SOUTHERN COOS HOSPITAL & HEALTH CENTER

Community Health Needs Assessment

December 2020

Quality Healthcare with a Personal Touch

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“The definitive factors in determining whether someone is in good health extend significantly beyond access to care and include the conditions in their life and the conditions of their neighborhoods and communities.”— *John Auerbach, President, and CEO of Trust for America’s Health.*

EXECUTIVE SUMMARY

INTRODUCTION

Southern Coos Hospital & Health Center is pleased to present its 2020 Community Health Needs Assessment (CHNA). As federally required, this report provides an overview of the methods and process used to systematically identify and prioritize significant health needs in the Southern Coos Health District (SCHD) service area.

With the enactment of the Patient Protection and Affordable Care Act (PPACA) on March 23, 2010 tax-exempt hospitals are required to conduct community health needs assessments (CHNA) and develop implementation strategies, which are approaches and plans to actively improve the health of the community served by the hospital and health center. These strategies provide hospitals and health system with the information needed to deliver services that can be targeted to address the specific needs of the community. Coordination and management strategies developed based upon the outcomes of a CHNA, along with implementing those strategies can improve the impact hospital services have on population health.

To adhere to the requirements imposed by the IRS, Southern Coos Hospital & Health Center (SCHHC) must:

- Conduct a CHNA every three years.
- Adopt an implementation strategy to meet the community health needs identified through the assessment.
- Report how they are addressing the needs identified in the CHNA and provide a description of needs that are not being addressed, with the reasons why.

The Department of the Treasury and the Internal Revenue Service require a CHNA to include:

1. A description of the community served by the hospital facility and how the description was determined.
2. A description of the process and methods used to conduct the assessment.

   a. A description of the sources and dates of the data and other information used in the assessment and the analytical methods applied to identify community health needs.
   b. A description of the information gaps that impact the hospital organization's ability to assess the health needs of the community served by the hospital facility.
   c. Identification of organizations that collaborated with the hospital/health system and an explanation of their qualifications.
3. A description of how the hospital organization took into account input from persons who represent the broad interests of the community served by the hospital. In addition, the report must identify any individual providing input who special knowledge of or expertise in public health. The report must also identify any individual providing input who is a "leader" or "representative" of populations.
4. A prioritized description of all the community health needs identified through the CHNA, as well as a description of the process and criteria used in prioritizing such health needs.
5. A description of the existing health care facilities and other resources within the community available to meet the community health needs identified through the CHNA.
6. A description of the needs identified that the hospital intends to address, the reasons those needs were selected, and the means by which the hospital will undertake to address the selected needs

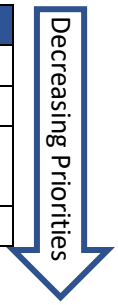
The goal of this report is to offer a meaningful understanding of the most pressing health needs across the SCHD service area, as well as to guide planning efforts to address those needs. This assessment makes an effort to implement a transparent and collaborative approach to understanding the needs and assets in the communities with an intention to render the highest level of accountability to all partner – present and potential. Findings from this report will be used to identify, develop, and target SCHHC strategies for the next three year to provide and connect residents with resources to improve health outcomes and the quality of life for the residents in the service area. Southern Coos Hospital & Health Center would like to thank all of the staff, partners, community members, and volunteers who contributed to this assessment.

SUMMARY OF FINDINGS

The CHNA findings in this report result from the extensive analysis of primary and secondary data sources. Primary data was collected from health professionals, community leaders, non-health professionals, community based organizations, community members and populations with unmet health needs and/or populations experiencing health disparities through the community survey and outreach, while national and state data sources were included in the secondary analysis.

Upon analysis of the data, it is clear that community health needs for the service area are comprised of additional factors beyond the provision of direct healthcare. Conditions (e.g. social, economic, and physical) in the service area resulting in the identified community health needs have strong linkages to the social determinants of health (ODPHP, 2020). Social determinants of health, the conditions in the environments in which people are born, live, learn, work, play, worship, and age, affect a wide range of health, functioning, and quality-of-life outcomes and risks. The CHNA identifies several factors affecting health and wellness in the community and provides information for SCHHC and stakeholders to build upon in turn providing a structure within which unmet population health needs are identified, prioritized, and addressed relative to the districts capacity and service area. Through examination of the primary and secondary data, the following top health needs were identified:

SOCIOECONOMIC NEEDS	DIRECT HEALTH NEEDS
Affordable Housing/Homelessness	Access to Primary Care
Access to Affordable Healthy Food	Behavioral Health – Mental Health
	Behavioral Health – Substance Misuse
	Nutrition Education/Obesity



PRIORITIZED AREAS

To thrive, everyone in the community needs the opportunity to live a long, healthy life, regardless of socioeconomic status. While biological makeup or genetics determine some health issues an individual will experience, socioeconomic factors, such as income, education, and employment opportunities can shape how people make decisions related to their health as well as the access they have to health care services. While Southern Coos Hospital & Health Center is committed to supporting environments that protect and promote the health and wellbeing of residents equitably issues related to direct health needs that offered the greatest opportunity for impact within the capacity and strategic focus of SCHHC were prioritized.

The following three encompassing topics were identified as priorities to address:

SOUTHERN COOS HOSPITAL & HEALTH CENTER PRIORITIES

- Access to Care
- Behavioral Health: Mental Health & Substance Use/Misuse
- Health Behaviors/Lifestyle

The primary motivation for choosing the selected priorities were the Health Professional Shortage Area (HPSA), Medically Underserved Area (MUA), and Medically Underserved Populations (MUP) designations of the rural community; the disruption of good quality of life or all residents due to substance abuse, untreated mental illness, and the loss of academic, social, and health opportunities for addicts; and, the broad opportunities to intervene at multiple settings to educate and inform patients and community members about health behavior and lifestyle as related to chronic disease and obesity linked to identified health problems. Additionally, priorities were selected based upon the recommendations of the community collected through the community health needs survey.

INTRODUCTION

SOUTHERN COOS HEALTH DISTRICT

The mission of the Southern Coos Health District is to provide quality healthcare with a personal touch. The guiding philosophy is that patients, families, visitors, and coworkers come first, with a focus on the values of serving others with genuine respect, compassionate caring and passionate execution of roles and responsibilities at the forefront of all interactions.

The Southern Coos Health District, originally formed in 1955 by public vote, is a municipal corporation organized under Oregon Statute. The current hospital facility was constructed in 1999 and opened its doors for service in December 1999 as a Critical Access Hospital (CAH). One of the premium goals of a CAH is to improve access to healthcare by keeping essential services in rural communities. SCHHC meets this goal through its provision of a 24/7 emergency department; surgical services; outpatient infusion and wound care; medical imaging services; laboratory services; respiratory therapy services; and, the Multi-Specialty Clinic (MSC) which provides primary care, internal medicine, and behavioral health care.

SERVICE AREA

The hospital serves residents and visitors in Southern Coos County and Northern Curry County. The primary service area is populated by approximately 16,000 residents, and includes areas of Bandon, Coquille, Port Orford and Langlois. The service area boundaries go East past Sitkum, South toward Illahe and North to Lakeside. The service area includes Coos County Oregon, which is comprised of approximately 64,487 (ACS, 2019) residents and Curry County Oregon, which has a population of approximately 22,925 (ACS, 2019) residents. The SCHHC service area serves approximately 18.3% of the population of Coos and Curry combined. This combined county area is 3,794 square miles along the Oregon Coast, and includes many notable geographic features including lakes, rivers, streams, and rugged and mountainous terrain. The service are stretches between the Oregon Coast Mountain Range and the Pacific Ocean, with many isolated rural communities scattered between hundreds of hills, valleys, waterways, and limited roads. Both Coos and Curry County are resignated as a rural county by the Oregon Office of Rural Health, and the Health Resources & Services Administration.

With the purpose of identifying and understanding population health needs and barriers in order to better align strategic investments; maximizing collective impact; stimulating

collaborative realtionships within the local public health system; and, fulfilling the responsibility entrusted to the hospital and health center as a tax supported healthcare district the Southern Coos CHNA Steering Committee has defined the service area as the aforementioned geographic area. As the health district service area crosses zip code, census tract, county, city, and village boundaries, data used to substantiate and quantify the community health needs are reflective of the entire county, city, zip code or census tract dependent on the data source.

Figure 1: Southern Coos Health District Service Area by City

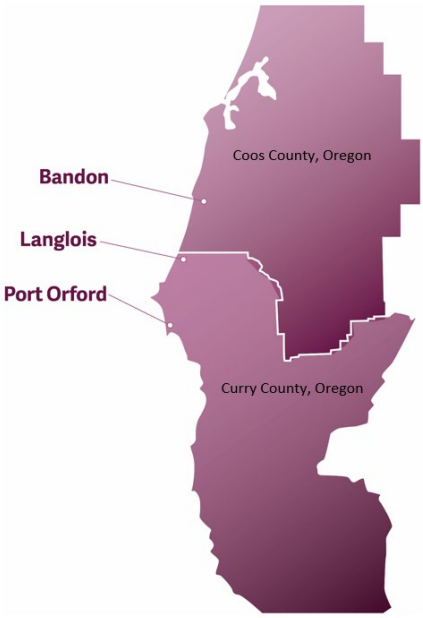
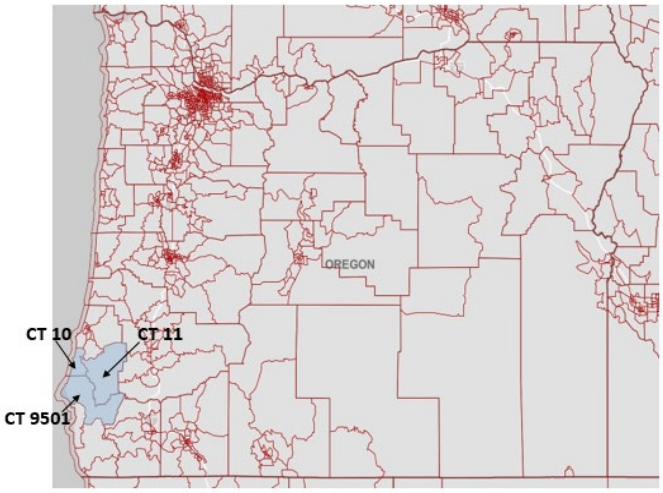


Figure 2: Southern Coos Health District Service Area by Census Tract



DISTRIBUTION OF CHNA REPORT

To meet the requirements of the IRS regulations 501(r) for charitable hospitals, hospitals are required to make the Community Health Needs Assessment (CHNA) and Implementation Strategy (IS) available publicly through print copies and on the internet. In keeping with these regulations, SCHHC has made available their hospitals' previous CHNA and Community Health Improvement Plan (CHIP/IS) to the public via the hospital website www.southerncoos.org/communityhealth, and will do so with the current CHNA/CHIP.

The website allows for members of the community to submit comments by phone or via e-mail. Paper copies were also made available at the main entrances to the hospital for previous CHNAs and will be again.

PREVIOUSLY IDENTIFIED AND PRIORITIZED HEALTH NEEDS

Figure 3: 2017 Community Health Improvement Plan Priorities & Strategies

All the health topics prioritized in the previous reports coincide with the significant health needs identified in this assessment.

METHODOLOGY

The SCHHC CHNA process follows a systematic seven-step process (figure 4) involving the community to identify and analyze community health needs and assets, prioritize those needs, and implement a plan to address significant unmet needs. Upon completing the assessment, SCHHC will develop a Community Health Improvement Strategy that outlines the implementation strategies available to address the significant community health needs identified in the CHNA and prioritized by the SCHHC CHNA Steering Committee. The assessment and improvement strategy process provides a structure for address the determinants of health and illness in the Southern Coos Hospital District and better prepares SCHHC for development of future strategic planning. The Association for Community Health Improvement (ACHI) framework and the National Association of City County Health Officials (NACCHO) Mobilization for Action thru Planning and Partnerships (MAPP) framework for completing a CHNA were utilized to in the development and completion of the methodology[1].

Step One: Organizing for Success

The "Organizing for Success" phase identifies who should be involved in the process, how to organize partnership involvement, and how the overall process will be organized. The project approach for the organize phase of the process included the following steps which occurred both concurrently and consecutively based on the resources needed to complete each step.

1. Obtaining Leadership Support and Developing the Assessment Steering Committee
2. Reflecting and Reviewing the Previous Assessment
3. Identify and Engage Stakeholders
4. Define the Community

Step Two: Assessing for Change

The "Assessing for Change" phase identifies the assessments and data collection done, along with the research methodology. The CHNA included a combination of quantitative demographic and health data as well as qualitative data that reflects the experiences, self-assessments, and

[1] The methodology utilized in completing the CHNA was utilized in the best way for the hospital and community based on the changing landscape of community engagement and social distancing as a result of the COVID-19 Public Health Emergency. While COVID-19 is presently at the forefront of conversations, has highlighted systemic inequities within the healthcare landscape, and changed the way providers, hospitals, health centers, and public health provide services it will not serve as the focal point of the SCHHC CHNA or Health Improvement Strategy.

opinions of community stakeholders. The data collected has been synthesized and summarized in this report to provide a picture of overall community health, and to highlight the particular health needs of the community.

Step Three: Identify Priority Health Needs

The “Identify Priority Health Needs” phase identifies the process the Steering Committee completed to distinguish the most pressing community health needs based on the data collected. The key components of the *identify* phase included the identification of criteria for prioritization and the selection of the community health priorities.

Step Four: Formulate Goals and Strategies

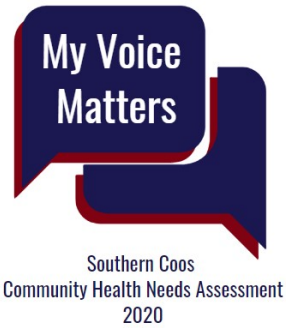
During the “Formulate Goals and Strategies” phase of the CHNA and Health Improvement Strategy process, the Steering Committee reviewed the strategic issues identified in the previous phase and formulated priority health need statements related to those issues. They, then, identified broad strategies for addressing the issues and achieving goals related to the community's vision. The result is the development and adoption of an interrelated set of strategy statements.

Developing comprehensive, multifaceted strategies to address the community health needs prioritized in the assessment is crucial to improving community health.

Step Five: Document and Communicate Findings to the Community

The "Document and Communicate Findings to the Community" phase includes the broad sharing of the results of the assessment with both internal and external audiences, providing an opportunity for the many key stakeholder organizations, partners, and the community at large to see the final product. The final CHNA report will serve as a reference point for future discussions and planning strategies to address community health needs. Key components of this step in the process include:

1. Publishing the CHNA process and results
2. Presenting the material in an accessible way
3. Publicizing the CHNA results
4. Engaging the hospital and community around results



Step Six: Taking Action for the Community

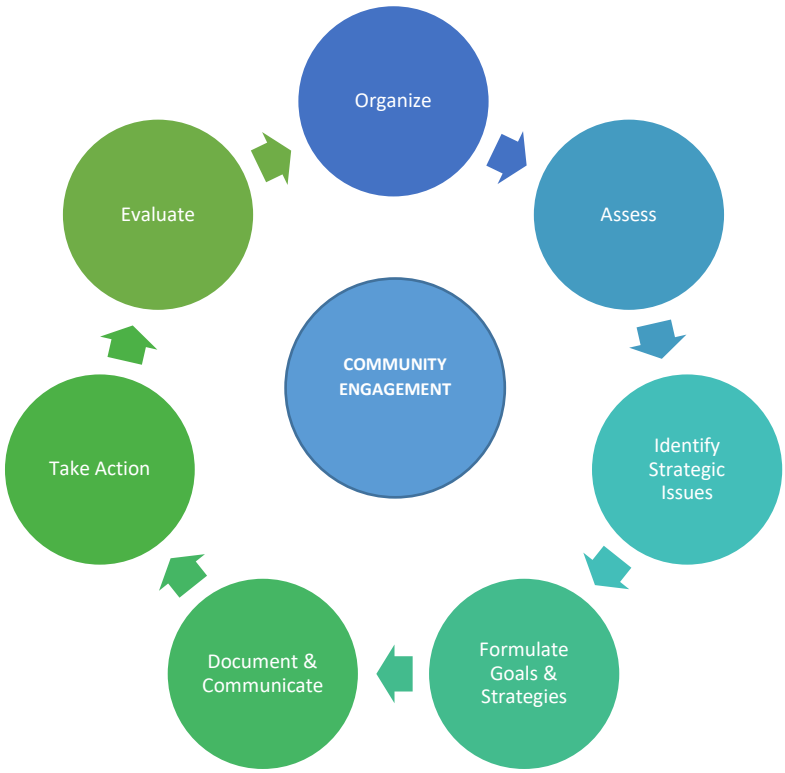
This step, "Taking action for the Community", puts into action the strategies selected and developed in previous phases to address prioritized community health needs. This is an ongoing collaborative process to improve population health by turning the identified strategies into concrete, actionable steps. While SCHHC cannot and will not be the driver for all initiatives and strategies identified, continued engagement in overall community activities, particularly as they relate to the social determinants of health, with the organizations and agencies that can, will

allow for improved monitoring of community health and the ability to leverage resources to increase collective impact.

Step Seven: Evaluating Action for Change

The final step in the CHNA process cycle, "Evaluating Action for Change" will be planned throughout the CHNA process to assess the impact of the strategies and progress toward goals. This step utilizes a modified version of CDC's evaluation guidelines, and will be a starting point to tailor the evaluation of the SCHHC community health improvement effort. Key components of the evaluation phase, which will be ongoing over the course of the next three years, prior to the next CHNA, include establishing the baseline; engaging stakeholders; focusing the evaluation design; gathering credible evidence; measuring progress on priorities early and often; justifying conclusions; using the results to improve or modify programs; and, communicating the results.

Figure 4: CHNA Process Cycle



SECONDARY DATA

The CHNA process for Southern Coos Hospital & Health Center included the collection and analysis of primary and secondary data. This CHNA report utilizes mostly secondary quantitative data; data that other organizations, federal and state agencies, statisticians, and epidemiologists have already gathered. While some data available and used is at the census tract level for the service area, there are data sources used that only reflect the county level.

Data Considerations

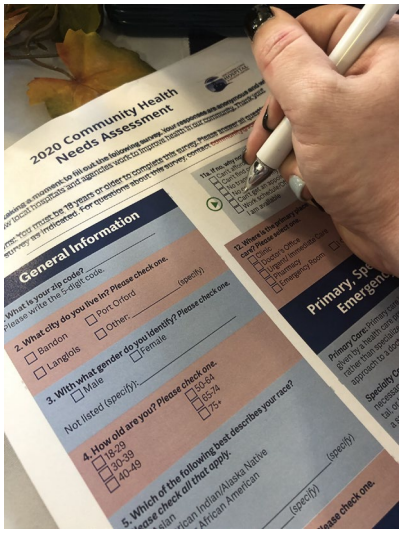
Several limitations of the data should be considered when reviewing the findings presented in this SCHHC CHNA report. While the topics by which the data has been organized cover a wide range of health and health-related areas, data availability varies by health topic. Some health and health-related topics are reflected in a robust amount of secondary data, while other are limited, or reflect limited subpopulations. Additionally, secondary data collected is representative of the community population as a whole, does not often represent the health or socioeconomic need that may be much greater for some subpopulations. Moreover, as much of the secondary data is collected by survey, and though specific methods are used to best represent the population at large, these measures are subject to instability, especially for smaller populations. Data related to services or quality of services, beyond Emergency Department (ED) utilization rates at the hospital and/or health clinic were not assessed as it is beyond the scope of this particular CHNA.

PRIMARY DATA METHODS AND ANALYSIS

The SCHHC CHNA process collected primary data for both public and private organizations, such as faith-based organizations, government agencies, educational systems, and health and human services entities, as well as from the community-at-large to assess the needs of the community. In total, the primary data collection phase resulted in more than 250 responses from community stakeholders/leaders and community residents.

Primary data collection strategy utilized Community Based Participatory Research (CBPR) methodology to collaboratively approach primary data collection in way that equitably involves all partners in the process, recognizes the unique strengths that each partner brings to the process, and facilitates collaborative partnership throughout the process (Minkler, Garcia, Rubin, Wallerstein, 2012) The principles of CBPR have been consistent throughout the entirety of the CHNA process including:

- Recognition of community as a unit of identity
- Encouragement and support for collaborative partnerships in all phases of the process
- Integration of knowledge and action for the mutual benefit of all partners
- Promotion of co-learning and empowerment that attends to social inequalities
- Involvement of cyclical and iterative processes
- Address of health from positive and ecological perspectives
- Dissemination of findings and knowledge gained to all partners (advisory and community)



Community Surveys

The conduction of community surveying was done in line with the following principles and engagement practices:

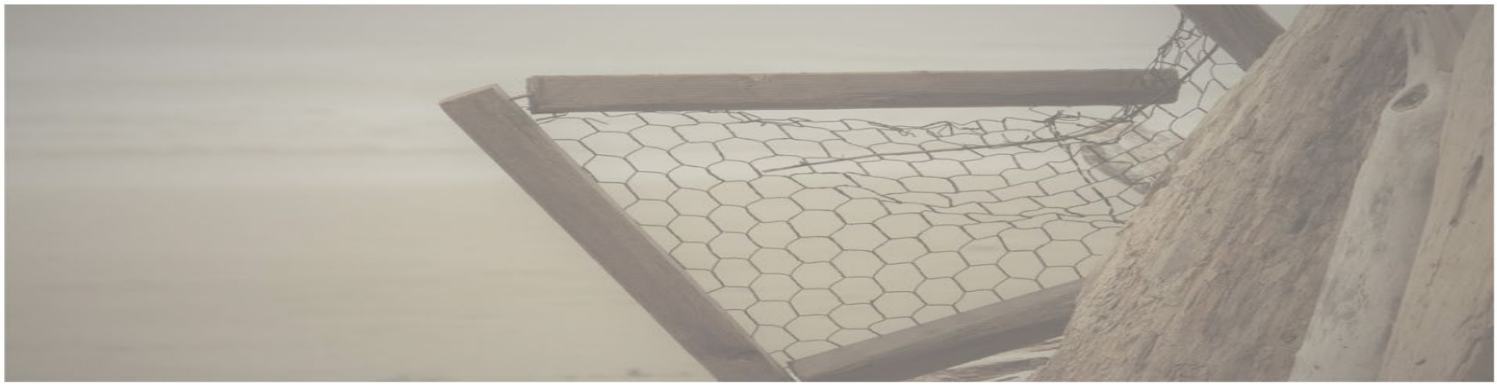
- Questions developed accurately and directly address what is being measured.
- The survey was kept to no more than 20 minutes to complete to reduce the time burden on respondents and increase response rate.
- The survey included only relevant and necessary questions.
- The survey limited health jargon; and, the steering committee ensured questions were culturally appropriate, were at an appropriate literacy level, were understandable, and elicited the desired responses.
- Respondents were assured of confidentiality.
- The collection of race, ethnicity, and language data was done in a culturally appropriate manner.

The CHNA Steering Committee determined the best places to distribute the survey to gain the most responses, and set an appropriate response rate goal based on previous CHNAs, community size, and public health emergency limitations. The survey was distributed where people live, work, and play, as well as to the patient population. It was widely advertised using social media, traditional media, and work of mouth. The CHNA Steering Committee and Hospital Leadership additionally engaged community leaders to encourage participation in the survey among their constituents.

A profile of survey respondents, the engagement of participants, and a summary of key findings is included later in this report.

Data Considerations

Several limitations of the primary data and data collection methodology should be considered when reviewing the findings presented in this SCHHC CHNA report. While the topics by which the data has been organized cover a wide range of health and health-related areas, respondent responses were limited. Additionally, primary data collected is representative of the community population as a whole, and does not often represent the health or socioeconomic need that may be much greater for some subpopulations. Moreover, as the data was collected by survey, these measures are subject to instability, especially for smaller populations. Community residents willing to be survey respondents may not fully reflect the subpopulations most at need of new or expanded services.



PROFILE OF THE SOUTHERN COOS HEALTH DISTRICT SERVICE AREA

Southern Coos Hospital & Health Center serves residents and visitors in Southern Coos, and Northern Curry Counties in Southwest Oregon. The primary services area is populated by approximately 16,000 residents, tens of thousands of visitors, and includes areas of Bandon, Coquille, Port Orford, and Langlois. The service area includes Coos County Oregon, which is comprised of approximately 64,487 (US Census Bureau. ACS, 2020) residents and Curry County Oregon, which has a population of approximately 22,925 (US Census Bureau. ACS, 2020) residents. The SCHHC service area serves approximately 18.3% of the population of Coos and Curry combined. This combined county area is 3,794 square miles along the Oregon Coast, and includes many notable geographic features including lakes, rivers, streams, and rugged and mountainous terrain. The service are stretches between the Oregon Coast Mountain Range and the Pacific Ocean, with many isolated rural communities scattered between hundreds of hills, valleys, waterways, and limited roads. The economy within the service area is based largly on tourism and recreation, resulting in economic concerns during the off season, as well as issues directly related to the cost and availability of year round housing. In addition, few markets and stores are available which makes transportation a necessity within the service area.

The following profile data reflects the three census tract (41011.11, 41011.10, 41015.9501) geographies, two county (Coos and Curry) geographies, three city (Bandon, Langlois, Port Orford) geographies; and numerous villages. As the health district service area crosses zip code, census tract, county, city, and village boundaries, data used to substantiate and quantify the challenges faced within the health district are reflective of the entire county, city, zip code or census tract dependent on the data source.

DEMOGRAPHIC PROFILE

Looking at census-tract level data for demographics provides the clearest overall picture of the service area and is categorized below to represent the gender, age, race, and ethnicity for the full time residents of the community served by the district and is based on American Community Survey (ACS) 5-Year estimates (US Census Bureau. ACS, 2020).

Figure 5: Population, Gender, Age, Race & Ethnicity Table

		CT 10, Coos County	CT 11, Coos County	CT 9501, Curry County
Total Population		7,238	6,013	2,715
Gender		49.7% male	48.5% male	53.5% male
		50.3% female	51.5% female	46.5% female
Age	**<19**	16.1%	19.6%	9.5%
	20-34	15.7%	12%	12.1%
	35-54	13.9%	17.3%	22.5%
	55-64	17%	23.8%	22.6%
	65+	36.5%	27.3%	33.4%
	Median Age	56.9	55.8	57.5
Race/Ethnicity (Race alone or in combination)	**White**	94.4%	96.5%	98.7%
	African American	0.5%	0.5%	1.2%
	American Indian	4.4%	8.0%	1.3%
	Asian/Pacific Islander	1.1%	0.4%	0.0%
	Hispanic/Latino	5.9%	2.4%	1.1%

Demographic trends are leading to rapid aging in many rural communities. Natural population growth tends to be lower, in-migration is slow, and young people tend to leave rural communities to seek education and job opportunities in more urban centers, only returning after families are created. Although the population of Oregon's rural counties will continue to grow, it is the nature of that growth that is concerning for the long-term economic outlook. According to a QualityInfo.org report on The Aging of Rural Oregon's Population and Workforce, the retirement age population grew by about 24% from 2010 to 2015, while the working age population (-3%) and the youth populations (-2%) both declined. With the decline of the working age population group, as workers age out of the labor force there will be fewer individuals to replace them. This leads to employers with increasing difficulties attracting and retaining the workers they need to fill vacancies. A tight housing market only compounds this issue further.

Population Outmigration and Population Loss

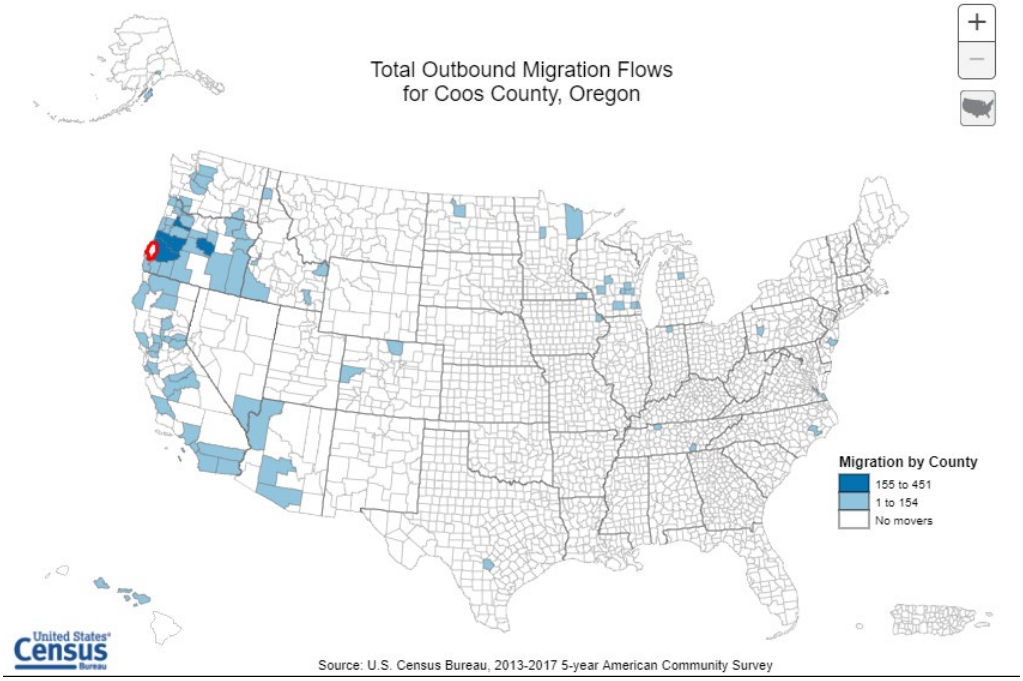
For the service area, population outmigration and population loss is greatest to Lane County, Coos County's largest population trading partner, the proximal county with the largest

population of college students and the location of frequently accessed specialty care providers, particularly in the areas of cardiology, urology, and dermatology. Anecdotally, this population trading could be ascribed to young people leaving for greater opportunities in the bigger city and older people retiring to the coast to raise families and take advantage of lower housing costs. There is additional net in-migration from California based largely on housing costs and out-migration to other Oregon counties.

According to population estimates from Portland State University's Population Research Center, all of the county's population increase from 2010 to 2018 was from net migration. During that time, Coos County had natural (births minus deaths) population decline of 2,235, but net migration totaled 2,467 new residents in Coos County. With the number of deaths outnumbering births, the population growth is exclusively from net migration, resulting in stable or slow population increase since 2010. Population reference bureau data for Coos County indicates a percent population change of 2.2% to Oregon's 9.2%, and 1.9% population change for Curry County with a net migration count of 1,956.

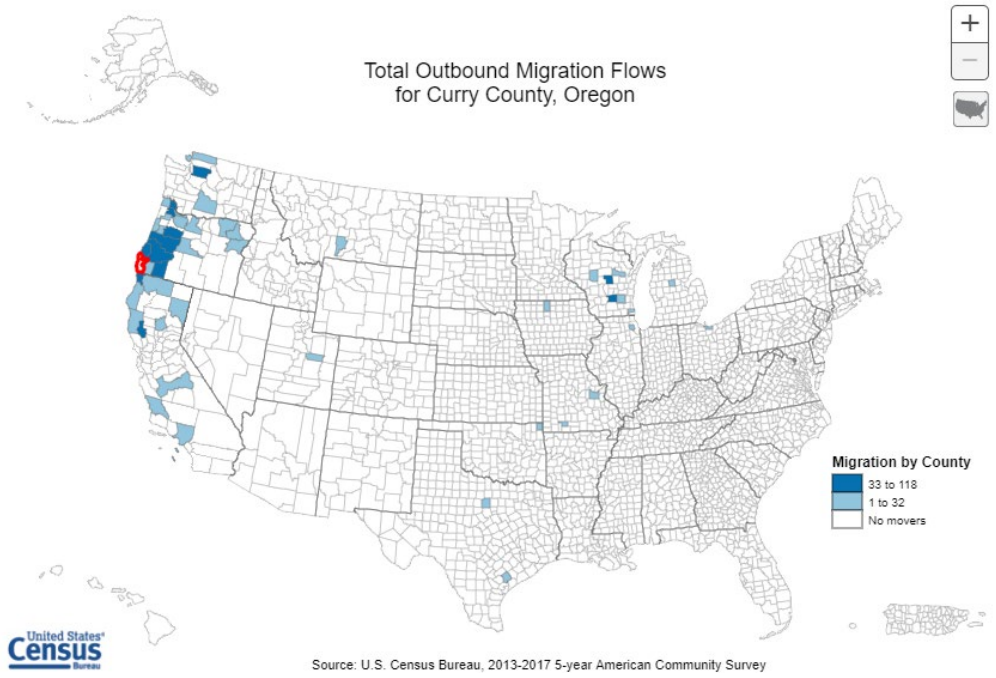
According to the US Census Bureau, ACS 5-year estimates for Coos County, based on the population over the age of one, there were 2,105 movers to the county from a different state, 1,213 movers to a different state, 1,426 movers from a different county in Oregon, and 2,474 movers to a different county in Oregon.

Figure 6: Outbound Migration Flows, Coos County



For Curry County, based on the population over the age of one, there were 1,821 movers to the county from a different state, 547 movers to a different state, 626 movers from a different county in Oregon, and 610 movers to a different county in Oregon.

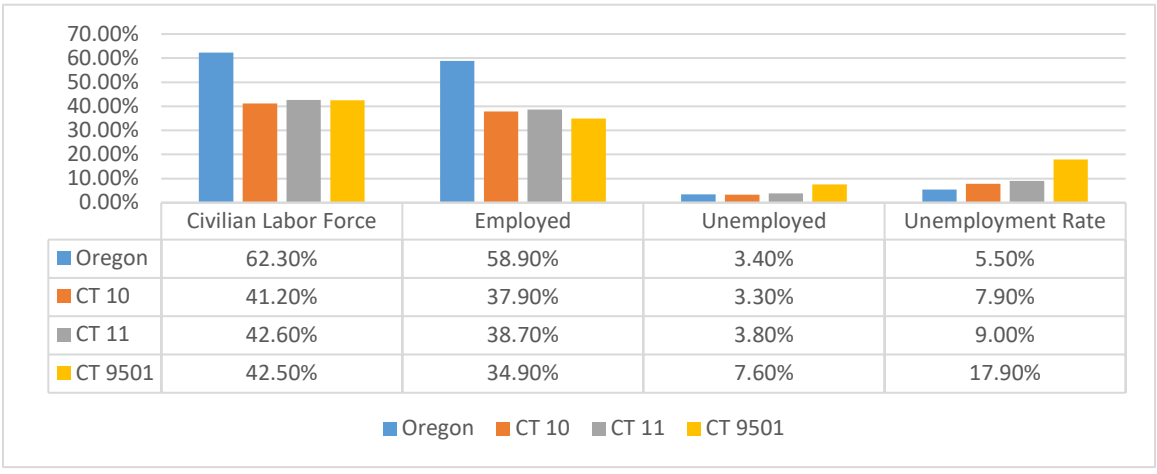
Figure 7: Outbound Migration Flows, Curry County



Employment

A high rate of unemployment has personal and societal effects. During periods of unemployment, individuals are likely to feel severe economic strain and mental stress. Unemployment is also related to healthcare access issues, as many individuals receive health insurance through their employer. Within the service area 37.90% (CT 10), 38.70% (CT 11), and 34.90% (CT 9501) of the population over the age of 16 is employed, as compared to 58.90% for Oregon (US Census Bureau. ACS, 2020).

Figure 8: Population 16 years and older, Employment Status



	Civilian Labor Force	Employed	Unemployed	Unemployment Rate
Oregon	62.30%	58.90%	3.40%	5.50%
CT 10	41.20%	37.90%	3.30%	7.90%
CT 11	42.60%	38.70%	3.80%	9.00%
CT 9501	42.50%	34.90%	7.60%	17.90%

Private wage and salaried workers make up the largest portion of the employed across all three census tracts, while Government workers, the self-employed in own business, and unpaid family workers constitute the remaining portions (US Census Bureau. ACS, 2020).

Figure 9: Class of Worker within Service Area

CLASS OF WORKER	Private Wage & Salaried	79%	74%	69.4%	63%
	Government Workers	13.6%	10.6%	19.8%	19.1%
	Self-Employed (own not incorporated business)	7.2%	15.4%	10.8%	17.4%
	Unpaid Family Workers	0.2%	0%	0%	0.5%

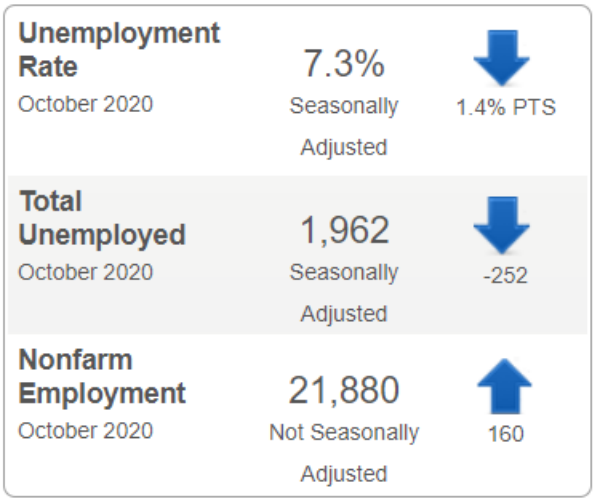
Figure 10 lists the occupations and industries that employ civilian populations 16 years and over across the service area and as compared to the state of Oregon.

Figure 10: Occupations and Industry within Service Area

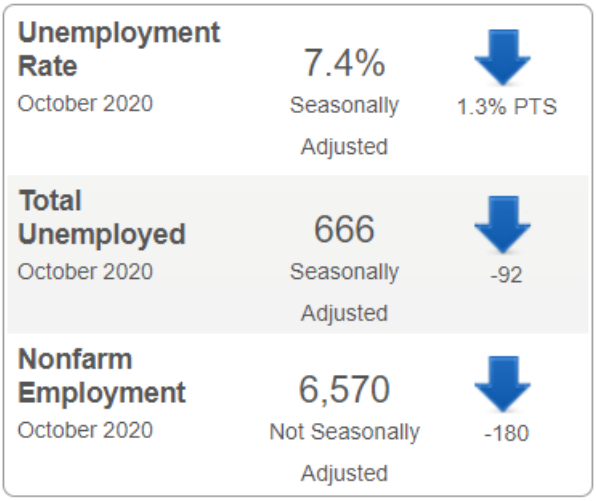
		Oregon	CT 10	CT 11	CT 9501
OCCUPATIONS	Management, Business, Science & Arts	39.4%	19.9%	28.9%	37.2%
	Service	18%	36.2%	21.7%	24.2%
	Sales & Office	21%	23.1%	14.1%	23%
	Natural Resources, Construction, & Maintenance	8.9%	9.4%	17.1%	5.3%
	Production, Transportation & Material Moving	12.7%	11.3%	18.2%	10.2%
INDUSTRY	Agriculture, Forestry, Fishing/Hunting & Mining	3.2%	4.6%	11.3%	9.0%
	Construction	6.2%	4.6%	10.3%	6.3%
	Manufacturing	11.3%	10.9%	13.1%	0.0%
	Wholesale Trade	2.7%	0.5%	0.3%	1.2%
	Retail Trade	11.6%	11.8%	6.7%	14.8%
	Transportation/Warehousing & Utilities	4.4%	2.5%	7.6%	10.1%
	Information	1.7%	1.8%	0.4%	5.8%
	Finance/Insurance & Real Estate/Rental/Leasing	5.5%	1.3%	1.8%	4.8%
	Professional, Scientific, Management, Administrative & Waste Management	11.2%	3.2%	6.6%	5.5%
	Educational Services, Health Care & Social Assistance	23.1%	23.9%	18.5%	14.6%
	Arts, Entertainment, Recreation, Accommodation & Food Service	9.8%	27.7%	7.8%	19.0%
	Other Services except Public Administration	4.7%	4.0%	7.2%	2.2%
	Public Administration	4.6%	3.2%	8.3%	6.7%

Service area rates of lower employment have been further compounded by the effects of the COVID-19 public health emergency (PHE), as seen by a review of State of Oregon Employment Department data, which reports that while the May 2019 seasonally-adjusted unemployment rate was only 5.1% for Coos County and 5.9% for Curry County, the May 2020 seasonally adjusted unemployment rate was 17.8% for Coos County and 17.3% for Curry County. These unemployment rates are well above the national rate of 13.3% and are among the highest in the state of Oregon. While this rate has decreased slightly over the course of the PHE the unemployment rate for October 2020, as seen in figure 11 below are still elevated.

Figure 11: Unemployment Rate for October 2020; Coos and Curry County



Oregon Employment Department, Unemployment Rate, Coos County



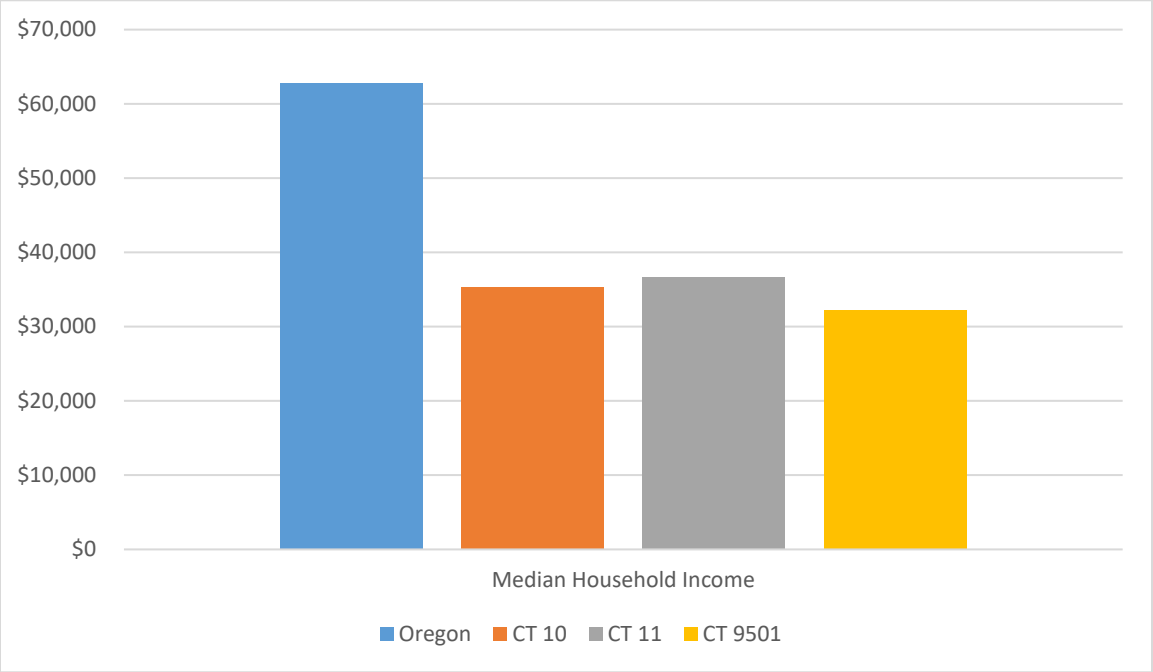
Oregon Employment Department, Unemployment Rate, Curry County

Income

Median household income reflects the relative affluence and prosperity of an area. Areas with higher median household incomes are likely to have a greater share of educated residents and lower unemployment rates. The Gini Index is a summary measure of income inequality. The Gini coefficient incorporates the detailed shares data into a single statistic, which summarizes the dispersion of income across the entire income distribution. The Gini coefficient ranges from 0, indicating perfect equality (where everyone receives an equal share), to 1, perfect inequality (where only one recipient or group of recipients receives all the income). The Gini is based on the difference between the Lorenz curve (the observed cumulative income distribution) and the notion of a perfectly equal income distribution (US Census Bureau, 2016). The Gini Index for Coos County is 0.47 and Curry County is 0.45; the difference of the two County scores from an even distribution of incomes points to a very small size population that has higher incomes that the rest of the county's residents (Policy Map. Kazmi, 2017). In terms of income inequality the state of Oregon ranks 23rd out of 50 (Economic Policy Institute, 2018). However, as the section below will illustrate, the service area has lower median income as compared to the rest of the state. Figure 12 compares the median household income values for the service area to the

median household income value for Oregon. The median household income for the service area census tracts is well below the median household income value of Oregon, in 2019 inflation-adjusted dollars (US Census Bureau. ACS, 2020).

Figure 12: Median Household Income Values



Additionally, the living wage calculation (MIT, 2020) for Coos and Curry County, as developed by the Department of Urban Studies and Planning at the Massachusetts Institute of Technology, shows the hourly rate that an individual in a household must earn to support his or herself and their family, with the assumption that the provider is working full-time (2080 hours per year). The table below provides information for individuals, and households with one or two working adults and zero to three children in the two counties that the service area is within. In the case of households with two working adults, all values are per working adult, single or in a family unless otherwise noted. For comparison, the table includes the poverty rate, converted to an hourly wage, as well as minimum wage for the state of Oregon.

Figure 13: 2020 Living Wage Calculations

		1 Adult				2 Adults (1 Working)				2 Adults (Both Working)			
	# of children	0	1	2	3	0	1	2	3	0	1	2	3
Coos County	Living Wage	$11.26	$25.25	$31.56	$40.69	$19.34	$24.15	$26.88	$31.23	$9.67	$14.08	$17.22	$21.16
	Poverty Wage	$6.00	$8.13	$10.25	$12.38	$8.13	$10.25	$12.38	$14.50	$4.06	$5.13	$6.19	$7.25
Curry County	Living Wage	$11.86	$26.18	$32.50	$42.04	$19.95	$25.08	$27.82	$32.58	$9.98	$14.55	$17.68	$21.83
	Poverty Wage	$6.00	$8.13	$10.25	$12.38	$8.13	$10.25	$12.38	$14.50	$4.06	$5.13	$6.19	$7.25
Oregon	Minimum Wage	$11.25	$11.25	$11.25	$11.25	$11.25	$11.25	$11.25	$11.25	$11.25	$11.25	$11.25	$11.25

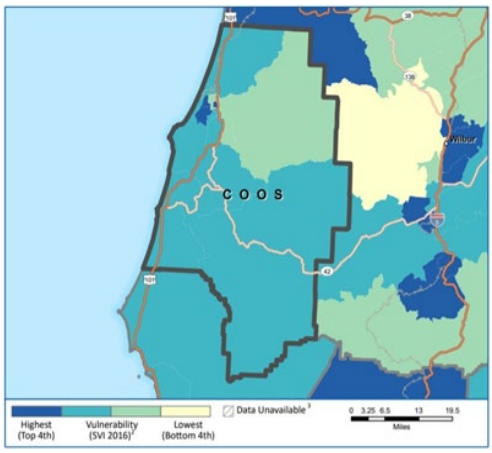
SOCIAL DETERMINENTS OF HEALTH PROFILE

Healthy People 2020 defines social determinants of health, the conditions in the environments in which people are born, live, learn, work, play, worship, and age, and that which affects a wide range of health, functioning, and quality-of-life outcomes and risks. The social determinants of health partly explain why some people are healthier than others, and generally why some people are not as healthy as they could be. Resources that address the social determinants of health and improve quality of life can have a significant impact on population health outcomes. Understanding the different social determinants of health within the service area can assist in identifying the drivers or root causes of health conditions and potential services that work to improve health disparities within the community. While SCHHC cannot and will not be the driver for all initiatives and strategies identified, continued engagement in overall community activities, particularly as they relate to the social determinants of health, with the organizations and agencies that can, will allow for improved monitoring of community health and the ability to leverage resources to increase collective impact.

This section explores the social and economic determinants of health across the service area. These social determinants and other factors help build the context of the service area to allow for better understanding of the results of both the primary and secondary data.

Social vulnerability (Agency for Toxic Substances and Disease Research, Centers for Disease Control, 2016), which refers to the community's capacity to prepare for and respond to the stress of hazardous events, groups fifteen census-derived factors into four themes that summarize the extent to which the area is socially vulnerable to disaster. The factors include economic data as well as data regarding education, family characteristics, housing, language ability, ethnicity and vehicle access. As counties with higher social vulnerability scores have and continue to express greater mortality rates during the COVID-19 pandemic, SCHHC can utilize the data available within the Social Vulnerability Index (Agency for Toxic Substances and Disease Research, Centers for Disease Control, 2016) to identify the vulnerability scores for the census tracts the district provides services for. The overall SVI score for the three census tracts within the service area are .7101 (CT 41011.10), .7126 (CT 41011.11), and .7014 (CT 41015.9501) all of which are indicative of a moderate to high level of vulnerability to disaster.

Figure 14: Social Vulnerability Index Score – Coos County

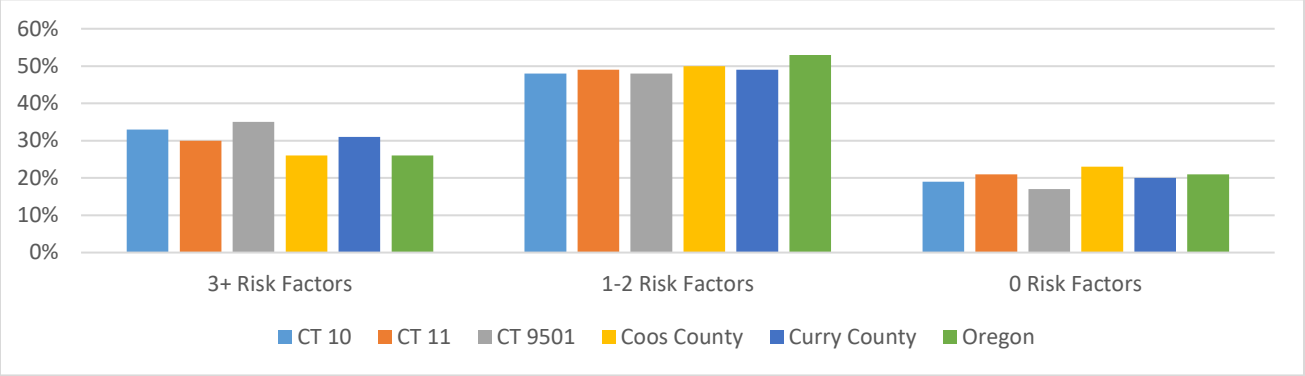


Further, the US Census Bureau's Community Resilience estimates (Bureau, 2018), modeled from individual and household characteristics collected from the 2018 American Community Survey (ACS), in combination with publicly-available data from the 2018 National Health Interview Survey (NHIS), provides tract level estimates on the community resilience. Resilience in this context reflects the capacity of individuals and households to absorb, endure, and recover from the health, social, and economic impacts of a disaster.

ACS-defined risk factors for household and individuals include income-to-poverty ratios; single or zero caregiver household where one or no individuals living in the household are 18-64; unit level crowding; communications barriers wherein individuals are linguistically isolated or where no one in the household has a high school diploma; employment status; disability posing constraint to significant life activity; health insurance status; age over 65; and, health conditions including serious heart condition, diabetes, and emphysema or current asthma.

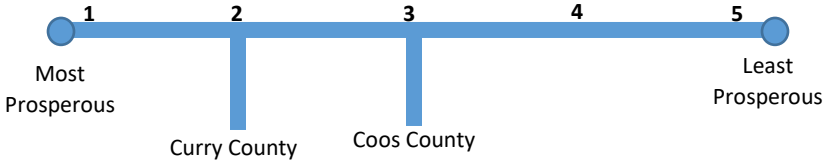
Variation in individual and household characteristics are determining factors in the differential impact of a disaster, such as the current COVID-19 pandemic. For a service area with a higher percentage of 3+ risk factors than the rest of the state, withstanding and recovering from the COVID-19 pandemic will be a substantial and substantiated challenge. As demonstrated in Figure 3, the three Census Tracks in the Southern Coos Health District have 3+ risk factors, as do Coos and Curry Counties, from which Southern Coos Hospital serves many community members.

Figure 15: Risk Factor Profiles



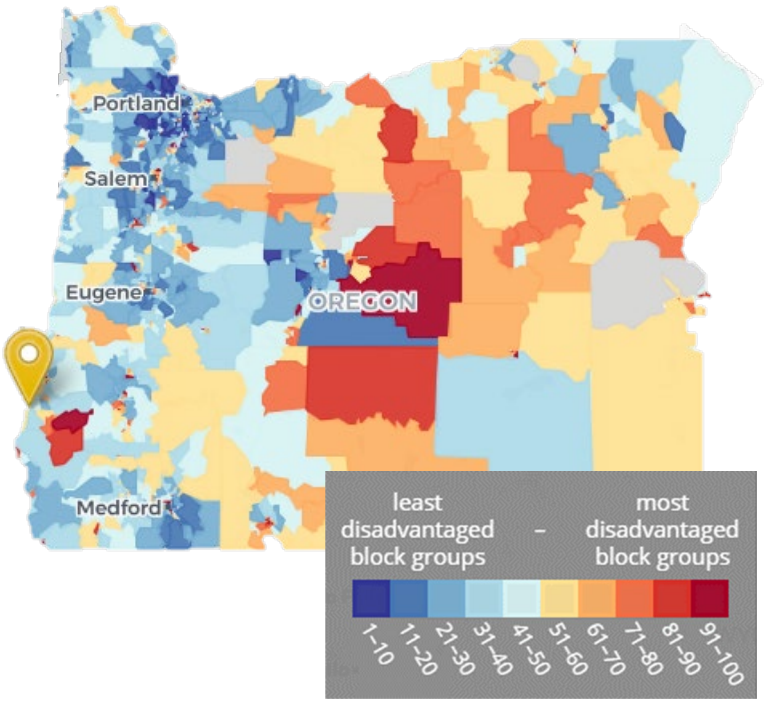
Finally, the Prosperity Index (USDA & Chicago, 2014-2018), developed with support from a Technical Expert Panel convened by USDA Rural Development, provides a single numerical measure on a scale of 1-5, designed to reflect the prosperity of a county. For Coos County, the overall prosperity index score is 3, while for Curry County the overall prosperity index score is slightly better at 2.

Figure 16: Prosperity Index Score



The vulnerabilities and social determinant of health related challenges of the service area can also be seen in the Area Deprivation Index (ADI) (BroadStreet, 2018) scores for the two counties the service area is a part of. The ADI is an area-based single number score (scaled as a percentage) that combines 17 indicators of socioeconomic status (SES) to measure an area's deprivation calculated using US Census Bureau American Community Survey Data 5-year estimates. The ADI identifies vulnerable populations with a higher risk of poor health outcomes, such as cardiovascular disease, cancer, increased hospitalizations, and higher mortality rates, all of which have a direct impact on the economy of the service area. A higher ADI score or percentage indicates a higher deprivation with the national average at the 50th percentile.

Figure 17: Area Deprivation Index, Oregon



A review of the service area indicates that the entire area as a whole is in the 68th percentile based largely on the 32% of the population that is living below 150% poverty, and the 13% of families living in poverty. While this is reflective of the entirety of the service area, review of the map to the left, with the location of the hospital itself, pinned, shows a service area with block groups in the highest percentile for being disadvantaged, and with no areas below the 41st percentile.

Poverty

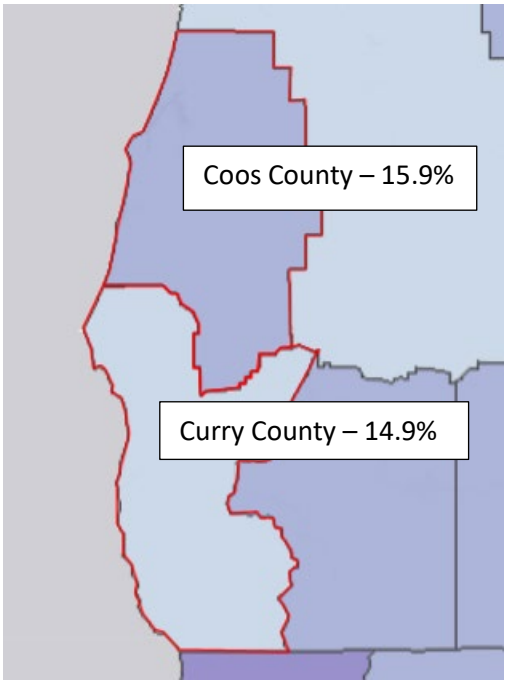
In 2020, the federal poverty guideline was $26,200 for a family of four (US Department of Health and Human Services, 2020). Federal assistance programs use the guidelines, or percentage multiplies of the guidelines (e.g. 125 percent or 200 percent of the guidelines) in

determination of eligibility for federally funded programs like Head Start, the Supplemental Nutrition Assistance Program (SNAP), the National School Lunch Program, and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).

Per capita personal income for Coos County in 2018, the most recent data available from the Bureau of Economic Analysis was $43,620, only 86% of the Oregon state average, and 80% of the national average. Per capita personal income for Curry County in 2018 was $42,657, only 84% of the Oregon state average and 78% of the national average.

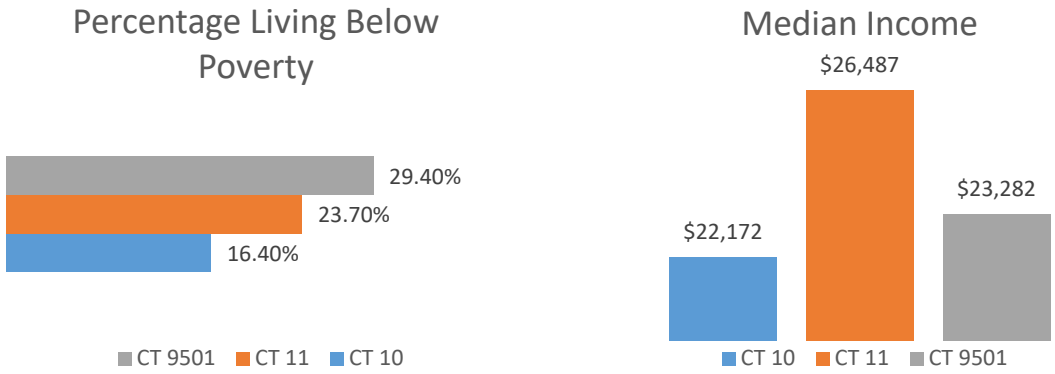
The percentage of people living in poverty in Coos County is 15.9% with a median income of $48,352, and the percentage of people living in poverty in Curry County is 14.9% with a median income of $48,788 according to Small Area Income and Poverty Estimates (SAIPE) data.

Figure 18: Percentage of People Living in Poverty (SAIPE Rate)



While, looking at the percentage of people living below the poverty line and the median income within the specific district service area is much higher according to the American Community Survey and the SVI, see figures below for the SVI rates of percentage living below poverty and the median income for the service area by census tract.

Figure 19: Percentage Living Below Poverty & Median Income (SVI Data)



United for Alice, a program of the United Way, provides framework, language, statistics and tools that reflect the percentage of the population that are Asset Limited, Income Constrained, and Employed (ALICE). These are households that earn more than the Federal Poverty Level, but less than the basic cost of living for the county (the ALICE Threshold) (ALICE, 2020). While conditions have improved for some, many continue to struggle, especially as wages fail to keep pace with the cost of household essentials (housing, childcare, food, transportation, health care, and a basic smartphone plan). ALICE households are forced to make tough choices, such as deciding between quality childcare, paying the rent, or going to the doctor, all of which have long-term consequences not only for ALICE but also for all. The following ALICE profiles for Coos and Curry County utilizes US Census Bureau, American Community Survey Data for analysis.

Figure 20: 2018 ALICE County Profile, Coos and Curry

ALICE IN COOS COUNTY

2018 Point-in-Time-Data

Population: 63,308 **Number of Households:** 26,640

Median Household Income: $43,308 (state average: $63,426)

Unemployment Rate: 7.7% (state average: 5.0%)

ALICE Households: 32.0% (state average: 32.0%)

Households in Poverty: 17.0% (state average: 12.0%)

ALICE IN CURRY COUNTY

2018 Point-in-Time-Data

Population: 22,507 **Number of Households:** 10,440

Median Household Income: $46,396 (state average: $63,426)

Unemployment Rate: 8.0% (state average: 5.0%)

ALICE Households: 33.0% (state average: 32.0%)

Households in Poverty: 14.0% (state average: 12.0%)

The budget needs for ALICE household also differ by household type and location. The figures below reflect budget comparisons between household type and location for Coos and Curry County and how they compare to the Federal Poverty Level.

Figure 21: ALICE Budget Comparison, Coos County

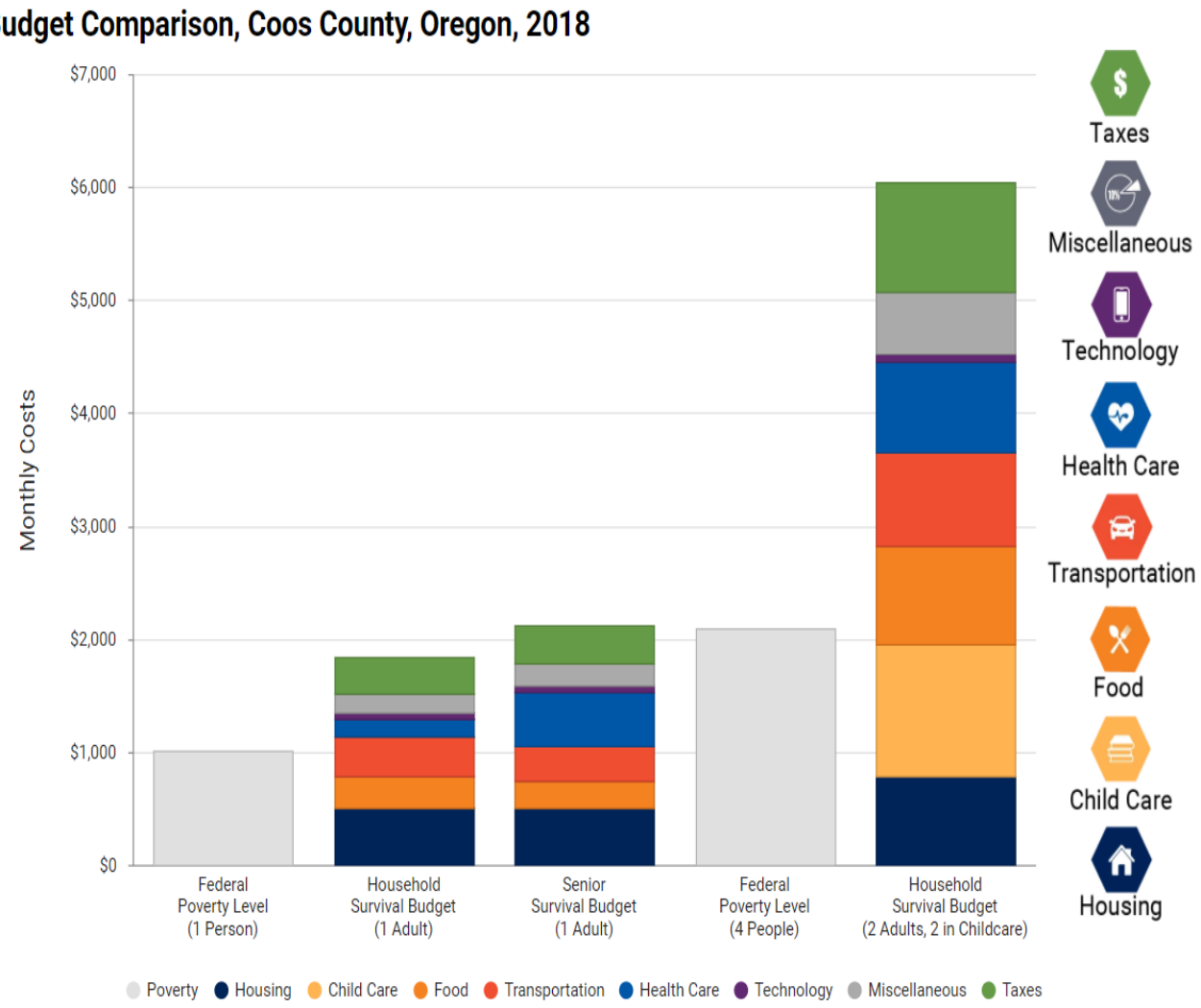
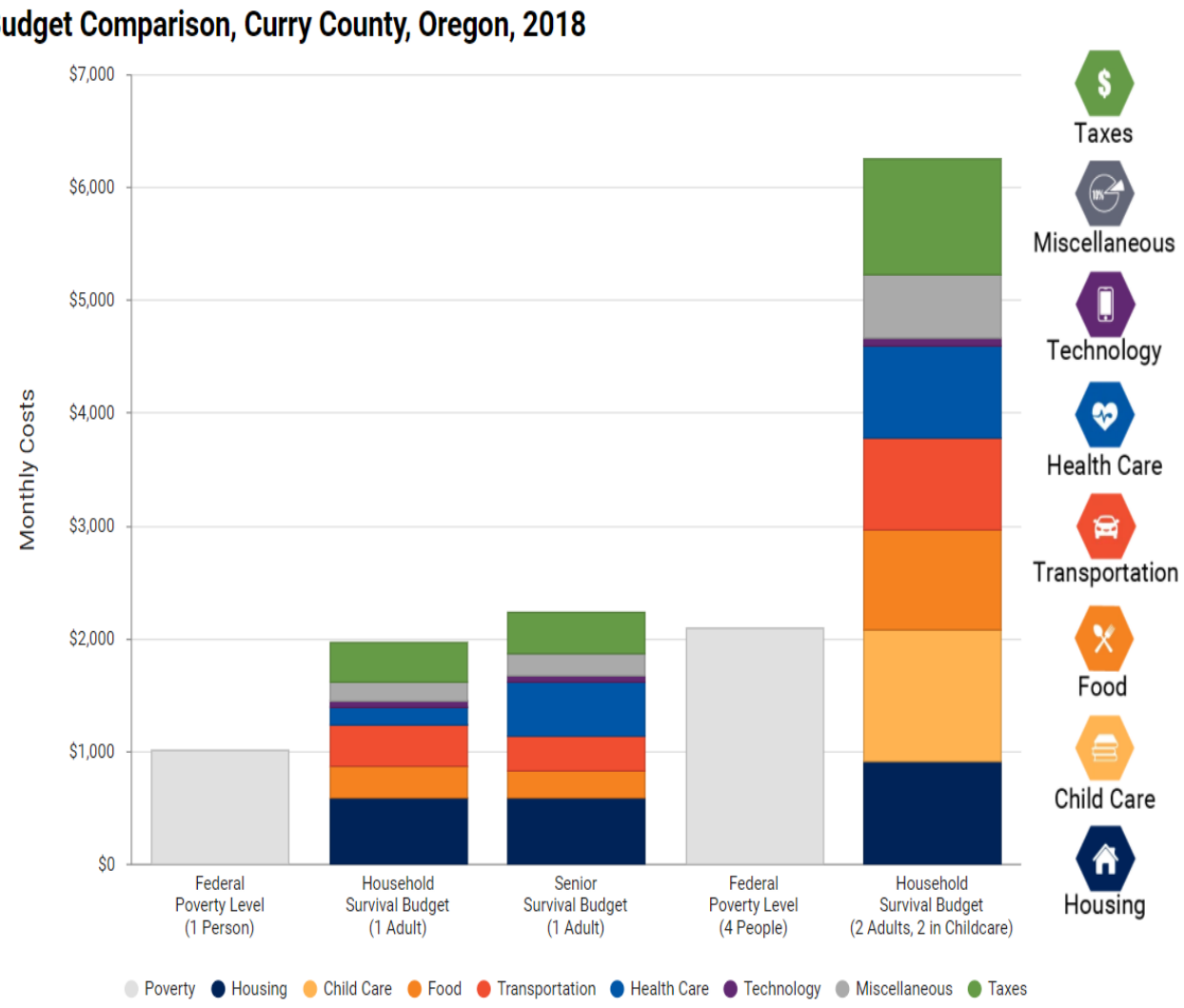


Figure 22: ALICE Budget Comparison, Curry County

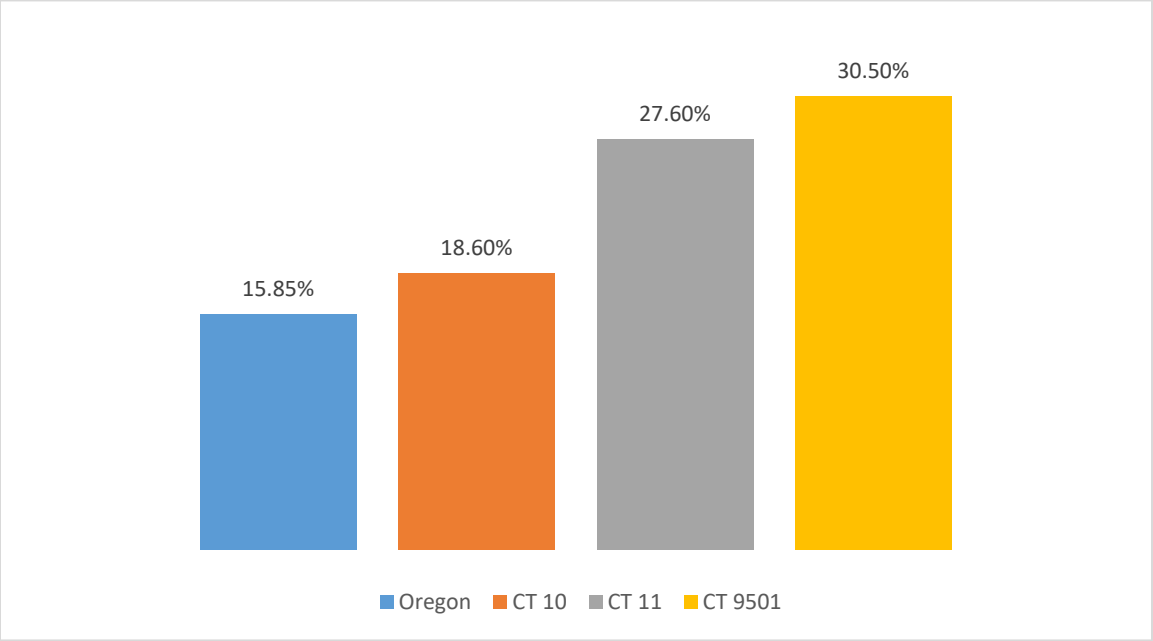


Food Insecurity

Food insecurity is defined as the disruption of food intake or eating patterns because of lack of money and other resources. The U.S. Department of Agriculture (USDA) defines food insecurity as limited or uncertain availability of nutritionally adequate foods or uncertain ability to acquire these foods in socially acceptable ways. Food insecurity, and the resulting hunger, is associated with disability, lack of adequate employment and racial and ethnic disparities. It leads to intake of nutritionally deficient but high calorie foods that cause obesity, diabetes, heart disease, high blood pressure, and hyperlipidemia. Food assistance programs, such as the National School Lunch Program (NSLP), the Women, Infants, and Children (WIC) program, and the Supplemental Nutrition Assistance Program (SNAP) address food insecurity in vulnerable populations by delivering food benefits.

Per the American Community Survey, Figure 23 reflects the percentage of the service area with Food Stamp/SNAP benefits (in the past 12 months) based on 2019 inflation-adjusted dollars (US Census Bureau. ACS, 2020). This amount does not reflect Public Health Emergency based increases in families utilizing governmental food assistance.

Figure 23: Percentage with Food Stamp/SNAP benefits



The maximum income level of a family of 4 to qualify for Oregon SNAP benefits is $34,060 gross income (that is, before taxes) (Benefits.gov, 2020). Paradoxically, earning even marginally more money than the SNAP eligibility limit disqualifies families from receiving benefits though the marginal income increase will not make healthy food options more affordable.

Children exposed to food insecurity are of particular concern given the implications scarce food resources pose to a child's health and development. Recent research from Children's HealthWatch on the associations of food insecurity and hunger with child health, growth, and development, as reported by Feeding America (Feeding America. Cook& Jeng, 2020), identified several distinct themes, concerns, and effects of child hunger and food insecurity:

- Hungry children are sick more often, and more likely to have to be hospitalized (the costs of which are passed along to the business community as insurance and tax burdens);
- Hungry children suffer growth impairment that precludes their reaching their full physical potential;
- Hungry children incur developmental impairments that limit their physical, intellectual and emotional development;
- Hungry children ages 0-3 years cannot learn as much, as fast, or as well because chronic undernutrition harms their cognitive development during this critical

period of rapid brain growth, actually changing the fundamental neurological architecture of the brain and central nervous system;
- Hungry children do more poorly in school and have lower academic achievement because they are not well prepared for school and cannot concentrate;
- Hungry children have more social and behavioral problems because they feel bad, have less energy for complex social interactions, and cannot adapt as effectively to environmental stresses;
- Workers who experienced hunger as children are not as well prepared physically, mentally, emotionally or socially to perform effectively in the contemporary workforce;
- Workers who experienced hunger as children create a workforce pool that is less competitive, with lower levels of educational and technical skills, and seriously constrained human capital.

Looking further at the data substantiating food insecurity challenges faced by families within the service area, shows that 60% (Niche, 2019/2020) of children attending school in the Bandon School District are eligible for free or reduced lunch, while 63% (Niche, 2019/2020) of children attending school in the Port Orford-Langlois School District are eligible for free or reduced lunch. [The Income Eligibility Guidelines, as set by the USDA, for free meals and milk and reduced price meals were obtained by multiplying the year 2019 Federal income poverty guidelines by 1.30 and 1.85, respectively, and by rounding the result upward to the next whole dollar.]

Food insecurity additionally has a direct correlation to increased healthcare costs. As reported by Feeding America (Feeding America, 2016), the additional healthcare costs when compared to the costs incurred by food-secure adults for the 7,520 Coos County adults who are food insecure is $12,163,901, while the additional healthcare costs for the 2,730 Curry County adults who are food insecure is $3,967,280. This analysis by Feeding America reviews healthcare costs, including payments made by private insurers, Medicaid, Medicare, and other sources for clinic visits, emergency department visits, inpatient hospitalizations, prescription medications, and durable medical equipment. These estimates represent the total amount of healthcare costs incurred, which may or may not be paid out-of-pocket.

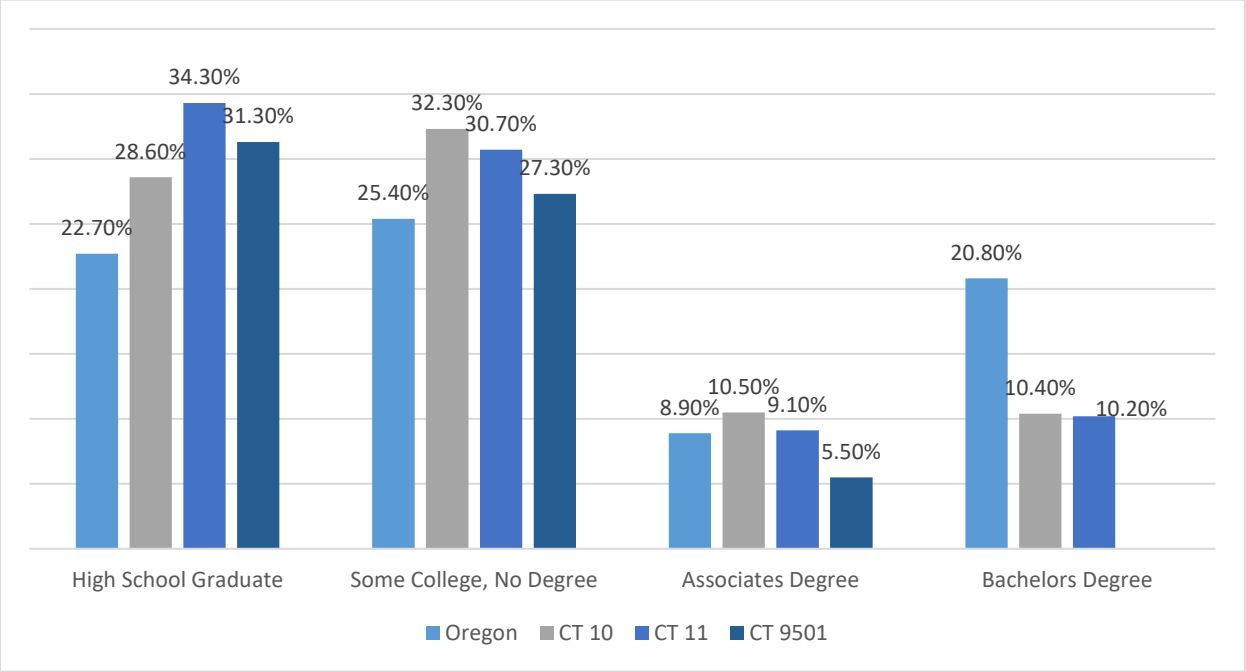
Education

Educational attainment is one of the key factors that affects the health status of a community. It can influence employment and income, influence health behavior and health seeking, and determine the ease with which a person can access and navigate the health system.

Figure 24 displays the education attainment for the population 25 years and over across the service area (US Census Bureau. ACS, 2020). Over half the population in each of the census tracts in the service area has a high school degree or some college with no degree. Notably, there is a large difference between the proportions of the service area population with a

bachelor's degree compared to the Oregon state value except for with in Census Tract 9501 in Curry County which is better aligned with the Oregon value.

Figure 24: Educational Attainment for Population Age 25+

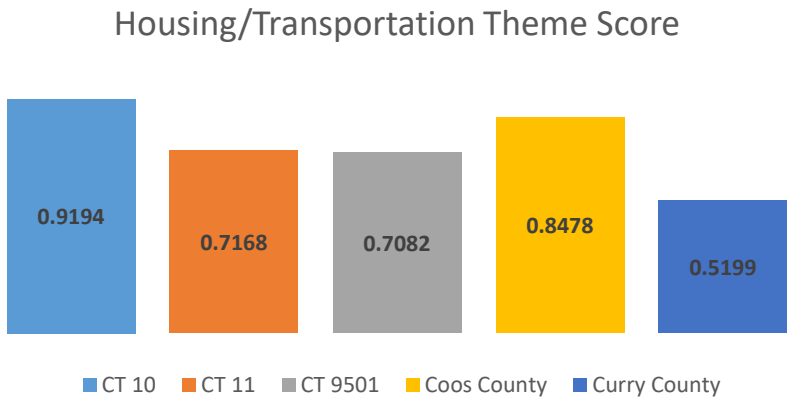


Transportation

Public transportation offers mobility, particularly to people without cars. Transportation is interrelated with other social determinants of health such as poverty, social isolation, access to education and racial discrimination. Transit can help bridge the spatial divide between people and jobs, services, and training opportunities. Public transportation also reduces fuel consumption, minimizes air pollution, and relieves traffic congestion.

Vulnerable areas of the community have populations with limited access to healthcare based on numerous barriers including transportation, as reflected in the high housing and transportation theme score of the SVI (Agency for Toxic Substances and Disease Research, Centers for Disease Control, 2016), see figure 25, which indicates high incidence rates for multi-unit structures, mobile homes, overcrowding, lack of vehicle rates, and group quartering for the county and within the identified census tracts. Possible SVI scores range from 0 (lowest vulnerability) to 1 (highest vulnerability).

Figure 25: SVI Housing and Transportation Theme Score



According to the County Health Rankings and Roadmaps (RWJF & Wisconsin, 2019) profiles, the percentage of individuals in Coos and Curry County who drive alone to work is 77%, higher than the 72% for the state of Oregon, while the percentage of individuals who commute in their car alone, with a commute longer than 30 minutes is 18% for Coos, 17% for Curry, and 29% for the state. As traffic density is not a major issue in either rural county, the percentage of commuters with a long commute is reflective of the distance traveled to get to work, the rate of speed one can travel on primary and secondary roads, and the special transportation barriers of mountains and fog.

Using the hospital itself as the center point for the service area, the following table accounts for the distance a community member must travel to access the county seat of Coquille, the county's largest town of Coos Bay (pop. 16,415) in Coos County and Brookings in Curry County, as well as the six most utilized providers of other or specialty care by people living in the Southern Coos Hospital District.

Figure 26: Distance to Target Locations

Target Location	Distance/miles	Time/minutes
Coquille	19	28
Coos Bay	25	34
Brookings	82.4	102
Coquille Valley Hospital	19.3	32
Bay Area Hospital	27	37
Lower Umpqua Hospital - Reedsport	50	70
OHSU Medical – Portland	254	271
PeaceHealth Riverbend – Springfield	142	167
Mercy Medical - Roseburg	87	106

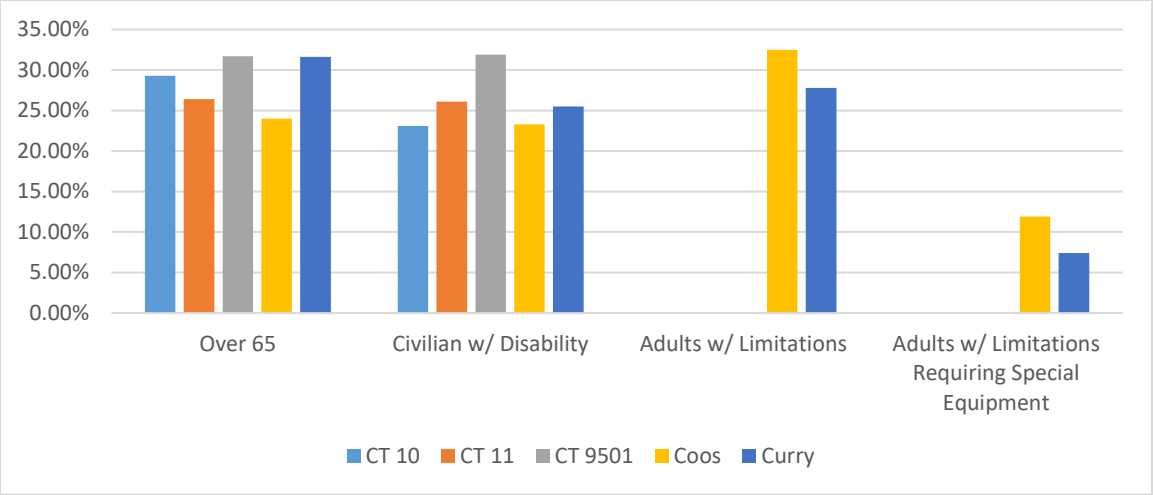
While the distance needed to travel to access services, including specialty care, is a challenge, as evidenced by the distance and the time it takes to travel, the percentage of the service area for the Southern Coos Hospital District without a motor vehicle is 8%, measured by occupied housing unit as part of the ADI (BroadStreet, 2018) score. While public transportation is available within the service area, it is neither comprehensive nor reliable. Public transportation is provided by Curry Public Transit in Curry County and CCAT Dial-a-Ride in Coos County, neither of which provide full time transportation to all areas. Figure 27 reflects transportation characteristics for the US Census Bureau American Community Survey 2020 for the service area.

Figure 27: Transportation Characteristics

		Oregon	CT 10	CT 11	CT 9501
COMMUTING TO WORK (Workers 16 years and over)	Population Estimate	1,940,955	2,386	1,836	834
	Car, Truck or Van – Drove Alone	71.7%	79.0%	67.3%	65.7%
	Car, Truck or Van – Carpooled	9.8%	5.3%	16.0%	13.4%
	Public Transportation (excluding taxicab)	4.5%	0.0%	0.1%	1.3%
	Walked	3.7%	8.9%	5.7%	5.6%
	Other Means	3.2%	0.0%	0.3%	0.6%
	Worked from Home	7.0%	6.7%	10.7%	13.3%
	Mean Travel Time to Work	23.9	13.2	30.2	21.8

Challenges reflected by the time and distance of travel to access services are also compounded by the percentage of the service area over the age of 65 and the percentage of the service area with a disability, including adults with limitations and adults with limitations requiring special equipment. Figure 28 reflects the additional travel factors for the service area by census tract and/or county.

Figure 28: Factors/Limitations affecting Transportation

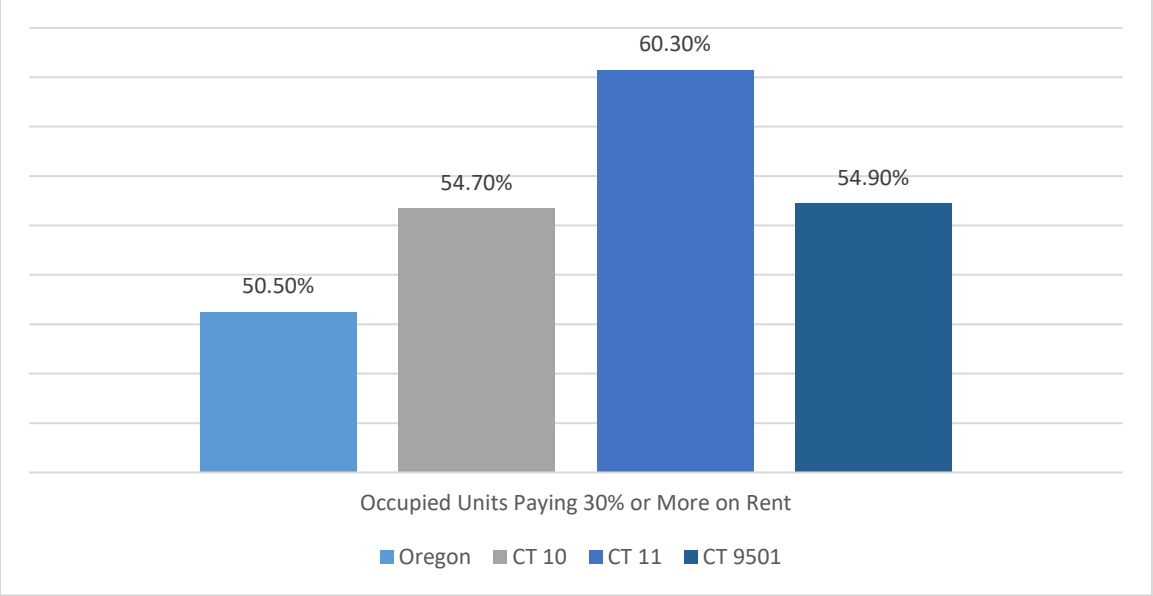


Housing

With a limited income, paying a high rent may not leave enough money for other expenses such as food, transportation, and medical. The five year average between 2013 – 2017 data shows that the median gross rent was $914 (US Census Bureau, 2019). Moreover, high rent reduces the proportion of income a household can allocate to savings each month.

Figure 29 shows renters spending 30% or more of household income on rent in the service area. Overall, the population in each of the census tracts spend 30% or more of their household income on rent. This is greater than the Oregon value of 50.5% (US Census Bureau. ACS, 2020).

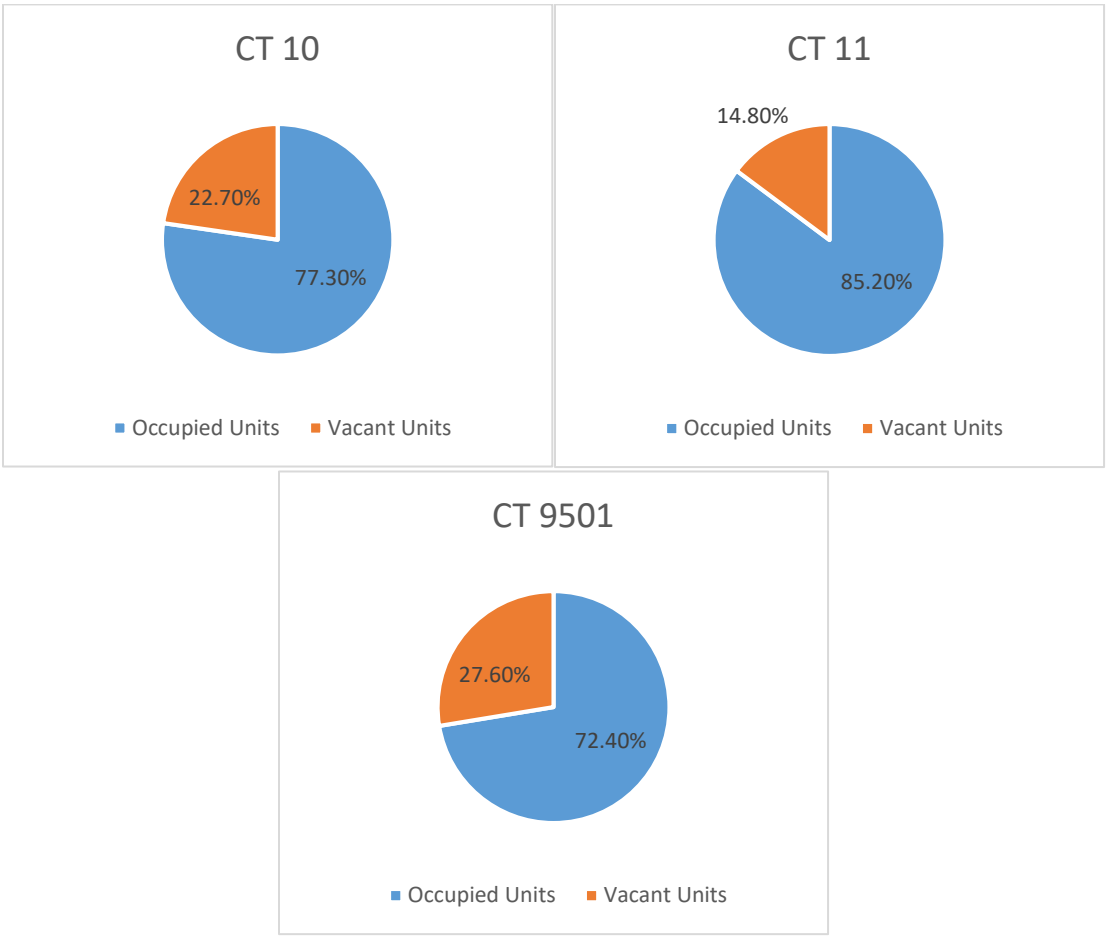
Figure 29: Gross Rent as a Percentage of Household Income



Additionally, key Findings of the Bandon Housing Needs Assessment (South Coast Development Council, 2018), has established that there is need for an additional 423 affordable/subsidized rental units within the service area.

While the need for new affordable and/or subsidized housing within the service area is clear, social determinants of health related to housing and the economy are also represented by the occupied vs. vacant unit housing characteristics. Across the service area there are at least 14.80% vacant units, as compared to 8.9% of vacant units in Oregon (US Census Bureau. ACS, 2020).

Figure 30: Service Area Housing Characteristics – Occupied vs. Vacant Units

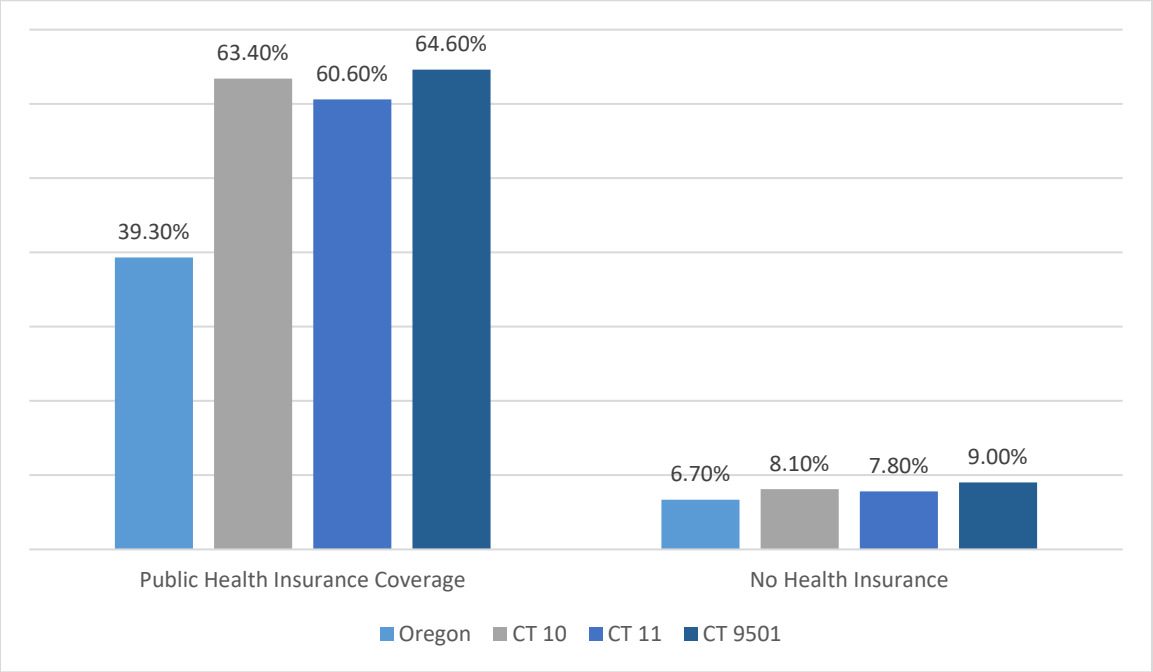


Access to Healthcare

Access to health is the most important factor in determining health outcomes and includes coverage, physical access, health literacy and relationships of trust with physicians (Office of Disease Prevention and Health Promotion, 2019).

The 2019 ACS five year estimate profiles report that the percentage of the service area with public insurance coverage, is almost double the Oregon rate of 39.3% for public coverage, and that the rate of individuals with no insurance is notably higher that the Oregon rate of 6.7%.

Figure 31: Civilian, Noninstitutionalized Persons with Public or No Health Insurance Coverage



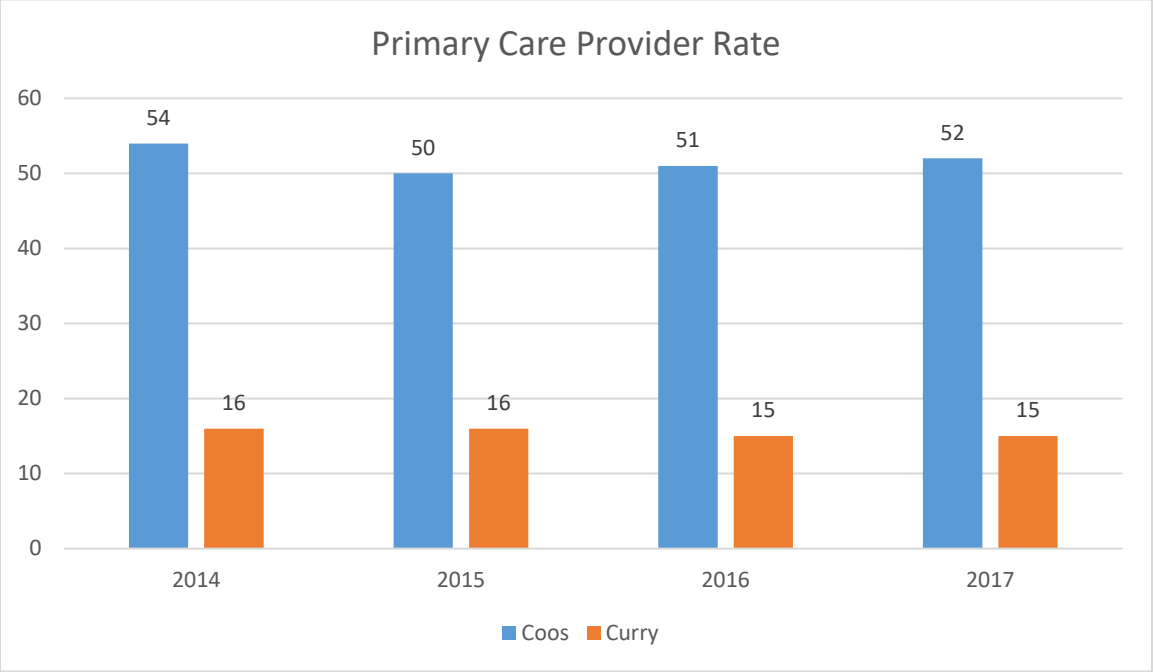
Access to primary care providers increases the likelihood that community members will have routine checkups and screenings. Moreover, those with access to primary care are more likely to know where to go for treatment in acute situations. Communities that lack a sufficient number of primary care providers typically have members who delay necessary care when sick and conditions can become more severe and complicated.

The service area of the Southern Coos Healthcare District is a designated Health Professional Shortage Area (HPSA) for both Mental Health and Primary Care, and the District is entirely rural. It is a high need geographic HPSA for mental health, specifying a shortage of services for the entire population within the service area, as well as a low income population HPSA for primary care, specifying a shortage of services for the specific low income population subset within the service area (46.3% of the population of the service area). Additionally, the service area is a Medically Underserved Area (MUA), with Medically Underserved Populations (MUPs), as designated by HRSA. The service area is designated as a MUA by HRSA due to too few primary care providers, high poverty and a high elderly population. It is designated as an MUP for low income populations as there is a shortage of primary care health services for the low income population subset within the geographic area. As these groups may face economic, cultural, or linguistic barriers to health care alleviation of burdens and barriers directly related to access and provide direct health and economic benefits to the population.

The rural nature of the service area, and areas like it have a direct correlation to the lack of providers for a multitude of reasons including desires to live in or proximal to urban areas; difficulty in maintaining a private personal life; burnout; concerns on the sustainability of a practice; and, concerns related to insurance and reimbursement rates. According to the Merritt Hawkins' 2019 Survey of Final-Year Medical Residents, only 1% of doctors in their final year of medical school say they want to live in communities under 10,000; only 2% want to live in towns of 25,000 or fewer (Hawkins, 2019).

Access to primary care shown in Figure 32 describes the primary care provider rate in Coos and Curry Counties (County Health Rankings, 2020). While low based on the needs of the population, and possibly reflective of the more populous cities within in each county (Coos bay in Coos County; Brookings in Curry County) the primary care provider rate has remained roughly stagnant across all four time periods. Other professionals can serve as usual sources of routine, preventative care, including nurse practitioners (NP), physician assistants (PA), and clinical nurse specialists. The ratio of Other Primary Care Providers in Coos County is 1056:1, while in Curry County the rate is 951:1.

Figure 32: 2014-2017, Number of Primary Care Providers by County



HEALTH PROFILE

The service area includes one hospital, one rural health clinic, one federally qualified health clinic, and zero school health clinics. Additionally, there is no regular school nurse for any of the schools in the service area. Further review of healthcare resources, primarily practitioners in the service area based on FTE, highlights deficits in the number of General Practice Physicians, Obstetricians/Gynecologists, Pediatricians, Surgeons, and Specialty Care Providers, particularly

those specializing in Cardiology, Urology, and Dermatology. While there are Licensed Counselors and Social Workers providing services in the service area, there are no Psychiatrists or Psychologists.

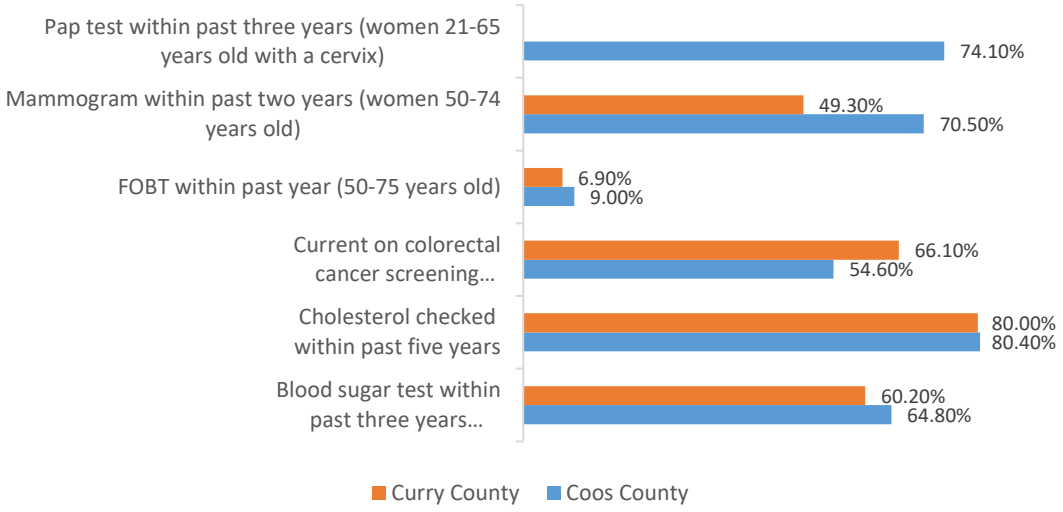
County-level community member data regarding health-related risk behaviors, chronic health conditions, and the use of preventative services collected via the Behavioral Risk Factor Surveillance System (BRFSS) (CDC & OHA, 2017) has identified that the unadjusted, as opposed to age adjusted rate of adults in Coos and Curry County with chronic diseases are 67% and 60.1% respectively; and, the unadjusted rate with one or more risk factors including current cigarette smoking, current smokeless tobacco user, high blood pressure, high blood cholesterol, obesity or no physical activity outside of work within past month are 89% (Coos) and 83% (Curry).

Specific chronic disease rates as of the most recent (2017) BRFSS survey in Coos County are 34.3% for arthritis, 24.7% for depression, 14.5% for asthma, 14.4% for diabetes, 14.0% for cardiovascular disease, 10.9% for cancer survivors, 10.3% for chronic obstructive pulmonary disease, 7.0% for coronary heart disease or angina, 7.3% for heart attack, and 4.8% for stroke. Specific chronic disease rates in Curry County are 39.5% for arthritis, 19.6% for depression, 14.2% for cancer survivors, 12.7% for asthma, 12.2% for cardiovascular disease, 11.9% for diabetes, 10.9% for chronic obstructive pulmonary disease, 7.7% for heart attack, 4.6% for coronary heart disease or angina, and 4.0% for stroke.

Specific health risk and protective factor rates, including obesity, cigarette smoking, alcohol consumption, physical activity, sugar-sweetened beverage consumption, high blood cholesterol, high blood pressure, reducing salt intake, fruit and vegetable consumption, and physical activity, for Coos County are 45.1% for adults with high blood cholesterol, 46.5% with high blood pressure, 24.2% with no physical activity outside of work within the month prior to survey, 13.8% who meet CDC guidelines for both aerobic and muscle strengthening activities, 26.1% who have received medical advice to reduce salt intake, and 38% obesity. Specific health risk and protective factor rates for Curry County are 41.4% for adults with high blood cholesterol, 37.4% with high blood pressure, 23.6% with no physical activity outside of work within the month prior to survey, 15.7% who have received medical advice to reduce salt intake, and 31.9% obesity.

Though chronic disease rates and health risk factors are high, community members in Coos and Curry County are accessing preventative services as evidenced in the health screening rates (CDC & OHA, 2017) below. While these rates may indicate positive healthcare access rather than challenges, when we analyze other data, a more accurate and realistic picture of the region's barriers arises. A lack of providers, particularly those in necessary specialty care disciplines, result in community members who have been screened but may not be accessing the specialty care they need, as frequently as they need, or who have to travel far outside of their relative proximity perhaps putting themselves at risk.

Figure 33: Health Screening Rates by County



According to the University of Wisconsin Population Health Institute and Robert Wood Johnson Foundation County Health Rankings and Roadmap Snapshots (RWJF & Wisconsin, 2019), Coos County ranks 27th out of 35 counties for Health Outcomes, 29th for Length of Life, 20th for Quality of Life, 31st for Health Behaviors, and 25th for Clinical Care; while Curry County ranks 19th out of 35 counties for Health Outcomes, 21st for Length of Life, 18th for Quality of Life, 12th for Health Behaviors, and 24th for Clinical Care. The indicators of particular interest in reviewing the healthcare challenges that frame the need for the development of an expanded telehealth network within the service area for Coos and Curry County are outlined in the following table.

Figure 34: Commu

			Oregon

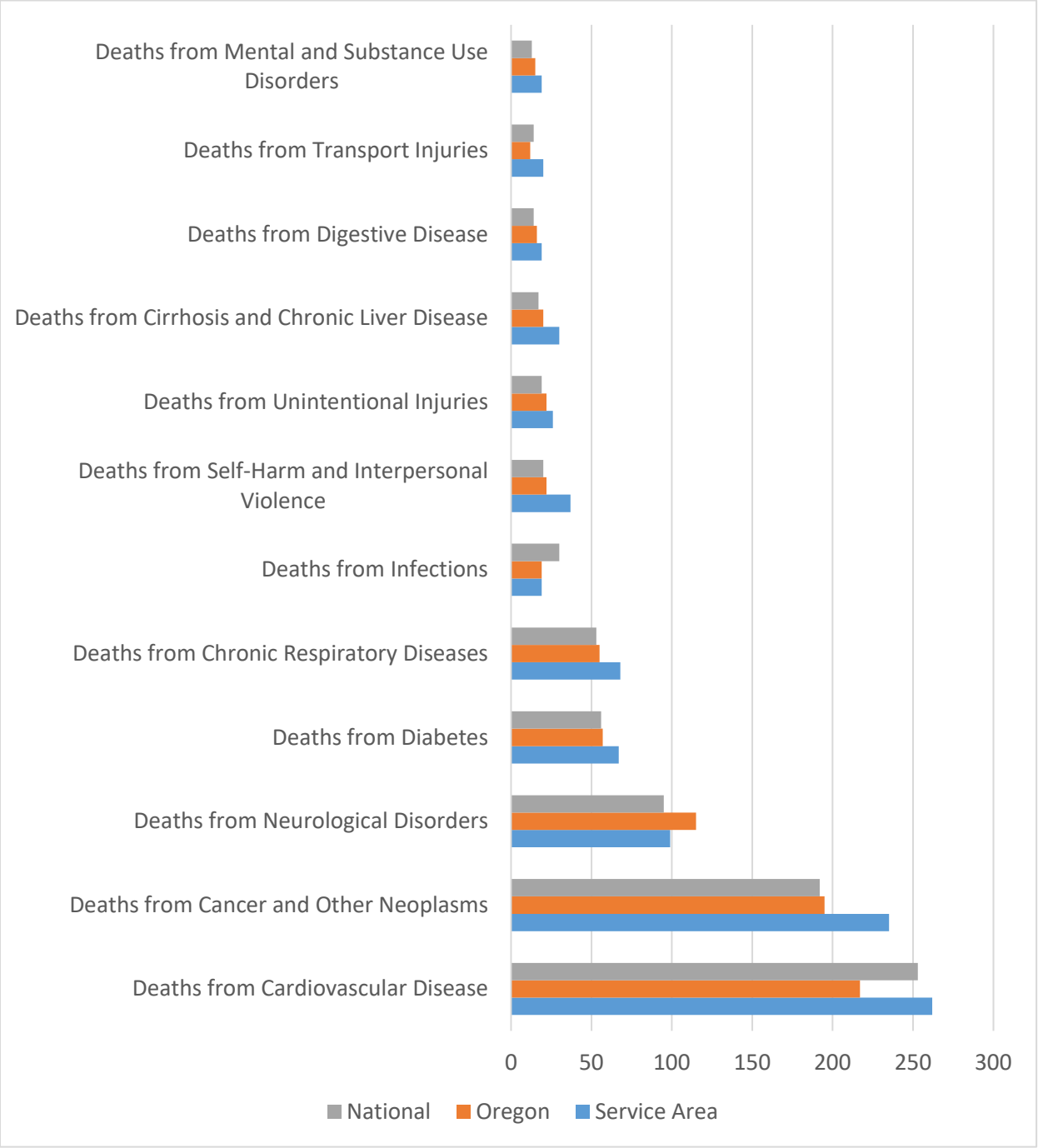
Quality of Life	Percentage in Poor or Fair Health	16%	16%	17%
	Frequent Physical Distress	13%	13%	13%
	Frequent Mental Distress	15%	14%	16%
	Life Expectancy	76.7	78.1	79.8
	Diabetes Prevalence	13%	12%	9%
Health Behaviors	Food Insecure	15%	14%	12%
	Adult Smoking	17%	15%	16%
	Adult Obesity	39%	34%	29%
	Drug Overdose Deaths**	10	15	13
	Alcohol Impaired Driving Deaths	44%	20%	31%
	Physical Inactivity	27%	24%	17%
Clinical Care	Uninsured	9%	9%	8%
	Preventable Hospital Stays	4350	2528	2944
	Primary Care Physicians	1,230:1	1,510:1	1,060:1
	Other Primary Care Providers	1,056:1	951:1	1,143:1
	Uninsured Adults	11%	11%	10%
	Uninsured Children	4%	5%	4%
	Mental Health Providers	190:1	250:1	250:1

**Per 100,000

Though the above factors provide data related to quality of life, health behaviors, and clinical care for Coos and Curry County, to accurately understand the area's healthcare challenges necessitates review of mortality data, specifically for the district's service area rather than for each county, and where disparities for the service area exist. Looking once again at the Area Deprivation Index, where a higher score or percentile indicates higher levels of deprivation and is associated with a higher risk of preventable health conditions and where the service area is in the 68th percentile, well above the national average, one can also see that children born today in the community have a life expectancy of 76.8 years, which is worse when compared with the State of Oregon.

Based on age-adjusted mortality rates for the service area (BroadStreet, 2018), as indicated below, the leading causes of death are Cardiovascular Disease, Cancer and Other Tumors, Neurological Disorders, Diabetes and Other Chronic Diseases, and Chronic Lung Disease, all of which are higher than national rates. Additional mortality rates for the service area of note that are significantly higher than the national as well as state of Oregon rates include Deaths from Mental and Substance Use Disorders, Self-Harm and Interpersonal Violence, Cirrhosis and Chronic Liver Disease, Chronic Respiratory Diseases, and Digestive Disease.

Figure 35: Age-Adjusted Mortality Rates per 100K



As with the rest of the country Coos and Curry have also seen a rise in healthcare challenges directly related to the Opioid Crisis. Mortality rates for drug overdose in Coos and Curry County via the Prosperity Index Score (USDA & Chicago, 2014-2018), 13.7 deaths per 100k (ages 15-64) and 24.1 respectively, while hospitalizations due to all drugs, as of the last quarter of 2019,

were 125.8 hospitalizations per 100,000 or 81 (Coos), 61.4 hospitalizations per 100,000 or 14 (Curry). Drug overdose deaths for any opioid for Coos County (OHA, 2019) via vital records is 8.84 hospitalizations per 100,000 or 28, and is 19.46 hospitalizations per 100,000 or 22 for Curry County as reported by the Oregon Opioid Data Dashboard, which also includes EMS runs with naloxone administered, which is 0.798 EMS runs with Naloxone administered per 100 runs or 21 out of 2,632 runs reported for Coos County and 2.041 EMS runs with Naloxone administered per 100 runs or 20 out of 980 runs reported for Curry County.

Figure 36: Drug Overdose Deaths

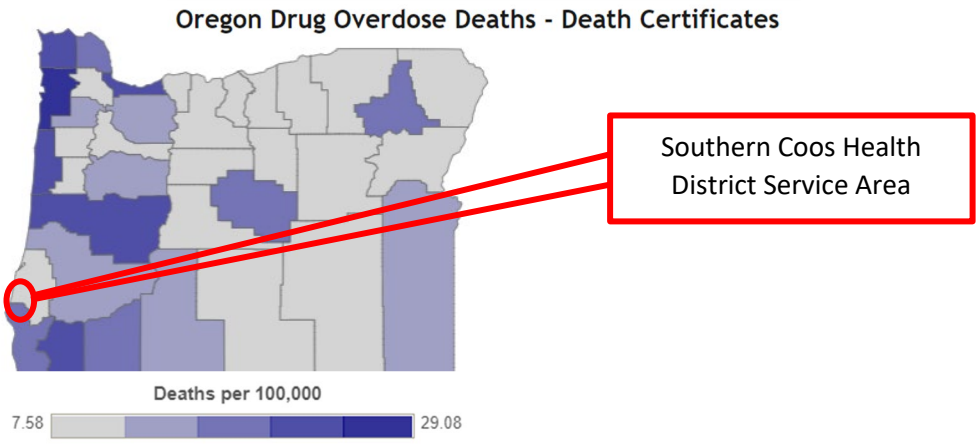
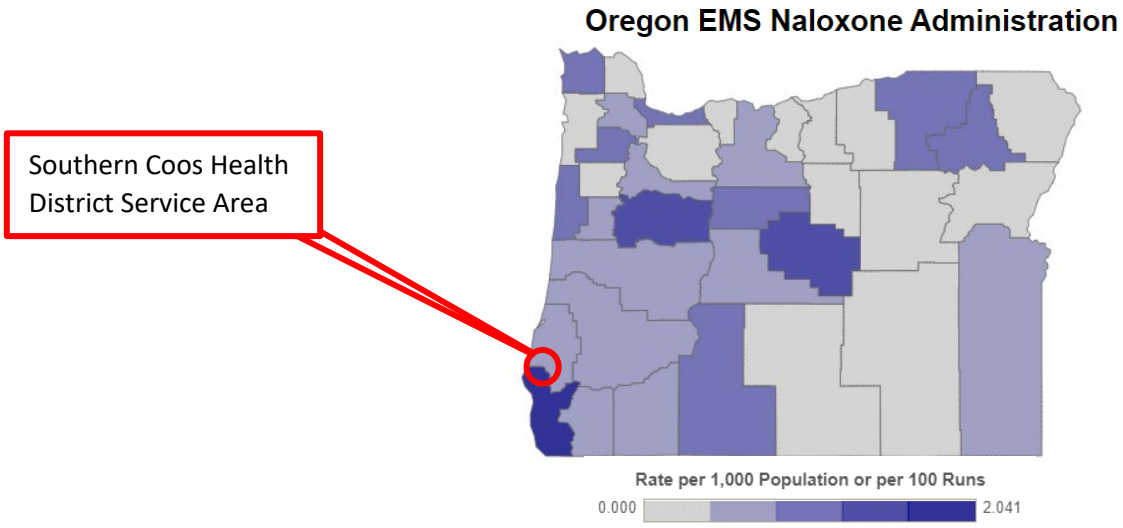


Figure 37: EMS Naloxone Administration



PRIMARY DATA COLLECTION FOR COMMUNITY INPUT

The SCHHC CHNA process collected primary data for both public and private organizations, such as faith-based organizations, government agencies, educational systems, and health and human services entities, as well as from the community-at-large to assess the needs of the community. In total, the primary data collection phase resulted in more than 250 responses from community stakeholders/leaders and community residents.

COMMUNITY SURVEY

The source of all the figures included in this section is the Southern Coos Hospital & Health Center Community Health Needs Survey (2020), designed by the CHNA Steering Committee. A total of 253 responses were collected. This was a convenience sample, which means results may be vulnerable to selection bias. Additionally, primary data collected is representative of the community population as a whole, and does not often represent the health or socioeconomic need that may be much greater for some subpopulations. Moreover, as the data was collected by survey, these measures are subject to instability, especially for smaller populations. Community residents willing to be survey respondents may not fully reflect the subpopulations most at need of new or expanded services. The results are generalizable to the population of the service area. According to key findings of the community input survey conducted, access to healthcare was a service area wide health priority reported by populations across gender, age, and income groups. Mental health, substance misuse, and housing were pervasive in their impact and remained important priorities as well. Almost 59% of respondents reported good overall physical health, with almost 55% reporting good mental health, though rates over the thirty days prior to the survey were slightly less (57% and 45% respectively). More than two thirds of respondents said cost was one of the top reasons people do not get health care. Insurance, difficulty in accessing providers, and a lack of nearby providers were also barriers.

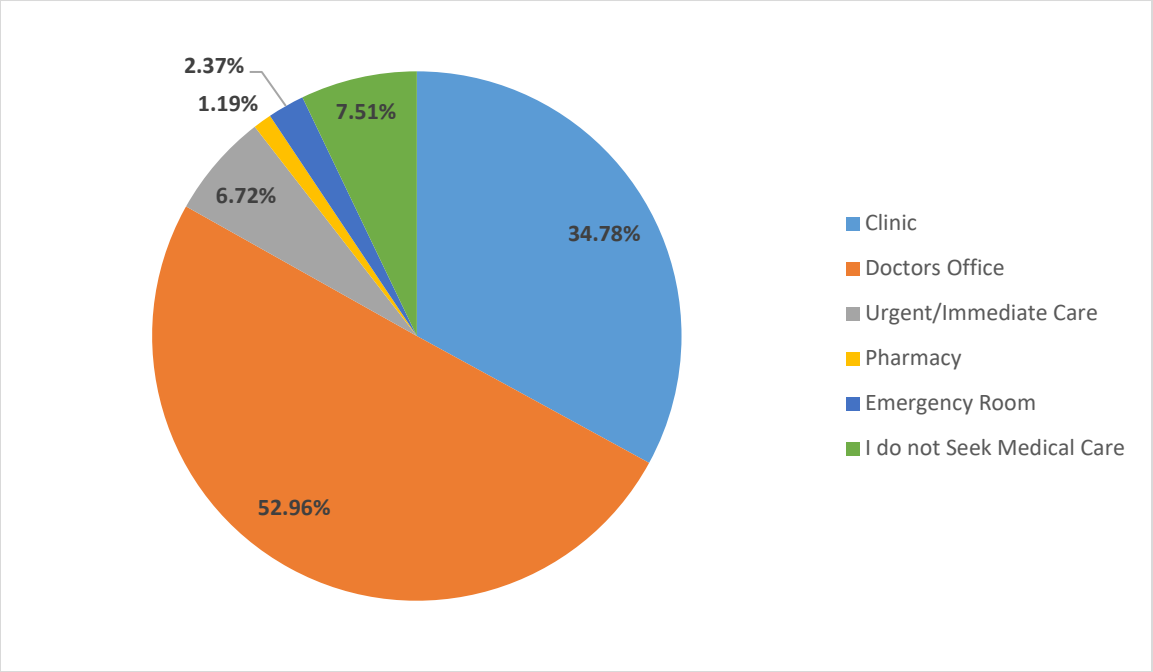
Profile of Survey Participants

Of the total survey participants, 68.77% lived in Bandon, 7.51% in Port Orford, 1.9% in Langlois, and 21.74% lived elsewhere but worked in the Southern Coos service area. Additional residence locations included Coos Bay, North Bend, Myrtle Point, Coquille, Sixes, Florence, and Gold Beach. Survey participants were more likely to be female than male (73.52% female versus 26.48% male) and have annual household incomes above $50,000 (55.13%). The bulk of the survey participants were White/Caucasian (95.26%), while the remainder were Asian, American Indian, Native Hawaiian, or more than one race (1.58%. 0.40%, 0.40%, 3.16% respectively),

portion of respondents were Hispanic or Latino/a (4.35%). The survey was able to reach all age groups, with the majority of respondents in the 50-64 age range (35.7%), followed by 65-74 (26.48%), 40-49 (16.21%), 30-39 (8.70%), 75+ (7.91%), and 18-29 (4.74%).

Regarding regular healthcare, 85.38% of the survey participants have a doctor or primary care provider, of the respondents without a primary care provider the majority could not find a primary care provider (44.74%), while the rest of respondents either were too busy (28.95%), couldn't get an appointment (15.79%), didn't need one (15.79%), couldn't afford one (13.16%), couldn't find an office open when their work schedule allowed it (5.26%), and couldn't find a provider that accepted their insurance (5.26%). The majority of respondents seek out healthcare at either a doctor's office or clinic (52.96% and 34.78% respectively), while the balance either did not seek medical care (7.51%), sought it at urgent/immediate care (6.72%), at the emergency room (2.37%), or at the pharmacy (1.19%).

Figure 38: Primary Location of Sought Healthcare



The survey participants were asked to self-report on their physical and mental health. Perception of personal health can be indicative of the quality of life in the community. About 80% of survey participants stated that their physical health was either good (57.31%) or excellent (22.53%) in the past 30 days. Only 3.95% of participants stated their health to be poor, while 16.60% stated their health to be fair in the past 30 days (Figure 39). Nearly 80% of survey participants also state that their mental health was either good (45.06%) or excellent (33.20%) in the past 30 days. With only 1.98% reporting poor mental health, and 19.76% stating that their mental was fair in the past 30 days (Figure 40).

Figure 39: Self-Reported Physical Health in the Past 30 Days

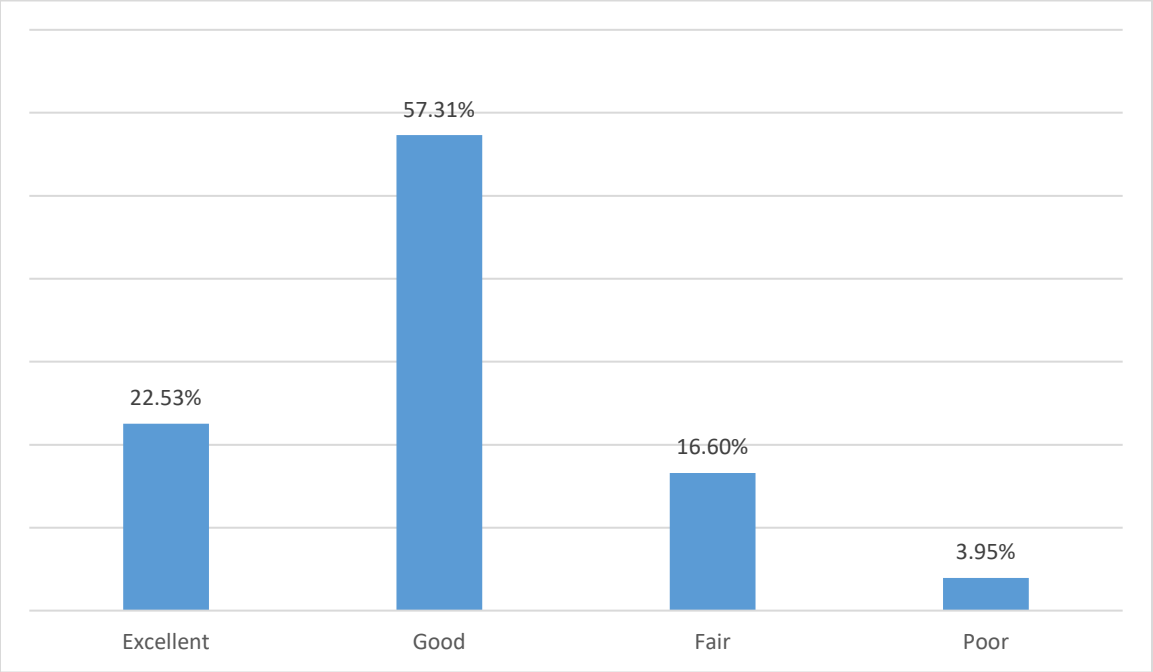
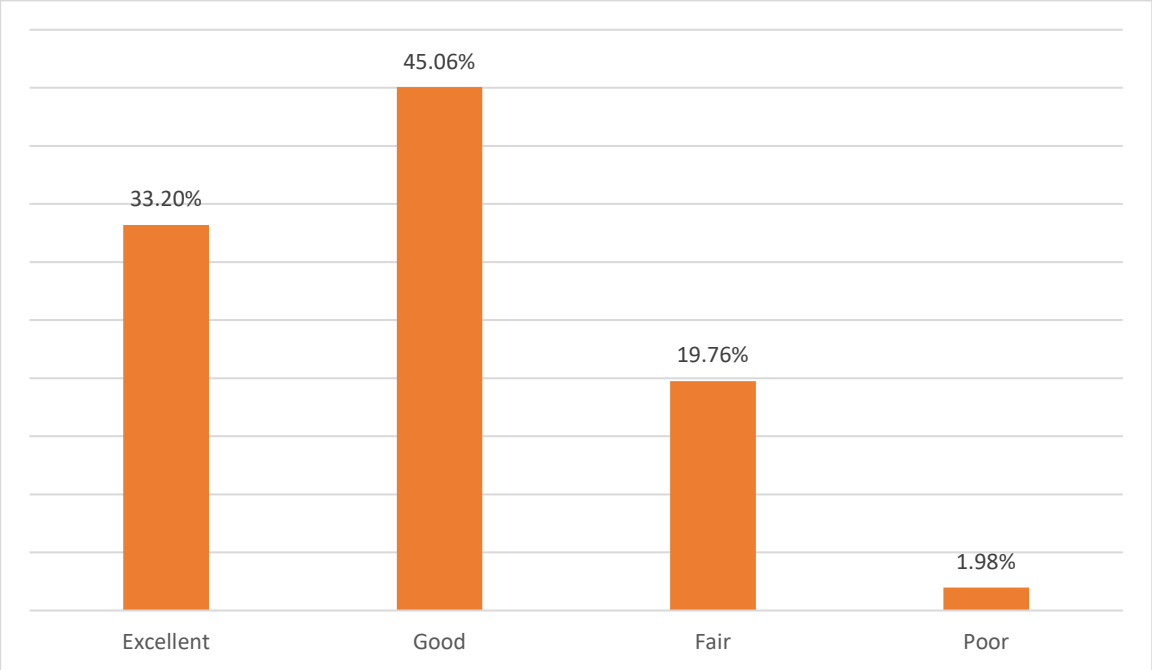


Figure 40: Self-Reported Mental Health in the Past 30 Days



Key Findings

To understand where and at what rate the community is receiving needed medical care, respondents were asked when the last time they had left Bandon for primary and specialty care. Survey participants were given the following definitions prior to responding.

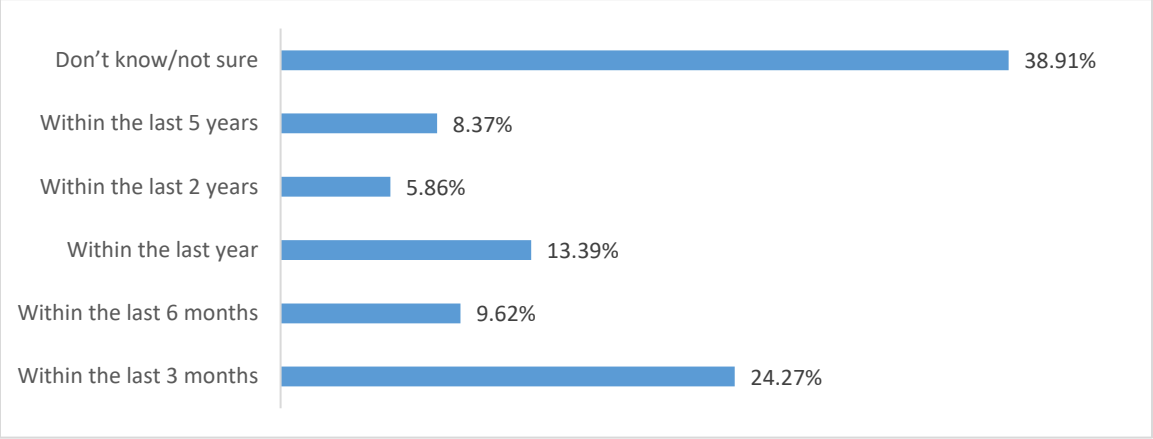
Primary Care: Primary care is the day-to-day healthcare given by a health care provider. It is healthcare at a basic rather than specialized level for people making an initial approach to a doctor or nurse for treatment.

Specialty Care: Specialty care is advanced medically necessary care and treatment of specific physical, mental, or behavioral health conditions that are provided by a specialist in coordination with a health care provider.

Primary Care

Of respondents who had left the area for primary medical care, 24.27% had accessed care outside of the Bandon area in the last three months, 9.62% in the last six months, 13.39% in the last year, 5.86% within the last two years, and 8.37% within the last five years (see figure 41). Of the respondents who had left the area for primary care the majority reported going to Coos Bay, Coquille, North Bend Medical Center, and Eugene. Additional responses included Bay Area Hospital, Urgent Care, Myrtle Point, and Valley Hospital Clinic. When asked why they had traveled out of the area for primary medical care 44.79% reported that their preferred provider is out of the area, 11.66% reported that they couldn't get an appointment locally, 9.20% reported they were out of the area when they needed care, and 39.88% reported other reasons for traveling out of the area for primary care. Reasons included living elsewhere when they last needed care, referrals to other providers, VA medical usage, belief that local medical care is substandard, lack of comfort with nurse practitioners, and that they receive care closer to their homes.

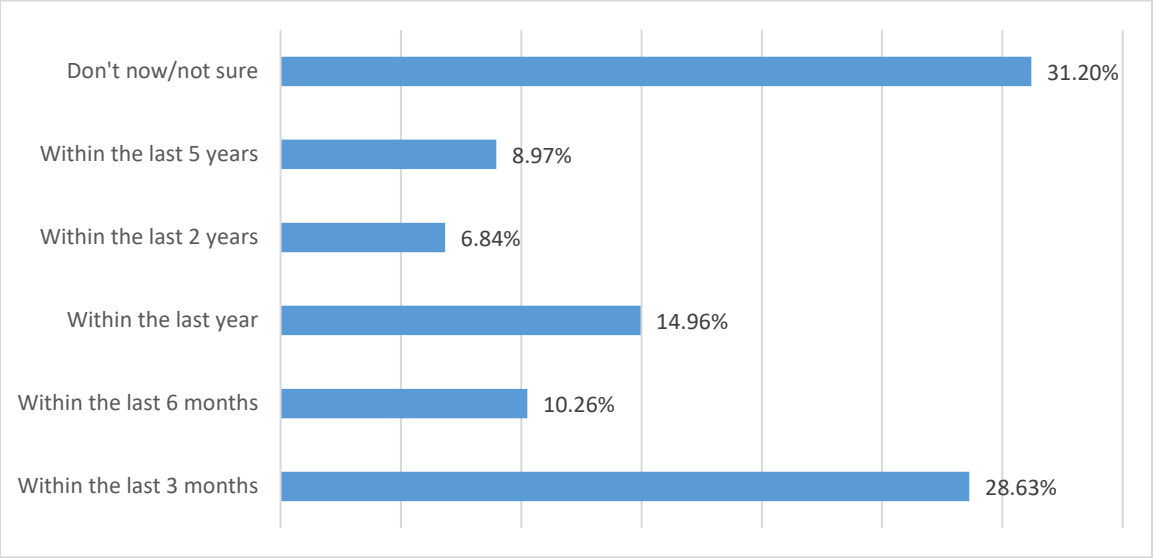
Figure 41: Last Left Bandon for Primary Care



Specialty Care

Of respondents who had left the area for specialty medical care, 28.63% had accessed care outside of the Bandon area in the last three months, 10.26% in the last six months, 14.96% in the last year, 6.84% within the last two years, and 8.97% within the last five years (see figure 42). Of the respondents who had left the area for specialty care, more than 50% left for Dermatology (19.44%), Orthopedics (20.56%), and Obstetrics/Gynecology (12.22%).

Figure 42: Last Left Bandon for Specialty Care

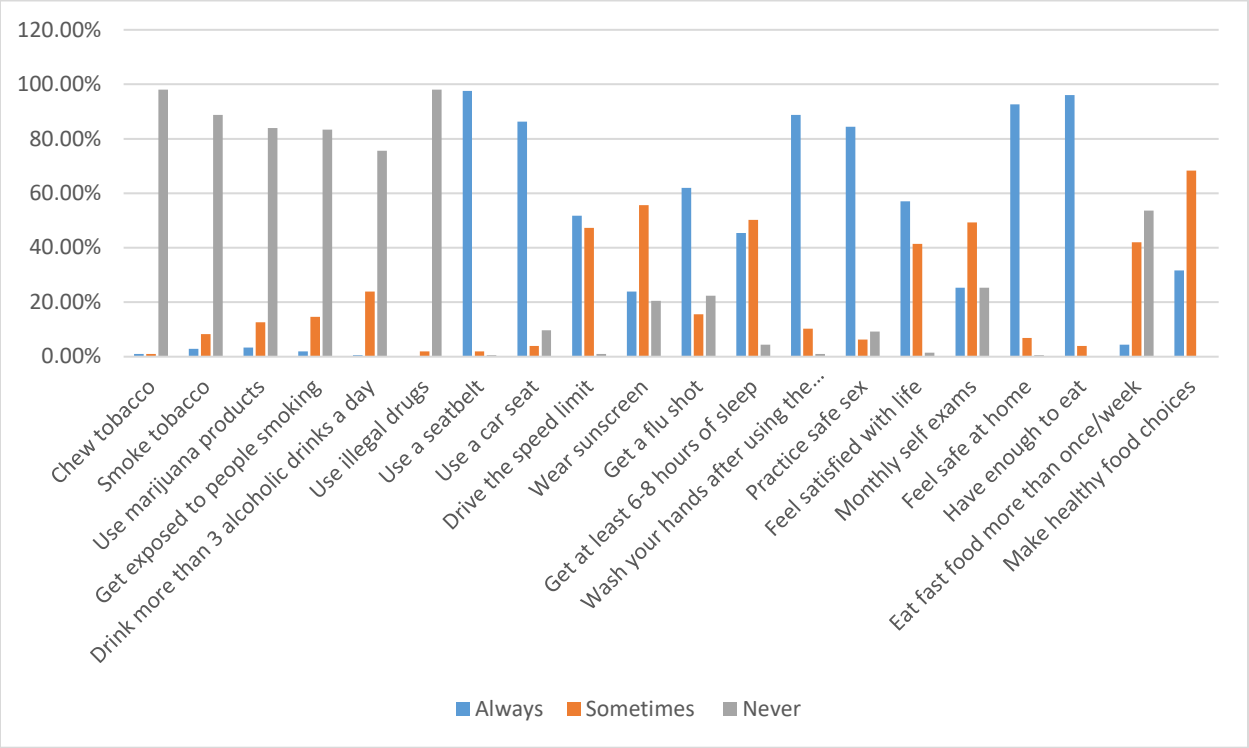


In order to identify if community members had received needed services in the past 12 months, survey participants were asked if they have needed but did not get medical services or treatment. Of respondents, the majority had not delayed care (76.96%) while the minority had (23.04%). Of those that had not received needed services the majority were either not happy with their current provider or care, didn't have insurance, couldn't afford it, or it took too long to get an appointment (22.22%, 19.05%, 22.22%, 25.40% respectively). Separately survey participants were asked if they had delayed care due to COVID-19 to which 36.09% responded that they had, while 63.91% responded that they had not delayed care. Of those that had delayed care more than half (60.61%) have since received the care they needed.

Specific health risk and protective factor rates amongst respondents were also addressed within the survey. Of survey respondents, 38.77% have been told by a health provider that they are obese/overweight, 32.60% have high blood pressure, 11.01% have type II diabetes, 14.10% have heart problems, 8.37% have an autoimmune disorder, 12.78% have respiratory problems, and 36.56% have none of the above.

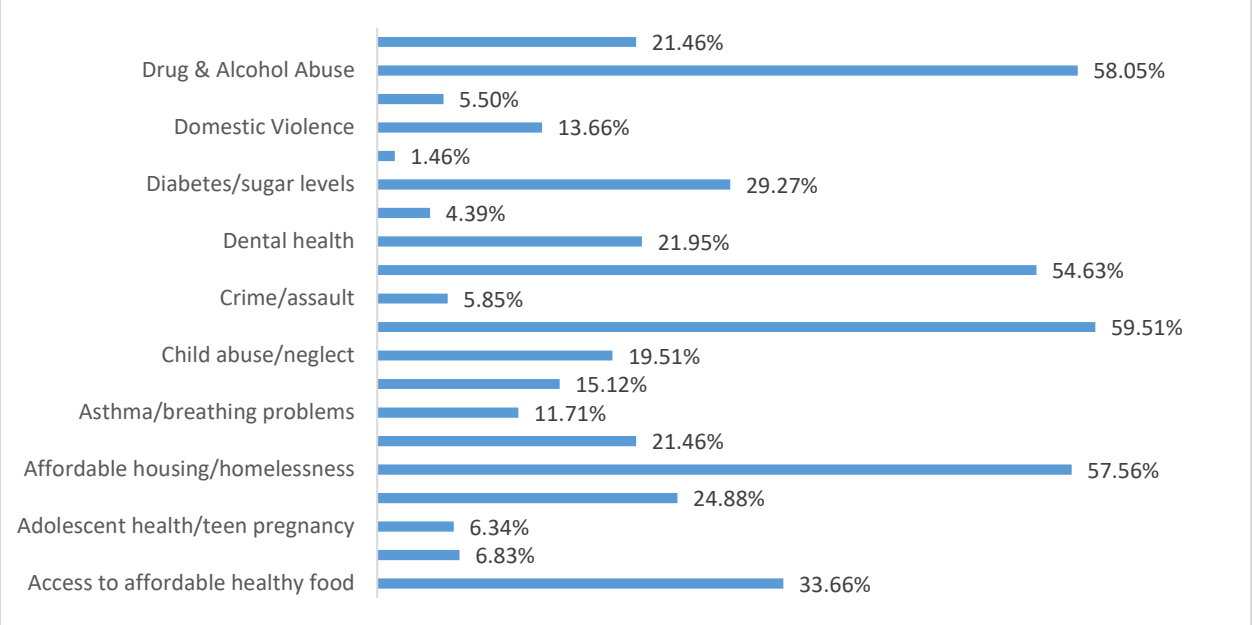
Survey participants also responded to specific lifestyle related health risk and protective factors at the following rates (see figure 43).

Figure 43: Lifestyle Related Health Risk and Protective Factors



Survey respondents reported affordable housing/ homelessness, mental health/illness, obesity, drug and alcohol abuse addiction, and access to affordable healthy food as the top 5 health concerns for the community (57.56%, 59.51%, 54.63%, 58.05%, and 33.66% respectively). Figure 44 reflects all responses on community health concerns.

Figure 44: Health Concerns in the Community



PRIORITIZATION

METHODS FOR PRIORITIZATION

The SCHHC CHNA Steering Committee used a modified Nominal Group and Prioritization matrix technique for the prioritization process to distinguish the most pressing community health needs based on the data collected and to develop the associated strategies to address the identified strategies.

As part of the process, the Steering Committee completed the following steps:

- Selection of a prioritization committee including members from the hospital, community stakeholders and others with specialized knowledge or constituents.
- Discussion of the primary and secondary data collected. Primary and secondary data was presented in a format accessible by all individuals on the committee, and an environment of open dialogue was fostered to ensure robust discussion on the identified health needs.
- Completion and review of community assets. Including what resources exist in the community to address identified needs, what resources the hospital has, and where resources could be leveraged.
- Determination of priority needs.
- Selection of strategies for each identified priority health need.

PRIORITIZED HEALTH NEEDS

To thrive, everyone in the community needs the opportunity to live a long, healthy life, regardless of socioeconomic status. While biological makeup or genetics determine some health issues an individual will experience, socioeconomic factors, such as income, education, and employment opportunities can shape how people make decisions related to their health as well as the access they have to health care services. While Southern Coos Hospital & Health Center is committed to supporting environments that protect and promote the health and wellbeing of residents equitably issues related to direct health needs that offered the greatest opportunity for impact within the capacity and strategic focus of SCHHC were prioritized.

The following three encompassing topics were identified as priorities to address:

SOUTHERN COOS HOSPITAL & HEALTH CENTER PRIORITIES

Priority #1: Access to Care

The primary motivations for the selection of access to care as the first priority to address were the community response during the community survey, as well as the Health Professional Shortage Area (HPSA), Medically Underserved Area (MUA), and Medically Underserved Populations (MUP) designations of the rural community.

Identified Strategies

- Recruitment and retention of primary care providers
- Utilization of market based compensation and productivity based incentives
- Integration of a more fully productive model of mental health provision, such as group therapy as a modality; peer support models; ways to extend care out into the community; and, brief case management interventions. Implement higher volume higher productivity approach to treatment strategies.
- Exploration of specialty services that would be sustainable

Priority #2: Behavioral Health: Mental Health & Substance Use/Misuse

The primary motivations for the selection of behavioral health: mental health and substance use/misuse as the second priority to address were the community response during the community survey, as well as the disruption of good quality of life or all residents due to substance abuse, untreated mental illness, and the loss of academic, social, and health opportunities for addicts.

Identified Strategies

- Participate in the development of community/county wide approach to treatment/intervention such as diversion and patient education through support of joint effort. Open dialogue with partners including Coos Health and Wellness, Coast Community Health Center, and Local Law Enforcement/Criminal Justice Organizations. Support opportunities for multiagency collaborative approach beyond opiates.

- Develop prospective and tools for providers to assess and identify substance misuse and mental health issues amongst patient population including training on having conversations related to substance misuse and mental health.

Priority #3: Health Behaviors/Lifestyle

The primary motivations for the selection of health behaviors/lifestyle as the third priority to address were the community response during the community survey, as well as the broad opportunities to intervene at multiple settings to educate and inform patients and community members about health behavior and lifestyle as related to chronic disease and obesity linked to identified health problems.

Identified Strategies

- Provision of support and education for providers on nutrition and updated models for patient education.
- Increased diabetes education utilizing nurse educator.
- Collaborate with Coos Health and Wellness around broader county wide wellness/health behaviors campaigns.
- Medicare wellness and diabetes management education. Utilizing the Medicare annual wellness visits to help with Chronic Disease Management, education, medication adherence, and addressing health needs.
- Collaborate with Bandon Unified School District on nutrition education

COMMUNITY RESOURCES

The following is a list of existing health care facilities and resources in the community that are available to respond to the health needs of the community. This list is not exhaustive and will be updated throughout the CHNA implementation and evaluation process.

ASPIRE at Bandon High School
Bandon Chamber of Commerce
Bandon Community Preschool
Bandon Community Youth Center
Bandon Good Earth Community Garden
CASA of Coos County
Coast Harvest Gleaners
Coos County Foster Parent Association
Coos Elderly Services
Good Neighbors
Leading Adventures for FosterKids (LAFF)
South Coast Community Garden Association
Southern Coos Hospital & Health Center
The SAFE Project
VFW Post 3440 and Ladies Auxiliary
South Coast Head Start
North Bend Medical
Oregon Health Authority
Advanced Health
Waterfall Community Health Center
Westwind Court Assisted Living
Southwest Physical Therapy
Bandon Lions Club
Bandon Rotary
Port Orford Rotary
Bandon Senior Nutrition Center
Bandon Prepares
Coast Community Health Center
Common Ground Mediation
Coos County Habitat for Humanity
Everyone at Table (EAT)
Greater Bandon Association
Oregon Coast Community Action (ORCCA)
South Coast Hospice & Palliative Care
Southern Coos Health Foundation
United Way of Southern Oregon
Department of Human Services
Coquille Valley Hospital
Coos Health and Wellness
Bay Area Hospital
Advantage Dental
South Coast Early Learning Hub
Pacific View Senior Living Community
South West Internal Medicine

CONCLUSION

The preceding CHNA describes the barriers to health faced by the community, drawing into focus its priority health issues and providing information necessary to all levels of stakeholders to work together in a coordinated and collaborative manner. Like most community health assessments, the document identifies critical issues and needs but is not inclusive of every possible related health issue or trend. Although the CHNA is limited in scope, it does provide helpful context for organization strategic Southern Coos Hospital & Health Center has established clear priorities based on the results of this assessment to improve health outcomes for the residents of the service area. The CHNA addressed who was involved, what, where, and why, while the implementation phase will address how and when SCHHC will address the identified community health needs. SCHHC recognizes that this CHNA document is not the last step in the assessment phase, but rather the first step in the ongoing cyclical process. Communication and continuous planning efforts are vital throughout the next phase of the CHNA. In collaboration with stakeholders and the community, SCHHC hopes to strategically improve community health and healthcare access.

Sources

American Hospital Association, AHA Community Health Improvement. Community Health Assessment Toolkit. https://www.healthycommunities.org/resources/community-health-assessment-toolkit

Office of Disease Prevention & Health Promotion. (2020). HealthyPeople.Gov. Social Determinants of Health. https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

Community Resilience Estimates. Social, Economic and Housing Statistics Bureau, US Census Bureau. https://www.census.gov/data/experimental-data-products/community-resilience-estimates.html

Agency for Toxic Substances and Disease Research (ATSDR), Centers for Disease Control (CDC). Social Vulnerability Index. https://svi.cdc.gov/index.html

Winkler, Richelle, Kenneth M. Johnson, Cheng Cheng, Jim Beaudoin, Paul R. Voss, and Katherine J. Curtis. Age-Specific Net Migration Estimates for US Counties, 1950-2010. Applied Population Laboratory, University of Wisconsin - Madison, 2013. Web. https://netmigration.wisc.edu/

Population Reference Bureau. https://www.prb.org/usdata/geography/41011/

U.S. Census Bureau, 1990, 2000, and 2010 Censuses of Population (corrected), and 2019 County Total Population Estimates. USDA ERS https://data.ers.usda.gov/reports.aspx?ID=17827

US Census Bureau 2013-2017 5-year American community survey – total outbound migration flows. https://flowsmapper.geo.census.gov/map.html#

US Census Bureau. 2013-2018 5-year American Community Survey. https://www.census.gov/data/developers/data-sets/acs-5year.

US Census Bureau. 2016. Gini Index. https://www.census.gov/topics/income-poverty/income-inequality/about/metrics/gini-index.html

State of Oregon Employment Department, Southwestern Oregon Region. https://www.qualityinfo.org/southwestern-oregon

Portland State College of Urban and Public Affairs: Population Research Center. Population estimates for Oregon and Counties. Annual Population Estimates. https://www.pdx.edu/prc/sites/www.pdx.edu.prc/files/Certified%20Population%20Estimates_%2012_15_2019.pdf

Oregon Community Foundation and the OSU Rural Studies Program. Oregon Explorer, Communities Reporter. https://oe.oregonexplorer.info/rural/CommunitiesReporter/

BroadStreet, Area Deprivation Project. https://www.broadstreet.io/board/STORIES

School District Report Cards. https://www.niche.com/k12/d/bandon-school-district-or/

US Department of Agriculture (USDA); University of Chicago. Drug Overdose Deaths in the US. Opioid Misuse Community Assessment Tool, Prosperity Index Score. https://opioidmisusetool.norc.org

Oregon Health Authority. Adult Behavior Risk Survey Data, Results by County https://www.oregon.gov/oha/PH/BirthDeathCertificates/Surveys/AdultBehaviorRisk/county/Pages/index.aspx

US Department of Agriculture. Child nutrition programs: Income eligibility guidelines (July 1, 2019 – June 20, 2020). https://www.fns.usda.gov/cnp/fr-032019

Department of Urban Studies and Planning Massachusetts Institute of Technology. Living Wage Calculation. https://livingwage.mit.edu/states/41/locations

Oregon Health Authority. Prescription Drug Monitoring Program. https://www.oregon.gov/oha/ph/PreventionWellness/SubstanceUse/Opioids/Pages/data.asp

Macarena C. Garcia, DrPH1; Mark Faul, PhD2; Greta Massetti, PhD3; Cheryll C. Thomas, MSPH3; Yuling Hong, MD3; Ursula E. Bauer, PhD3; Michael F. Iademarco, MD1. (2017) Reducing Potentially Excess Deaths from the Five Leading Causes of Death in the Rural United States. Surveillance Summaries https://www.cdc.gov/mmwr/volumes/66/ss/ss6602a1.htm?s_cid=ss6602a1_w

Centers for Disease Control. Expanding Naloxone use could reduce drug overdose deaths and save lives. https://www.cdc.gov/media/releases/2015/p0424-naloxone.html

Oregon Association of Hospitals and Health Systems. (2020) Apprise Health Insights. https://dimensions.apprisehealthinsights.com/.

Merritt Hawkins. (2019). Survey of Final Year Medical Residents. https://www.merritthawkins.com/trends-and-insights/article/surveys/2019-Survey-of-Final-Year-Medical-Residents/

Benefits.gov. (2020). Oregon Supplemental Nutrition Assistance Program Income Requirements. https://www.benefits.gov/benefit/1332

US Health and Human Services Department. (2020). Annual Update of the HHS Poverty Guidelines. https://www.federalregister.gov/documents/2020/01/17/2020-00858/annual-update-of-the-hhs-poverty-guidelines

Feeding America. (2016). The Healthcare Costs of Food Insecurity. https://public.tableau.com/profile/feeding.america.research#!/vizhome/TheHealthcareCostsofFoodInsecurity/HealthcareCosts

Cook, J. & Jeng, K. Feeding America. (2010). Child Food Insecurity: The Economic Impact on our Nation. A report on research on the impact of food insecurity and hunger on child health, growth, and development commissioned by Feeding America and The ConAgra Foods Foundation. https://www.nokidhungry.org/sites/default/files/child-economy-study.pdf

South Coast Development Council, Inc. (2018). A Study of the Current Housing Needs for the City of Bandon. https://www.cityofbandon.org/sites/default/files/fileattachments/general/page/4691/bandon_housing_needs_assessment_final.pdf

United Way. United for ALICE. (2018). County Profiles, Household Budgets. https://unitedforalice.org/household-budgets/oregon

Economic Policy Institute. (2018). The Unequal States of America: Income inequality in Oregon. https://www.epi.org/multimedia/unequal-states-of-america/#/Oregon

Minkler, M., Garcia, A., Rubin, V., & Wallerstein, N. (2012). Community-Based Participatory Research: A Strategy for Building Healthy Communities and Promoting Health through Policy Change. https://www.policylink.org/sites/default/files/CBPR.pdf