Providence Seaside Hospital

2019 Community Health Needs Assessment

To request a printed copy free of charge or to provide feedback about this Community Health Needs Assessment, email Joseph Ichter at Joseph.Ichter@providence.org

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MESSAGE TO THE COMMUNITY/ ACKNOWLEDGEMENTS

TO OUR COMMUNITY MEMBERS,

It is with great pleasure that we present the findings of our Providence Seaside Hospital 2019 Community Health Needs Assessment. The findings within this assessment will be used to inform and create our community health improvement plan, a three-year roadmap to create positive impact in the communities we serve.

Over 160 years ago, the Sisters of Providence came to the Northwest with the goal of addressing the most pressing needs of the time. Today, through their *Hopes and Aspirations* document, the Sisters call us to "be open to the call of those who suffer by addressing emerging needs with wise and discerning responses". Providence is pleased to collaborate with many community based organizations and public sector partners to address the most pressing health and social determinant needs in each of our service areas. We are uniquely positioned to use our role as a primary, acute, and specialty care provider, insurer, and the state's largest employer, to create positive impact on the health of our communities.

We are grateful for the partnership of community organizations, survey respondents, listening session participants, interviewees, and many others in the development of these needs assessments. Addressing these challenges will require long-term commitment, systemic change, and expertise outside of the health system. Our communities have many strengths, and it is our privilege to support programs and organizations actively addressing these needs, as well as generating momentum to think differently about these services within Providence.

Finally, let us thank you for your interest in reviewing this plan and hopefully engaging in our community health improvement efforts. We believe this work is central to our strategic vision of creating healthier communities, together.

Sincerely,

Donald Lemmon
Chief Executive
Providence Seaside Hospital

EXECUTIVE SUMMARY

Understanding and Responding to Community Needs, Together

Improving the health of our communities is fundamental and a commitment rooted deeply in our heritage and purpose. Our mission calls us to be steadfast in serving all with a special focus on our most poor and vulnerable neighbors. This core belief drives the programs we build, investments we make, and strategies we implement.

Knowing where to focus our resources starts with our community health needs assessment, an opportunity in which we engage the community every three years to help us identify and prioritize the most pressing needs, assets and opportunities. The 2019 Community Health Needs Assessment was approved by the PSH Service Area Advisory Council on October 23, 2019 and made publicly available on December 19, 2019.

Our Starting Point: Gathering Community Health Data and Community Input

Through a mixed methods approach employing quantitative and qualitative data, the CHNA process used several sources of information to identify community needs. Across the North Coast community in Clatsop County, information data collected includes: public health data regarding health behaviors, morbidity, and mortality data, hospital discharge and utilization data, and emergency department specific primary diagnoses. Community input was received through 7 semi-structured key stakeholder interviews held with organizational and community leaders.

Two further methods were employed to gain more diverse and direct community representation. A mailed Community Health Survey was conducted using an address-based random-sampling of Clatsop County residents, yielding 160 responses. Effort was made to advance input from medically underserved communities who are low-income and represent a diverse sampling of the Clatsop County population. A community-wide effort was accomplished in the implementation of a micro-narrative story collection process, including over 1,200 North Coast residents. Some key findings:

- Key social determinants of health challenges include housing, transportation and food security. Approximately 1 in 10 survey respondents reported not having stable housing or experiencing food shortages in the last year.
- Significant health disparities exist by family income, with those at 200% or below FPL having higher rates of many chronic health challenges, with diabetes, asthma, and hypertension being top reasons uninsured adults seek care in the Emergency Department.
- More than one in four survey respondents live with anxiety, with fewer behavioral health providers in Clatsop County compared to the Oregon ratio.
- Access to medical and dental care in rural communities is particularly challenging, with many residents having unmet health care and dental care needs.

Identifying top health priorities, together

Through a collaborative process engaging a diverse group of community members and stakeholders, hospital leadership and Oregon Region technical expertise, the following priority areas were agreed upon:

Priority #1: Social determinants of health resulting from poverty and inequity – focus areas in housing, transportation, and food security; includes coordination of supportive services.

Priority #2: Chronic health conditions – focus on prevention of obesity, diabetes, hypertension, and depression.

Priority #3: Community mental health/well-being and substance use disorders - focus on prevention (particularly for youth), culturally responsive care and health education, social isolation, and community building.

Priority #4: Access to health services – Focus on services navigation and coordination, culturally responsive care and oral health.

PSH will develop a 3-year Community Health Improvement Plan (CHIP) to respond to these prioritized needs in collaboration with community partners in early 2020 considering resources, community capacity, and core competencies. The 2020-2022 CHIP will be approved and made publicly available no later than May 15, 2020.

INTRODUCTION

MISSION, VISION, AND VALUES

Our Mission: *As expressions of God's healing love, witnessed through the ministry of Jesus, we are steadfast in serving all, especially those who are poor and vulnerable.*

Our Vision: *Health for a Better World.*

Our Values: *Compassion – Dignity – Justice – Excellence – Integrity*

WHO WE ARE

Providence Seaside Hospital (PSH) serves the city of Seaside, Oregon, and greater Clatsop County. The facility is a 25-bed critical access hospital offering primary and specialty care, birth center with family suites, general surgery, radiology, diagnostic imaging, pathology and 24/7 emergency medicine. Residents along the North Oregon Coast have access to family practice and internal medicine with physicians and primary care providers at clinics in Seaside, Warrenton, Cannon Beach, heart clinics in Astoria and Seaside, and a full continuum of therapy, rehabilitation and home health services.

OUR COMMITMENT TO COMMUNITY

Organizational Commitment

PSH dedicates resources to improve the health and quality of life for the communities it serves, with special emphasis on the needs of the economically poor and vulnerable. During 2018, PSH provided $14,209,000 in community benefit[1,2] in response to unmet needs and to improve the health and well-being of those we serve in Clatsop County. PSH is a part of Providence Health & Services – Oregon, which includes the following hospital facilities: Providence Portland Medical Center, Providence Medford Medical Center, Providence St. Vincent's Medical Center, Providence Milwaukie Hospital, Providence Willamette Falls Medical Center, Providence Hood River Memorial Hospital, and Providence Newberg Medical Center.

PSH further demonstrates organizational commitment to the community health needs assessment (CHNA) through the allocation of staff time, financial resources, participation and collaboration to address community identified needs. Providence's Oregon Region Community

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[1] A community benefit is an initiative, program or activity that provides treatment or promotes health and healing as a response to identified community needs and meets at least one of the following community benefit objectives: a. Improves access to health services; b. Enhances public health; c. Advances increased general knowledge; and/or d. Relieves government burden to improve health. Note: Community benefit includes both services to the economically poor and broader community.

[2] To be reported as a community benefit initiative or program, community need must be demonstrated. Community need can be demonstrated through the following: 1) community health needs assessment developed by the ministry or in partnership with other community organizations; 2) documentation that demonstrates community need and/or a request from a public agency or community group was the basis for initiating or continuing the activity or program; 3) or the involvement of unrelated, collaborative tax-exempt or government organizations as partners in the community benefit initiative or program.

Health Investment Director, Joseph Ichter, DrPH, is responsible for ensuring the compliance Federal 501r requirements as well as providing the opportunity for community leaders and hospital leadership, physicians and others to work together in planning and implementing the resulting Community Health Improvement Plan (CHIP).

OUR COMMUNITY

Description of Community Served

Providence Seaside Hospital primarily serves residents of Clatsop County. Cities include Seaside, Astoria, and Cannon Beach, as well as many smaller towns and rural communities. Given the geography of the area, all of Clatsop County is considered the primary service area for PSH. The secondary service area includes towns in Washington across the Columbia River. This geography includes a population of approximately 40,000 people as of 2019, an increase of 5% from 2016.

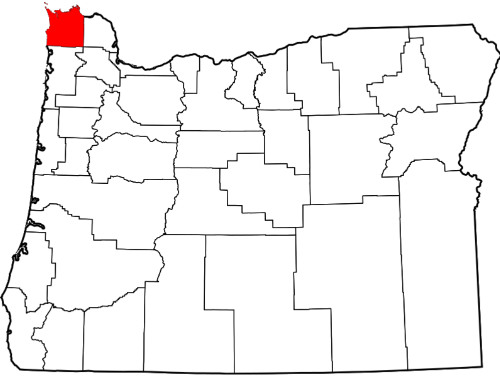
Hospital Total Service Area

The community served by the PSH is defined based not only on the patients who have visited the hospital campus, but rather all those living in Clatsop County. PSH's service area includes the following cities and zip codes:

Table 1. Cities and ZIP codes in PSH's service area

Cities/ Communities	ZIP Codes
Arch Cape	97102
Astoria	97103
Cannon Beach	97110
Hammond	97121
Manzanita	97130
Nehalem	97131
Seaside	97138
Tolovana Park	97145
Warrenton	97146
Wheeler	97147

Figure 1. PSH's Total Service Area (Clatsop County)



Community Demographics

Clatsop County is home to coastal and rural communities, and is named for the Clatsop tribe of Native Americans who lived in the area before settlement by European colonizers. In addition to PSH, the County is served by a second hospital, the 25-bed, not-for-profit Columbia Memorial Hospital, located slightly North in Astoria.

The county is less racially and ethnically diverse than the state as a whole. The following chart shows the Census-designated race and ethnicity for residents in Clatsop County compared to Oregon overall. The largest portion of the population identifies as white and non-Hispanic, with Hispanic or Latino being the second-most populous group in the County.

Figure 2. Clatsop County population by race and ethnicity

Demographics of Clatsop County Residents and Oregon Residents

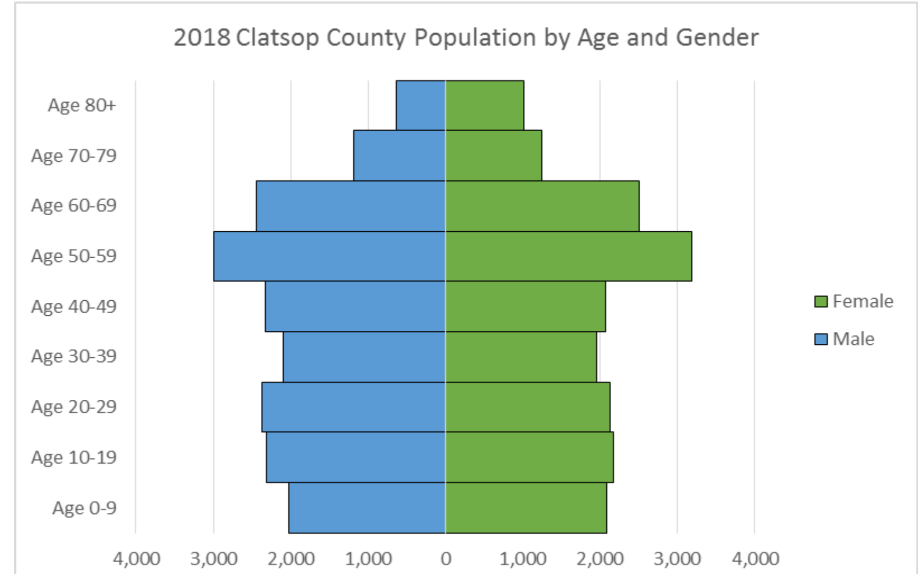
Hispanic or Latino
Two or More Races
Native Hawaiian and Other Pacific Islander
Asian
American Indian and Alaska Native
Black or African American
White
White, not Hispanic or Latino

0 10 20 30 40 50 60 70 80 90 100

Oregon
Clatop County

Clatsop County residents are also older on average (43.7 years) than the state as a whole (39.2 years). The following chart shows the age and gender distribution of the current population of Clatsop County.

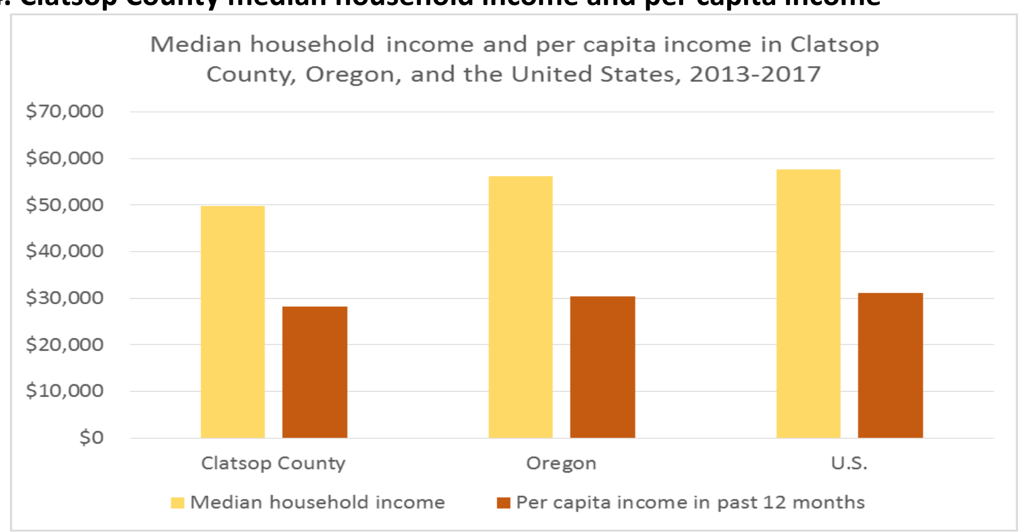
Figure 3. Clatsop County population by age and gender



Income and Employment

Both median household income and per capita income are lower in Clatsop County than Oregon as a whole. The median household income in Clatsop County is $49,828, 13% lower than Oregon's median of $56,119. In the North Coast region, which encompasses Clatsop, Columbia, and Tillamook counties, Clatsop County residents pay the most in rent, averaging $889 a month. Despite this, the poverty rate in Clatsop County is slightly lower than the Oregon average (12.2% and 13.2%, respectively).

Figure 4. Clatsop County median household income and per capita income

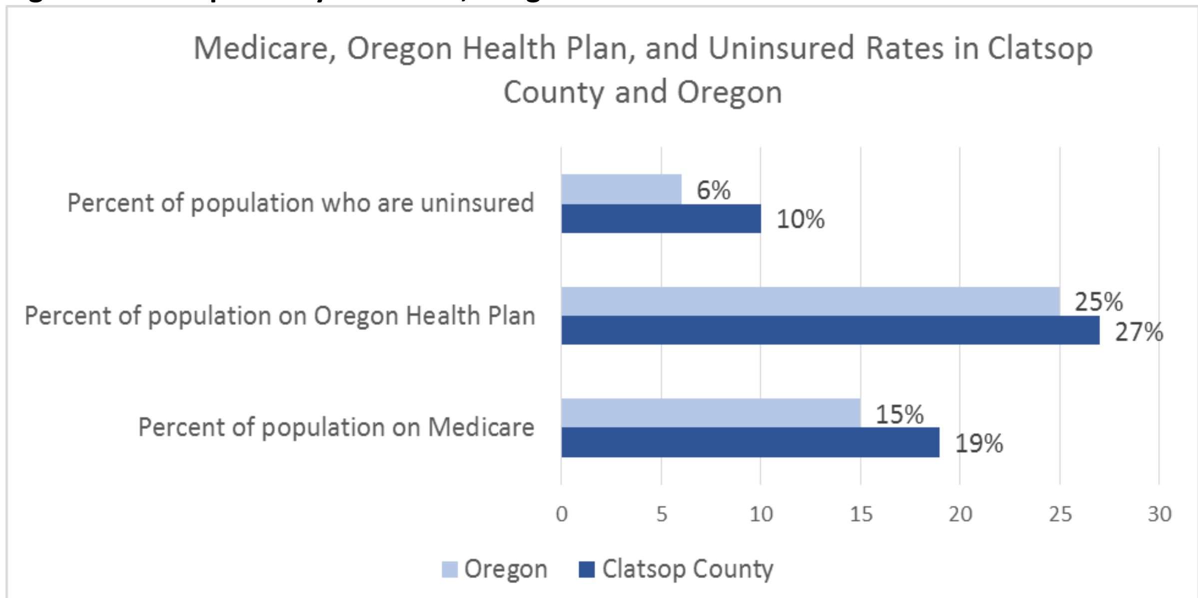


Health Care and Coverage

Approximately 10% of residents under 65 in Clatsop County are estimated to be uninsured, slightly more than Oregon as a whole and on par with national estimates.

Clatsop County residents are more likely to be Medicare beneficiaries, Oregon Health Plan members, or to be uninsured than Oregon residents overall. Clatsop and Tillamook Counties numbers are reported as a region for Medicare and Oregon Health Plan enrollment.

Figure 5. Clatsop County Medicare, Oregon Health Plan and uninsured rates



The Seaside Service Area and Warrenton are designated as Medically Underserved Areas.

OVERVIEW OF COMMUNITY HEALTH NEEDS ASSESSMENT (CHNA) FRAMEWORK AND PROCESS

The Community Health Needs Assessment (CHNA) process is based upon the understanding that health and wellness happen across our communities, not just in medical facilities. In gathering information on the communities served by PSH, we looked not only at the health conditions of the population, but also at socioeconomic factors, the physical environment, health behaviors, and invited key stakeholders and community members to provide additional context to the data through qualitative analysis. As often as possible, equity is at the forefront of our conversations and presentation of the data, which often has biases based on collection methodology.

In addition, we recognize that there are often geographic areas where the conditions for supporting health are substantially worse than nearby areas. Whenever possible and reliable, data is reported at the ZIP code or census block group level. These smaller geographic areas allow us to better understand the neighborhood level needs of our communities and better address disparities within and across communities.

Information reviewed include data from the American Community Survey, Columbia Pacific Coordinated Care Organization (CPCCO), and other public health authorities. PSH, Clatsop County Public Health, and the CPCCO all participated in the development of the 2019 CPCCO CHNA. The input of Clatsop County Public Health was extrapolated from that collaboration for use in the PSH CHNA. In addition, we include hospital utilization data to identify disparities in utilization by income and insurance, geography, and race/ethnicity when reliably collected.

Data Limitations and Information Gaps

While care was taken to select and gather data that would tell the story of the hospital's service area, it is important to recognize the limitations and gaps in information occur, though effort was taken to minimize limitations. Data limitations are inherent in most community-based qualitative designs including participant selection bias, the use of independent facilitators, and variable note taking practices, among other factors.

For the Community Health Survey, data collected via population mail surveys also have notable limitations. They only include responses from people with known mailing addresses who can respond to written surveys, and thus may underrepresent those who are unstably housed, facing language or literacy barriers, or other vulnerable or underserved populations. Households from diverse racial-ethnic backgrounds or where the primary language is not English are also less likely to respond to mail surveys, although Spanish language surveys were offered. Because of these limitations, the CHNA uses these data in conjunction with other types of data collection, such as the community listening sessions and stakeholder interviews, which are better positioned to capture data from underrepresented populations.

Process for gathering comments on previous CHNA

Written comments were solicited on the 2016 CHNA and 2017-2019 CHIP reports, which were made widely available to the public via posting on the internet in December 2016 (CHNA) and May 2017 (CHIP), as well as through various channels with our community-based organization partners.

Summary of any public comments received

No written comments were received on the 2016 PSH Community Health Needs Assessment (CHNA) and 2017-2019 Community Health Improvement Plan (CHIP).

COMMUNITY INPUT

Summary of Community Input

To better understand the community's perspective, opinions, experiences, and knowledge, Providence's Community Health Division, in partnership with Center for Outcomes Research and Education (CORE) completed a community health survey, held stakeholder interviews and participated in the Columbia Pacific CCO Micro-narrative process, in which community members and nonprofit and government stakeholders discussed the issues and opportunities of the people, neighborhoods, and cities of the service area. Across the sessions these populations included low-income individuals, and attempted to obtain representation of seniors, youth, LGBTQ+, Hispanic/Latinx, people of color, recent immigrants, those experiencing homelessness, and/or rurally residing individuals. Below is a high-level summary of the findings of these sessions. Full details on the protocols, forms and attendees are available in Appendix 2.

Community Health Survey

In partnership with CORE, Providence's Community Health Division created a survey to assess several health domains, first conducted for the 2013 CHNA. Most survey items were selected from nationally validated tools during the design process; only minor changes were implemented in the 2019 survey to preserve the continuity of findings. The survey was fielded April through June using an address-based sampling methodology to capture a representative group of households in Clatsop County. Of the 1,000 surveys mailed, 158 were returned. Results were weighted by age based upon respondent demographics. Note that in the majority of these findings, lower income households (200% Federal Poverty and below based on self-reported household income and household size) reported greater challenges. The full survey and report from CORE are included in Appendix 2. Key takeaways include:

- Key social determinants of health challenges include **food insecurity** and **housing stability**. Relatively few residents report actually having gone without housing in the last year (2%), though a significant number (14.8%) are worried about losing their housing. Nearly one in ten (8.5%) reported shortages of food in the past year, a jump from the 2.9% in 2016.
- The most common chronic health challenges are **hypertension, high cholesterol,** and **depression**, with the latter reported by more than one in four (28.1%) residents. North Coast residents also reported high rates of **obesity**, with 70.1% of respondents being either overweight (BMI 25-29) or obese (BMI of 30+) according to their own self-reported height and weight. Lower income (200% or less of the FPL) households had significantly higher rates of chronic health challenges.
- Relatively little unmet need for care was found, except for **dental care**. Most residents reported having a place to go for regular or routine care, though lower income households were more likely to report not having such a place (15.8%) than higher

income households (3.1%). For dental care, 17.3% of all respondents reported an unmet need in the previous 12 months.

- Mental health challenges are present, especially in lower income households. Of particular note was the high prevalence of **anxiety** (40.5%) and **PTSD** (17.4%) among lower income respondents. Just over 1 in 5 (22.5%) of respondents indicated needing mental health care and 7.5% stating they had an unmet need for mental health care. A high prevalence of trauma was identified and increasing between 2016 and 2019, with the same populations reporting a higher prevalence of abuse (21.1% vs 32.9%) and witnessing or experiencing violence (29.3% vs 45.1%). Over six in ten (62.1%) residents reported having experienced three or more of the adverse life events included in the survey, suggesting a significant potential trauma burden in the North Coast community.

Key Stakeholder Interviews

During the late summer of 2019, Providence conducted research with key stakeholders in Seaside, Warrenton and Astoria, using a semi-structured interview methodology. Individuals were selected from those in community leadership roles and those leading community-based organizations who have strong connections with our target populations. Each was willing and able to speak to the needs of the community and the populations they represent. A full list of interviewed individuals and question guide is included in Appendix 2. The key themes that emerged from these conversations included:

- Unmet social needs such as housing, food and transportation were frequently mentioned due to the county's rapidly rising home prices and lack of living-wage jobs.

> "Fixed-income households struggle to achieve upward mobility, because if they do choose to work the subsequent loss of benefits may be more than their earned wages."
> *Community stakeholder*

One social service provider noted that since 2018, there has been a 30% increase in families and 18% increase in seniors seeking housing assistance. The Regional Food Bank gave away 3 times as much food in 2019 compared to 2012.

- Lack of access to behavioral health care and those who might be going undiagnosed was seen as a challenge in the North Coast. This includes inpatient care and detoxification services, with a lack of culturally sensitive and/or bilingual services creating an even bigger challenge for Latinx populations.
- In general, the lack of availability of bilingual and culturally competent health and social services providers contributes to health disparities and furthers anxieties in the community.
- Services navigation assistance, was seen as an area where the community could assure all community members get the help they need.

Community Narratives

To understand community strengths and needs, PSH worked with the Columbia Pacific Coordinated Care Organization (CPCCO, the local Medicaid payor) to collect first hand stories using a micro-narrative research approach called SenseMaker. A core team of CPCCO staff, Community Advisory Council members, community partners, and volunteers (including CPCCO health plan members) prepared a survey addressing the region's unique needs. More than 1,200 micro-narratives from Clatsop, Columbia, and Tillamook County residents were collected and analyzed. Each narrative described a personal, unique experience related to health and well-being. Partners, members, and staff who had been involved in story collection or who were considered stakeholders, attended a full day workshop to review the results. This workshop included the presentation of the consultant's statistically significant findings; activities to give first impressions of the information presented and think about what the data meant in part and as a whole; and "theming."

The data was analyzed using multiple comparative frameworks, arriving at the following overarching themes:

- Respondents revealed a need for more and better programs to meet their needs. The need for community resources (such as supportive services for housing, transportation, and food) drastically outweighs the need for community education or safety.
- Barriers to accessing health care occurring most often (listed in no particular order): Geographic isolation, Cost (recurred most often as an opportunity for improvement), Quality of care (recurred most often as an opportunity for improvement), Insurance, and Feelings of being overwhelmed.
- Being heard and supported by people (involved in one's health, health care, and access to health care) is critically important to building health and positive experiences.
- Better health and positive experiences appear to correlate with flexibility and stability (in health care and access to health care).
- Location, cost, and feelings of being overwhelmed seem to be equally weighted barriers.
- Respondents believe that everyone should be treated equally and with respect.
- An examination of the two ethnic minority groups (Latinx and American Indian or Alaska Native) revealed both variety across answers as well as strength of answers. This finding indicates that these groups are not monoliths and have diverse needs and experiences within the health care system.

Challenges in Obtaining Community Input

The process of collecting community narratives presented challenges in that the SenseMaker research methodology had not been utilized by any prior PSH CHNA. As a novel approach to collecting community input, engagement, training and basic logistics required more effort than a basic set of community listening sessions would have entailed. These micro-narratives were also collected in the community and used much smaller increments of people's time lowering barriers to input. Stakeholder interviews simply required accommodation of identified community leaders' time and coordinating schedules.

For additional information, see Appendix 2: Community Input: Qualitative Data

SIGNIFICANT HEALTH NEEDS

ACCESS TO HEALTH SERVICES

Primary Care

Although greatly improved since 2013, access to primary care remains a priority. This includes insurance coverage, the number of primary care providers compared to the population, and general access to primary care.   Geographic isolation, cost, quality of care, insurance, and feelings of being overwhelmed were themes that emerged as barriers to accessing care in the micro-narratives. Clatsop County has fewer primary care physicians relative to population than elsewhere in the state (1,315:1 compared to 1,070:1 across Oregon). Lower income households reached in the Community Health Survey were more likely to report not having a place for regular or routine care compared to higher income households (15.1% vs. 3.1%). Nearly one in three (30%) respondents to the Community Health Survey did not have someone they thought of as their primary care provider, and 7.8% of respondents were uninsured.

Approximately 7% of respondents reported needing care in the past 12 months but not getting all of the care they needed, down from 20% when the Community Health Survey was last administered in 2016. This difference could be attributable to a higher likelihood of 2019 respondents being somewhat higher income and more educated than in 2016, or to improvements in health care delivery in Clatsop County.

Dental Care

Relatively little information is available regarding dental care access through state or county public health data. However, dental conditions remain one of the top reasons vulnerable adults (uninsured, Medicaid, and dual eligible) access the emergency department for conditions that are better treated in another setting. In 2018, 65 unique individuals came to the PSH emergency department for dental conditions. Just under one in five (17.4%) of survey respondents experienced an unmet need for dental care in the last year. This response disproportionately represented individuals and families at or below 200% FPL (24.9%). Stakeholders noted that there was underutilization of free dental services and that preventive dental care wasn't accessed, delaying until care was urgently needed. More dental health education and promotion were mentioned as a community need.

Culturally-Responsive Care

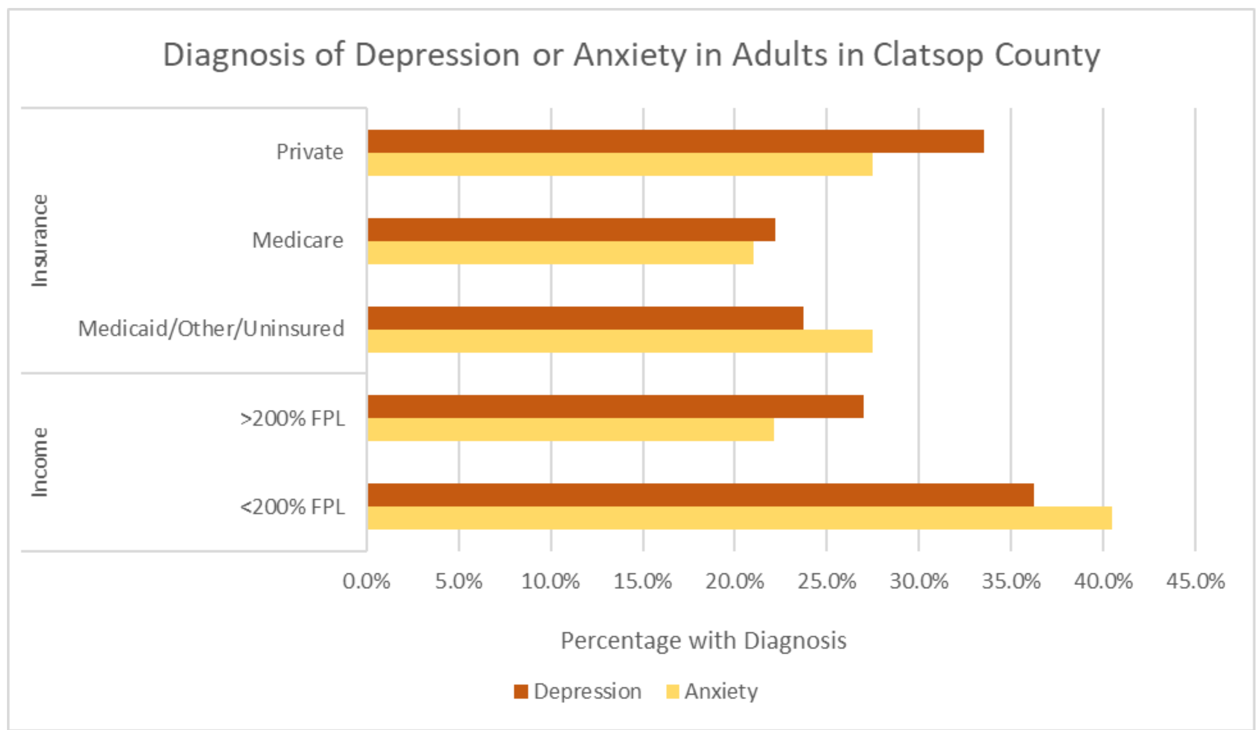
While access to primary care providers, including nurse practitioners and other advanced practice providers has improved in recent years, few of them are bi-lingual or bi-cultural. In particular, a lack of Spanish speaking behavioral health providers is a serious obstacle for the Spanish speaking population in Clatsop County seeking services. The absence of culturally sensitive services in the county means that Spanish-speaking individuals have a difficult time

connecting with services that are offered only in English, or are even refused services until they return with an English speaker. A lack of cultural sensitivity also includes extensive questioning into identification, which can be stigmatizing to undocumented individuals and their families.

COMMUNITY MENTAL HEALTH/WELL-BEING & SUBSTANCE USE DISORDERS

Mental Health Treatment Services

There is a shortage of mental health providers in Clatsop County, but this need is specifically recognized as more than an access issue due to the depth of the challenge. Just over 2 in 10 (22.5%) of survey respondents reported needing mental health care, and 7.5% of respondents did not get all the mental health care they needed. The primary barrier in these cases were people not knowing where to go and not having a regular provider. More than 28% of survey respondents have been diagnosed with depression, 27% with anxiety, and almost 9% with post-traumatic stress disorder. Depression and anxiety were both more common in individuals at or below 200% FPL.



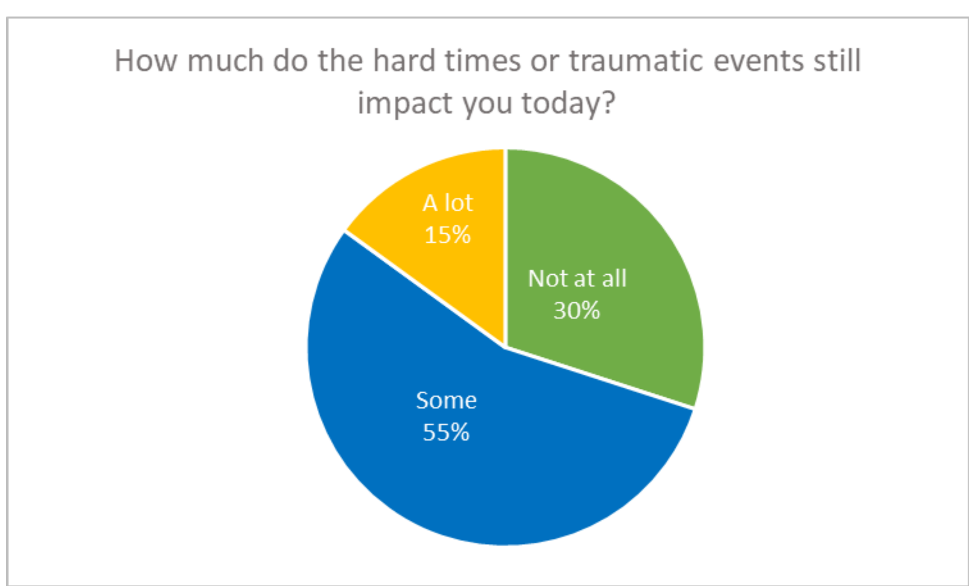
One in five families had been told by a doctor that at least one child had a mental or behavioral health condition, demonstrating that mental health services are needed for both the adult and pediatric population.

Substance Use Treatment

There are relatively few substance use treatment options available in Clatsop County. Lack of access to treatment was also a theme that emerged from key stakeholder interviews, particularly for current substance users and seniors. According to the Behavioral Risk Factor Surveillance Survey (BRFSS), approximately 19% of adults in Clatsop County drink excessively (the average for Oregon is just below 17%). Additionally, the 2017 Oregon Healthy Teens Survey found 6.7% of 8th grade students in Clatsop County and 31.8% of 11th grade students had used alcohol in the past 30 days, 23.9% of 11th graders had used marijuana or hashish, and 8.3% of 11th graders had used prescription drugs without a doctor's orders in the month prior to the survey.

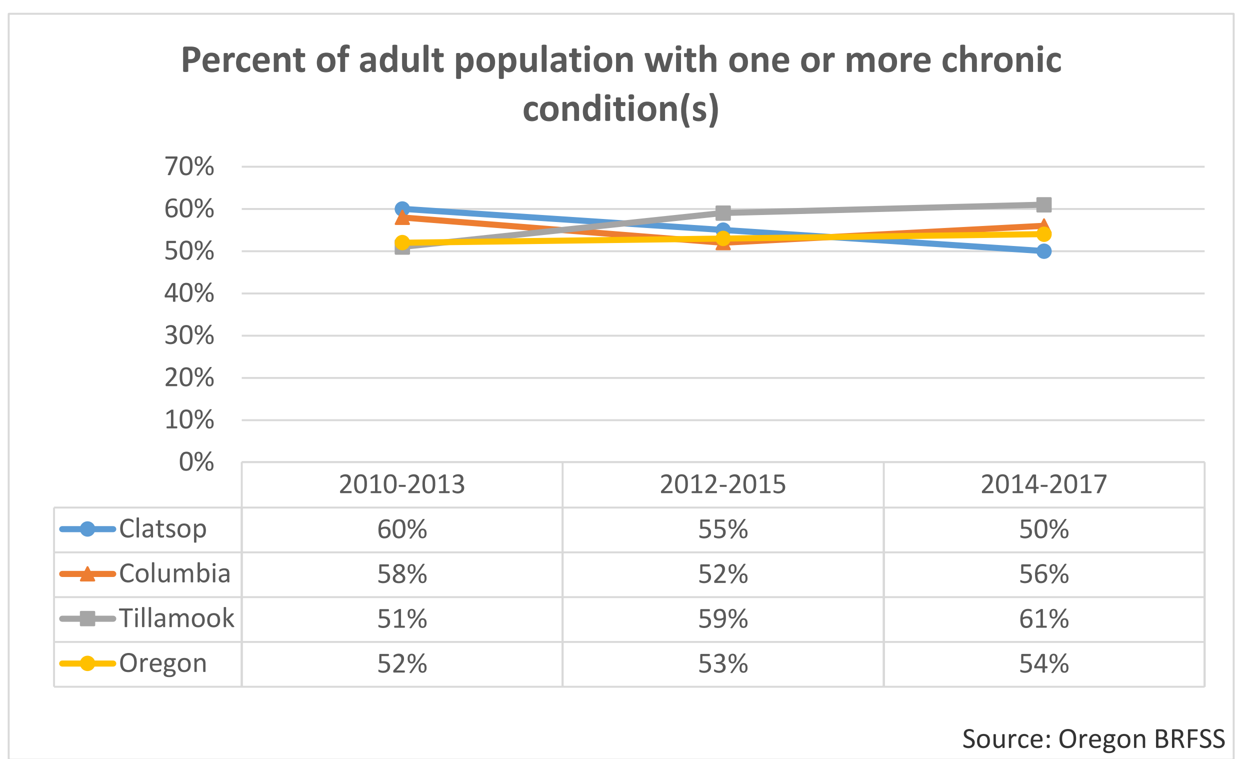
Adverse Experience and Trauma Prevention

The 2016 Community Health Survey was one of the first tools developed to assess prevalence of trauma exposure in the county population, which was repeated in 2019. The results from the survey responses were weighted only by age, so are likely not generalizable to the entire population. However, the survey found that nearly 62.1% of respondents had experienced three or more adverse life events. Rates of several types of self-reported adversity and trauma increased from 2016 to 2019, including abuse (21.1% vs 32.9%) and witnessing or experiencing violence (29.3% vs 45.1%). The most common event was living with someone with mental illness or substance abuse (57.3%), followed by unexpected death of a loved one (48.6%) and having witnessed or experienced violence (45.1%). Individuals at or below 200% FPL were more likely to have been physically hurt or threatened by an intimate partner. 70% of respondents are still impacted in some way by their adverse life experiences.



CHRONIC HEALTH CONDITIONS

This is a broad category that includes long-term illnesses. These conditions arise from a variety of factors including genetics, lifestyle and health behaviors, and environmental factors and are often linked to the social determinants of health. Issues with housing, food security, transportation, education, trauma and social isolation combine to create complex personal challenges that can contribute to deteriorating health and the rise or worsening of chronic disease.



	2010-2013	2012-2015	2014-2017
Clatsop	60%	55%	50%
Columbia	58%	52%	56%
Tillamook	51%	59%	61%
Oregon	52%	53%	54%

Source: Oregon BRFSS

Asthma

Asthma is the sixth most common reason for emergency department utilization, resulting in 107 visits from May 2018 to April 2019. Almost 12% of adults reported having been diagnosed with asthma. Although the prevalence of asthma has decreased in Clatsop County from 10% (2012-2015) to 7% (2014-217), it remains a top chronic disease. This diagnosis is most often related to and aggravated by environmental factors, but is largely controllable through access to regular primary care and appropriate medications.

Diabetes

As the second-most common reason for adult visits to the emergency department, Type II diabetes resulted in 43 emergency department visits from May 2018 to April 2019. Type II diabetes is generally considered a diet-related chronic condition, which can be controlled

through diet, exercise, and healthy behaviors. However, use of the emergency department is a sign of poorly controlled diabetes and can signal poor primary care access. 12.6% of survey respondents in Clatsop County have been told by a doctor that they have diabetes, higher than the national prevalence of 9.5%. Diabetes increases risk for heart attack and can cause other serious health problems, such as kidney disease and vision loss.

Hypertension

From the Community Health Survey, 33.3% of survey respondents have been told by a doctor that they have high blood pressure, with the diagnosis being far more likely amongst Medicare beneficiaries (58.3%). Hypertension is a primary contributor to the 7% prevalence of heart disease in Clatsop County, which is similar to that seen in Oregon overall. Heart failure represents PSH's highest admission rate, measured at 64 per 1,000 discharges, significantly higher than the Providence Oregon Region's average of 48 per 1,000 discharges.

Obesity

Obesity rates for Clatsop County are comparable to Oregon as a whole, at 28% and 29% respectively according to 2014-2017 BRFSS. Almost 26% of 8th graders and 31.5% of 11th graders are overweight or obese. These values are similar to the state average of 29.1 and 32.3%, respectively. Obesity is often impacted by limited access to healthy foods and lack of recreation opportunity, both of which are considered social determinants of health. Further, being overweight or obese increases the chances of developing Type II diabetes and is a major risk factor contributing to hypertension.

SOCIAL DETERMINANTS OF HEALTH RESUTLING FROM POVERTY AND INEQUITY

The term "social determinants of health" refers to factors that contribute to the health and well-being of individuals in a social context. In other words, variables of health occur where people live, work, learn, and play. Sometimes these factors can be related directly to health, but other times they are not commonly considered health factors, like access to affordable housing and transportation. However, all social determinants of health have a measurable impact on the health of a community.

Affordable housing

Access to safe, affordable housing has emerged as an issue across the State over the last few years. Studies have demonstrated the importance of housing on health outcomes, which is why it is considered a social determinant of health. Homelessness is especially prevalent in Clatsop County, which experiences the second highest rate in Oregon. 17 out of 1,000 individuals in the

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"There can be as many as 100 applications for one new affordable group housing unit, and the problem of lack of housing is getting increasingly worse in the county."

Community Stakeholder

---

county experience homelessness, nearly six times the average rate in Oregon. Almost 15% of survey respondents reported not having stable housing, or being worried about losing their stable housing in the last year. These responses were particularly common amongst respondents who were at or below 200% FPL or were in the Medicaid/uninsured/dual eligible insurance category. One social services stakeholder organization reported a 30% increase in families and an 18% increase in seniors seeking housing assistance since 2018.

Healthy Food Access

Healthy food access, including affordability of fruits and vegetables, contributes to keeping people well. Clatsop Community Action, which administers the regional Food Bank reported that in 2019 they gave away three times more food than in 2012. In the 2017 Oregon Health Teens survey, 11.1% of 8th graders and 16.9% of 11th graders in Clatsop County reported eating less food than felt they should because there wasn't enough money to buy food. The Community Health Survey identified nearly 60% of people having fewer than two servings of fruit per day and 35.7% of people having fewer than two servings of vegetables per day. Medicare beneficiaries and those in the Medicaid/uninsured/dual eligible category were more likely to report having less than two servings of vegetables.

Transportation

Reliable, timely transportation was another unmet need mentioned by many stakeholders. Infrequent bus routes with limited hours pose difficulties for many, including those in the hospitality industry who work odd hours, as well as the elderly and disabled who do not drive. Poor weather and a lack of infrastructure for biking increase the need for reliable bus transportation in the county. Clatsop County is responding to this need, and bus lines have been expanded and fares reduced in the last year.

Services Coordination

As mentioned in the Access to Care section, stakeholders viewed social services navigation as an area that had great potential to improve the community health status, particularly in the Latinx population. Clatsop Community Action (CCA) is a valuable resource in the area that specializes in food, housing, and energy assistance. In addition, CCA offers referrals to other social service agencies in the county. As a small county, there is ample opportunity for collaboration between agencies.

Resources Available to Potentially Address Significant Health Needs

Understanding the potential resources to address significant health needs is fundamental to determining current state capacity and gaps. Resources potentially available to address these needs are vast in Clatsop County. The organized health care delivery systems include the Department of Public Health, Columbia Memorial Hospital, Providence Seaside Hospital, and three Providence Medical Group clinics. In addition, there are numerous social service non-profit agencies, faith-based organizations, private and public-school systems that contribute resources to address these identified needs. A list of potential resources available to address significant health needs can be found in Appendix 3.

2019 PRIORITY NEEDS

Prioritization Process and Criteria

Based upon the various sources of information in this assessment, items that were corroborated by two or more sources were identified as priority health needs. These needs were then grouped into four actionable categories, which will guide our efforts in developing the Community Health Improvement Plan. Due to the nature of initial identification of needs, this prioritization included worsening trends, values worse than state averages, and a disproportionate impact on communities of color, low-income, or otherwise marginalized groups. Additional prioritization regarding feasibility, effectiveness of interventions, and ability to partner with community organizations will be applied during CHIP development.

The list below summarizes the rank ordered priority health needs PSH identified through the 2019 Community Health Needs Assessment Process:

Priority #1: Social determinants of health resulting from poverty and inequity – focus areas in housing, transportation, and food security; includes coordination of supportive services.

Priority #2: Chronic health conditions – focus on prevention of obesity, diabetes, hypertension, and depression.

Priority #3: Community mental health/well-being and substance use disorders - focus on prevention (particularly for youth), culturally responsive care and health education, social isolation, and community building.

Priority #4: Access to health services – Focus on services navigation and coordination, culturally responsive care and oral health.

EVALUATION OF IMPACT ON 2016-2019 COMMUNITY HEALTH IMPROVEMENT PLAN (CHIP)

This report also evaluates the results from our most recent CHNA and CHIP. PSH responded by making investments of direct funding, time, and resources to internal and external programs that were most likely to have an impact on the previously prioritized needs. This summary includes just a few highlights of our efforts across Clatsop County. In addition, we invited written comments on the 2016 CHNA and 2017-2019 CHIP reports through website and published contact information, made widely available to the public. No written comments were received on the 2016 CHNA and 2017-2019 CHIP.

Below are some highlights of our impact under each priority:

Priority Need	Program or Service Name	Results/Impact	Type of Support
Access to Care	Partnered with Medical Teams International to provide mobile dental services	63 emergency detail clinics held in the North Coast Region, serving 600 patients $381,439 worth of donated services	Grant
	Implementation Partner in the Children's Dental Health Initiative grant	8 schools grades 1-7 participating, completing 1,615 screenings, providing 1,154 kids with 4,179 dental sealants, and referring another 554 children for further dental treatment	Grant
Behavioral Health	Partner with FosterClub in the PeerUp! Program, providing peer support services to improve the behavioral and mental health outcomes of transition age Clatsop County youth having experienced foster care	50 weekly group sessions held per year since July, 2017, with an average of 15 youth enrolled in the PeerUp! Program at any one time. 199 services are provided on average each quarter with 75% of participants self-reporting a decrease in instances of anxiety, depression and grief.	Grant *Note:* Due to the success of the PeerUp! Program, funded largely by Providence, FosterClub received a State grant to expand into 3 additional Oregon Counties.
	Partner with The Harbor to support mothers and children escaping domestic violence and support them in recovery	In 2018 The Harbor opened the first (and only) safe shelter in the County, providing 9-12 individuals (3-4 families) shelter on any given day. Per quarter (on average) the shelter serves 180 survivors and children.	Grant (Capital Contribution)
Chronic conditions	Partner with Way to Wellville on Clatsop County Kids Go!	600 children enrolled in program Beginning in Fall 2019, will be serving 3 Clatsop County school districts.	Grant
Social Determinants of Health	Partner with Clatsop Community Action to implement Community Resource Desk program	Served 1,291 unduplicated clients, with 2,355 individuals (total household) benefitting and a total of 3,179 service needs identified	Program

	Partner with Project Access NOW to operate the Patient Support Program	Caring for 1,118 patients' needs on discharge, providing 1,944 vouchers at a value of $87,197.	Program
	Partner with Helping Hands Re-entry Outreach Centers to provide emergency shelter, food and services to homeless.	A new Astoria shelter and new women's shelter were opened in Seaside providing 18,832 overnight stays, 23,313 meals served and 3,936 showers.	Grant

Addressing Identified Needs

The Community Health Improvement Plan development for the PSH service area will consider the prioritized health needs identified through this CHNA and develop strategies to address needs considering resources, community capacity, and core competencies. Those strategies will be documented in the CHIP, describing how PSH plans to address the health needs. If the hospital does not intend to address a need or plans to have limited response to the identified need, the CHIP will explain why. The CHIP will not only describe the actions PSH intends to take but also the anticipated impact of these actions and the resources the hospital plans to commit to address the health need.

Because partnership is important to addressing health needs, the CHIP will describe any planned collaboration between PSH and community-based organizations in addressing the health need. The improvement plan will be approved and made publicly available no later than May 15, 2020.

2019 CHNA GOVERNANCE APPROVAL

This community health needs assessment was adopted on October 23rd, 2019 by the PSH Service Area Advisory Council [authorized body of the hospital] [3]. The final report was made widely available[4] on December 19th, 2019.

12/6/19

Don Lemmon — Date
Chief Executive, Providence Seaside Hospital

12/05/19

Lisa Vance — Date
Chief Executive, Oregon Region

Joanne Warner — 12/11/2019

Joanne Warner — Date
Chair, Oregon Community Ministry Board

12/11/2019

Joel Gilbertson — Date
Senior Vice President, Community Partnerships
Providence St. Joseph Health

CHNA/CHIP contact:

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Request a copy, provide comments or view electronic copies of current and previous community health needs assessments: CommunityBenefit@providence.org

[3] See Appendix 5: Providence Seaside Hospital Community Health Needs Assessment Committee Sector: Hospital, Community Based Organization, Education, Affordable Housing
[4] Per § 1.501(r)-3 IRS Requirements, posted on hospital website

APPENDICES

Appendix 1

As a health care system, we recognize that some of our own information can provide important perspective to unmet community health needs as well. We reviewed data from our hospital medical record system over the 12 month period through April 2019, including percent of avoidable Emergency Department cases, top reasons for hospital utilization, and the prevalence of all self-harm instances. Providence St. Joseph Health implemented a standard definition of Avoidable Emergency Department (AED) visits based on research and standards from New York University and Medi-Cal. As appropriate, this data and data from other public sources are noted in the report.

a) Health Professions Shortage Area

The Federal Health Resources and Services Administration designates Health Professional Shortage Areas as areas with a shortage of primary medical care, dental care, or mental health providers. They are designated according to geography (i.e., service area), demographics (i.e., low-income population), or institutions (i.e., comprehensive health centers). Clatsop County is a designated primary care, dental care, and mental health care professional shortage area (https://www.oregon.gov/oha/HPA/HP-PCO/Pages/HPSA-Designation.aspx).

b) Medical Underserved Area/Medical Professional Shortage Area

Medically Underserved Areas and Medically Underserved Populations are defined by the Federal Government to include areas or population groups that demonstrate a shortage of healthcare services. This designation process was originally established to assist the government in allocatin g community health center grant funds to the areas of greatest need. Medically Underserved Areas are identified by calculating a composite index of need indicators compiled and with national averages to determine an area's level of medical "under service." Medically Underserved Populations are identified based on documentation of unusual local conditions that result in access barriers to medical services. Medically Underserved Areas and Medically Underserved Populations are permanently set, and no renewal process is necessary. The Seaside, Svensen, and Warrenton Service Areas are all designated MUAs (https://data.hrsa.gov/tools/shortage-area/mua-find).

Appendix 2: Community Input

Community Input Type (e.g. Listening Sessions, community forum, etc.)	City, State	Date (Month, Day, Year)	Language information was gathered
Stakeholder interview	Portland, OR	8/19/2019	English
6 stakeholder interviews	Seaside, OR, Astoria, OR	8/20/2019	English
Micro-narrative research	Clatsop County, OR	December 2018	English
Community Survey	Clatsop County, OR	May/June/July, 2019	English/Spanish

Key Community Stakeholder Participants

Stakeholders	City, State	Organization
Skylar Archibald	Cannon Beach, OR	Director, Sunset Empire Park & Recreation District
Melissa Johnstone	Warrenton, OR	Clatsop County Program Manager/Process Leader, NorthWest Senior and Disability Services
Dusten Martin	Warrenton, OR	Chief Operations Officer, CCA Regional Food Bank
Viviana Matthews	Astoria, OR	Interim Executive Director, Clatsop County Community Action
Maritza Romero	Astoria, OR	Interim Executive Director, Lower Columbia Hispanic Council
Alan Evans	Seaside, OR	Chief Executive Officer, Helping Hands Reentry Outreach Centers
Raven Russel	Seaside, OR	Development Director, Helping Hands Reentry Outreach Centers

Key Community Stakeholder Interview Guide

Key Community Stakeholder	**Hospital Representatives**
Date and Time of Interview **Location**	**(Please list all attendees)**
Key Community Stakeholder Names/Titles (please list all attendees)	

Organization Name
Preferred Contact

Interview Questions	
Purpose	**Question**
To understand the role of the stakeholder's organization and community served	**1. How would you describe your organization's role within the community?**
	2. How would you describe the community your organization serves? Please include the geographic area.
To identify and prioritize unmet health related needs in the community, including the social determinants of health	**3. Please identify and discuss specific unmet health-related needs in your community for the persons you serve. We are interested in hearing about needs related to not only health conditions, but also the social determinants of health, such as housing, transportation, and access to care, just to name a few.**
	4. **Can you prioritize these issues? What are your top concerns*? [Note to interviewer: encourage ranking of at least top three health needs in order of priority]***
	5. Using the table, please identify the five most important "issues" that need to be addressed to make your

	community healthy (1 being most important). [see table below]
To identify populations disproportionately affected by the unmet health-related needs	**6. Are there specific populations or groups in your community who are disproportionately affected by these unmet health-related needs? We have a particular concern for those that are low income, vulnerable or are experiencing health inequities.**
To identify gaps in services that contribute to unmet health-related needs	7. **Please identify and discuss specific gaps in community services for the persons you serve that contribute to the unmet health-related needs you identified earlier.**
To identify barriers that contribute to unmet health-related needs	**8. Please identify and discuss specific barriers for the persons you serve that contribute to the unmet health-related needs you identified earlier.**
To identify community assets that can be leveraged, such as initiatives that are already addressing these health-related needs	**9. What existing community health initiatives or programs in your community are helpful in addressing the health-related needs of the persons you serve, especially in relation to the health related needs you identified earlier? Can you rank them in terms of effectiveness?**

To identify opportunities for collaboration between organizations	**10. What suggestions do you have for organizations to work together to provide better services and improve the overall health of your community?**
Anything else	**11. What other things do you think we should hear about?**
Other comments:	

Question 5: Using the table below, please identify the five most important "issues" that need to be addressed to make your community healthy (1 being most important).			
	Aging problems (e.g. memory loss/hearing/vision loss)		Access to oral health providers
	Air quality, e.g. pollution, smoke		Access to safe, nearby transportation
	Obesity		Lack of community involvement
	Bullying/verbal abuse		Affordable daycare and preschools
	Domestic violence, child abuse/neglect		Job skills training
	Few arts and cultural events		Accessibility for people with disabilities
	Firearm-related injuries		Safe and accessible parks/recreation
	Gang activity/violence		Behavioral health challenges (includes both mental health and substance use disorder)
	HIV/AIDS		Poor schools
	Homelessness/lack of safe, affordable housing		Racism/discrimination
	Food insecurity		Unemployment/lack of living wage jobs
	Access to medical care		Safe streets for all users (e.g. crosswalks, bike lanes, lighting, speed limits)

	Access to behavioral health care		Other:

Community Listening Session Facilitator Guide

INTRODUCTION

Good morning/evening and welcome to our listening session. Thank you for taking the time to join our conversation. My name is [FACILITATOR NAME], and I work with Providence St. Joseph Health, a health care system. For this session, I am working with [HOSPITAL NAME(S)] to complete their community health needs assessment. This process is completed every three years to better understand the health needs and strengths of the communities. That's why we're talking with community members like all of you.

The information from this session will become part of the community health needs assessment report, which [HOSPITAL NAME(S)] will use to help improve the health and wellbeing of the community. Your responses will be anonymous. We may use some quotes from the session, but we will not include your name. We will not be recording this session, but two people will be helping to take notes during the conversation. Their names are [NAMES].

I will facilitate the conversation, but I will not be participating. I will ask some questions of the group. I may need to move the conversation to the next question to ensure we have time to cover all of the questions.

I hope that all of you can share your experiences and opinions with us during this hour together. Please feel free to get water or use the restroom during the session. Participation today is optional and you may leave at any time.

During this conversation I want everyone to have a chance to talk and share your thoughts. Feel free to respond to one another and give your opinion even if it is different from someone else's. Before we start I want to set some expectations for the group. First, everyone should participate, but only one person will speak at a time. Second, there are no right or wrong answers, we must all be respectful of one another. Third, please keep what you hear today within this room.

Before we begin, are there any questions?

Great, does everyone consent to participation? Would anyone like to leave?

INTRODUCTORY ACTIVITY

We have a little over an hour to talk, and I'd like to start with a creative activity. I'd like you to

start by thinking about your community. People might think of "community" in different ways. Maybe it's family, or maybe it's neighbors, or maybe it's coworkers or friends. For the next 5 minutes, draw a picture that represents **your community**.

Pause, give people ~5 minutes to draw. Facilitator should draw too.

So let's go around in a circle—tell me your name, and tell us something about the community represented in your drawing. We will each have about thirty seconds to share. I'll start.

Facilitator introduces self, models talking about community.

Then everyone goes in a circle, introducing self and saying a few words about their community.

Thank you all for sharing. That leads into what we're going to talk about next: the health of your community. This is going to be an informal discussion. We want to hear about your ideas, experiences and opinions. Everyone's comments are important. They might be similar or very different, but they all should be heard. The goal today is to record everyone's opinions.

CONTEXT

What we were hoping to talk about today is: ***What makes a healthy community?***

That's a difficult question, because it involves two ideas. First, there's ***HEALTH***. What do we mean by health? Do we mean freedom from disease? Having enough to eat? Feeling generally good about life? Being financially healthy?

Then there's the idea of ***COMMUNITY***. What do we mean by community? Are we talking about each one of you, individually? Are we talking about your friends and family? Your neighborhood? Your church? Your racial or ethnic group? Your city or town?

We're not going to define these things for you. We're going to keep it open.

QUESTION 1. VISION.

Now take a minute to think about your community—that community that is represented in your drawing. **How can you tell when your community is healthy?**

Probes if needed:

- *You have all spoken about physical health. What about other kinds of health and wellbeing?*

- *What does a healthy community look like for people going through a difficult time?*
- *What does a healthy community look like for families?*
- *What does a healthy community look like for your children or young people?*
- *What does a healthy community look like for older adults?*

  Instructions: write ideas on the poster.

QUESTION 2. NEEDS.

So we've talked about what a healthy community looks like. Now let's talk about what's not there or what you need more of.

What's needed? What more could be done to help your community be healthy?

Probes if needed: Consider relating probes to question one. What's needed to help community members reach their specific ideas of a healthy community? For example:

- *What's needed to help your community be physically healthy?*
- *What's needed to help your community be mentally and emotionally healthy?*
- *What's needed to help your community be safe?*
- *What's needed to ensure all members of your community can lead healthy lives?*

  Instructions: write ideas on the poster.

QUESTION 3. STRENGTHS.

So you've told us what a healthy community looks like and what the needs are in your community. Let's explore this idea a little more. Communities have certain **resources** that can help them be healthy. It might be programs. It might be a park or a community center. It might be a really great teacher at your local school. It might be a local business or a local organization that helps people be healthy.

My question for you is:

What's working? What are the resources that CURRENTLY help your community to be healthy?

Probes if needed:

- *Are there people that help your community be healthy?*
- *Are there places people can go that help them be healthy?*
- *Are there programs that help your community be healthy?*

- *How do community members help each other be healthy?*
  Instructions: write ideas on the poster.

Thank you all for sharing your thoughts and opinions with the group today. All of this information is really helpful. Before we finish, **is there anything else related to the topics we discussed today that you think I should know that I haven't asked or that you haven't shared?**

Wrap-Up: Thank participants for coming, describe any next steps. Make sure folks signed in for an appropriate count, and distribute gift cards/incentives as they leave.

To be completed by interviewer after interview is complete
1. Was the interview recorded? YES / NO *[please circle]* a. If yes, how long is the recording: _____ minutes, ____ seconds b. Title of the recording:
2. Were there any questions the stakeholder did not seem to understand or struggled to answer?
3. Are there any questions you would recommend editing or removing?
Other comments:

Appendix 3: Resources Potentially Available to Address the Significant Health Needs Identified Through the CHNA

Providence Seaside Hospital cannot address the significant community health needs independently. Improving community health requires collaboration across community stakeholders. Below outlines a list of community resources potentially available to address identified community needs.

Organization Type	Organization or Program	Description of services offered	Street Address (including city and zip)	Significant Health Need Addressed
Social services	Cannon Beach Food Pantry	Food assistance	268 Beaver St Cannon Beach, OR 97110	Social determinants of health
Health center	Caring for Clatsop Respite Center	Community based residential treatment facility	326 SE Marlin Ave Warrenton, OR 97146	Behavioral health
City services	City of Seaside	Community center	1225 Avenue 'A', Seaside, OR 97138	Chronic Conditions
Social services	Clatsop Behavioral Health	Outpatient mental health agency	65 N Highway 101 204, Warrenton, OR 97146	Behavioral health
Social services	Clatsop Community Action	Food, housing, and energy assistance	364 9th St Ste A, Astoria, OR 97103	Social determinants of health
Health center	Coastal Family Health Center	Behavioral, dental, and primary care services	2158 Exchange St #304, Astoria, OR 97103	Access to care
Hospital	Columbia Memorial Hospital	Emergency, primary, and hospital care	2120 Exchange St, Astoria, OR 97103	Access to care
Coordinated care organization	Columbia Pacific Care CCO	Physical, behavioral, and dental health	315 SW 5th Ave Ste 900, Portland, OR 97204	Access to care
Social services	Lower Columbia Hispanic Council	Health promotion and education, social and economic advancement of area Latinos	818 Commercial St Ste 100, Astoria, OR 97103	Access to care

Social services	Helping Hands Re-entry	Emergency shelters and transitional housing	1320 12th Ave, Seaside, OR 97138	Social determinants of health
Healthcare	Medical Teams International	Mobile dental program	14150 SW Milton Ct, Portland, OR 97224	Access to care
Social services	NAMI Oregon	Behavioral health services	P.O. Box 1066, Astoria, Oregon, 97103	Behavioral health
Social services	Northwest Senior and Disability Services	Housing, insurance, and food assistance for seniors and adults with physical disabilities	2002 SE Chokeberry Ave, Warrenton, OR 97146	Access to care
Social services	South County Community Food Bank	Food assistance	2041 N Roosevelt Dr, Seaside, OR 97138	Social determinants of health
Social services	St. Vincent de Paul	Food assistance	3575 Highway 101 N, Gearhart, OR 97138	Social determinants of health
City services	Sunset Empire Parks and Recreation District	Community center, opportunities for physical activity,	1140 Broadway St, Seaside, OR 97138	Chronic conditions

Appendix 4: Addressing Identified Needs through the 2020-2022 Community Health Improvement Plan

Will be completed in May 2020.

Appendix 5: PSH Service Area Advisory Council

Name	Title	Organization	Sector
Becky Buck	Director	Clatsop Bank	Financial
Steve Phillips	Retired	Business Owner	Retail
Nancy McCune	Owner	Cannon Beach Gallery	Retail
Julie Jesse	Owner	Café Latte	Food Services
Vince Huntington, MD	Retired Physician	Providence	Health Care
Roger Schultz	Entrepreneur	Community Member	Construction
Tim Tolan	Owner	Seaside Vacation Rentals	Tourism
Joann Vandenberg	At Large	Community Member	
Skylar Archibald	Director	Sunset Parks and Recreation	Government
Chuck Edgar	At Large	Community Member	
Gudelia Contreras	Director	Hispanic Council	CBO
John Rahl	Assistant City Manager	City of Seaside	Government
Larry Zagata, MD	Physician	Providence	Health Care

Sector: Hospital, Community Based Organization, Education, Affordable Housing, Legal, Education, Local Government, Public Health, etc.

Appendix 6. CORE North Coast Community Health Survey Final Report

2019 COMMUNITY HEALTH SURVEY

North Coast Service Area

August 2019

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CORE TEAM:
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INTRODUCTION & METHODS

1 OVERVIEW

This report summarizes results from a *community health survey* completed as part of Providence St. Joseph Health's 2019 community health needs assessment (CHNA) process. The purpose of the community survey was to use a representative population sample to provide statistically valid estimates of health and health needs throughout the community, including needs related to the social determinants of health. The survey was conducted by CORE in the Spring of 2019.

Data from this survey represent one lens on the community's health and health needs. They are best used in conjunction other elements of the CHNA process, such as community stakeholder interviews or other publically available data, to provide a comprehensive set of data supports for developing a community health action plan.

2 SURVEY DESIGN

The survey instrument was based on the same form used in the 2016 community needs assessment. This included a set of questions designed to capture a range of health and health-related needs including access to essential health services, social determinants of health screenings and assessments, subjective health and well-being outcomes, and others. Most survey items were selected from nationally validated tools during the 2016 design process; only minor changes were implemented in the 2019 survey in order to preserve continuity of findings. Surveys were available in English and Spanish; Spanish translation was performed by a certified translator and all materials underwent plain-language review. A copy of the survey is available in the appendix.

The mail survey was fielded via a multi-stage mailing protocol supported by automated phone reminder calls:

Multi-Stage Mail Survey Process

SURVEY	AUTO CALL	SECOND SURVEY	THANK YOU & INCENTIVE
An initial survey and explanation letter, with a postage-paid return envelope.	Automated phone outreach asking participants to look for the survey in their mail and call with questions.	Second survey sent to participants that did not return the initial survey.	A thank you card and $10 incentive was provided upon receipt of the completed survey.

3 SAMPLE & RESPONSE RATE

We used address-based sampling to capture a representative group of households in the North Coast region. Beginning with a list of all residential addresses in the community, we randomly selected 1,000 households to receive the survey.

We used census data to identify zip codes where at least 10% of households reported that Spanish was spoken at home; in those zip codes households received surveys in both English and Spanish. Fielding efforts revealed that surveys for 158 of the sampled households were not ultimately deliverable, leaving a final deliverable sample of 842 households. We received 160 completed surveys, yielding a 19% response rate.

Responses from 160 randomly selected households.

DATA QUALITY & LIMITATIONS

Data from these surveys are distinct from results gained by handing surveys out in community settings. Because they are representatively sampled, these data can provide good overall estimates of the true prevalence of certain health conditions and challenges for a community.

However, data collected via population mail surveys also have important limitations. They necessarily only include respondents from people with addresses who can respond to written surveys, and thus may underrepresent those who are unstably housed, challenged by language or literacy barriers, or other vulnerable or underserved populations. Households from diverse racial-ethnic backgrounds or where the primary language is not English are also less likely to respond to population-based mail surveys. Because of these limitations, we recommend using these data in conjunction with other types of data collection, such as hand-fielded surveys or results from community sessions or stakeholder interviews, which are better positioned to capture data from populations likely to be underrepresented.

ANALYSIS & WEIGHTING

We entered all data in tabular form and analyzed it with a statistical software package (R version 3.3.3). Results were displayed for all respondents and for three key subgroups:

- **Race/ethnicity:** Non-Hispanic white respondents vs. respondents who identify as Hispanic, Latina(o), or other.
- **Household income:** Households reporting earnings less than 200% of the federal poverty level (FPL) vs households reporting earnings 200% of FPL or higher.
- **Coverage type:** Households reporting health coverage from a private employer vs Medicare coverage vs either Medicaid coverage or no coverage.

Testing for Disparities: To test for statistically significant differences between these key subgroups in our data, we used two-tailed chi-square tests of association. We flagged results with a p-value of .10 or less flagged as "statistically significant," indicating a high degree of confidence that the indicated difference between subgroups was not present in the data by simple chance.

Weighting: Since respondents to population surveys are often proportionally older than the actual community, and age is associated with prevalence of many health conditions, we weighted our results to account for the population's actual age distribution. Weighting allows our blended results to be more representative of the actual population in a region. We did not weight results by race/ethnicity, education, or any other variable. Details on our weighting methodology are available on request from CORE.

PRESENTATION OF RESEARCH FINDINGS

All data tables in this report (except where specifically noted otherwise) display the weighted percentage -- which adjusts our data by age to match population distributions -- as well as the *actual number of surveys* we received from which those weighted results were computed. Percentages are weighted by age to ensure our estimates are representative of the actual community population.

Major results are presented for each of four survey domains (right). For each survey question, we report the total weighted percentage of respondents who indicated a particular answer. We then break out responses by the three key subgroups of race/ethnicity, income, and insurance. Responses to key survey items are summarized in the body of the report, but complete results for every survey item are available in the **supplementary data tables.**

KEY RESULTS DOMAINS
Access to Care
Health & Health Status
Health Behaviors
Social Determinants of Health

OVERVIEW OF RESPONDENTS

Respondents to the 2019 North Coast survey looked largely similar to those who responded in 2016. Distributions by gender, race/ethnicity, and income looked very similar between 2016 and 2019. On average, 2019 respondents were somewhat younger and more educated than in 2016, but these differences were not larger than might be expected by chance given the size of the respective samples involved.

Overall, respondents to the survey reflect a population that is older and more likely to be white than the full North Coast population, because those populations are generally more likely to respond to population mail surveys. These response patterns are a known weakness of population-based mail surveys, and are one reason data such as this should be supplemented with information collected by other means, including direct or enhanced outreach into diverse communities. When conducting a community needs assessment, data from surveys should always be considered in tandem with other sources of community information.

	2016		2019	
	Total (N)	Percent	Total (N)	Percent
GENDER				
Male	90	43.7%	64	40.2%
Female	112	54.4%	92	57.6%
Transgender, non-binary, nonconforming, or no answer	--	--	4	2.3%
AGE				
18 to 39 years	19	9.2%	44	29.2%
40 to 64 years	62	1.0%	67	44.3%
65 to 79 years	80	38.8%	31	20.7%
80+ years	38	18.4%	9	5.9%
RACE & ETHNICITY				
White, non-Hispanic	186	92.7%	145	90.9%
Other race/ethnicity*	9	7.3%	15	9.1%
INCOME				
100% FPL or lower	30	14.6%	22	13.8%
101% to 200% FPL	32	15.5%	28	17.8%
201% FPL or higher	100	48.5%	93	58.4%
Did not answer	-	-	16	10.0%
EDUCATION				
Less than high school	6	2.9%	11	7.1%
High school diploma/GED	64	31.1%	37	23.0%
Vocational or 2 year degree	63	30.6%	42	26.2%
4-year degree or more	66	32.0%	68	42.3%
Did not answer	-	-	2	1.4%

KEY RESULTS: ACCESS TO CARE

1 INSURANCE COVERAGE

Overall, the estimated uninsured rate remained very stable between 2016 (6.3%) and 2019 (7.8%). Rates of uninsurance did not differ significantly by subgroup – although the rate looks large for the Hispanic population segment, the result is based on too few responses (8) for valid statistical testing to be conducted.

DO YOU CURRENTLY HAVE ANY KIND OF HEALTH INSURANCE?

CURRENT INSURANCE COVERAGE	2016	2019	2019 BY SUBGROUP:			
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)
No Insurance	6.3%	7.8%	5.2%	47.3%	8.8%	7.3%

* No significant differences by subgroup. Tests only performed if n=20 or more.

Among those reporting no insurance, 92% (11/12 respondents) indicated that cost was the main reason why.

TYPE & CONTINUITY OF INSURANCE: Nearly half (48.3%) of respondents reported having private insurance, with Medicare (18.5%) and Medicaid (25.4%) making up the balance. When asked about their coverage for other types of services, common coverage gaps included dental (with 65.5% indicated they had dental coverage for all of the last year) and vision (with 59.2% indicating coverage for all of the last year). Relatively few respondents (30.3%) indicated having long-term care coverage.

MOST COMMON COVERAGE TYPES	2016	2019
	n=201	n=158
Private Insurance	43.0%	48.3%
Medicare	24.0%	18.5%
Medicaid	14.9%	25.4%
Uninsured	6.3%	7.8%

2 CONNECTION TO PRIMARY CARE

Most respondents had a usual source of care: only 7.6% reported that they do *not* have a place to go for non-emergency health care. However, nearly one in three (30%) reported not having anyone they think of as their personal doctor or health care provider, a common indicator of strong connections to primary and preventive care. Rates were stable between 2016 and 2019, but connections to primary care varied significantly by subgroup: lower income households, including those on Medicaid or uninsured, were significantly less likely to report a usual source of care than those on private insurance or Medicare.

QUESTIONS ON CONNECTIVITY TO PRIMARY CARE

CONNECTIONS TO CARE	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
No usual place for non-emergency care	5.5%	7.6%	8.6%	0.0%	15.8%*	3.1%*	4.9%*	1.5%*	15.1%*
Does not have a personal doctor or provider	21.4%	30.0%	30.2%	0.0%	41.9%*	25.8%*	37.0%*	7.8%*	32.7%*

* Significant differences between subgroups. Tests only performed if n=20 or more.

3 ACCESS TO MEDICAL CARE

Most respondents (85.5%) reported needing some kind of medical care in the preceding 12 months, about the same as in 2016. However, the percent of the population who reported needed care but having to go without it was substantially lower in 2019 (7.0%) than in 2016 (20.1%). This may be attributable to differences in respondents -- 2019 respondents were somewhat more likely to be higher income and more educated than in 2016, so might have had more success navigating the system to get their needs met. It could also be attributable to improvements in care delivery in the North Coast region or some of each factor.

ACCESS TO MEDICAL CARE IN LAST YEAR	2016 Total (n=201)	2019 Total (n=160)	2019 BY SUBGROUP: Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Needed Care & Got ALL the care they needed	62.2%	78.5%	77.4%	100.0%	76.2%	79.8%	71.1%	92.0%	81.9%
Needed Care & Sometimes Went Without	20.1%	7.0%	6.9%	0.0%	8.3%	7.2%	7.3%	3.2%	8.7%
Did Not Need Care	17.7%	14.5%	15.7%	0.0%	15.5%	13.0%	21.6%	4.8%	9.3%

* No significant differences between subgroups. Tests only performed if n=20 or more.

TYPES OF UNMET MEDICAL NEED: The survey asked respondents who had to go without needed care to identify which types of medical care they went without. Of those who went without care, 25% said they went without routine checkups or exams, 18.7% went without care of an illness or injury, 33.5% went without visits about their chronic health conditions, and 27.9% went without "some other type of medical care."

4 ACCESS TO DENTAL CARE

This question was new to the North Coast region survey in 2019. Just under one in five (17.4%) of respondents reported experiencing an unmet need for dental care in the last 12 months – higher than the 7% who went without needed medical care. Rates varied significantly by income level.

ACCESS TO DENTAL CARE IN LAST YEAR	2016 Total (n=201)	2019 Total (n=160)	2019 BY SUBGROUP: Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Needed Care & Got ALL the care they needed	n/a	59.6%	59.2%	84.5%	44.0%*	67.5%*	61.2%	53.0%	60.9%
Needed Care & Sometimes Went Without	n/a	17.4%	18.4%	0.0%	24.9%*	14.0%*	16.8%	26.4%	13.6%
Did Not Need Care	n/a	23.0%	22.4%	15.5%	31.1%*	18.5%*	22.1%	20.6%	25.5%

* Significant differences between subgroups. Tests only performed if n=20 or more.

TYPES OF UNMET DENTAL NEED: The survey asked respondents who had to go without dental care to identify which types of dental care they went without. Of those who went without care, 49.3% said they went without dental check-ups or teeth cleaning and 34.8% said a toothache or mouth pain went untreated. Others reported going without some other kind of dental care not listed among our choices.

5 ACCESS TO MENTAL HEALTH CARE

Just over 2 in 10 (22.5%) of respondents indicated needing mental health care, with 7.5% of all respondents indicating they had experienced unmet need for mental health care, roughly equivalent to results from 2016. We did not see significant differences in mental health access between subgroups.

ACCESS TO MENTAL HEALTH CARE IN LAST YEAR	2016	2019
	Total (n=201)	Total (n=160)
Needed Care & Got ALL the care they needed	12%	13.0%
Needed Care & Sometimes Went Without	8%	7.5%
Did Not Need Care	80%	77.5%

2019 BY SUBGROUP:						
Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
12.6%	32.6%	15.2%	13.7%	15.7%	7.5%	12.4%
8.6%	0.0%	12.1%	6.2%	12.0%	4.7%	3.3%
78.9%	67.4%	72.6%	80.2%	72.3%	87.8%	84.3%

* No significant differences between subgroups. Tests only performed if n=20 or more.

6 ACCESS TO SUBSTANCE USE TREATMENT

Only a very small percentage (1.4%) of residents reported having needed substance use treatment in the last 12 months, and none of them reported going without the care they needed. Subgroup analysis did not reveal significant differences in prevalence across populations.

ACCESS TO SUBTANCE USE CARE IN LAST YEAR	2016	2019
	Total (n=201)	Total (n=160)
Needed Care & Got ALL the care they needed	2.4%	1.4%
Needed Care & Sometimes Went Without	1.4%	0%
Did Not Need Care	96.2%	98.6%

2019 BY SUBGROUP:						
Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
1.6%	0.0%	2.6%	1.0%	0.0%	1.6%	3.5%
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
98.4%	100.0%	97.4%	99.0%	100.0%	98.4%	96.5%

* No significant differences between subgroups. Tests only performed if n=20 or more.

KEY RESULTS: HEALTH STATUS

1 OVERALL HEALTH – SELF ASSESSMENT

Almost one in five (14.8%) of respondents rated their own health as "poor" or "fair" (vs good, very good, or excellent) – mostly unchanged from the 20.2% who did so in 2016. We did see significant differences in subjective health assessments between subgroups, with lower income respondents (or those on Medicaid or uninsured) being much more likely to rate their own health as poor or fair.

SELF-REPORTED OVERALL HEALTH (FAIR OR POOR VS GOOD, VERY GOOD, OR EXCELLENT)

SUBJECTIVE HEALTH	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Fair or Poor (vs. Good or better)	20.2%	14.8%	14.7%	0.0%	30.4%*	9.5%*	8.2%*	16.3%*	24.5%*

* Significant differences between subgroups. Tests only performed if n=20 or more.

2 CHRONIC DISEASE PREVALANCE

OVERALL PREVALANCE OF COMMON CHRONIC ILLNESSES: 52.7% of respondents reported having been diagnosed with at least one of the chronic physical conditions listed on our survey, and 39.4% report at least one chronic behavioral health condition. 24.2% have at least one of each. We found evidence of significant differences in complex health challenges by income and coverage type among North Coast residents:

CHRONIC CONDITIONS OVERVIEW	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Has at least 1 physical chronic condition	67.2%	52.7%	57.4%	20.0%	58.1%	51.6%	48.8%*	70.8%*	47.9%*
Has at least 1 behavioral health condition	40.3%	39.4%	43.5%	0.0%	59.2%*	33.5%*	41.9%	33.2%	38.7%
Has at least 1 of each	27.4%	24.2%	26.6%	0.0%	35.8%*	20.7%*	25.1%	22.5%	23.3%

* Significant differences between subgroups. Tests only performed if n=20 or more.

PREVALANCE OF SPECIFIC CONDITIONS: The most common chronic condition diagnoses reported by the North Coast Service Area population were high blood pressure (33.3%) and high cholesterol (31.8%). Common mental health challenges included depression (28.1%), anxiety (26.5%), and PTSD (8.8%). Prevalence rates for most conditions in 2019 were comparable to those of the 2016 survey respondents.

We saw strong evidence of an income gradient in North Coast's prevalence data, with low-income respondents being more likely to have high blood pressure (46.6 vs 25.7%), anxiety (40.5% vs 22.1%), and PTSD (17.4% vs 5.7%). These findings are consistent with national research showing an association between income level and these conditions.

CHRONIC CONDITION PREVALANCE	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
High Blood Pressure	44.7%	33.3%	36.3%	20.0%	46.6%*	25.7%*	27.2%*	58.3%*	27.8%*
High Cholesterol	36.4%	31.8%	34.9%	0.0%	35.9%	30.5%	22.4%*	51.0%*	35.0%*
Asthma	16.0%	11.7%	11.2%	14.7%	10.5%	12.5%	15.2%	9.6%	7.8%
Diabetes	14.5%	12.6%	14.0%	0.0%	13.4%	11.3%	13.2%	16.2%	9.9%
Depression	29.4%	28.1%	30.7%	0.0%	36.2%	27.0%	33.5%	22.2%	23.7%
Anxiety	26.9%	26.5%	30.1%	0.0%	40.5%*	22.1%*	27.5%	21.0%	27.5%
PTSD	9.6%	8.8%	10.0%	0.0%	17.4%*	5.7%*	11.0%	4.6%	8.2%
Another ongoing health condition	--	24.8%	28.2%	0.0%	31.6%	23.6%	12.8%*	48.7%*	29.1%*

* Significant differences between subgroups. Tests only performed if n=20 or more.

3 ANXIETY & DEPRESSION SYMPTOMS

In addition to asking people to identify conditions they have been diagnosed with by a health professional, the survey included questions designed to assess whether a respondent might *currently be* experiencing symptoms of anxiety or depression (as opposed to having received a diagnosis). These questions are identical to those used in many clinical settings as an initial screener for potential anxiety or depression, and are a good way to capture potential depression or anxiety that is not currently well controlled. Overall, we found that 8.2% of respondents were currently experiencing symptoms of anxiety and 6.9% had active symptoms of depression; though symptoms were much more common among lower-income respondents.

Symptoms of Anxiety or Depression (GAD-2 and PHQ-2 Screening Tools).

SYMPTOM PREVALANCE	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Current symptoms of anxiety	12.2%	8.2%	9.3%	0.0%	20.8%*	2.8%*	7.4%	5.7%	10.8%
Current symptoms of depression	11.1%	6.9%	5.8%	32.6%	15.2%*	3.6%*	1.6%*	9.8%*	13.0%*

* Significant differences between subgroups. Tests only performed if n=20 or more.

4 OBESITY/BMI

The survey asked respondents to report their height and weight, which allowed us to calculate self-reported Body Mass Index (BMI). We used these data to estimate age-adjusted estimates of how many North Coast residents could be classified as overweight or obese. Overall, about one in three (30.3%) of respondents were overweight (with BMIs between 25-29) and another four in ten (39.8%) were obese according to their own reporting, with BMIs of 30 or more. Taken together, over 7 in 10 (70.1%) of respondents in North Coast were either overweight or obese. These numbers were largely consistent across survey years and subpopulations.

Estimated Body Mass Index (Based on Self-Reported Height and Weight)

BMI PREVALANCE	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Overweight (BMI 25-29)	27.8%	30.3%	30.1%	47.3%	34.6%	30.1%	29.0%	30.1%	32.4%
Obesity (BMI 30+)	42.7%	39.8%	37.2%	52.7%	31.7%	43.6%	44.5%	45.3%	29.8%

* No significant differences between subgroups. Tests only performed if n=20 or more.

5 CHILDREN'S HEALTH CHALLENGES

Overall, 26% of respondents (n=46) reported that they had children under 18 years of age; we asked those respondents to tell us if any of their children had any of a series of health challenges. The most commonly reported physical health challenges was asthma, with 21.4% of those with young children reporting a diagnosis for at least one of their children. Other common health challenges included behavioral health diagnoses (22.3%) and developmental delays or learning disabilities (10.8%). We found evidence that lower income respondents were significantly more likely to report that their children struggled with learning disabilities and PTSD than those with higher incomes, and that children from families with Medicaid or no insurance reported higher rates of diabetes.

CHRONIC CONDITION PREVALANCE	2016	2019	2019 BY SUBGROUP:						
	Total (n=56)	Total (n=46)	Non-Hispanic White (n=41)	Hispanic/ Latino/Other (n=3)	200% FPL or lower (n=18)	201% FPL or higher (n=27)	Private (n=31)	Medicare (n=1)	Medicaid, Uninsured, Other (n=14)
Asthma	24.7%	21.4%	24.0%	0.0%	28.2%	18.7%	28.6%	0.0%	7.2%
A behavioral health diagnosis	17.7%	22.3%	25.0%	0.0%	14.0%	29.7%	27.7%	0.0%	8.9%
Diabetes	6.0%	5.9%	0.0%	100.0%	0.0%	10.4%	0.0%	0.0%	19.8%
Developmental delay or learning disability	14.3%	10.8%	12.1%	0.0%	21.2%	4.7%	12.8%	0.0%	7.2%
PTSD	4.8%	5.3%	6.0%	0.0%	14.0%	0.0%	4.0%	0.0%	8.9%
Another ongoing health condition	9.3%	15.5%	17.4%	0.0%	15.6%	16.8%	21.5%	0.0%	0.0%

*No significant differences between subgroups. Tests only performed if n=20 or more.

KEY RESULTS: HEALTH BEHAVIORS

1 QUALITY OF DIET

Six in ten (59.5%) of North Coast respondents reported eating fewer than two servings of fruit per day, and 35.7% report fewer than two servings of vegetables per day – numbers roughly equivalent to results from 2016. Those in the lower income subgroup were more likely to report eating fewer vegetables than those in the higher income subgroup (44.7% vs 26.2%).

Fruit and Vegetable Consumption (per day)

CHRONIC CONDITION PREVALANCE	2016 Total (n=201)	2019 Total (n=160)	2019 BY SUBGROUP: Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Fewer than two servings of fruit	50.4%	59.5%	58.6%	67.4%	63.8%	56.3%	63.1%	60.4%	53.3%
Fewer than two servings of vegetables	42.4%	35.7%	33.7%	67.4%	44.7%*	26.2%*	32.1%	46.3%	35.1%

*Significant differences between subgroups. Tests only performed if n=20 or more.

2 HEALTH RISK BEHAVIORS

We assessed the prevalence of other health risk behaviors, including the use of tobacco, indicators of potential alcohol misuse, and drug use. Prevalence rates were roughly comparable to those seen in 2016 for indicators that were assessed on both surveys. Rates of self-reported alcohol and drug use were significantly higher among low-income respondents and Medicaid/uninsured respondents.

Health Risk Behaviors

CHRONIC CONDITION PREVALANCE	2016 Total (n=201)	2019 Total (n=160)	2019 BY SUBGROUP: Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Current smoker	7.5%	8.4%	8.6%	0.0%	19.8%*	2.3%*	3.9%*	1.5%*	18.8%*
Four or more drinks per week	26.3%	27.4%	25.8%	0.0%	23.7%	31.3%	30.7%	42.8%	14.3%
Three or more drinks per day of drinking	24.6%	23.5%	25.3%	0.0%	45.0%*	14.8%*	20.6%*	6.1%*	36.9%*
Marijuana only	-	17.8%	16.5%	32.6%	32.8%*	12.8%*	11.6%*	9.5%*	30.7%*
Any other drug use	-	3.6%	4.0%	0.0%	7.9%*	1.8%*	1.6%*	0.0%*	8.4%*

*Significant differences between subgroups. Tests only performed if n=20 or more.

KEY RESULTS: SOCIAL DETERMINANTS OF HEALTH

1 BASIC NEEDS

We asked respondents to tell us whether they had recently had difficulty meeting any basic needs. 14.2% of respondents reported that they or someone in their household had gone without one or more of the listed basic needs (stable housing, food, utilities, transportation, clothing, or child care) in the past 12 months, roughly equivalent to the needs revealed in the 2016 survey. The largest increases in unmet needs since 2016 were in the specific areas of food (from 2.9% to 8.5%) and transportation (from 3.5% to 9.1%), prevalence estimates of other basic needs remained largely unchanged. As might be expected, unmet basic needs was highly sensitive to family income.

Percent Going without Basic Needs in the Last 12 Months

PERCENT GOING WITHOUT BASIC NEEDS	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Food	2.9%	8.5%	7.7%	32.6%	24.5%*	1.3%*	3.6%*	5.7%*	17.3%*
Clothing	4.9%	6.8%	5.8%	32.6%	19.2%*	1.3%*	1.6%*	5.7%*	15.1%*
Transportation	3.5%	9.1%	10.4%	0.0%	26.5%*	1.3%*	3.6%*	9.1%*	17.3%*
Child Care	0.0%	1.7%	2.0%	0.0%	5.5%*	0.0%*	3.6%	0.0%	0.0%
Utilities	5.3%	5.9%	6.7%	0.0%	18.7%*	0.0%*	3.6%	5.7%	9.4%
Stable Housing or Shelter	2.8%	2.0%	0.3%	32.6%	5.5%*	0.0%*	0.0%	1.5%	5.2%
One or more of the above needs	11.3%	14.2%	14.2%	32.6%	39.2%*	2.7%*	6.8%*	10.6%*	27.1%*

*Significant differences between subgroups. Tests only performed if n=20 or more.

2 HEALTH NEEDS

We also asked respondents to tell us whether anyone in their household had gone without health needs in the last 12 months. The most commonly reported unmet health need was for dental care, with 16.4% reporting unmet needs – roughly the same as the 19.4% reported in 2016.

Percent Going without Health Needs in the Last 12 Months

PERCENT GOING WITHOUT BASIC NEEDS	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Dental Care	19.4%	16.4%	17.4%	5.4%	33.5%*	10.0%*	8.4%*	20.2%*	26.0%*
Medical Care	13.3%	10.3%	10.9%	0.0%	17.6%*	8.2%*	6.8%*	4.0%*	19.1%*
Medicine	8.4%	10.5%	9.1%	32.6%	23.2%*	5.5%*	5.2%*	5.9%*	21.0%*
One or more of the above	19.8%	22.0%	21.8%	38.0%	39.0%*	16.6%*	13.6%*	20.2%*	35.4%*

*Significant differences between subgroups. Tests only performed if n=20 or more.

3 CURRENT HOUSING STABILITY

In addition to asking if respondents had experienced housing insecurity in the last 12 months, we asked questions about respondent's *current* housing stability. 14.8% of respondents expressed at least some housing worries – either a lack of stable housing (5.8%) or worries that they were about to lose their stable housing (9.0%). Rates of housing instability were roughly comparable to those observed in 2016, and varied significantly by income and insurance status. It is important to note that because the survey sample was based on residential addresses, the true prevalence of housing insecurity in the region may be higher than what is estimated here.

Current Housing Situation

HOUSING INSECURITY	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Have housing, not worried about losing it	84.9%	82.6%	82.9%	67.4%	61.2%*	93.3%*	88.1%*	88.2%*	71.4%*
Have housing, but worried about losing it	9.8%	9.0%	10.2%	0.0%	20.9%*	3.6%*	3.8%*	7.3%*	17.5%*
Do not have stable housing	5.4%	5.8%	4.7%	32.6%	15.2%*	1.3%*	3.6%*	4.0%*	10.2%*

*Significant differences between subgroups. Tests only performed if n=20 or more.

4 SOCIAL SUPPORT

We asked participants a series of questions drawn from the Social Support Index (SSI) and designed to assess whether they usually have access to certain kinds of social support in their lives. We report the percent of respondents whose answers indicated a **lack** of strong social support in each domain. Overall, North Coast respondents indicated levels of social support comparable to those reported in 2016, with about one in five reporting poor social support for most domains. Low-income respondents were especially likely to report low social support.

Percent who would NOT usually have someone available to support them by…

PERCENT WITHOUT STRONG SOCIAL SUPPORT	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Love and make feel wanted	14.6%	18.3%	19.5%	20.0%	21.5%	16.1%	15.6%	21.3%	20.8%
Give good advice	20.0%	20.4%	21.8%	20.0%	33.9%*	12.9%*	17.6%	15.8%	27.2%
Get together with to relax	31.7%	28.6%	29.1%	52.7%	46.3%*	20.5%*	24.5%	29.9%	33.3%
Confide in, talk about problems	22.4%	28.0%	30.7%	14.7%	39.6%*	22.7%*	25.8%	22.0%	34.6%
Help if confined to a bed	n/a	21.4%	23.0%	20.0%	31.2%*	16.4%*	13.4%*	28.5%*	28.9%*

*Significant differences between subgroups. Tests only performed if n=20 or more.

5 NEIGHBORHOOD COHESION & SAFETY

We asked participants a series of questions designed to measure neighborhood cohesion within their community, with the numbers representing those who do not agree and thus have unfavorable feelings about their neighborhood. In general, most respondents have good views of their neighborhood along each dimension of the cohesion scale, though lower income respondents are significantly more likely to disagree with the statements and thus express discontent with their neighborhoods.

Percent with Unfavorable Views of their Neighborhood

PERCENT REPORTING THEY DO NOT AGREE	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Adults here watch out for children	17.5%	15.7%	14.1%	47.3%	24.4%*	11.3%*	11.3%	14.2%	23.0%
People here can be trusted	16.9%	20.6%	18.0%	47.3%	33.4%*	15.1%*	14.4%*	18.6%*	30.9%*
People here are willing to help each other	10.4%	12.1%	11.7%	32.6%	24.4%*	7.3%*	7.5%	14.2%	17.8%
I feel safe here	6.2%	3.4%	2.9%	21.8%	2.9%	2.8%	0.6%	3.3%	7.7%

*Significant differences between subgroups. Tests only performed if n=20 or more

6 ADVERSITY & TRAUMA ACROSS THE LIFE COURSE

A large body of literature has associated adverse life experiences with poor health outcomes. We asked participants to tell us the extent to which they had experienced any of a series of difficult or traumatic events in their lives. Results reveal a high prevalence in the North Coast region of many types of events that have been shown to be associated with poor long-term health outcomes.

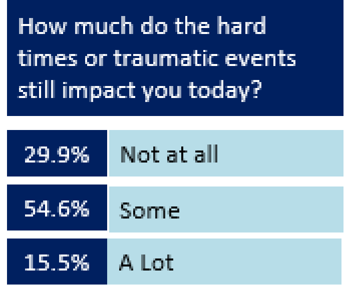
- **Overall Prevalence:** Respondents reported having experienced a wide range of adversities in their lives, including 32.9% reporting having been the victims of abuse, 32.5% who were impacted by the suicide of a close friend or family member, and 15.52% who have experienced intimate partner violence. Six in ten (62.1%) have experienced three or more of the list adverse challenges.
- **Trends:** Among questions that were asked in both 2016 and 2019, there were increases in the percent of respondents reporting abuse (from 21.1% to 32.9%) and having witnessed or experienced violence (29.3% to 49.1%). This may reflect an actual increase in prevalence, rising awareness of these issues prompting greater rates of reporting, or other factors.
- **Differences:** Low-income respondents were significantly more likely to report many adverse experiences, including abuse, witnessing or experiencing violence, and experiencing intimate partner violence. These higher prevalences may help explain why low-income respondents were also more likely to report experiencing PTSD and anxiety.

Percent who have experienced each type of adverse event in their lives…

PERCENT WITHOUT STRONG SOCIAL SUPPORT	2016	2019	2019 BY SUBGROUP:						
	Total (n=201)	Total (n=160)	Non-Hispanic White (n=141)	Hispanic/ Latino/Other (n=8)	200% FPL or lower (n=51)	201% FPL or higher (n=93)	Private (n=77)	Medicare (n=30)	Medicaid, Uninsured, Other (n=53)
Life-changing illness or injury	42.8%	43.2%	41.4%	80.0%	51.4%	39.4%	28.8%*	60.5%*	53.9%*
Lived with someone with mental illness or substance abuse	27.9%	57.3%	57.1%	52.7%	68.5%	55.4%	64.7%*	36.1%*	58.7%*
Witnessed or experienced violence	29.3%	45.1%	46.6%	47.3%	64.6%*	38.7%	49.0%*	23.0%*	52.2%*
Abuse	21.1%	32.9%	36.1%	20.0%	45.3%*	30.5%	36.7%	22.3%	33.4%
Neglect	12.2%	16.2%	16.6%	29.4%	22.3%	13.0%	11.8%*	11.3%*	25.3%*
Physically hurt or threatened by intimate partner	11.7%	15.5%	16.7%	14.7%	30.4%*	8.7%*	14.2%*	3.1%*	24.4%*
Made to do something sexual didn't want to	n/a	17.3%	18.8%	14.7%	18.5%	18.3%	18.8%	12.2%	18.3%
Suicide attempt by close friend or family	n/a	32.5%	36.0%	0.0%	50.7%*	26.9%*	32.6%	18.8%	40.3%
Parents separated as child	n/a	38.5%	40.9%	32.6%	50.4%	38.7%	49.7%*	19.3%*	33.3%*
Unexpected death of a loved one	n/a	48.6%	50.2%	52.7%	62.3%*	43.1%*	44.3%	51.1%	54.0%
3 or more of the above	n/a	62.1%	64.5%	52.7%	79.4%*	57.4%*	66.3%	50.6%	62.8%

*Significant differences between subgroups. Tests only performed if n=20 or more.

LINGERING EFFECTS: We asked respondents who experienced the above challenges to indicate the degree to which they felt those past challenges still impacted them today. Results suggest what other literature has found - that for many people, the effects of experiencing trauma and adversity often linger, shaping health outcomes across the entire life course.



SUMMARY OF KEY TAKEAWAYS

Responses from the North Coast region's survey are an important source of information for assessing community needs. Because the survey uses a representative random sampling technique, its results are a good way to estimate the level of key health and social needs throughout the community. Key takeaways from the survey include:

MENTAL HEALTH CHALLENGES, ESPECIALLY IN LOWER INCOME HOUSEHOLDS.

Most respondents report that they are in good, very good, or excellent health – only 14.8% characterized their own health as "fair" or "poor." The top three most common health challenges are hypertension, high cholesterol, and depression, with the latter reported by more than one in four (28.1%) residents. North Coast residents also reported high rates of obesity, with 70.1% of respondents being either overweight (BMI 25-29) or obese (BMI of 30+) according to their own self-reported height and weight.

Most Common Health Challenges for North Coast	
33.3%	Hypertension
31.8%	High Cholesterol
28.1%	Depression

70.1% of residents are overweight or obese.

There were significant disparities in many health challenges by family income, with lower income families (those earning 200% or less of FPL) having significantly higher rates of many chronic health challenges. Of particular note was the high prevalence of anxiety (40.5%) and PTSD (17.4%) among lower-income respondents.

2

RELATIVELY LITTLE UNMET NEED FOR CARE, EXCEPT FOR DENTAL CARE.

Most residents reported having a place to go for regular or routine care, though lower income households were more likely to report not having such a place (15.8%) than higher income households (3.1%). Unmet need for medical care was relatively low among 2019 respondents, with only 7.0% reporting that they had needed medical care and not received it in the last year. Unmet need was also relatively low for mental health care, but significantly higher for dental care, with 17.3% of all respondents reporting an unmet need in the previous 12 months.

KEY SDH CHALLENGES INCLUDE FOOD & HOUSING STABILITY.

Social determinants of health (SDH) are important predictors of long-term health outcomes, and North Coast residents face several key challenges. Though relatively few residents report actually having gone without housing in the last year (2%), a significant number (14.8%) are worried about the stability of their housing situation. Nearly one in ten (8.5%) reported shortages of food in the past year, a jump from the 2.9% in 2016.

A HIGH PREVALANCE OF TRAUMA, ESPECIALLY AMONG LOWER INCOME HOUSEHOLDS.

Rates of several types of self-reported adversity and trauma were higher in 2019 than in 2016, including abuse (32.9% vs 21.1%) and witnessing or experiencing violence (45.1% vs. 29.3%). These trends may reflect increasing awareness of these issues, an actual increase in prevalence, or both. Intimate partner violence was reported by 15.5% of respondents, and sexual assault by 17.3%. Over six in ten (62.1%) residents reported having experienced three or more of the adverse life events included in the survey, suggesting a significant potential trauma burden in the North Coast community. Prevalence of adverse experiences was especially high among lower income households, who also reported significantly higher prevalence of anxiety and PTSD on the survey.

FROM KNOWLEDGE TO ACTION

These key takeaways, combined with other information collected as part of the needs assessment process, may suggest several areas of potential focus for community health improvement efforts. To further explore the results of this survey, please refer to the complete data tables accompanying this report.

APPENDIX A. COMMUNITY HEALTH SURVEY

COMMUNITY HEALTH SURVEY

INSTRUCTIONS: For each question, please fill in the circle that best represents your answer. Your results are completely private, and you can skip any question you do not want to answer. When you are finished, place the survey in the postage-paid envelope we have provided and drop it in the mail. If you have questions about this survey, please read the included letter or call us at 1-877-215-0686.

PART 1 YOUR HEALTH CARE

1 Do you currently have any kind of health insurance?
- ◯ Yes
- ◯ No → **(Go to Question 3)**

2 What kind of health insurance do you have? *Mark all that apply.*
- ◯ Medicaid/Oregon Health Plan (OHP)
- ◯ Medicare
- ◯ VA, TRICARE or other military health care
- ◯ Private coverage through an employer or family member's employer
- ◯ A private plan I pay for myself
- ◯ Other (tell us): ____________________
- ◯ I don't have any insurance now
- ◯ I don't know

3 If you **don't** currently have any kind of health insurance, what are the main reasons why? *Mark all that apply.*
- ◯ It costs too much
- ◯ I don't think I need insurance
- ◯ I am waiting to get coverage through a job
- ◯ Signing up is too confusing
- ◯ I haven't had time to deal with it
- ◯ Other (tell us): ____________________

4 For how many of the **last 12 months**, did you have insurance for the following health care?

	All 12 months	**Some** of the 12 months	**None** of the 12 months
Medical Care	◯	◯	◯
Dental Care	◯	◯	◯
Vision	◯	◯	◯
Long-term Care	◯	◯	◯

5 Do you have a place to go for health care when it is not an emergency?
- ◯ Yes
- ◯ No → **(Go to Question 7)**

6 Where do you usually go to receive health care when it is not an emergency? *Mark only one.*
- ◯ A private doctor's office or clinic
- ◯ A public health clinic or community health center
- ◯ A tribal health clinic
- ◯ A VA facility
- ◯ A hospital-based clinic
- ◯ A hospital emergency room
- ◯ An urgent care clinic
- ◯ Other (tell us): ____________________
- ◯ I don't have a usual place

7 Do you have **one person** you think of as your personal doctor or health care provider?
- ◯ Yes
- ◯ No

8 In the **last 12 months**, did **you** need any **medical** care?
- ◯ Yes
- ◯ No → **(Go to Question 10)**

9 Did **you** get all the **medical** care you needed?
- ◯ Yes → **(Go to Question 10)**
- ◯ No → Which types of medical care did you have to go without? *Mark all that apply.*
  - ◯ Checkup or physical exam
  - ◯ Visits for an illness or injury
  - ◯ Visits about a chronic health condition like diabetes or high blood pressure
  - ◯ Other kinds of care

10 In the **last 12 months**, did **you** need any **dental** care?
- ◯ Yes
- ◯ No → **(Go to Question 12)**

11 Did **you** get all the **dental** care you needed?
- ◯ Yes → **(Go to Question 12)**
- ◯ No → Which types of dental care did you have to go without? *Mark all that apply.*
  - ◯ Dental check-up or teeth cleaning
  - ◯ Tooth ache or mouth pain
  - ◯ Other kinds of care

CHS-NORTH COAST PAGE 1 OF 5 PLEASE CONTINUE ON THE NEXT PAGE →

12 In the **last 12 months**, did **you** need **counseling or mental health treatment**?

◯ Yes
◯ No → **(Go to Question 15)**

13 Did **you** get all the **counseling or mental health** care you needed?

◯ Yes → **(Go to Question 14)**
◯ No → Which types of counseling or mental health care did you have to go without? *Mark all that apply.*
  ◯ Support for a personal problem
  ◯ Treatment for a mental health condition like PTSD, depression, or anxiety
  ◯ Counseling to quit tobacco, alcohol, or drug use
  ◯ Other kinds of care

14 In the **last 12 months**, where did you **mostly** go to get counseling or mental health care? *Mark only one.*

◯ My primary care doctor's office
◯ Mental Health clinic
◯ VA Clinic
◯ Phone, Online, texting, or video chat service
◯ From a pastor, minister, or priest
◯ Hospital emergency room
◯ Other: ______________________

15 In the **last 12 months** have you needed treatment or counseling for your use of alcohol or any drug, not counting cigarettes?

◯ Yes
◯ No → **(Go to Question 17)**

16 Did **you** get all the **treatment or counseling for your use of alcohol or drugs** you needed?

◯ Yes → **(Go to Question 17)**
◯ No

17 If **you** went without **any** needed medical, dental, counseling or mental health care, or drug or alcohol abuse treatment in the last 12 months, what were the main reasons why? *Mark all that apply.*

◯ I did not go without care. I got all the care I needed
◯ It cost too much
◯ Getting to the clinic was too hard
◯ The doctor or clinic did not understand my culture, lifestyle, identity, or my language
◯ There was no local doctor that accepted my insurance
◯ I did not know where to go
◯ I was afraid
◯ Other: ______________________

PART 2 YOUR HEALTH & LIFESTYLE

18 In general, would you say your health is:

◯ Excellent
◯ Very Good
◯ Good
◯ Fair
◯ Poor

19 Have you **ever** been told by a doctor or other health professional that you have any of the following?

	Yes	No
Diabetes or sugar diabetes	◯	◯
Asthma	◯	◯
High blood pressure	◯	◯
High cholesterol	◯	◯
Depression	◯	◯
Post-traumatic stress disorder	◯	◯
Anxiety	◯	◯
Substance use problem	◯	◯
Another health condition	◯	◯

Please tell us: ______________________

20 During the **past 2 weeks**, about how often have you been bothered by the following problems:

	Not at all	Several days	Over half the days	Nearly every day
Little interest or pleasure in doing things	◯	◯	◯	◯
Feeling down, depressed, or hopeless	◯	◯	◯	◯
Feeling nervous, anxious, or on edge	◯	◯	◯	◯
Not being able to stop or control worrying	◯	◯	◯	◯

21 Do you have any children (under 18 years of age)?
- ◯ Yes
- ◯ No → **(Go to Question 23)**

22 Have you **ever** been told by a doctor or other health care professional that any of your children have any of the following?

	Yes	No
Diabetes or sugar diabetes	◯	◯
Asthma	◯	◯
A behavioral or mental health diagnosis (such as depression, anxiety, or ADHD)	◯	◯
A developmental delay or learning disability (such as Autism or Dyslexia)	◯	◯
Post-traumatic stress disorder	◯	◯
Another ongoing health condition (tell us): ______________________	◯	◯

23 To what extent have you had hard times or traumatic events in your life?

	Not at all	Some	A lot
Life changing illness or injury	◯	◯	◯
Neglect of any kind	◯	◯	◯
Lived with someone with mental illness	◯	◯	◯
Lived with someone with substance abuse issues	◯	◯	◯
Witnessed or experienced violence	◯	◯	◯
Made to do something sexual that you did not want to do	◯	◯	◯
Physically hurt or threatened by an intimate partner	◯	◯	◯
Abuse of any kind	◯	◯	◯
Parents were separated or divorced during your childhood (ages newborn to 18)	◯	◯	◯
A suicide attempt by a close friend or family member	◯	◯	◯
Unexpected death of a loved one	◯	◯	◯
Other traumatic event	◯	◯	◯

24 To what extent do you feel the hard times or traumatic events you have had still impact you today?
- ◯ Not at All
- ◯ Some
- ◯ A lot

25 During a **typical** day, how many servings of fruit do you usually eat? *A serving is one piece of fruit or about a cup of cut-up fruit. Don't count juices.*

→ __________ servings per day

26 During a **typical** day, how many servings of vegetables do you usually eat? *A serving is about a cup of vegetables like green beans, salad or potatoes. Don't include fried foods like french fries.*

→ __________ servings per day

27 Do you **currently** smoke cigarettes or e-cigarettes?
- ◯ Every day
- ◯ Some days
- ◯ Not at all

28 Which of the following have you used in the **last 30 days**? *Mark all that apply.*

- ◯ Smoking tobacco (cigarette, cigar, etc.)
- ◯ Chewing tobacco
- ◯ Electronic smoking systems (vape, juul, etc.)
- ◯ Marijuana products (smoked, vaped, or edibles)

29 Do you want to quit using tobacco or smoking systems?

- ◯ Yes
- ◯ No

30 How often did you have a drink containing alcohol in the **past year**?

- ◯ Never → **(Go to Question 33)**
- ◯ Monthly or less
- ◯ 2-4 times a month
- ◯ 2-3 times a week
- ◯ 4 or more times a week

31 How many days per week do you drink alcohol?

- ◯ 0 to 1
- ◯ 2 to 3
- ◯ 4 to 5
- ◯ 6 to 7

32 On the days when you did drink alcohol, how many drinks did you usually have **per day**? *A 'drink' is one beer, one glass of wine or one shot of liquor.*

- ◯ 1 or 2
- ◯ 3 or 4
- ◯ 5 or 6
- ◯ 7 to 9
- ◯ 10 or more

33 In the **last 12 months**, have you or anyone in your household used any of the following? *Mark all that apply.*

- ◯ Opioids not as prescribed (oxycodone, heroin, morphine, methadone, codeine, etc.)
- ◯ Amphetamine type stimulants (meth, speed, diet pills, ecstasy, etc.)
- ◯ Any other street drug

34 Which of the following best describes your housing situation today? *Mark all that apply.*

- ◯ I have housing of my own, and I'm NOT worried about losing it
- ◯ I have housing of my own, but I AM worried about losing it
- ◯ I'm staying in a hotel
- ◯ I'm staying with friends or family
- ◯ I'm staying in a shelter, in a car or on the street
- ◯ Other (tell us): ____________________________

35 In the past 12 months, have you or someone in your household had to **go without** any of the following when it was really needed because you were having trouble making ends meet?

	Yes	No
Food	◯	◯
Utilities	◯	◯
Transportation	◯	◯
Clothing	◯	◯
Stable Housing or Shelter	◯	◯
Medical Care	◯	◯
Medicine	◯	◯
Child Care	◯	◯
Dental Care	◯	◯

PART 3 ABOUT YOU & YOUR FAMILY

36 How often do you think you would have someone available to do each of the following?

	None of the time	**Some** of the time	**Most** of the time	**All** of the time
Love you and make you feel wanted?	◯	◯	◯	◯
Give you good advice about a crisis?	◯	◯	◯	◯
Get together with for relaxation?	◯	◯	◯	◯
Confide in or talk to about your problems?	◯	◯	◯	◯
Help you if you were confined to a bed?	◯	◯	◯	◯

PLEASE CONTINUE ON THE NEXT PAGE →

37 Please tell us about the community where you live now:

	Strongly Disagree	Disagree	Agree	Strongly Agree
People are willing to help each other..........	◯	◯	◯	◯
People can be trusted........................	◯	◯	◯	◯
You can count on adults to watch out that children are safe and do not get in trouble	◯	◯	◯	◯
I feel safe.......................	◯	◯	◯	◯

38 What is your gender?
- ◯ Male
- ◯ Female
- ◯ Transgender
- ◯ Gender non-binary
- ◯ Gender non-conforming
- ◯ Choose not to answer
- ◯ Other: ___________________________________

39 What year were you born? ________________________

40 What is your height?
↳ _____ Feet _____ Inches

41 About how much do you currently weigh?
↳ _______ pounds

42 Are you Hispanic or Latino/Latina/Latinx?
- ◯ Yes
- ◯ No

43 Which one or more of the following would you say is your race? *Mark all that apply.*
- ◯ White
- ◯ Black or African-American
- ◯ Asian
- ◯ Native Hawaiian or Other Pacific Islander
- ◯ American Indian or Alaska Native
- ◯ Don't know / Not sure
- ◯ Prefer not to answer

44 What language do you speak best? *Mark only one.*
- ◯ English
- ◯ Spanish
- ◯ Vietnamese
- ◯ Russian
- ◯ Other (tell us): ____________________________

45 What is the highest level of education you have completed? *Mark only one.*
- ◯ Less than high school
- ◯ High school diploma or GED
- ◯ Vocational training or 2-year degree
- ◯ A 4-year college degree
- ◯ An advanced or graduate degree

46 Are you currently employed or self-employed?
- ◯ Yes, employed by someone else
- ◯ Yes, self-employed
- ◯ Not currently employed
- ◯ Retired

47 About how many hours per week, on average, do you work at your current job(s)? *Your best estimate is fine.*
- ◯ I don't currently work
- ◯ Less than 20 hours per week
- ◯ 20-39 hours per week
- ◯ 40 or more hours per week

48 What is your gross household income? *Your best estimate is fine.*
- ◯ $0
- ◯ $1 to $10,000
- ◯ $10,001 to $20,000
- ◯ $20,001 to $30,000
- ◯ $30,001 to $40,000
- ◯ $40,001 to $50,000
- ◯ $50,001 to $60,000
- ◯ $60,001 to $70,000
- ◯ $70,001 to $80,000
- ◯ $80,001 to $90,000
- ◯ $90,001 to $100,000
- ◯ $100,001 or more

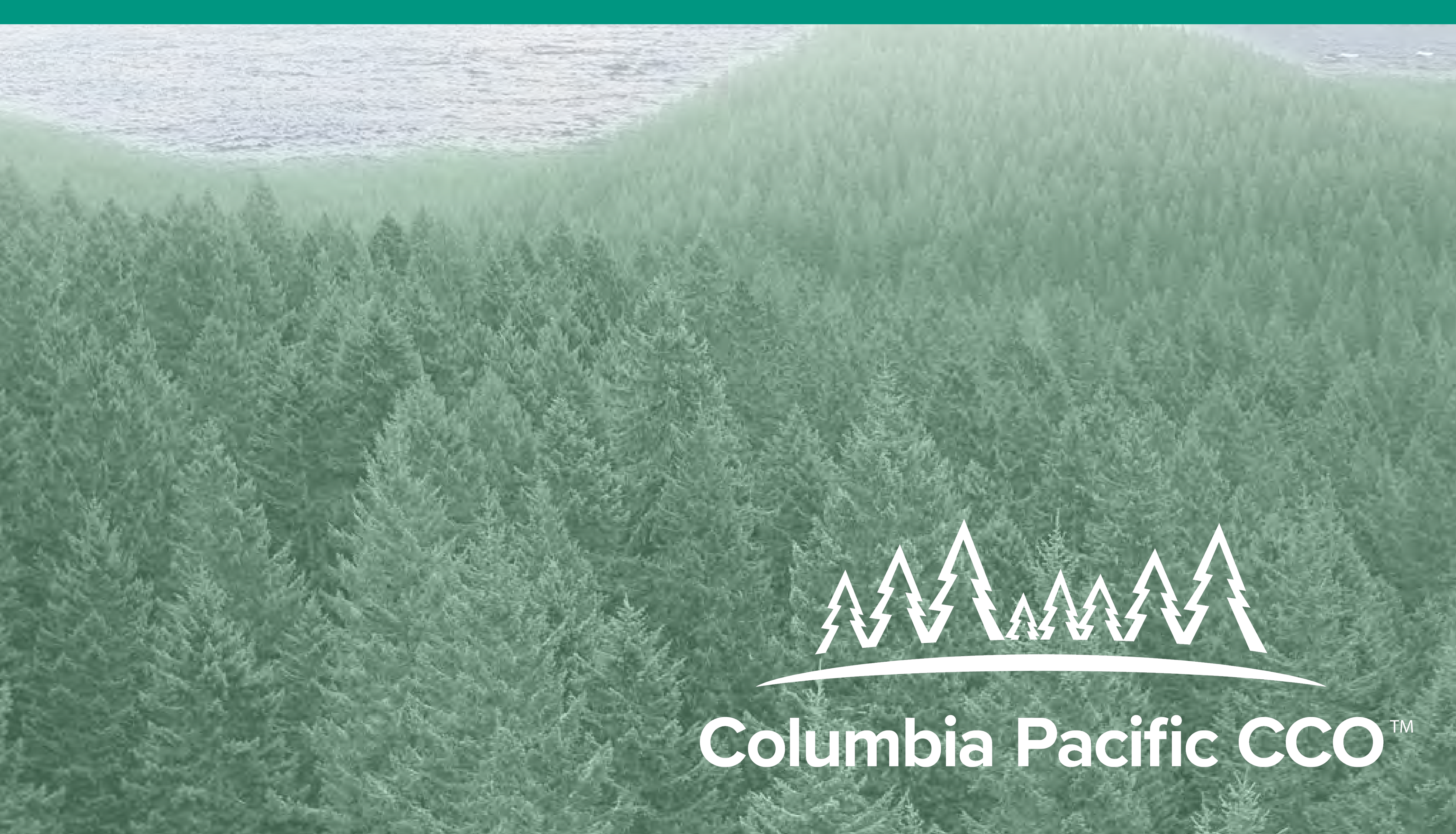
49 Altogether, how many people currently live in your home? *Count adults and children under 18.*
↳ Me, plus _____ other adults and ____ children.

STOP HERE Thank you very much for taking time to complete this survey. Please place the survey in the postage-paid envelope and mail it.
Contact us at 1-877-215-0686 or core@providence.org with any questions. 02/19

Appendix 7: Columbia Pacific CCO 2019 Community Health Assessment

Regional Health Assessment & Regional Health Improvement Plan 2019

Region includes: Clatsop, Columbia, and Tillamook Counties



Acknowledgments

In gratitude...
More than 1900 people contributed to the development of this Regional Health Assessment and Regional Health Improvement Plan. Numerous organizations and individuals volunteered their time and talents to collect and synthesize information. Others provided funding, time, and energy to develop frameworks for understanding and addressing the region's most pressing health issues.

Importantly, many community members shared their personal stories about health and wellness contributing to a rich dataset that informed every aspect of the Regional Health Improvement Plan.

CPCCO acknowledges each of these participants with sincere gratitude and in the spirit of our shared vision for a region where health and well-being abound, for everyone.

Columbia Pacific Coordinated Care Organization and their Regional Advisory Council and Board of Directors would like to acknowledge and thank the following collaborating partners for their participation in the regional health improvement planning process:

Clatsop County Health Department
Clatsop Behavioral Health
Columbia Community Behavioral Health
Columbia County Health Department
Columbia Memorial Hospital
Providence Seaside Hospital
Tillamook County Health Department

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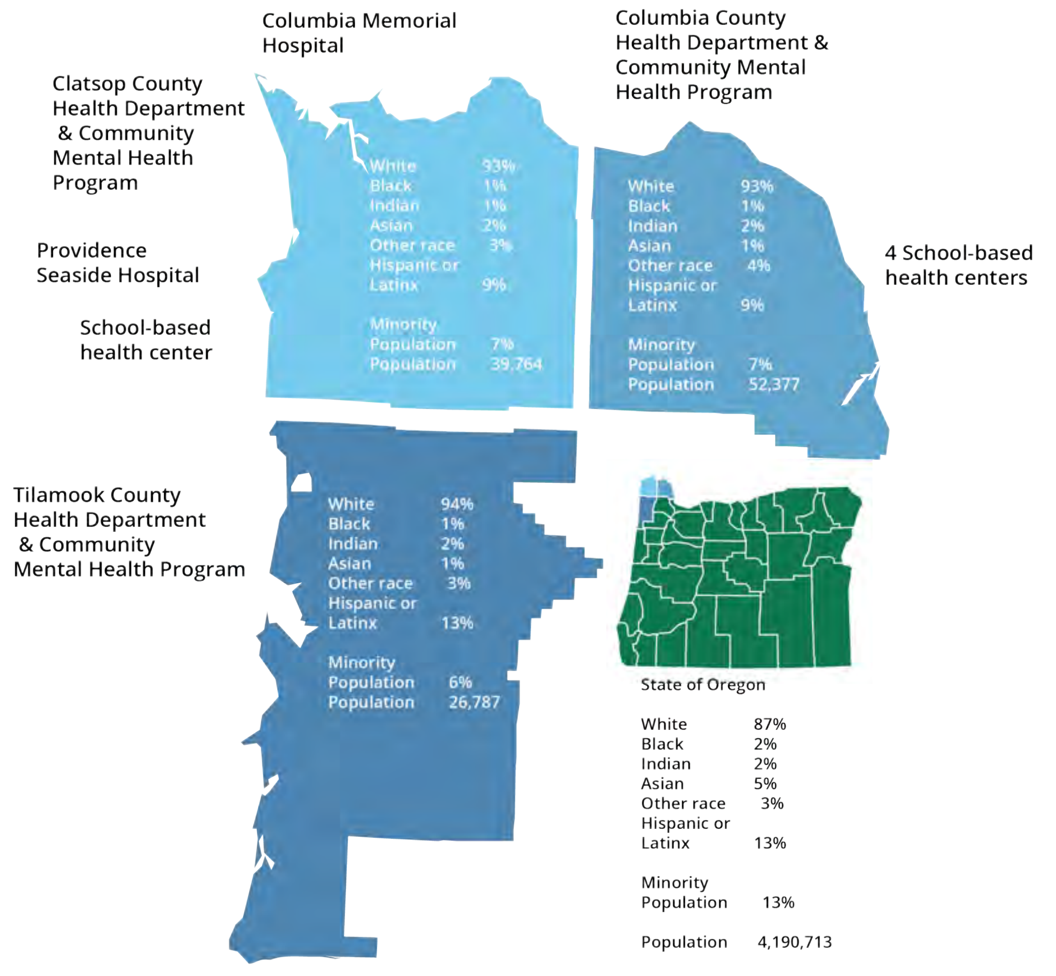
Introduction

Regional Overview & Demographics

Figure 1: Regional overview and demographics



Source: U.S Census Bureau, 2018

Community health is the art and science of maintaining, protecting and improving the health of all members of the community through organized and sustained community efforts.

> **"Health is more than absence of disease; it is about economics, education, environment, empowerment, and community. The health and well-being of the people is critically dependent upon the health system that serves them. It must provide the best possible health with the least disparities and respond equally well to everyone."**
> –Jocelyn Elders, Fifteenth Surgeon General of the United States

This document outlines a five-year plan for improving health in this Clatsop, Columbia, and Tillamook Counties.

Led by Columbia Pacific Coordinated Care Organization (CPCCO), five health agencies in the region participated in the development of the following assessment and plan: Clatsop County Public Health, Columbia County Public Health, Columbia Memorial Hospital, Providence Health Systems, and Tillamook County Public Health.

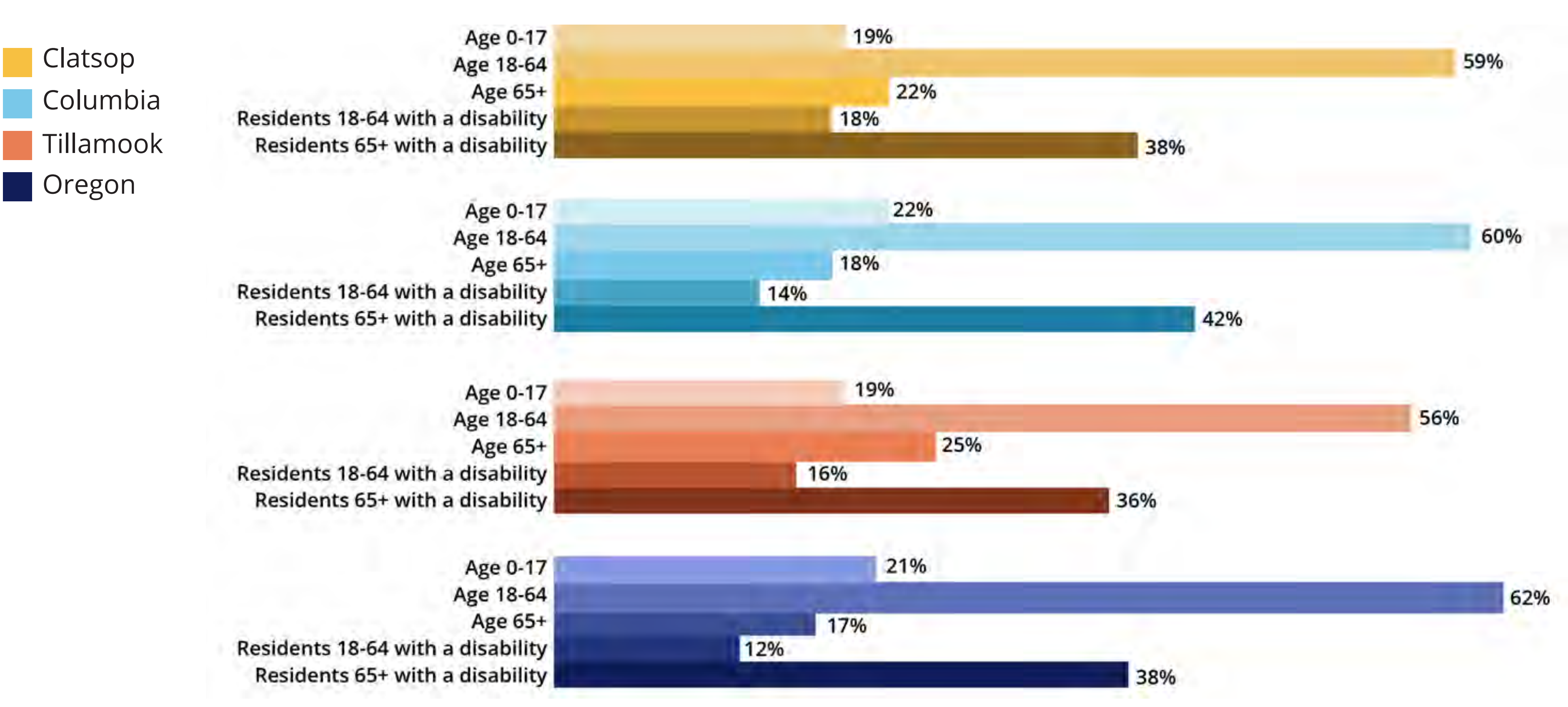
The process of visioning and planning for improved health starts with:

- Input from community members and specifically those who are or may be experiencing health inequities
- A thorough assessment of current conditions affecting health
- A clear understanding of population health status indicators

Regional Health Assessment Overview

This Regional Health Assessment is the culmination of an 18-month process of community engagement and discovery; it combines community voice with health status data to describe the health-related strengths in the region as well as its leading health challenges. The 2019 Regional Health Assessment illustrates the health status of each county within the region as compared to the rest of the state. This assessment was primarily developed to inform the health priorities and strategies in the Regional Health Improvement Plan (pages 38-57); however, community members and decision makers are encouraged to use this resource in other planning efforts.

Figure 2: Population by age and disability



Source: U.S. Census Bureau, 2018 and American Community Survey, 2012-2016

Methods and Limitations

Methods

This assessment comprises two main sections:

1. Micro-narrative research
2. Health status assessment

Micro-Narrative Research

To understand community strengths and needs, CPCCO worked with consultants at QED Insight to use a narrative research approach called SenseMaker. A core team of CPCCO staff, Community Advisory Council members, community partners, and volunteers (including CPCCO health plan members) prepared a survey addressing the unique needs of the region. Then the team collected and analyzed more than 1,200 micro-narratives from Clatsop, Columbia, and Tillamook County residents. Each narrative described a personal, unique experience related to health and well-being, including:

- Perceptions of ideal futures
- Qualities that are admired in existing supports, places, and services
- Improvements that could be made in the communities
- Areas of more learning/education that people would like to have
- Habits people would like to improve

In addition to sharing experiences (not opinions or beliefs), respondents were asked to self-code ("index") and respond to questions about their experiences, keeping the context of their experiences in mind rather than responding to abstractions. The scales were based on polarities characterizing aspects of those experiences, such as flexibility of care ("extremely flexible" vs. "extremely structured") and stability of assistance ("stable as a rock" vs. "always changing").

Metadata collected with the "indexing" was used to identify patterns of emergent meaning—allowing for mapping attitudes and pinpointing the experiences that evoked positive or negative feelings to assist with interpreting the patterns through exploration of respondents' stories.

Visualization tools, linked to methods and models, permitted detection of statistically significant and complex patterns and anomalies, such as strong positive and negative associations with flexible and structured care, respectively. The output consisted of emergent themes that were statistically reliable and descriptions of how respondents thought about those themes. See Appendix A for the full CPCCO micro-narrative results.

Health Status Assessment

This report draws on several data sources to describe, using statistical measure, the health status of the communities within the region:

- American Community Survey
- BRFSS (Oregon county-level reports)
- County Health Rankings
- Oregon Death Certificate Data and Reports
- Oregon Healthy Teens Survey

For a comprehensive list of primary data sources, see Appendix B.

Social Determinants of Health

The conditions in which people are born, live, learn, work, and play affect a wide range of health and risk outcomes. Factors such as poverty, housing, access to food, education, and inequitable access based on structural racism or classism are powerful predictors of health. Understanding these factors, called social determinants of health, is critical to understanding a community's overall health.

Income and Housing

Figure 3 compares the 2017 median household incomes in the region to that of Oregon ($56,119). The median household income in Columbia County was slightly higher at $57,449. Both Clatsop and Tillamook Counties had lower median household incomes, at $49,828 and $45,061 respectively.

Figure 4 shows that the median gross rent in each of the counties in 2017 was at least $99 lower than in Oregon overall ($988). At $889 per month, Clatsop County had the highest median gross rent in the region. Tillamook County, which also had the lowest median household income in the region (Figure 3), had the lowest median gross rent at $831, $157 less per month than in Oregon.

In Oregon, three people in every 1,000 experience homelessness (Figure 5). In Columbia County, the wealthiest of the three counties, the rate is also 3 people per 1,000. In Tillamook County, the least wealthy of the three counties, the homelessness rate is three times that of Oregon. However, the greatest housing disparity in the region exists in Clatsop County, where the median gross monthly rent is the highest in the region; the median household income is more than $6,000 less than in Oregon and $7,600 less than in Columbia County; and 17 out of every 1,000 people experience homeless, nearly six times Oregon's homelessness rate.

Figure 3: Median household income

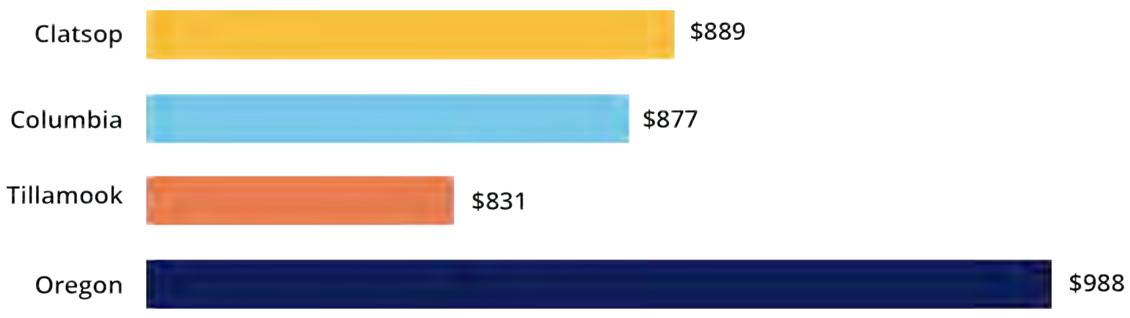
Owner-occupied housing unit rate

- Clatsop: 61%
- Columbia: 73%
- Tillamook: 69%
- Oregon: 62%

Source: U.S. Census Bureau, 2013-2017

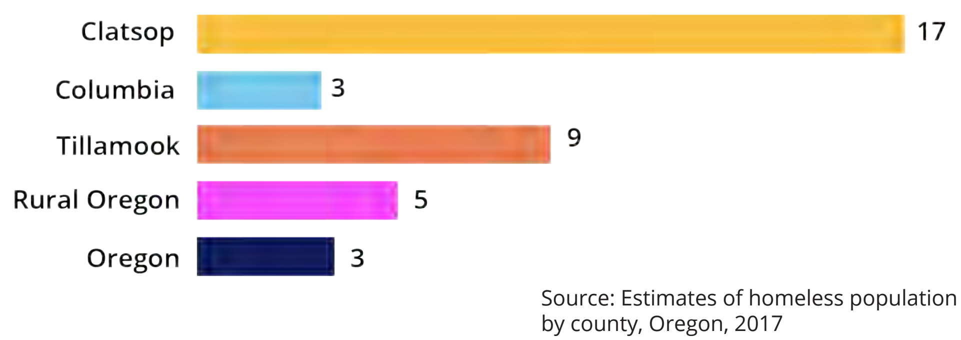
In Tillamook County, which has the second highest homelessness rate in the region, the median household income is more than $12,000 less than in Columbia County while the median gross rent is only $46 less per month. While a variety of factors influence homelessness, housing costs and income in the region are an important consideration.

Figure 4: Median gross rent



Source: U.S. Census Bureau, 2013-2017

Figure 5: Estimate of the homeless population rates per 1,000 total population



Source: Estimates of homeless population by county, Oregon, 2017

Poverty and Food Security

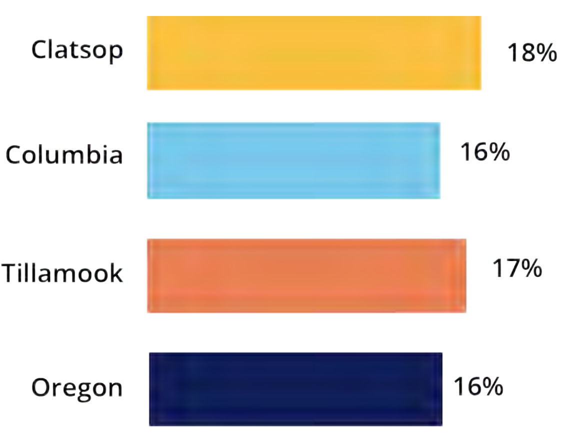
The United States Department of Agriculture (USDA) developed two categories for food insecurity: low food insecurity and very low food insecurity. Low food security individuals report reduced quality, variety, and/or desirability of diet but little or no reduced food intake. Very low food security individuals report multiple indicators of disrupted eating patterns and reduced food intake.[1]

In Clatsop, Columbia, and Tillamook Counties, 13 percent of the total population reported food insecurity (low food security and very low food insecurity)—the same as in Oregon overall (Figure 6). The proportion of food insecure children (under 18 years of age) in each of these counties is slightly higher than in Oregon overall (20%) and slightly lower than across Oregon's rural counties (23%). In all of these places, the percentage of food insecure children is higher than the percentage of the total population living below the federal poverty level.

Supplemental Nutrition Assistance Program (SNAP)

The proportion of the population receiving SNAP benefits in all three counties is not far from the state average. In Clatsop (18%) and Tillamook (17%) Counties, it is only slightly higher than in Oregon overall (16%). However, this small difference is not inconsequential. This data represents the nearly one-fifth of residents in those counties who receive benefits in order to buy groceries but may not reflect the total number of residents who need assistance.

Figure 7: Percent of county population helped by SNAP



Source: Oregon Center for Public Policy, 2018

Table 1 shows the proportion of 11th graders in Clatsop, Columbia, and Tillamook Counties and in Oregon overall who ate less than they felt they should because there was not enough money for food. While there were fluctuations over the five-year period between 2013 and 2017, the proportion had decreased across the region and in Oregon by 2017.

Figure 6: Poverty and food insecurity

Clatsop
Columbia
Tillamook
Rural Oregon
Oregon

	Clatsop	Columbia	Tillamook	Rural Oregon	Oregon
Living below the federal poverty level (percent of total population)	14%	13%	15%	17%	16%
Food insecurity (percent of total population)	13%	13%	13%	14%	13%
Food insecurity (percent of children under 18 years old)	21%	22%	21%	23%	20%

Source: OHA, Population living below federal poverty level by county, Oregon, 2012-2016 and Food insecurity by county, Oregon 2016

Table 1: 11th graders who ate less than they felt they should because there wasn't enough money to buy food

Jurisdiction	2013	2015	2017
Clatsop	18%	23%	17%
Columbia	24%	19%	18%
TIllamook	23%	19%	19%
Oregon	19%	19%	18%

Source: Oregon Healthy Teens Survey

High school graduation 2018

- Clatsop: 69%
- Columbia: 81%
- Tillamook: 81%
- Oregon: 77%

Source: County Health Rankings, 2019

Education

Educational attainment is a fundamental social determinant of health. Not only does education increase an individual's earning potential, it is associated with higher life expectancy and lower risk for most chronic diseases.[2]

High School Graduation

More than three-fourths of Oregonians graduate from high school. In Columbia and Tillamook Counties, 81 percent of high school students graduate. However, Clatsop County graduates only 69 percent of students, eight percent lower than in Oregon overall.

Educational Attainment

Figure 8 shows the attainment of post-secondary degrees among adults aged 25 years or older. This figure reflects individuals who have earned any formal degree following high school, including associate's and bachelor's degrees and beyond, but does not include educational certifications, certificates, and licenses attained. Clatsop County has a higher proportion of individuals aged 25 and older with post-secondary degrees (34%) than Columbia or Tillamook Counties (both 28%), though post-secondary degree attainment in all three counties is lower than the state average (40%).

Figure 8: Post-secondary degree among adults 25+

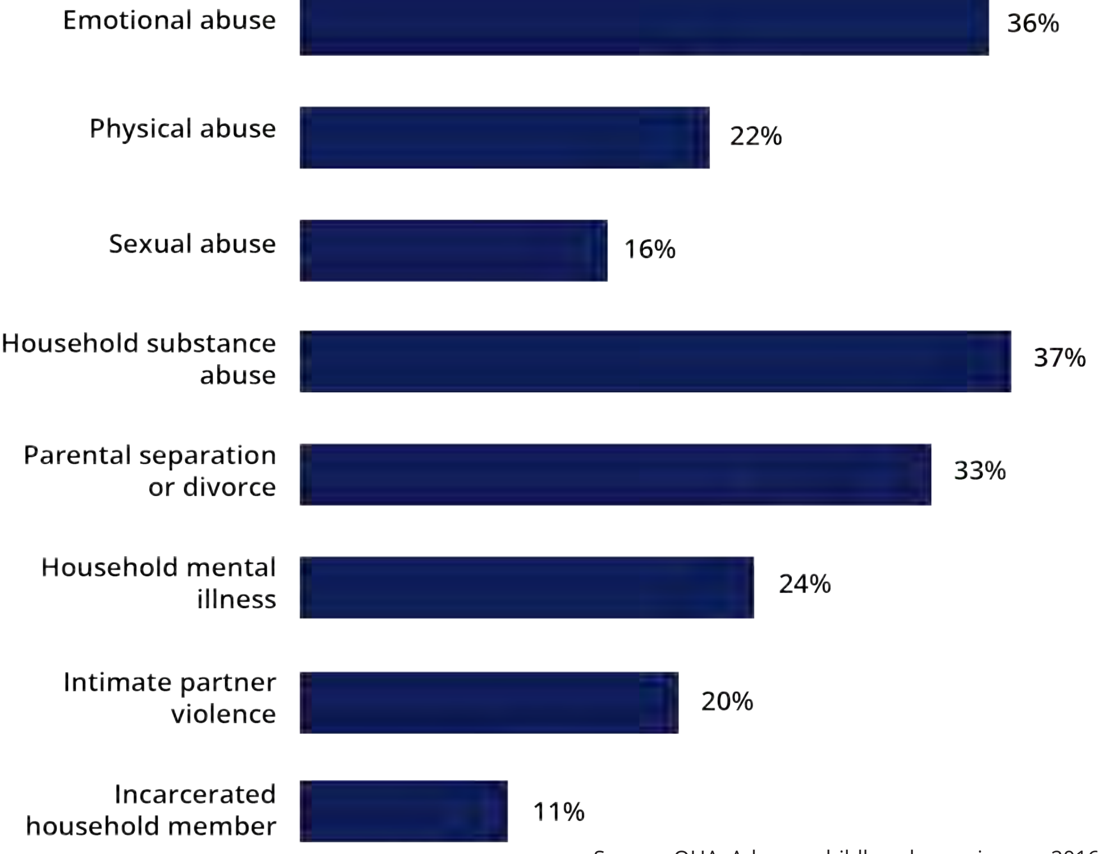
Source: OHA, Post-secondary degree among adults 25 years and older by county, Oregon, 2012-2015

Adverse Childhood Experiences (ACEs)

Research points to trauma informed care as a way to support resiliency and reduce the impact of Adverse Childhood Experiences (ACEs). ACEs have been linked to risky health behaviors, chronic health conditions, low life potential (e.g. dropping out of school, missing time at work)[3], and early death. The risk for each of these outcomes increases as an individual's ACE exposure increases. Adults who were exposed to four or more categories of ACEs[4] are seven times as likely to experience alcoholism; three (men) to five (women) times as likely to experience depression; 13 times as likely to attempt suicide; and 10 times as likely to use IV drugs. Supports and services that build resilience are important to the improvement of health and well-being.[5]

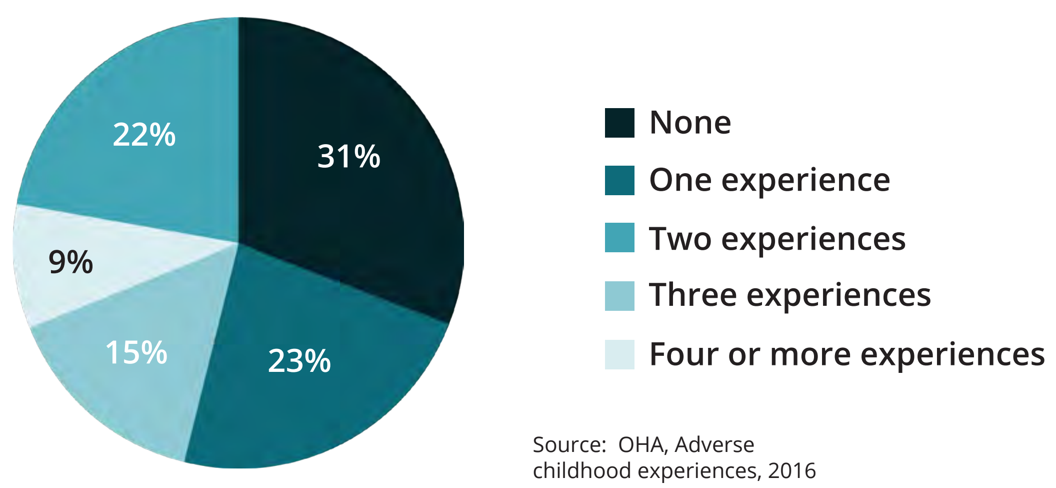
The most common types of ACEs reported by Oregon adults (aged 18 years or older) were emotional (36%) and physical (22%) abuse, household substance abuse (37%), and parental separation or divorce (33%) (Figure 9).

Figure 9: Types of ACEs among Oregon adults 18 years or older



Source: OHA, Adverse childhood experiences, 2016

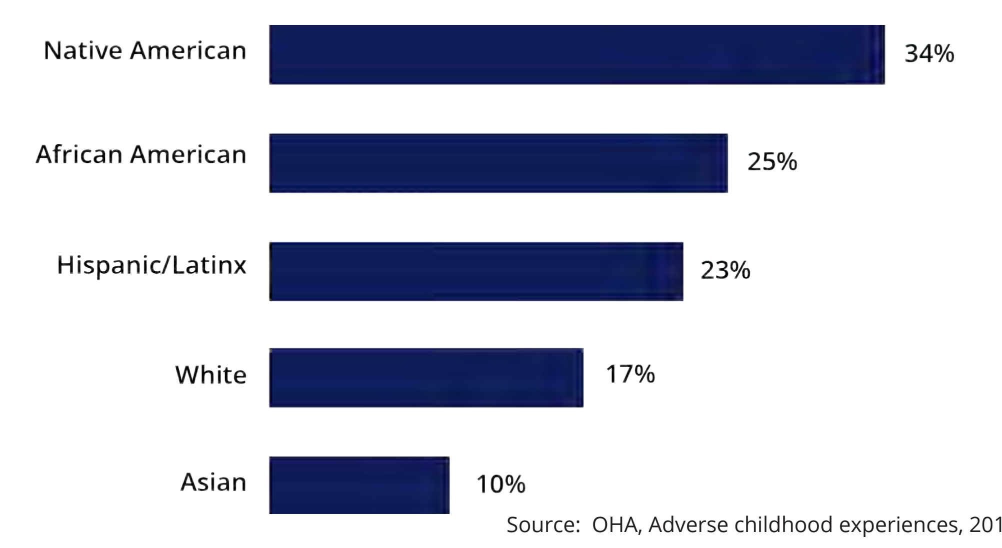
Figure 10: Number of ACEs among Oregon adults 18 years or older



Source: OHA, Adverse childhood experiences, 2016

Along with the specific types of ACEs, the number of ACEs an individual suffered matter. Nearly half (46%) of Oregon adults (aged 18 years or older) reported having suffered two or more ACEs (Figure 10). Oregonians of color were more likely to have experienced high numbers of ACEs (four or more), which is indicative of disparities. Of all the race/ethnic groups, Native Americans reported having the highest ACE scores (34%), and Asians had the lowest (10%) (Figure 11).

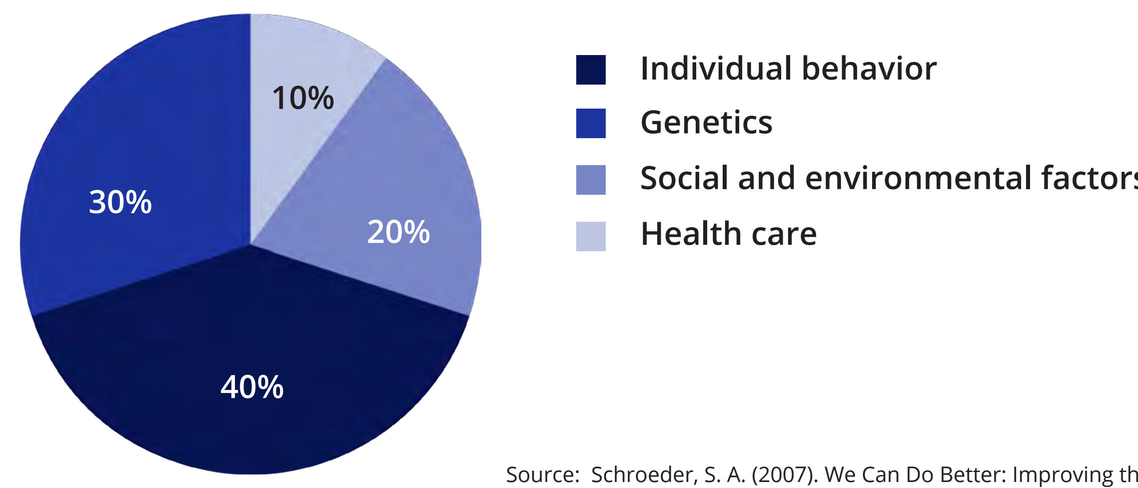
Figure 11: High ACE score (4+) among Oregon adults aged 18 or older by race/ethnicity



Source: OHA, Adverse childhood experiences, 2016

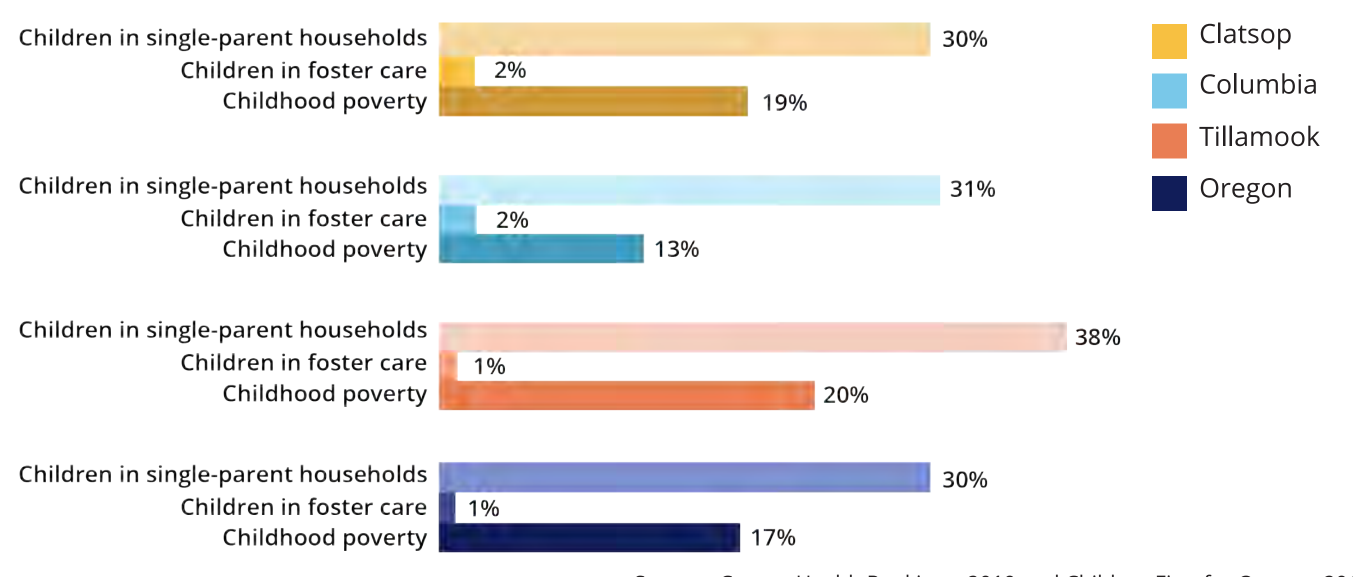
Figure 12[6] shows factors that increase the risk of premature death. While 40 percent of the figure comprises individual behaviors, this factor is inextricably linked with social and environmental factors, all of which influence and are influenced by ACEs. Health care (i.e., access and quality) only influences premature death by 10 percent.

Figure 12: Impact of different factors on risk of premature death



Source: Schroeder, S. A. (2007). We Can Do Better: Improving the Health of the American People. New England Journal of Medicine

Figure 13: Children in single-parent households, foster care, and poverty



Source: County Health Rankings, 2019 and Children First for Oregon, 2018

According to the 2019 County Health Rankings and 2018 data from Children First for Oregon, children (aged 17 years or younger) who live in the counties served by CPCCO experience life in single-parent households, foster care, and poverty, for the most part, in similar proportion to those in the state overall. Among the counties served by CPCCO, Tillamook County had the greatest percentage of children living in single-parent households (38%) and childhood poverty (20%). Clatsop and Columbia Counties had slightly higher percentages of children in foster care (2%) (Figure13).

Micro-Narrative Data Results

Analysis

Initial Analysis

The consultants at QED Insight completed an initial analysis of the data using several statistically reliable methods in combination, including but not limited to: determining the statistically significant axes of differences among groups (i.e. determining statistically whether factors such as ethnicity, story tone, or insurance type led to significant differences); "heat mapping" triads to assess for the density of answers per area within the triangular answer area; a geometrical statistical analysis for the mean of the answers within the triads; statistical analysis of groups of consensus in triads and dyads alike, such as which corner of a triad or end of a dyad had the largest proportion of answers and unique characteristics within those proportions. One additional form of analysis was called "More Like This/Less Like That," wherein the core team of CPCCO staff and volunteers coded the blank survey to find items that highlighted the potential for finding stories from which to amplify outcomes and those indicating barriers to overcome. The code was then used to filter for stories based on how many questions participants answered to be the most "amplifiable" examples or the most barriered. This information was first viewed by the core team and incorporated into the results portion of the workshop outlined below.

Workshop and Theming

Partners, members, and staff who had been involved in story collection or who were considered stakeholders attended a full day workshop to review the results. This workshop included the presentation of the consultant's statistically significant findings; activities to give first impressions of the information presented and think about what the data meant in part and as a whole; and "theming." The theming was done using the following steps:

1. A packet of curated stories and vision statements was given to small groups of five to six. The curated packets contained groups of stories or vision statements with a similar demographic or descriptive tie, such as "vision statements for Clatsop County," or "stories from the 'More Like This' grouping," or "stories from Hispanic/Latinx members." Each person took several minutes to look at the stories individually and write out the different basic ideas represented in the stories. A single idea was written per sticky note in a simple phrase or sentence such as "It is hard to buy healthy food on a budget" or "My relationship with my provider affects my health."

2. The small groups were then directed to put all their sticky notes up in a bounded area that corresponded with their story packet. Once that task was complete, the small groups quickly grouped the sticky notes based on any number of potential unifying aspects, such as the presence of a similar social determinant, or a quality of care issue, or a trauma-informed care concept. They could move one another's sticky notes, even after the notes were grouped. Then they gave their groups of sticky notes a theme title.

3. The small groups then shared their results with the larger group. The larger group shared some observations, and the small groups finished the day by doing a shared reflection of what stood out to them across the day, ultimately pointing to some areas for further consideration. CPCCO staff took photos of the results for posterity and further use.

Workshop Debrief and Additional Data Review
The core team met to debrief the process of the workshop and to review the themes and observations of the workshop attendees. Topics discussed included which themes occurred most often or had the most mentions within them, the group interpretations of the data, and next steps. After the formal debrief, two members of the core team were tasked with delving deeper into the story data itself to determine patterns in the data beyond what could be covered in the workshop. This task was done by establishing "swim lanes" of data where all questions would be displayed for specific sets of analyses, such as "all participant responses color-coded by health status" or "stories about transportation color-coded by experience tone," to look both for patterns per question and patterns that emerged among all questions. The results of this in-depth analysis were summarized in a file to use while planning the community roadshow.

Examples from the Micro-Narrative Data Results and Analysis

Each of the individual lines depicted in Figures 14 and 16 represents one health care story, or micro-narrative, from one survey participant.

Figure 14 is one example of how individuals characterized the care they received as described in their micro-narrative. In this case, respondents indexed the stability of services. Their responses are color-coded by self-reported emotional tone of the experience.

Figure 14: Characterizations of and positive/negative associations with stability of care

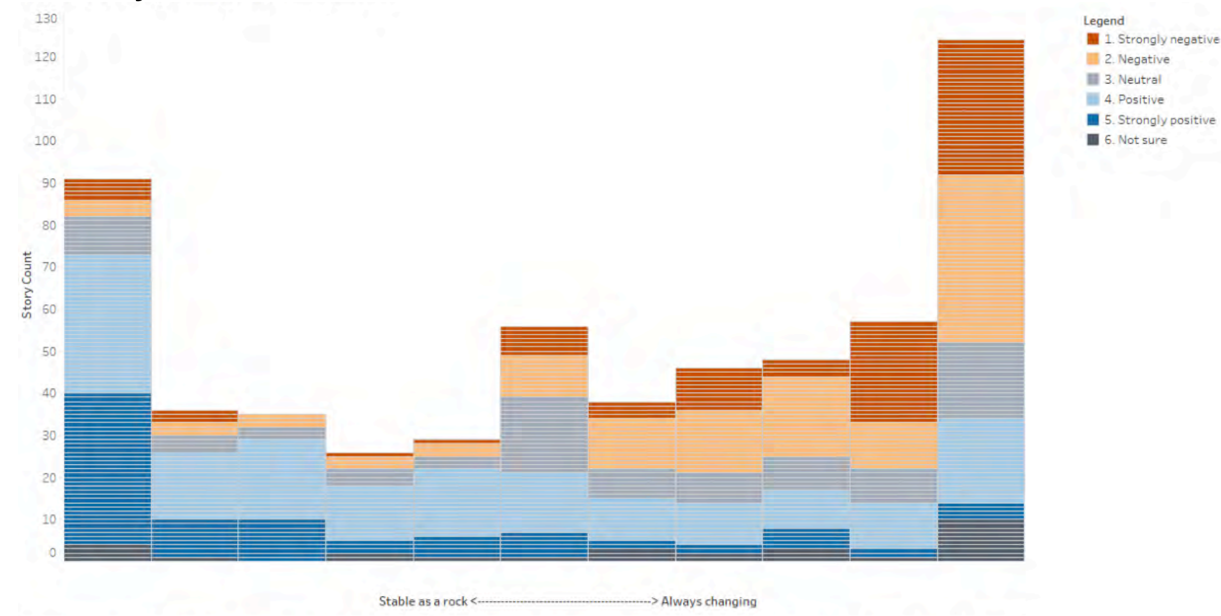
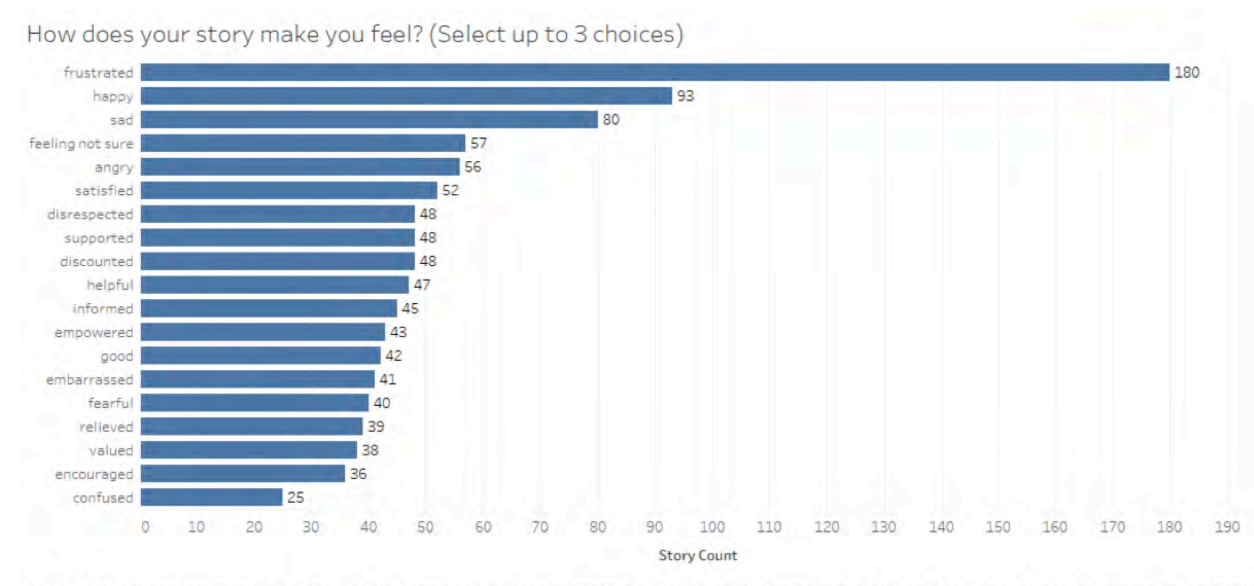


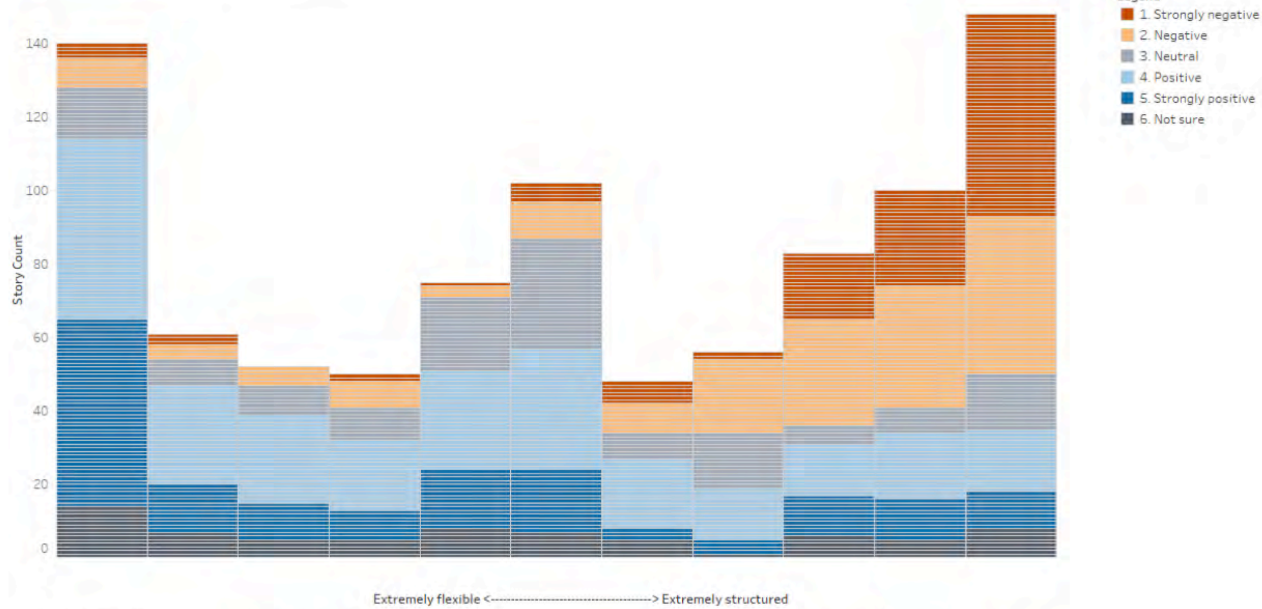
Figure 15: Specific feelings Oregon Health Plan clients associated with their individual health care stories



Oregon Health Plan clients contributed 508 of the stories collected. Figure 15 details the specific feelings (not emotional tone) respondents associated with their story about a health care experience.

In Figure 16, characterizations of flexibility of care (on the x axis) are compared with positive or negative association with the care (y axis). The example clearly demonstrates that extremely structured care was associated with negative emotions about the experience, and conversely, flexible care was associated with positive emotions about the experience.

Figure 16: Characterizations of and positive/negative associations with flexibility of care



The CPCCO team analyzed all the data, using multiple comparative frameworks and arrived at the following overarching themes:

- Respondents revealed a need for more and better programs to meet their needs. They also expressed that the need for community resources (such as supportive services for housing, transportation, and food) drastically outweighs the need for community education or safety
- The following barriers to accessing health care occurred most often (listed in no particular order):
  - Geographic isolation
  - Cost (recurred most often as an opportunity for improvement)
  - Quality of care (recurred most often as an opportunity for improvement)
  - Insurance
  - Feelings of being overwhelmed
- Being heard and supported by people (involved in one's health, health care, and access to health care) is critically important to building health and positive experiences
- Better health and positive experiences appear to correlate with flexibility and stability (in health care and access to health care)
- Location, cost, and feelings of being overwhelmed seem to be equally weighted barriers
- Respondents believe that everyone should be treated equally and with respect
- Access to housing, transportation, food, mental support, spiritual support, and emotional support are all top priorities
- An examination of the two ethnic minority groups (which might be referred to as "communities") that are most represented in the data revealed both variety across answers as well as strength of answers. This finding indicates that these groups are not monoliths and have diverse needs and experiences within the health care system

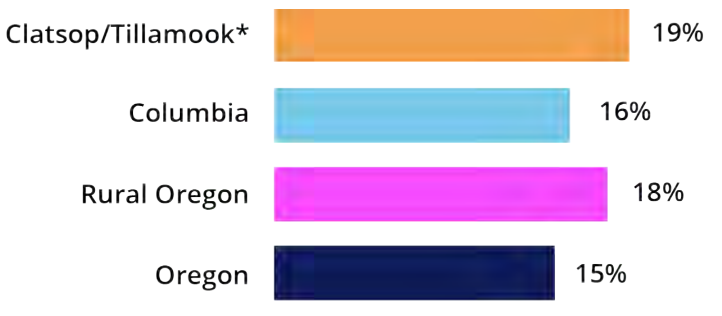
Access to Health Care

Health Insurance

The Oregon Health Plan (OHP) provides health care for low income Oregonians through Medicaid. Currently, 94 percent of Oregon adults have health insurance (Figure 18). OHP provides health insurance to one-quarter of adults in Oregon (Figure 19). Higher proportions of the population are uninsured in the CPCCO service region than in Oregon overall. Twenty-seven percent of the population in Clatsop and Tillamook Counties are on OHP. Columbia County has a lower percentage of adults on OHP than the state does.

Fifteen percent of Oregon's population is on Medicare and the CPCCO service region has a higher proportion of Medicare users than the state (Figure 17), though the difference in Columbia is slight. In Clatsop and Tillamook Counties, about one-fifth of the population is on Medicare.

Figure 17: Percent of adult population on Medicare



Source: OHA, Oregon Health Insurance Survey, 2017

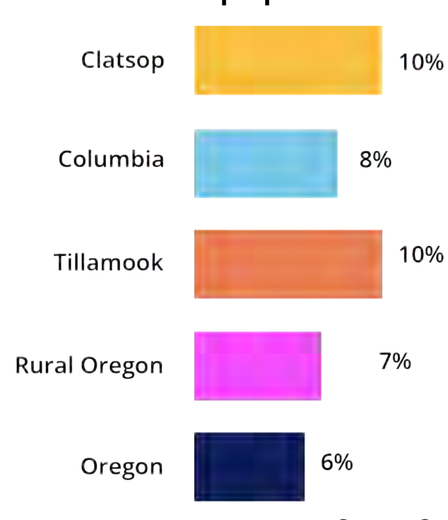
*Clatsop and Tillamook Counties reported as a region

Figure 18: Percent of adult population on the Oregon Health Plan

Source: OHA, Oregon Health Insurance Survey, 2017

*Clatsop and Tillamook Counties reported as a region

Figure 19: Percent of population who are uninsured



Source: Oregon Health Insurance Survey, 2017

Causes of Death

The leading cause of death in Clatsop, Columbia, and Tillamook Counties is cancer. All three counties have a cancer death rate higher than that of the state of Oregon (195 deaths per 100,000). In Tillamook County, the cancer death rate (310 deaths per 100,000) is nearly 60 percent higher than Oregon's rate. The proportion of deaths in each of these counties, however, is only slightly higher than in Oregon overall (22%). In Tillamook and Columbia Counties, 27% of deaths are attributable to cancer, while Clatsop County attributes 25% of deaths to cancer (Figure 20).

Cancer has many risk factors, including age, heredity, modifiable lifestyle behaviors, and environmental exposures. As shown in Table 2, the cancers that result in the highest percentage of deaths in the state are associated with some common modifiable behavioral risk factors. In Oregon, three of the most frequently fatal cancers are associated with tobacco use.

Heart disease is the second leading cause of death in all three counties. In Columbia and Clatsop Counties, nearly one-fourth of all deaths are attributed to heart disease, compared to nearly one-fifth of deaths in Tillamook County and Oregon overall (Figure 20). Heart disease shares many risk factors, including modifiable behavioral risk factors such as smoking and obesity, with the cancers shown in Table 2.

Chronic lower respiratory diseases are the third leading cause of death in all three counties.

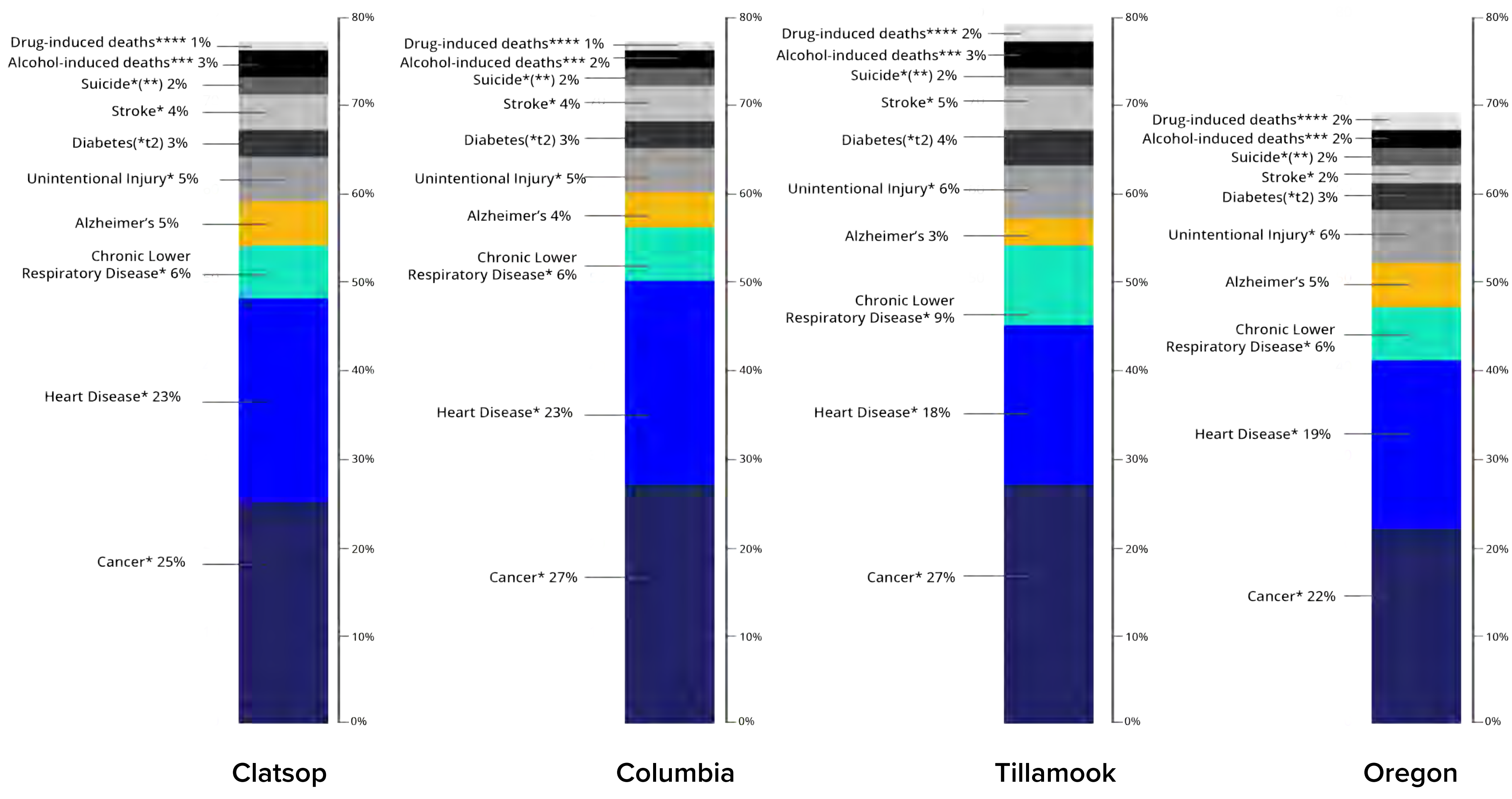
Overall, the majority of deaths in this region are due to causes that can be associated with lifestyle factors such as tobacco use, diet, and physical activity. However, while the harmful effects of these conditions may be prevented or mitigated through behavior modifications such as smoking cessation and increased exercise, behavioral risk factors can also be strongly influenced by social and environmental factors (stress, access to support systems, policy, etc.)

Table 2: Cancers contributing to the highest proportion of deaths in Oregon

Cancer Type	Percent of Cancer Deaths in Oregon	Modifiable Behavioral Risk Factors			
		Tobacco	Alcohol	Obesity	Physical Inactivity
Lung and bronchus	25%	x			
Colorectal	8%	x	x	x	
Pancreas	7%	x		x	
Breast	7%		x	x	x
Colon only	6%				x

Source: OHA, Cancer death rates and counts, 2012-2016, and OHA, Cancer and its significant modifiable risk factors, 2018

Figure 20: Causes of death (percent of all deaths)



*Preventable
**Not a leading cause of death
***Includes liver disease and other alcohol induced. Alcohol overdose and poisoning are included in unintended injury
**** Includes a variety of conditions affecting multiple organ systems, such as poisonings/overdoses and mental/behavioral disorders due to substance use/abuse. Other conditions, such as drug-induced hypoglycemia and drug-induced Parkinsonism are also included here. Note disorders included here are also included in other cause of death categories

Source: OHA, Oregon Vital Statistics Annual Report Volume 2, 2017

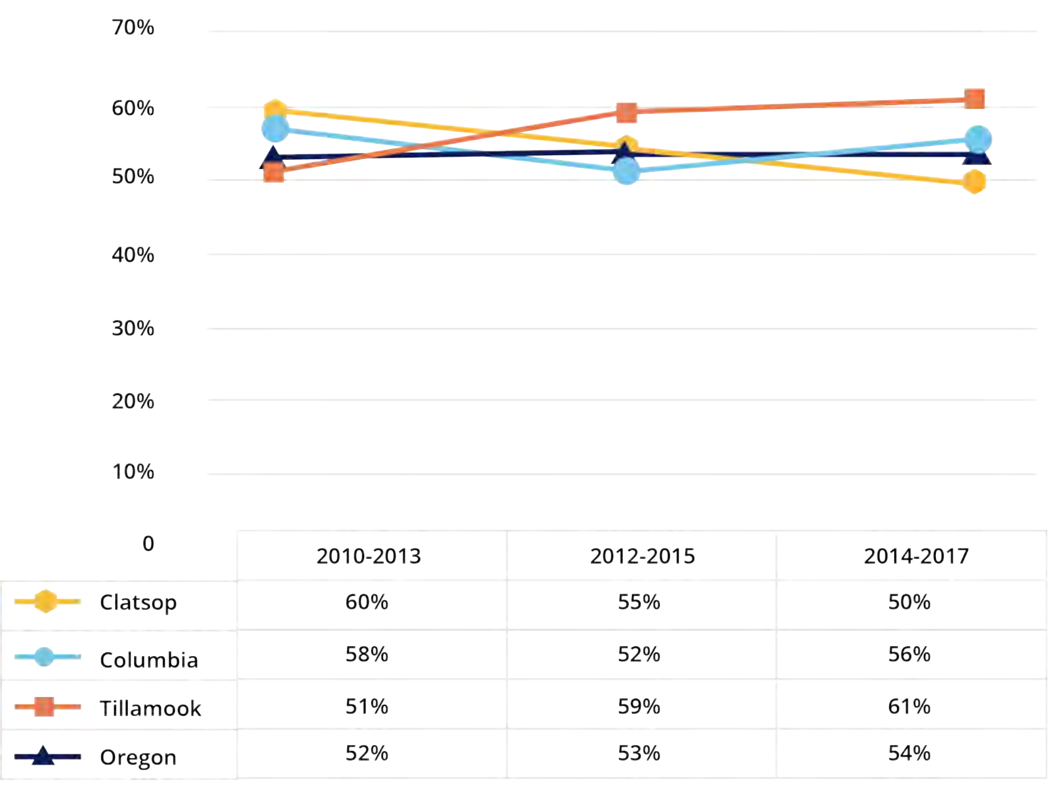
Chronic Diseases

According to the U.S. National Center for Health Statistics, a chronic disease must last three months or more. Chronic diseases generally cannot be prevented by vaccines or cured by medication, nor do they just disappear. Chronic conditions include arthritis, asthma, cancer, cardiovascular disease, chronic obstructive pulmonary disease (COPD), and diabetes. Figure 21 shows the percentage of adults in Clatsop, Columbia, and Tillamook Counties and Oregon with one or more chronic conditions across three points in time between 2010 and 2017.

In Oregon, the proportion of adults with one or more chronic diseases increased slightly between 2010 and 2017. Though Clatsop County had the most adults with chronic conditions in 2010-2013, by 2014-2017, it had the fewest. Clatsop County was the only county in the region to decrease its percentage across all three time periods shown, with a steady decline of five percent in each period.

Tillamook County experienced a 10 percent increase in its adult population with chronic conditions between 2010 and 2017. In 2010-2013, Tillamook County had the lowest proportion in the region, the only county of the three to have a lower percentage than Oregon. However, by 2014-2017, it had the highest proportion, seven percent higher than in Oregon overall.

Figure 21: Percent of adult population with one or more chronic condition(s)



	2010-2013	2012-2015	2014-2017
Clatsop	60%	55%	50%
Columbia	58%	52%	56%
Tillamook	51%	59%	61%
Oregon	52%	53%	54%

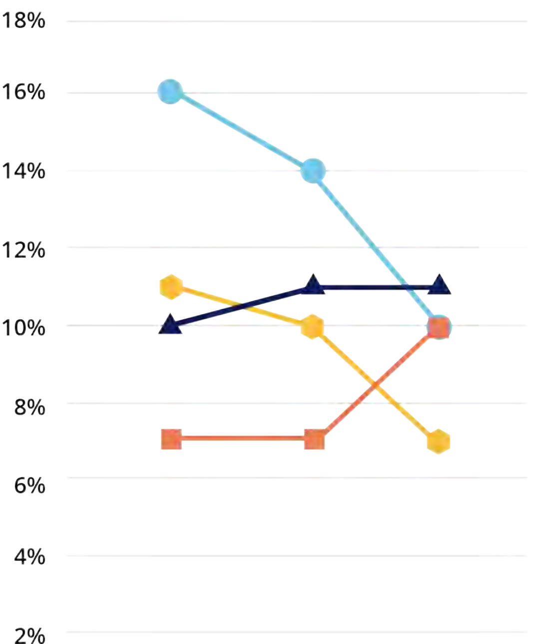
The proportion of adults with one or more chronic diseases in Columbia County fluctuated between 2010 and 2017. While it dropped from 58 percent to 52 percent between 2010-2013 and 2012-2015, by 2014-2017, it was back up to 56 percent.

Asthma

Figure 22 compares changes in the prevalence of adults with asthma in Clatsop, Columbia, and Tillamook Counties and in Oregon across three time periods from 2010 to 2017. In Oregon, the proportion of adults with asthma increased slightly from 10 percent to 11 percent.

The prevalence in both Clatsop and Columbia Counties declined across all three points in time, with Columbia County seeing the largest decrease (6%). The prevalence in Tillamook County stayed at seven percent from 2010-2013 to 2012-2015, but it jumped three percent by 2014-2017 to 10 percent. By 2014-2017, all three counties had a lower prevalence of adults with asthma than Oregon.

Figure 22: Percent of adult population with asthma



	2010-2013	2012-2015	2014-2017
Clatsop	11%	10%	7%
Columbia	16%	14%	10%
Tillamook	7%	7%	10%
Oregon	10%	11%	11%

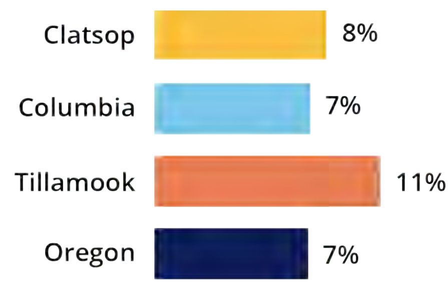
Source: Oregon BRFSS

Heart Disease

Cardiovascular disease generally refers to conditions in which narrowed or blocked blood vessels restrict blood flow to the heart, brain, or other areas of the body. The most common form in the U.S. is coronary artery disease, which limits blood flow to the heart and can cause heart attacks.[7] Figure 23 illustrates the prevalence of cardiovascular disease in the three counties and in Oregon, based on individuals' responses to BRFSS questions about heart attack, coronary heart disease, and stroke.[8] While the prevalence of cardiovascular disease in Clatsop and Columbia Counties is similar to that of Oregon (7%), the prevalence in Tillamook County is around 1.5 times higher (11%).

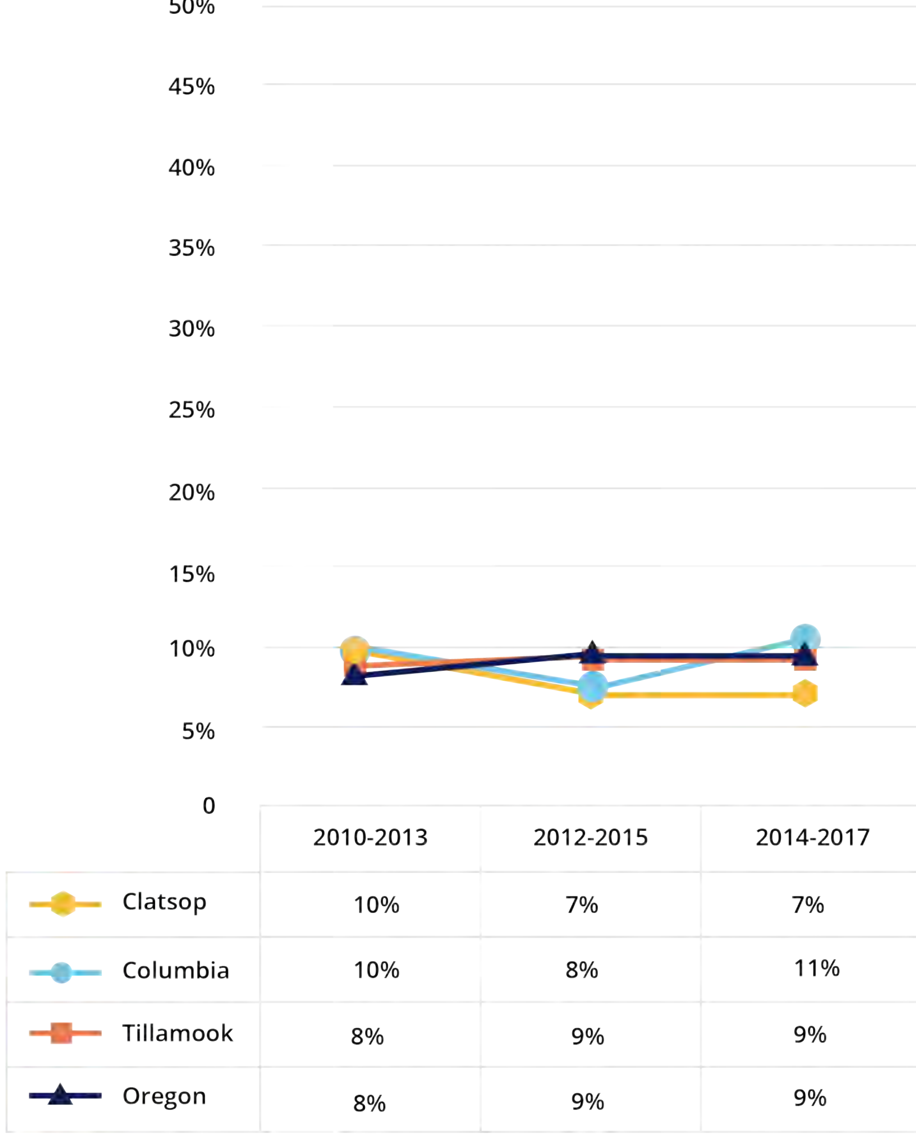
Figure 23: Percent of population with cardiovascular disease

Cardiovascular disease includes coronary heart disease (or angina), heart attack or stroke



Source: Oregon BRFSS, 2014-2017

Figure 24: Percent of adult population with diabetes



	2010-2013	2012-2015	2014-2017
Clatsop	10%	7%	7%
Columbia	10%	8%	11%
Tillamook	8%	9%	9%
Oregon	8%	9%	9%

Includes respondents who answered "Yes" to the question: "Have you ever been told by a doctor, nurse or other health professional that you have diabetes?" Excludes females told only during pregnancy, pre-diabetes and borderline diabetes.

Source: Oregon BRFSS

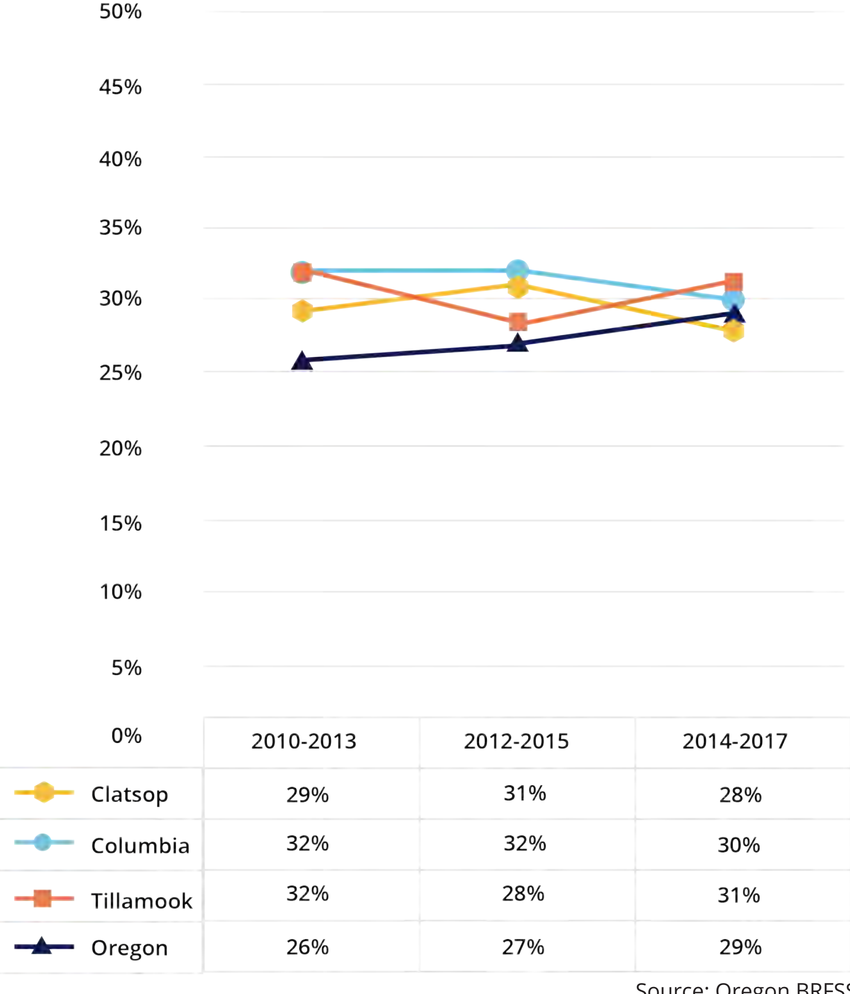
Diabetes

Diabetes is a disease in which too much blood glucose, or blood sugar, stays in the bloodstream because the body either does not produce insulin or does not use insulin well. Insulin is a hormone that helps glucose enter cells to give them energy. Diabetes increases risk for heart attack and can cause other serious health problems, such as kidney disease and vision loss. Figure 24 shows diabetes prevalence across all three counties and Oregon over three points in time between 2010 and 2017. Ninety percent of diabetes cases are Type 2 (once referred to as "adult onset" but increasingly occurring in children and teenagers). For the most part, diabetes prevalence has been fairly stable in these counties with approximately one in every ten adults having the disease. Also of note, the CDC estimates that one in three people nationally are prediabetic, thus a focus on prevention is crucial in keeping rates low.

Obesity

Obesity is a complex condition involving an excessive amount of body fat, which can increase risk of health problems, such as heart disease, diabetes, and high blood pressure. Figure 25 shows the prevalence of obesity among adults at three points in time between 2010 and 2017 in Clatsop, Columbia, and Tillamook Counties and Oregon. Though the prevalence of adult obesity increased in Oregon over time, by 2014-2017, it had decreased in the three counties. However, the prevalence is still high at roughly one-third of adults in all four jurisdictions, making obesity another important focus for chronic disease prevention efforts.

Figure 25: Percent of adult population with obesity



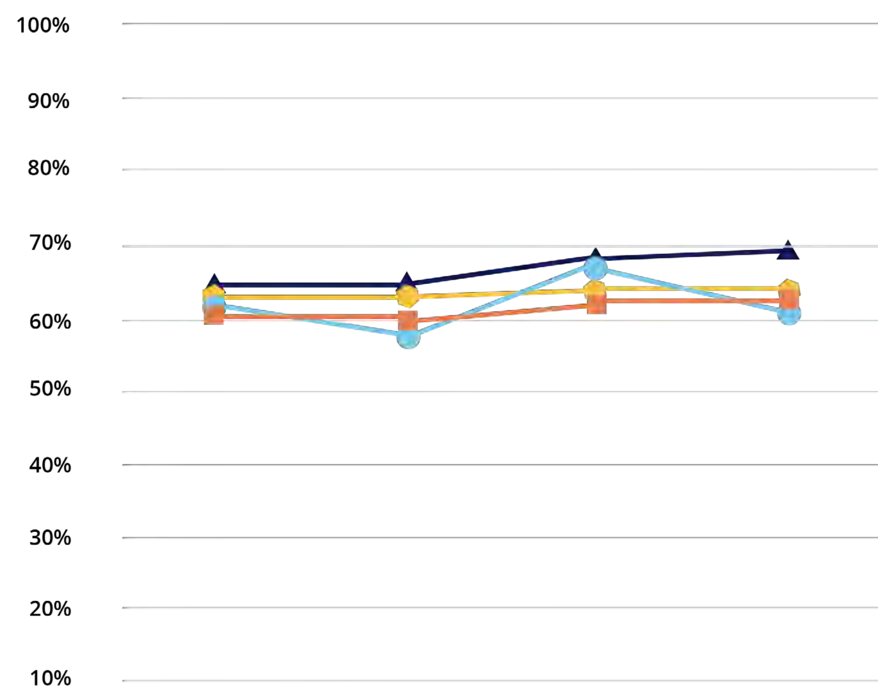
	2010-2013	2012-2015	2014-2017
Clatsop	29%	31%	28%
Columbia	32%	32%	30%
Tillamook	32%	28%	31%
Oregon	26%	27%	29%

Source: Oregon BRFSS

Immunization

Vaccine-preventable diseases can cause long-term illness, hospitalization, and even death. Skipping vaccines can make children and adults vulnerable to illnesses such as influenza (flu), pneumococcal disease (such as bacterial meningitis), and shingles. Vaccines also protect against diseases such as human papillomavirus (HPV) and hepatitis B. Figure 26 shows the proportion of two-year-olds with up-to-date immunizations in Clatsop, Columbia, and Tillamook Counties and in Oregon overall for years 2015 through 2018. Across all years depicted, all three counties have a lower proportion of two-year-olds with up-to-date immunizations than the state of Oregon. While childhood immunizations in the state have increased steadily, they have fluctuated in this region.

Figure 26: Two-year olds with up-to-date immunizations



	2015	2016	2017	2018
Clatsop	63%	62%	64%	64%
Columbia	62%	58%	65%	61%
Tillamook	62%	61%	64%	64%
Oregon	64%	66%	68%	69%

Source: OHA, Oregon Child Immunization Rates

Physical Activity

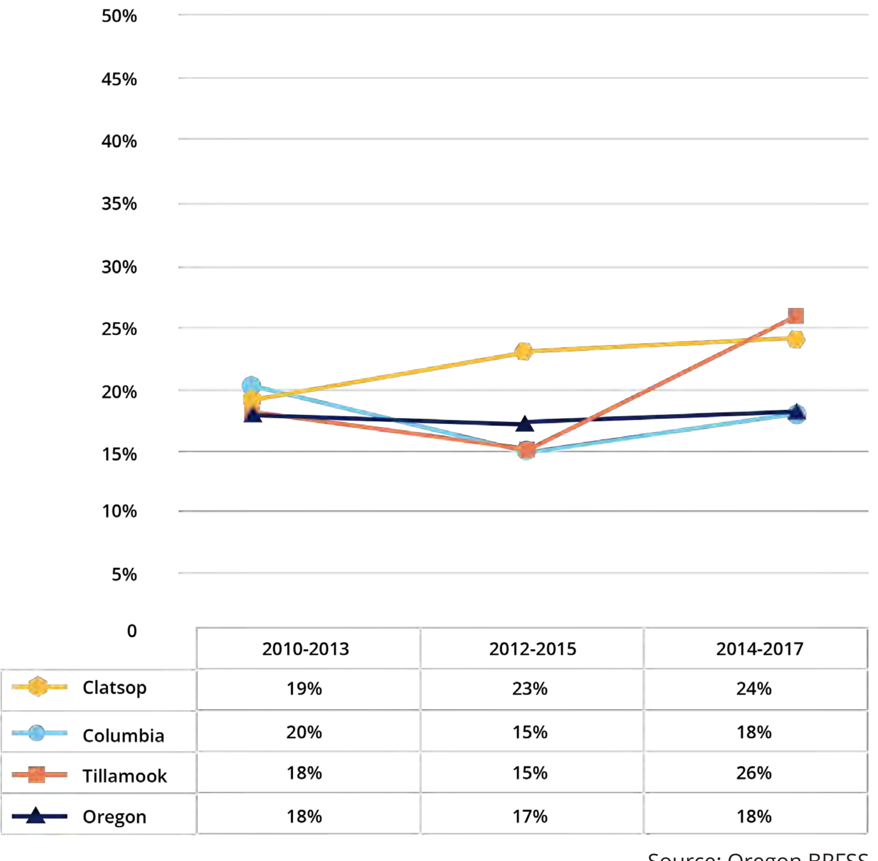
For healthy adults, the U.S. Department of Health and Human Services recommends at least 150 minutes of moderate aerobic activity, 75 minutes of vigorous aerobic activity, or a combination every week.[9] Figure 27 shows around one-quarter of adults or fewer across the region engage in physical activity outside of work. In Oregon, there was little change from 2010 to 2017, with nearly one-fifth of the population inactive outside of work. Tillamook County saw the biggest change in inactive adults—an eight percent jump—in that time period. The number of inactive adults in Clatsop County also grew, but Columbia County had a slight overall decrease to match the state (18%).

At least 60 minutes per day of aerobic, muscle strengthening, and bone strengthening physical activity However, by 2014-2017, it had the highest proportion, seven percent higher than in Oregon overall. Figure 28 shows the percentage of 11th graders who met these physical activity recommendation, again in all three counties and in Oregon between 2010 and 2017. Oregon and Columbia County each had a three percent decline in physically active 11th graders.

In Clatsop County, the proportion of physically active 11th graders increased by three percent to meet the state average (23%). While eight percent of adults in Tillamook County became less active, as previously noted, eight percent of 11th graders in the county became more active.

Increases in the number of active youth is positive, but it's important to consider that the overall number is low—around three-quarters of 11th graders in most of the region are not getting adequate amounts of physical activity. Physical activity is not only an important protective factor against chronic physical conditions such as obesity and cardiovascular disease, it can improve self-esteem and relieve symptoms of depression and anxiety in youth.

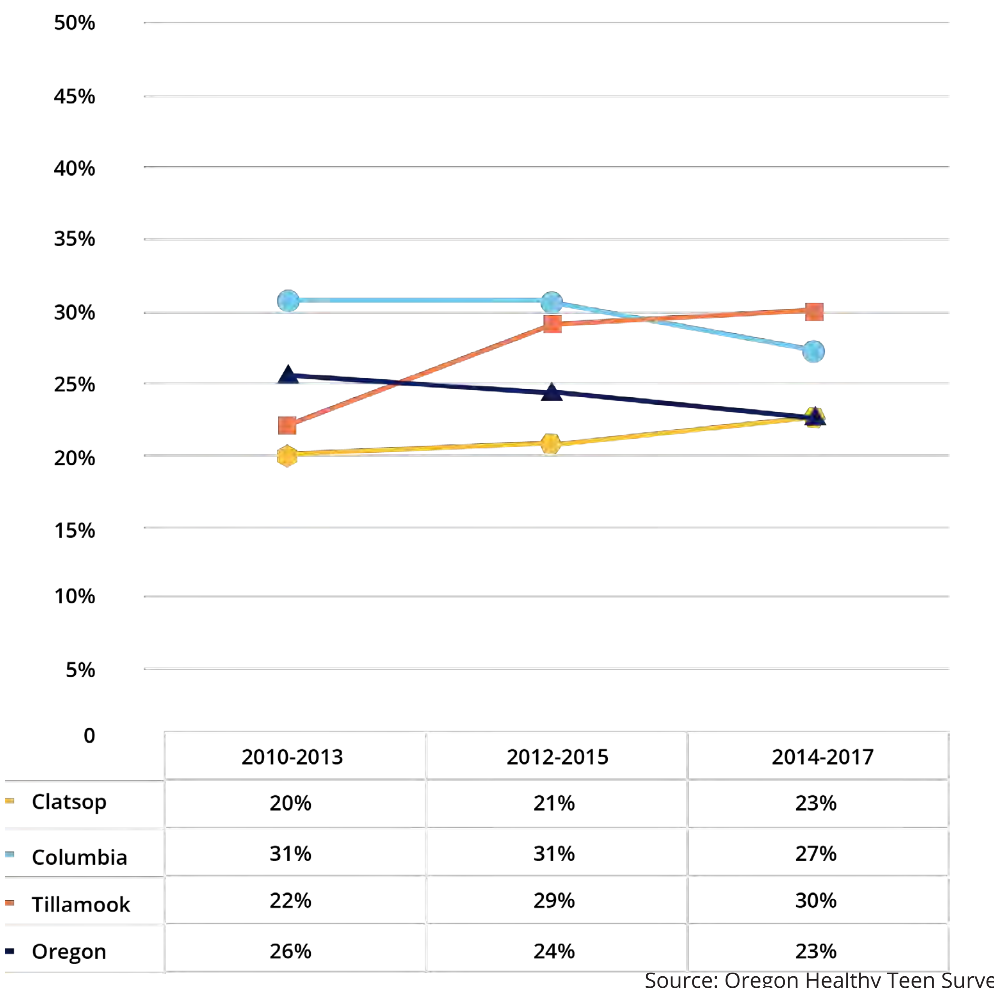
Figure 27: Percent of adult population without physical activity outside of work in the past month



	2010-2013	2012-2015	2014-2017
Clatsop	19%	23%	24%
Columbia	20%	15%	18%
Tillamook	18%	15%	26%
Oregon	18%	17%	18%

Source: Oregon BRFSS

Figure 28: Percent of 11th graders who met daily physical activity recommendations



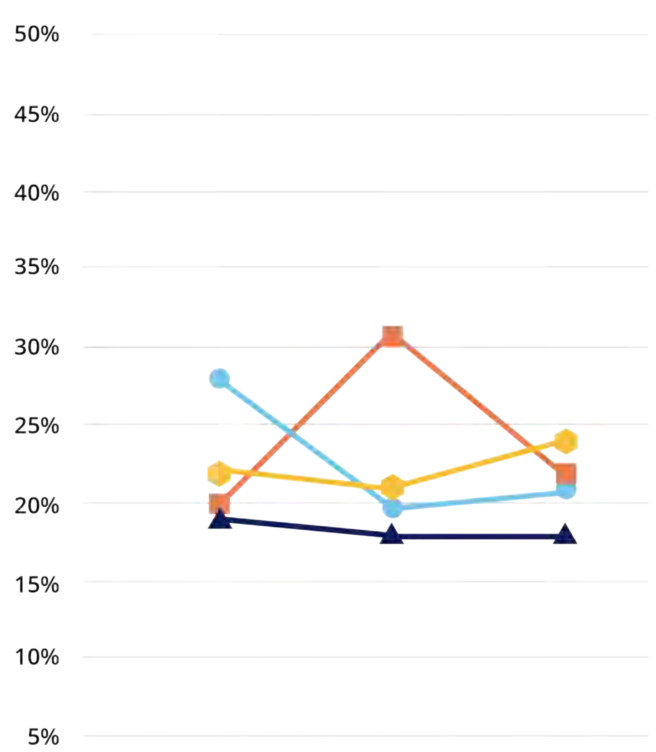
	2010-2013	2012-2015	2014-2017
Clatsop	20%	21%	23%
Columbia	31%	31%	27%
Tillamook	22%	29%	30%
Oregon	26%	24%	23%

Source: Oregon Healthy Teen Survey

Tobacco Use

Tobacco use is associated with the top three causes of death in the region—cancer, heart disease, and chronic lower respiratory disease, all of which are preventable. Figure 29 presents the percent of adults in Clatsop, Columbia and Tillamook County, as well as the state of Oregon who are current cigarette smokers. All three counties in the region have smoking rates that are above the state average (although the difference may not be statistically significant). The state of Oregon, for more than a decade, has reported less than 20 percent of the adult population as cigarette smokers.

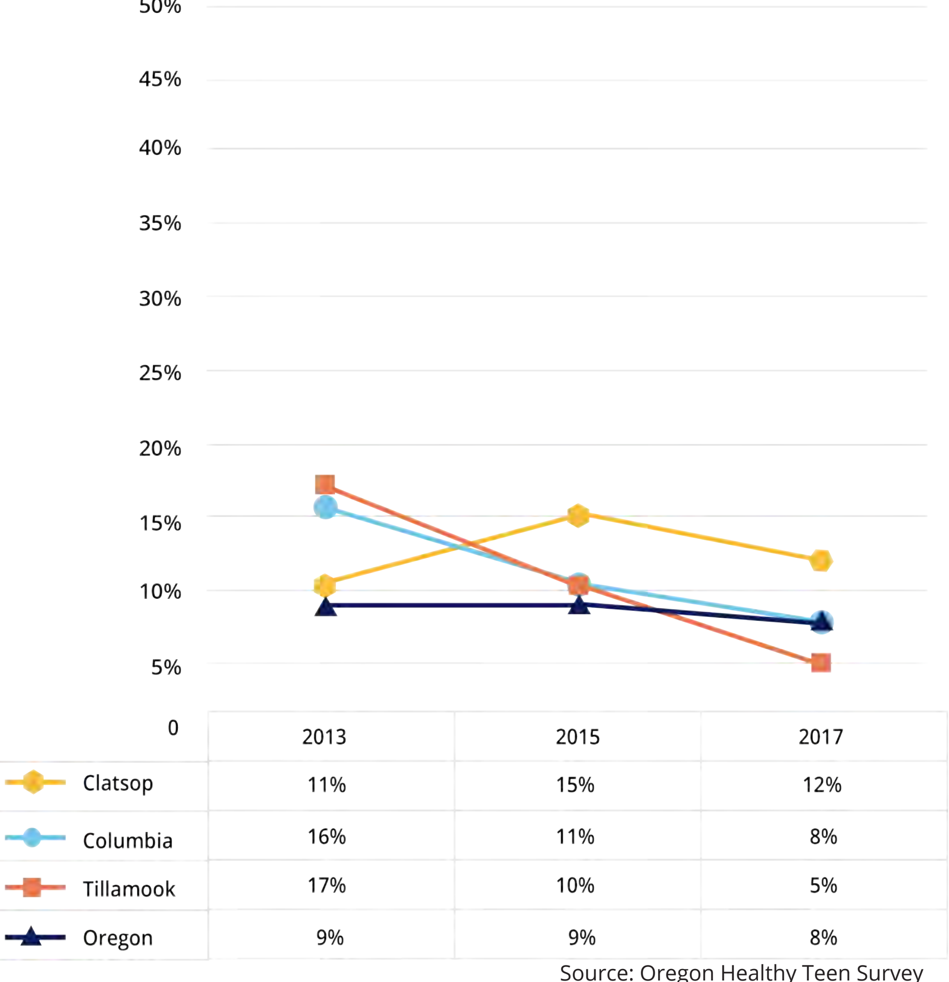
Figure 29: Percent of adult population smoking cigarettes



	2010-2013	2012-2015	2014-2017
Clatsop	22%	21%	24%
Columbia	28%	20%	21%
Tillamook	20%	31%	21%
Oregon	19%	18%	18%

Source: Oregon BRFSS

Figure 30: Percent of 11th graders smoking cigarettes (including menthol cigarettes) in the past 30 days



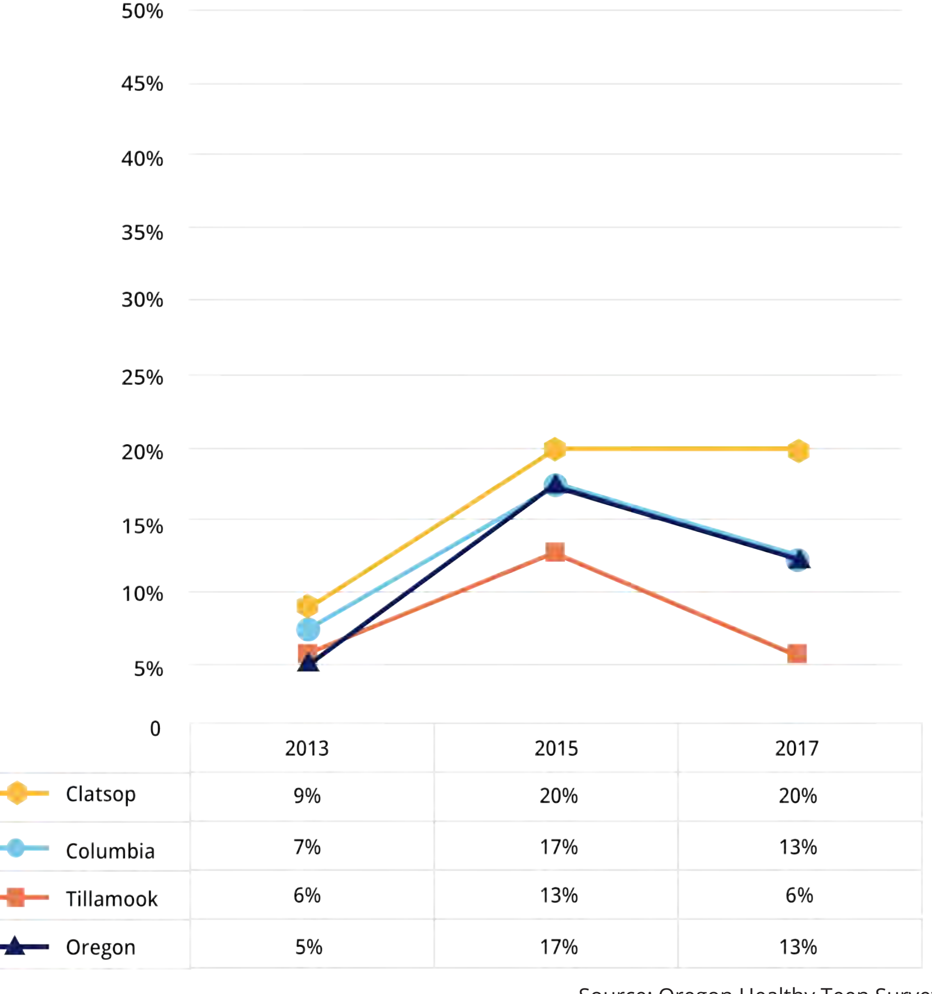
	2013	2015	2017
Clatsop	11%	15%	12%
Columbia	16%	11%	8%
Tillamook	17%	10%	5%
Oregon	9%	9%	8%

Source: Oregon Healthy Teen Survey

The vast majority of tobacco users start before they are 18 years old. Once they are addicted, quitting tobacco is a lifetime process that most tobacco users undertake and many struggle to achieve.[10] Eleventh grade tobacco use is a key indicator for monitoring not only the present but also the future of tobacco use. All three counties reported a reduction of 11th graders smoking cigarettes from 2015 to 2017 (Figure 30). Figure 31 shows that following a rise in the use of e-cigarettes and vaping product among 11th graders in all three counties and Oregon from 2013 to 2015, the proportion decreased in Columbia and Tillamook Counties and in Oregon by 2017.

Massive public health efforts have brought about a steady decline in youth smoking. However, tobacco industry innovation introduced electronic cigarettes and vaping within the past decade, and many

Figure 31: Percent of 11th graders using e-cigarette or other vaping producst in the past 30 days



	2013	2015	2017
Clatsop	9%	20%	20%
Columbia	7%	17%	13%
Tillamook	6%	13%	6%
Oregon	5%	17%	13%

Source: Oregon Healthy Teen Survey

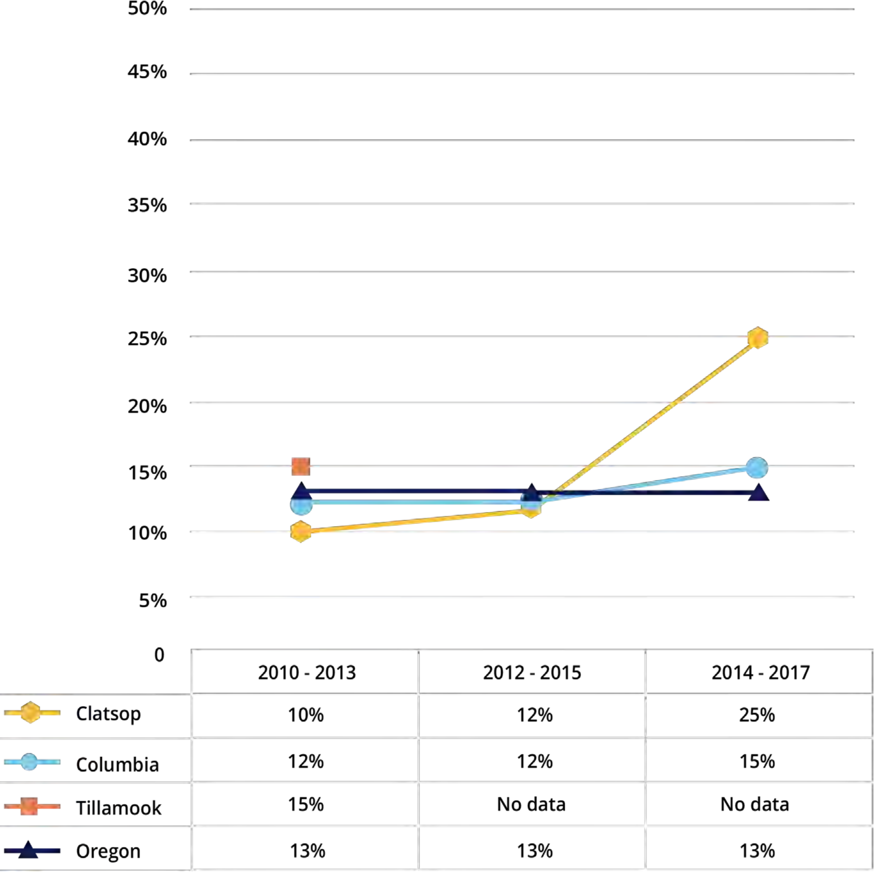
of the gains achieved are now threatened by the youth vaping epidemic.

From 2013 to 2015 the use of e-cigarettes or other vaping products doubled in every county and tripled in the state of Oregon. Columbia County and the state of Oregon managed to reduce the use of e-cigarettes from 17 percent (2015) to 13 percent (2017) among 11th graders. Clatsop County remained the same from 2015 to 2017 at 20 percent of 11th graders using e-cigarettes. However, Tillamook reduced 11th grade e-cigarette users by nearly 50 percent from 2015 (13%) to 2017 (6%).

Sugar-Sweetened Beverages Consumption

Sugar-sweetened beverages (SSBs) are drinks with added sugar, including sodas, fruit drinks, sports drinks, sweetened tea and coffee drinks, energy drinks, and sweetened water and electrolyte replacement drinks. According to the CDC, Americans consume most of their added sugar from SSBs. When consumed frequently, SSBs are associated with weight gain, heart disease, type 2 diabetes, tooth decay, and other health conditions.[11] Figure 32 shows the proportion of adults in the region and in Oregon who consumed seven or more sodas per week. Clatsop County had a large increase of 15 percent between 2010 and 2017 so that 25 percent of the adult population consumed seven or more sodas weekly, nearly twice the state average. Figure 33 shows that a large proportion of 11th graders in the region consumed sodas in the previous week though the numbers began trending dow2ward between 2015 and 2017. In Clatsop (68%) and Tillamook (65%), the proportion was close to that of Oregon (67%) by 2017. Columbia County, however, saw very little change, with nearly three-quarters of 11th graders having consumed soda in the previous week across all three years shown.

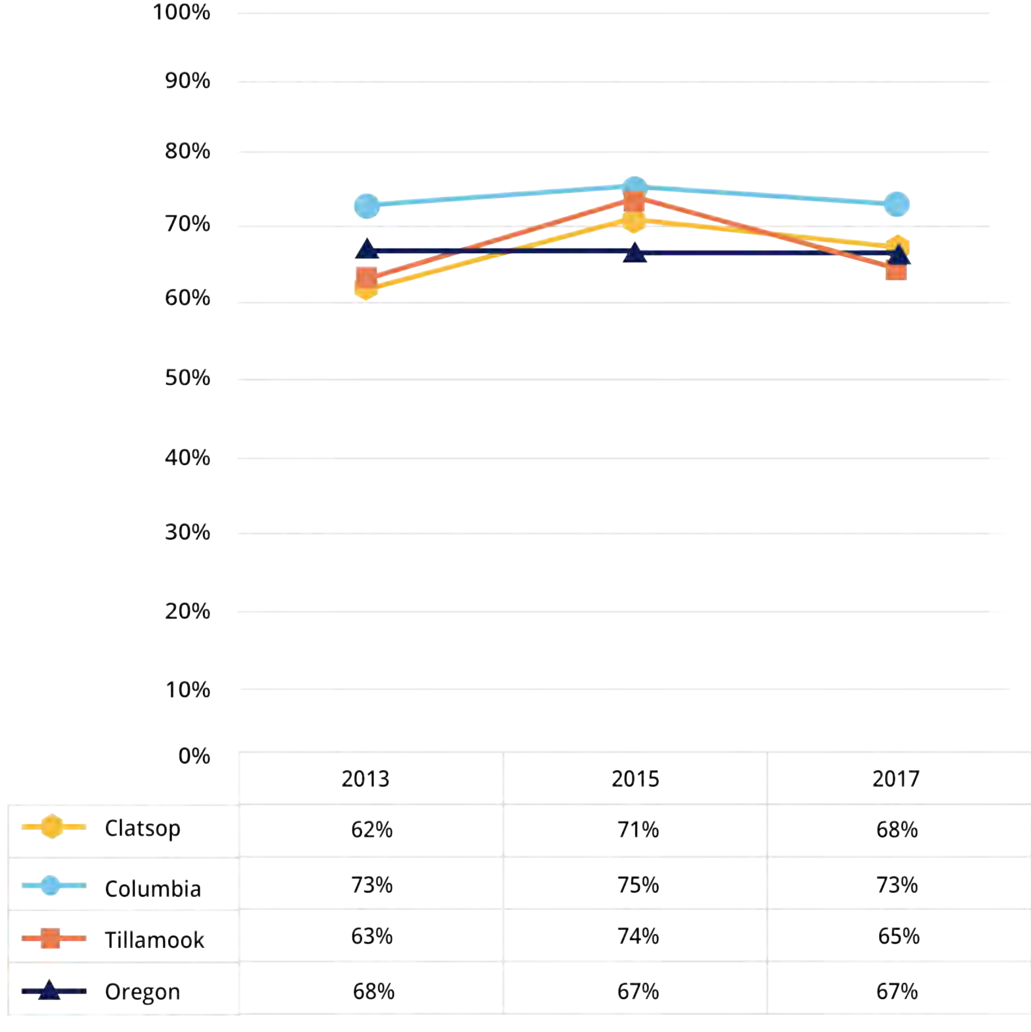
Figure 32: Adults who consumed 7 or more sodas per week



	2010 - 2013	2012 - 2015	2014 - 2017
Clatsop	10%	12%	25%
Columbia	12%	12%	15%
Tillamook	15%	No data	No data
Oregon	13%	13%	13%

Source: Oregon BRFSS

Figure 33: Percent 11th graders who drank soda or pop such as Coke, Pepsi, or Sprite (does not include diet soda or pop) in the last 7 days



	2013	2015	2017
Clatsop	62%	71%	68%
Columbia	73%	75%	73%
Tillamook	63%	74%	65%
Oregon	68%	67%	67%

Source: Oregon Healthy Teen Survey

Maternal Health and Pregnancy

Low Birth Weight

A baby's weight at birth is strongly associated with mortality risk during the first year and, to a lesser degree, with developmental problems in childhood and the risk of various diseases in adulthood. Figure 34 shows that the rate of low birthweight babies in Tillamook, Clatsop and Columbia Counties (2012-2016 combined) was lower than the rate for the state of Oregon.

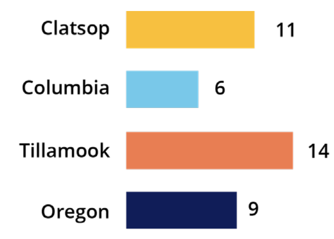
Figure 34: Low birth weight, rate per 1,000 births

Source: OHA, Center for Health Statistics, Annual Report, Volume 1, 2017

Teen Births

In addition to being at higher risk for pregnancy-induced hypertension and postpartum depression than other mothers, teenage mothers are also at higher risk for suicidal ideation than their peers who aren't mothers. Children born to teenage mothers are at higher risk of not receiving proper nutrition, health care, and cognitive and social stimulation. They are also at higher risk of low birthweight babies, premature birth, low iron levels, high blood pressure, and mortality. In Oregon, there are nine teen births (ages 15-17) for every 1,000 children born. Tillamook County's rate is over 50% higher at 14 teen births for every 1,000. Clatsop County also has a higher teen pregnancy rate than the state. Columbia County , however, has a rate that is two-thirds that of the state rate (Figure 35).

Figure 35: Teen pregnancy, ages 15-17, rate per 1,000 births



Source: OHA, Center for Health Statistics, Annual Report, Volume 1, 2017

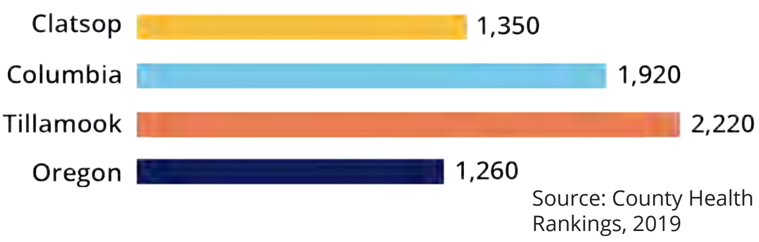
Inadequate Prenatal Care

Inadequate prenatal care occurs when care is not initiated until after the fourth month of pregnancy or when less than 50 percent of recommended visits are received. Figure 36 displays rates of adequate prenatal care received during the first trimester for every 1,000 births in each county, and in Oregon. Clatsop (77%) and Tillamook (65%) Counties had lower percentages of women receiving first trimester care than the state (80%).

Oral Health

The percentage of 11th graders who had gone more than one year without seeing a dentist or dental hygienist leveled off between 2015 and 2017 to 28 percent for Clatsop and Columbia Counties and 25 percent for Tillamook County (Figure 38). Tillamook County had the biggest decline in its proportion of 11th graders not receiving oral care between 2013 and 2017, dropping 12 percent to become the lowest in the region. The proportion in Oregon remained steady at around 25 percent over the same time period.

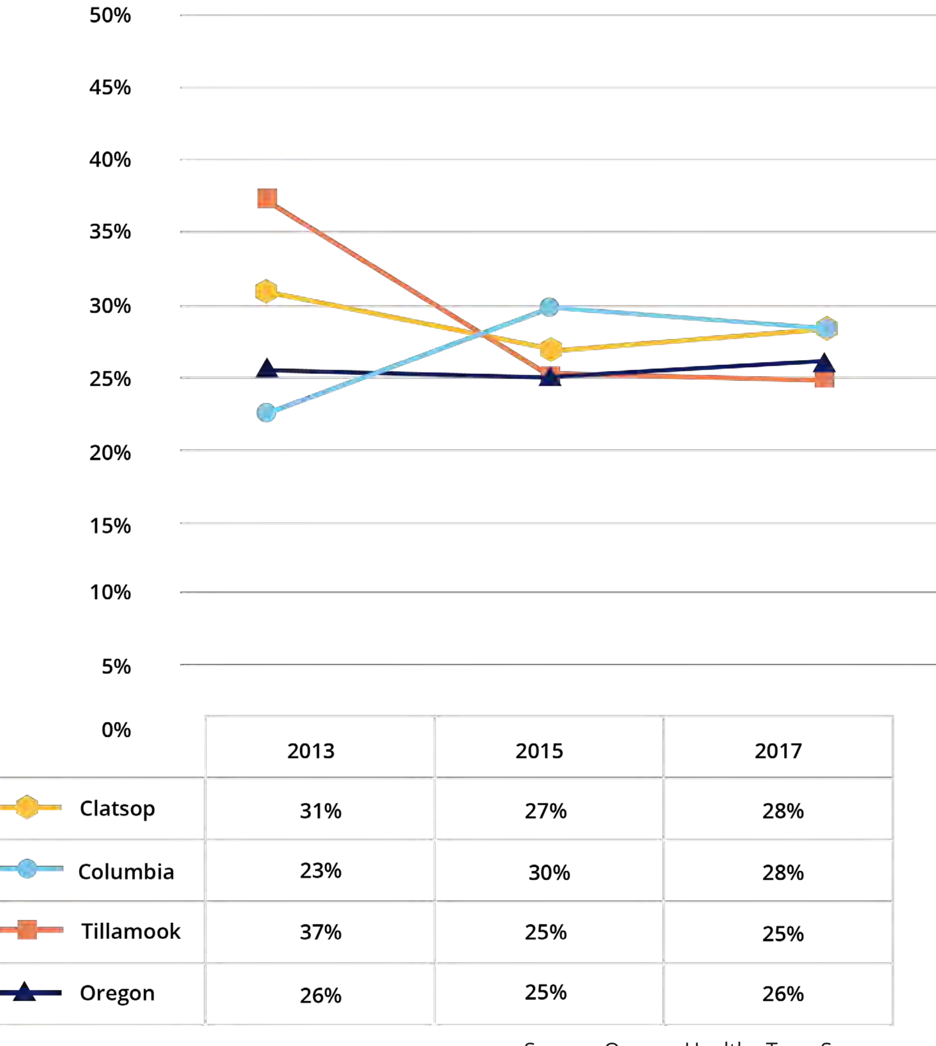
Figure 37: Ratio of population to dentists



Source: County Health Rankings, 2019

For every dentist, there are 1,260 citizens in the state of Oregon, a lower ratio than in Clatsop, Columbia, and Tillamook Counties. Tillamook has the most striking disparity at 2,220 individuals per one dentist; nearly 1,000 more individuals than the state of Oregon. Columbia County has nearly 700 citizens more for every dentist than Oregon at 1,920 individuals. Clatsop County's ratio is the closest to Oregon's at 1,350 people to every dentist in the county (Figure 37).

Figure 38: Percent of 11th graders who have gone more than one year without seeing a dentist or dental hygienist



	2013	2015	2017
Clatsop	31%	27%	28%
Columbia	23%	30%	28%
Tillamook	37%	25%	25%
Oregon	26%	25%	26%

Source: Oregon Healthy Teen Survey

Behavioral Health

Behavioral health is a broad term that refers to how behavior impacts the health and well-being of the body, mind, and spirit. This discipline is inclusive of mental health, substance use, and more, employing intervention, prevention, treatment, and recovery initiatives to improve quality of life.

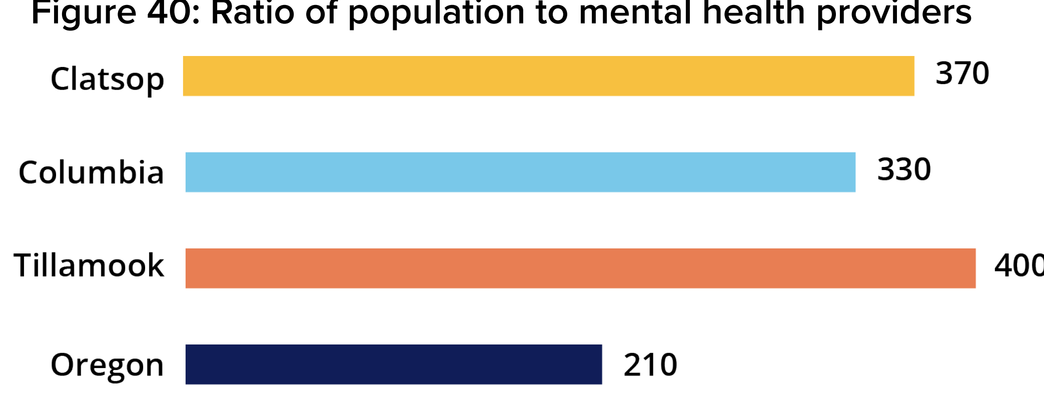
Mental Health

An important part of overall health, mental health refers to an individual's emotional, psychological, and social well-being. Mental health influences how a person thinks, feels, and acts.[12] Figure 39 provides a snapshot of mental health for adults in Clatsop, Columbia, and Tillamook Counties and in Oregon. Adults in the region reported in similar proportion to the state having had one or more days of poor mental health in the previous 30 days.

Figure 39: Adults reporting 1 or more days of poor mental health in the past 30 days

Source: OHA, Adults reporting 1 or more days of poor mental health in the past 30 days by county, Oregon, 2012-2015

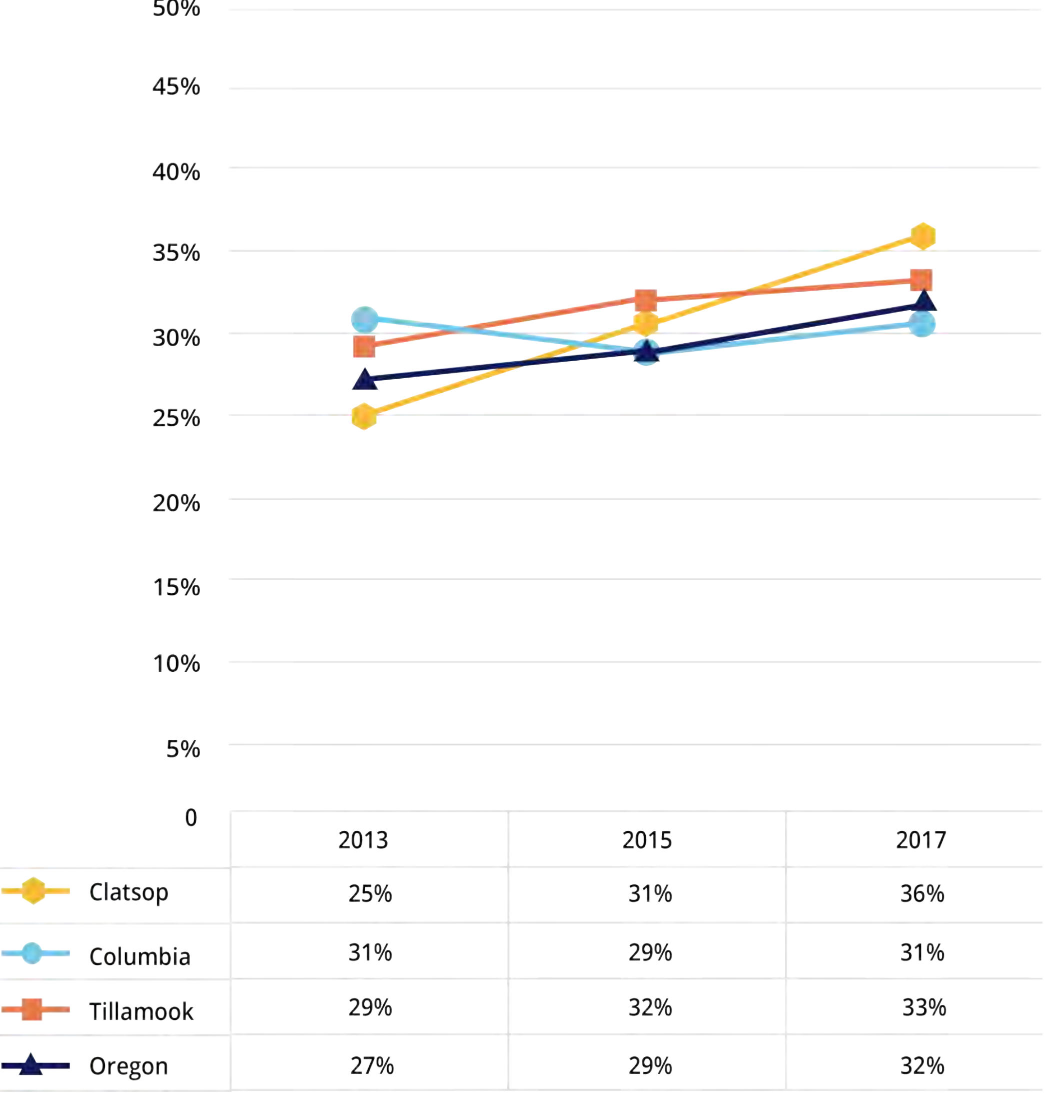
Figure 40: Ratio of population to mental health providers



Source: County Health Rankings, 2019

The availability of mental health providers to the total adult population in Oregon, however, is much better than in the region. All three counties are designated as Mental Health Care Health Professional Shortage Areas for their total populations. At 400 to one, Tillamook County has the largest ratio of adult residents to mental health care providers—nearly double the state ratio (Figure 40).

Figure 41: Percent of 11th graders who felt so sad or hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities



	2013	2015	2017
Clatsop	25%	31%	36%
Columbia	31%	29%	31%
Tillamook	29%	32%	33%
Oregon	27%	29%	32%

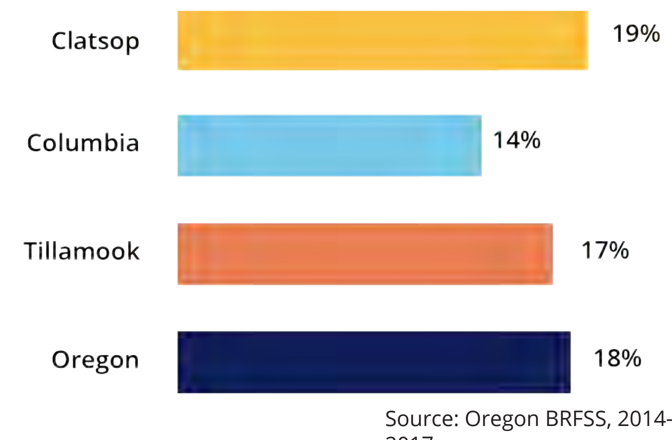
Source: Oregon Healthy Teen Survey

Figure 41 shows an overall increase in the percentage of 11th graders reporting poor mental health between 2013 and 2017 in all but Columbia County, which saw little change. Clatsop County, which had the lowest proportion in 2013, had an 11 percent increase, the largest in the region by far. Overall, more than one-third of 11th graders in the region, as well as in Oregon, reported poor mental health in 2017.

Alcohol Consumption

Binge drinking is the consumption of an excessive amount of alcohol in a short period of time (five drinks for men and four drinks for women over a four-hour period.) In Clatsop and Tillamook Counties and in Oregon, nearly one-fifth of adults reported binge drinking (Figure 42). Clatsop had the highest proportion in the region at 19 percent, and Columbia County had the lowest at 14 percent.

Figure 42: Percent of adults who reported binge drinking

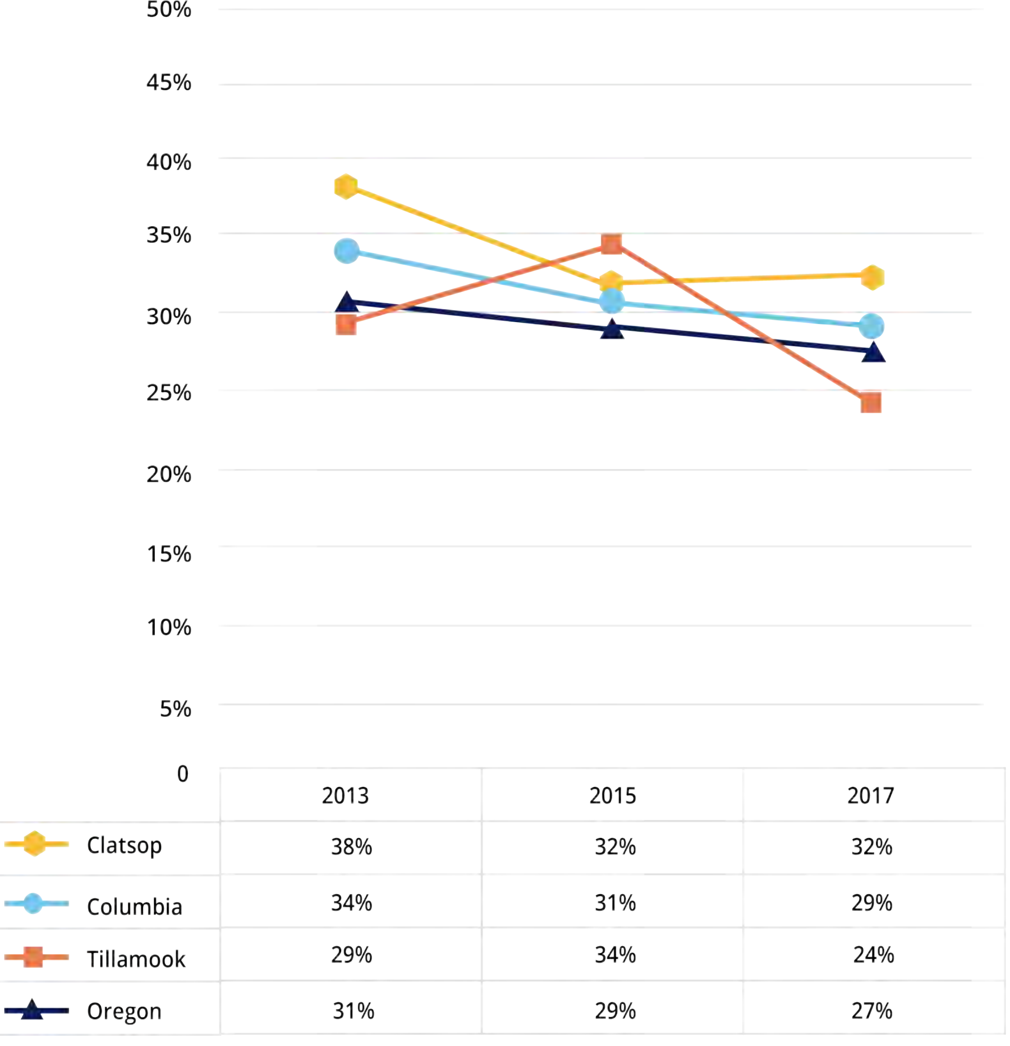


Source: Oregon BRFSS, 2014-2017

Figures 43 and 44 show drinking behaviors among youth in the region compared to the state overall. Between 2015 and 2017, youth drinking decreased across the region and the state. While the decline in the percentage of youth who reported drinking at least one alcoholic drink was, for the most part, small everywhere else, Tillamook County saw a 10 percent drop in that time period. Approximately one-third of youth reported drinking alcohol in Clatsop and Columbia Counties and in Oregon, but only one-fourth reported doing so in Tillamook County.

Reports of binge drinking (five or more drinks over a couple of hours) among youth were less common. Oregon overall saw a small change of three percent between 2015 and 2017, but across the region, youth binge drinking declined by five to six percent. In Tillamook (14%) and Columbia (15%) Counties, youth binge drinking was similar to that in the state overall (14%). In Columbia, it was higher (18%).

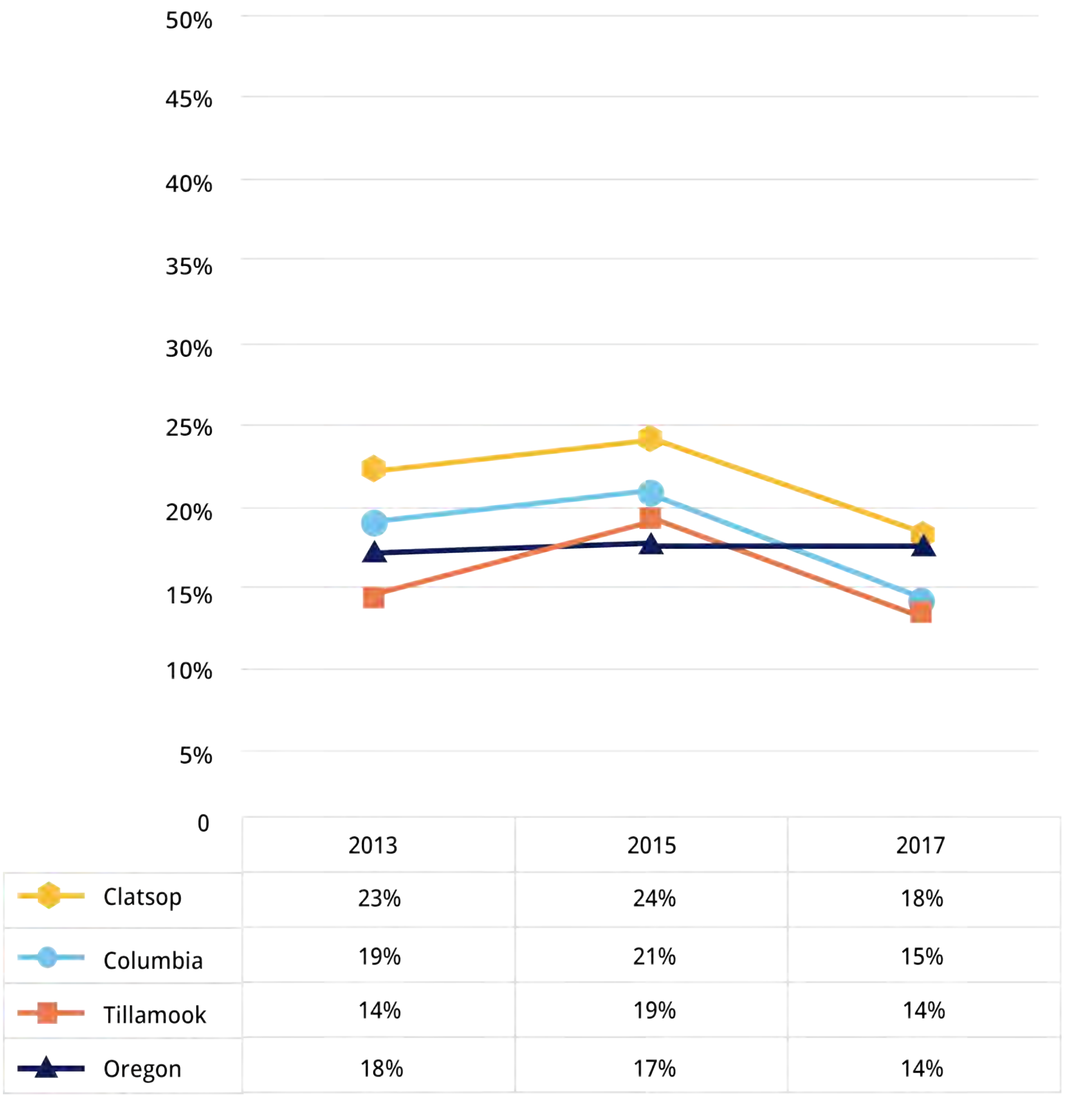
Figure 43: Percent of youth who reported drinking one or more drinks of alcohol in the past 30 days



	2013	2015	2017
Clatsop	38%	32%	32%
Columbia	34%	31%	29%
Tillamook	29%	34%	24%
Oregon	31%	29%	27%

Source: Oregon Healthy Teen Survey

Figure 44: Percent of youth who reported binge drinking one or more days in the past 30 days



	2013	2015	2017
Clatsop	23%	24%	18%
Columbia	19%	21%	15%
Tillamook	14%	19%	14%
Oregon	18%	17%	14%

Source: Oregon Healthy Teen Survey

Regional Health Improvement Plan Overview

Columbia Pacific Coordinated Care Organization (CPCCO), their advisors, and community partners engaged in a community conversation through 2018 and 2019 about the factors that create health and well-being for all individuals who live in the three counties in the CPCCO service area. This included not only individuals' lived experiences of health and well-being, but it took into consideration public health departments, hospitals, clinics, community safety net providers, behavioral health organizations, the education system, and the need to support the on-going efforts to improve the supports and access to care throughout the system outside of the healthcare setting.

The resulting five-year regional health improvement plan advances public health modernization by finding the intersection between the specific ways that public health supports health care improvement and addressing the values and needs expressed by the community at large. The value based health innovation and improvement efforts that will be undertaken 2020-2024 will take into consideration the opinions of those who gave their time and efforts during our planning process in 2018 and 2019 as well as population health indicators.

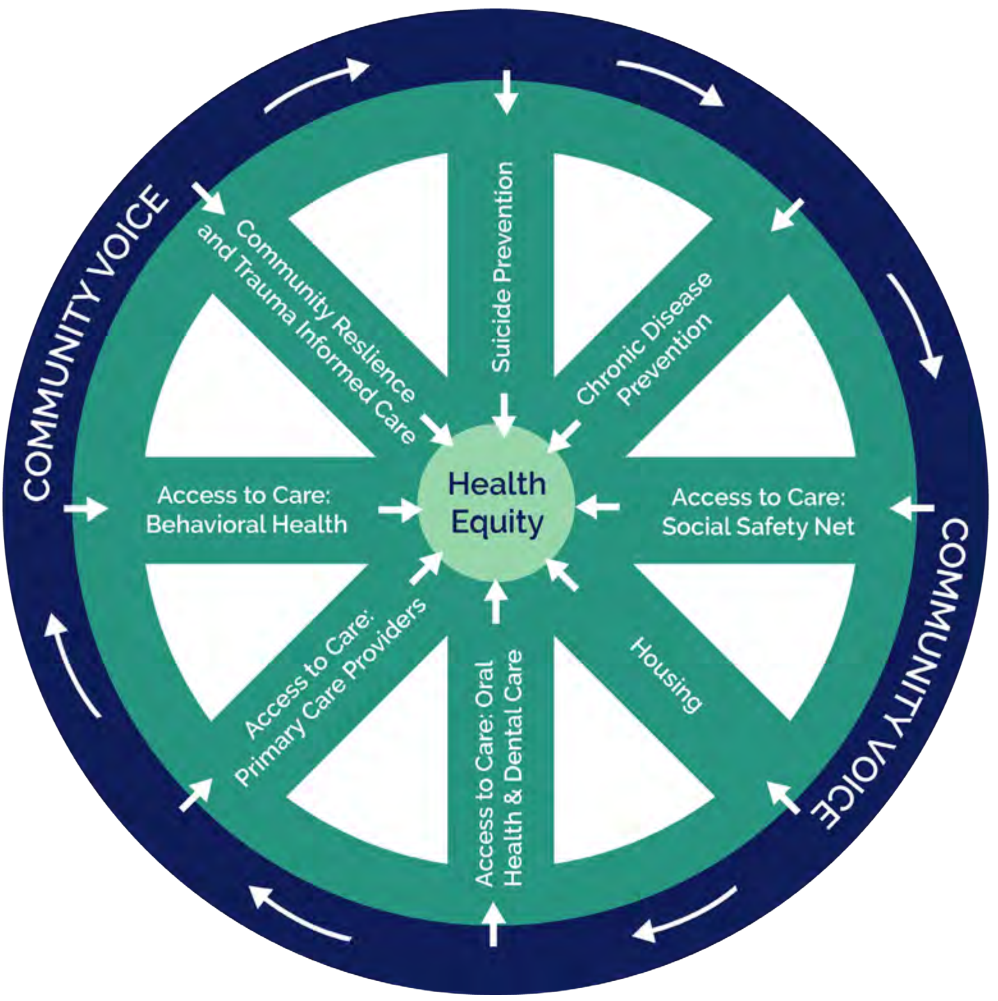
The regional health improvement plan makes the commitment to increase the intersection between healthcare, social services and the social determinants of health. Our goal is to support the efforts community wide that maximize the creation of, and investment in, health and well-being through community-based supports and services, along with the efforts to improve population health through epidemiology.

There are so many positives to build on and talk about. So many individuals and organizations that care about and support each other. This five-year effort will not be accomplished in silos of care and support. People and organizations have already come together to commit to work across sectors to accomplish the improvement of health and well-being in their communities. While challenging, reaching goals will be made easier by all of those already engaged and ready to take the next steps in creating system change and improving access to supports and care across all sectors.

There are also some important things to improve that there is agreement on where measurable change can take place. CPCCO, our advisors, and community partners have chosen eight areas to prioritize with goals and strategies to undertake over the next five years to collaboratively improve health in the region.

The priority areas for improving health, well-being and resiliency for individuals and communities are: Community Resilience/Trauma Informed Care, Primary Care, Behavioral Health, Oral Health and Dental Care, Social Safety Net, Chronic Disease Prevention, Suicide Prevention, and Housing. The promotion of health and wellness are foundational to all goals and strategies for each priority area.

Figure 45: Achieving health equity through strategic priorities



The graphic in Figure 46 was developed as a way to visualize the complex relationship between the strategic priorities presented in this report, the community voice, and the path to health equity.

How to Use the Regional Health Improvement Plan

This regional health improvement plan is divided into eight priority areas for improving health in the region:

Community Resilience and Trauma Informed Care
Access to Care: Primary Care
Access to Care: Behavioral Health
Access to Care: Oral Health and Dental Care
Access to Care: Social Safety Net
Chronic Disease Prevention
Suicide Prevention
Housing

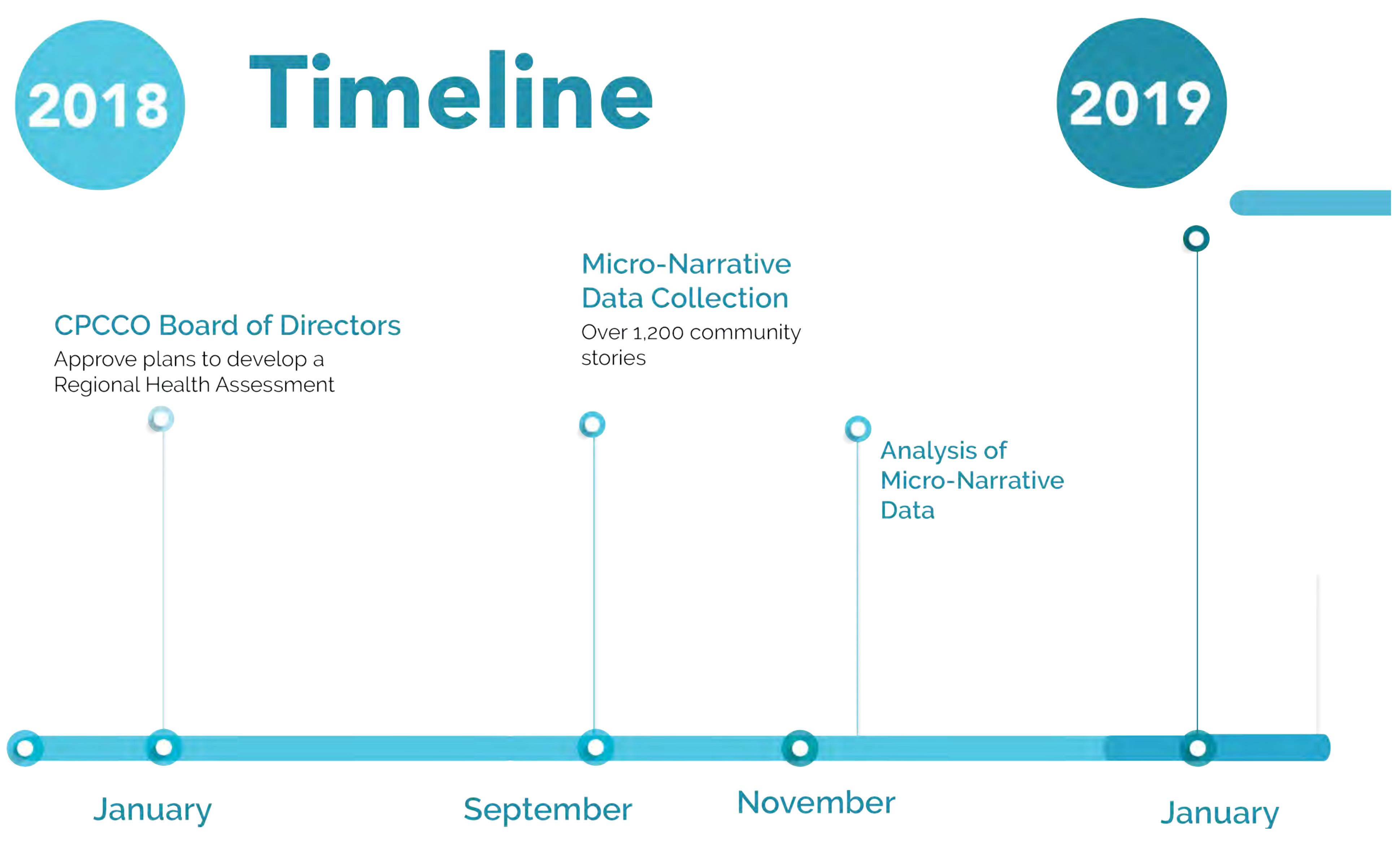
The objectives and strategies outlined for each priority area are divided into categories based on the following areas of action in which CPCCO and its regional partners will concentrate work to achieve the goals of each priority. In the plan, each color-coded category appears alongside the objectives and strategies to which it relates.

Access to Care: Impacts the number, availability, and quality of health care options and resources

Data Collection and Utilization: Impacts the ability to collect and analyze information about the community as a whole in order to better understand and provide for the community's needs

Prevention and Policy: Impacts risk factors that influence health by implementing plans for community investment and advocacy

Figure 46: Project timeline



15 Community Meetings Throughout the Region

Meeting 2/14
-Agree on Health Indicators
-Agree on structure of RHIP
-Determine data gaps

Gather Data
Collaborative partners gather all missing data

Review Data
Review & synthesize qualitative data

Return LOA's
All LOA's returned and combined

CPCCO Regional Advisory Committee
Presentation Wednesday March 13th

Meeting 3/14
Determine analytic framework for health indicator data

Meeting 3/26
Determine strategic priorities and strategies

Data Analysis
All data is collected and analyzed

Data Synthesis
Synthesize engagement data

Content Deadline
All data & priorities to be included are completely collected and handed off by 4/14

Document Production
Design and write all documents

Review & Approval
All documents are reviewed and approved by all collaborating partners

Project Delivery

February | March | April | May | June

Community Resilience and Trauma Informed Care

Research points to trauma informed care as a way to increase resiliency and reduce the impact of Adverse Childhood Experiences (ACE's). ACEs have been linked to risky health behaviors, chronic health conditions, not meeting developmental benchmarks, and early death. The risk for each of these outcomes increases as an individual's ACE exposure increases. Adults who were exposed to four or more categories of ACEs are seven times as likely to experience alcoholism: three (men) to five (women) times as likely to experience depression; 13 times as likely to attempt suicide; and 10 times as likely to use IV drugs. Supports and services that build resilience are important to the improvement of health and well-being.

1. Understand baseline/readiness of organizations for trauma informed care in multiple sectors;
2. Improve capacity and reach of trauma informed supports and service in programs, organizations, and across sectors;
3. Implement best practices that create resilience in children and families using the trauma informed lens.

Data Collection and Utilization

Objective: By 2024, increase the number of programs, organizations, and sectors aware of the trauma informed perspective and its relation to engaging individuals in the services that support improvement of health and well-being.

Strategies:

1. Support the increased use of the TRACE (trauma, resilience, and adverse childhood experience) questionnaire to health care and community-based organizations' intake forms and collate and analyze data to use for quality improvement initiatives.

2. Collaborate to access resources and share investment opportunities that support the implementation of trauma informed care across programs, organizations, and sectors in the region.

Health Equity Impact: Increasing organizational and programmatic understanding of the conditions that create resiliency allows for development of equity informed approaches and culturally responsive services.

Output/Outcome Metrics: Increased number of organizations committed to trauma awareness for their service recipients and within their workforce.

Access to Care

Objective: By 2024, increase the number of community-based organizations providing trauma informed services, with an emphasis on organizations serving the greatest numbers of individuals and families experiencing health disparities.

Strategies:

1. Increase coordination and engagement among the health care, education, child welfare, community, and criminal justice sectors to integrate trauma informed care across systems and organizations;

2. Increase the utilization of and support for traditional health workers across all sectors;

3. Support the increase of supportive adult advisors, diverse peer leaders, and strategic messaging campaigns to support the increase of social networks.

Health Equity Impact: Adverse Childhood Experiences are a root cause of ill health that may further exacerbate health disparities. Trauma informed services are demonstrated to promote resiliency in individuals and communities. Social support networks and buffers enhance resilience.

Output/Outcome Metrics: Reduced entry into foster care; increased access via behavioral health and primary care providers to coordinated services that address the social determinants of health.

Access to Care: Primary Care

Access to coordinated primary care is the cornerstone of a modern health care system, increasing the chances that individuals receive preventive care and appropriate screenings that reduce the likelihood of poor health outcomes. Clatsop and Columbia Counties are designated as Primary Health Care Provider Shortage Areas for everyone living in the geographic area, and Tillamook County is designated as a Health Professional Shortage Area for low income/homeless/migrant farm worker populations. In addition to provider shortages, barriers such as transportation and geographic isolation may be present. Community-level research points to transportation to health care services as a key issue for residents in the entire region.

Eliminate barriers to primary care, including, geographic and transportation inconveniences, lack of knowledge, unavailability of Internet, and lack of insurance coverage.

Access to Care

Objective: Increase referrals to primary care providers from community-based organizations and emergency, urgent, and virtual care providers.

Strategies:

1. Increase the number of referrals and stronger partnerships between primary care and community-based organizations that support the growth of transitional and supported housing for those with special needs who are working on recovery from addiction, substance abuse, and mental illness

2. Increase awareness of and access to quality interpretation and translation services across sectors

3. Increase the number of organizations in the region that offer help desks and community-based referral supports that:

   a. Support discharge from acute and sub-acute health care settings to community-based care settings

Access to Care

b. Increase access to traditional health workers and health care navigators that can support access to primary care

c. Collaborate across sectors to increase the participation in a volunteer driver network.

Health Equity Impact: Improving the quantity of organizations that coordinate services and community-based supports increases the opportunity for individuals (including those who do not have English as their first language) to equitably access primary care services.

Output/Outcome Metrics:

1. Increased number of referrals to primary care from community-based organizations
2. Decrease in emergency room visits for ambulatory sensitive conditions.

Objective: Collectively address the primary care and health professional provider shortage.

Strategies:

1. Identify incentives to recruit and retain highly qualified health care providers at every level and profession with a focus on integration;
2. Increase the number of traditional health workers working in the health care setting in the region
3. Increase participation in clinician and staff wellness programs regionally
4. Increase the utilization of telehealth in the region
5. Collaborate to increase the workforce opportunities in the region for medical assistants, scribes, and health care extenders.

Health Equity Impact: Low income, homeless, and migrant populations most impacted by provider shortage will have increased access to screening and preventive care.

Output/Outcome Metrics: Increased number of primary care and health professionals including those who are certified as traditional health workers.

Access to Care: Behavioral Health

Oregon is widely recognized as having among the poorest access to behavioral health services in the country. In a recent national survey, Oregon's access to substance use disorder treatment ranked last. Supports and services have long been underfunded. Individuals who need treatment for substance misuse or mental health concerns often have challenges managing their overall health. Clatsop, Columbia, and Tillamook Counties are designated as Mental Health Care Shortage Areas for the entire population.

All people in Clatsop, Columbia, and Tillamook Counties have the services and supports they need to achieve optimal behavioral health and emotional well-being.

Objective: By 2024, expand and improve access to the full range of behavioral health services.

Strategies:

1. Develop alternative payment models that support enhancement of behavioral health services, including developing components of the array of services that do not currently exist.
2. Recruit behavioral health care providers to work in the region;
3. Integrate behavioral health and primary care services to provide coordinated care and a whole-person approach;

Health Equity Impact: Increased behavioral health care utilization by groups with less access to care, including low income individuals, specific racial/ethnic groups, individuals with low English fluency, etc., will lower their risk for poor behavioral health outcomes.

Output/Outcome Metrics: Increased number of behavioral health care providers and service components, and collaboration across sectors to address behavioral health needs.

Access to Care

Objective: Increase behavioral health-related prevention activities and awareness and understanding of behavioral health supports and services that are peer driven.

Strategies:

1. Support the increase of services that are peer driven and are distributed throughout the continuum of care;
2. Integrate behavioral health and primary care services to provide coordinated care and a whole-person approach;
3. Add to the components of the existing system to expand the continuum of care.
4. Increase the systemic clinical interventions and screenings at all levels of the community

Health Equity Impact: Destigmatization of behavioral health increases access to health care and treatment-seeking self-efficacy for vulnerable populations.

Output/Outcome Metrics: Implemented prevention and outreach activities across sectors that are peer driven

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Objective: Increase access to harm reduction and addiction treatment resources in the region.

Strategies:

1. Support the increase of services that are peer driven and are distributed throughout the continuum of care
2. Increase the number of needle exchange programs in the region
3. Support the increase of modalities and interventions that help individuals to access services for behavioral health, including medication-assisted treatment (MAT)
4. Increase the systemic clinical interventions and screenings at all levels of the community

Health Equity Impact: Better access to behavioral health treatment resources will improve behavioral health risk and outcomes for vulnerable populations most impacted by the social determinants of health.

Output/Outcome Metrics: Implemented programs and services supporting harm reduction and increasing awareness of services for behavioral health

Access to Care: Oral Health and Dental Care

Oral health is critical to overall health. Gum disease and other oral health conditions are associated with heart disease, diabetes, low birthweight and certain types of cancers. Poor oral health also contributes to missed school and work days, and can have a negative impact on overall well-being. Clatsop and Tillamook Counties are designated as Dental Health Care Shortage Areas for low income populations.

Improve capacity and utilization of affordable, preventive, and integrated oral health services for children, youth, and underserved populations.

Access to Care

Objective: Increase the number of oral health care professionals who treat children, youth, and underserved populations.

Strategies:

1. Work with local programs and schools to promote oral health careers
2. Support tele-dentistry programs
3. Collaborate with dental care organizations to improve efforts to recruit and retain dental health care providers for low income and underinsured in each county

Health Equity Impact: Oral health care is integral to individuals' general health. Increasing the availability of oral health professionals will improve access to and utilization of dental services and overall quality of life.

Output/Outcome Metrics: By 2024, increase access and utilization by Medicaid members ages 0-20 years by five percentage points each.

Access to Care

Objective: Expand access to full service and mobile dental care services for underinsured and low-come individuals.

Strategies:

1. Improve access through shared investment in supports and services that provide community-based dental services.
2. Work to expand evidenced-based, best practice oral health programs in schools and community programs
3. Develop ongoing partnerships in medical-dental alignment, dental home development, and other mechanisms to better integrate care across multiple disciplines by leveraging and developing cross-disciplinary systems;
4. Increase care coordination efforts supporting access to the continuum of dental health care across sectors.

Health Equity Impact: Oral health care is integral to individuals' general health. Improving access to dental services for low income and underinsured individuals will increase utilization and overall quality of life.

Output/Outcome Metrics:

1. By 2024, increase individuals accessing oral health services in a primary care or community-based setting by five percentage points each.
2. By 2024, increase individuals receiving dental care coordination from other sectors by five percentage points each.

Access to Care: Social Safety Net

Health-related community-based services can improve care and overall community health and well-being. Unmet social needs, including housing, access to healthy food, employment, education, social isolation, and social connection, must be considered as critical components in preventing and treating disease.

Ensure individuals and community stakeholders can easily and accurately identify, access, and locate health and community services and healthy foods.

Objective: Collaborate to support the establishment of a comprehensive, cohesive system for coordinating and partnering between hospitals, community action programs, and primary care settings.

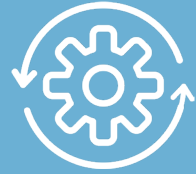
Strategies:

1. Increase community awareness of resources and supports through screening for social determinants of health in clinical settings and the coordination of referrals across sectors
2. Deploy community resource navigators to key locations through the region
3. Collaborate to increase the options for transportation, including the development of a volunteer driver network

Health Equity Impact: Social support increases resiliency and improves access to basic needs, such as quality food and housing.

Output/Outcome Metrics: Increased number of organizations that coordinate services and have community resource navigators on staff.

Prevention and Policy



Objective: Increase availability of nutritious food options for individuals with limited access to fresh food.

Strategies:

1. Establish broad cross-sector support for and investment in food banks, food recovery, and programs that support the reduction of chronic health conditions
2. Develop specific linkages through care coordination and shared mechanisms between primary care, food pantries, and other nutrition resources that support an increase in access to health care as individuals access supports through community resource navigators
3. Establish "Rx for Health" projects in the region to support the reduction and prevention of diabetes

Health Equity Impact: Improved food security will lead to reductions in malnutrition and related chronic diseases and improved school performance and attendance.

Output/outcome metrics: Established network of organizations that have community resource navigators to decrease service confusion and reduce system duplication

Chronic Disease Prevention

Chronic diseases are the leading causes of death in the region. Many chronic diseases are preventable through lifestyle factors such as nutrition and physical activity. Using evidenced-based approaches to prevent initiation of tobacco use, misuse of alcohol, and the onset of obesity will reduce chronic diseases and the associated costs related to health and well-being.

Decrease chronic disease prevalence through focus on reducing chronic disease risk factors.

Access to Care

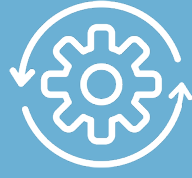
Objective: Increase care coordination across sectors to mitigate the burden on chronically ill individuals to navigate complex systems.

Strategy: Establish broad cross-sector support for and investment in food banks, food recovery, and programs that support the reduction of chronic health conditions;

Health Equity Impact: Improved health care access and case management will reduce chronic disease-related mortality rates for vulnerable populations at highest risk.

Output/Outcome Metrics: Increased number of supports and services that are community-based and being provided by community health workers and peer wellness specialists.

Prevention and Policy



Objective: Prevent tobacco use and drug and alcohol misuse.

Strategies:

1. Support an increase in the number of community environments that support tobacco-free, with an emphasis on policy changes to retail environments and evidence-based practices to address electronic cigarettes and vaping
2. Support an increase in the number of health promotion programs for youth that are collectively funded and are evidence based to prevent tobacco use and drug and alcohol misuse

Health Equity Impact: Preventing initial use and making the healthy choice the easy choice reduces the impact of chronic health conditions on youth as they age into adulthood. Enforcement of the Tobacco 21 age limit and promotion of healthy environments reduces the likelihood that youth will start smoking, decreasing risk for tobacco related chronic disease.

Output/Outcome Metrics:

1. Expanded collaboration across sectors and increased number of individuals working with community health workers and peer wellness specialists
2. Increased number of health promotion programs that are collectively funded
3. Increased implementation of community and school nutrition programs

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Objective 2: Reduce obesity rates.

Strategies:

1. Community and school-based nutrition education, exercise, and access to affordable, healthy food options, such as Rx for health, to community-based activities, food bank fresh, or fresh food farmacy.
2. Expand farm-to-school nutrition and educational programs.

Health Equity Impact: Obesity rates are strongly influenced by social determinants of health. Improved accesst o healthy foods and environments safe for activity decrease obesity and obesity-related chronic conditions.

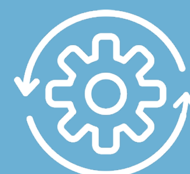
Output/Outcome Metrics: Increased implementation of community and school nutrition programs

Suicide Prevention

Suicide rates in Clatsop, Columbia, and Tillamook Counties are higher than the state average. Oregon overall has a higher rate of suicide than the national average.

Reduce to zero the number of suicides in Clatsop, Columbia, and Tillamook Counties.

Prevention and Policy



Objective: Increase community awareness campaigns and education for the public about suicide as a public health problem that is preventable.

Strategies:

1. Identify, develop, and implement suicide prevention programs in every county, with specific outreach on suicide prevention and awareness for youth
2. Facilitate community collaborations across sectors to increase the number of community-based education and trainings that are evidence based and address suicide prevention, intervention, and post-vention

Health Equity Impact: Increased knowledge and destigmatization of suicide and associated behavioral health conditions which disproportionately impact specific groups, including veterans, lowers suicide rates.

Output/Outcome Metrics: By 2024, reduced number of individuals dying by suicide to zero

Housing

Nineteen percent of Clatsop, 14 percent of Columbia, and 18 percent of Tillamook County households have severe housing problems (high housing costs, lack of kitchen facilities, lack of plumbing, or overcrowding). Research has shown that housing can impact health through four pathways: stability, affordability, quality and safety, and neighborhood environment.

Partner across sectors to reduce the impact that housing insecurity has on health and well-being for all individuals in Clatsop, Columbia, and Tillamook Counties.

Objective: By 2021, monitor, local housing conditions affecting health by creating a regional dashboard that centralizes county housing needs assessments, workforce and low-income housing stock, active and developing housing projects, and tenancy supports occurring in the region.

Strategies:

1. Partner to support community action programs, Northwest Oregon Housing Authority, and community-based organizations that provide shelter/transitional housing supports in the region to create a regional dashboard that centralizes county housing needs assessments, low income and workforce housing stock, active and developing housing projects, and tenancy supports occurring in the region

2. Explore ways to develop a framework to collect data on housing instability and homelessness with a focus on developing a housing data framework that leverages existing sources and includes a plan for future data collection and utilization opportunities

Data Collection and Utilization

Health Equity Impact: Reliable, valid, and consistent data collection mechanisms improve the ability to systematically track, analyze, report, and intervene on gaps in housing quality and access that adversely and inequitably impact community health.

Output/Outcome Metrics: Updated local, timely, actionable data on housing conditions

Access to Care

Objective: By 2024, decrease the number of individuals and families whose access to health is compromised by housing challenges.

Strategies:

1. Partner with existing local housing task forces/committees to develop pathways for increased access to shelter housing, transitional support to acquire permanent housing, and options for permanent housing
2. Encourage local adoption of evidence-based recovery housing, supported housing, supported employment, and supported education programs
3. Increase access to transportation systems such as dial-a ride and volunteer ridesharing

Health Equity Impact: Housing insecure individuals are more likely to delay care-seeking due to cost. Housing support reduces the burden of housing-related stress and costs as a barrier to care for low income individuals and increases the opportunity for those individuals to develop a stable, sustainable relationship with primary care providers.

Output/Outcome Metrics: Increased collaboration and referral between housing support programs and health care settings.

Objective: Support and collaborate on increasing the number of initiatives and programs that provide stability, affordability, quality, and safety for low income individuals who have housing needs.

Strategies:

1. Increase the number of tenancy sustaining services
2. Create transitional support services between higher and lower levels of care
3. Increase programs that support the remediation of unsafe or inadequate housing conditions

Access to Care

Health Equity Impact: Stable, safe housing is not equitably distributed. Health disparities intensify in an environment where housing insecurity exists. Addressing structural issues leading to poor housing conditions has the potential to improve the equitable access to health and wellness, as individuals and families can spend less of their overall income on housing and be relieved of stress related to addressing basic human needs, thus being able to focus some energy on health and wellness.

Output/Outcome Metrics: Increased number and coordination of housing support services

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Appendices

Appendix A: CPCCO Micro-narrative Results

Appendix B: Regional Health Assessment Data Sources

Community Health Assessment Columbia Pacific CCO

By Laurie Webster, December 18, 2018

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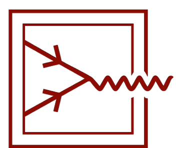
How Images Were Created

- The triad on the left with story dots was exported from the Tableau workbook as were the all of the dyad images.
- The triad heat map was generated with R code. (http://www.ggtern.com/2018/01/20/version-2-2-2-released/ - gives the background on the code.)
- The triads with geometric means and confidence ellipses was generate with R code. (http://qedinsight.com/2017/07/08/confidence-regions/ gives the background on this statistics and its use.)
- The differences shown with the dyads were determined by using Kruskal-Wallis H test followed by Fisher's Least Squared Differences as the post-hoc test.



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90% response

T1. Thinking bout your story, what was important?

Programs that meet my needs

Access to health education

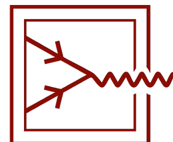
Support from groups or friends

prog met needs

count
60
50
40
30
20
10

access health educ

supportive friends



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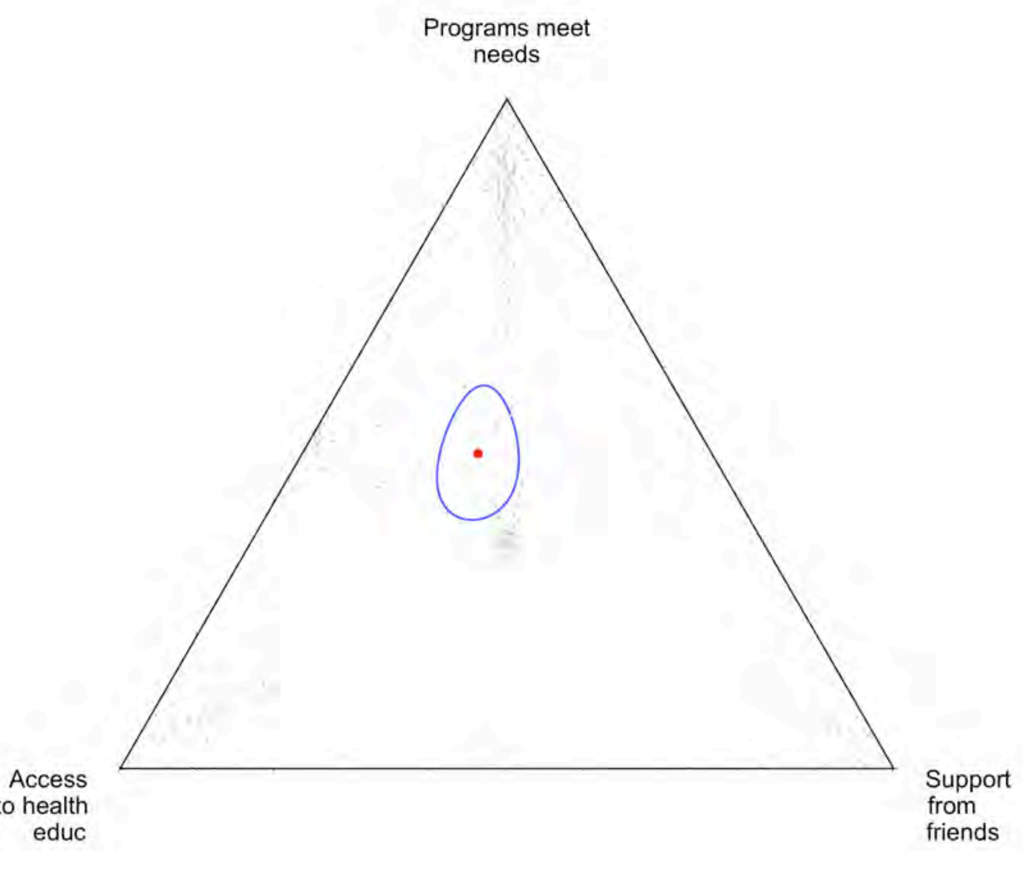
Appendix A: CPCCO Micro-narrative Results

T1 Important

Geometric means with confidence ellipses



Programs meet needs

Access to health educ

Support from friends

Overall Tone

Negative

Neutral

Not sure

Positive

Programs meet needs

Access to health educ

Support from friends

Age

18 to 24

25 to 34

35 to 44

45 to 54

55 to 64

65 to 74

Prefer not to say

84% response

T2. In your story, what affects health?

Others' attitudes

Ways things are said

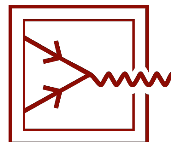
People helping

others' attitudes

count
50
40
30
20
10

way things said

people help



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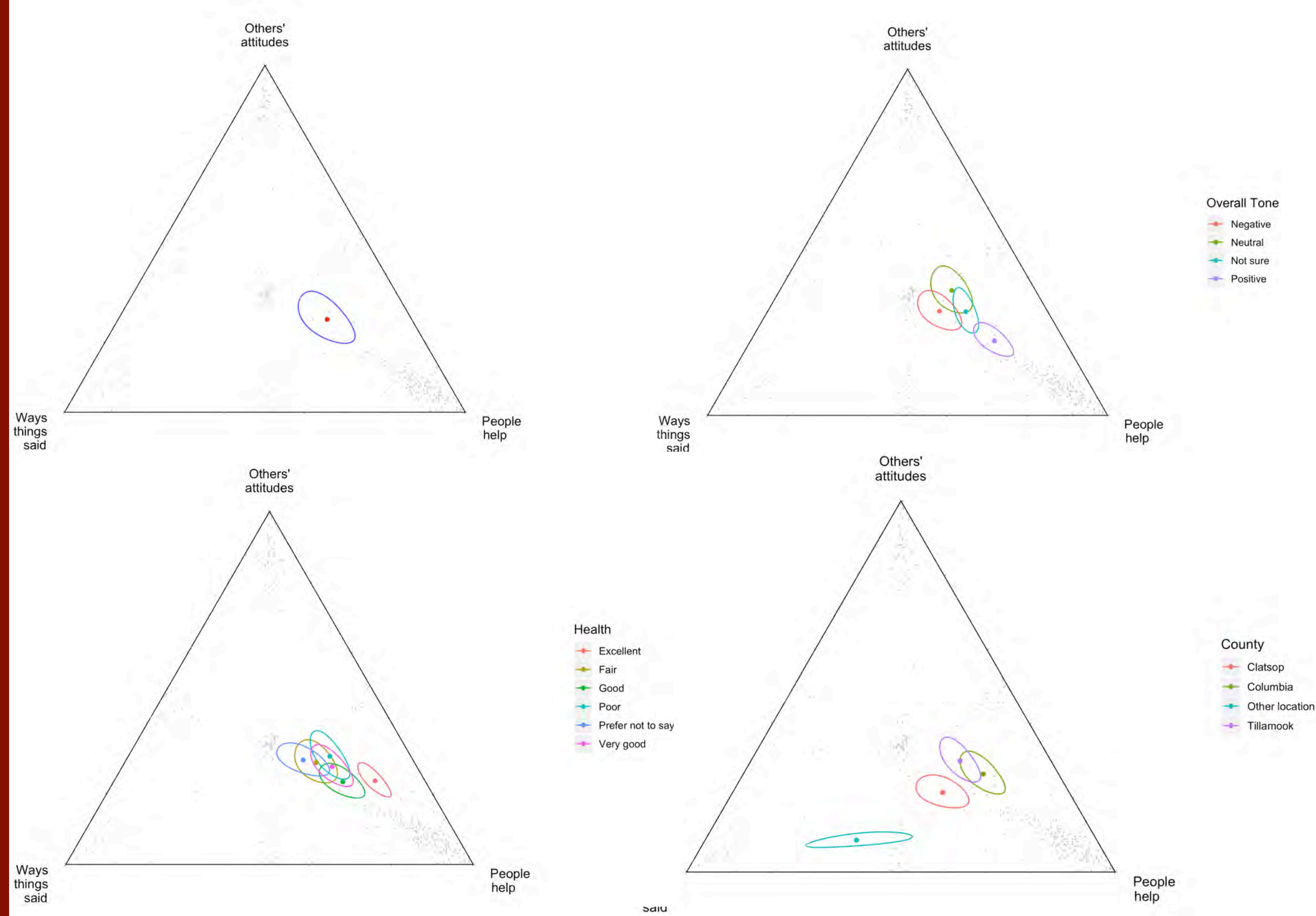
Geometric means with confidence ellipses



85% response

T3. In the experience shared, barriers overcome or present were…

Location

Feeling overwhelmed

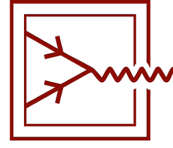
Cost

location

count
40
30
20
10

verwhelmed

cost



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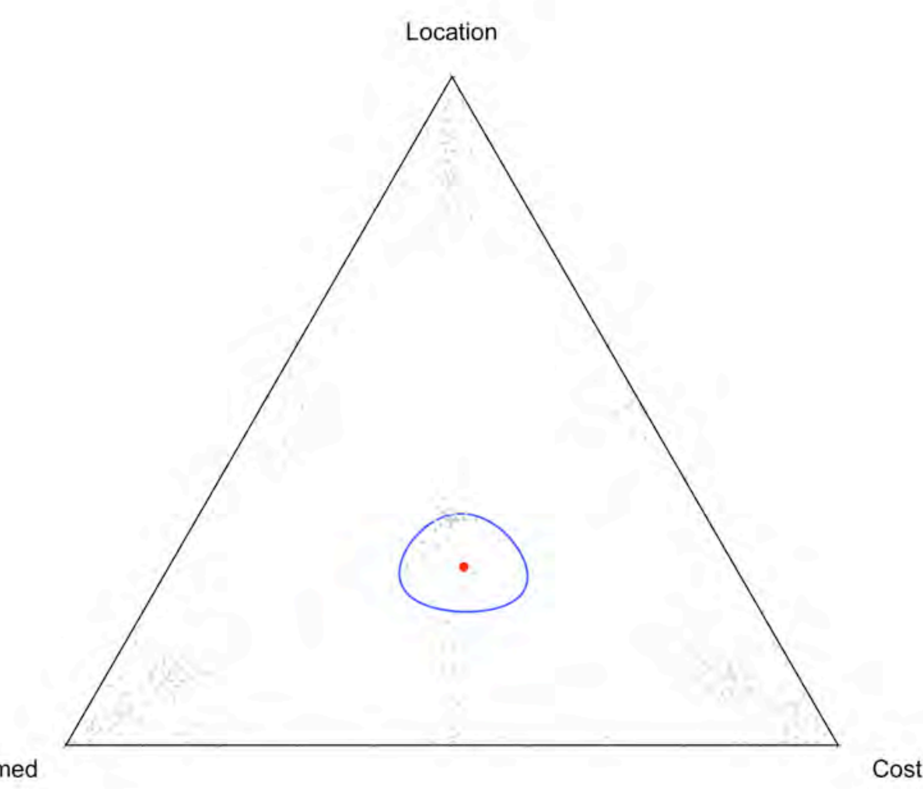
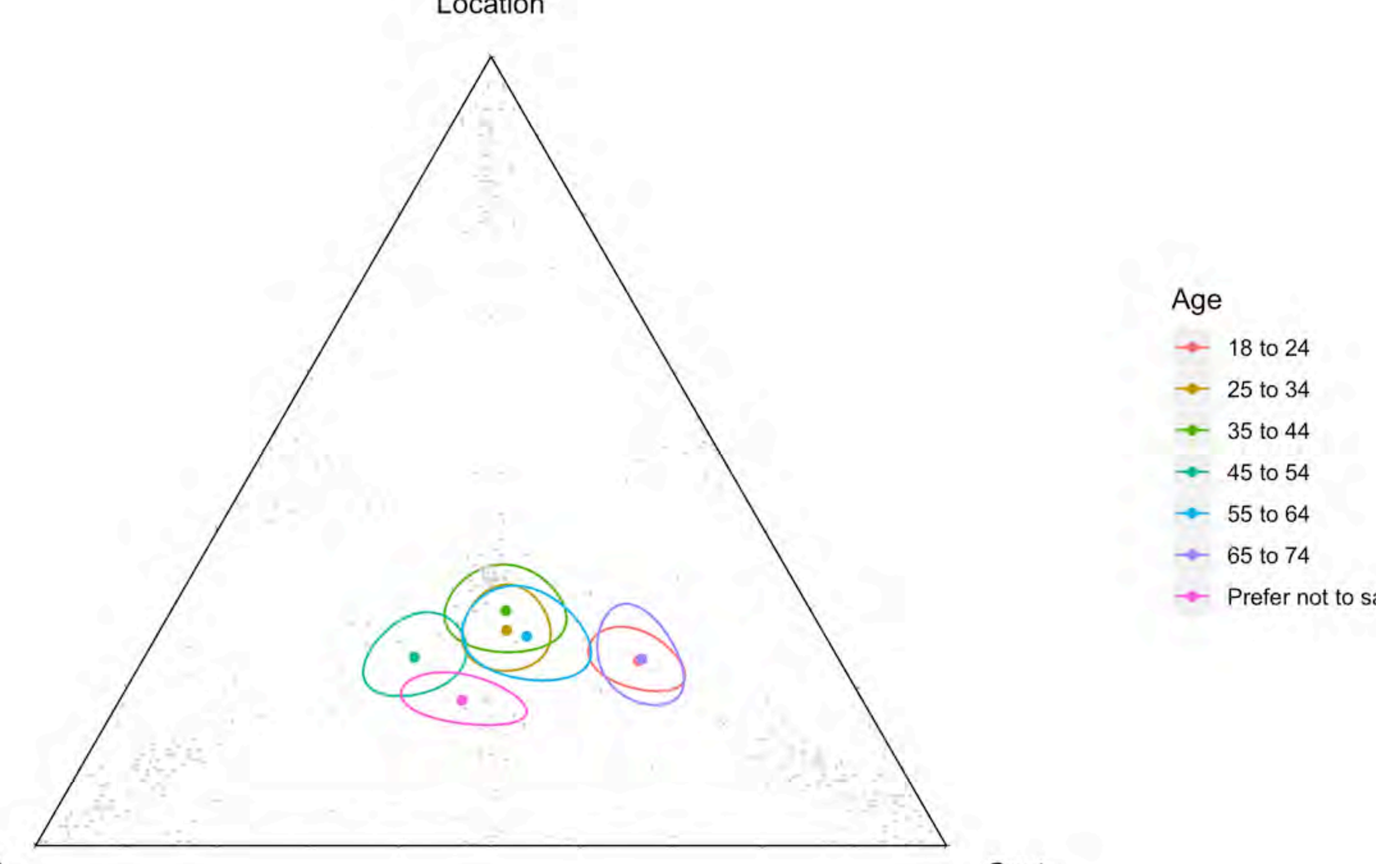
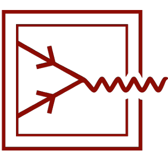
Geometric means with confidence ellipses







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76% response

T4. The attitudes of people in the story seem to say…

Some people are worth more than others

Everyone should be treated the same

Diversity is good

some worth more

count

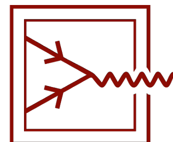
60

40

20

treat all same

diversity good



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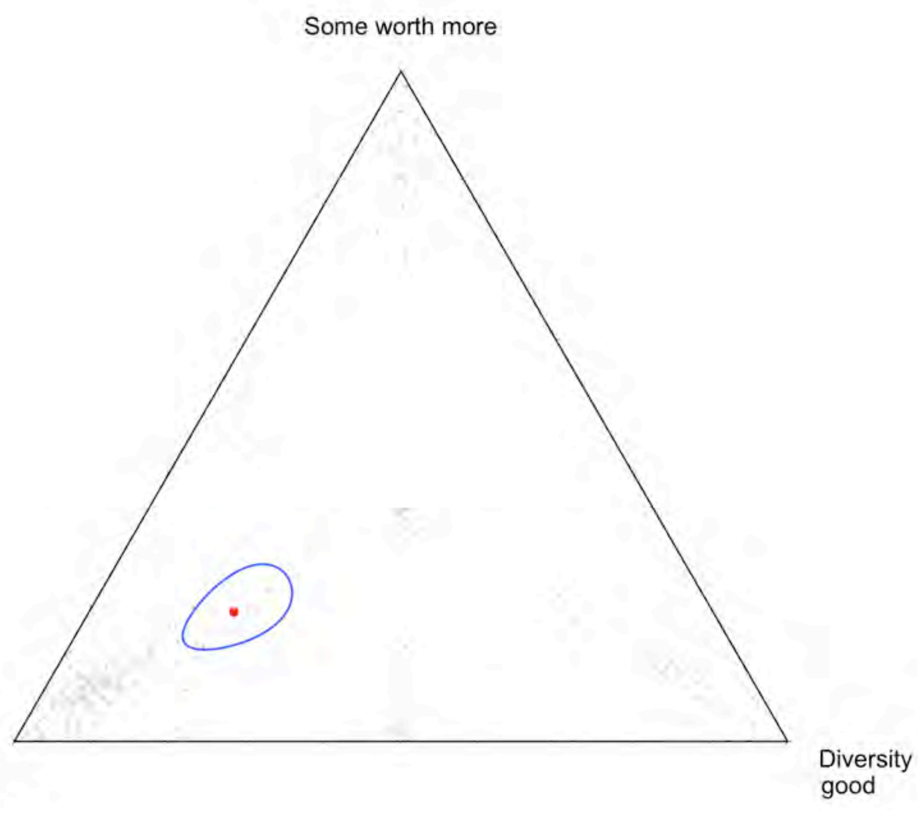
Geometric means with confidence ellipses

T4 Equity



Some worth more

Treat all same

Diversity good

How often
- All the time
- Prefer not to say
- Rare
- Regularly
- Time to time

Some worth more

all
ne

Diversity good

EmotionTone
- Negative
- Neutral
- Not sure
- Positive
- Strongly negative
- Strongly positive

78% response

T5. Thinking about the story, what was frustrating?

Unable to get what is needed

Telling the story over & over

Being judged

needs not met

count

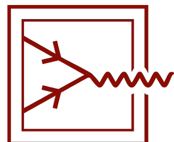
60

40

20

retelling story

being judged



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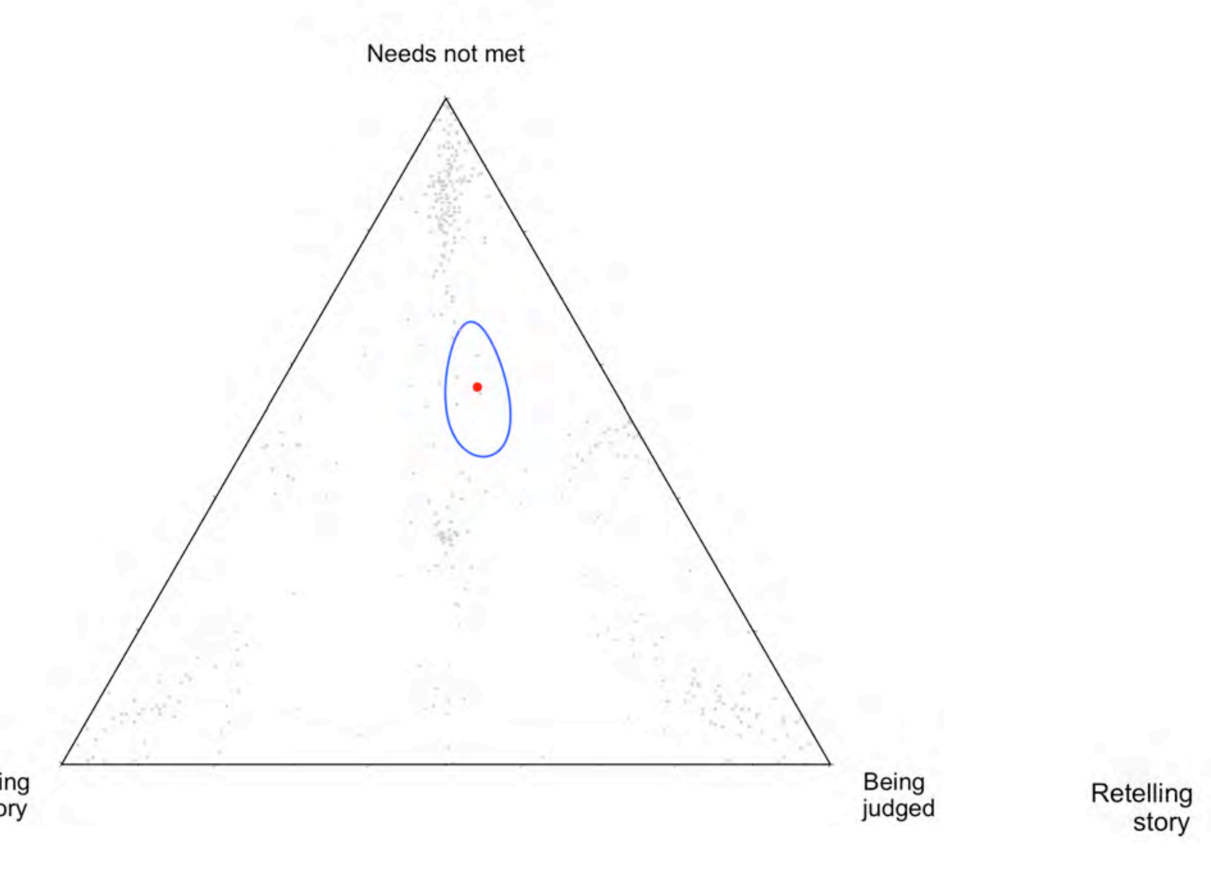
Geometric means with confidence ellipses



Needs not met

Retelling story

Being judged

Overall Tone

Negative

Neutral

Not sure

Positive

Needs not met

Retelling story

Being judged

Health

Excellent

Fair

Good

Poor

Prefer not to say

Very good

81% response

T6. In the story shared, the following was part of the experience:

Community safety

Community education

Community resources

community safety

count

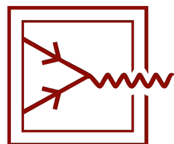
60

40

20

community educ

comm resources



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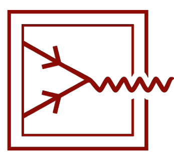
Geometric means with confidence ellipses

T6 Community

Community safety

Community educ

Comm resources



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71% response

T7. In the story, the following was experienced:

Limited or inadequate health insurance

Getting where you need to go is hard

Rules were barriers to help

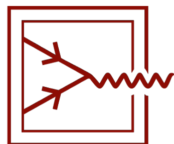
T7 Limits

health insur problem

count
40
30
20
10

transport is hard

rules - barriers



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Geometric means with confidence ellipses

T7 Limits

Health insur problem

Transport is hard

Rules - barriers

Health insur problem

Transport is hard

Rules - barriers

Overall Tone
- Negative
- Neutral
- Not sure
- Positive

Health insur problem

Transport is hard

Rules - barriers

How important
- Definitely hear
- Must be heard
- Not much
- Not sure
- Something

Health insur problem

ort ard

Rules - barriers

County
- Clatsop
- Columbia
- Other location
- Tillamook

81% response

T8. In your story, some of the supports or services most needed are…

Housing, transportation, food

Education, skills, employment

Mental, spiritual, emotional

T8 Needed support

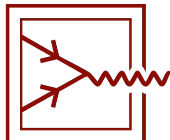
house transport food

count

50
40
30
20
10

educ skills employ

mental spirit emotion



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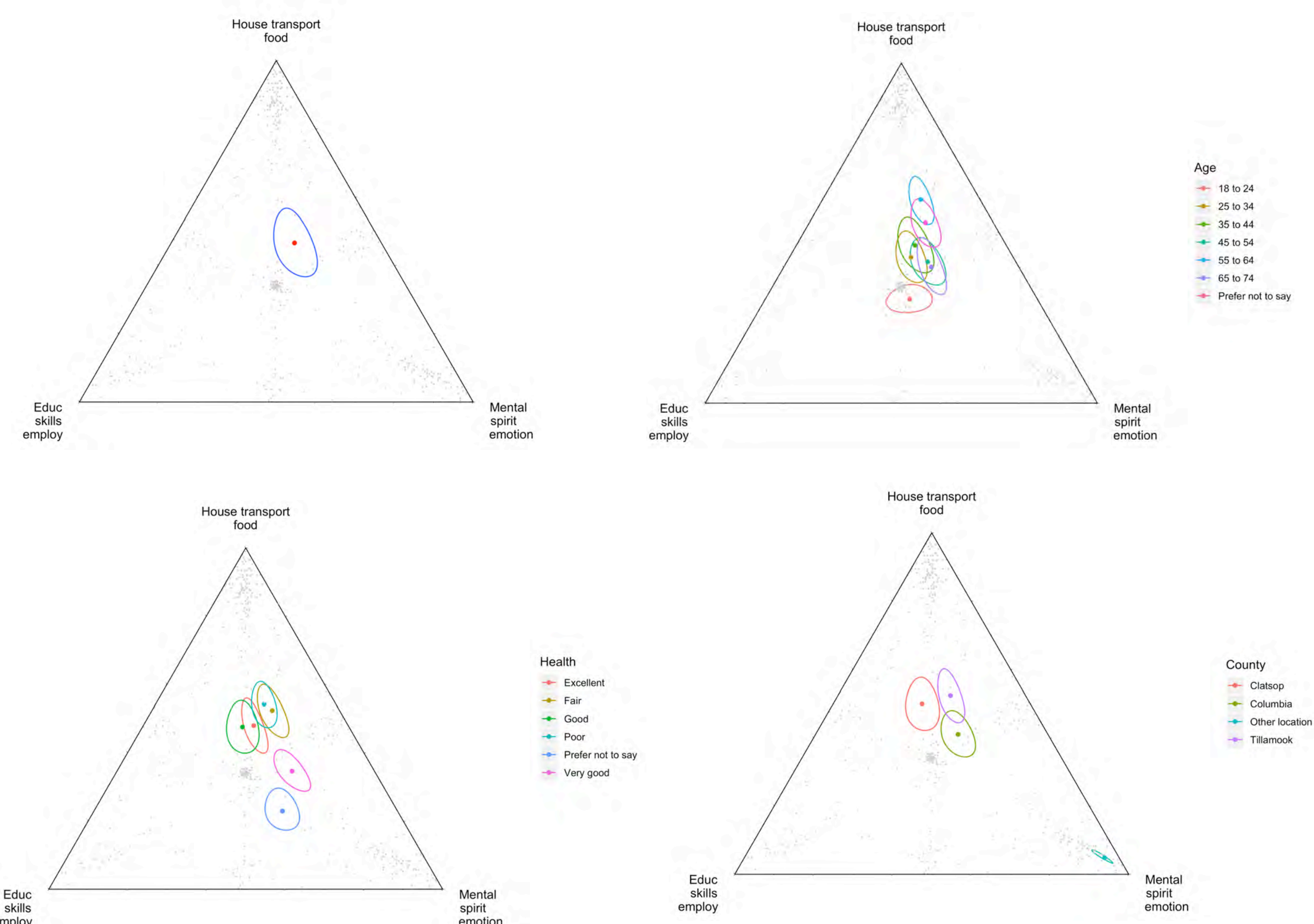
Geometric means with confidence ellipses



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74% response

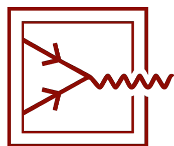
D1. In the story, when talking with people who could help, they…

Story Count

90
80
70
60
50
40
30
20
10
0

Mean - 0.46

Surprised me by listening closely <---------------------------------> Wanted to help but couldn't



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D1. In the story, when talking with people who could help, they...

M2Emotion..

Negative

Story Count

60
40
20
0

Neutral

Story Count

60
40
20
0

Positive

Story Count

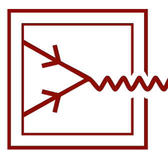
60
40
20
0

Not sure emotion

Story Count

60
40
20
0

Surprised me by listening closely <----------------------------------> Wanted to help but couldn't



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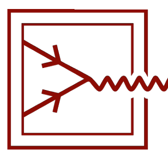
D1. In the story, when talking with people who could help, they…

Dem3Health

	Axis
1. Excellent	Story Count 10 20 30
2. Very good	Story Count 10 20 30
3. Good	Story Count 10 20 30
4. Fair	Story Count 10 20 30
5. Poor	Story Count 10 20 30

Surprised me by listening closely <---------------------------------> Wanted to help but couldn't



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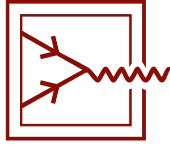
77% response

D2. In the story, the services were...

60
50
40
30
20
10
0

Story Count

Mean - 0.54



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D2. In the story, the services were...
18 to 24
25 to 34
35 to 44
45 to 54
55 to 64
65 to 74
Story Count
20
10
0
Extremely flexible <-------------------------------------> Extremely structured

D2. In the story, the services were...

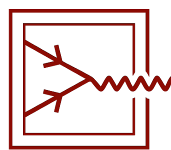
Negative
Story Count
40
20
0

Neutral
Story Count
40
20
0

Positive
Story Count
40
20
0

Not sure emotion
Story Count
40
20
0

Extremely flexible <------------------------------------> Extremely structured



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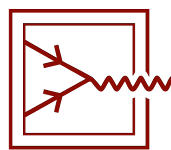
D2. In the story, the services were…



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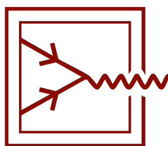
81% response

D3. In the story shared, assistance was...

Story Count

80
70
60
50
40
30
20
10
0

Mean - 0.53



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D3. In the story shared, assistance was…

County

Clatsop

Story Count

40 30 20 10 0

Columbia

Story Count

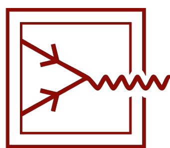
40 30 20 10 0

Tillamook

Story Count

40 30 20 10 0

Stable as a rock <---> Always changing



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D3. In the story shared, assistance was...

M2Emotion..

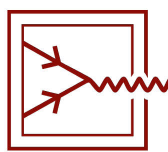
Negative
Story Count
40
20
0

Neutral
Story Count
40
20
0

Positive
Story Count
40
20
0

Not sure emotion
Story Count
40
20
0

Stable as a rock <--> Always changing



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D3. In the story shared, assistance was...

1. Excellent
Story Count
30
20
10
0

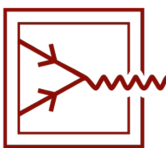
2. Very good
Story Count
30
20
10
0

3. Good
Story Count
30
20
10
0

4. Fair
Story Count
30
20
10
0

5. Poor
Story Count
30
20
10
0

Stable as a rock <--> Always changing



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74% response

D4. In the experience shared, the service, activity, or program…

Story Count

100

80

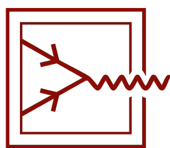
60

40

20

0

Mean - 0.63



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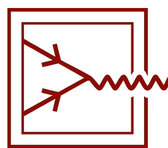
D4. In the experience shared, the service, activity, or program...



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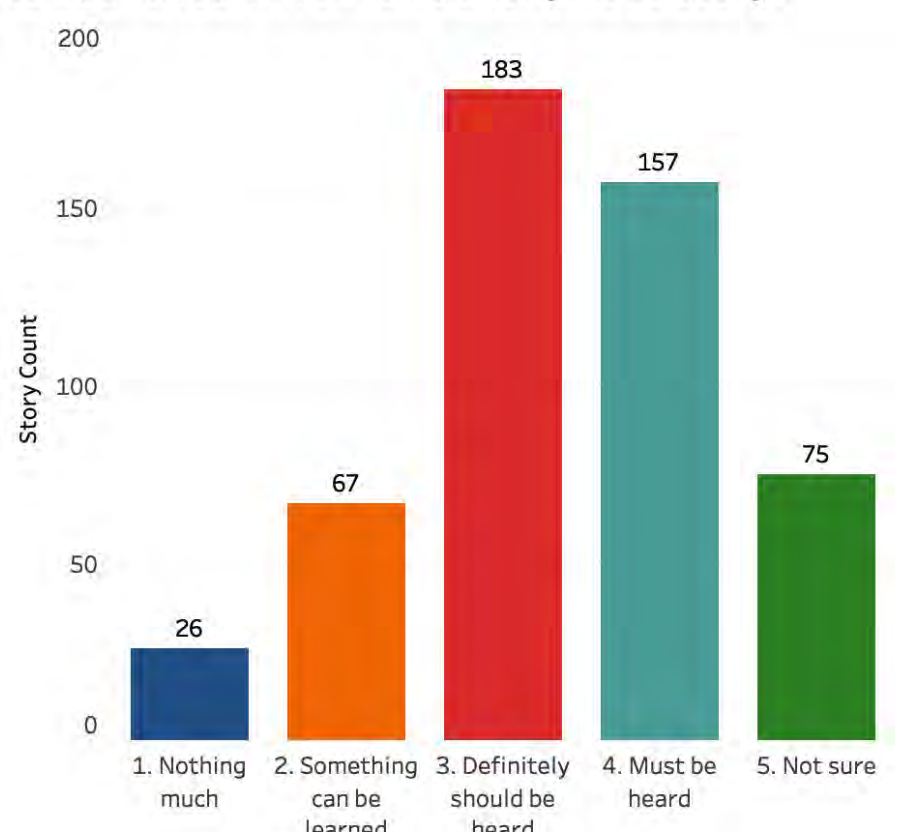
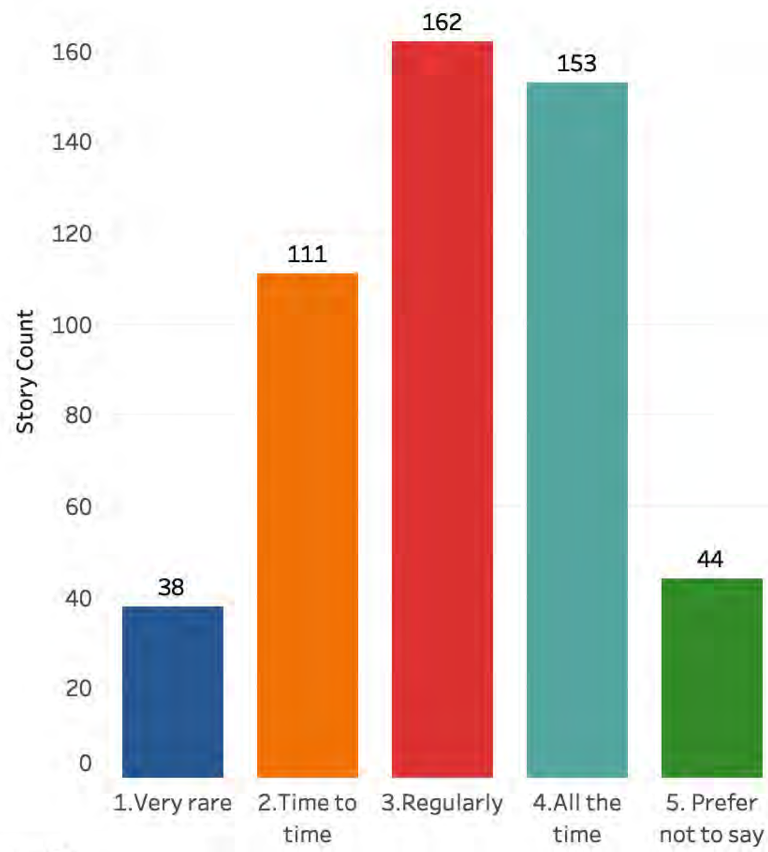
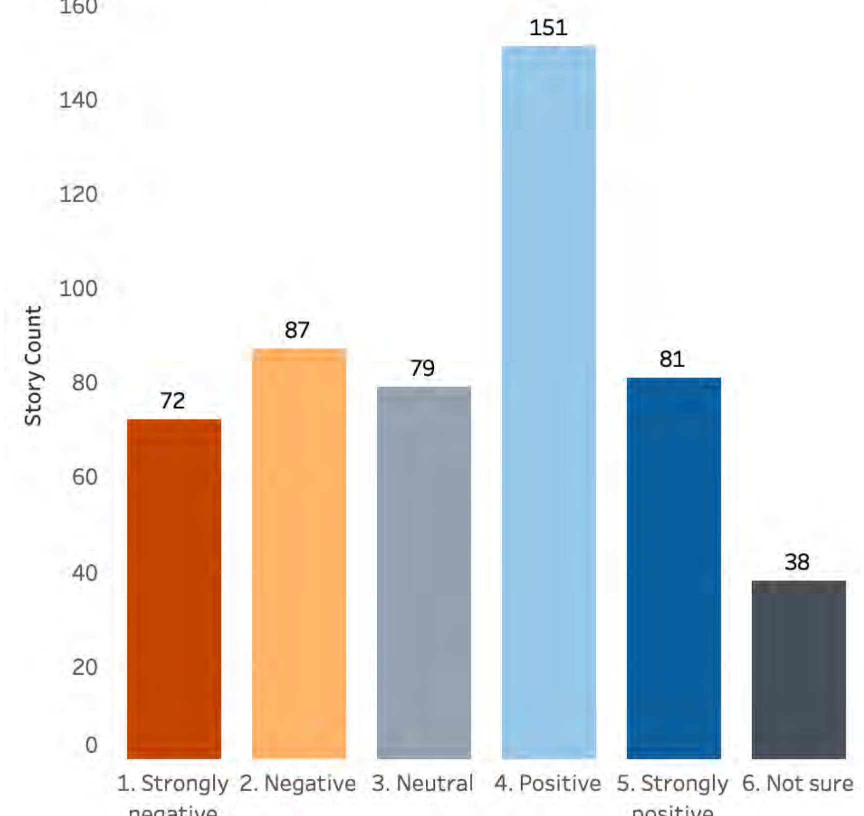
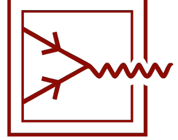






OHP - 508 stories



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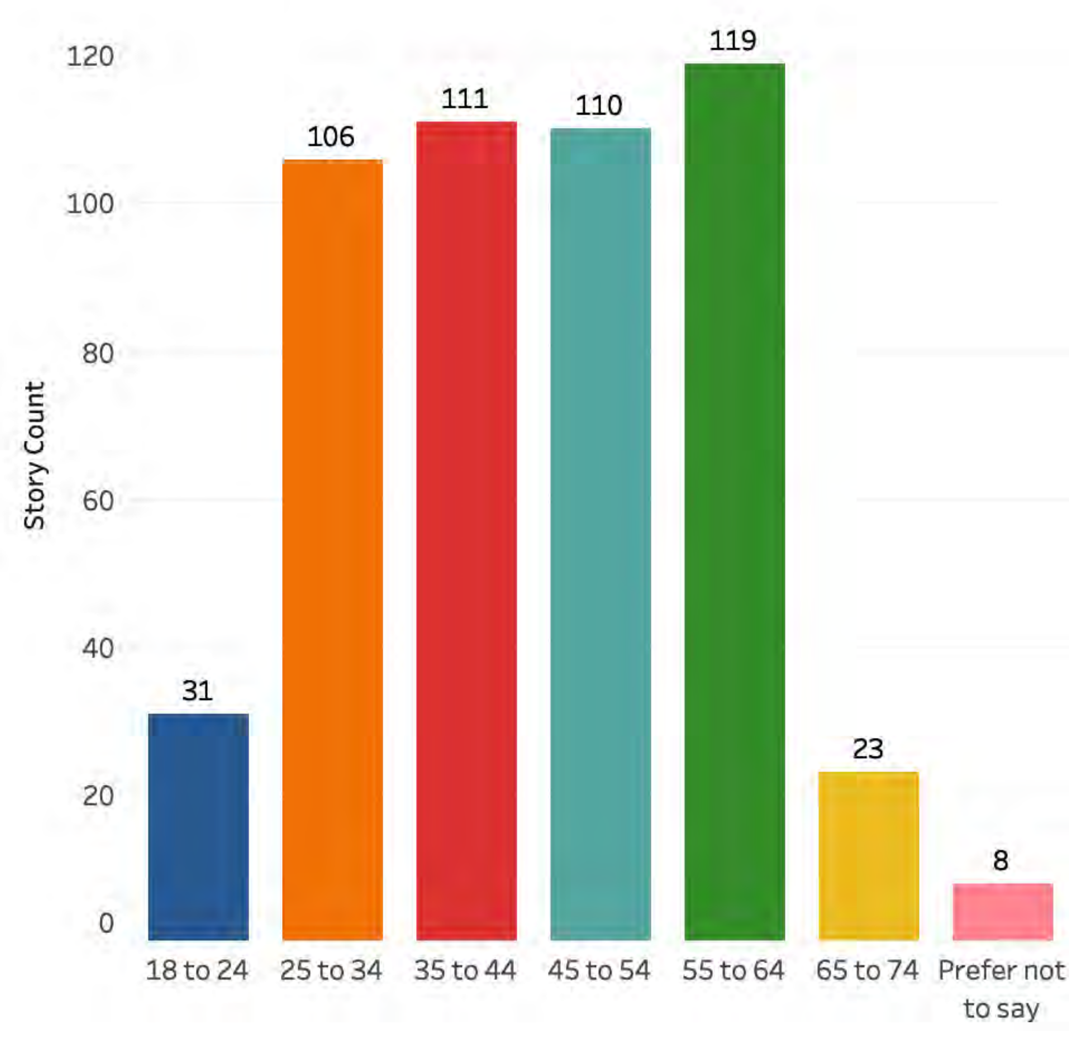
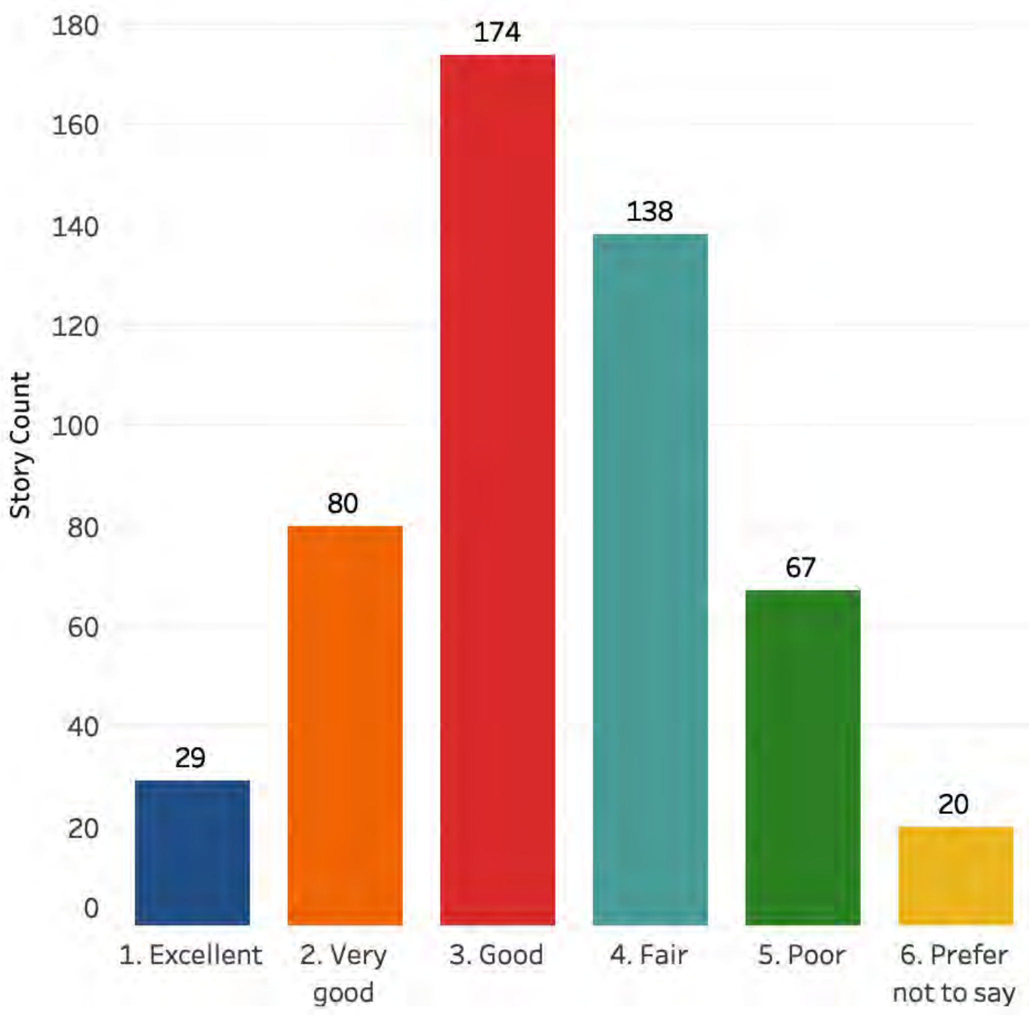
How old are you?



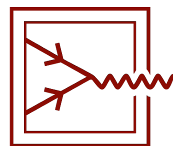
How would you rate your own health?



OHP - 508 stories

What is your gender?

Gender	Story Count
Female	345
Male	156
Nonbinary	1
Prefer not to say	6



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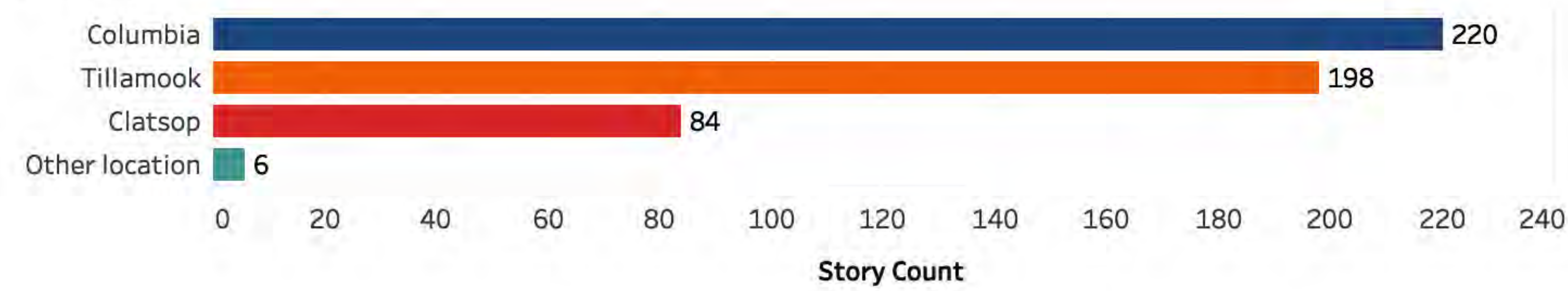
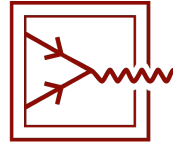
OHP - 508 stories



How does your story make you feel? (Select up to 3 choices)

Feeling	Story Count
frustrated	180
happy	93
sad	80
feeling not sure	57
angry	56
satisfied	52
disrespected	48
supported	48
discounted	48
helpful	47
informed	45
empowered	43
good	42
embarrassed	41
fearful	40
relieved	39
valued	38
encouraged	36
confused	25



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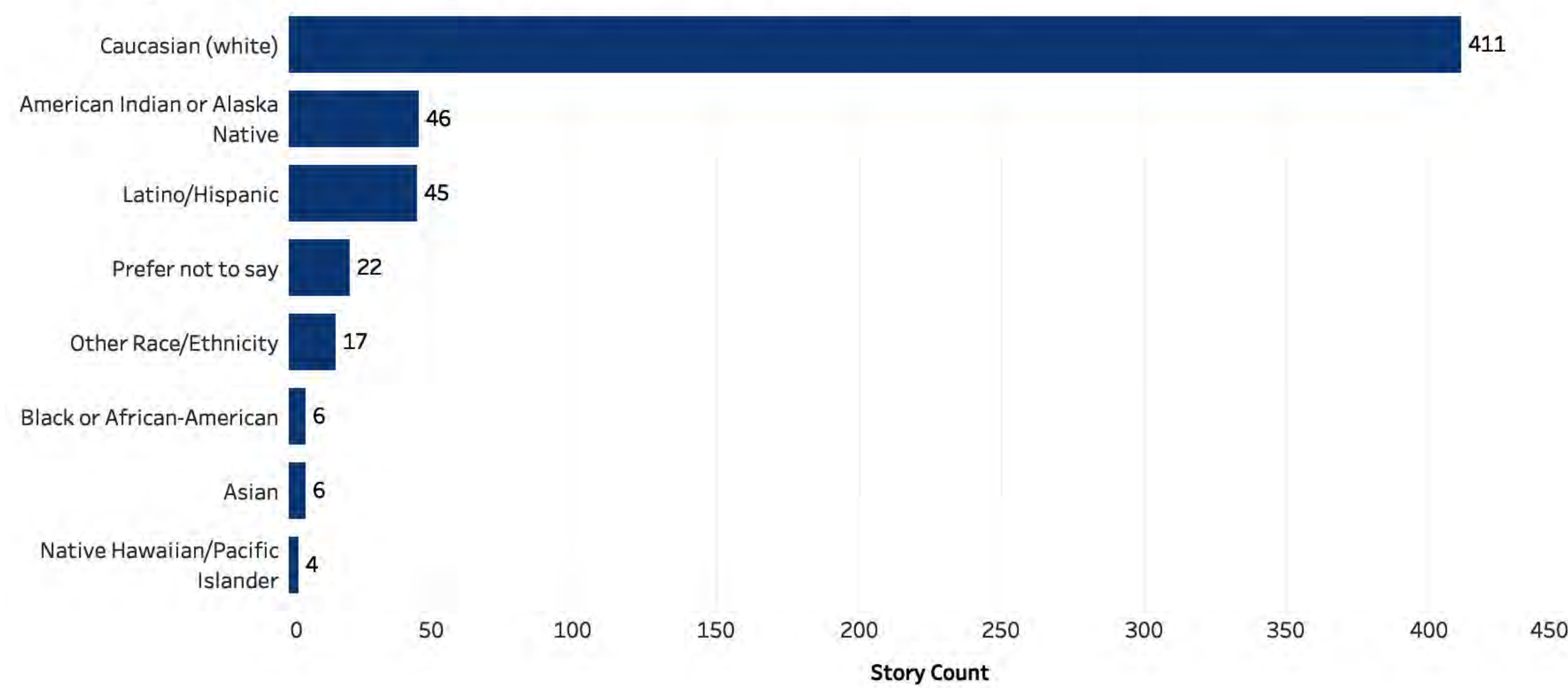
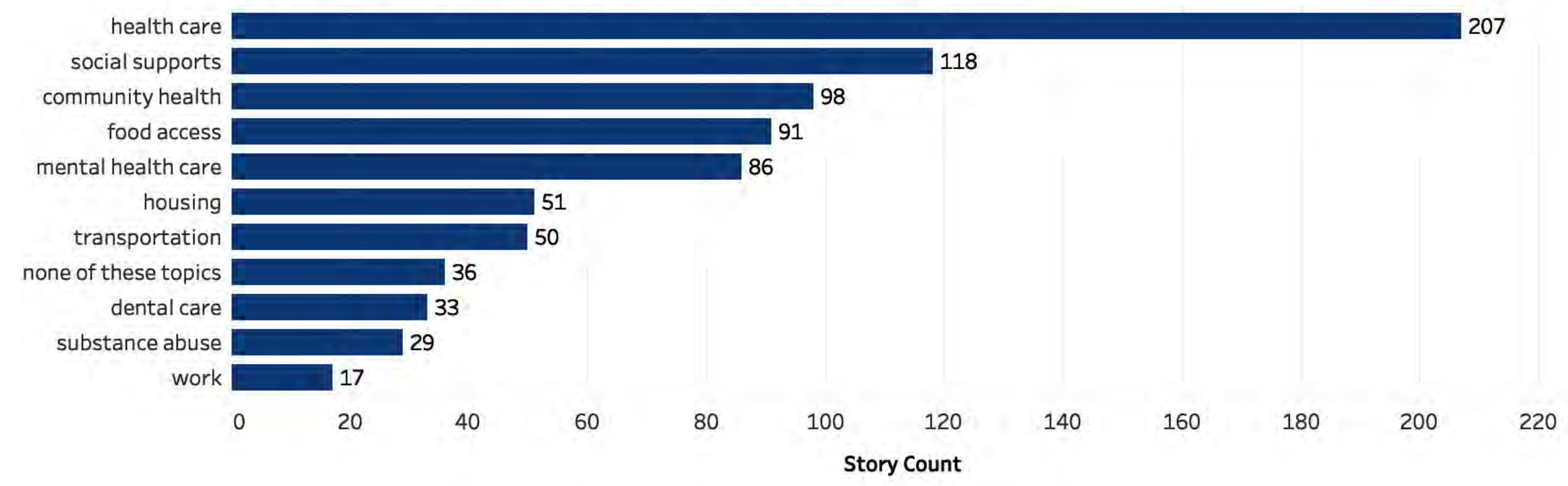
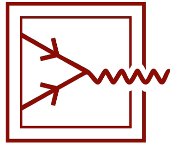
OHP - 508 stories







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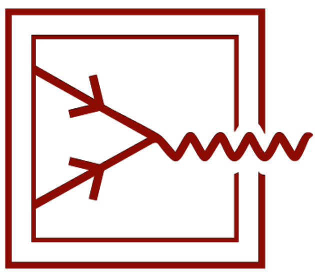
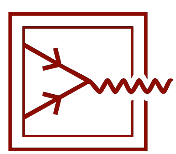
Statistics for entire 1252 stories



Statistical differences based on type of insurance

- There were no statistical differences for any of the dyads.[1]
- You will see a few differences in T1, T2, T3, & T8. In general, these are slight shifts closer to one of the dimension.
- There were a couple of differences (T5, T6) related to the Prefer not to say response. Since we don't know the composition of this group, there's no action that can be taken.
- You can conclude for the most part that there were no glaring differences to questions based on insurance.



1. For dyads, we ran Kruskal-Wallis H test followed by Fisher's Least Squared Difference as the Post Hoc.

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Differences between Insurance Types

T1 Important

Programs meet needs

Access to health educ

Support from friends

Health insur

- Employer-based in
- Individual insuranc
- Medicare
- Not insured
- OHP
- Prefer not to say

T2 Affects health

Others' attitudes

Ways things said

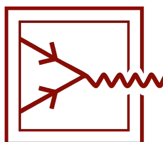
People help

Health insur

- Employer-based insur
- Individual insurance
- Medicare
- Not insured
- OHP
- Prefer not to say

OHP & Medicare differs from Individual insurance

Individual insurance differs from all but Medicare



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Differences between Insurance Types

T3 Barriers

Location

verwhelmed

Cost

Health insur
- Employer-based insur
- Individual insurance
- Medicare
- Not insured
- OHP
- Prefer not to say

Medicare differs from all other types

T4 Equity

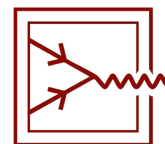
Some worth more

Treat all same

Diversity good

Health insur
- Employer-based insur
- Individual insurance
- Medicare
- Not insured
- OHP
- Prefer not to say

No differences



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Differences between Insurance Types

T5 Frustration

Needs not met

Retelling story

Being judged

Health insur

- Employer-basec
- Individual insura
- Medicare
- Not insured
- OHP
- Prefer not to sa

Not insured & employee-base is different from Prefer not to say. No real insight from this.

T6 Community

Community safety

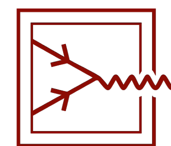
Community educ

Comm resources

Health insur

- Employer-based insur
- Individual insurance
- Medicare
- Not insured
- OHP
- Prefer not to say

Individual and Medicare different from Prefer not to say. No real insight here.



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Differences between Insurance Types

T7 Limits

Health insur problem

Transport is hard

Rules - barriers

Health insur
- Employer-basec
- Individual insura
- Medicare
- Not insured
- OHP
- Prefer not to say

No differences

T8 Needed support

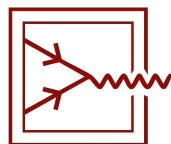
House transport food

Educ skills employ

Mental spirit emotion

Health insur
- Employer-based insur
- Individual insurance
- Medicare
- Not insured
- OHP
- Prefer not to say

Employee-based is different from all but Individual insurance.



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Appendix B: Regional Health Assessment Data Sources

REGIONAL HEALTH ASSESSMENT DATA SOURCES

This report draws on several data sources to describe, using statistical measure, the health status of the communities within the region. This document identifies the data sources used in the regional health assessment.

American Community Survey, 2012-2016 (retrieved from https://www.census.gov/programs-surveys/acs):
The American Community Survey (ACS) helps local officials, community leaders, and businesses understand the changes taking place in their communities. It is the premier source for detailed population and housing information about our nation. The U.S. Census Bureau must balance the information needs of a growing, changing nation with respect for the privacy and time of the American public. Adding a question or making a change to the American Community Survey involves extensive testing, review, and evaluation over a 5-year period. This ensures the change is necessary and will produce quality, useful information for the nation.

Limitations: People without legal immigration status are likely under-represented.

Children First for Oregon, 2018 (retrieved from https://www.cffo.org/wp-content/uploads/2018/12/CFFO-County-Data-2018.pdf):
2018 County Data: Child Well-Being in Oregon compiles data on child well-being across a broad range of indicators, painting a picture of children's health, education, and economic security throughout the state. Each indicator reveals how Oregon communities are supporting child well-being and identifies opportunities for improvement. Indicator rankings reveal the distinct strengths and challenges facing Oregon's diverse counties in building a strong foundation for children and their continued development

Limitations: Trends based on less than 5 events may be insignificant.

County Health Rankings, 2019 (retrieved from www.countyhealthrankings.org):
The County Health Rankings & Roadmaps (CHR&R) brings actionable data, evidence, guidance, and stories to communities to make it easier for people to be healthy in their neighborhoods, schools, and workplaces. Ranking the health of nearly every county in the nation (based on the model below), CHR&R illustrates what we know when it comes to what is keeping people healthy or making them sick and shows what we can do to create healthier places to live, learn, work, and play. Rankings help counties understand what influences how healthy residents are and how long they will live. The Rankings are unique in their ability to measure the current overall health of each county in all 50 states. They also look at a variety of measures that affect the future health of communities, such as high school graduation rates, access to healthy foods, rates of smoking, obesity, and teen births.

Limitations: The county-level estimates based on BRFSS data are calculated for the County Health Rankings by staff at the Centers for Disease Control and Prevention. One limitation of the BRFSS is that all measures are based on self-reported information, which cannot be validated with medical records. Another limitation is that these model-based estimates were created by borrowing information from the entire BRFSS, which may or may not accurately reflect those counties' local intervention experiences. Additionally, the confidence intervals constructed from these methods appear much smaller than confidence intervals reported for direct survey methods in previous years.

OHA, Adverse Childhood Experiences, 2016 (retrieved from https://www.oregon.gov/OHA/PH/ABOUT/Documents/indicators/aces.pdf): Every five years the Oregon Health Authority, Public Health Division describes the health of our state through the State Health Assessment (SHA). The SHA provides a data-driven resource that describes Oregon's health related strengths as well as its leading health challenges.

Limitations: A lack of sufficiently granular data was also a challenge. Although OHA-PHD monitors a wealth of population data, many of the indicators do not allow for analysis by subgroup such as race, ethnicity or county. For some indicators, the data collection process does not encompass these and other subgroups. For example, it is difficult to capture health information about migrant workers or incarcerated populations. For other indicators, the number of people affected by a specific condition or behavior is not large enough to allow for meaningful analysis. In 2015, the Oregon Legislature enacted a statute related to the collection of data on race, ethnicity, language, and disability status. As this statute continues to be put into practice across the Oregon Health Authority and Department of Human Services, OHA-PHD expects the availability of granular data to improve.

OHA, Adults reporting 1 or more days of poor mental health in the past 30 days by County, Oregon, 2012-2015 (retrieved from https://www.oregon.gov/OHA/PH/ABOUT/Documents/indicators/mentalhealth-county.pdf): The Public Health Division collects and analyzes data on health behaviors, diseases and injuries, disseminates findings, and designs and promotes evidence-based programs and policies to improve the health and safety of all Oregonians.

Limitations: Data was collected via a telephone survey conducted annually among non-institutionalized adults age 18+. Therefore, caution should be used in interpreting changes over time. Data include responses of "1 or more" to the question: "For how many days during the past 30 days was your mental health not good?"

OHA, Cancer and its Modifiable Risk Factors, 2018 (retrieved from https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/CHRONICDISEASE/DATAREPORTS/Documents/datatables/Risk%20factors%20related%20cancer%20web%20tables.pdf): The Oregon State Cancer Registry (OSCaR) is a population-based reporting

system that collects and analyzes information about cancer cases occurring in Oregon. Reportable cases include all cancers except specific forms of common, curable skin cancer and in situ cervical cancers.

Limitations: It requires approximately two years to compile cancer data for a given year of diagnosis, which results in a two-year delay in data reporting. OSCaR does not conduct follow-up of reported patients, which results in incomplete information for some cases. Only includes data on those seeking care; lacks data on cancer prevalence.

OHA, Cancer death rates and counts, 2012-2016 (retrieved from https://www.oregon.gov/oha/PH/DISEASESCONDITIONS/CHRONICDISEASE/DATAREPORTS/Documents/datatables/ORAnnualCancer_deaths.pdf): The Oregon Public Health Division reports chronic disease information to help guide Oregon's efforts to control or prevent chronic diseases and reduce disparities among populations most affected by these diseases.

OHA, Center for Health Statistics, Annual Report, Volume 1, 2017 (retrieved from https://geo.maps.arcgis.com/apps/MapSeries/index.html?appid=776bbb30bba548809e7c40e301237624): The Oregon Geospatial Enterprise Office provides coordination of geospatial activities for the State of Oregon. This site is meant to be a resource guide for both state employees and the general public. State agencies can acquire software through our statewide ELA, sign up for ArcGIS Online, or consume our geospatial data and imagery services. Our ArcGIS Server services are public and available to anybody. Developers are encouraged to use these services to support their applications and workflows.

Limitations: All rates are per 1,000 births. Rates exclude missing and unknown values in the calculation. Rates based on less than five events are unreliable. Percentages for first trimester initiation of prenatal care exclude missing and unknown values in the calculation. Percentages based on less than five events are unreliable. Because some neighboring states (e.g. California) do not exchange abortion reports with Oregon, those that obtain an out-of-state abortion are not always included in this count. Percentages for cigarette smoking during pregnancy exclude missing and unknown values in the calculation. Percentages based on less than five events are unreliable.

OHA, Estimates of Homelessness Population by County, Oregon, 2017 (retrieved from https://www.oregon.gov/OHA/PH/ABOUT/Documents/indicators/homeless-county.pdf)
The Point-in-Time Count attempts to count sheltered and unsheltered homeless people to provide a snapshot of homelessness. The count occurs every two years during the last ten days of January. Along with the total number of sheltered and unsheltered

homeless people, information is gathered on a wide range of characteristics of the homeless population such as age, gender, race, ethnicity, veteran status, and disability status. Estimates are available at the county and state level.

Limitations: Survey data provides contextual information around health care in the state. It is not as reliable for program enrollment counts as administrative data. It is not an annual source of data, but it is conducted every two years. Another limitation is bias in the survey from the look-back period and response bias due to respondents answering for other members of their household.

OHA, Food Insecurity by County, Oregon, 2016 (retrieved from https://www.oregon.gov/oha/PH/ABOUT/Documents/indicators/foodinsecurity-county.pdf): Every five years the Oregon Health Authority, Public Health Division describes the health of our state through the State Health Assessment (SHA). The SHA provides a data-driven resource that describes Oregon's health related strengths as well as its leading health challenges.

Limitations: A lack of sufficiently granular data was also a challenge. Although OHA-PHD monitors a wealth of population data, many of the indicators do not allow for analysis by subgroup such as race, ethnicity or county. For some indicators, the data collection process does not encompass these and other subgroups. For example, it is difficult to capture health information about migrant workers or incarcerated populations. For other indicators, the number of people affected by a specific condition or behavior is not large enough to allow for meaningful analysis. In 2015, the Oregon Legislature enacted a statute related to the collection of data on race, ethnicity, language, and disability status. As this statute continues to be put into practice across the Oregon Health Authority and Department of Human Services, OHA-PHD expects the availability of granular data to improve.

OHA, Oregon Healthy Teen Survey, 2013, 2015, 2017 (retrieved from https://www.oregon.gov/oha/PH/BIRTHDEATHCERTIFICATES/SURVEYS/OREGONHEALTHYTEENS/Pages/index.aspx): is a comprehensive, school-based, anonymous and voluntary survey of 8th and 11th-graders that is a key part of a statewide effort to help local schools and communities ensure that all Oregon youth are healthy and successful learners who contribute positively to their communities.

Limitations: The survey samples 8th and 11th graders in public schools. Sampling frame excludes virtual/online schools, charter schools outside of a public school district, those without a brick-and-mortar presence, alternative/non-traditional schools with non-standard hours (evenings, weekends), rehabilitation services, etc. Some districts (Beaverton, Salem-Keizer, and those in Josephine County) historically do not participate in the OHT Survey. Responses are missing from adolescents who are not in school.

Appendix B: Regional Health Assessment Data Sources

OHA, Population Living Below Federal Poverty Level by County, Oregon, 2012-2016 (retrieved from https://www.oregon.gov/OHA/PH/ABOUT/Documents/indicators/povertylevel-county.pdf): The Public Health Division collects and analyzes data on health behaviors, diseases and injuries, disseminates findings, and designs and promotes evidence-based programs and policies to improve the health and safety of all Oregonians.

Limitations: People without legal immigration status are likely under-represented.

OHA, Post-secondary Degree Among Adults 25 Years and Older by County, Oregon, 2012-2016 (retrieved from https://www.oregon.gov/OHA/PH/ABOUT/Documents/indicators/educationalattainment-county.pdf): The Public Health Division collects and analyzes data on health behaviors, diseases and injuries, disseminates findings, and designs and promotes evidence-based programs and policies to improve the health and safety of all Oregonians.

Limitations: People without legal immigration status are likely under-represented.

OHA, Oregon Vital Statistics Annual Report Volume 2, 2017 (retrieved from https://www.oregon.gov/oha/PH/BIRTHDEATHCERTIFICATES/VITALSTATISTICS/ANNUALREPORTS/VOLUME2/Documents/2017/2017%20VITAL%20STATS%20VOL%202%20FINAL.pdf): Oregon State law requires a report of death to be completed for all deaths. These records are the primary data source for the health information presented here. The Center for Health Statistics registers only those vital events occurring in Oregon. However, information on Oregon resident deaths occurring out-of-state to is also collected through an interstate exchange agreement. Data may be tabulated by residence (where the person lived) or by occurrence (where the event occurred).

Oregon law requires birth certificates for all live births. The Center for Health Statistics registers only those vital events occurring in Oregon. However, information on births that occur out of state to Oregon residents is also reported through an interstate exchange agreement. Data may be tabulated by residence (where the person lived) or by occurrence (where the event occurred). When age-adjusted rates are calculated, the 2000 U.S. population is used as the standard. The SHA also uses information collected from death certificates. These data are used to examine trends in mortality and causes of death. Variables in the death certificate database include cause of death; decedent's identifying information; date and place of death; occupation of the decedent; whether the death was related to tobacco use; education of decedent; marital status of decedent; and county, place, and date of injury (if applicable).

Limitations: Limited to information on U.S. standard Certificate of Birth and that is Oregon-specific required by law.

Oregon Behavioral Risk Factor Surveillance System (BRFSS) (retrieved from https://www.oregon.gov/oha/PH/BIRTHDEATHCERTIFICATES/SURVEYS/ADULTBEHAVIORRISK/Pages/index.aspx): The BRFSS is an annual random-digit dialed telephone survey that is conducted year-round among Oregon adults aged 18 years or older. The BRFSS includes questions on diagnosis of chronic diseases, health behavior risk factors such as diet, weight control, tobacco and alcohol use, physical activity, preventive health screenings, and use of health care services. The data are weighted to represent all adults aged 18 years and older. A core set of questions is asked annually, and other topics are surveyed on a rotating basis. Starting in 2010, Oregonians who use cell phones were added to the survey, causing the method for adjusting (weighting) the data to the demographics of the state to change. This new method is called "raking." Because of these changes, data prior to 2010 are not directly comparable to the data from 2010 forward. The national BRFSS implemented these changes in 2011. Learn more about BRFSS. A note about county level data: Oregon combines four years of annual BRFSS data to produce more reliable county-level estimates for chronic diseases and related risk factors.

Limitations: BRFSS is limited to non-institutionalized adult Oregon residents with a land line and/or cell phone service. Declining response rates for both landline and cell phones are an ongoing concern. BRFSS is not as representative of adults who are homeless, who do not speak English or Spanish, who are institutionalized or incarcerated, or who have limited access to phone service.

Oregon Center for Public Policy, 2018 (retrieved from https://www.ocpp.org/media/uploads/documents/2018/20180620-Clatsop.pdf https://www.ocpp.org/media/uploads/documents/2018/20180620-Columbia.pdf https://www.ocpp.org/media/uploads/documents/2018/20180620-Tillamook.pdf): The Oregon Center for Public Policy researches and analyzes tax, budget, and economic issues. Our goal is to improve decision making and generate more opportunities for all Oregonians.

Oregon Child Immunization Rates, 2015-2018 (retrieved from https://www.oregon.gov/oha/PH/PREVENTIONWELLNESS/VACCINESIMMUNIZATION/Pages/researchchild.aspx)
Oregon immunization rates measure vaccination rates among two-year-old's and adolescents (13- to 17-year-olds) living in a certain geographical area: state, county, or zip code. They tell us how well immunized different areas of the state are based on where people live, not where they seek health care. These are different from what you might know as AFIX (Assessment, Feedback Incentive, Exchange) rates, which measure immunization rates only among individuals who are active patients at a certain clinic.

Individuals are included in the rates if they have a post-birth immunization record in ALERT Immunization Information System (IIS) and are Oregon residents based on their most current address.

Limitations: ALERT is based on mandatory reporting from pharmacists and for state- supplied vaccines; otherwise, reporting is voluntary. Data completeness is high but may vary by subpopulation, age, or region. High data capture for 0 – 18 and increasing capture among adult population. SES, race, and ethnicity are not commonly reported by immunization providers.

Oregon Health Insurance Survey, 2017 (retrieved from https://www.oregon.gov/oha/HPA/ANALYTICS/InsuranceData/2017-OHIS-Health-Insurance-Coverage-Region.pdf)**:** The Oregon Health Insurance Survey is an important source of information about health care coverage in the state. The survey provides detailed information about the effects of health-system reform on health care coverage, access to care, and use of coverage.

Limitations: Survey data provides contextual information around health care in the state. It is not as reliable for program enrollment counts as administrative data. It is not an annual source of data, but it is conducted every two years. Another limitation is bias in the survey from the look-back period and response bias due to respondents answering for other members of their household.

U.S Census Bureau (retrieved from https://www.census.gov/quickfacts/OR): QuickFacts provides fast, easy access to the most requested social, economic, and housing characteristics of a given state, county, city, or town. QuickFacts provides statistics for all states and counties, and for cities and towns with a population of 5,000 or more. QuickFacts data are derived from: Population Estimates, American Community Survey, Census of Population and Housing, Current Population Survey, Small Area Health Insurance Estimates, Small Area Income and Poverty Estimates, State and County Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, Economic Census, Survey of Business Owners, Building Permits.

Limitations: Some estimates come from sample data, and thus have sampling errors that may render some apparent differences between geographies statistically indistinguishable