



# 2019

## Lewis County Community Health Assessment Summary Report

### **Community Health Vision**

*“Lewis County is an engaged community  
that encourages and supports all of us to be  
healthy, educated, employed, resilient and accountable.”*

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## Lewis County 2019 Community Health Assessment

This report presents the results of the Lewis County community health assessment conducted from February through December 2019. These three summaries reflect the main findings from assessments completed as part of a community health improvement process. The comprehensive assessments provide community information from which strategic issues, strategies, and goals can be identified. These elements will be essential benchmarks for any near-future development of a Lewis County Community Health Improvement Plan (CHIP).

### Community health assessment described

A community health assessment is a comprehensive description of the health status of a population, accomplished by using a collaborative process of collecting and analyzing information in partnership with community members and organizations. It is one phase within the community-driven strategic planning process known as Mobilizing for Action through Planning and Partnerships (MAPP).

The MAPP framework created by the National Association of City and County Health Officials is not an agency-focused assessment process. Rather it is an interactive process that can improve the efficiency, effectiveness, and ultimately the performance of local public health systems. This 2019 MAPP process was facilitated by Lewis County Public Health & Social Services (LCPHSS), with a Core Team of community partners providing direction and insight. Community Core Team members included:

Linda Breen .....	United Way of Lewis County
Vicky Brown .....	Arbor Health, Morton Hospital
Nancy Keaton .....	Centralia College
Mike Kytta.....	Riverside Fire Authority
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May Shahan.....	Lewis County Food Bank Coalition
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Brianna Teitzel .....	Lewis County Community Development
Joan Vance .....	Area Agency on Aging
Angie Wolle .....	Providence Health & Services

### Three assessment summaries included in this report

The assessment summaries and the issues they address are described below:

1. The Community Health Status Assessment utilizes available data to quantify community health issues.
2. The Community Health Priorities Summary includes a brief discussion on the following two previously administered assessments:
  - The Community Themes and Strengths Assessment provides information on the issues that people who live and work in Lewis County believe to be important.
  - The Forces of Change Assessment describes locally-identified forces or changes that may affect the community and its public health system.
3. The Local Public Health System Assessment summarizes the organizations and entities that contribute to the public's health.

For questions about this report or the assessment findings, please contact LCPHSS Deputy Director John Abplanalp at: John.Abplanalp@lewiscountywa.gov or (360) 740-1256, or Marylynn L. Kostick at: Marylynn.Kostick@lewiscountywa.gov or (360) 520-1078.

## 1. Lewis County Community Health Status

This summary report provides an overview of the main findings from the 2019 Lewis County Community Health Status Assessment (CHSA). The 2019 CHSA takes a comprehensive look at the health status of Lewis County and helps identify emerging health issues. The assessment answers the questions, “How healthy are our residents?”, “What does the health status of our community look like?”, and “How is the health status of our community changing over time?” It provides an understanding of the health of the community through a collective review of quantitative data for a number of indicators over nine broad-based categories. Those categories include:

- Demographic characteristics
- Socioeconomic characteristics
- Health resource availability
- Behavioral risk factors
- Communicable disease
- Death, illness and injury
- Maternal and child health
- Social and mental health
- Environmental health indicators

Health indicators used in the CHSA were chosen with the input of community stakeholders. Key data comes from secondary data that include national, state, and local data sources. Throughout this section, elements of the 2014 Lewis County Community Health Priorities responses will be addressed. Unless otherwise noted in text, estimates throughout the report were derived from the ACS 5-year estimates (2014-2018). When appropriate, 5-year age-adjusting rolling rates were used to report health outcome data to provide greater accuracy.

### 2019 CHSA Key Findings for Lewis County

- The racial groups showing the largest increases from 2010 to 2018 were Native Hawaiian and Other Pacific Islander, Asian, and Black or African American.
- The percent of residents aged 16 and over in the workforce significantly decreased between 2013 and 2018.
- There was a significant decrease in the number of all families whose income was below the poverty level between 2013 and 2018.
- Estimated cancer rates for all cancers and all residents decreased from the previous five year estimates.
- Lung cancer remains the most common cause of cancer death for both males and females, while heart disease remains the leading cause of death.
- Arrests have been increasing over the last five years for both juveniles and adults.
- Lewis County’s percentages for adults aged 25 or older with a bachelor’s degree or higher is nearly half that of Washington State.
- Pregnant women in Lewis County report smoking at notably greater rates than pregnant women across Washington State.
- Rates of uninsured residents have notably decreased since 2013.

## Lewis County Overview

Lewis County is located in Southwest Washington and is characterized by a moderate maritime climate with warm, dry summers and mild, wet winters. Lewis County is the sixth largest county in Washington State by area, covering over 2,436 total square miles and a total of 2402.2 square miles of land. In 2018, the population estimate for Lewis County was 76,947 residents, resulting in a population density of 31.4 people per square mile. There are 27 places (cities, towns, and unincorporated communities) comprising Lewis County; these places are a mix of rural and urban spaces with roughly two-thirds of the population residing in rural areas.

Four State Parks are located within Lewis County and the east end of the county encompasses areas such as the Mount Rainier National Park, Tatoosh Wilderness, William O. Douglas Wilderness, Goat Rocks Wilderness, Gifford Pinchot National Forest, Mount St. Helens National Volcanic Monument, and Mount Baker-Snoqualmie National Forest. The majority of land in Lewis County is designated as Forest Resource Land. Lewis County is also characterized by its use of land for farming; in 2017, there were 1,723 farms covering approximately 122,870 acres (National Agricultural Statistics Service, United States Department of Agriculture, 2017).

## Demographic and Socioeconomic Characteristics

### Population by Age and Sex

The estimated number of males and females in each age group is represented in the population profile in Figure 1.1; Lewis County has a near 1:1 ratio of males to females and median age of 43.1 years. Lewis County had a slightly older population than that of Washington State and the United States, and was generally characteristic of a stationary population profile. In 2018, individuals who were over the age of 65 represented 20.4 percent of the Lewis County population, which was notably higher than the state and nation percentage of 14.7 and 15.2, respectively; 21.6 percent of the population is under 18 years.

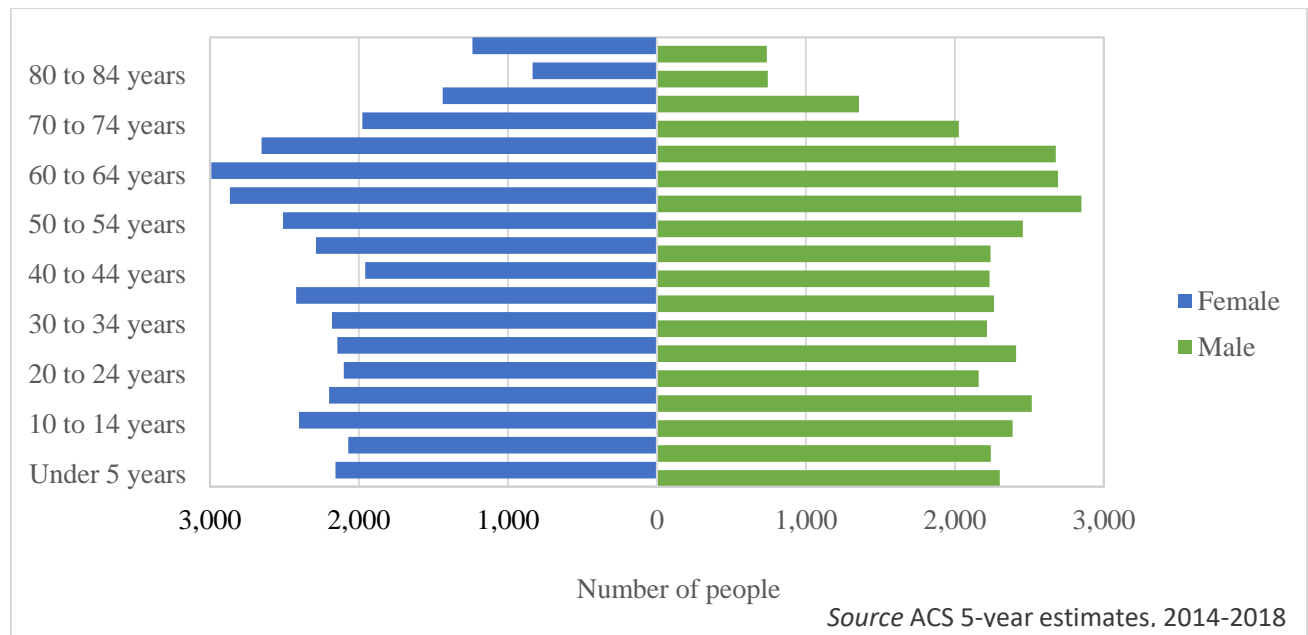


Figure 1.1. Estimated population profile by sex, Lewis County, WA, 2018.

### Race and Ethnicity

Lewis County is predominately white (90.6 percent; Figure 1.2). Between 2010 and 2018, Lewis County experienced increases in all racial groups, with the exception of American Indian/Alaska Native (alone/one race) and residents identifying with “some other race”. When in combination with “white”, however, American Indian/Alaska Native population showed an increase of 4.1 percent. The racial groups showing the largest increases were Native Hawaiian and Other Pacific Islander, Asian, and Black or African American. Individually, these groups still comprise less than five percent of the total population. (Table 1.1.)

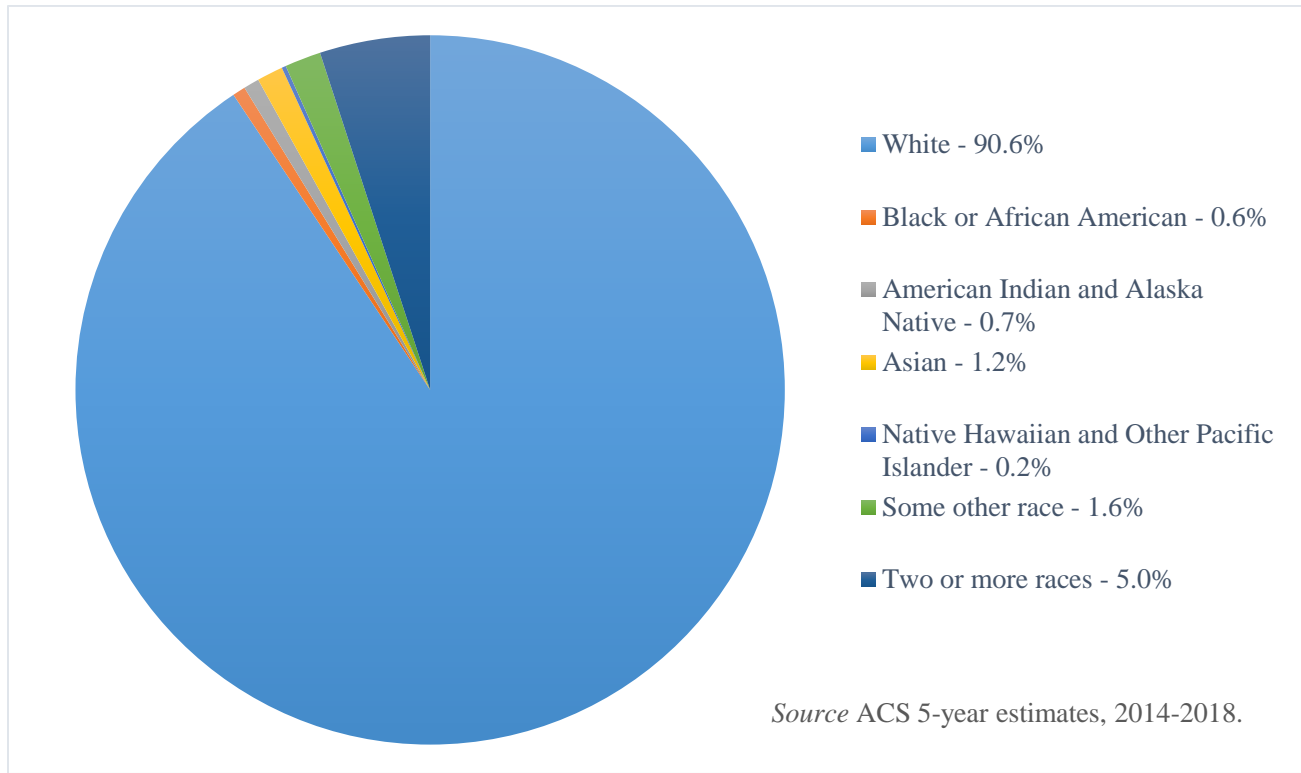


Figure 1.2. Estimated percentages of population by race, Lewis County, 2018.

Table 1.1. Estimated population by race, Lewis County, WA, 2010 and 2018.

Population description	2010		2018		% Change
	Estimate	Margin of error	Estimate	Margin of error	
Population of one race:	71,721	434	73,080	441	1.9%
White	68,110	527	69,747	546	2.4%
Black or African American	313	101	452	145	44.4%
American Indian and Alaska Native	723	272	550	144	-23.9%
Asian alone	560	135	914	194	63.2%
Native Hawaiian and Other Pacific Islander	7	12	148	85	2014.3%
Some other race	2,008	488	1,269	452	-36.8%
Population of two races:	2,832	439	3,476	391	22.7%
White; Black or African American	339	110	545	121	60.8%
White; American Indian and Alaska Native	1,573	282	1,638	145	4.1%
White; Asian	375	135	425	175	13.3%
Black or African American; American Indian and Alaska Native	44	61	2	26	-95.5%
All other two race combinations	501	285	866	282	72.9%
Population of three races	97	86	366	255	277.3%
Population of four or more races	0	123	25	28	-

Source ACS 5-year estimates, 2006-2010 and 2014-2018.

Hispanics or Latinos (who may be of any race) represented 10.0 percent of the county’s population (Figure 1.3), which was lower than the State and National percentages of 12.5 and 17.8, respectively. In 2000, an estimated 3,684 residents identified as Hispanic or Latino; by 2010, the number of residents increased to 6,527. In 2018, the estimated number of residents identifying as Hispanic or Latino was 7,692, a much smaller increase of 18 percent from 2010 to 2018 compared to the 77 percent increase from 2000 to 2010.

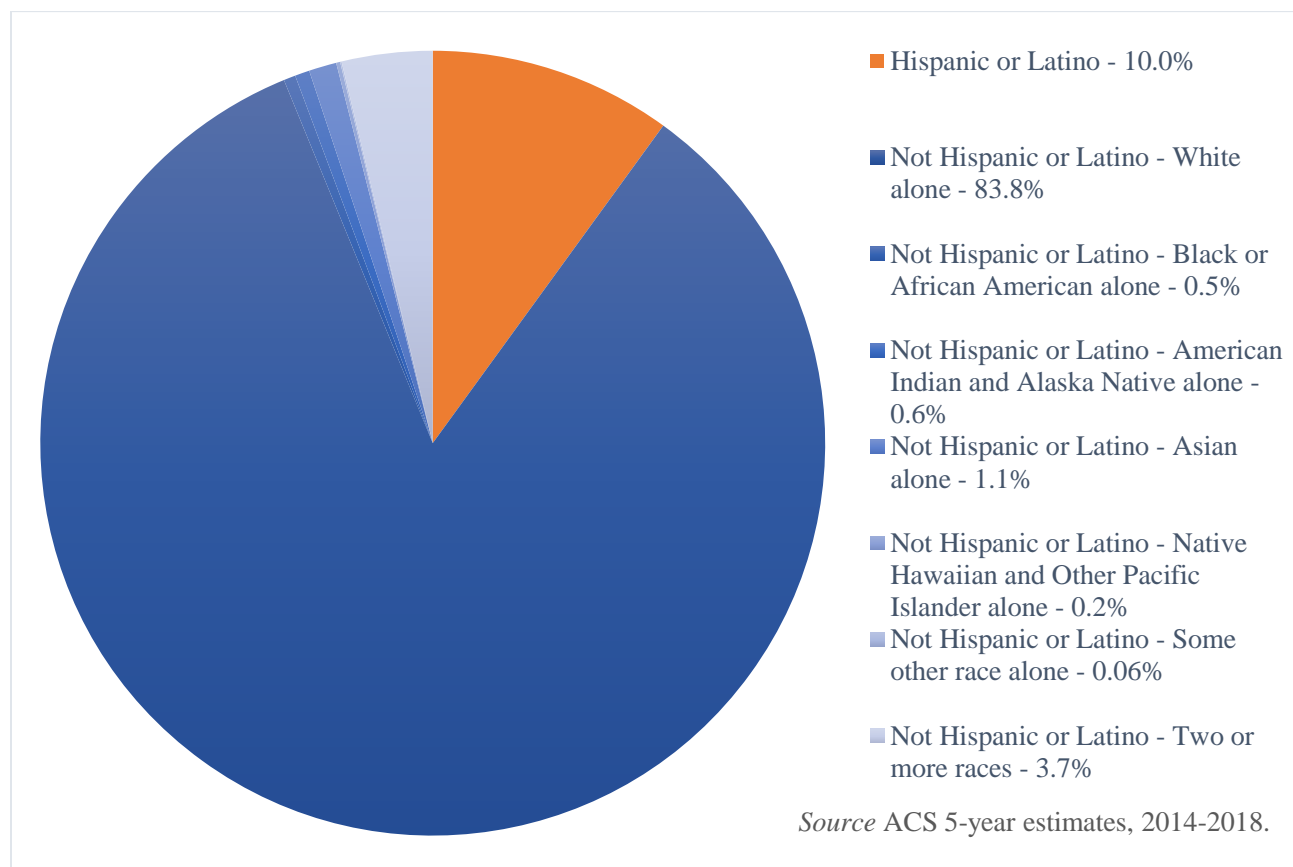


Figure 1.3. Estimated percentages of population by race and ethnicity, Lewis County, 2018.

### Income and Poverty

Household median income in Lewis County for 2018 was estimated to be \$50,216, significantly greater than the 2012 estimate of \$42,927 and 2013 estimate of \$46,294. In 2018, median household incomes ranged from \$28,453 (non-family household) to \$72,448 (married-couple family households). The 2018 estimated per capita income for Lewis County residents was \$25,813, significantly higher than the 2012 and 2013 estimates of \$22,535 and \$23,983, respectively.

In 2018, 14.4 percent of residents were living at or below the poverty threshold, which was higher than Washington State (11.5 percent) and that of the United States (14.1 percent). The estimated number of families whose income in the past 12 months was below the poverty level in 2018 of 9 percent was significantly lower than the 2013 estimate of 11.1 percent; Washington State also saw a significant decrease in number of families with income below the poverty level in addition to a significant decrease in the number of people for all ages. Poverty can affect individuals and families of all ages, races, educational attainment, and work status. Poverty rates exceeded the county average for several groups of people in Lewis County

(Table 1.2). It is worth noting that educational attainment and fulltime-work status were heavy offsetting factors for poverty status for both years.

Table 1.2. Estimated percent below poverty level for groups, Lewis County, WA, 2013 and 2018.

Group	% Percent below poverty level	
	2013	2018
Population for whom poverty status is determined	15.4	14.4
Age		
Under 18 years	<b>19.8</b>	<b>17.8</b>
Under 5 years	-	<b>24.4</b>
18 to 34 years	-	<b>21.6</b>
35 to 64 years	-	13.1
65 years and over	7.9	6.3
Sex		
Male	13.9	13.5
Female	<b>17</b>	<b>15.2</b>
Race and Hispanic or Latino origin		
White alone	15.1	13.3
Black or African American alone	<b>26.1</b>	<b>25.3</b>
American Indian and Alaska Native alone	<b>36.3</b>	<b>32.3</b>
Asian alone	<b>21.9</b>	<b>21.1</b>
Native Hawaiian and Other Pacific Islander alone	0	0
Some other race alone	13.6	<b>44.8</b>
Two or more races	<b>17.8</b>	<b>19.8</b>
Hispanic or Latino origin (of any race)	<b>20.4</b>	<b>23.2</b>
White alone, not Hispanic or Latino	14.5	12.8
Educational attainment		
Population 25 years and over	12.2	12.3
Less than high school graduate	<b>22.8</b>	<b>22.8</b>
High school graduate (includes equivalency)	12	<b>15.2</b>
Some college, associate's degree	10.9	9.9
Bachelor's degree or higher	6	5.5
Work experience		
Population 16 years and over	14.2	13.5
Worked full-time, year-round in the past 12 months	2.8	2.7
Worked part-time or part-year in the past 12 months	<b>16.6</b>	<b>16.5</b>
Did not work	<b>20.3</b>	<b>19.7</b>

Note (-) signifies the value was not reported; **bold** signifies exceedance of county poverty rate.

Source ACS 5-year estimates, 2014-2018.



Noticeable wage disparities between males and females exist until attainment of graduate or professional degree (Figure 1.4).

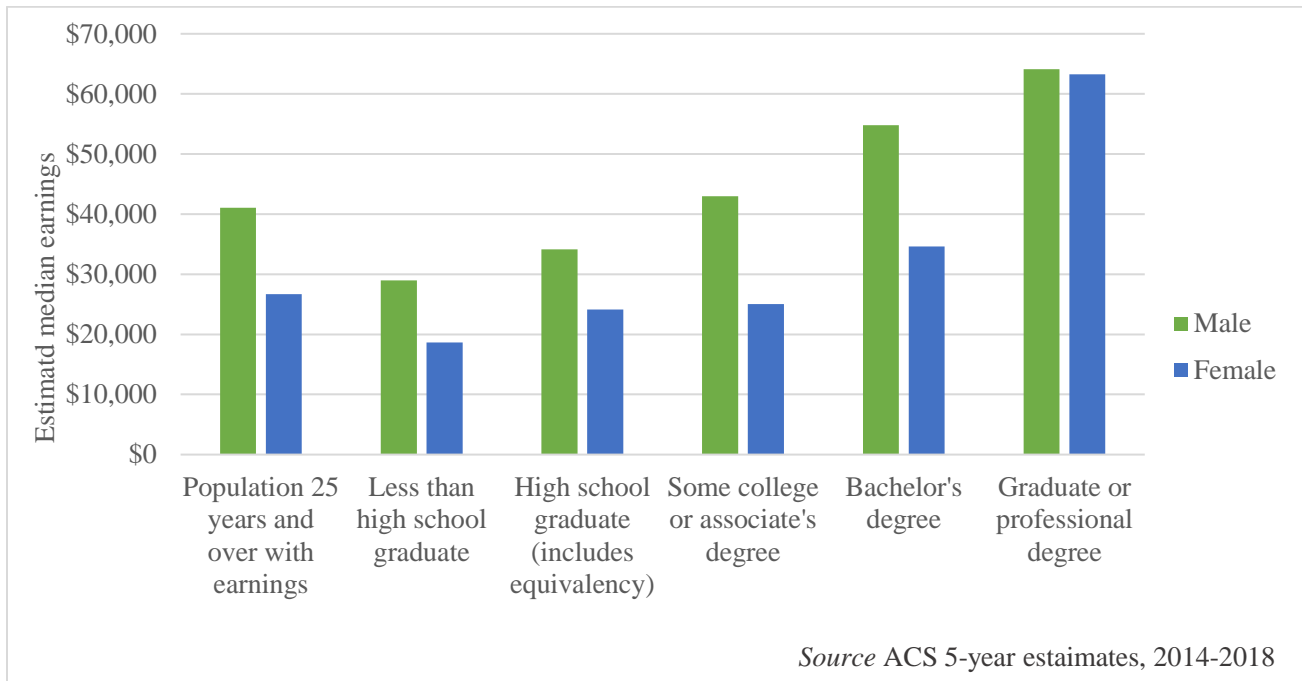


Figure 1.4. Estimated median earnings by educational attainment and sex, Lewis County, WA, 2018.

## Education

During the 2017-2018 school year, high-school graduation rates for Lewis County were the eighth lowest in the state at 73.7 percent. There were 11 cases of weapons brought to school that lead to either suspension or expulsion. During the 2017-2018 school year, enrollment for kindergarten through 12<sup>th</sup>-grade was dominated by children identifying as White – Not Hispanic (69-74 percent) followed by Hispanic or Latino (of any race(s); 18-25 percent). Children identifying with two or more races and not Hispanic or Latino accounted for an additional (4-7 percent) with other race groups at 2 percent or less across all grades.

In 2018, 86.8 percent of the adults over the age of 25 in Lewis County had obtained a high school diploma or higher education, which is lower than the state rate of 91.9 percent and the US rate of 90.3 percent. The on-time graduation rate was 82.5 percent for the Class of 2019, which is higher than the state on-time graduation rate of 81.0 percent. ACS 5-year estimates from 2014-2018 report that 87.8 percent of Lewis County adults aged 25 or older are a high school graduate or higher, slightly lower than the 91.1 percent of Washington State residents. The difference between the percent of Lewis County and Washington State adults aged 25 or older with a bachelor's degree or higher is noticeably large (16.8 percent and 35.3 percent difference, respectively).

## Unemployment

The percent of Lewis County residents over the age of 16 years estimated to be engaged in the labor force for 2018 was 53.2 percent; this is a significant decrease from 55.9 in 2013 and is much lower than Washington State's 2018 estimate of 64.4 percent.

In 2018, Lewis County’s annual unemployment rate was 8.2 percent. Over the last decade, the unemployment rate in Lewis County has been higher than the average in Washington State and the United States (Figure 1.5).

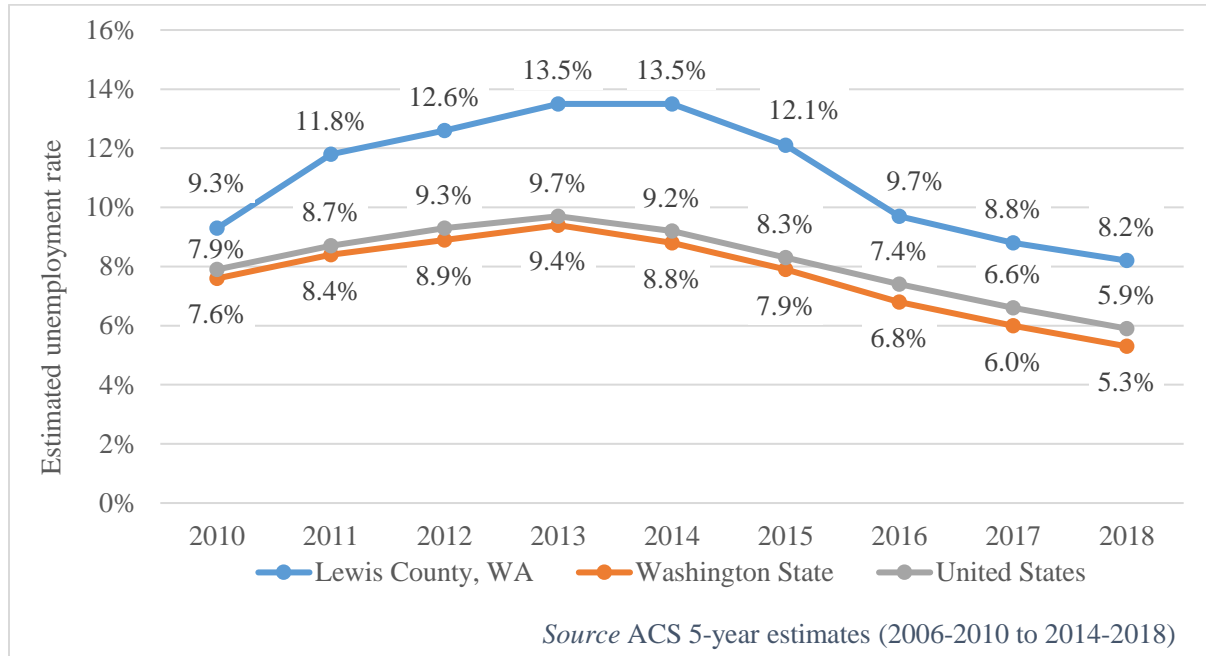


Figure 1.5. Estimated unemployment rates for population aged 16 and over, Lewis County, WA, Washington State, and United States, 2018.

**Food Insecurity**

In 2018, the food insecurity rate for children residing in Lewis County was 21.7 percent and 14.4 percent for all residents (Feeding America, 2020). Lewis County had higher rates for both children and overall food insecurity rates as well as the percentage of food-insecure individuals that were income-eligible for nutrition programs (Table 1.3).

Table 1.3. Food insecurity measures for children and overall population, Lewis County, WA, and Washington State, 2018.

Measure	Lewis County		Washington	
	Child	Overall	Child	Overall
Food insecurity rate (total population)	21.7%	14.4%	17.3%	11.5%
Income-eligible for nutrition programs	72%	83%	57%	65%
Average meal cost	\$3.29	\$3.29	\$3.04	\$3.04

*Note* Income-eligibility for nutrition programs threshold for children is 175 percent below poverty and for adults is 200 percent below poverty, percentages are of food-insecure individuals.

*Source* Map the Meal Gap, Feeding America, 2020.

## Health Resource Availability

### Medical Resources

There are two hospitals in Lewis County – Providence Centralia Hospital (Centralia) and Morton General Hospital (Morton). In 2017, Lewis County as a whole was designated a Health Professional Shortage Area (HPSA) in mental health; as of 2019, various populations and facilities were also designated as HPSA in all measured disciplines of primary care, dental health, and mental health.

### Nutrition Programs

The Women, Infants, and Children (WIC) Program is administered by Lewis County Public Health and Social Services. The program focuses on healthy pregnancies, birth outcomes, and growth and development for eligible women, infants, and children up to age five. Other income-based food or nutrition programs available to residents include, but may not be limited to: Basic Food Program, Medical Assistance, Temporary Assistance for Needy Families (TANF), and Food Distribution Program or Indian on Indian Reservations (FDPIR). From 2014 to 2019, the percent of infants born and served by WIC displayed a gradual decrease for both Lewis County and Washington State (Figure 1.6).

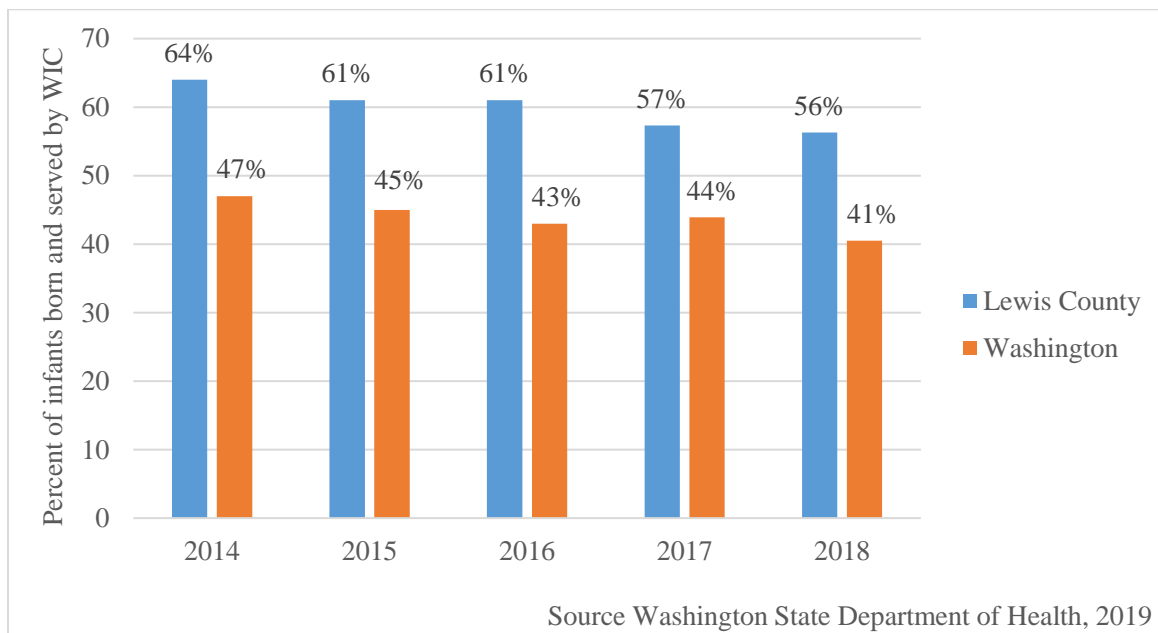


Figure 1.6. Percent of infants born and served by WIC, Lewis County, WA, and Washington State, 2014-2019.

The percentage of food dollars redeemed through the WIC Farmer's Market Nutrition Program has remained fairly constant in Lewis County and has noticeably increased for Washington State; total food dollars redeemed through the program has decreased for Lewis County and for Washington State (Table 1.4).

Table 1.4. Food dollars redeemed through WIC, Lewis County, WA, and Washington State, 2014-2019.

Year and location	Total food dollars redeemed	Redeemed through fresh fruits and vegetables only	Redeemed through WIC farmers market nutrition program
2014			
Lewis County	1,820,493	8.0%	0.4%
Washington	120,262,224	8.9%	0.5%
2015			
Lewis County	1,772,368	8.8%	0.4%
Washington	116,656,157	9.8%	0.4%
2016			
Lewis County	1,573,239	9.5%	0.4%
Washington	107,966,470	10.3%	0.5%
2017			
Lewis County	1,483,799	9.2%	0.1%
Washington	98,684,399	10.3%	0.6%
2018			
Lewis County	1,290,808	10.0%	0.2%
Washington	83,192,511	11.2%	0.6%
2019			
Lewis County	1,288,922	8.9%	0.4%
Washington	85,289,700	9.8%	0.8%

*Source* Washington State Department of Health, 2020.

### Health Insurance

In 2018, an estimated 8.2 percent of Lewis County residents were uninsured compared to 14.3 percent of residents in 2013; a similar decrease in the number of uninsured residents was noted for those aged 19 to 25 years while residents aged under 18 and 65 years and older saw slight increases in the percentage of uninsured. Most other groups measured saw decreases in the percent of uninsured residents. (Table 1.5). Compared to Washington State, Lewis County continues have a greater percent of residents uninsured: Washington State's percent of uninsured 2018 and 2013 was 6.8 and 13.8 percent, respectively.

Table 1.5. Estimated percents uninsured for groups, Lewis County, WA, 2013 and 2018.

Group	Percent uninsured	
	2013	2018
Civilian noninstitutionalized population	14.3%	8.2%
Age	0.0%	0.0%
Under 18 years	4.6%	<b>7.7%</b>
19 to 25 years	34.0%	14.0%
65 years and older	0.4%	<b>0.5%</b>
Sex	0.0%	0.0%
Male	16.6%	9.3%
Female	12.1%	7.0%
Race and Hispanic or Latino Origin	0.0%	0.0%
White alone	13.9%	7.5%
Black or African American alone	15.1%	9.4%
American Indian and Alaska Native alone	30.9%	13.4%
Asian alone	49.0%	14.4%
Native Hawaiian and Other Pacific Islander alone	-	32.4%
Some other race alone	20.4%	<b>32.0%</b>
Two or more races	10.7%	10.1%
White alone, not Hispanic or Latino	12.8%	6.3%
Hispanic or Latino (of any race)	25.0%	23.8%
Nativity and US citizenship status	0.0%	0.0%
Native born	12.8%	6.8%
Foreign born	42.9%	35.4%
Naturalized	20.5%	8.4%
Not a citizen	50.5%	47.8%
Educational attainment	0.0%	0.0%
Civilian noninstitutionalized population 26 years and over	15.5%	8.7%
Less than high school graduate	23.8%	17.9%
High school graduate (includes equivalency)	18.8%	8.7%
Some college or associate's degree	12.8%	8.0%
Bachelor's degree or higher	7.2%	4.3%
Employment status	0.0%	0.0%
Civilian noninstitutionalized population 19 to 64 years	17.2%	12.4%
In labor force	22.0%	13.1%
Employed	17.8%	12.3%
Unemployed	49.5%	23.5%
Not in labor force	10.8%	10.6%
Work experience	0.0%	0.0%
Civilian noninstitutionalized population 19 to 64 years	17.2%	12.4%
Worked full-time, year round in the past 12 months	13.3%	9.9%
Worked less than full-time, year round in the past 12 months	28.7%	16.8%
Did not work	12.3%	11.4%
Household income (inflation-adjusted dollars)	0.0%	0.0%
Total household population	14.3%	8.2%
Under \$25,000	21.6%	10.7%
\$25,000 to \$49,999	14.2%	8.5%
\$50,000 to \$74,999	14.0%	9.9%
\$75,000 to \$99,999	12.4%	7.0%
\$100,000 and over	8.2%	5.4%
Ratio of income to poverty level in the past 12 months	0.0%	0.0%
Civilian noninstitutionalized population for whom poverty status is determined	14.4%	8.1%
Below 138 percent of the poverty threshold	24.2%	10.0%

Note **Bold** indicates an increase from 2013 to 2018.

Source ACS 5-year estimates, 2009-2013 and 2014-2018.

## Behavioral Risk Factors

### Marijuana and Tobacco Use

The rate of adults in Lewis County that have reported ever using marijuana has remained near 50 percent over the last five years. Similarly, compared to the 2012-2014 rate (20.2 percent), smoking behaviors appear to have remained consistent in Lewis County. (Table 1.6). From 2015 to 2017, roughly one out of every five adults (20.4 percent) in Lewis County indicated that they currently smoke cigarettes. This is higher than the state rate of 13.5 percent.

Table 1.6. Indicators for marijuana and tobacco use, Lewis County, WA, 2012-2017.

Year	Marijuana		Tobacco	
	% Ever used	% Used in past 30 days	% Current smoker	% Tried to quit in last year
2012	43.3%	-	21.5%	53.3%
2013	41.3%	-	19.4%	71.4%
2014	65.4%	-	--	-
2015	55.2%	-	21.2%	51.9%
2016	51.9%	17.2%	21.6%	52.3%
2017	55.0%	16.4%	18.2%	59.3%

*Note* For some years data was suppressed (-) or not reliable (--).

*Source* Washington State Department of Health, Center for Health Statistics, Behavioral Risk Factor Surveillance System, 2012-2017.

### Substance Abuse

Like much of the United States and Washington, Lewis County continues to experience the harms associated with heroin abuse. The average annual number of hospitalizations due to drug overdoses for 2013-2017 was 87, with an average of 22 hospitalizations due to all opioids and an average of five hospitalizations attributable to heroin. The average number of deaths due to drug overdoses for 2013-2017 was 11, primarily driven by prescription opioids (not fentanyl); this is the lowest average calculated since 2002-2006. From 2016 to 2018, deaths attributed to drug overdoses has remained relatively stable overall (Table 1.7.).

Table 1.7. Deaths attributed to drug overdoses by drug, Lewis County, WA, 2016-2018.

Drug	2016	2017	2018
Synthetic opioids (not Methadone)	1	3	0
Psychostimulant	2	6	4
Prescription opioids (non fentanyl)	5	2	0
Heroin	1	0	2
All opioids	7	4	2
All drug	12	11	7

*Source* Washington State Department of Health, 2020.

## Crime and Violence

Crime committed by juveniles in Lewis County continues to be led by assault, followed by Group B offenses, theft, and drug violations. Assault, burglary, and drug violations have all noticeably increased from 2014 to 2018. Juvenile arrests have increased at an average rate of 2.6 percent from 2014 to 2018. (Table 1.7)

Table 1.8. Juvenile arrests, Lewis County, WA, 2014-2018.

Type of juvenile arrest	2014	2015	2016	2017	2018
Arson	2	0	0	1	0
Assault	77	80	84	72	98
Burglary	10	10	7	6	16
Destruction of property	14	20	14	16	13
Drug violations	26	27	23	30	37
Extortion/blackmail	0	0	0	1	0
Rape	11	8	3	2	6
Group B offenses	33	78	46	45	44
Kidnapping/abduction	0	1	1	0	0
Murder	0	0	0	0	1
Non-forcible sex	0	1	3	1	2
Pornography	1	0	6	5	2
Robbery	0	3	1	2	5
Theft	49	46	55	42	43
Violation of no contact/protection orders	0	3	0	1	0
Weapons law violation	1	1	2	2	1

*Note* There were no reported adult arrests between 2014-2018 for animal cruelty, bribery, counterfeiting/forgery, gambling violations, hacking/computer invasion, human/trafficking, manslaughter, or prostitution.

*Source* Office of Financial Management - Criminal Justice, State of Washington, 2020.

The total number of adult arrests made from 2014 to 2018 increased by over 14 percent, with an average percent rate of 2.8; notable trends in arrests during this period include increases in assault, destruction of property, and Group B offenses and decreases in rape and theft (Table 1.9).

Table 1.9. Adult arrests, Lewis County, WA, 2014-2018.

Type of adult arrest	2014	2015	2016	2017	2018
Arson	7	0	1	5	0
Assault	456	430	452	452	533
Burglary	95	93	88	87	103
Counterfeiting/forgery	13	10	20	22	5
Destruction of property	49	73	74	93	81
Drug violations	201	172	199	200	232
Extortion/blackmail	2	1	0	1	3
Rape	34	24	24	15	23
Group B offenses	1,220	1,209	1,372	1,437	1,422
Kidnapping/abduction	12	6	10	5	18
Manslaughter	0	0	0	1	0
Murder	4	0	1	0	2
Non-forcible sex	1	1	3	2	1
Pornography	4	3	4	3	0
Prostitution	0	1	0	0	0
Robbery	15	22	20	18	18
Theft	455	352	409	388	402
Violation of no contact/protection orders	64	80	105	101	160
Weapons law violation	18	10	13	16	19

*Note* There were no reported adult arrests between 2014-2018 for animal cruelty, bribery, gambling violations, hacking/computer invasion, or human/trafficking.

*Source* Office of Financial Management - Criminal Justice, State of Washington, 2020.

Rates for reported acts of domestic violence in Lewis County increased from a rate of 6.3 per 1,000 residents in 2012 to a rate of 8.9 per 1,000 residents in 2017, and continue to remain higher than Washington State's rate (7.6 per 1,000 in 2017). (*Source* Washington Association of Sheriffs and Police Chiefs: Uniform Crime Report, National Incident-Based Reporting System)

### Obesity

From 2014-2016, Lewis County had a higher prevalence of obesity amongst adults and youth (10<sup>th</sup> graders) compared to the state (Behavioral Risk Factor Surveillance System, 2017).



## Communicable Diseases

### Sexually Transmitted Infections

Chlamydia, Gonorrhea, and HIV are communicable diseases that can be transmitted from one individual to another through sexual contact; all are reportable conditions in Washington State. In Lewis County and Washington State, rates of Chlamydia and Gonorrhea infection have continued to increase. Chlamydia, Gonorrhea, Syphilis, and Herpes rates for Lewis County were all less than Washington State's. were below the State's rates in 2016, 2017, and 2018 Washington State's rate for HIV (2014-2018) was 5.4 per 100,000 and not reliable for reporting for Lewis County due to small numbers.

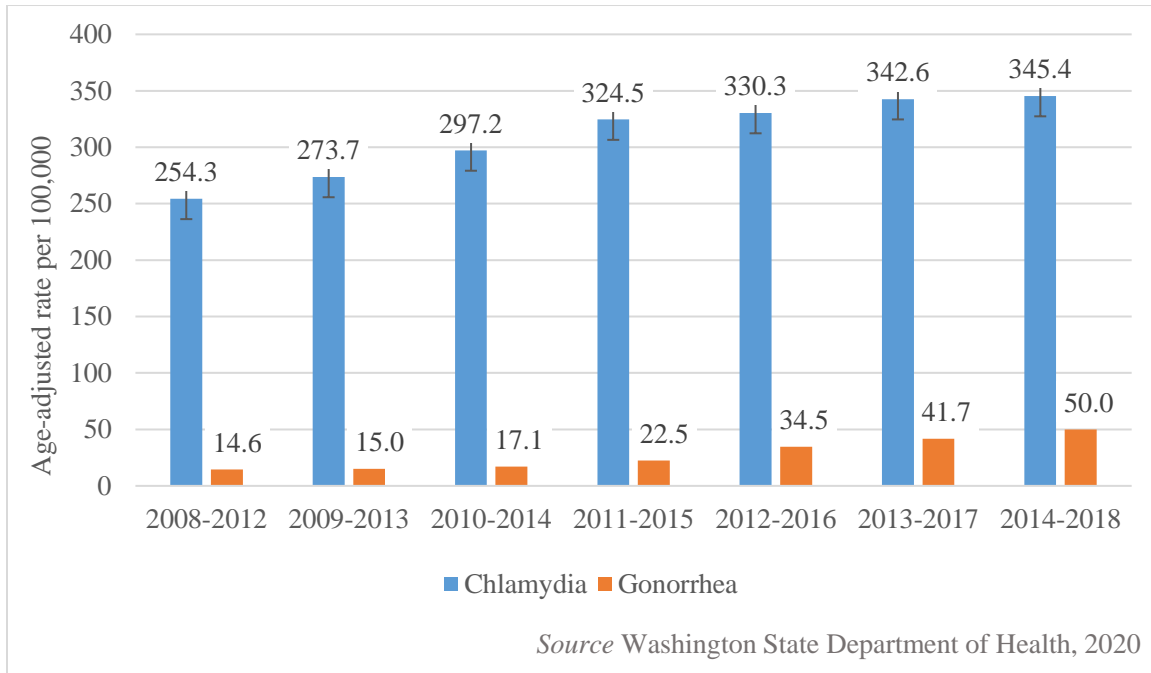


Figure 1.7. Estimated age-adjusted rates per 100,000 for Chlamydia and Gonorrhea, Lewis County, WA, 2008-2012 to 2014-2018.

### Immunization

In Washington State, all children entering kindergarten are required to be vaccinated against measles, mumps, rubella, diphtheria, tetanus, pertussis, Hepatitis B, polio, and chickenpox. Kindergarten enrollees are considered up-to-date for each vaccine requirement if they have received all the doses required for school entry in Lewis County. For Lewis County, kindergarten vaccination status have remained relatively stable and slightly higher than Washington State. Sixth-grade vaccination rates for 2016-2017 and 2018-2019 were relatively lower than the kindergarten rates for those years, yet still higher than rates for Washington State. (Table 1.10)

Table 1.10. Vaccination status for children, Lewis County, WA, and Washington State, 2016-2017 to 2018-2019.

Grade/Year	Lewis County				Washington			
	% Complete	% Exempt	% Conditional	% Out of compliance	% Complete	% Exempt	% Conditional	% Out of compliance
<b>Kindergarten</b>								
2016-2017	88.4	3.9	2.5	5.2	85.0	4.7	2.1	8.2
2017-2018	87.1	4.1	1.2	7.5	85.7	4.7	-	8.0
2018-2019	88.1	5.5	1.6	4.8	86.3	5.0	1.7	7.0
<b>Sixth grade</b>								
2016-2017	82.6	4.5	0.0	12.9	79.4	5.6	-	14.1
2017-2018	87.9	4.3	0.1	7.6	79.3	4.6	-	15.4
2018-2019	82.9	43.0	0.3	12.5	80.9	4.6	-	13.5

Source Washington State Department of Health, 2019.

## Death, Illness, and Injury

### Deaths

In 2018, there were 957 deaths in Lewis County. Table 1.11 shows the leading causes of death in 2018 and 2014. The top six leading causes of death are the same for both males and females, though the ranking varies by gender. The first and second cause of death for females is cancer, followed by heart disease. This order was reversed for males. Accidents (unintentional injuries) are the third leading cause of death for males, but the sixth leading cause for females. This category includes motor vehicle accidents and any other unintentional injury death that occurs because of a fall, drowning, firearm or other accidental cause.

Table 1.11. Top ten leading causes of death, Lewis County, WA, 2014 and 2018.

Cause of death	Rank	
	2014	2018
Heart disease	1	1
Cancer (Malignant neoplasms)	2	2
Chronic lower respiratory disease	4	3
Alzheimer's disease	3	4
Accidents	5	5
Cerebrovascular diseases (e.g. stroke)	-	6
Intentional self-harm (suicide)	8	7
Diabetes mellitus	6	8
Chronic liver diseases and cirrhosis	10	9
Influenza and pneumonia	7	10

*Source* Washington State Department of Health, Center for Health Statistics, Death Certificate Data, 2014 and 2018, Community Health Assessment Tool (CHAT), October 2019

### Cancer

Lewis County had the third highest average death rate due to cancer in Washington State from 2013-2017. The five-year average (2013-2017) for new cancers for all races/ethnicities, genders, and cancer types in Lewis County was 449.6 per 100,000 – a notable decrease from the previous five years (2006-2010 through 2008-2012; Figure 1.8).

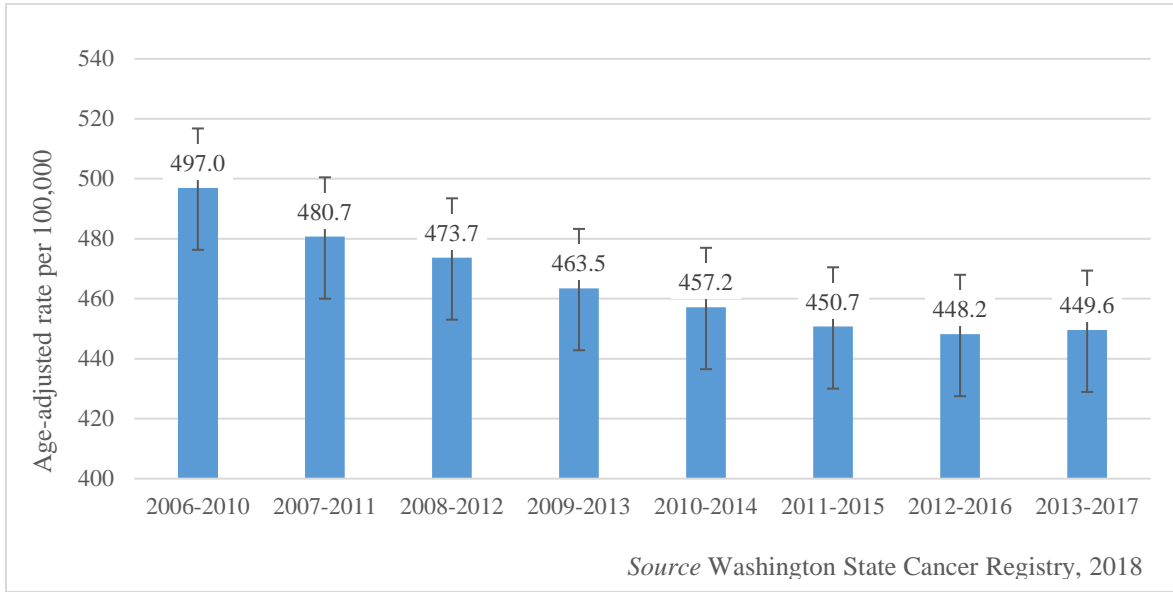


Figure 1.8. Estimated five-year average age-adjusted cancer rates per 100,000, Lewis County, WA, 2006-2010 to 2013-2017.

The average death rate for all cancers for all races/ethnicities, genders, and cancer types for 2013-2017 was 176.1 per 100,000 (see Figure 1.9 for breakdown of cancer types). Males had a slightly higher incidence rate of 459.3 compared to 443.6 per 100,000 for females; males also had higher death rates than females (204.6 compared to 151.8 per 100,000, respectively).

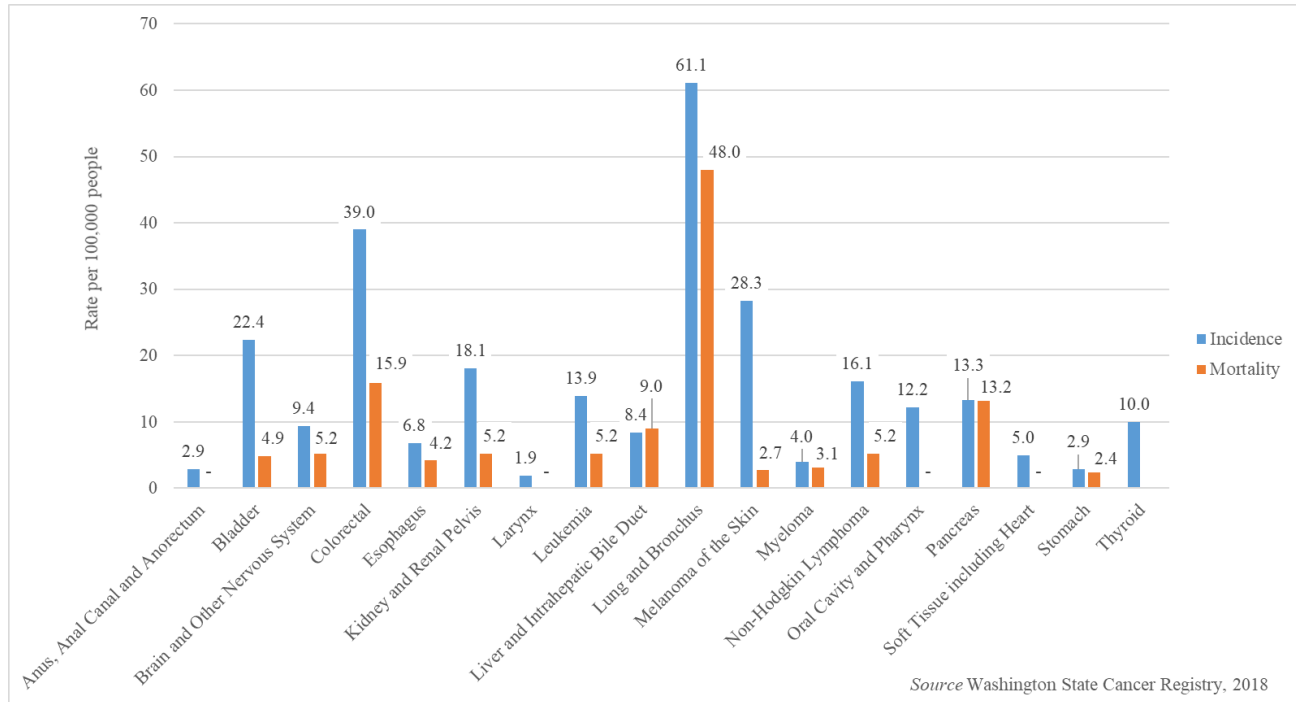


Figure 1.9. Estimated five-year average incidence and mortality rates per 100,000 for all races/ethnicities, genders, and cancer types in Lewis County, WA, 2013-2017.

Lung cancer is the most common cancer and cause of cancer death among both men and women, accounting for 39.4 percent of all cancer deaths in Lewis County during the 2013-2017 period, greater than Washington State. Cigarette smoking is the number one risk factor for lung cancer. Lung cancer incidence and mortality rates for Lewis County and Washington State have declined from the 2006-2010 to 2013-2017 period (Figure 1.10).

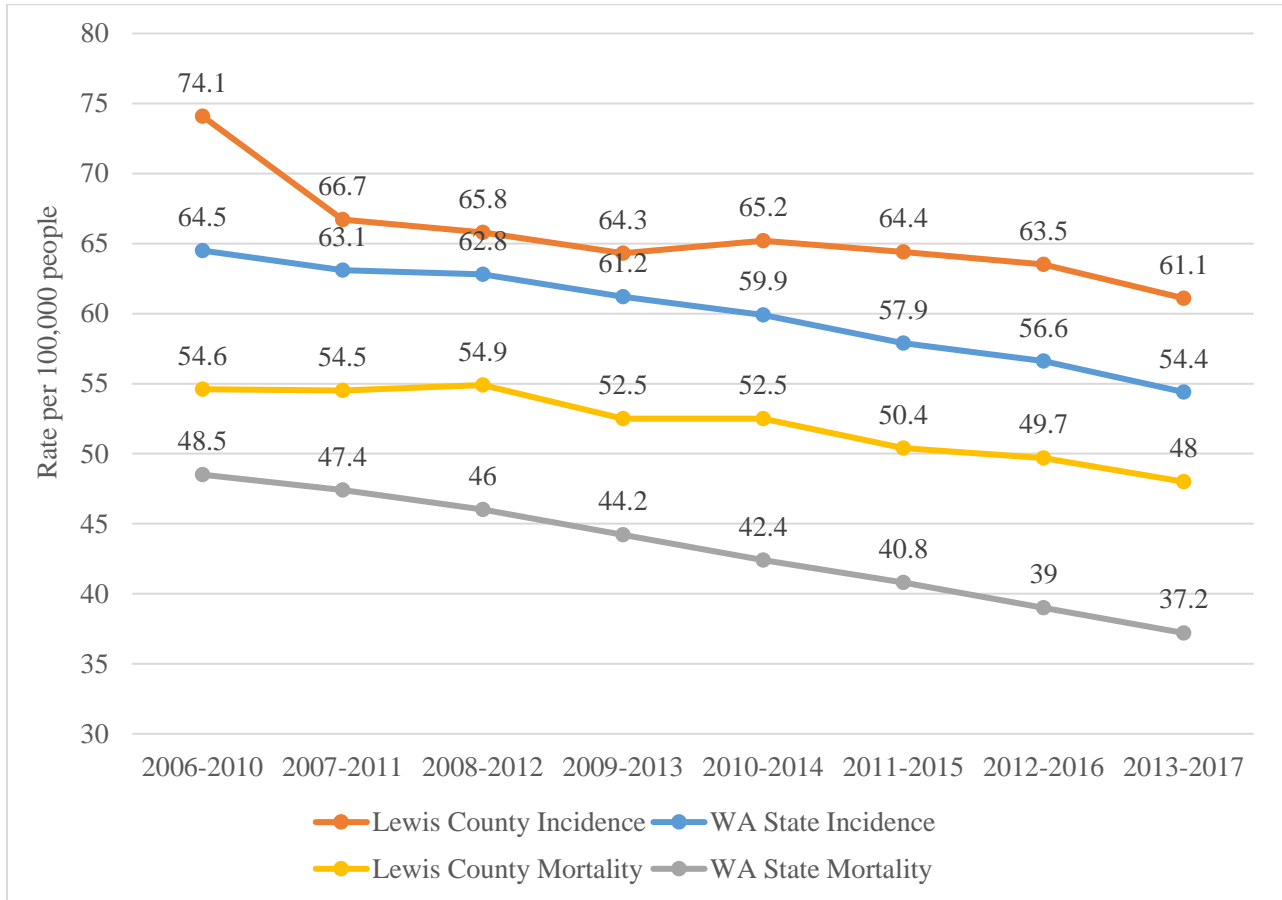


Figure 1.10. Incidence and mortality rates for cancer of the lung or bronchus, Lewis County, WA and Washington State, five-year averages for 2006-2010 to 2013-2017.

**Disability**

Lewis County’s estimated average for the population living with a disability (2013-2017) was 20.96 percent, compared to the State’s estimated average of 12.8 percent; Lewis County ranked as sixth highest for disability rate by county in Washington State.

## Maternal, Infant, and Child Health

### Risk Factors

Although Lewis County fares well overall in the areas of prenatal care and birth outcomes (rating at or better than state outcomes and national goals), the county remains high in some risk factors for poor birth outcomes, specifically in teen births, percent of mothers who smoke during pregnancy, and births to unmarried mothers. Both Lewis County and Washington State are slightly above the desired 15% for primary cesarean sections. (Table 1.12)

Table. 1.12. Birth risk factors, Lewis County, WA and Washington State, 2018.

Risk factor	Percent of births	
	Lewis County, WA	Washington
Late/No prenatal care	6.3%	6.5%
Teen pregnancy (2016)	8.1%	4.0%
Smoking		
Yes	17.0%	7.1%
No	83.0%	92.9%
Unmarried	45.4%	31.0%
Delivery method		
Vaginal	63.3%	65.7%
Primary cesarean section	17.4%	16.8%

*Source* Washington State Department of Health, center for Health Statistics, Birth Certificate Data, 2018, Community Health Assessment Tool (CHAT), October 2019

### Women, Infant and Children (WIC) Nutrition Program Participation

See Nutrition Programs under Health Resource Availability.

### Child Immunization

See Immunizations under Communicable Diseases.

## Social and Mental Health

### Civic Engagement

Over the years, Lewis County voter participation for primary elections averaged 31 percent and for general elections averaged 57 percent. There are 14 ballot drop-box locations in Lewis County as of 2019. The use of ballot drop-boxes has increased nearly two-fold since 2012, even when considering election-cycle fluctuations. (Table 1.13)

Table 1.13. Turnout rates and drop-box usage for eligible voting population, Lewis County, WA, 2012-2019.

Voting year	Primary Election Voter Turnout	General election voter turnout	Drop-box usage
2012	38.6%	78.5%	22.8%
2013	29.1%	47.8%	20.9%
2014	34.0%	57.1%	24.6%
2015	26.3%	40.7%	33.3%
2016	35.2%	77.6%	57.8%
2017	20.3%	36.5%	50.2%
2018	40.8%	72.5%	44.5%
2019	24.0%	46.4%	43.2%

*Note* Rates are based on the number of eligible people for any given year.

*Source* Annual Report of Washington State Elections, Office of the Secretary of State, 2020.

### Reported Mental Health

Between 2014 and 2016, the prevalence of self-reported poor mental health in Lewis County was higher compared to Washington State; similarly, for combined years of 2014 and 2016, the prevalence of depressive feelings among youth in Lewis County was higher compared to Washington State. (Behavioral Risk Factor Surveillance System, 2017).

## Environmental Health

### Air quality

The number of unhealthy days for individuals with asthma or other lung diseases, heart disease, or who were older or children in 2018 in Lewis County was six; three of these days were unhealthy for activity outdoors for anyone (Figure 1.11). The Environmental Protection Agency (EPA) has set the 24-hour PM<sub>2.5</sub> standard to 35 µg/m<sup>3</sup>. Levels of PM<sub>2.5</sub> are reported as a daily average over a 24-hour day. From 2012 to 2016, Lewis County’s percent of days the standards were not met have ranged from 0.6 to 3.3 (Figure 1.11). Short- and long-term exposure to PM<sub>2.5</sub> has been associated with negative health effects.

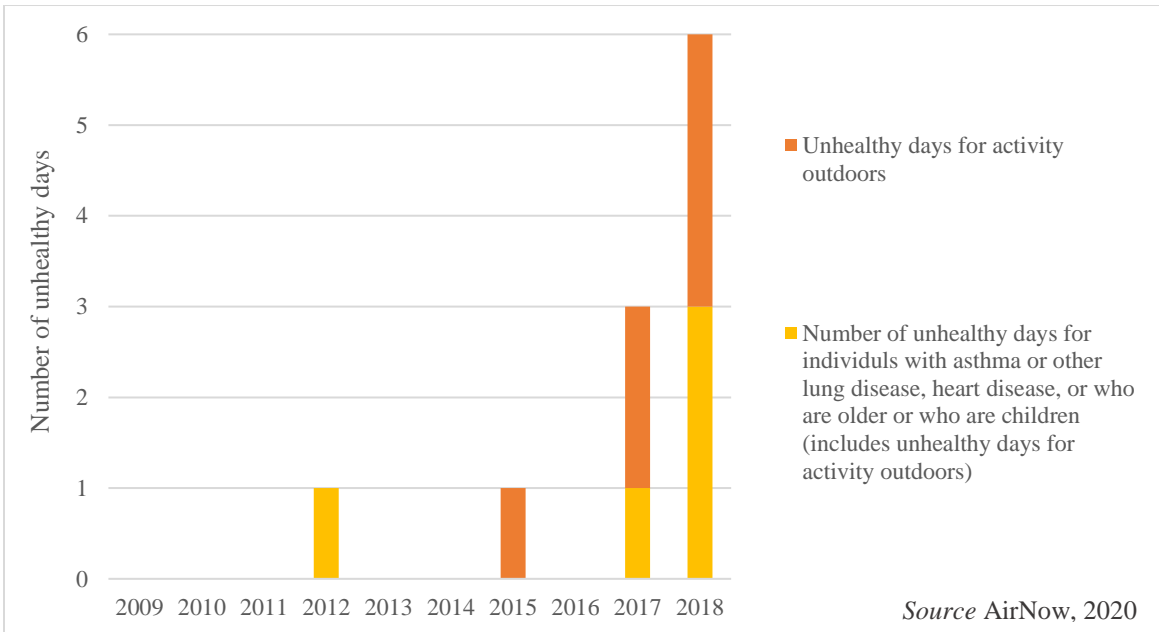


Figure 1.11. Number of unhealthy air quality days, Lewis County, WA, 2009-2018.

### Drinking Water

Public community water systems serve half of Lewis County residents (49.4 percent), compared to about 90 percent served for the State of Washington. Routine measurements across the state’s public water systems are made for contaminants such as arsenic, atrazine, DEHP, haloacetic acids, nitrates, solvents (PCE and TCE), radium, trihalomethanes, and uranium. In 2018, for those contaminants measured for, Lewis County reported zero percent of the population sampled having been exposed to levels exceeding safe levels (maximum contaminant levels (MCLs); Washington Tracking Network, Washington State Department of Health, Office of Drinking Water, 2018).

### Transportation

In 2019, Lewis County had two public transit options: Twin Transit, which served Centralia/Chehalis, and LEWIS Mountain Highway Transit, which provided access to communities between Packwood and Centralia-Chehalis. Less than one percent of workers over the age of 16 reported using public transportation to commute to work, with over 80 percent reporting driving alone; an estimated 2.3 percent of workers in Lewis



County reported that they did not have access to a vehicle (Table 1.14). For all residents 16 and older, an estimated 5.9 percent did not have access to a vehicle in 2018.

Table 1.14. Comparison of estimates for workers commuting to work, Lewis County, WA, 2009-2013 and 2014-2018.

Characteristic	2009-2013	2014-2018
Workers 16 years and over	28,212	29,793
Car, truck, or van -- drove alone	77.9	80.3
Car, truck, or van -- carpooled	12.6	11.5
Public transportation (excluding taxicab)	0.9	0.5
Walked	2.7	2.4
Other means	1.1	0.8
Worked at home	4.8	4.5
Mean travel time to work (minutes)	26.1	27.5
No vehicle access	1.9%	1.8%

Source ACS 5-year estimates, 2009-2013 and 2014-2018.

## Lead

Testing rates for blood lead levels among children <72 months of age in Lewis County between 2014-2018 was 0.72 percent, the second lowest rate in Washington State (Washington Tracking Network, Department of Health, Department of Health's Childhood Lead Program, 2018). Washington State's testing for blood lead levels of children is among the lowest in the United States. According to the ACS 2013-2018 5-year estimates, there were 19.8 percent of housing units with lead hazards in Lewis County.

## Superfund Sites

There are three Superfund sites in Lewis County listed by the Environmental Protection Agency (EPA); these include the American Crossarm and Conduit, Co., Centralia Municipal Landfill, and Hamilton/Labree Road GW Contamination. Superfund is the informal name for the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, which allows the EPA funds and authority to clean up contaminated sites in order to protect human and environmental health and return the site to productive use while involving the community in the process and enforcing accountability for the contamination.

## Flood

In 2015, an estimated 11.2 percent of the population in Lewis County resided in a 100-year flood zone. See Figure 1.12 for 100-year flood zones in Lewis County. Lewis County is also prone to draught. From 1069 to 2012, Lewis County saw an average of 16.3 percent months in draught. Draught-prone areas vary across the county (Figure 1.13). Source Washington Tracking Network, 2016

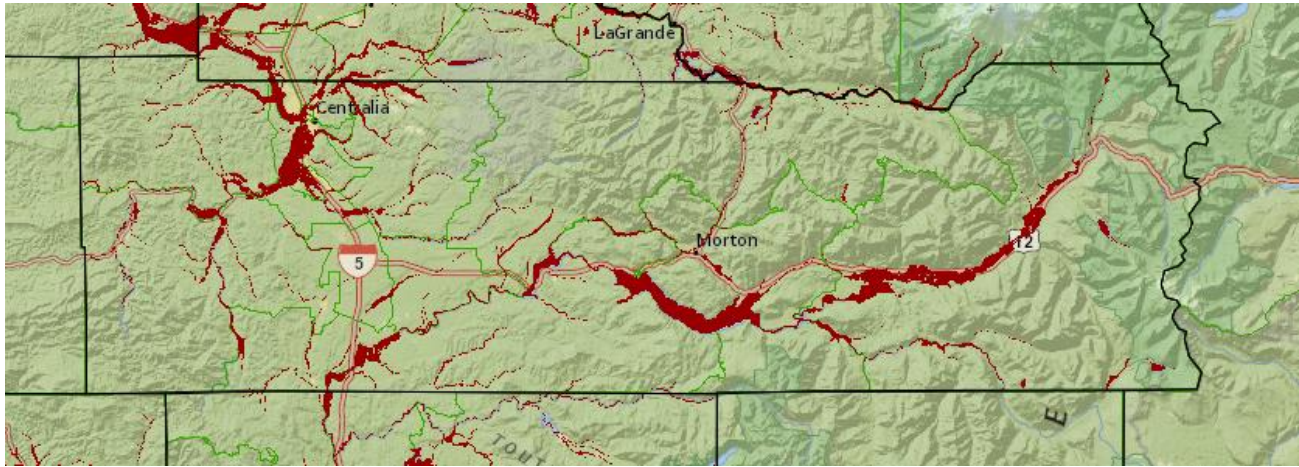


Figure 1.12. Map of Lewis County and 100-year flood zones (in red).

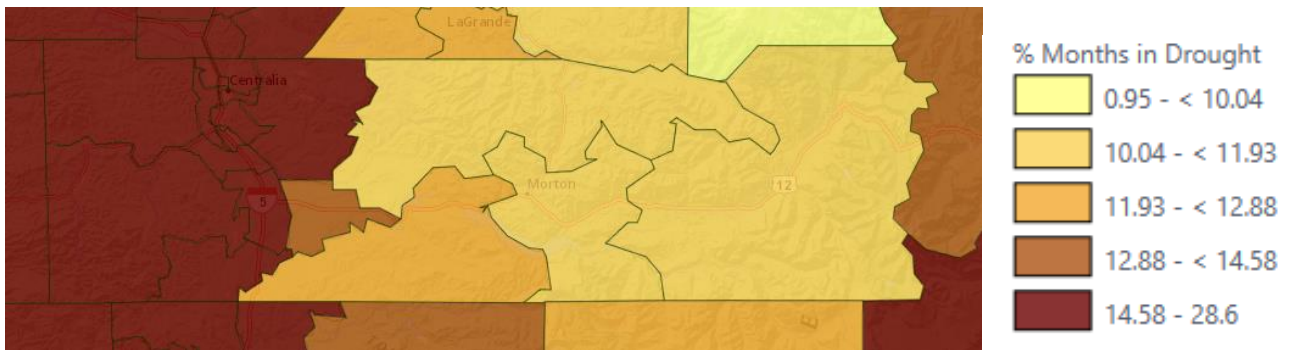


Figure 1.13. Map of Lewis County and draught-prone areas.

## County Health Rankings

The Robert Wood Johnson Foundation, in partnership with the University of Wisconsin Population Health Institute, has developed health rankings for every county in the nation by looking at a variety of measures that influence health. Counties are ranked relative to the health of other counties in their state on the following summary measures:

- I. Health Outcomes – represents how healthy a county is based on how long people live and how healthy people feel while alive.
- II. Health Factors – represents what influences the health of a county based on four types of factors:
  - a. Health Behaviors
  - b. Clinical Care
  - c. Social and Economic
  - d. Physical environment

In 2019, among 39 counties in Washington, Lewis County ranked 30th overall for health outcomes and 32nd overall for health factors. This is compared to the rankings reported in the previous Community Health Assessment (2014) whereby Lewis County ranked 21st overall for health outcomes and 28th for overall health factors. (Table 1.15).

Lewis County's lowest rank in 2019 was in the area of health behaviors, ranking 35<sup>th</sup> overall out of 39 counties. Health behaviors include smoking, obesity, food environment index, physical inactivity, access to exercise opportunities, excessive drinking, alcohol-impaired driving deaths, sexually transmitted infections and teen birth rate. Lewis County fares significantly worse than the state of Washington as a whole on adult smoking and teen births. More data and information on the rankings can be found at [www.countyhealthrankings.org](http://www.countyhealthrankings.org).

Table 1.15. County Health Rankings, Lewis County, WA, 2014 and 2019.

Category	Ranking for year	
	2014	2019
Health outcomes	21	30
Length of life	23	32
Quality of life	21	24
Health factors	28	32
Health behaviors	31	35
Clinical care	28	29
Social and economic factors	30	27
Physical environment	13	31

Source County Health Rankings, 2014 & 2019.

## 2. Lewis County Community Health Priorities

In 2014, Lewis County Public Health and Social Services conducted two assessments, 1) Community Themes and Strengths and 2) Forces of Change, and produced a summary report that provided an overview of their main findings to help identify Lewis County's Community Health Priorities. The findings were based on feedback given by assessment participants who shared their observations, opinions, and experiences living and working in Lewis County.

### Assessment I. Community Themes and Strengths Summary

The purpose of this assessment was to identify the community issues and concerns to help guide near-future follow-up Lewis County Community Health Improvement Plan (CHIP). It also helped identify the community assets to leverage and the community challenges for the CHIP to overcome. The Community Themes and Strengths Assessment asked the following questions:

- a. What factors do residents believe are most important to our community's health?
- b. What assets does Lewis County have that can be used to improve community health?
- c. What challenges exist in Lewis County that must be addressed to improve community health?
- d. What do residents believe are the most important health issues and risky behaviors impacting our community?

### Assessment II. Forces of Change Summary

The purpose of the Forces of Change Assessment was to lay the foundation for identifying strategies to address Lewis County's community health priorities, leverage opportunities and avoid threats. The Forces of Change Assessment (FOC) asked the following questions:

- a. What trends, factors, or events are occurring or might occur that affect Lewis County's community health or the local public health system?
- b. What are the specific opportunities created by each trend, factor, or event? In other words, in what ways could each trend, factor, or event improve community health in Lewis County?
- c. What are the specific threats created by each trend, factor, or event? In other words, in what ways could each trend, factor, or event do damage to community health in Lewis County?

From the combined 2014 assessments, the following themes emerged: 1) Health concerns (substance abuse, mental health, obesity), 2) Risk behaviors (substance use, dropping out of school, unsafe driving (texting)), and 3) Community factors (lack of jobs, living wage jobs, economic opportunities; access to quality health care, and inadequate public transportation, topics touched on in the previous section.

### 3. Lewis County Public Health Systems

When gauging the public health system within a community, the community must identify the different entities that contribute to public health and how they address essential services. The 10 Essential Public Health Services outlined in this report describe the public health activities that all communities should undertake, per the National Public Health Performance Standards.

There are many different individuals, organizations, and agencies contributing to a local public health system (Figure 3.1). The U.S. Centers for Disease Control and Prevention (CDC) defines this system as “all public, private, and voluntary entities that contribute to the delivery of essential public health services.”



Figure 3.1. Web of local public health system.

#### Lewis County Local Public Health System

It takes more than healthcare providers and public health agencies to address the social, economic, environmental and individual factors, which influence health in Lewis County. The local public health system is comprised of agencies, organizations, individuals and businesses that work together to create conditions for improved health in a community. Such a system also includes public health agencies at state and local levels, social service and charity organizations, education and youth development organizations, and recreation and arts-related organizations.

#### Ten Essential Public Health Services

1. Monitor health status to identify community health problems
2. Diagnose and investigate health problems and health hazards
3. Inform, educate, and empower people about health issues
4. Mobilize community partnerships to identify and solve health problems
5. Develop policies and plans that support individual and community health efforts
6. Enforce laws and regulations that protect health and ensure safety



7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable
8. Assure a competent public and personal healthcare workforce
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services
10. Research for new insights and innovative solutions to health problems

### **Lewis County Public Health & Social Services**

The public health system has the responsibility to protect, promote and improve the health of residents and visitors in the community. A strong public health system is critical to address current and emerging health issues, including public health emergencies—such as disease outbreaks, natural disasters, bioterrorism, and mass casualty events.

Lewis County Public Health & Social Services (LCPHSS) is located in Southwest Washington in the County seat of Chehalis and serves a population of nearly 80,000 residents.

Externally as Lewis County’s Community Health Strategist, LCPHSS actively collaborates with community partners to address current and emerging health issues, including public health emergencies—such as disease outbreaks, natural disasters, bioterrorism, and mass casualty events. For more information on LCPHSS, go to [www.lewiscountywa.gov/publichealth](http://www.lewiscountywa.gov/publichealth).

The Department is comprised of five divisions as listed below along with their programs:

#### **Community Services:**

Women, Infants, and Children (WIC), Immunizations, Maternal and Child Health, Emergency Preparedness, Communicable Disease Response, Chronic Disease Prevention.

#### **Environmental Services:**

Food Safety, Water Quality, Water Lab, On-Site Sewage, Solid & Hazardous Waste, Code Compliance/Enforcement, Animal Control.

#### **Administrative Services:**

Vital Records, Customer Service, Notary Public, Personnel, Board of Health, Department Contracts, Regional Vaccine Quality Assurance, Accounting/Fiscal.

#### **Social Services:**

Housing, Substance Abuse Prevention, Behavioral Health, Community Mobilization, Chemical Dependency Treatment, Developmental Disabilities, Veterans Relief Fund.

#### **Animal Shelter:**

Animal Intake, Animal Adoptions, Reuniting Lost Animals with Owners.

## 4. Next Step Recommendations

Lewis County has several areas for local leaders to focus on for improvement and maintenance in the coming years. Next steps and recommendations can utilize existing infrastructure within the community to capitalize and expand up on local resources, increasing public access, exposure, and opportunity. Centralia College is the only community college within Lewis County and serves both full- and part-time students. The main campus is located in Centralia, WA, and they have an East campus located in Morton, which serves central and eastern Lewis County; the College also provides educational programs to two corrections centers in southwest Washington. Expanding certificate programs at the College and increasing job training within the community to programs offered by the College is one way Lewis County can use its existing assets to promote factors for improved community health.

Currently, there are two public transit lines serving Lewis County: Twin Transit, which serves Centralia/Chehalis, and LEWIS Mountain Highway Transit, which provides access to communities between Packwood and Centralia-Chehalis. Lewis County has several areas that are not served by either transit line, yet might benefit from extended services. Expanding transportation options to these areas would allow residents to access necessary services, job opportunities, family and other social connections, and non-essential services that also contribute to quality of life. Through increasing transportation options, services such as medical providers may be utilized by more residents, thus increasing the number of residents, both children and adults, who are able to access a primary care provider.

As of 2018, there were an estimated 30,262 occupied housing units in Lewis County; the majority of occupied housing units were owner-occupied (69.7 percent). Affordable housing is an issue across the country and Lewis County has not been spared a lack of housing at all price points, either for home ownership or for rent. Working with current homeowners and landlords to provide affordable housing as well as developing suitable homes at all price points for residents in Lewis County is an on-going effort and requires several parties to come together to ensure housing options for all residents. Understanding the needs and wants of residents in terms of their preferred location and type of dwelling (e.g. downtown, apartment, single-family home, etc.) should be taken into account when developing new structures to ensure that residents are able to have relatable options for housing in Lewis County.

Future Community Health Assessments on behalf of Lewis County should take into account the above-mentioned recommendations; a health assessment of the population as well as of key stakeholders in the community should be undertaken to understand the immediate and long-term needs and desires of the community as a whole. This effort can resemble that of the Community Health Assessment conducted in 2014, with expanding and refining in the areas highlighted throughout this report. It is recommended that the Lewis County Community Health Assessment evolve with its community, exploring and engaging with various local community organizations and representatives of the widespread community that makes up Lewis County, WA.