



2022-2024

Lower Yakima Valley
Community Health Needs
Assessment



Adopted by:
Astria Sunnyside Hospital Board – December 16, 2021
Astria Toppenish Hospital Board – December 21, 2021

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Administrative offices of Astria Sunnyside Hospital, Astria Toppenish Hospital

BACKGROUND

The Patient Protection and Affordable Care Act (ACA), commonly known as “Obama Care” was enacted on March 23, 2010. It added a requirement that all not-for-profit hospitals conduct a Community Health Needs Assessment (CHNA) and adopt an implementation strategy to meet the community health needs identified through the CHNA at least once every three years.

The CHNA is to define priorities for health improvement, with an emphasis on the needs of populations that are at risk for poor health outcomes due to geographic, language, financial, or other barriers, commonly referred to as social determinants of health. The CHNA process must also include a platform to engage community stakeholders to discuss the unmet needs of the community.

JOINT COMMUNITY HEALTH NEEDS ASSESSMENT

Astria Health is the parent non-profit owner of Astria Sunnyside Hospital (ASH), located in Sunnyside, WA, and Astria Toppenish Hospital (ATH), located in Toppenish, WA. The CHNA regulations allow hospital organizations with multiple hospital facilities to collaborate and produce one joint CHNA report for each of its hospital facilities.

In 2018, Astria Health produced a single joint CHNA report for all its hospital facilities. At that time, it operated three hospitals: ASH, ATH, and Astria Regional Medical Center, and the service area was defined as the entirety of Yakima County.¹ It covered the period of 2019-2021.

Consistent with IRS requirements, this current CHNA addresses the community health needs of ASH and ATH. The combined service area of these two hospitals is the region commonly referred to as the Lower Yakima Valley. Each hospital will develop a separate implementation strategy for meeting needs over the 2022-2024 timeframe. The CHNA was approved by each hospital’s governing board in December of 2021. The Implementation Plans will be approved separately in the Spring of 2022.

¹ Astria Regional Medical Center closed January 13, 2020.

ABOUT ASTRIA HEALTH

The Astria Health system, headquartered in the Lower Yakima Valley in Washington State, is the parent nonprofit organization of ASH and ATH.

ASTRIA SUNNYSIDE HOSPITAL

ASH was founded in 1946 and is located in the heart of the beautiful wine country of Washington State. ASH became an affiliate of non-profit Astria Health in September 2017.

ASH is a 25-bed federally designated Critical Access Hospital (CAH) that also operates a number of provider-based rural health clinics and provides primary and specialty care services throughout the region.

The hospital offers a 24-hour Emergency Room, Intensive Care Unit, a Level 1 Cardiac facility, including diagnostic and therapeutic cardiac catheterization, a Cancer Center, a Family Birth Center, Nephrology, Inpatient and Outpatient Surgical services, Wound Care including Hyperbaric, Behavioral Health services including an Intensive Outpatient Psychiatric Program for older adults, and Hearing and Speech services.

ASH also provides the people living and working throughout the region with advanced diagnostics such as a full suite of laboratory services, MRI, advanced CT scanning, PET/CT, 3-dimensional mammography, 3-D obstetrical ultrasound, and nutritional education and services.

ASTRIA TOPPENISH HOSPITAL

ATH is a fully accredited 63-bed community hospital established to care for the unique needs of the Toppenish area, including caring for the people living and working on the Yakama Nation and in communities throughout the region. ATH became an affiliate of non-profit Astria Health in September 2017.

ATH provides a full complement of inpatient and outpatient services. The hospital's medical services include a 24-hour Emergency Room, Intensive Care Unit, Family Maternity Center, Surgical Services, a 21-day Evaluation and Treatment Co-occurring Psych Program, a 90 Day+ Civil Commitment Program and an Inpatient Medical Withdrawal Management Program, as well as outpatient services such as adult and pediatric cardiology.

ATH provides the people living and working throughout the region with advanced diagnostics including CT, MRI, and ECHO cardiography, along with a full-service laboratory.

Our Vision

Astria Health builds sustainable healthcare organizations that deliver comprehensive quality care to improve health in the communities we serve.

Our Mission

As a non-profit, Astria Health exists to provide healthcare services to the communities we serve. Every dollar we earn is reinvested into providing quality healthcare through:

- New or expanded patient care services
- Access to care
- New physician services
- New technologies
- Attracting and retaining engaged professionals who share our vision

Our Values

- Integrity
- Honesty
- Stewardship
- Respect

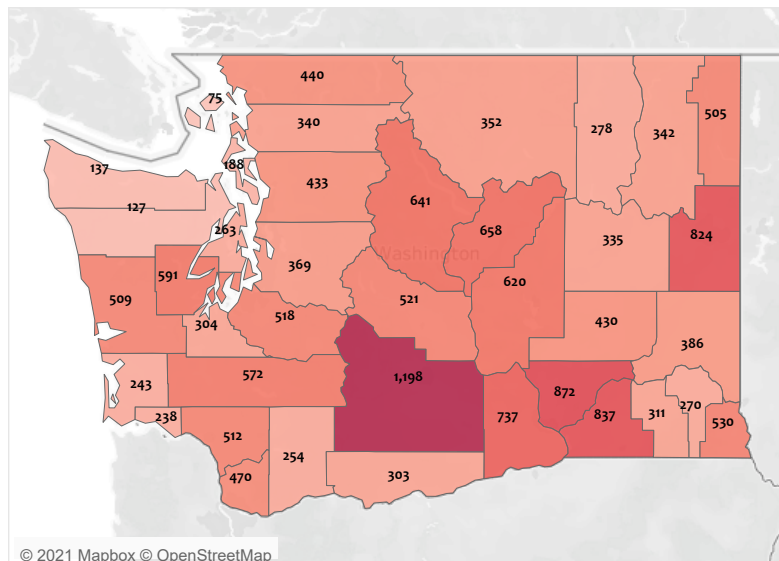
2019 - 2021 COMMUNITY HEALTH NEEDS ASSESSMENT ACCOMPLISHMENTS

Astria Health conducted a CHNA and completed an implementation plan in 2018 for the three hospitals it was operating at that time: Astria Regional Medical Center, ASH and ATH.

Since the publishing of that CHNA, the Astria Health System, even more so than other hospitals throughout the region and Country, has faced numerous challenges. In addition to the global pandemic, the System experienced bankruptcy, and the closure of the Astria Regional Medical Center, a tertiary hospital located in the City of Yakima. In May of 2019, Astria Health filed for bankruptcy, and while the original bankruptcy plan called for Astria to continue to operate all three hospitals, thereby delivering patient care while the system worked through a plan of reorganization with its creditors, Astria was unable to secure new financing for Astria Regional Medical Center and had to close the hospital in January 2020. This led to the loss of numerous specialty providers, which made access more difficult. Astria was able to keep the Lower Yakima Valley hospitals, ASH and ATH, open.

Shortly after the closure of Astria Regional Medical Center, the COVID pandemic hit the Yakima Valley hard. By early summer 2020 and throughout the remainder of 2020, Yakima County experienced some of the highest infection rates and hospitalizations of any county on the West Coast. As shown in **Figure 1**, for the week beginning December 27, 2020, Yakima County's rate was 2.5X higher than the State with nearly 1,200 cases per 100,000 per 14 days compared to a rate of 485 in Washington.²

Figure 1: COVID Case 14-Day Case Rates per 100,000



Source: Washington State Department of Health COVID 19 Dashboard

The Pandemic, and more recently vaccine distribution needs, greatly impacted our ability to focus as diligently on our implementation strategies as significant resources were diverted to care for COVID patients and our community. Efforts included working with the state to temporarily increase the number of inpatient beds available in the region, developing mobile testing and vaccination sites, and actively engaging in bidirectional, collaborative efforts with the Yakima County Health District to ensure adherence with District and State guidelines for providing safe care for patients and our communities.

Despite all of these challenges, Astria was still able to make significant progress on its 2019-2021 CHNA priorities These activities are summarized in **Table 1** below.

² State Department of Health COVID Dashboards

Table 1: Astria Health 2019-2021 Priorities and Accomplishments

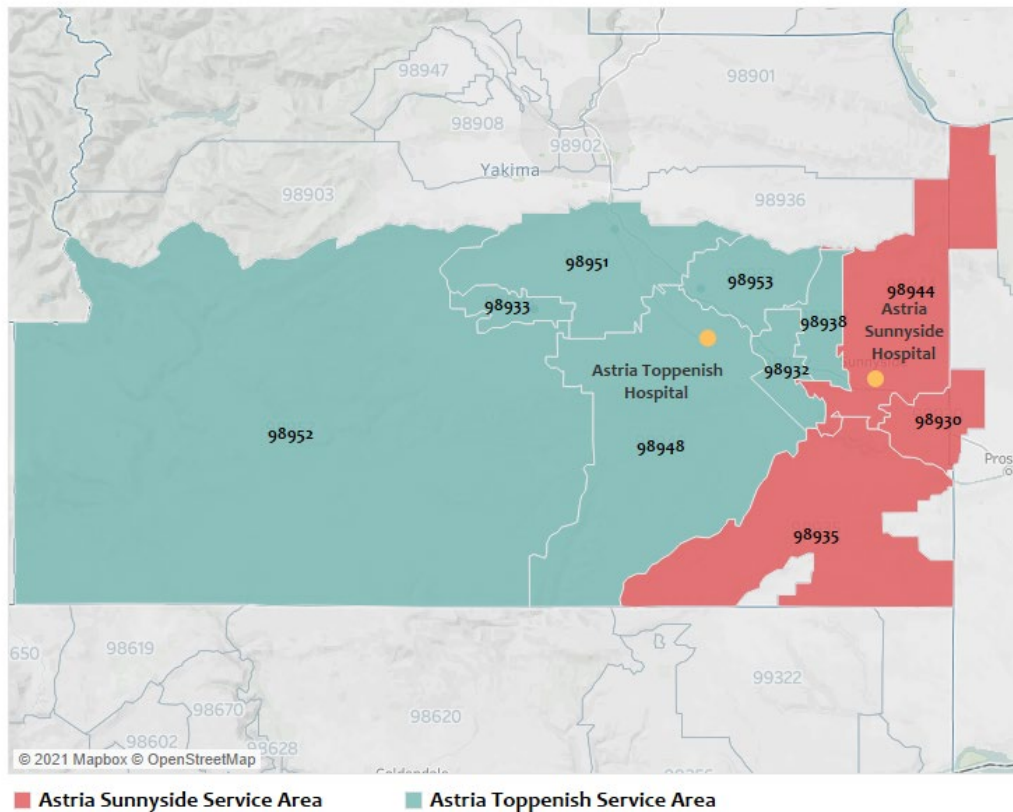
Priority	Accomplishments
<i>Increase Access to Primary Care</i>	<ul style="list-style-type: none"> Recruited 8 primary care providers to existing primary care clinics throughout the system (including 5 family practice providers, 2 internal medicine providers, 1 OB/GYN provider, 1 community outreach specialist, and 1 pediatrician). Converted the Ahtanum Clinic in Union Gap and the Zillah Clinic in Zillah to Medicare provider-based rural health clinic status. Added walk-in/same-day options to clinics throughout the Astria Health system. Added extended hours and weekend hours to the primary care clinics in the Toppenish Service Area. Integrated OB/GYN, community outreach and behavioral health services in the primary care clinics.
<i>Increase Access to Specialty Care</i>	<ul style="list-style-type: none"> Recruited 5 additional specialty providers (including vascular, cardiology, orthopedics, hematology/oncology, and general thoracic surgery). Established an Elective Percutaneous Coronary Intervention Program at ATH. Received approval from the State to establish an outpatient end-stage renal dialysis program. Received a state grant to assist with the integration of dental services into primary care. Expanded diagnostic imaging capabilities at ATH including DEXA, 3D-Mammography, and MRI. Expanded neuroscience services to the Toppenish Service Area, including outpatient neurology integration into the Zillah clinic and neurosurgery at the hospital. Developed a recruitment plan for pediatric surgery.
<i>Increase access to behavioral health and substance abuse services</i>	<ul style="list-style-type: none"> Established a 15-bed inpatient psychiatric unit for patients with co-occurring disorders at ATH and received state approval to add an additional 47 beds. Established an inpatient medical withdrawal management program at ATH. Recruited a Psychiatric Nurse Practitioner to enhance both inpatient and outpatient behavioral health services. Integrated outpatient behavioral health services into the primary care clinics in both Service Areas.
<i>Improve the Prevention, Screening, and Treatment of Chronic Diseases.</i>	<ul style="list-style-type: none"> Worked in partnership with the Greater Columbia Accountable Community of Health on chronic disease prevention. Hired a community outreach specialist housed in the primary care clinics to assist with identifying and outreaching to patients with or at risk of developing chronic disease. Participated in the recently formed Accountable Care Organization (ACO).

OUR COMMUNITIES

SERVICE AREA ASSESSMENT

The Service Area for this project represents the combined service areas of ASH and ATH. Each hospital’s service area was determined based on actual patient origin data and are reflected in **Figure 2**.

Figure 2: Astria Health Service Area



The zip codes and cities that comprise the combined Astria Service Area are included in **Table 2** below. The ASH Service Area includes three zip codes, which represent the area from which 72% of Sunnyside’s hospital’s patients reside. The ATH Service Area includes ten zip codes. These zip codes represent the area from which 64% of Toppenish Hospitals’ patients reside.

Some ZIP code boundaries, including Sunnyside (98944) and Grandview (98930) are not congruent with county boundaries and the cities are therefore geographically located in more than one county.

Table 2: Astria Health Service Area

ZIP Code	City	Service Area
98930	Grandview	Sunnyside
98935	Mabton	Sunnyside
98944	Sunnyside	Sunnyside
98920	Brownstown	Toppenish
98921	Buena	Toppenish
98932	Granger	Toppenish
98933	Harrah	Toppenish
98938	Outlook	Toppenish
98939	Parker	Toppenish
98948	Toppenish	Toppenish
98951	Wapato	Toppenish
98952	White Swan	Toppenish
98953	Zillah	Toppenish

Source: Internal Hospital Data

POPULATION

As shown in **Table 3**, the total population of the combined Service Area is close to 90,000. The total population is projected to grow by 3.5%, increasing by 3,182 residents between 2020 and 2025.

Sunnyside’s Service

Area is expected to grow slightly faster than Toppenish (4% compared to 3.1%).

Table 4 demonstrates residents of the Service Area are significantly younger than residents of Yakima County and Washington State. Approximately 35% of the residents of the combined service area are under the age of 18 compared to just over 20% statewide. Only about 1 in 10 residents are over the age of 65 in the combined Service Area, compared to 1 in 6 in Washington State.

Table 3: Astria Health Service Area Population and Projected Growth 2020 to 2025

	2020 Estimated Population	2025 Projected Population	2020 – 2025 Projected Change	2020 – 2025 Projected % Change
Sunnyside Service Area	43,446	45,176	1,730	4.0%
Toppenish Service Area	46,225	47,677	1,452	3.1%
Total Service Area	89,671	92,853	3,182	3.5%

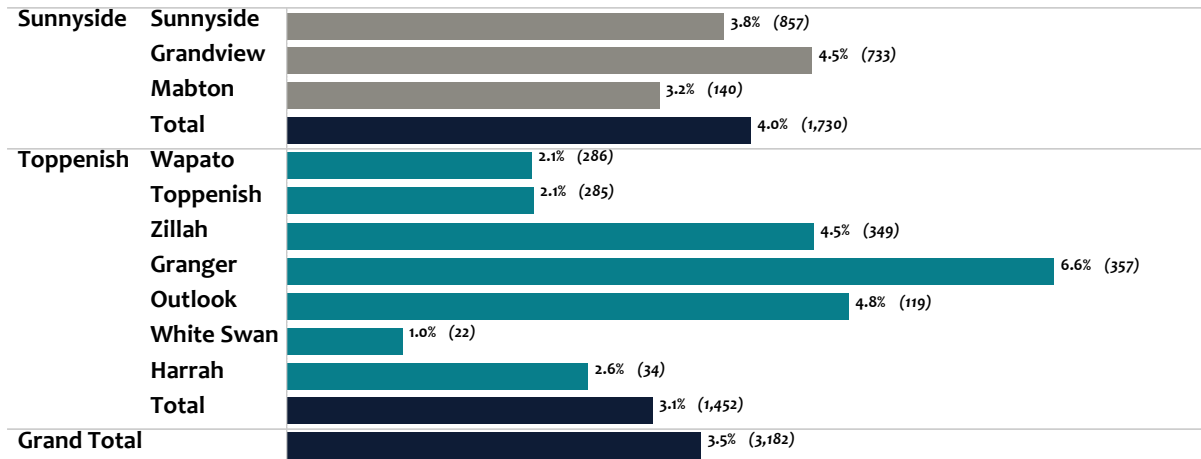
Table 3: % of Population by Age Group, 2020

	Sunnyside Community	Toppenish Community	Yakima County	Washington
0-17	34.9%	33.5%	29.3%	22.1%
18-44	36.8%	36.6%	35.1%	36.6%
45-64	18.4%	19.6%	21.5%	25.2%
65+	9.8%	10.3%	14.1%	16.2%

Source: Claritas

Over 40% of the combined Service Area population resides in Sunnyside (approximately 16,000), Grandview (11,000), and Toppenish (9,000). The communities with the largest increase in population by 2025 are Granger (6.6%, 357 residents), Zillah (4.5%, 349 residents), Grandview (4.5%, 733 residents), and Sunnyside (3.8%, 857 residents), as shown in **Figure 3**.

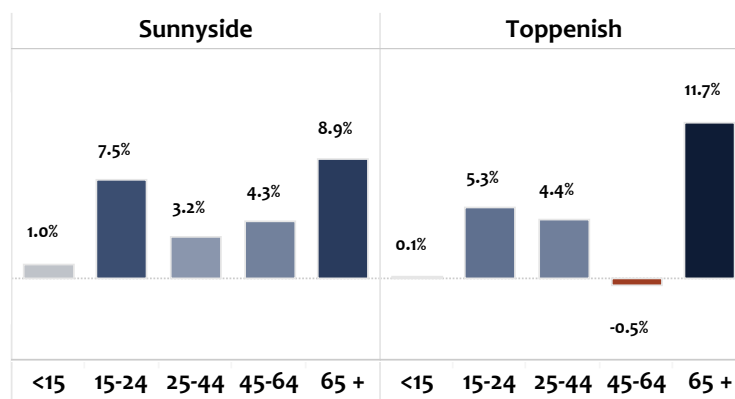
Figure 3: Projected Population Change by Community



Source: Claritas

As shown in **Figure 4**, Although the population of the Service Area overall is significantly younger than the state, the population of residents ages 65 and older is projected to grow more rapidly, and to be the fastest growing cohort over the next few years. This trend is important because as populations age, more health care resources are required.

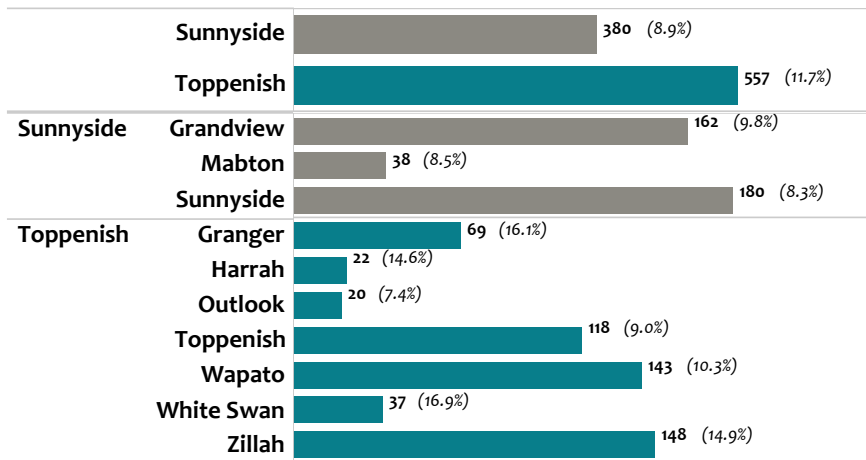
Figure 4: Population Change by Age Group 2020, 2025



Source: Claritas

RESIDENTS OVER 65

Figure 5: 65+ Population Change by Community 2020, 2025



Growth in the age 65 and older population by community is illustrated in **Figure 5**. Greatest growth is expected in the Sunnyside Service Area communities of Sunnyside and Grandview and the Toppenish Service Area communities of Toppenish, Wapato, and Zillah.

Source: Claritas

RACE AND ETHNICITY

As shown in **Table 5**, both the Sunnyside and Toppenish Service Areas are highly diverse, and a significantly higher portion of the population is Hispanic compared to Washington State at large. Of the population in the Sunnyside Service Area, 82% are Hispanic. In the Toppenish service Area, 66% are Hispanic. As a result of Toppenish being located within the Yakama Nation, approximately 15% of the population is American Indian.

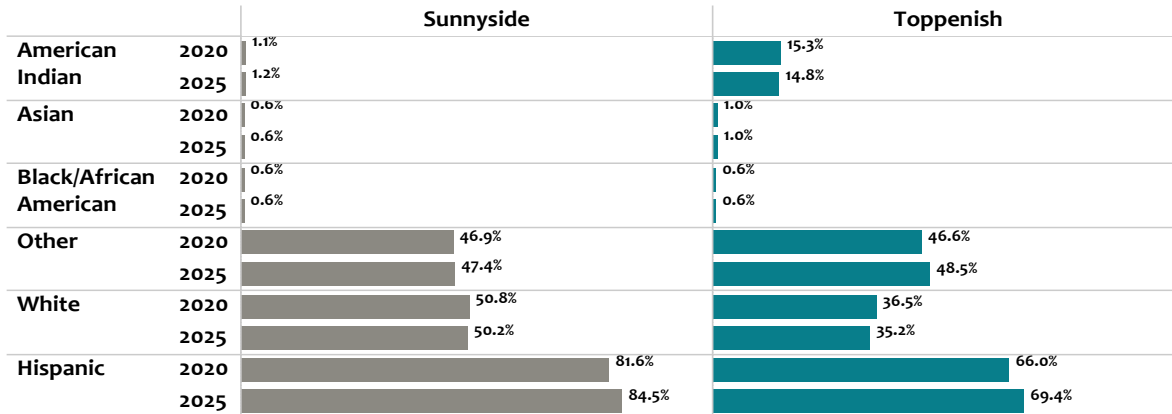
Table 4: 2020 Population Distribution by Race (SERVICE AREA)

	Sunnyside Community		Toppenish Community		Washington State	
	#	%	#	%	#	%
American Indian	488	1.1%	7,084	15.3%	118,111	11.3%
Asian	244	0.6%	456	1.0%	711,022	9.2%
Black	254	0.6%	265	0.6%	315,861	4.1%
Other	20,392	46.9%	21,548	46.6%	952,135	12.3%
White	22,068	50.8%	16,872	36.5%	5,604,894	72.8%
Hispanic	35,473	81.7%	30,518	66.0%	1,041,090	13.5%
Total	43,446		46,225		7,702,023	

Source: Claritas

The American Indian population in the Toppenish Service Area is expected to remain relatively flat between 2020-2025. Over the same period, the percent of the population that is of Hispanic origin is expected to increase in both Service Areas.

Figure 6: Distribution of Population by Race & Ethnicity, 2020 and 2025



Source: Claritas

COMMUNITY HEALTH NEEDS ASSESSMENT METHODOLOGY

WHAT IS A COMMUNITY HEALTH NEEDS ASSESSMENT?

A Community Health Needs Assessment (CHNA) is a process designed to better understand the health needs of the local community and to provide direction to community organizations – public health, healthcare, and social services – regarding identifying gaps and adopting demonstrated best practices to close them.

Per Federal regulation, the CHNA process must include input from community members, organizations, and health care providers.

METHODOLOGY

The CHNA was undertaken during the second half of 2021. Astria Health contracted with Health Facilities Planning & Development (HFPD) to assist in conducting the CHNA. HFPD is a health care consulting company based in Seattle, Washington.

Both quantitative and qualitative methods were utilized to gather data about the Astria Health service area. When possible, data was analyzed at the individual hospital Service Area level and the combined Service Area level. Where Service Area data was not available, it is reported at the Yakima County level.

Quantitative Data: A variety of organizations and sources were used to identify community health trends and health disparities including but not limited to:

- Claritas
- Robert Wood Johnson County Health Rankings
- Centers for Disease Control (CDC) Behavioral Risk Factor Surveillance System (BRFSS)
- UDS Mapper HRSA Data Warehouse
- Washington Healthy Youth Survey
- Washington State Department of Health
- Yakima Health District.
- Yakima Valley Memorial Community Health Needs Assessment

Every effort was made to obtain the most current data.

Qualitative Data: To assure community engagement and voice in the CHNA process, Astria had planned a robust in-person community convening process to assess, identify, and prioritize community needs. After much discussion, due to the unrelenting nature of COVID in the community, Astria chose to use a combination of online surveys, focus groups and one-on-one phone interviews with Service Area and County community members and organizations serving the vulnerable. A similar process was used with Astria leadership and management.

To guide the data collection efforts for this CHNA, Astria Health utilized the Robert Wood Johnson Founding'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 7, 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 data in **Table 6** tracks the performance of Yakima County overall between 2011 and 2021. Yakima County ranks in the bottom quartile of 39 Washington counties for both Health Outcomes and Health Factors. Yakima County is ranked 34th of 39 counties for Health Outcomes and is ranked 38th of 39 counties for Health Factors. While these County rankings do provide an indication of the issues needing to be explored to determine community needs and priorities, we also recognize there may be some significant differences between the factors facing Yakima County and those facing the portions of Yakima County that make up the Astria Health Service Area. When possible, we evaluate the data at the Service Area level as compared to the County and the State.

Figure 7: Robert Wood Johnson Foundation Health Model

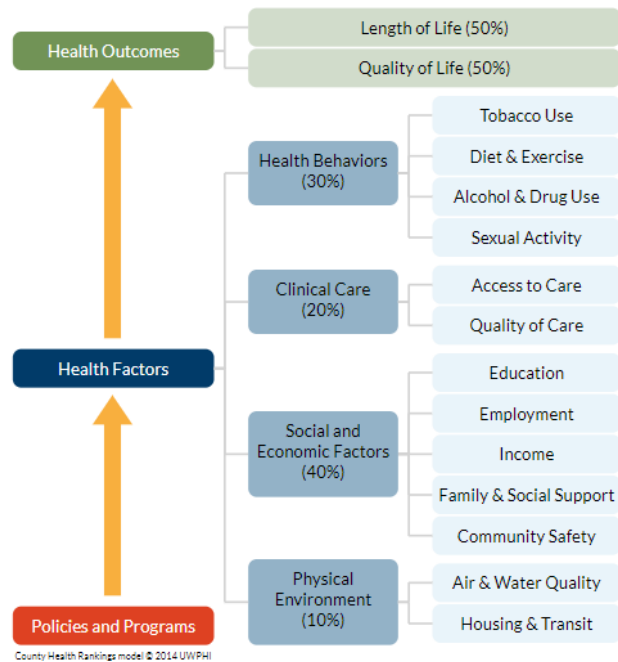


Table 5: Yakima County Health Rankings, 2011 - 2021

Focus Area	'11	'12	'13	'14	'15	'16	'17	'18	'19	'20	'21	Ranking Change
												2011-2021
Health Outcomes	30	31	35	35	30	33	33	31	32	34	34	-4
Length of Life ³	29	28	31	31	27	26	30	28	29	33	33	-4
Quality of Life ⁴	33	33	36	28	35	37	36	34	34	37	36	-3
Health Factors	34	38	37	37	36	37	37	38	38	36	38	-4
Health Behaviors ⁵	25	27	25	28	27	36	33	32	31	31	25	-
Clinical Care ⁶	32	36	37	38	37	36	36	38	37	35	39	-7
Social & Economic Factors ⁷	37	39	38	37	37	37	37	38	37	37	38	-1
Physical Environment ⁸	12	31	20	19	19	15	24	35	26	36	38	-26

³ Premature death

⁴ Poor or fair health, poor physical health days, poor mental health days, and low birthweight

⁵ Adult smoking, adult obesity, food environment index, physical inactivity, access to exercise opportunities, excessive drinking, alcohol-impaired driving deaths, sexually transmitted infections, and teen births

⁶ Uninsured, primary care physicians, dentists, mental health providers, preventable hospital stays, mammography screening, and flu vaccinations

⁷ High school completion, some college, unemployment, children in poverty, income inequality, children in single-parent households, social associations, violent crime, and injury deaths

⁸ Air pollution – particulate matter, drinking water violations, severe housing problems, driving alone to work, long commute – driving alone.

HEALTH BEHAVIORS

A study published in the *Journal of the American Medical Association (JAMA)* identified the following unhealthy behaviors as the top three risk factors for premature death in Washington State: alcohol & drug abuse, high body mass index (BMI), and tobacco use.⁹

Addressing health behaviors requires strategies to encourage individuals to engage in healthy behaviors as well as ensuring that they can access nutritious food, safe spaces to be physically active, and supports to make healthy choices.

CHRONIC DISEASE AND RELATED BEHAVIORS

The most common behavioral contributors to chronic disease morbidity and mortality include diet and activity patterns and the use of alcohol, drugs, and tobacco. The social and economic costs related to these behaviors can be reduced by change in an individual's behavior.

The burden of chronic disease is greater in the Astria Health Service Area and the County as compared to Washington State. As can be seen in **Figure 8** the self-reported rates of being obese, having diabetes, or having high blood pressure is greater than in Washington State. Additionally, the rate of obesity and diabetes is higher in the each of the Service Areas than the rate in Yakima County as a whole. People who have obesity compared to those with a normal or healthy weight are at increased risk for many serious diseases and health conditions, including the following:

- All-causes of death
- High blood pressure
- Diabetes
- Coronary heart disease
- Stroke

WHAT ARE HEALTH BEHAVIORS?

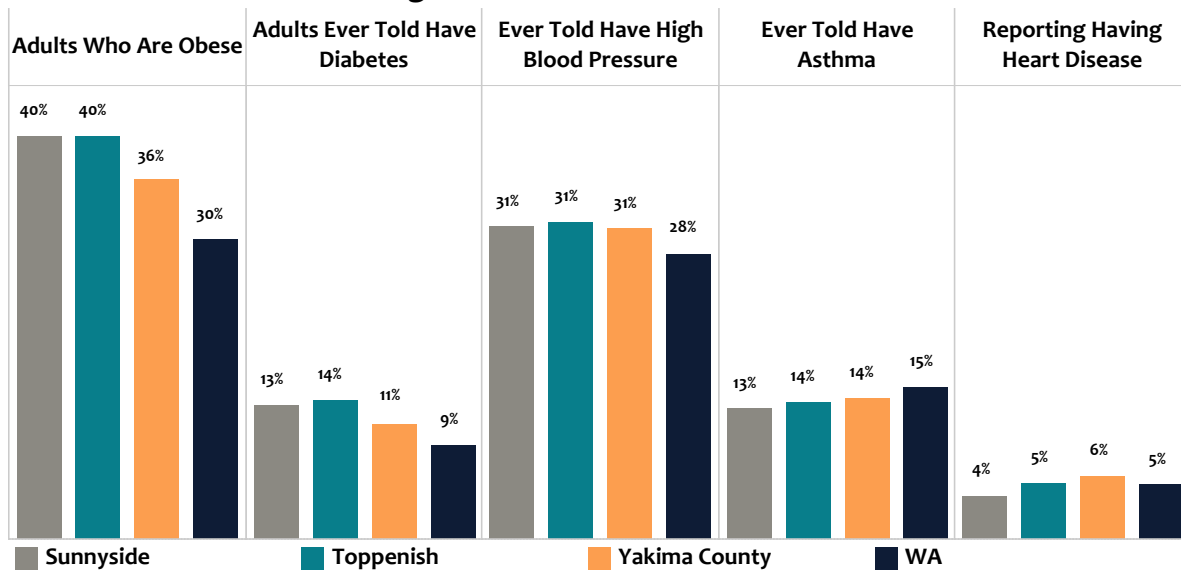
Health behaviors are actions individuals take that affect their health. They include actions that lead to improved health, such as eating well and being physically active, and actions that increase one's risk of disease, such as smoking, excessive alcohol intake, and risky sexual behavior.

Key Findings:

- Service Area residents have higher rates of the chronic disease indicators of obesity and diabetes than Yakima County and the State of Washington.
- Service Area residents are less physically active than the County or the State, and Yakima County has less access to exercise opportunities than the State as a whole.
- Youth drinking, smoking and marijuana use is a concern in Yakima County. 1 in 5 12th Grade students report using Vapor products within the last 30 days.
- Opioid death rates are of significant concern. The rate of growth between the period of 2002-2004 and 2018-2020 was 344%.

⁹ The US Burden of Disease Collaborators. The State of US Health, 1990-2016 Burden of Diseases, Injuries, and Risk Factors Among US States. *JAMA*. 2018;319(14):1444-1472. doi:10.1001/jama.2018.0158

Figure 8: Chronic Disease Indicators



Source: UDS Mapper 2021

Chronic disease indicators are closely connected and can result in a significant personal and community burden. As identified in **Table 7**, Yakima County has an age adjusted rate of death caused by Diseases of the Heart more than 50% higher than Washington. According to the Centers for Disease Control, chronic diseases are among the most common, costly, and preventable of all health problems.

Table 6: Rates per 100,000 for Causes of Death, Yakima County, Washington State, 2019

Cause of Death	Yakima County	WA
Diseases of the Heart	208.2	133.2
Malignant Neoplasms – Cancer	146.9	141.8
Accidents – Unintentional Injury	56.2	43.7
Chronic Lower Respiratory Diseases	42.7	33.5
Alzheimer’s Disease	31.0	41.7
Cerebrovascular Diseases	26.3	34.6
Chronic Liver Disease & Cirrhosis	13.3	12.2
Diabetes Mellitus	12.5	20.3
Intentional Self-Harm (Suicide)	12.1	16.1
Homicide	11.2	3.3
Influenza & Pneumonia	5.7	9.9

Source: Washington State Department of Health, Center for Health Statistics, Death Certificate Date, 2000-2019, Community Health Assessment Tool (CHAT), January 2021.

Diet and activity patterns are closely correlated with chronic disease. As show in **Table 8**, residents of Yakima County are less physically active and have less access to exercise opportunities than Washington as a whole.

Evidence also suggests teen pregnancy significantly increases the risk of repeat pregnancy and of contracting a sexually transmitted infection (STI), both of which can result in adverse health outcomes for mothers, children, families, and communities. The number of teen births in Yakima County is 138% higher than the rate Washington State (38 births per 1,000 females 15-19 compared to 16 in Washington State).

Additionally, alcohol-impaired driving deaths significantly contributes to unintentional injuries, the third leading cause of death in Yakima County in 2019. Of all driving deaths in Yakima County, 40% involved alcohol, higher than both Washington and top performers in the United States.

Table 7: County Health Behaviors

	Sunnyside Community	Toppenish Community	Yakima County	Washington	Top US Performers
Adult Physical Inactivity¹⁰	31%	31%	26%	18%	NA
Access to Exercise Opportunities¹¹	NA	NA	75%	86%	91%
Alcohol-Impaired Driving Deaths¹²	NA	NA	40%	33%	11%
Teen Births¹³	NA	NA	38	16	12

Source: 2021 RWJ County Health Rankings

Data presented in **Table 9** demonstrates premature death, life expectancy, poor or fair health and poor physical health in Yakima County is worse than Washington State. Adults in Yakima County have a higher rate of premature death than the State. Years of Potential Life Lost (PYLL) is a widely used measure of the rate and distribution of premature mortality. Measuring premature mortality, rather than overall mortality, focuses on deaths that could have been prevented.

¹⁰ Percentage of adults age 20 and over reporting no leisure-time physical activity (BRFSS 2014-2018)

¹¹ Percentage of population with adequate access to locations for physical activity (2021 RWJ County Health Rankings 2010 & 2019)

¹² Percentage of driving deaths with alcohol involvement (2015 – 2019)

¹³ Number of births per 1,000 female population ages 15-19 (2013 – 2019)

Table 8: Health Status

	Yakima County	Washington	Top US Performers
Premature Death¹⁴	7,717	5,614	5,400
Life Expectancy¹⁵	77.9	80.4	79.2
Poor or Fair Health¹⁶	26%	15%	14%
Poor Physical Health Days in Last 30 Days¹⁷	5.2	3.7	3.4

Source: 2021 RWJ County Health Rankings

ACCESS TO HEALTHY AND SUFFICIENT FOOD

The lack of consistent access to nutritious, balanced, and sufficient food is called “Food Insecurity,” and is related to negative health outcomes such as weight gain and premature mortality. In addition to assessing the consistency of food availability in the past year, the food insecurity measure also measures the access of individual and families to balanced meals. Food insecurity in children is higher than the overall food insecurity rate. Nearly 1 in 5 children in Yakima County are food insecure. Food insecurity in children is associated with many health conditions, impaired cognitive ability, and poor academic achievement. In Yakima County, both the overall and child food insecurity rate is higher than the State. As shown in **Table 10**, the Food Environment Index ranges from a scale of 0 (worst) to 10 (best) and equally weighs indicators of food insecurity and limited access to healthy foods. Yakima County is slightly worse than the State for this metric as well.

“Health effects of hunger and food insecurity in children are associated with more psychosocial problems; more frequent colds, ear infections, anemia, asthma, and headaches; impaired cognitive functions; and poorer academic achievement.”

Source: Washington State Department of Health. Food Insecurity and Hunger March 2018. Accessed November 2021. <https://www.doh.wa.gov/Portals/1/Documents/Pubs/160-015-MCHDataRptFoodInsecHunger.pdf>

Table 9: Access to Healthy, Sufficient Food

	Yakima County	WA
Overall Food Insecurity Rate¹⁸	13%	11%
Child Food Insecurity Rate	19%	14%
Limited Access to Healthy Food¹⁹	5%	6%
Food Environment Index²⁰	7.9	8.2

Source: 2021 RWJ County Health Rankings

¹⁴ Number of deaths under age 75 per 100,000 population (2017 – 2019)

¹⁵ Average number of years a person can expect to live (2017 – 2019)

¹⁶ Percentage of adults reporting fair or poor health, age adjusted (2017 – 2019)

¹⁷ Average number of physically unhealthy days reported in past 30 days, age-adjusted (2018)

¹⁸ Percentage of population who lack adequate access to food (2018)

¹⁹ Percentage of population who are low-income and do not live close to a grocery store (2015)

²⁰ Index of factors that contribute to a healthy environment, from 0 (worst) to 10 (best) (2015 & 2018)

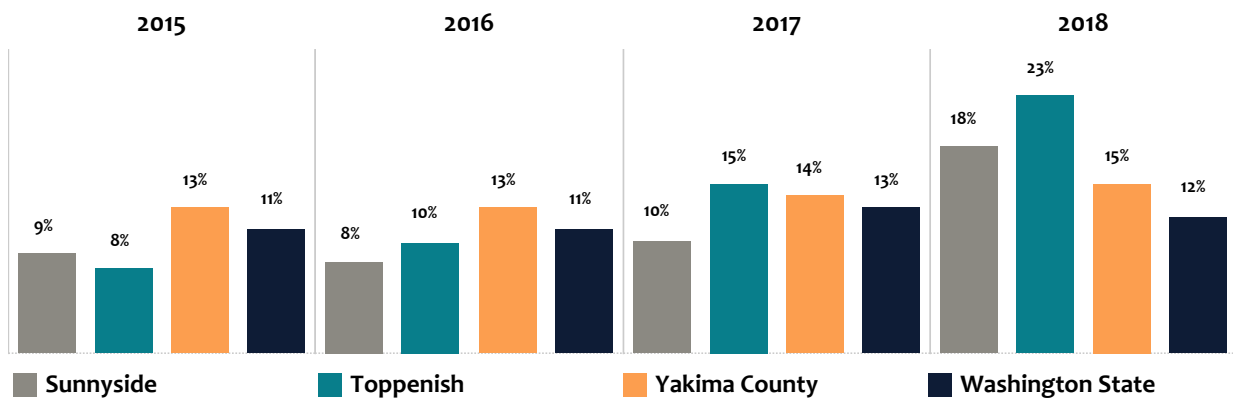
BEHAVIORAL HEALTH

Behavioral health is an umbrella term that includes mental health and substance abuse, life stressors and crises, and stress-related physical symptoms. Behavioral health issues can negatively impact physical health, leading to an increased risk of some conditions. Unmet needs related to behavioral health services were identified as a priority in the 2018 CHNA.

MENTAL HEALTH

As seen in **Figure 9**, the percent of residents who experience frequent mental distress (14 or more days of poor mental health per month) is growing and exceeds Yakima County and Washington. Nearly 1 in 4 Toppenish Service Area residents and 1 in 5 Sunnyside Service Area residents experience 14 or more days of poor mental health each month.

Figure 9: Frequent Mental Distress, 2015 - 2018



Source: BRFSS 2015 – 2018.

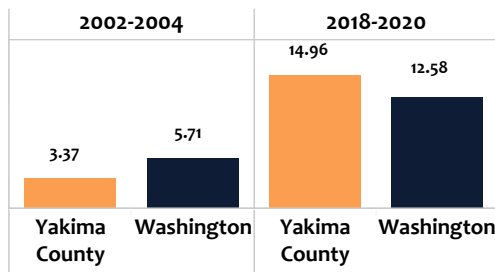
SUBSTANCE ABUSE

Opioids are a class of drugs that include the illegal drug heroin, synthetic opioids such as fentanyl, and pain relievers available legally by prescription, such as oxycodone (OxyContin®), hydrocodone (Vicodin®), codeine, morphine, and many others. When used correctly under a health care provider's direction, prescription pain medicines are helpful. However, misusing prescription opioids risks dependence and addiction. Washington's rate of opioid attributed deaths increased by approximately 120% between the period of 2002-2004 and 2018-2020. As shown in **Figure 10**, Yakima County's rate has increased by 344% over the same period. The opioid death rate is of growing concern in Yakima County. Details on deaths by opioid classification for the period of 2018 – 2020 is found in **Table 11**.

“Opioid overdose deaths rose from 2013 through 2020. 2020 ... The increase in opioid overdose deaths was driven by heroin deaths, and more recently, fentanyl deaths. Deaths involving commonly prescribed opioids have declined since 2009. Deaths involving other synthetic opioids, mostly fentanyl, are now more common than those involving heroin.”

Deaths involving any opioid per 100,000 population in Yakima County has increased by 344% between the period of 2002-2004 and 2018-2020.

Figure 10: Opioid Death Rate per 100,000 Yakima County and Washington



Source: University of Washington Addictions, Drug & Alcohol Institute. "Opioid Trends Across Washington"

Table 10: Opioid-Related Deaths per 100,00 by Opioid Type Yakima County and Washington, 2018-2020

	Yakima County	WA
Deaths Involving Heroin	2.47	4.82
Deaths Involving Other Opioids	13.14	10.35
Total Opioid Related Deaths	14.96	12.58

Source: University of Washington Addictions, Drug & Alcohol Institute Opioid Trends Across Washington State. Accessed November 2021 <https://adaa.washington.edu/WAdata/deaths.htm#showdiv1>

While Yakima County has a higher rate of opioid-related deaths, substance use rates are not statistically different than those in Washington for those in 10th and 12th Grade. 8th Grade students in Yakima County had higher use rates of marijuana and prescription pain killers to get high within the past 30 days as shown in **Table 12**.

Table 11: 8th Grade Substance Use Within Past 30-Days, Yakima County and Washington, 2018

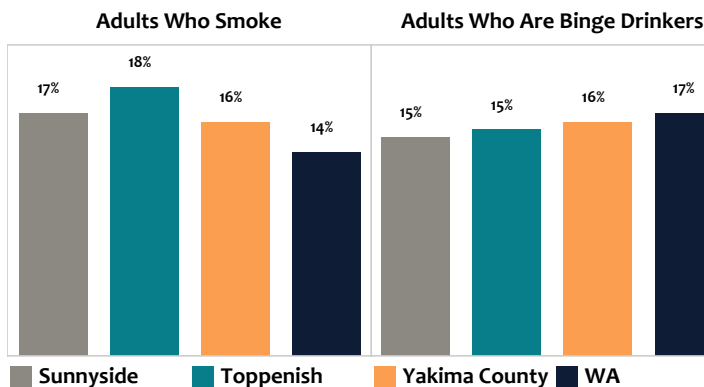
	Yakima County	Washington
Marijuana	13%	7%
Rx Pain Killers to Get High	4%	2%

Source: Healthy Youth Survey 2018

SMOKING AND ALCOHOL USE

Adult smoking is a critical component of the burden of chronic disease and should be a key focus of prevention. Cigarette smoking harms nearly every organ of the body, causes many diseases. Cigarette smoking 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. As can be identified in **Figure 11**, smoking is more prevalent in Astria Health Service Areas and the County than the State.

Figure 11: Service Area Health Behaviors, 2018



Source: UDS Mapper 2021

“Each year, cigarette smoking kills about 8,300 adults in Washington state. Health care costs directly caused by cigarette smoking are estimated to be \$2.8 billion annually.² Cigarette smoking also leads to other costs such as workplace productivity losses. Additionally, there are costs related to non-cigarette commercial tobacco product use, exposure to secondhand smoke, and smoking-caused fires.”

Binge drinking, defined as males having five or more drinks on one occasion, females having four or more drinks on one occasion, is the most common, costly, and deadly pattern of excessive alcohol use in the United States. Binge drinking is a 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.

Binge drinking is similar in the Astria Health Service Area as in the County, and slightly lower than in the State. Although binge drinking is lower in the Service Area than in the State and similar to the County, Yakima County's alcohol impaired driving rates are significantly higher than Washington's as demonstrated in **Table 8** on page 17.

Cigarette smoking during adolescence causes significant health problems among young people, including an increase in the number and severity of respiratory illnesses, decreased physical fitness and potential effects on lung growth and function. Most importantly, this is when an addiction to smoking takes hold, often lasting into and sometimes throughout adulthood. Among adults who have ever smoked daily, 87% had tried their first cigarette by the time they were 18 years of age, and 95% had by age 21. As illustrated in **Table 13**, Tobacco Use in Youth – Yakima County and Washington State, 2018 in Yakima County, the percentage of 8th grade students who report smoking cigarettes is statistically higher (worse) than Washington State while the percentage of 10th and 12th grade students who report using an e-cigarette or vape pen is lower (better) than Washington State. Between 2016 and 2018 a statistically significant percentage of 10th and 12th Grade students in Yakima County report using Vapor products within the last 30 days. The rate increase from 11% to 17% in 10th Grade students while the rate reported by 12th grade students increased from 15% to 22%.

“Youth and young adults under the age of 18 are far more likely to start tobacco use than adults: 4 out of 5 smokers started during adolescence. According to the U.S. Surgeon General, there is a strong association between the use of e-cigarettes, and the use of other burned tobacco products by young people.”

Preventing youth initiation of tobacco and other nicotine use is critical to stem the tide of tobacco-related mortality, morbidity, and economic costs.

Youth and young adults under age 18 are far more likely to start using tobacco than adults; nearly 9 out of 10 adults who smoke started by age 18.

The emergence of vapor products (also called electronic cigarettes) has raised serious concern. Nicotine use can adversely affect brain development.

The effects of nicotine exposure during youth and young adulthood can be long-lasting and can include lower impulse control and mood disorders. The nicotine in vapor products can prime young brains for tobacco use and addiction to other drugs.”

Table 12: Tobacco Use in Youth – Yakima County and Washington State, 2018

	Yakima County		Yakima County		Yakima County	
	WA	WA	WA	WA	WA	WA
	8 th Grade		10 th Grade		12 th Grade	
<i>Smoked cigarettes in the past 30 days (2018)</i>	4% ± 1	3% ± 1	5% ± 1	5% ± 1	6% ± 1	8% ± 1
<i>Used smokeless tobacco in the past 30 days (2018)</i>	2% ± 1	1% ± 0	2% ± 1	2% ± 1	5% ± 1	4% ± 1
<i>Used an e-cigarette or vape pen in the past 30 days (2018)</i>	12% ± 2	10% ± 1	17% ± 2	21% ± 3	22% ± 2	30% ± 3

Source: Healthy Youth Survey 2018 Tobacco & Vapor Product Use Fact Sheet

While adults have similar levels of binge drinking as Yakima County and the State, youth in Yakima County report higher levels of alcohol use than their peers in Washington State.

CLINICAL CARE

Access to affordable, quality, and timely health care can prevent disease by detecting and addressing health concerns early. Understanding clinical care in a community helps in understanding how the community can improve the health of its neighbors.

Advances in clinical care over the last century, including breakthroughs in vaccinations, surgical procedures like transplants and chemotherapy, and preventive screenings have led to significant increases in life expectancy. Clinical care and practice continue to evolve, with advances in telehealth and care coordination leading to improved quality and availability of care.

Those without regular access to quality providers and care are often diagnosed at later, less treatable stages of a disease than those with insurance, and, overall, have worse health outcomes, lower quality of life, and higher mortality rates. Primary Care Access Measures

Having a usual source of care — defined as a personal doctor or other health care provider like a health clinic where someone would usually go if they were sick — is seen as a strong indicator of health care access. **Figure 12** shows that 2 in 5 residents in the Sunnyside and Toppenish Service Areas are without a usual source of care. This number is significantly worse than Yakima County and Washington State. This is concerning as patients with a usual source of care are more likely to receive recommended preventive services such as flu shots, blood pressure screenings, and cancer screenings. For patients without that, disparities in access to primary health care exist, and patients face barriers that decrease access to services and increase the risk of poor health outcomes.

The high cost of health care can also be a barrier to access for both insured people (particularly those with high deductibles) and the uninsured, and costs can be particularly burdensome for people in worse health. As seen in **Figure 12**, Service Area residents are more likely than Yakima County and State residents to have reported not seeking or delaying care due to cost.

Nearly 50% of adults in both the Sunnyside and Toppenish Service Areas have not seen the dentist in the past year. This is significantly higher than Yakima County and Washington State. The percentage of adults who have not visited a dentist within the last year in the Service Area is approximately 50% higher than in Washington.

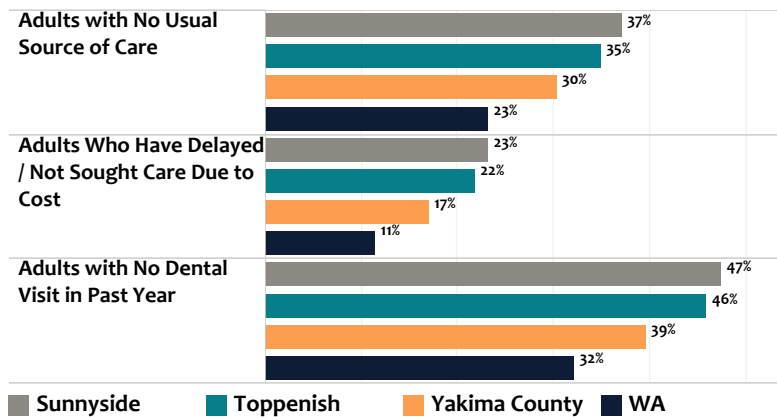
WHAT IS INCLUDED IN CLINICAL CARE?

Clinical care includes what people view as medicine: primary care providers, vaccines, screenings, surgery, etc. Access means making sure all people can get these services in convenient, timely, and affordable ways. There are many barriers to accessing health services from financial to geographic limitations. Provider ratios and rates of insured are also important factors.

Key Findings:

- Nearly 2 out of 5 residents within the Service Areas do not have a usual source of care.
- Nearly half of residents have not visited a dentist within the past year.
- Yakima County is designated as health professional shortage and medically underserved areas and have worse resident to provider ratios than the state.
- Yakima County has significantly higher rates of Preventable Hospital Stays than Washington with particular concern in the American Indian and Hispanic populations.

Figure 12: Access to Care Measures

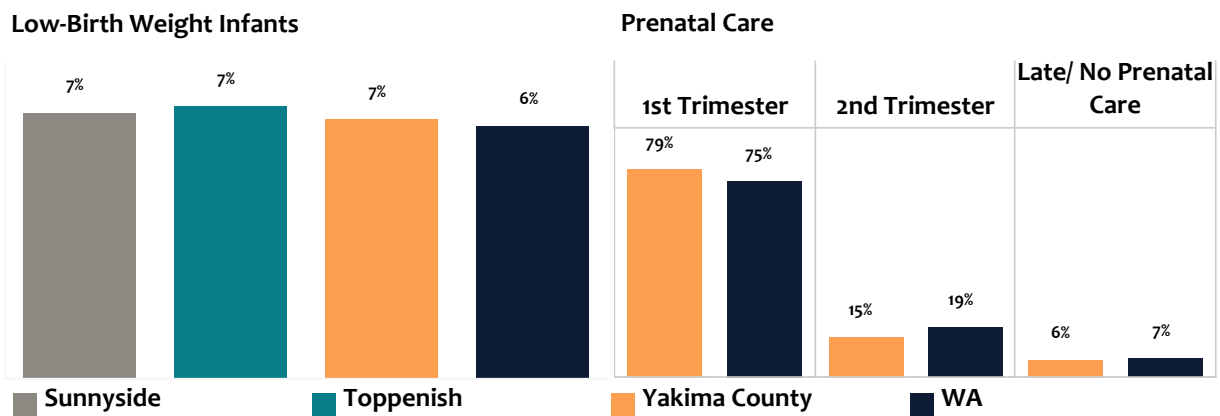


Source: UDS Mapper, 2021.

Low birthweight is a valuable public health indicator of maternal health, nutrition, healthcare access and poverty. Factors such as early intervention services, education, employment and economic opportunities, social supports, and availability of resources to meet daily needs influence maternal health behaviors, pregnancy outcomes and infant and child health. The Service Area has similar levels of low-birth

weight babies to Yakima County and Washington State as illustrated in **Figure 13**. Data in **Figure 13** also indicates Yakima County residents tend to initiate 1st trimester prenatal care more frequently than residents of Washington and fewer Yakima County mothers receive no prenatal care or late prenatal care compared to mothers in the State.

Figure 13: Prenatal Care Indicators



Source: Low-birth weight infants - UDS Mapper, 2021. Prenatal Care: Washington State Department of Health, Center for Health Statistics, Birth Certificate Date, 2009-2019, Community Health Assessment Tool (CHAT), October 2020.

HEALTH PROFESSIONAL SHORTAGES

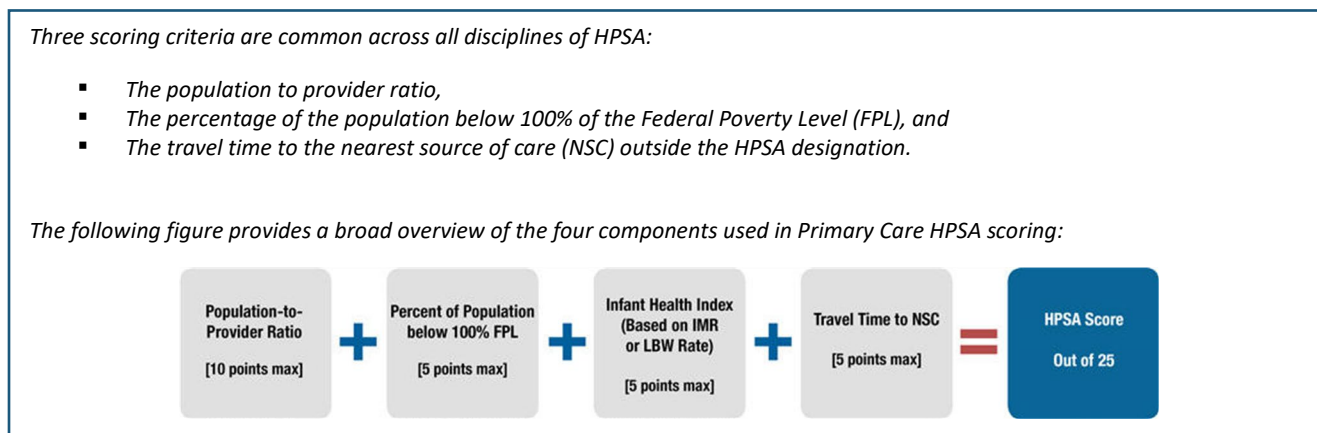
The Federal Health Resources & Service Administration (HRSA) deems geographies and populations as Medically Underserved Areas (MUAs), Medically Underserved Populations (MUPs) and/or Health Professional Shortage Areas (HPSAs). Similarly, a HPSA designation identifies a critical shortage of providers in one or more clinical areas.

There are also several types of HPSAs depending on whether shortages are widespread or limited to specific groups of people or facilities including: a geographic HPSA wherein the entire population in a certain area has difficulty accessing healthcare providers and the available resources are considered

overused; or a population HPSA wherein some groups of people in a certain area have difficulty accessing healthcare providers (e.g., low-income, migrant farmworkers, Native Americans).

Once designated, per **Figure 14** below, HRSA scores HPSAs on a scale of 0-26, with higher scores indicating greater need. HPSA designations are available for three different areas of healthcare: primary medical care, primary dental care, and mental health care.

Figure 14: HPSA Scoring Criteria



Source: Health Resources and Services Administration (HRSA)

These designations are important as more than 30 federal programs depend on the shortage designation to determine eligibility or funding preference to increase the number of physicians and other health professionals who practice in those designated areas. **Table 14** reflects the County’s HPSA designations and scoring for the areas within Service Area.

Table 13: Yakima County HPSA Designations

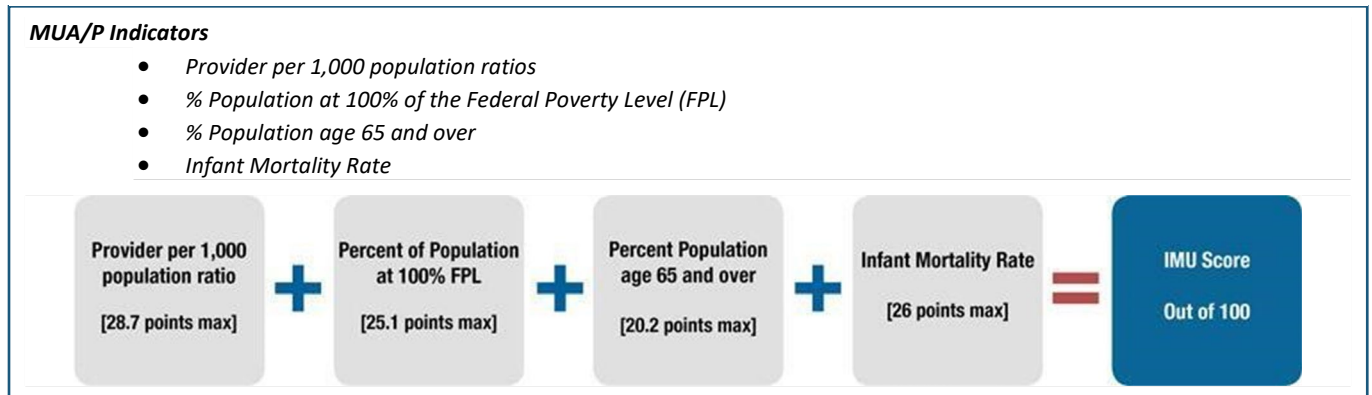
HPSA	Area	Designation Type	Designation Date	Score
Primary Care	Yakima County	Low Income Population	9/24/2017	14
Dental Care	Yakima County	Low Income Population	7/26/2017	17
Mental Health	Yakima County	Geographic	4/15/2008	16

Source: HRSA Data Warehouse – HPSA Find. Accessed December 2021.

As indicated by data in **Table 14**, low-income residents in Yakima County have a moderate shortage of health professionals for primary and dental care. All of Yakima County has a moderate shortage of mental health professionals.

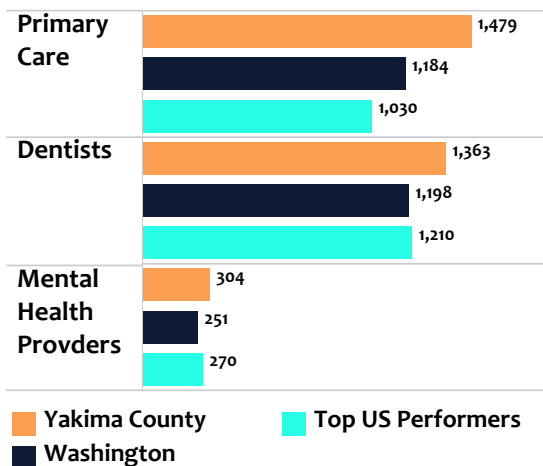
HRSA’s MUAs and MUPs identify geographic areas and populations with a lack of access to primary care services. MUA/P score is dependent on the Index of Medical Underservice (IMU) calculated for the area or population proposed for designation. Under the established criteria, an area or population with an IMU of 62.0 or below qualifies for designation as an MUA/P. The methodology is illustrated in **Figure 15**. Yakima County is categorized as a Primary Care MUA with a score of 60.7.

Figure 15: MUA/P Scoring Criteria



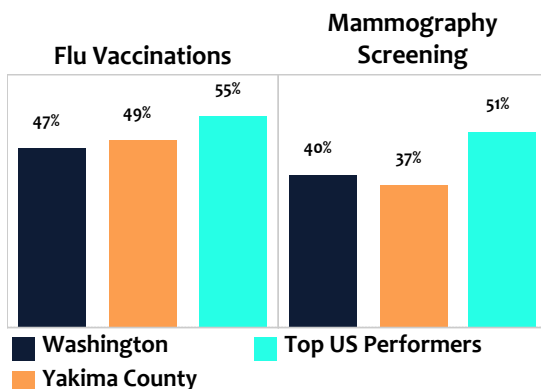
Source: Health Resources and Services Administration (HRSA)

Figure 16: Resident to Provider Ratio (# of Residents to 1 Provider)



Source: RWJF County Health Rankings 2021

Figure 17: Preventive Care Measures



Source: RWJF County Health Rankings 2021

Additionally, the County has worse ratios for primary care providers, dentists, and mental health providers than the rest of the state as can be seen in Figure 16.

PREVENTATIVE CARE

Key markers of access to health care in a community are the rates of preventive screenings and vaccines. Getting vaccinated prevents many life-threatening illnesses from ever occurring, and preventive screenings catch disease processes early so that treatments are more effective. 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.

As identified in Figure 17, Medicare recipients in Yakima County were more likely to obtain a flu vaccine than those in Washington. The rate of mammography screening in Yakima County is lower than that of Washington. Washington performs significantly lower than top performers in the United States.

Additional disparities in these rates arise when broken down by race. **Table 15** shows only 37% of the Hispanic population received a flu vaccination compared to 49% of the total Medicare population in Yakima County. Additionally, this disparity was observed in the rate of Mammography screenings. Only 30% of the Hispanic population and 11% of the black population received a mammography screening.

Table 14: Preventative Care Measures by Race Yakima County

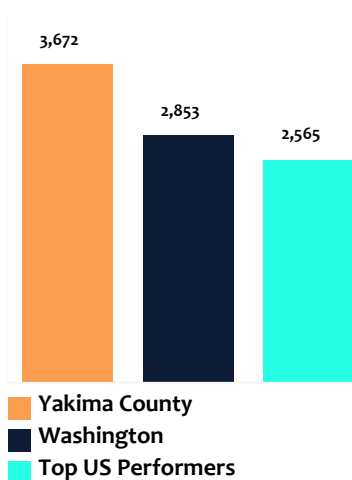
	Flu Vaccines	Mammography Screenings
% Screened (Total)	49%	37%
American Indian/Alaska Native	51%	30%
Asian/Pacific Islander	47%	35%
Black	47%	11%
Hispanic	37%	30%
White	51%	38%

Source: RWJF County Health Rankings 2021

PREVENTABLE HOSPITAL STAYS

Preventable hospital stays are hospitalizations for ambulatory-care sensitive conditions. These are conditions that if diagnosed and treated in outpatient setting could have prevented a hospitalization. Preventable Hospital Stays can 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. This measure may also represent a tendency to overuse hospitals as a main source of care. As shown in **Figure 18**, Yakima County is doing significantly worse than the County and State in terms of the rate of preventable hospital stays with a rate of 3,672 per 100,00 Medicare Beneficiaries compared to 2,853 per 100,000 for the State. This rate is 28% higher than the rate in the State and 43% higher than top performers in the United States.

Figure 18: Preventable Hospital Stays per 100,000



Source: RWJF County Health Rankings

Disparities can be seen in the County when looking at this measure by race. Most concerning, data in **Table 16** shows the American Indian, Hispanic, and Black populations have preventable hospital stays significantly higher than the overall rate in the county (73%, 36%, and 25% higher respectively).

Table 15: Preventable Hospital Stays by Race, Yakima County

	Rate per 100,000	% Higher than County
Yakima County	3,672	-
American Indian / Alaska Native	6,343	73%
Asian / Pacific Islander	983	-73%
Black	4,996	36%
Hispanic	4,590	25%
White	3,429	-7%

Source: RWJF County Health Rankings 2021

THE SOCIAL DETERMINANTS: SOCIAL AND ECONOMIC FACTORS

Our basic social and economic supports—good schools, stable jobs, and strong social networks—are foundational to achieving long and healthy lives. For example, family-wage employment provides income that shapes opportunities around 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.

Social and economic factors are not commonly considered when it comes to health, yet strategies to improve these factors can have an even greater impact on health than many strategies traditionally associated with health improvement.

As can be identified in **Table 17**, according to measures of social and economic supports, Yakima County is in-line with the State in terms of income inequality (measured as the ratio of household income at the 80th percentile to income at the 20th percentile) and in terms of violent crimes. Yakima County has a higher percentage of children living in single parent households than Washington and nearly twice as many as in US top performers. Importantly, both the County and State are performing worse than the top U.S. counties, with 1 in 3 children living in single parent households. Children in single-parent households are at higher 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.

WHAT ARE SOCIAL AND ECONOMIC FACTORS?

Social and economic factors, such as income, education, employment, community safety, and social supports significantly affect how well and how long we live. These factors affect our ability to make healthy choices and to afford medical care and housing.

Key Findings:

- Nearly two times the number of children live in single parent household in Yakima County as compared to Washington.
- The Median Household Income is about 70% of that of Washington residents. As a result, the percentage of the population considered low income is more than double the percentage in Washington.
- The number of uninsured residents is 40% – 50% higher than in Washington.
- 1/3 fewer residents ages 25 and older have graduated from high school compared to Washington State.

Table 16: Social Indicators

Measure	Sunnyside Community	Toppenish Community	Yakima County	Washington	Top U.S. Performers
Income inequality	NA	NA	4.0	4.4	3.7
Children in single-parent households	37%	40%	37%	26%	14%
Violent crime	NA	NA	273	294	63

Source: RWJF County Health Rankings 2021

Table 18 shows the Service Area and County are doing worse than the State in terms of unemployment and median household income, population below the federal poverty level, and no health insurance. Residents of the Service Area are 1.4-1.5X more uninsured than residents of Washington. Additionally, approximately 1/3 fewer residents over the age of 25 have a High School Diploma when compared to Washington State.

Table 17: Socioeconomic Indicators

Statistic	Sunnyside Community	Toppenish Community	Yakima County	Washington
High School Diploma (25 Years and Older)	57.8%	64.6%	73.7%	91.3%
Median Household Income	\$49,598	\$51,415	\$51,637	\$73,775
Unemployment	5.1%	5.9%	4.0%	3.2%
Population Below Federal Poverty level	16.6%	21.0%	17.4%	10.8%
Population At or Below 200% of Federal Poverty Level	56.0%	51.5%	45.5%	25.6%
No Health Insurance Coverage	17.9%	15.6%	13.1%	6.3%

Source: Social Explorer American Community Survey 2019 5-Year Estimates.

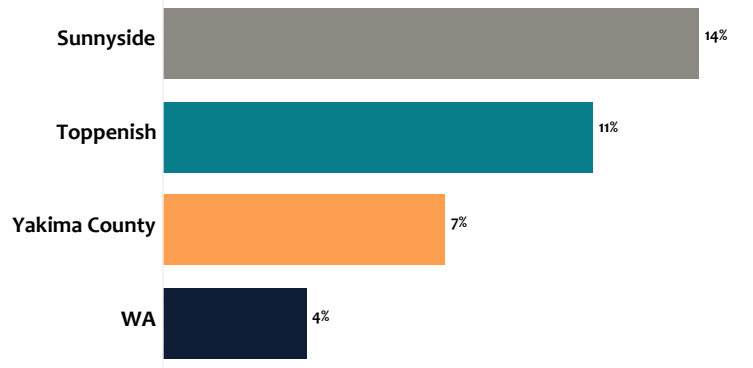
Poverty is defined by family size and income and is the primary measure of financial stability. However, many families living above the poverty line still cannot make ends meet. Utilizing the American Community Survey, we were able to also look at the percentage of people within these communities that are at 200% of the poverty level. As seen in **Table 18**, the rates those living at or below 200% of the Federal Poverty Level is more than 2X higher than Washington.

Additionally, 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. In the latest report, thirty percent of the households in Yakima County are ALICE Households compared to 23% in Washington.²¹

²¹ 2018 ALICE Report: <https://www.unitedforalice.org/county-profiles/washington>

Approximately 14% of residents of the Sunnyside Service Area and 11% of the Toppenish Service area have limited English Proficiency. As illustrated in **Figure 19** this rate is 3.5X higher than the percentage of Washington residents with limited English proficiency. Limited English proficiency is measured by evaluating those over 14 who do not speak English at home and who do not

Figure 19: % of Population with Limited English Proficiency



Source: UDS Mapper 2021

consider themselves able to speak English very well. Individuals with limited English proficiency were more likely to forgo needed medical care and less likely to have a health care visit, compared to individuals who were proficient in English.

COMMUNITY NEEDS INDEX

In 2005, Dignity Health, in partnership with Truven Health, pioneered the nation’s first standardized Community Needs Index (CNI). The CNI is strongly linked to variations in community healthcare needs and is a strong indicator of a community’s need for various healthcare services.

The CNI score is an average of five different barrier scores that measures various socioeconomic indicators of each community. The five barriers along with the indicators that are analyzed for each barrier are included in **Table 19**.

Table 18: Socioeconomic Barriers Included in Community Need Index

Barriers to Healthcare Access	Indicator(s): Underlying Causes of Health Disparities	
Income	Percentage of	Households below poverty line with the head of household age 65 or more
	Percentage of	Families with children under 18 below the poverty line
	Percentage of	Single female-headed families with children under 18 below the poverty line
Culture/Language	Percentage of	Population that is a minority (including Hispanic ethnicity)
	Percentage of	Population over age 5 that speaks English poorly or not at all
Education	Percentage of	Population over 25 without a high school education
Insurance	Percentage of	Population in the labor force, aged 16 or more, without employment
	Percentage of	Population without health insurance
Housing	Percentage of	Households renting their home

A score of 1.0 indicates a ZIP code with the least need, while a score of 5.0 represents a ZIP code with the most need. The Sunnyside Service Area has a mean CNI score of 4.6 and a median CNI score of 4.8 and places the area in the Highest Need category. The Toppenish Service Area has a mean CNI

score of 4.4 and a median CNI score of 4.6 and places the area in the Highest Need category. This is similar to Yakima County which has a mean CNI score of 4.2 and a median CNI score of 4.4. As shown in **Table 20**, all of the communities within the Service Area have needs within the highest need range with the exception of Harrah and Zillah which have needs in the 2nd highest need range.

Table 19: CNI By Community and ZIP Code,

Zip Code	CNI Score	Need Range	Population	City	County	Community
98944	4.8	Highest	22,817	Sunnyside	Yakima	Sunnyside
98935	4.6	Highest	4,410	Mabton	Yakima	Sunnyside
98930	4.2	Highest	16,220	Grandview	Yakima	Sunnyside
98952	4.8	Highest	2,166	White Swan	Yakima	Toppenish
98938	4.6	Highest	2,487	Outlook	Yakima	Toppenish
98948	4.6	Highest	13,403	Toppenish	Yakima	Toppenish
98951	4.4	Highest	13,551	Wapato	Yakima	Toppenish
98932	4.2	Highest	5,428	Granger	Yakima	Toppenish
98933	4	2 nd Highest	1,334	Harrah	Yakima	Toppenish
98953	4	2 nd Highest	7,785	Zillah	Yakima	Toppenish

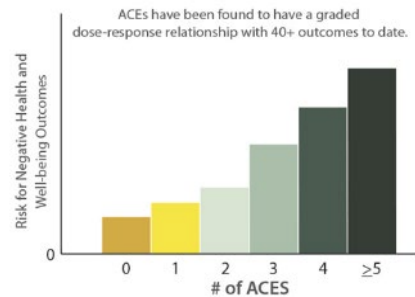
Source: Truven Health Analytics, 2021; Insurance Coverage Estimates, 2021; The Nielson Company, 2021; and Community Need Index, 2021.

ADVERSE CHILDHOOD EVENTS

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, including

Figure 20: 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)



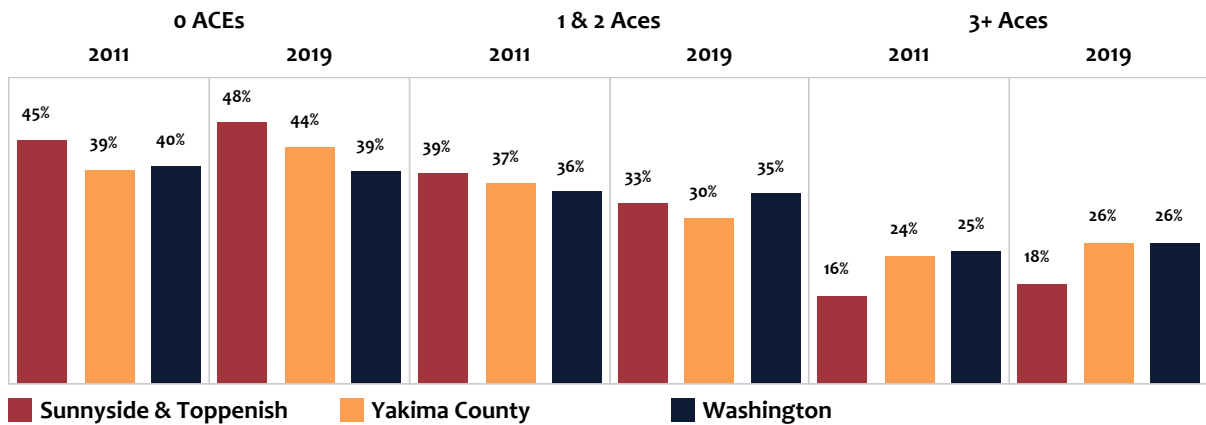
*This pattern holds for the 40+ outcomes, but the exact risk values vary depending on the outcome.

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

but not limited to depression, heart disease, COPD, risk for intimate partner violence, and alcohol and drug abuse (**Figure 20**). 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.

Compared to Yakima County and Washington State, residents of the Service Area have fewer ACEs as shown in **Figure 21**. Of particular concern however is that the percentage experiencing 3 or more ACEs increased in the Service Area between 2011 and 2019 from 16% to 18%.

Figure 21: Adverse Childhood Events, 2011, 2019

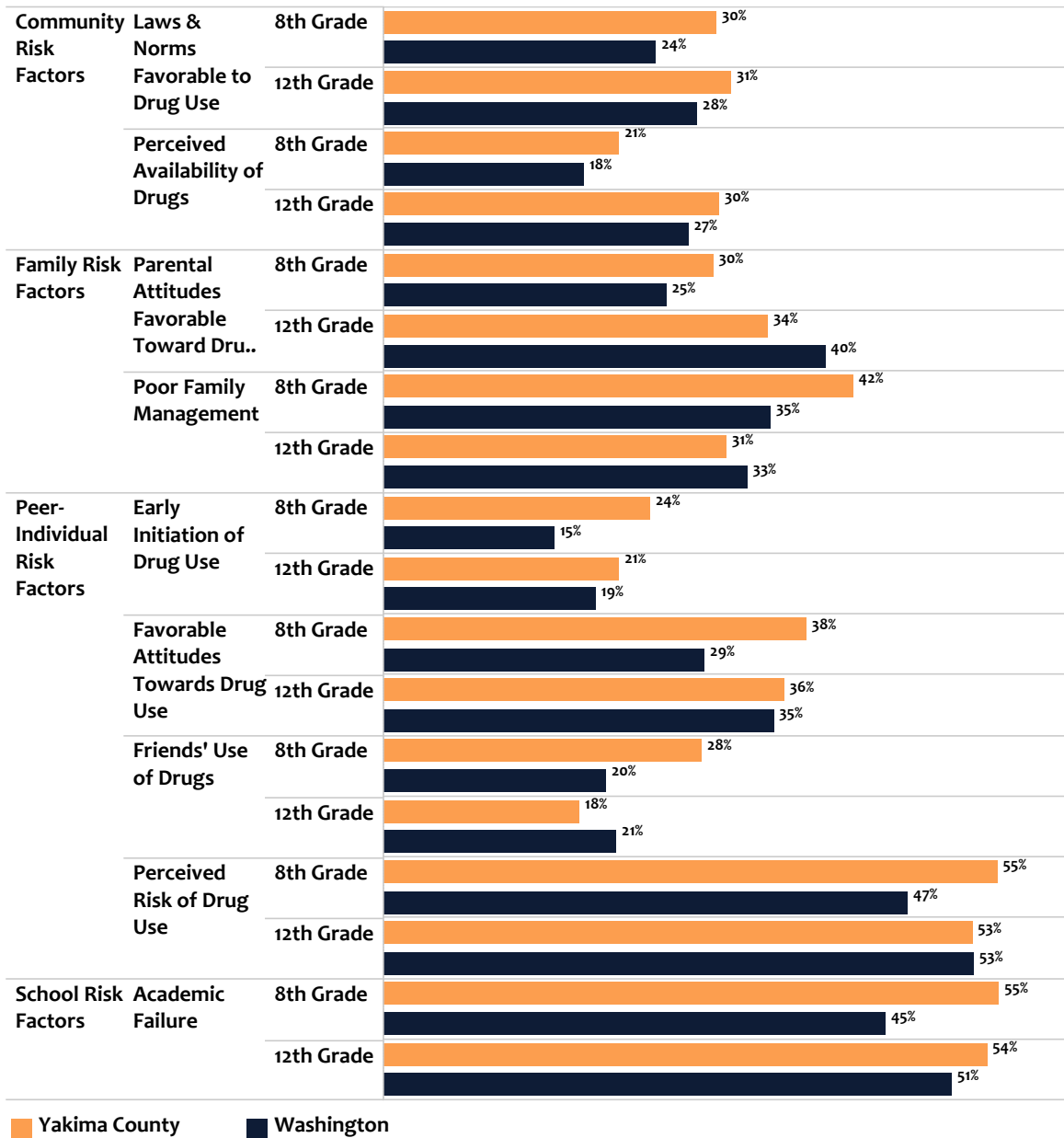


Source: BRFSS 2011, 2019

YOUTH RISK FACTORS

Risk and Protective Factors (RPF) are personal and environmental factors that influence a person’s likelihood of engaging in problem behaviors. Risk Factors increase the chances of participation in problem behaviors, while Protective Factors decrease this likelihood. **Figure 22** identifies the percentage of 8th and 12th Grade students with risk factors. Yakima county students face significantly more risk factors across all measures- community, family, peer and school- than Yakima County students overall.

Figure 22: Youth Risk Factors



Source: Healthy Youth Survey 2018

PHYSICAL ENVIRONMENT

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.

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

Our collective health and well-being depend on opportunity for everyone, yet across and within communities there are stark differences in the opportunities to live in safe, affordable homes, especially for people with low incomes.

HOUSING

RWJF County Health Rankings data 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. Similarly, RWJF defines a “cost burdened” household as a household that spends 50% or more of their household income on housing.

Table 21 identifies that Yakima County has a significantly higher percentage people with severe housing problems, approximately 25% higher than Washington. Nearly one-third of Toppenish Service Area residents spend 50% or more of their household income on rent. Yakima County has similar levels of home ownership and housing cost burden when compared to Washington

HOW DOES THE PHYSICAL ENVIRONMENT AFFECT HEALTH?

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 environments affect our ability and that of our families and neighbors to live long and healthy lives.

Key Findings:

- 1 in 5 individuals in the County face severe housing problems, and about 13% spend more than 50% of their income on housing.
- Homelessness in the Toppenish Service Area is growing. Of specific concern 75% more people are unsheltered homeless in these communities.
- Air quality in Yakima County is 60% worse than the air quality in Washington

Table 20: Housing Issues

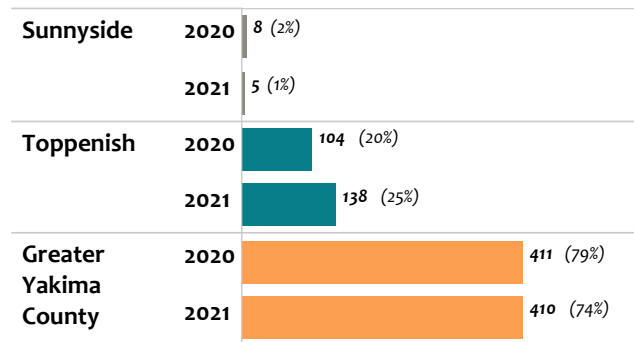
	Sunnyside Community	Toppenish Community	Yakima County	WA
Severe Housing Problems	N/A	N/A	21%	17%
Spending More than 50% of Household Income on Rent	14.7%	32.2%	19.6%	21.1%
Home Ownership	63%	63%	63%	63%

Source: RWJF County Health Rankings 2021 and American Community Survey 2019 5-Year Estimates

HOMELESSNESS

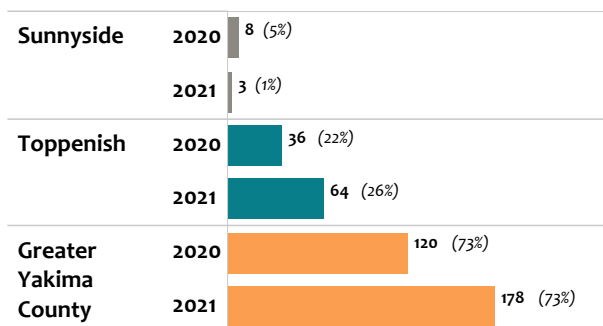
Being homeless puts an individual at increased risk of multiple health issues including psychiatric illness, substance use, chronic disease, musculoskeletal disorders, skin and foot problems, poor oral health, and infectious diseases such as tuberculosis, hepatitis C and HIV infection. As shown in **Figure 23** the December 2021 Yakima County Point in Time Homeless Count identified 553 homeless household (663 homeless residents) in Yakima County. Of these individuals, nearly 40% were unsheltered and another nearly 40% were in an emergency shelter. Approximately 1 in 3 homeless persons report being chronically homeless.

Figure 23: 2021 Yakima County Homelessness Households



The number of homeless in the Lower Valley is understated as temporary housing such as emergency shelters and transitional housing are primarily located in the Upper Valley. As shown in **Figure 24** the number of unsheltered persons is growing and that is of concern. The number of unsheltered

Figure 24: Yakima County Homeless and Unsheltered Households



Source: 2021 Yakima County Point in Time Homelessness Survey

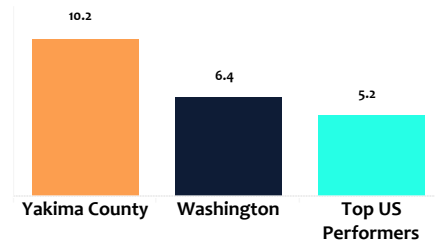
homeless in the Toppenish Service Area grew by 78% between 2020 and 2021. In the counted homeless population in Yakima County nearly 50% were facing substance abuse or serious mental illness and 40% identified challenges with chronic disease or chronic illness, permanent disability, or developmental disability.

AIR AND WATER QUALITY

RWJ’s County Health Rankings measures air pollution by the particulate matter in the air. It reports the average daily density of fine particulate matter in micrograms per cubic meter. Fine particulate matter is defined as particles of air pollutants with an aerodynamic diameter less than 2.5 micrometers (PM_{2.5}). As seen in **Figure 25**, Yakima County fares worse than the State on this measure of air quality.

Ensuring the safety of drinking water is important to prevent illness, birth defects, and death. One method for measuring the safety of water in a community is to evaluate drinking water violations (defined as at least one community water system in the area receiving at least one health-based violation in the last year). Yakima County received no drinking water violations in 2019.

Figure 25: Air Pollution – Particulate Matter



Source: RWJF County Health Rankings 2021

COMMUNITY CONVENING

In prior CHNAs, the hospitals undertook robust community convening processes that included a community needs survey, community meetings and stakeholder engagement to assess, identify, and prioritize community needs. After much discussion, this year, due to COVID, Astria had planned a robust in-person community convening process to assess, identify, and prioritize community needs. After much discussion, due to the continued persistence of COVID and more recently vaccine distribution, we chose to use a combination of online surveys, focus groups and one-on-one phone interviews with Service Area and County community members and organizations serving the vulnerable and Astria leadership and management.

The following number of responses were received from surveys and focus groups:

- Interview with Yakima Health District
- 15 Community Surveys
- 29 Astria Health Managers and Leadership Surveys
- 8 Focus Group Participants
- 3 Individual Meetings

Surveys were received from the following organization types:

- City Government
- Schools
- Higher Education and Work Force Development
- Community Service Organizations
- Social Services Agencies
- Community Health Centers
- Hospital Providers
- Local Businesses
- Local Utility Organizations
- Emergency Responders

The survey was designed to solicit feedback on perceived improvements in the areas prioritized in the 2018 CHNAs for each hospital. It also requested input on other potential health needs and gaps

A question was included on the survey to understand which community the respondent represented allowing for analysis of differences between the Service Area respondents. Specific questions on the 2018 strategies included:

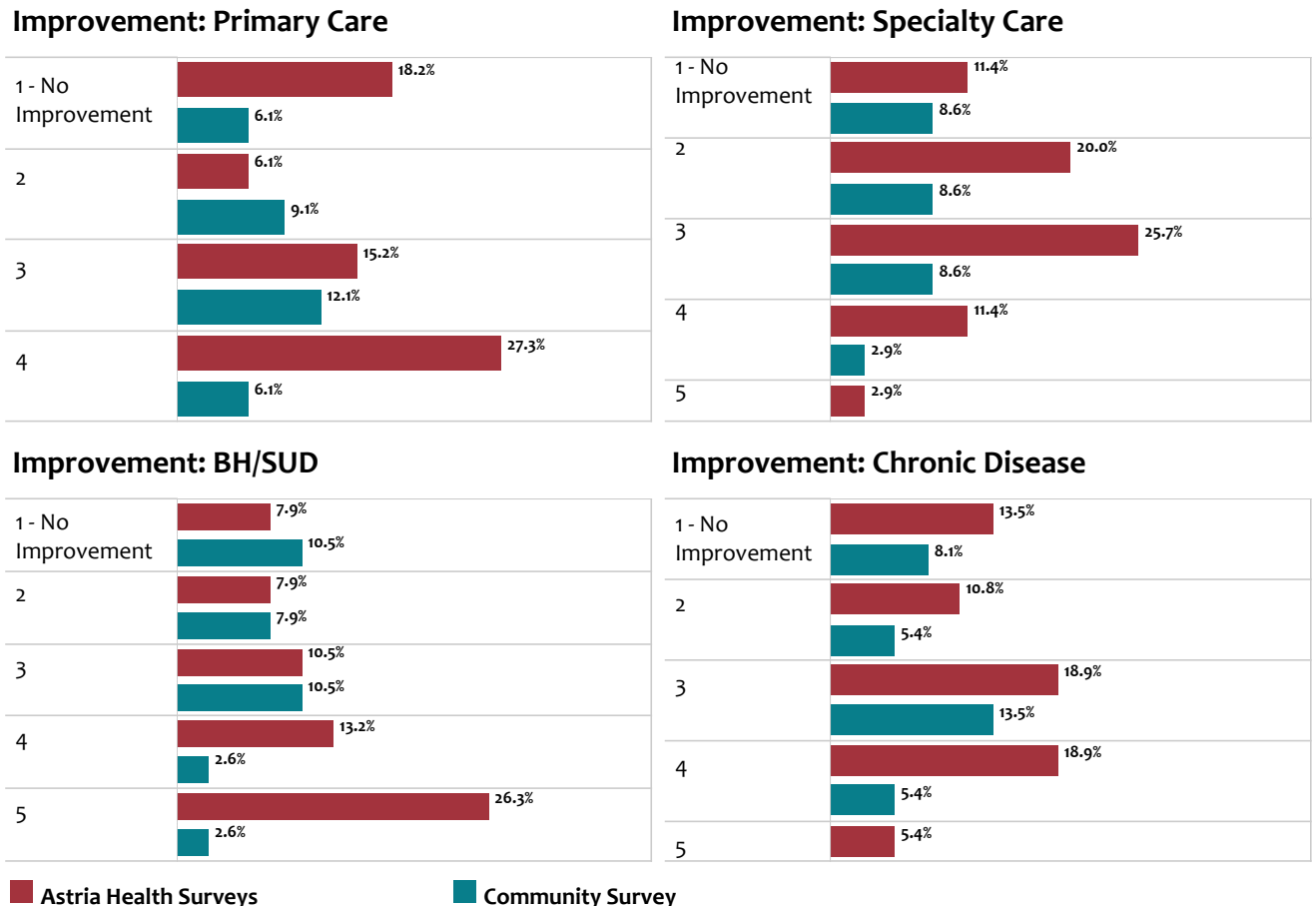
On a scale from 1 (no improvement) to 5 (much progress), please indicate the improvement you have experienced either personally or within the community over the past three years in relationship to the priority.

Do you think the priority should continue to be a CHNA priority action in the coming years?

As shown in **Figure 26**, mixed responses were received regarding whether improvement was showing on the priorities from the 2018 Implementation Plans with results leaning toward little to no improvement. Importantly, of those with the knowledge to assess improvement, the community

identified less improvement on priorities than did the leadership and management of Astria Health. This represents an opportunity for Astria Health to do more to inform the community about their efforts and to measure change. Additionally, the Yakima Health District note it was important for Astria Health to increase their community presence and become a more trusted community partner.

Figure 26: Community Survey Response Improvement on Astria Health Priorities



As identified in **Table 22** nearly all respondents concluded that the priorities identified by Astria Health in the 2018 CHNA should continue to be priorities in the upcoming years.

Table 21: Community Survey Response Should the Priority Continue to be a Focus?

Priority	Yes	No	Do not know / Not familiar
Increase access to primary care	92.5%	0.0%	7.5%
Increase access to specialty care	88.7%	3.8%	7.5%
Increase access to BH /SUD services	98.1%	0.0%	1.9%
Improve the screening, diagnosis, and treatment of chronic diseases	94.2%	3.8%	1.9%

Through the data collected in preparing the 2021 CHNA, and after participation in, and/or close review of the Community Health Needs Assessment and Health Improvement Plans produced by other entities, the survey respondents were asked to prioritize all of the identified needs. The combined list included the priorities from the 2018 CHNA and the following:

1. Improve the coordination of care and care transitions
2. Advance health equity
3. Improve access to dental care
4. Reduce food insecurity
5. Improve housing affordability, access, and quality

The majority of respondents felt that all of these priorities should be a focus in the coming years. However, when asked to rank the priorities by importance, the 2018 CHNA priorities continued to rise to the top.

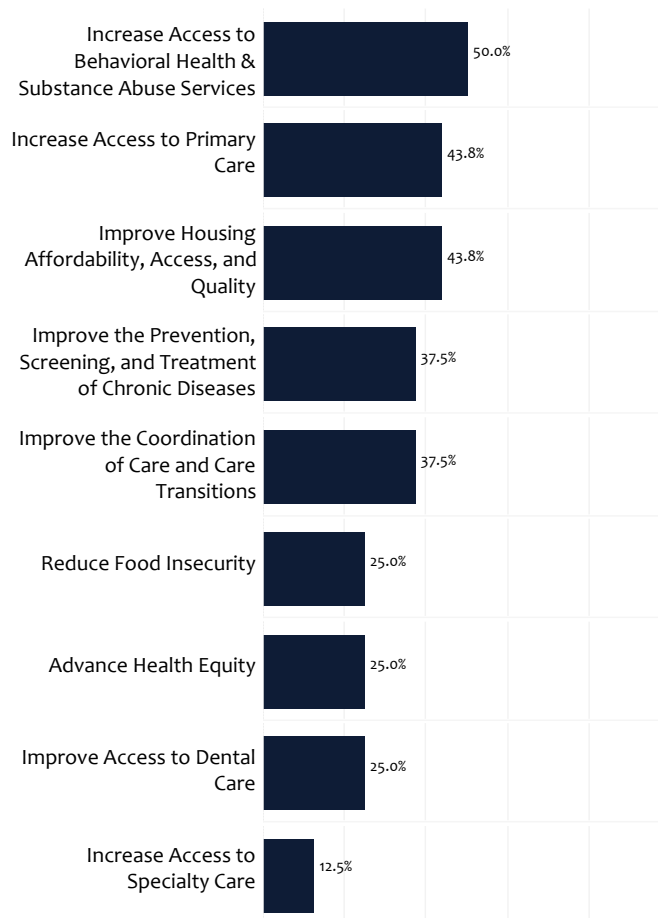
Specifically, the survey respondents were asked:

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

Community results from both Service Areas are depicted in **Figure 27**. Priorities for the community and Astria Health Management and Leadership is in **Figure 28**. As shown in **Figure 27** and **Figure 28** there is alignment between the community and the combined Astria Health and Community surveys in prioritizing improving access to behavioral health and substance abuse service and improving access to primary care. In addition, improve housing affordability, access, and quality also rose to the top for community leaders as 44% of community leaders prioritized this. Prioritization between the Sunnyside and Toppenish Service areas were consistent and as a result, only combined service area data is shown.

Respondents were also asked if there were other areas of health needs that were not addressed in the survey. The majority of “other” responses were actually related to existing priorities, with the several focused on behavioral health including the need for additional services as well as services focus on the family and youth. There was also a large focus on increase

Figure 27: Community Priorities



access, both primary care and specialty access for the community including expanded clinic hours. Additional comments received are below

Behavioral Health

- Targeted services towards the teen groups for mental health support/services.
- Mental health for children
- I think Urgent Care Centers with extended hours and primary care availability is critical. Especially in the current climate we are in.
- Behavioral health options for developmentally disabled / autistic. Families have a very difficult time accessing this support.
- Add more behavioral health beds

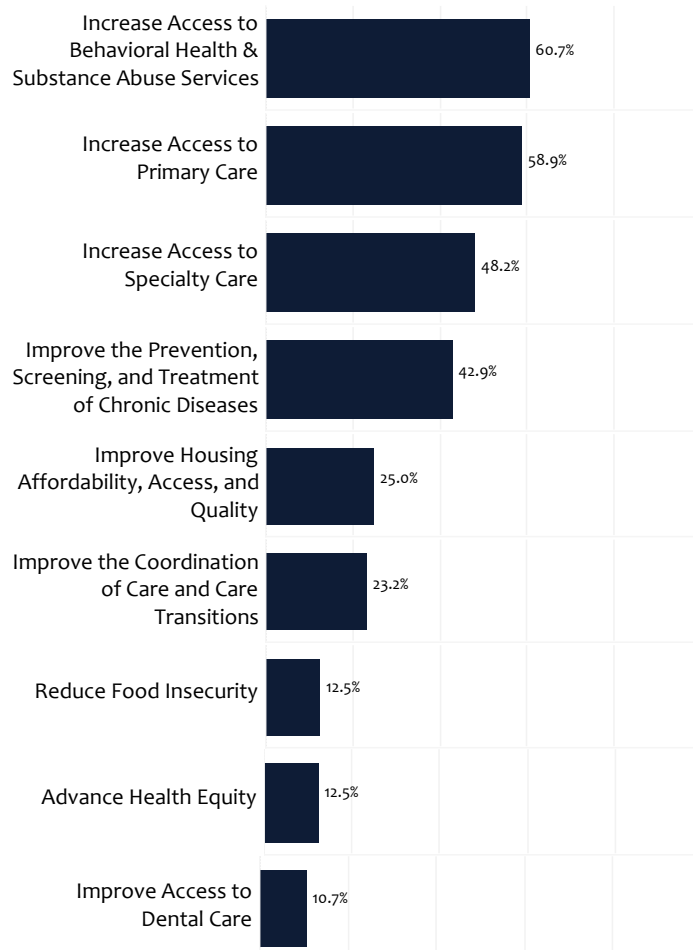
Access

- With the pandemic our population had a difficult time accessing care since they have very limited access to technology and many services all moved to a virtual platform. We had to adapt to find ways to assist these patients in being able to gain access to certain services.
- Increase of healthcare services available in the Toppenish area
- Our providers have declined since 2018. Specifically, our community has lost OB/GYN and Pediatric providers. We are in desperate need for General Surgeons
- Need to somehow draw in Primary Care Providers along with nurses
- Have more specialty providers
- Access to care in the evenings and on weekends, particularly Sundays, helps people who work multiple part-time jobs. This is something I have heard in the community from multiple sources.

Other Areas

- Transportation for patients, equal access for others than minorities.
- Transportation and transit to health care, food sources and other services is an unidentified, high need for the community.
- Training sites for students in training for careers in healthcare, work closer with PNWU, Heritage, WSU, and others to increase capacity and quality with the benefit that graduates will practice in Yakima County

Figure 28: Community and Astria Health Priorities Combined



- Reduce the number of infections at your hospital. Find staff that are nicer and work at getting people seen faster. The wait times at your ER are ridiculous.
- I believe the benefits are going to the wrong people who really don't need it but are abusing the system.
- Getting an honest 2nd opinion is difficult. It appears Dr's are not willing to have a different opinion in the Valley. Going to Seattle seems to be the only means for a 2nd opinion.
- Lack of medical care and treatment are often compounded by behavioral health diagnoses including substance use. Followed by a lack of primary care and the uninsured, care transitions can assist with this barrier.

COMMUNITY HEALTH PRIORITIES

Based on data collected from the Community Convening work, the following priorities were selected for each hospital to focus on over the next three years.

ASTRIA SUNNYSIDE HOSPITAL

1. Increase access to behavioral health and substance abuse services.
2. Improve access to care (primary and specialty)
 - a. Prevention, screening, and treatment of chronic diseases
 - b. Dental care
 - c. Care transitions and care coordination
3. Addressing social determinants of health
 - a. Housing affordability, access, and quality
 - b. Food insecurity

ASTRIA TOPPENISH HOSPITAL

1. Increase access to behavioral health and substance abuse services.
2. Improve access to care (primary and specialty)
 - a. Prevention, screening, and treatment of chronic diseases
 - b. Dental care
 - c. Care transitions and care coordination
3. Addressing social determinants of health
 - a. Housing affordability, access, and quality
 - b. Food insecurity
 - c. Provide training and increase efforts to improve health equity
 - d. Care transitions and care coordination

The community health needs identified for both organizations are in alignment with the community health needs identified by key stakeholders.

NEXT STEPS

Over the next several months Astria Health will develop an implementation plan for each of the prioritized community health needs. The implementation plan will be published in a separate report.

Consistent with 26 CFR § 1.501(r)-3, Astria Sunnyside Hospital and Astria Toppenish Hospital will both independently adopt an Implementation Strategy 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 each hospital's 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.

COMMUNITY FEEDBACK

Astria Health makes the Community Health Needs Assessment available to the public and welcomes feedback. The CHNA is available at the following locations, and on the websites listed below:

ASTRIA SUNNYSIDE HOSPITAL ADMINISTRATION

1016 Tacoma Avenue

Sunnyside, WA 98944

509-837-1500

<https://www.astria.health/locations/astria-sunnyside-hospital/>

ASTRIA TOPPENISH HOSPITAL ADMINISTRATION

502 W 4th

Toppenish, WA 98948

509-865-3105

<https://www.astria.health/locations/astria-toppenish-hospital/>