (MAT) training to Tribe and Coulee providers and staff. ▪ Provided neonatal abstinence syndrome training for OB providers. <p>Received funding from WSHA and AWPHD to help cover expenses for MAT waivers: 2 new providers received MAT training/certification.</p> <p>Contracted with Grand Coulee Dam School District to provide school nurse services by clinic nurse.</p>
Elderly Care	<ul style="list-style-type: none"> ▪ Participate in the newly forming Community-Based Long-Term Care Network (CBLTCN). ▪ Evaluate use of paramedicine to 	<p>Joined the ACO with a key focus on the 65+ population:</p> <ul style="list-style-type: none"> • Emphasis on Annual Wellness Visits to increase health screenings (ie. colonoscopy and breast cancer screenings), Transitional Care Management, and Chronic Care Management.

Identified Priority	Implementation Strategies	Accomplishments
	help in follow-up care and symptom management.	<ul style="list-style-type: none"> • Established annual goals. <p>Diabetes education program described above is also key to forwarding this priority.</p> <p>The CBLTCN did not get implemented, and the feasibility of community paramedicine is still under review.</p>

III. METHODOLOGY

Data to compile this CHNA was retrieved from a multitude of sources to ensure a comprehensive understanding of the District’s health, health status, and health care gaps and needs.

Data sources included, but were not limited to the following:

- Behavioral Risk Factor Surveillance Survey
- American Community Survey (ACS), US Census Bureau
- Robert Wood Johnson County Health Rankings
- Department of Health and Human Services National Vital Statistics
- WA Department of Health Okanogan, Grant, and Douglas County Chronic Disease Profiles
- Washington Health Care Authority
- HRSA Data Warehouse
- Washington State OFM Health Care Research Center
- University of Washington Alcohol & Drug Abuse Institute
- Centers for Disease Control and Prevention (CDC)
- Northwest Portland Indian Health Board – Indian Leadership for Indian Health – Colville Tribes

This CHNA not only builds off the CMC’s 2017 CHNA but also a number of other CHNAs and community health improvement plans (CHIPs) completed that include all or portions of the District as well as the Counties in our District and Counties within the North Central Accountable Community of Health (ACH). The North Central ACH includes the counties of Grant, Douglas, Okanogan, and Chelan counties. The priorities of these other entities are included in **Table 2**.

**Table 2
Other CHNA/CHIP Priorities**

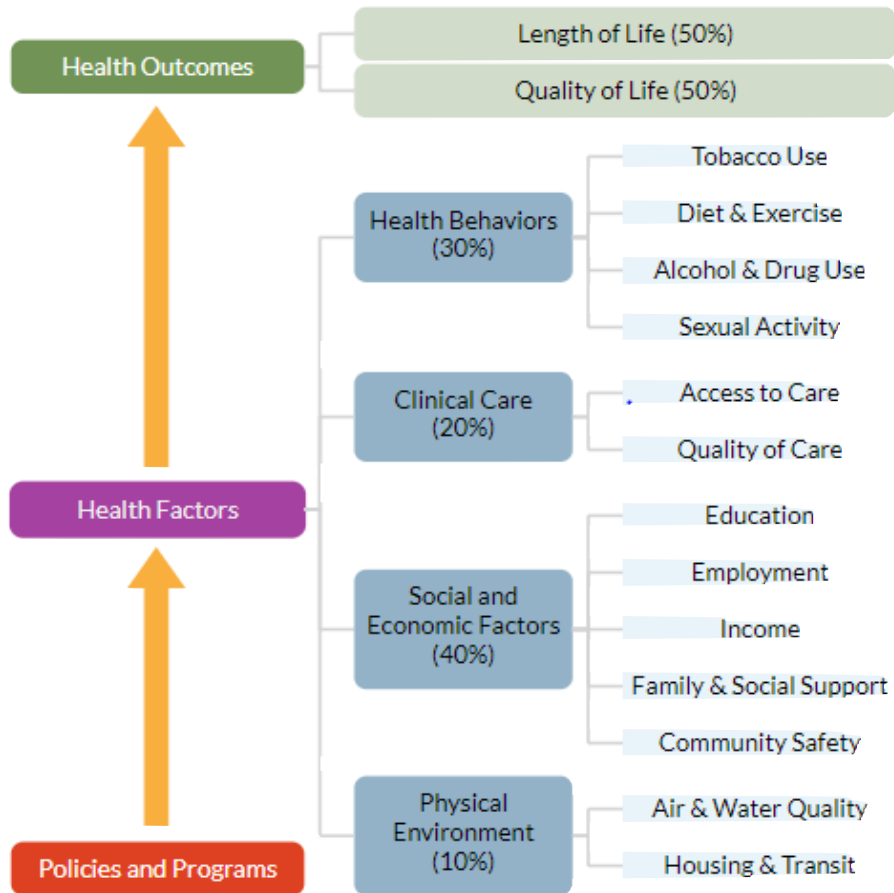
CHNA/CHIPS	Overlapping Geographies with CMC	Community Priorities
Central Washington and Wenatchee Valley Hospital 2019	<ul style="list-style-type: none"> ▪ In Chelan County (part of North Central ACH) 	<ul style="list-style-type: none"> ▪ Access to behavioral health ▪ Access to care ▪ Affordable housing ▪ Chronic disease ▪ Education ▪ Substance Use
Lincoln County Health Department 2014	<ul style="list-style-type: none"> ▪ In Lincoln County (County in our District) 	<ul style="list-style-type: none"> ▪ Integrated healthcare system ▪ Healthy lifestyles ▪ Healthy child and family development
Chelan-Douglas Health District 2019	<ul style="list-style-type: none"> ▪ In Douglas County (County in our District) 	<ul style="list-style-type: none"> ▪ Access to behavioral health ▪ Access to care ▪ Affordable housing ▪ Chronic disease ▪ Education ▪ Substance Use
Cascade Medical 2019	<ul style="list-style-type: none"> ▪ In Chelan County (part of North Central ACH) 	<ul style="list-style-type: none"> ▪ Child and Family Wellness ▪ Aging in Place ▪ Equity for Neighbors in Poverty and the Working poor
North Valley Hospital 2019	<ul style="list-style-type: none"> ▪ In Okanogan County (County in our District) 	<ul style="list-style-type: none"> ▪ Access to behavioral health ▪ Access to care ▪ Affordable housing ▪ Chronic disease ▪ Education ▪ Substance Use

To assure community engagement and voice in the CHNA process, CMC had planned a robust in-person community convening process to assess, identify, and prioritize community needs. After much discussion, this year, due to the continued persistence of COVID and more recently vaccine distribution, we chose to use a combination of online surveys and one-on-one phone interviews with Service Area and County community members and organizations serving the vulnerable.

To guide the data collection efforts for this CHNA, CMC used the Robert Wood Johnson Foundation’s (RWJF) model of community health. This model emphasizes the many factors that influence how long and how well a community lives by using more than 30 measures that help communities understand how healthy their residents are today (health outcomes) and what will impact their health in the future (health factors). One real value of the RWJF model is that it

demonstrates the role of factors beyond clinical care that affect the health of a community and its residents.

As identified in **Figure 1**, clinical care represents only 20% of the factors influencing health outcomes, while social and economic factors and health behaviors account for 40% and 30% respectively.



The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute jointly publish an annual report of health data for every County in the United States, called County Health Rankings. The Robert Wood Johnson Foundation releases county health rankings every year for every county in the nation. Washington State has 39 Counties, and the rankings for each are based on a comparison of more than 30 health indicators. The 2016 and 2020 composite scores for Okanogan, Grant, Douglas, and Lincoln counties are depicted in **Figure 2**.

Figure 2: County Health Rankings, 2016 and 2020

Composite Score	Grant County			Okanogan County			Douglas County			Lincoln County		
	'16	'20	Chg	'16	'20	Chg	'16	'20	Chg	'16	'20	Chg
Overall Health Outcomes	28	27	↑	36	32	↑	15	6	↑	8	16	↓
Length of Life	22	25	↓	30	31	↓	4	2	↑	17	19	↓
Quality of Life	33	26	↑	39	31	↑	28	15	↑	5	8	↓
Overall Health Factors	33	32	↑	34	37	↓	21	24	↓	13	14	↓
Health Behaviors	38	33	↑	34	36	↓	19	18	↑	14	11	↑
Clinical Care	25	36	↓	26	39	↓	19	34	↓	33	37	↓
Social & Economic Factors	25	25	NA	29	34	↓	20	18	↑	6	7	↓
Physical Environment	26	30	↓	32	26	↑	16	14	↑	12	6	↑

Source: Robert Wood Johnson Foundation, County Health Rankings, 2014, 2019

Overall, the trends have been up for overall health outcomes (3 of 4 Counties) and down on overall health factors (3 of 4 Counties). Okanogan County fares worse than the other Counties in terms of both health outcomes and health factors. Importantly, its ranking has worsened since 2016 on all measures of health factors except physical environment. Douglas County has improved across the board since 2016 with the exception of a significant decrease in ranking in clinical care.

While Grant County's overall rankings are lower (worse) than Douglas and Lincoln Counties, its overall rankings improved slightly. Lincoln County, while still faring better than the other counties, has fallen in rankings in most categories since 2016 and continues to be in the lowest quartile in terms of clinical care. Based on the ranking, all four Counties have opportunity for improvement.

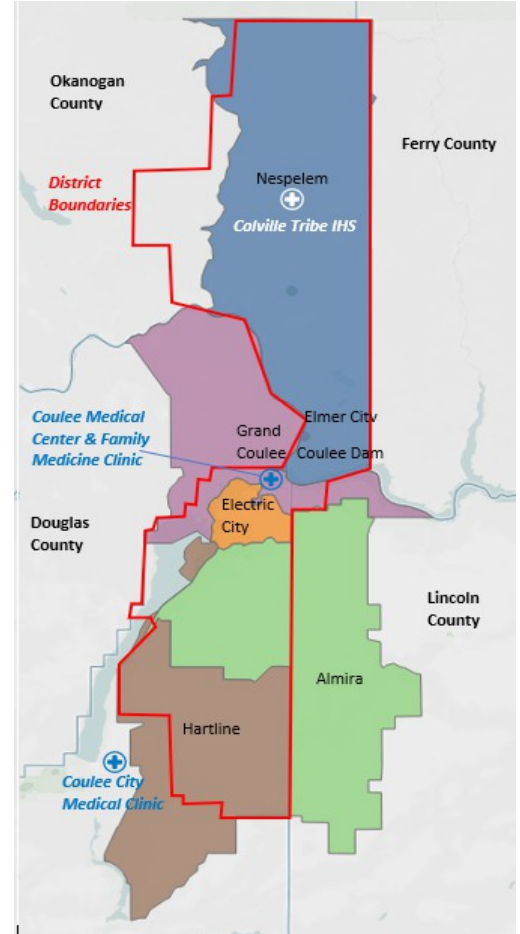
IV. OUR COMMUNITY

Community Definition

CMC's District boundaries include portions of Okanogan, Grant, Douglas, and Lincoln Counties in North Central Washington. The District includes all or part of seven (7) zip codes: 99133 (Grant County), 99116 (Okanogan and Douglas Counties), 99155 (Okanogan County)^[2], 99124 (Okanogan County)^[3], 99123 (Grant County), 99103 (Lincoln County), and 99135 (Grant County). Patient origin data indicates that over 75% of CMC's patients come from within these District zip codes, making it the Service Area for this CHNA.

2019 population estimates indicate that the population of the District is about 6,600; about 50% reside in Okanogan or Douglas Counties^[1], 42.5% live in Grant County, and 7.5% live in Lincoln County. The largest population center (3,276) is the city of Grand Coulee which lies predominantly in Okanogan County but also includes Douglas County.

Throughout this CHNA, where possible, data was collected specific to the zip codes comprising the District. Where District or Service Area data was unavailable, county level data for Grant, Okanogan, Douglas, and Lincoln counties was used.



The Confederated Tribes of the Colville Reservation's Contract Health Service Delivery Area (CHSDA) includes a larger geography comprised of Chelan, Douglas, Ferry, Grant, Lincoln, Okanogan, and Stevens Counties. It is home to approximately 8,000 residents with over 5,000 identifying as American Indian. The Tribe offers medical services to residents via two Tribally owned and operated primary health clinics in Inchelium and in the San Poil Valley, which also offer some dental services. Additionally, the Tribe has two Indian Health Service clinics in Nespelem and Omak. The Tribe also provides mental health and chemical dependency services in Omak and Inchelium.

[2]^[2] PO Box in 99116.

[3]^[3] PO Box in 99116

[1]^[1] Some portions of Coulee Dam (zip code 99116) are in Okanogan and some are in Douglas County.

Demographic and Socioeconomic Profile

Demographic and socioeconomic factors are vital to understanding existing and potential health disparities across a community. As shown in **Table 3**, the population of the District has remained basically flat since 2010 and is expected to grow less than 2% between 2019 and 2024 (compared to an 6% increase statewide during the same timeframe). The District population is much older than the State average – with more than 23%, or nearly one of every four people residing in the District age 65+, compared to 16% statewide.

Children, age 0-17, as a percentage, are similar to the State, but adults age 18-64 are 7% lower than the State average. Importantly, over 30% of the District’s population is American Indian (compared to 1.3% statewide).

Table .3: Service Area Demographics

	2010	Pct of Tot Pop	2019 Est	Pct of Tot Pop	Pct Chg 2010-2019	2024 Proj	Pct of Tot Pop	Pct Chg 2019-2024
Tot. Pop.	6,590	100.0%	6,581	100.0%	-0.1%	6,689	100.0%	1.6%
Pop. By Age								
0-17	1,500	22.8%	1,512	23.0%	0.8%	1,519	22.7%	0.5%
18-44	1,847	28.0%	1,873	28.5%	1.4%	1,953	29.2%	4.3%
45-64	2,032	30.8%	1,674	25.4%	-17.6%	1,513	22.6%	-9.6%
65-74	709	10.8%	956	14.5%	34.8%	1,100	16.4%	15.1%
75-84	384	5.8%	418	6.4%	8.9%	447	6.7%	6.9%
85+	118	1.8%	148	2.2%	25.4%	157	2.3%	6.1%
Tot. 0-64	5,379	81.6%	5,059	76.9%	-5.9%	4,985	74.5%	-1.5%
Tot. 65 +	1,211	18.4%	1,522	23.1%	25.7%	1,704	25.5%	12.0%
Fem. 15-44	1,036	15.7%	1,035	15.7%	-0.1%	1,093	16.3%	5.6%
AI/AN	2,019	30.6%	2,037	31.0%	0.9%	2,077	31.0%	1.9%

Source: Nielsen Claritas

Table 4 demonstrates that the District generally has higher rates of unemployment and poverty than the State at large and the four Counties in which it is located:

- One of every five individuals in the District lives below 100% of the federal poverty level.
- The District also has a higher percentage of children living in single parent households than the state. Children in single-parent households are often at-risk for social isolation, have an increased risk for illness, and mental health problems, and are more likely to engage in unhealthy behaviors than their counterparts.
- The four counties represented in the District also have a higher percentage of children living in poverty than the State. Low-income children have an increased risk of injuries from accidents and physical abuse and are susceptible to more frequent and severe chronic conditions and their complications such as asthma, obesity, diabetes, ADHD, behavior disorders, cavities, and anxiety.

Table 4: Socioeconomic Characteristics

District	Okanogan County	Grant County	Douglas County	Lincoln County	WA	
Unemployment	7.8%	6.4%	5.6%	4.0%	4.4%	5.3%
Median Household Income	\$50,569	\$45,808	\$54,982	\$60,452	\$50,744	\$70,116
Per capita income	\$27,140	\$23,961	\$23,633	\$28,579	\$27,730	\$36,888
Poverty (below 100% FPL) (Age 18-64)	20.7%	21.6%	13.6%	11.8%	12.3%	11.2%
Children in Poverty	NA	26%	17%	15%	17%	13%
Children living in single parent households	39.0%	41.2%	24.4%	34.0%	18.6%	25.6%

Source: 2012-2019 ACS Data

The percent uninsured in Okanogan, Grant, and Douglas counties is higher than the state, while Lincoln County is faring better. **Figure 2** identifies a significant decline in uninsured in all four counties and the state between 2013 and 2016, in large part due to Washington’s early and active participation in Medicaid expansion and also due to the proactive role played by local organizations related to enrolling eligible community members in Medicaid expansion. Between 2016 and 2019, both Grant and Douglas County as well as the state experienced increases in uninsured rates but still remain well below the levels seen pre-Medicaid expansion.

Source: 2012-19 County Uninsured Rates Chart Book: Washington State OFM Health Care Research Center February 2021

V. HEALTH OUTCOMES

Health Outcomes represent how healthy a county is right now. They reflect the physical and mental well-being of residents within a community through measures representing not only the length of life but quality of life as well. Health Outcomes are influenced by the many factors from the quality of medical care received to the availability of good jobs, clean water, and affordable housing.

Length of Life

Years of Potential Life Lost (YPLL) is a widely used measure of the rate and distribution of premature mortality. Measuring premature mortality, rather than overall mortality, focuses attention on deaths that could have been prevented. YPLL emphasizes deaths of younger residents in the community, looking at years of potential life lost under the age of 75 per 100,000 population.

As identified in **Figure 3**, Grant, Okanogan, and Lincoln Counties all have more (higher) YPLL than the state. Grant and Okanogan Counties also have a slightly lower life expectancy than the state (**Figure 4**).

Source: 2020 County Health Rankings

Quality of Life

In addition to measuring how long people live, it is important to also include measures that consider how healthy people are and how people feel. Quality of Life refers to how healthy people feel. It represents the well-being of a community, and underscores the importance of physical, mental, social, and emotional health from birth to adulthood.

Self-reported health status is a widely used measure of people's health-related quality of life. As reflected in **Figures 5 and 6**, District residents report more days of poor mental and physical health than do any of the four Counties comprising the District.

Source: BRFSS Survey, 2014-2019; 2020 County Health Rankings

Table 5 provides a summary of the prevalence of health conditions in the District and the four Counties, including obesity, diabetes, cardiovascular (heart) disease, cancer, asthma, and

Alzheimer’s disease. Okanogan, Douglas, Grant, and Lincoln counties have higher rates of diabetes, heart disease, blood pressure and obesity compared to the state, and the District follows this trend. These health conditions and chronic diseases can be largely managed by controlling behavioral risk factors such as diet, physical activity, and use of drugs, including alcohol, tobacco, and controlled substances.

Table 5: Summary of Health Conditions and Chronic Disease

Metric	District	Grant County	Okanogan County	Lincoln County	Douglas County	WA State
Diabetes (Ever been told)	11.3%	10.3%	12.1%	11.3%	9.1%	9.7%
Heart disease (Ever been told)	8.7%	5.6%	5.8%	6.5%	6.3%	5.4%
High blood pressure (Ever been told)	40.2%	21.6%	21.8%	22.7%	23.9%	19.9%
Asthma (Ever been told)	14.1%	14.4%	15.2%	12.8%	15.3%	15.2%
Obesity (Calculated body mass index category: obese)	34.5%	30.6%	27.9%	29.9%	30.1%	25.9%

Source: BRFSS Survey, 2014-2019

Region compared to WA State



VI. HEALTH FACTORS

Many factors influence how well and how long we live. These include our education, health behaviors, access to clinical care and environmental impacts. Health Factors represent those things we can modify to improve the length and quality of life for residents. They are predictors of how healthy our communities can be in the future.

There is no one factor that dictates the overall health of an individual or community. A combination of multiple modifiable factors, from clean air and water to stable and affordable housing, need to be considered to ensure community health for all. The Robert Wood Johnson County Health Rankings illuminate those opportunities for improvement by ranking health across four Health Factors:

- Health Behaviors,
- Clinical Care
- Social and Economic Factors
- Physical Environment

Health Behaviors

Health behaviors are actions individuals take that affect their health. They include actions that lead to improved health, such as eating well and being physically active, and actions that increase one’s risk of disease, such as smoking, excessive alcohol intake, and risky sexual behavior.

Substance Use

Based on self-reported BRFSS data, as seen in **Table 6**, more adults in the District smoke cigarettes compared to the average Washingtonian. Rates of adult smoking are even higher in Okanogan County, but lower in Douglas and Lincoln Counties compared to the state. Cigarette smoking harms nearly every organ of the body and is the leading preventable cause of death in the United States. Smokers are more likely than nonsmokers to develop heart disease, stroke, and many forms of cancer.

Self-reported rates of heavy drinking in the District are worse than the state, but rates of alcohol consumption and binge drinking are lower than or equal to the state average in the District and across all four counties. Binge and heavy drinking are risk factor for a number of adverse health outcomes, such as alcohol poisoning, hypertension, acute myocardial infarction, sexually transmitted infections, unintended pregnancy, fetal alcohol syndrome, sudden infant death syndrome, suicide, interpersonal violence, and motor vehicle crashes.

Table 6: Substance Use Prevalence

Metric	District	Grant County	Okanogan County	Lincoln County	Douglas County	WA State
Alcohol Consumption	46.6%	40.4%	51.1%	51.2%	52.1%	55.1%
Binge Drinking	10.7%	9.8%	9.5%	10.3%	11.6%	11.8%
Heavy Drinking	7.0%	4.5%	6.2%	5.9%	5.2%	6.3%
Current Smoker Status	18.3%	15.0%	15.7%	10.2%	11.3%	11.0%

Source: BRFSS Survey, 2014-2019

Region compared to WA State

Better

Worse

Data from the University of Washington’s Alcohol and Drug Abuse Institute compares opioid-involved drug poisonings involving heroin, commonly prescribed opioids, and other synthetic opioids. Between 2002-2004 and 2016-2018 there has been an increase in the state as a whole in opioid deaths from 5.71 per 100,000 residents to 10.28 per 100,000 residents.

As identified in **Figure 7** The prevalence of opioid deaths in the Okanogan, Douglas and Lincoln Counties is also increasing, with Lincoln County showing the largest increase (378%) and with a rate now above the state rate. Grant County's rate has remained relatively flat.

Source: UW Alcohol and Drug Abuse Institute

While no public data specific to the Colville Tribe is available, American Indians and Alaska Natives (AIAN) often face higher rates of substance abuse (for both drugs and alcohol) than others. Research done jointly by the University of Washington and Washington State tribes found that prescription drugs, alcohol, and marijuana are primary community concerns, each presenting similar and distinct challenges.

Mental Health

Mental Health is essential to physical and social well-being. Mental health disorders are among the most common causes of disability. According to the Center for Behavioral Statistics and Quality, in any given year, an estimated 18.1% (43.6 million) of U.S. adults ages 18 years or older suffer from a mental illness.

Suicide is the 10th leading cause of death in the United States, accounting for the deaths of approximately 48,000 Americans in 2018. The suicide rates in Okanogan County and Douglas County are higher than the average in the state. This further highlights the need of increased behavioral healthcare access in the community.

As seen in **Table 7**, across some common metrics of mental health, the District is in general faring better than the State and the four Counties. It is important to note though that a higher percentage of District residents report 14 or more poor mental health days than the state average (as identified in Figure 7 above) and even though the District is doing better than the State, more than 1 in 10 people in the District and four counties are dealing with mental health issues.

Table 7
Mental Health Indicators

Metric	District	Grant County	Okanogan County	Lincoln County	Douglas County	WA State
Depressive disorder	11.8%	11.7%	14.7%	15.0%	10.0%	15.0%
Receiving treatment for mental health	14.6%	19.2%	22.6%	19.2%	20.8%	22.1%
Serious mental illness	0.9%	2.8%	3.0%	2.0%	2.7%	3.1%

Source: BRFSS Survey, 2014-2019

Region compared to WA State

Better

Worse

Physical Activity and Nutrition

Physical activity and nutrition play a significant role in sustaining health, both short-term and long-term. As seen in **Figure 8**, more adults (21.7%) within the District reported having insufficient activity compared to the average adult Washingtonian. This was true of all Counties comprising the District.

Source: BRFSS Survey, 2014-19.

Clinical Care

Access to affordable, quality, and timely health care can help prevent diseases and detect issues sooner, enabling individuals to live longer, healthier lives. While part of a larger context, looking at clinical care helps us understand why some communities are healthier than others.

Access to Care

Access to timely, effective, and quality health care services is important for maintaining health and preventing and managing disease. While there has been a significant increase in people enrolled in health insurance since 2013, the District as well as Okanogan, Douglas, Grant, and Lincoln Counties remain short of providers.

The Federal Health Resources & Service Administration (HRSA) designates HPSA (Health Professional Shortage Area) designations to geographies such as census tracts, or entire counties based on shortage of providers in primary care, dental health, and mental health. HRSA also scores the HPSA designated area on a scale of 0-26. Higher scores indicate greater need.

Multiple areas, if not the entire counties of Okanogan, Douglas, Grant, and Lincoln have been designated HPSAs, as seen in **Table 8**. These designations are essential to helping address the shortage of providers. For example, over 30 federal programs use the shortage designation to determine eligibility or funding preference as a way to increase the number providers in the designated area.

Table 8: HPSA Designations

County	Approval	HPSA
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	Date	Primary Care	Dental Health	Mental Health
Okanogan	07/21/2017	Grand Coulee Area: 17 (Geo)	20 (LI/H/M)	19 (Geo)
Douglas	08/25/2017	16 (LI/H/M)	18 (LI/H/M)	18 (Geo)
Grant	07/27/2017	Grand Coulee Area: 17 (Geo)	18 (Geo)	17 (Geo)
Lincoln	08/25/2017	15 (LI)	16 (LI)	16 (Geo)

Source: HRSA; Key: LI – Low Income Populations, H – Homeless Populations, M – Migrant Farmworker Populations, Geo – Geographic Population Source: HRSA Data Warehouse, HPSA Find

As shown in **Table 9**, the population-to-provider ratios across all four counties corroborate the HPSA designations. All four counties have significantly higher (worse) population to provider ratios than Washington State.

Table 9: Population to Provider Ratios

Provider Type	Okanogan County	Douglas County	Grant County	Lincoln County	WA State
Primary Care Physicians	1350:1	5240:1	2380:1	2640:1	1180:1
Dentists	1450:1	1950:1	1910:1	2690:1	1230:1
Mental Health Providers	360:1	1790:1	470:1	900:1	270:1

Source: County Health Rankings 2020

Region compared to WA State



Hospitalization for ambulatory-care sensitive conditions, diagnoses usually treatable in outpatient settings, suggests that the quality of care provided in the outpatient setting was less than ideal. This measure may also represent a tendency to overuse emergency rooms and urgent care as a main source of care. Preventable Hospital Stays could be classified as both a quality and access measure, as some literature describes hospitalization rates for ambulatory care-sensitive conditions primarily as a proxy for access to primary health care. As seen in **Table 10**, the rate of preventable hospitalizations (rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees) are higher in both Douglas and Lincoln Counties than the State.

Key markers of access to health care in a community are also the rates of preventive screenings and vaccines. Evidence suggests that mammography screening reduces breast cancer mortality,

especially among older women. A physician’s recommendation or referral – as well as satisfaction with physicians – are major factors facilitating breast cancer screening and are another measure of primary care access in the community. Also as identified in **Table 10**, the percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening is slightly lower (worse) than the state in both grant and Okanogan Counties, but Douglas and Lincoln Counties are doing better on this measure.

Getting vaccinated prevents many life-threatening illnesses from ever occurring. Yearly influenza outbreaks can prove deadly to seniors, children, pregnant women, and people with asthma or who are immunocompromised, and vaccines prevent people from getting severe flu. The percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination (again a key indicator of access to care) is significantly lower (worse) in all four counties – in Okanogan and Lincoln Counties it is less than half of the state rate (**Table 10**).

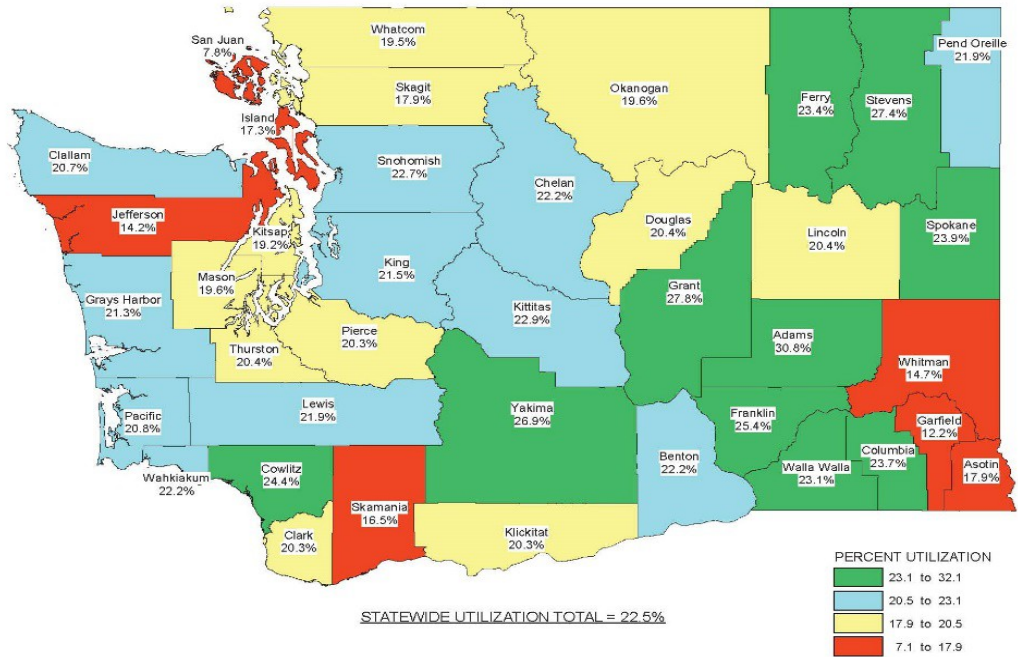
Table 10: Access to Care Measures

Provider Type	Grant County	Okanogan County	Douglas County	Lincoln County	WA State
Preventable Hospitalizations	2,648	2,936	3,011	4,780	2,969
Mammography Screening	37%	35%	45%	43%	39%
Flu vaccinations	29%	21%	38%	22%	46%

Source: County Health Rankings 2020



Good oral and dental hygiene protect against developing medical conditions such as heart disease. Dental health data provided by Washington State Health Care Authority (HCA) identifies the percentage of adults on Medicaid receiving dental services by County and is depicted in **Figure 9**. The statewide utilization for FY 2018 was 22.5%; in other words, about one in four adults is eligible for Medicaid received dental services. The percentage of adults receiving dental services in Okanogan (19.6%), Lincoln (20.4%), and Douglas (20.4%) is lower than the State, while the utilization in grant County (27.8%) is higher.



Source: County Health Rankings 2020

Social and Economic Factors

Social and economic factors, such as income, education, employment, community safety, and social supports do play a significant role in how well and how long we live. These factors affect our ability to make healthy choices, afford medical care and housing, manage stress, and more. The social and economic opportunities we have, such as good schools, stable jobs, and strong social networks are foundational to achieving long and healthy lives. For example, employment provides income that shapes choices about housing, education, childcare, food, medical care, and more. In contrast, unemployment limits these choices and the ability to accumulate savings and assets that can help cushion in times of economic distress.

As seen in **Table 4** in the *Our Community Section*, the District has higher rates of unemployment and poverty than the State and the four Counties. In fact, one of every five individuals in the District lives below 100% of the federal poverty level.

The United Ways of the Pacific Northwest's ALICE report additionally provides county-level estimates of ALICE households and households in poverty. ALICE is an acronym for Asset Limited, Income Constrained, Employed – households that earn more than the Federal Poverty Level (FPL), but less than the basic cost of living for the county (the ALICE Threshold). Combined, the number of ALICE and poverty-level households equals the total population struggling to afford basic needs.

Figure 10 identifies the percentage of households living below the ALICE threshold compared to the state in 2018. 30% of Grant County households were living below the ALICE threshold compared to 23% statewide. Okanogan, Douglas, and Lincoln Counties were more in line with the state – with about ¼ of their populations earning less than the basic cost of living for their Counties.

Dignity Health and Truven Health developed an index, called the Community Need Index, which gauges socio-economic factors in communities. The CNI provides a score on a scale of 1.0 to 5.0 for every zip code in the nation. A score of 1.0 indicates the least need, while a score of 5.0 indicates the most need.

Throughout the District, the community need index by zip codes range from 2.6 to 4.6, suggesting significant opportunities exist for improvements in socio-economic factors, such as income (family wage jobs), and educational attainment. **Table 11** summarizes this data for the District and demonstrates that the cities of Coulee Dam, Nespalem and Grand Coulee are the highest need areas in the District by this measure.

Table 11: Community Need Index by District Zip Codes

Zip Code	City	County	CNI Score
99116	Coulee Dam	Okanogan	4.0
99155	Nespelem	Okanogan	4.6
99133	Grand Coulee	Grant	4.0
99103	Almira	Lincoln	3.4
99135	Hartline	Grant	3.2
99123	Electric City	Grant	2.6

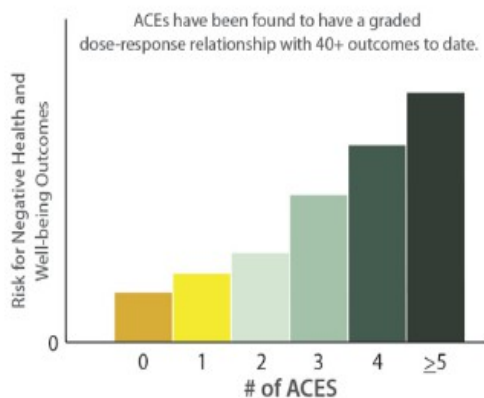
Source: Truven Health Analytics, 2017; Insurance Coverage Estimates, 2020; The Nielson Company, 2020; Community Need Index, 2020

Adverse Childhood Experiences, or ACEs, are traumatic events that occur in childhood and cause stress that changes a child’s brain development. Exposure to ACEs has been shown to have adverse health and social outcomes in adulthood (**Figure 11**), including but not limited to depression, heart disease, COPD, risk for intimate partner violence, and alcohol and drug abuse. ACEs include emotional, physical, or sexual abuse; emotional or physical neglect; seeing intimate partner violence inflicted on one’s parent; having mental illness or substance abuse in a household; enduring a parental separation or divorce; and having an incarcerated member of the household.

Figure 11: Association between ACEs and Negative Health Outcomes

ACES can have lasting effects on....

-  Health (obesity, diabetes, depression, suicide attempts, STDs, heart disease, cancer, stroke, COPD, broken bones)
-  Behaviors (smoking, alcoholism, drug use)
-  Life Potential (graduation rates, academic achievement, lost time from work)



*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.

Source: Centers for Disease Control & Prevention, “Association between ACEs and Negative Outcomes”

ACE burden is defined as the number of ACEs an adult was exposed to during childhood. As the number of ACEs increases, so does the risk for negative outcomes. The highest ACE score is 8. In Washington, 26% of the population have 3 or more ACEs. Only Okanogan County has a higher

percentage of the population with 3 or more aces (**Figure 12**). The District has improved on this measure since 2011 when nearly 30% of its population had 3+ aces compared to 25% at the state level. In 2019, the District percentage was below 20% - while the state had increase during the same time period to 26%.

Source: BRFSS 2011-2019

Physical Environment

The physical environment is where individuals live, learn, work, and play. People interact with their physical environment through the air they breathe, water they drink, houses they live in, and the transportation they access to travel to work and school. Poor physical environment can affect our ability and that of our families and neighbors to live long and healthy lives.

Stable, affordable housing can provide a safe environment for families to live, learn, grow, and form social bonds. However, housing is often the single largest expense for a family and when too much of a paycheck goes to paying the rent or mortgage, this housing cost burden can force people to choose among paying for other essentials such as utilities, food, transportation, or medical care.

The Robert Wood Johnson County Health Rankings provides estimates of individuals who have ‘severe housing problems,’ meaning individuals who live with at least 1 of 4 conditions: overcrowding, high housing costs relative to income, lack of a kitchen, or lack of plumbing. The Department of Urban and Housing Development defines a cost burdened household as a household paying at least 30% of its income on housing costs and a severely cost burdened household as one that is paying at least 50% of its income for housing costs. As identified in Table 12, fewer residents in the District and the four counties are faced with these housing concerns than the statewide average, but even so, 1 in 5 people in some areas of the District are faced with significant housing instability.

Table 12. Affordable Housing Statistics

	District	Grant County	Okanogan County	Douglas County	Lincoln County	WA
Cost burdened households (Homeowners Who are Paying at Least 50% of Income for Ownership Cost)	4.7%	7.0%	8.7%	6.2%	6.5%	8.9%
Cost burdened households (Homeowners Who are Paying at Least 30% of Income for Ownership Costs)	14.4%	19.1%	20.1%	20.4%	19.3%	24.3%

Severe housing problems		17%	17%	18%	12%	17%
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Clean air and safe water are necessary for good health. Air pollution is associated with increased asthma rates and lung diseases, and an increase in the risk of premature death from heart or lung disease. Water contaminated with chemicals, pesticides, or other contaminants can lead to illness, infection, and increased risks of cancer.

The relationship between elevated air pollution (especially fine particulate matter and ozone) and compromised health has been well documented. Negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects. Air Pollution measures the particulate matter in the air. It reports the average daily density of fine particulate matter in micrograms per cubic meter. Both Grant and Lincoln County have higher rates of air pollution than the state while Okanogan and Douglas County are more in-line with the State rate.

Ensuring the safety of drinking water is important to prevent illness, birth defects, and death. Other health problems have also been associated with contaminated water, including nausea, lung and skin irritation, cancer, kidney, liver, and nervous system damage.

Drinking Water Violations is a measure used to determine the safety of drinking water in a community – and has only two values: Yes and No. A “Yes” indicates that at least one community water system in the county received at least one health-based violation during the specified time frame. A “No” indicates that there were no health-based drinking water violations in any community drinking water system in the county. As identified in **Table 13** Both Grant and Okanogan County have had drinking water violations during 2018.

Table 13
Environmental Health Indicators

	Grant County	Okanogan County	Douglas County	Lincoln County	WA
<u>Air pollution - particulate matter</u>	9.2	7.1	7.5	8.8	7.4
<u>Drinking water violations</u>	Yes	Yes	No	No	

VII. COMMUNITY ENGAGEMENT

Community Convening

To assure community engagement and an active, participatory voice in the CHNA process, CMC had planned a robust in-person community convening process to assess, identify, and prioritize community needs. After much discussion, this year, due to the continued persistence of COVID

and more recently vaccine distribution, we chose to use a combination of online surveys and one-on-one phone interviews with Service Area and County community members as well as community leaders and organizations serving the vulnerable.

CMC will include any organizations or leaders that missed participation because of COVID or vaccine distribution in the development of the Implementation Plan.

The community survey was sent to 42 organizations including:

- County health departments,
- Community service organizations
- School districts,
- Tribal organizations
- Churches,
- City government
- Local businesses,
- Churches
- Senior service agencies

The survey was also posted to the Hospital's website and Facebook page. It was designed to solicit feedback on perceived improvements in the areas prioritized in the 2017 CHNA and also requested input on other potential health needs and gaps. A total of 16 surveys were completed (38% response rate).

As identified in Section 2 above, the specific priorities in the 2017 CHNA included:

1. Chronic Disease Prevention, Management and Education to Support Healthy Living
2. Behavioral Health, and
3. Elderly Care

The community survey included the following specific questions regarding these priorities:

On a scale from 1 (no improvement) to 5 (much progress), please identify if you have seen or experienced any positive changes in the community related to the following priorities that were identified in 2017.

Do you think any of the following priorities identified in 2017 should continue to be a priority in the coming years? Please respond to each item in the matrix.

As shown in **Figure 12**, mixed responses were received regarding whether improvement was shown on priorities from the 2017 Implementation Plans with results leaning towards little to no improvement. The respondents saw the least improvement in the behavioral health priority.

As we develop the Implementation Plan, we hope to understand why such little change has been felt. It could be as simple as the integrated behavioral health/primary care was not fully initiated until September of 2020.

As identified in **Figure 13**, the majority of respondents concluded that each of the priorities identified in the 2017 CHNA should continue to be priorities in the upcoming years. Over 90% of respondents thought behavioral health should be a priority of focus.

In addition to a review of 2017 priorities, respondents were also asked to respond to data, needs and gaps collected in 1) preparing the 2021 CHNA, and after participation in, and/or 2) close review of the Community Needs Assessment and Health Improvement Plans produced by other entities.

The combined list included the priorities from the 2017 CHNA and:

- Aging in Place
 - Providing resources to allow seniors to live in the place of their choice without losing their quality of life.
- Health Equity
 - Assuring quality of health and healthcare across different populations.
- Child and Family Wellness
- Affordable Housing
- Access to Care

The majority of respondents (Figure 14) felt that each of the 5 priorities should be a focus in the coming years with Access to Care (93%), Child & Family Wellness (93%) and Aging in Place (86%) scoring the highest. Affordable housing scored lowest, with just under 60% thinking this should be a priority.

Survey respondents were then asked to rank the priorities by importance, including those from the 2017 CHNA. Specifically, the survey asked respondents:

Of the priorities referenced in this survey which three do you identify as the top three priorities?

As can be identified in **Figure 15** below, when ranked compared to other priorities, Access to Care (71.4%) and Behavioral Health (42.9%) were ranked as the top priorities. Health Equity, Child and Family Wellness, and Chronic Disease Management tied for the third priority (35.7%).

Respondents were also asked if there were other areas of health needs that were not addressed in the survey. The following statements were included:

- *Behavioral Health*
 - *Family crisis (drugs, mental stability) this community needs placement asap and some families have no idea how to navigate the system.*
 - *As a school employee I've tried to get mental health help for students and it's near to impossible sometimes. I believe behavioral health should be a focus.*
- *Aging in Place:*
 - *Home Care Aides: Many elders/seniors have trouble maintaining the house on a full-time basis.*

VIII. IMPLEMENTATION STRATEGY

Consistent with 26 CFR § 1.501(r)-3, a CMC Implementation Strategy will be adopted on or before the 15th day of the fifth month after the end the taxable year in which the CHNA is adopted, or by May 15, 2021. Prior to this date, the Implementation Plan will be presented to the CMC board for review and consideration. Once approved, the Implementation Plans will be appended to this CHNA and widely disseminated. It will serve as guidance for the next three years in prioritizing and decision-making regarding resources and will guide the development of a plan for each hospital that operationalizes their individual initiatives.