Appendix A

Maps of Benton County health indicators

This appendix presents 17 maps of Benton County. The first eight maps (A.1 through A.8) show Benton County demographics and social determinants of health. The other nine maps (A.9 through A.17) show estimates of chronic disease and health risk factors, organized alphabetically. Each map is preceded by a description on the facing page.

Contents

Definition of a census tract and census block group.

According to the U.S. Census Bureau, census tracts are small, relatively permanent statistical subdivisions of a county or equivalent entity that…generally have a population size between 1,200 and 8,000 people, with an optimum size of 4,000 people. A census tract usually covers a contiguous area; however, the spatial size of census tracts varies widely depending on the density of settlement. A census block group is a subdivision of a census tract, generally containing between 600 and 3,000 people.

All demographic maps (excepting population density) in this appendix are based on data aggregated at the block group level. All chronic disease and risk factor maps are based on data aggregated at the census tract level. The exception is population density, which uses a shading pattern based off densities calculated from Benton County addresses.

Since data is aggregated, estimated numbers may change from one side of a border to another. This does not represent the reality on the ground, but is generally a reasonable approximation.

Health indicator shading and dot density

One challenge in overlaying health data on census tracts (or block groups) is that rural census tracts are larger but have fewer people than urban census tracts. Shading a whole rural census tract will therefore overstate the on-the-ground reality of the data, since the human eye equates larger areas with larger numbers.

In order to avoid this visual illusion, these maps illustrate population density and health indicators by using a combination of shading and dot density. The shading of the dots indicates the probability of the indicator in question. A darker shade means a higher probability. The density of the dots indicate the population density. These dots are not individuals or individual addresses. They are randomly placed in accordance with population densities calculated from de-identified addresses. Rural census tracts have many fewer dots than urban tracts, thereby giving more appropriate weight to the smaller urban census tracts.

Throughout this appendix, all but two maps use a brown color palette for better contrast. There are two exceptions. The population density map, which uses two shades to differentiate between Benton County and Corvallis. The racial and ethnic diversity map uses shades of blue to avoid creating a visual connection between more diversity and darker brown shades. Darker shading corresponds to higher numbers (probabilities). This convention is used consistently in these maps. However, higher numbers do not necessarily indicate worse (or better) indicators. For example, there is no better or worse median age from a health standpoint, just different median ages.

Corvallis subset

The population of Corvallis (65,000) comprises approximately two-thirds of the population of Benton County (90,000). Therefore the values of health indicators in Corvallis will strongly influence the values in Benton County as a whole. For this reason, a subset map of Corvallis is included with each of the health indicator maps. The blue rectangle on the large map shows the outline of the subset map.

[Maps begin on the following page]

A.1 Population density in Benton County

Benton County, 2017

Map notes:

The population density in Benton County and Corvallis is estimated from de-identified addresses. The more addresses in a given area, the darker the shade in that area. No actual addresses are identified in this map.

Two different shading systems are used, grey-blue for the whole county and purple for Corvallis. The population density even in the lowest-density parts of Corvallis is higher than in most of the rest of Benton County, so the shadings should not be compared directly between Benton County and Corvallis.

Certain, isolated addresses may exist in the unpopulated areas of Benton County; these addresses have been removed from the density calculation in order to preserve anonymity.

Dormitories and other congregate housing have one address. As a result, the students living dormitory housing on the Oregon State University campus are underrepresented in the population density calculation.

Data source:

Benton County Assessor 2017

Population density

Benton County 2017

Benton County population density

- Unpopulated
- Sparsely populated
- Rural community
- Town
- City

Corvallis population density

- Low density
- Medium density
- High density
- Very high density

Kings Valley
Summit
Blodgett
Wren
Adair
North Albany
Lewisburg
Corvallis
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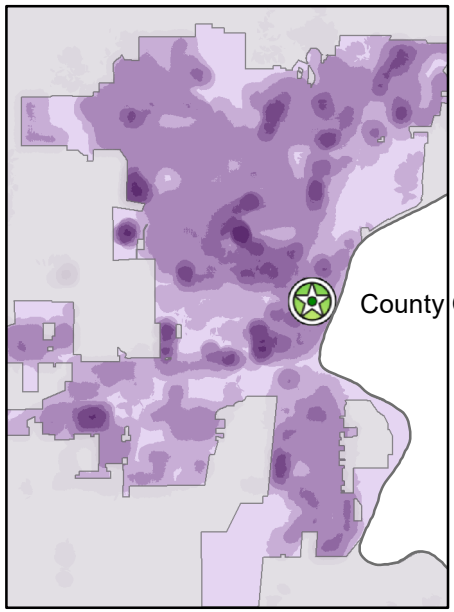
Corvallis



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2011-2015 ACS Tables
De-identified property addresses

A.2 Median age of the population, by census block group

Benton County, 2011-2015

Map notes:

The median age by census block group is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census block group. The estimates are computed from 5 years of survey data, 2011-2015. Median age estimates at the census block group level are reliable.

A darker shading corresponds to a higher median age.

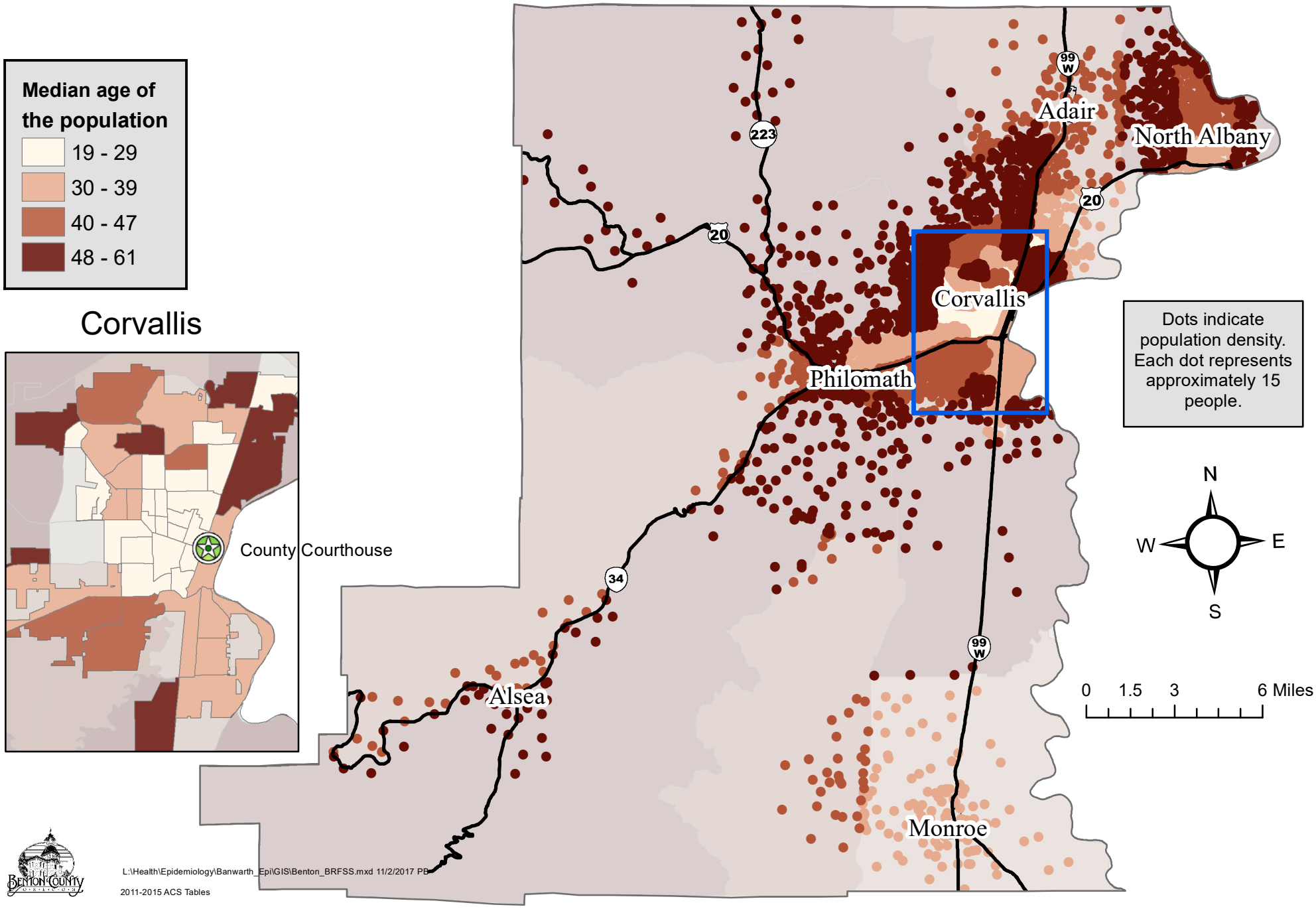
The density of the dots indicate the population density. Each dot represents approximately 15 people, but does not represent any single individual or address. Population densities are not shown in the Corvallis subset.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Median age of the population

Benton County 2011-2015



A.3 Racial and ethnic diversity, by census block group

Benton County, 2011-2015

Map notes:

Racial and ethnic diversity is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census block group. The estimates are computed from 5 years of survey data, 2011-2015. The specific data used is the proportion of residents who do not identify as "White, not Hispanic or Latino", according to the U.S. Census Bureau definition. Race and ethnicity estimates at the census block group level are generally reliable, but the U.S. Census Bureau does not survey individuals without fixed addresses, such as migrant workers. Therefore these data should be interpreted to refer only to residents with fixed addresses.

The blue color palette is used here to avoid creating a visual connection between more diversity and darker shades of brown.

The palette does align with the convention in this appendix that larger numbers correspond with darker shades. There is no "better" or "worse" proportion of non-white community members, just different proportions.

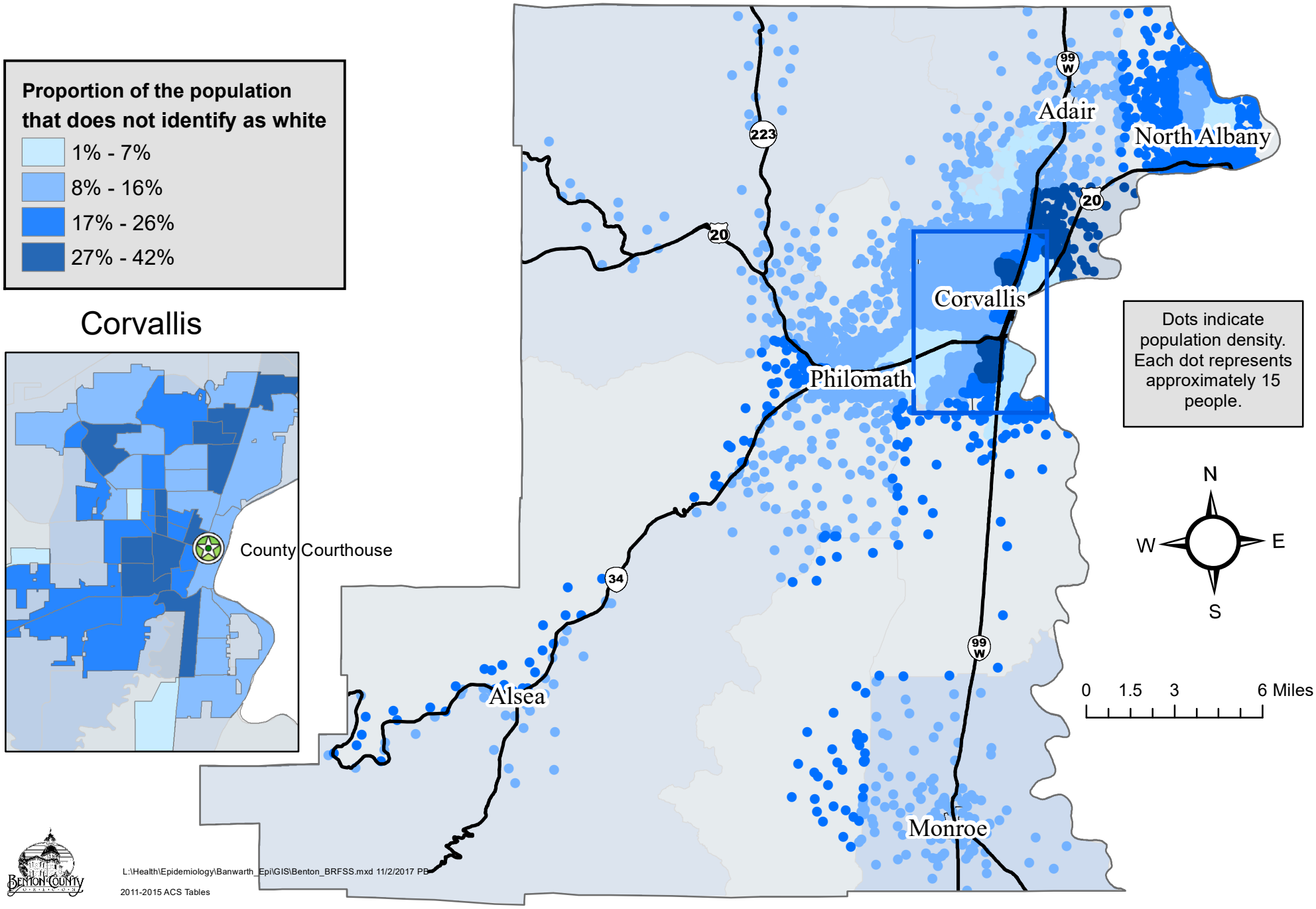
The density of the dots indicate the population density. Each dot represents approximately 15 people, but does not represent any single individual or address. Population densities are not shown in the Corvallis subset.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Racial and ethnic diversity

Benton County 2011-2015



A.4 Household incomes below the federal poverty level, by census block group

Benton County, 2011-2015

Map notes:

The household poverty rate by census block group is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census block group. The estimates are computed from 5 years of survey data, 2011-2015. The household poverty rate is the proportion of households in the block group that are below the federal poverty level. A household is defined as one or more people who occupy a housing unit. Households generally do not include shared living facilities such as dormitories, barracks, and assisted living facilities. The federal poverty level is actually many different poverty levels, one for each household size. Household poverty rate estimates at the census block group level are reliable.

A darker shading corresponds to a higher poverty rate.

The density of the dots indicate the population density. Each dot represents approximately 15 people, but does not represent any single individual or address. Population densities are not shown in the Corvallis subset.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

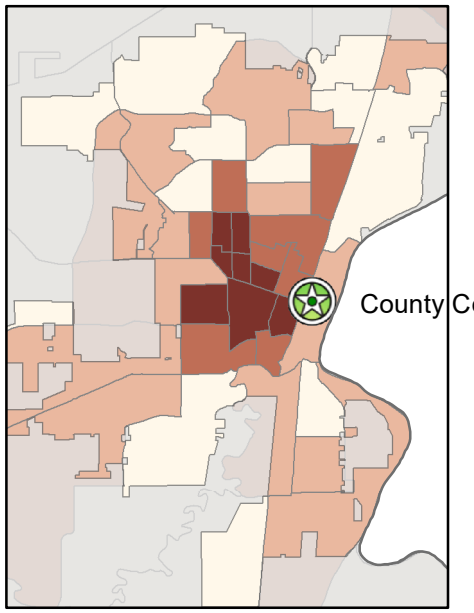
Household incomes below the federal poverty level (FPL)

Benton County 2011-2015

Proportion of households with incomes below the FPL

- 0% - 15%
- 16% - 34%
- 35% - 55%
- 56% - 100%

Corvallis



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Dots indicate population density. Each dot represents approximately 15 people.

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2011-2015 ACS Tables

A.5 Households with a housing cost burden, by census block group

Benton County, 2011-2015

Map notes:

The proportion of households with a housing cost burden is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census block group. The estimates are computed from 5 years of survey data, 2011-2015. A household has a housing cost burden if 30 percent or more of annual household income is spent on housing costs (rent for renters, mortgage and taxes for owners). Housing cost burden estimates at the census block group level are reliable.

A darker shading corresponds to a higher proportion of households with a cost burden (not a higher dollar cost burden).

One block group in Corvallis has no data. This block group is shaded blue.

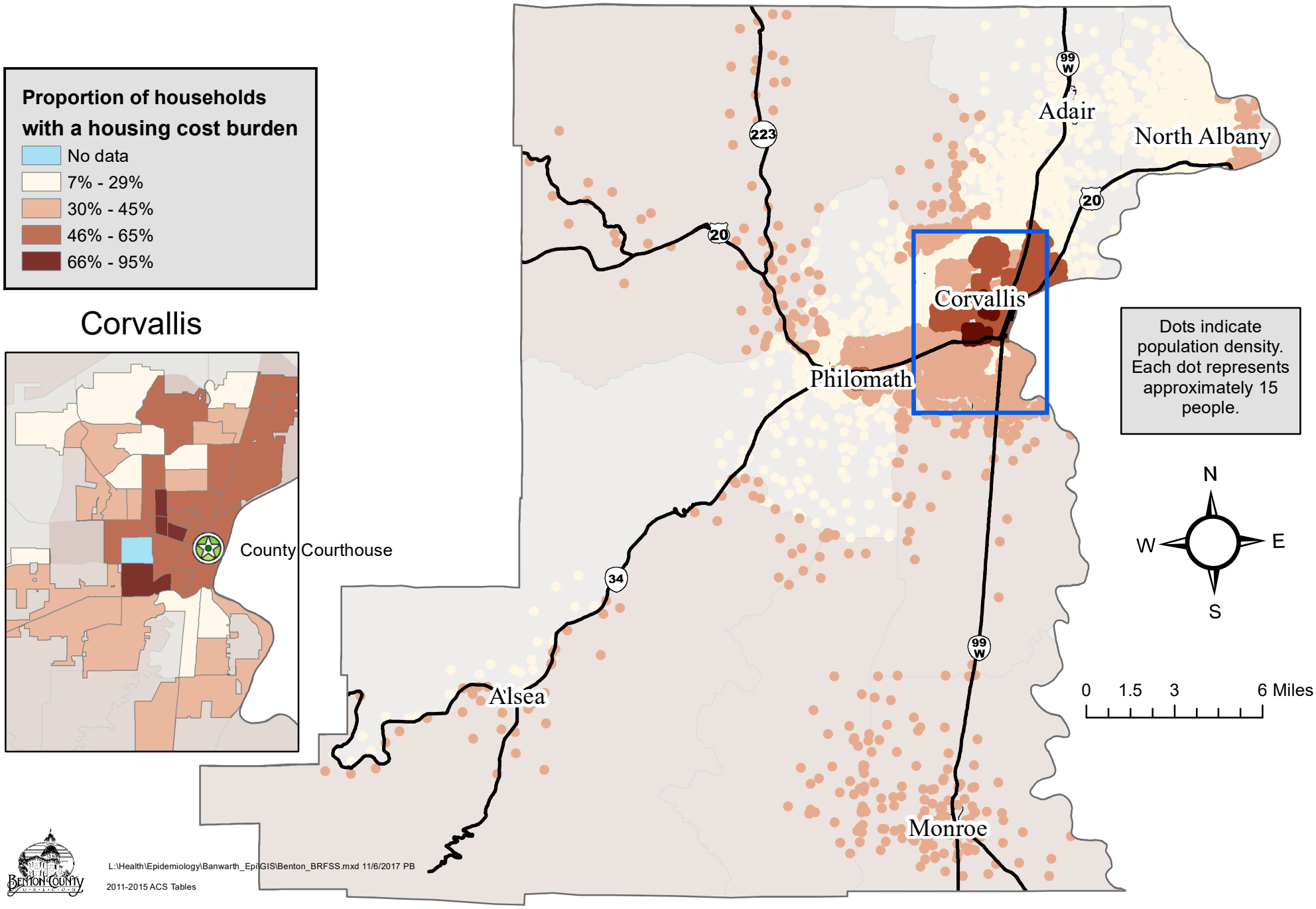
The density of the dots indicate the population density. Each dot represents approximately 15 people, but does not represent any single individual or address. Population densities are not shown in the Corvallis subset.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Households with a housing cost burden

Benton County 2011-2015



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2011-2015 ACS Tables

A.6 Households occupied by renters, by census block group

Benton County, 2011-2015

Map notes:

The proportion of households that are renters is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census block group. The estimates are computed from 5 years of survey data, 2011-2015. Renter-occupied housing estimates at the census tract block group are reliable.

A darker shading corresponds to a higher proportion of renters.

The density of the dots indicate the population density. Each dot represents approximately 15 people, but does not represent any single individual or address. Population densities are not shown in the Corvallis subset.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

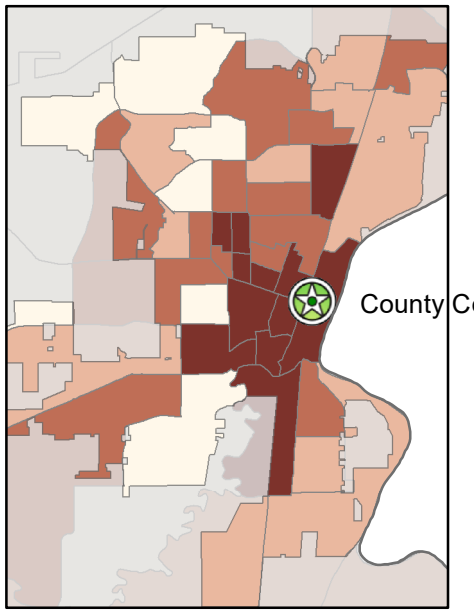
Households occupied by renters

Benton County 2011-2015

Proportion of households that are occupied by renters

- 0% - 21%
- 22% - 44%
- 45% - 71%
- 72% - 100%

Corvallis



Dots indicate population density. Each dot represents approximately 15 people.

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2011-2015 ACS Tables

A.7 Households receiving SNAP benefits, by census block group

Benton County, 2011-2015

Map notes:

The proportion of households that receive SNAP benefits (Food Stamps) is estimated using U.S. Census Bureau American Community Survey data. This survey contacts a subset of households in each census block group. The estimates are computed from 5 years of survey data, 2011-2015. Estimates of households receiving SNAP benefits at the census block group level are reliable.

A darker shading corresponds to a higher proportion of households receiving SNAP benefits.

The density of the dots indicate the population density. Each dot represents approximately 15 people, but does not represent any single individual or address. Population densities are not shown in the Corvallis subset.

Data source:

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

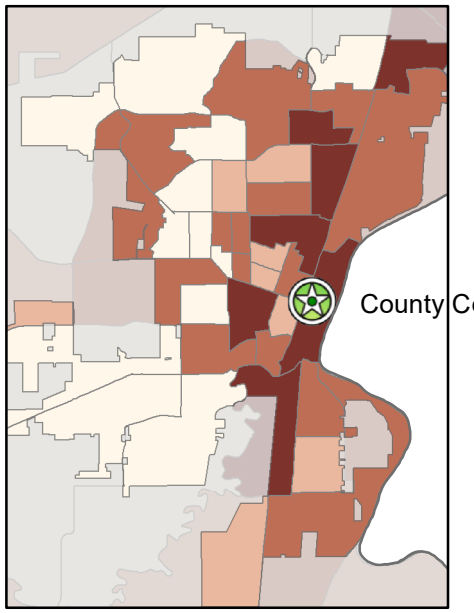
Households receiving SNAP benefits

Benton County 2011-2015

Proportion of households receiving SNAP benefits

- 0% - 4%
- 5% - 9%
- 10% - 22%
- 23% - 35%

Corvallis



Dots indicate population density. Each dot represents approximately 15 people.

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2011-2015 ACS Tables

A.8 Estimated disability prevalence, by census tract

Benton County, 2014-2015

Map notes:

The estimates of disability prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has any disability. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the probability of disability for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of disability prevalence. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

A darker shading corresponds to a higher estimated proportion of individuals with disabilities.

The density of the dots indicate the population density. Each dot represents approximately 15 people, but does not represent any single individual or address. Population densities are not shown in the Corvallis subset.

Limitations and suggested interpretation:

Disability prevalence is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher disability prevalence, ranging between approximately 19 and 75 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

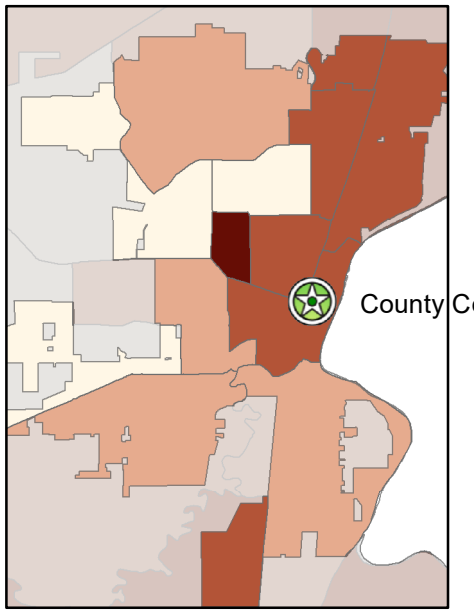
Estimated disability prevalence

Benton County 2014-2015

Proportion of the population with a disability

- 19% - 23%
- 24% - 28%
- 29% - 38%
- 39% - 75%

Corvallis



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Dots indicate population density. Each dot represents approximately 15 people.

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2014-2015 BRFSS SAEs

A.9 Estimated arthritis prevalence, by census tract

Benton County, 2014-2015

Map notes:

The estimates of arthritis prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with arthritis. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of arthritis for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the arthritis diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

The arthritis diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher arthritis diagnosis rates, ranging between approximately 10 and 33 percent.

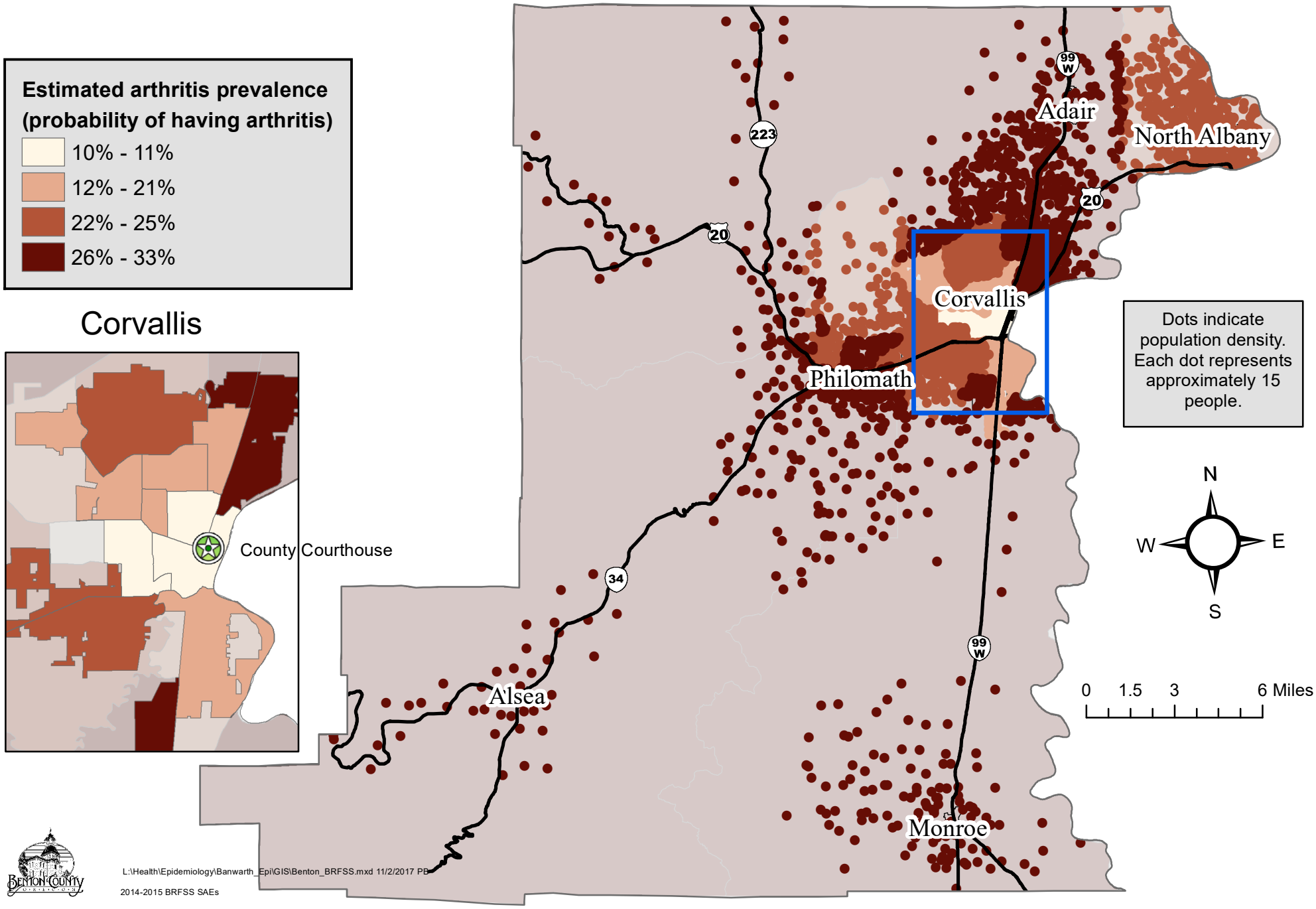
Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated arthritis prevalence

Benton County 2014-2015



A.10 Estimated asthma prevalence, by census tract

Benton County, 2014-2015

Map notes:

The estimates of asthma prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with asthma. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of asthma for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the asthma diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

The asthma diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher asthma diagnosis rates, ranging between approximately 7 and 26 percent.

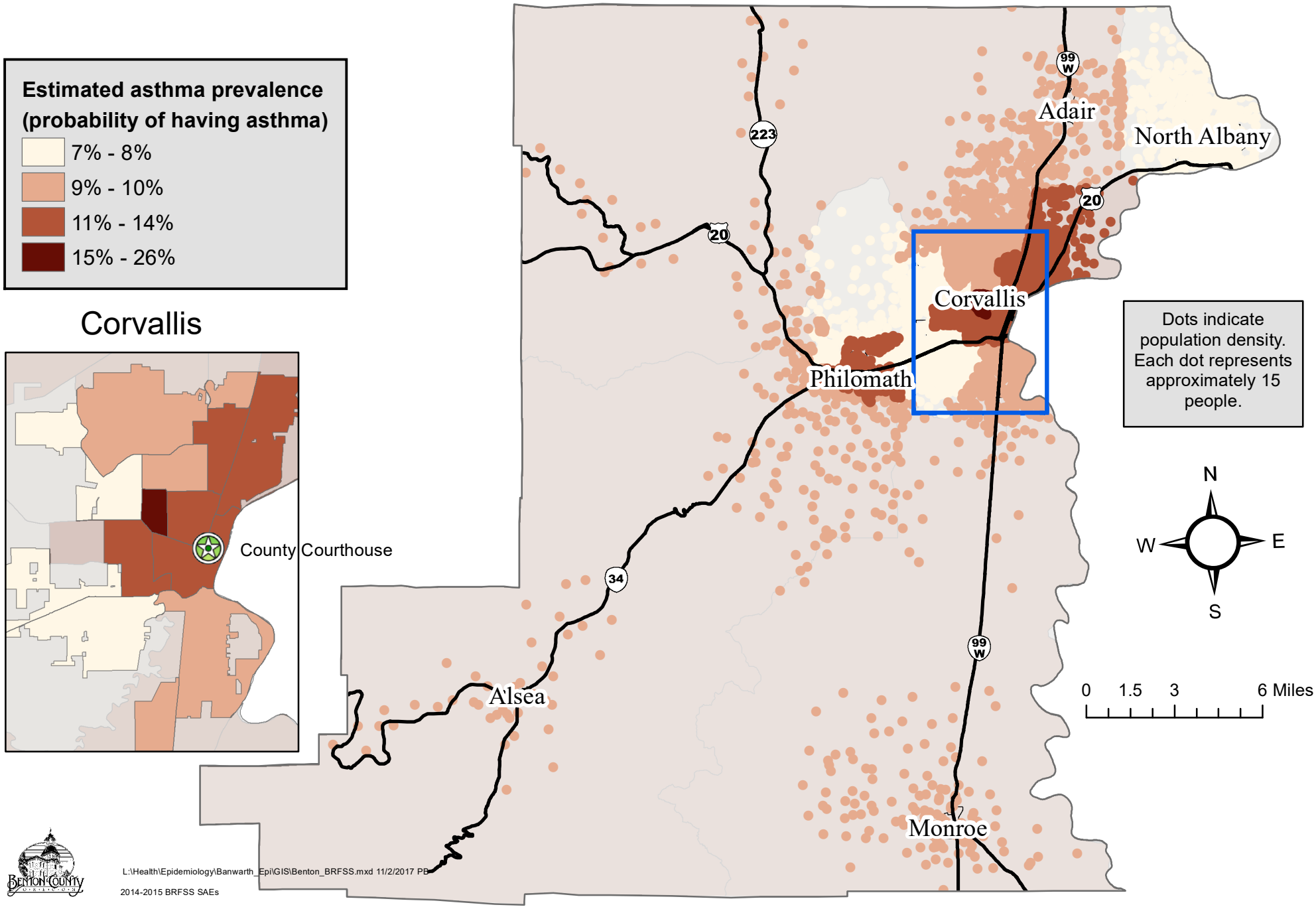
Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated asthma prevalence

Benton County 2014-2015



A.11 Estimated binge drinking prevalence by census tract

Benton County, 2015

Map notes:

The estimates of binge drinking prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks: "How many times during the past 30 days did you have 4 (women) or 5 (men) drinks on one occasion?" Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of binge drinking for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of binge drinking prevalence. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

Binge drinking prevalence is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher binge drinking prevalence, ranging between approximately 13 and 24 percent.

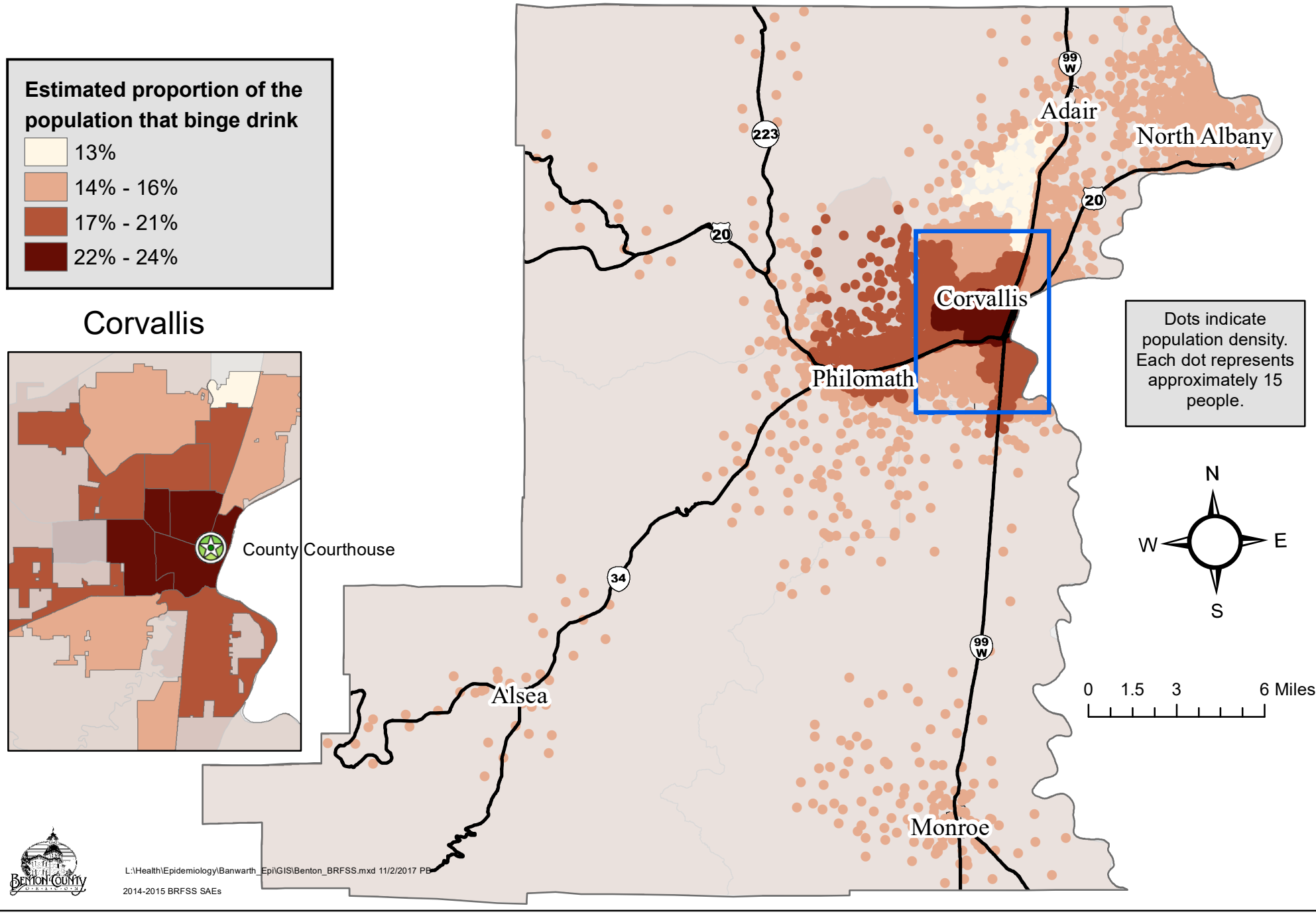
Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated binge drinking prevalence

Benton County 2014-2015



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2014-2015 BRFSS SAEs

A.12 Estimated cancer prevalence by census tract

Benton County, 2015

Map notes:

The estimates of cancer prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with cancer. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of cancer for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the cancer diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

The cancer diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher cancer diagnosis rates, ranging between approximately 5 and 19 percent.

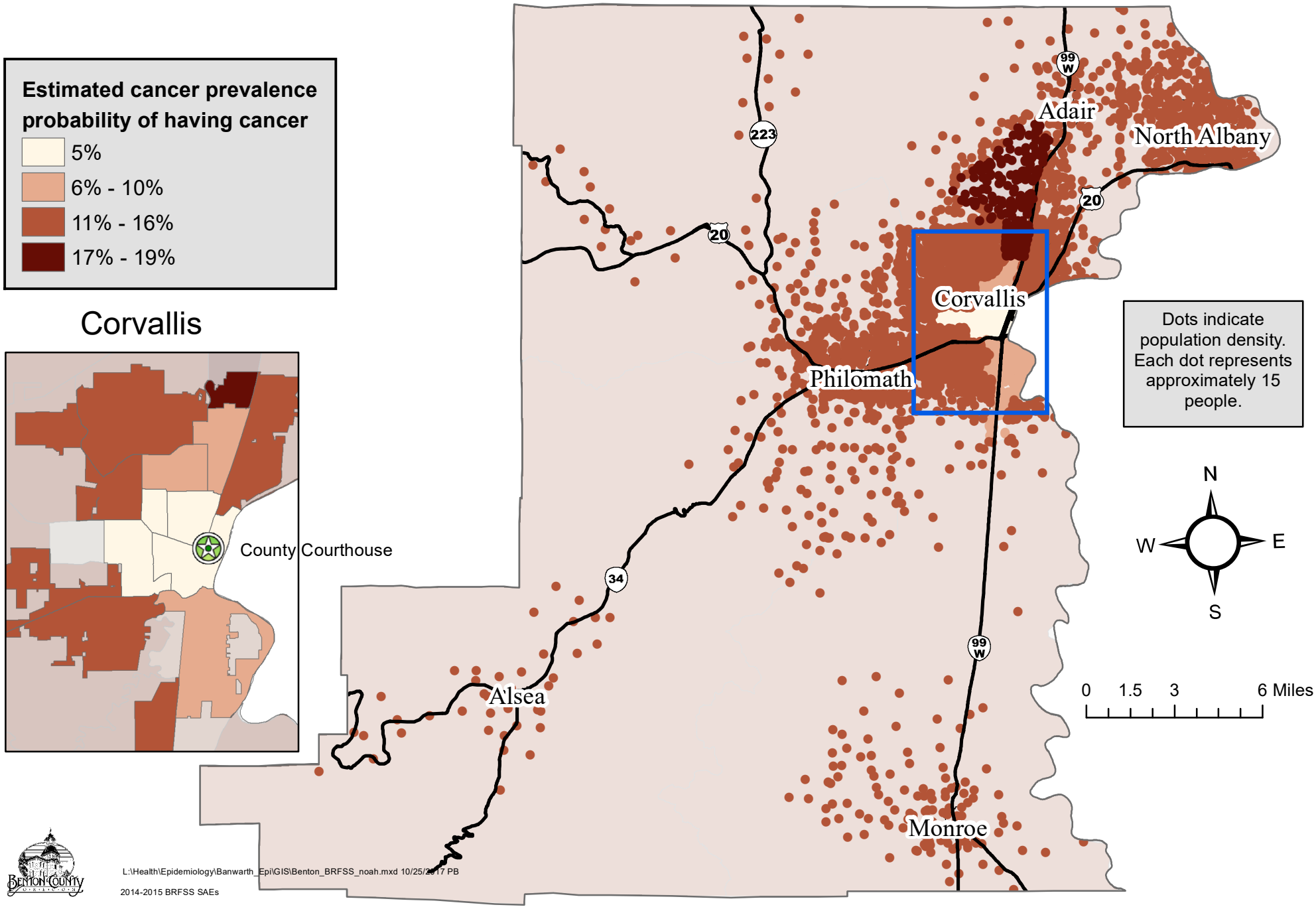
Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated cancer prevalence

Benton County 2014-2015



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2014-2015 BRFSS SAEs

A.13 Estimated depression prevalence by census tract

Benton County, 2015

Map notes:

The estimates of depression diagnosis rate by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with depression. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of asthma for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the depression diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

The depression diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher depression diagnosis rates, ranging between approximately 15 and 27 percent.

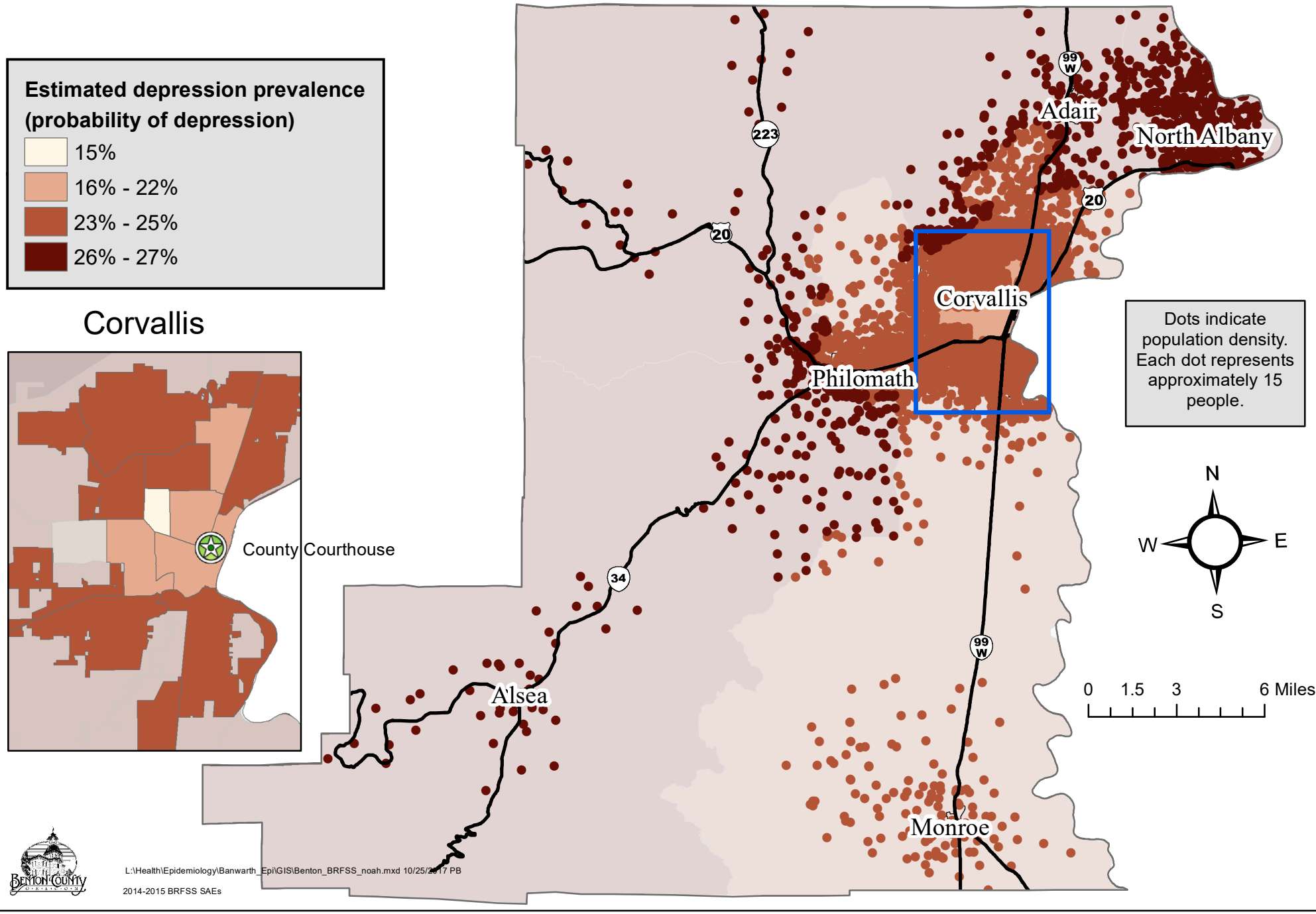
Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated depression prevalence

Benton County 2014-2015



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2014-2015 BRFSS SAEs

A.14 Estimated diabetes prevalence by census tract

Benton County, 2015

Map notes:

The estimates of diabetes prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with diabetes. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the rates of diabetes for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of the diabetes diagnosis rate. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

The diabetes diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher diabetes diagnosis rates, ranging between 0 and approximately 17 percent.

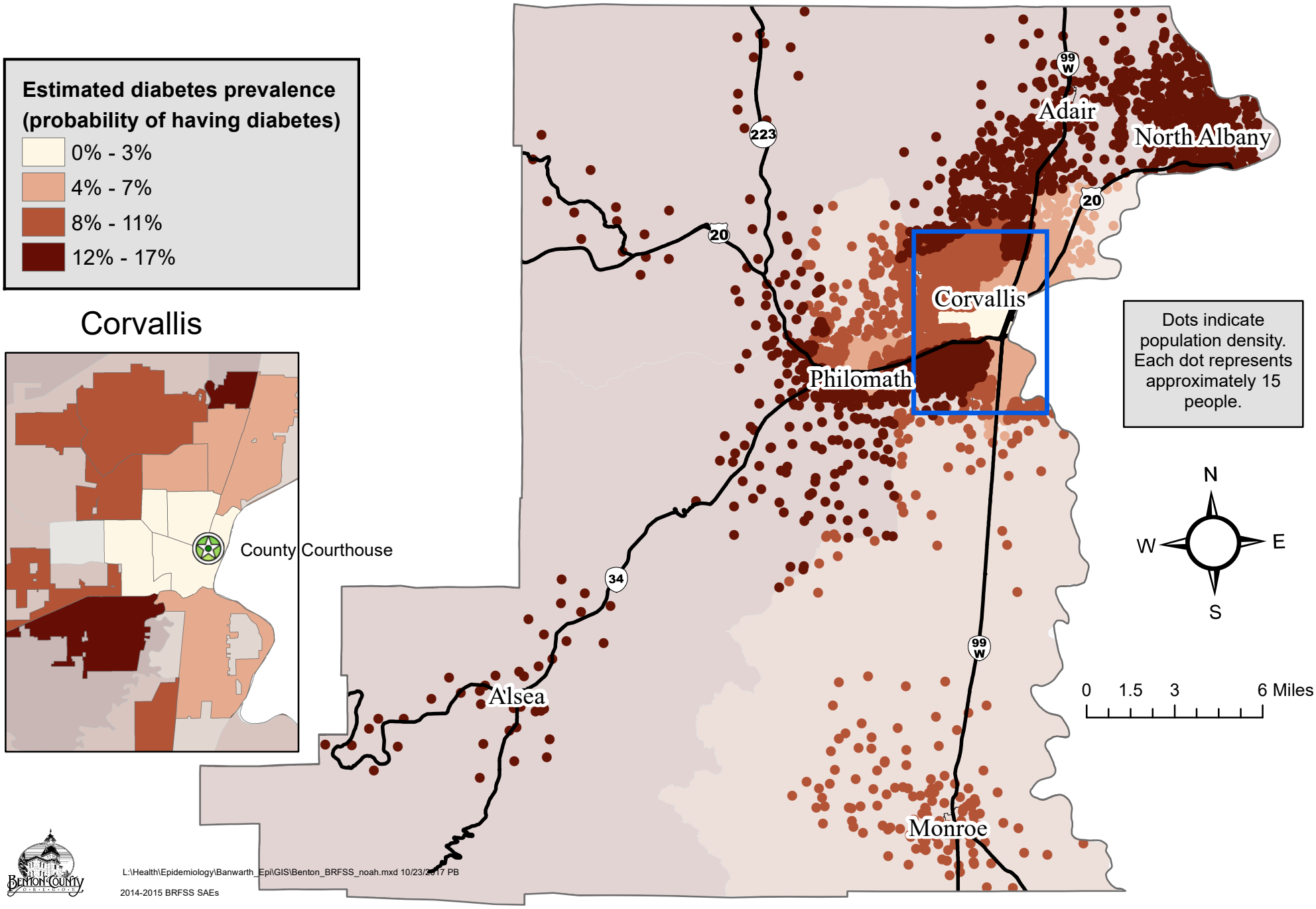
Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated diabetes prevalence

Benton County 2014-2015



A.15 Estimated heart disease prevalence by census tract

Benton County, 2015

Map notes:

The estimates of heart disease prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has ever been diagnosed with heart disease. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates heart disease diagnosis rates for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of heart disease diagnosis rates. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

The heart disease diagnosis rate is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher heart disease diagnosis rates, ranging between 0 and approximately 7 percent.

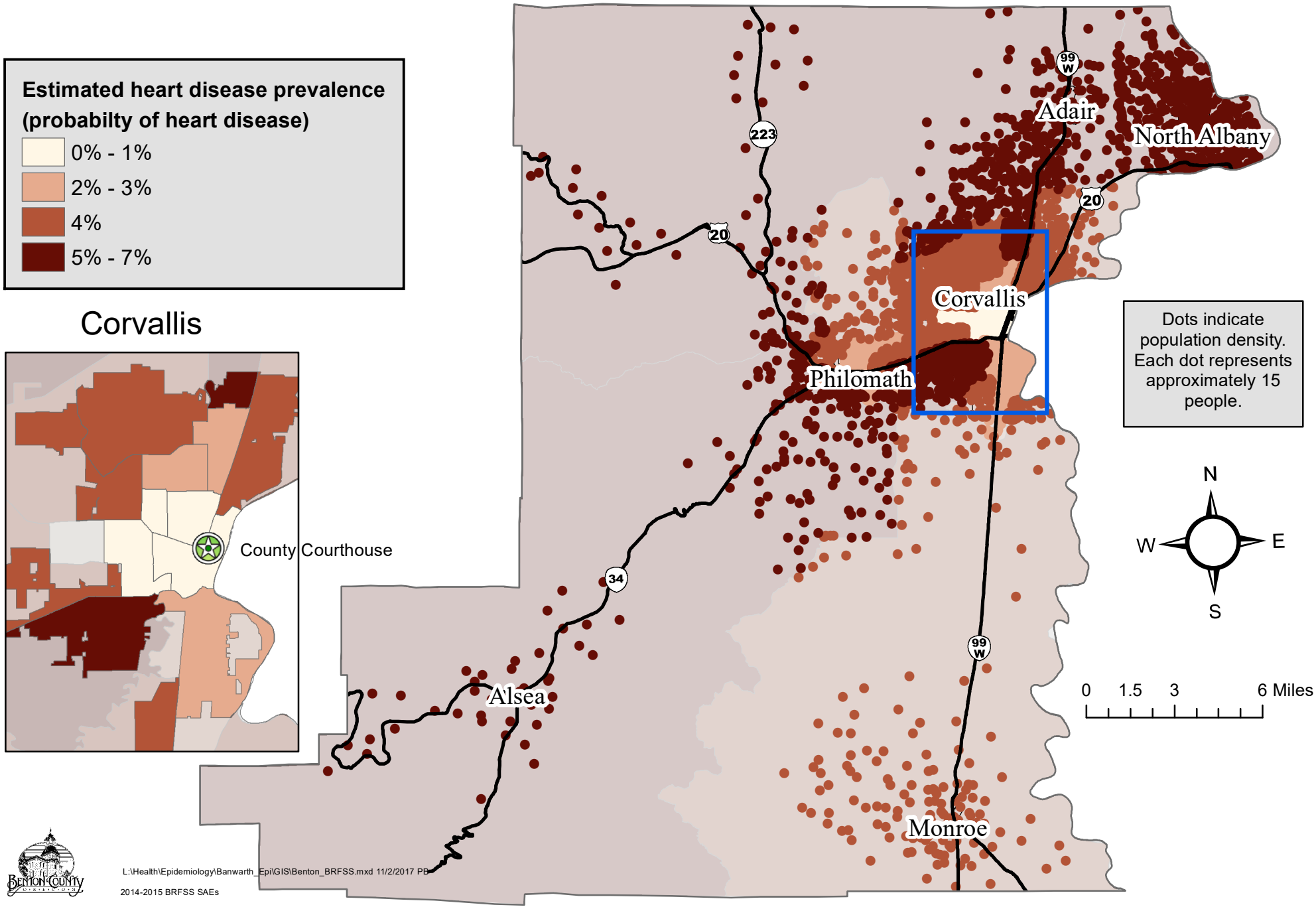
Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated heart disease prevalence

Benton County 2014-2015



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2014-2015 BRFSS SAEs

A.16 Estimated obesity prevalence by census tract

Benton County, 2015

Map notes:

The estimates of obesity prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks the height and weight of the respondent. These values are used to calculate the body mass index (BMI) of the person, with a BMI over 30 recorded as "obese". Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the probability of obesity for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of obesity prevalence. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

Obesity prevalence is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher obesity prevalence, ranging between approximately 18 and 28 percent.

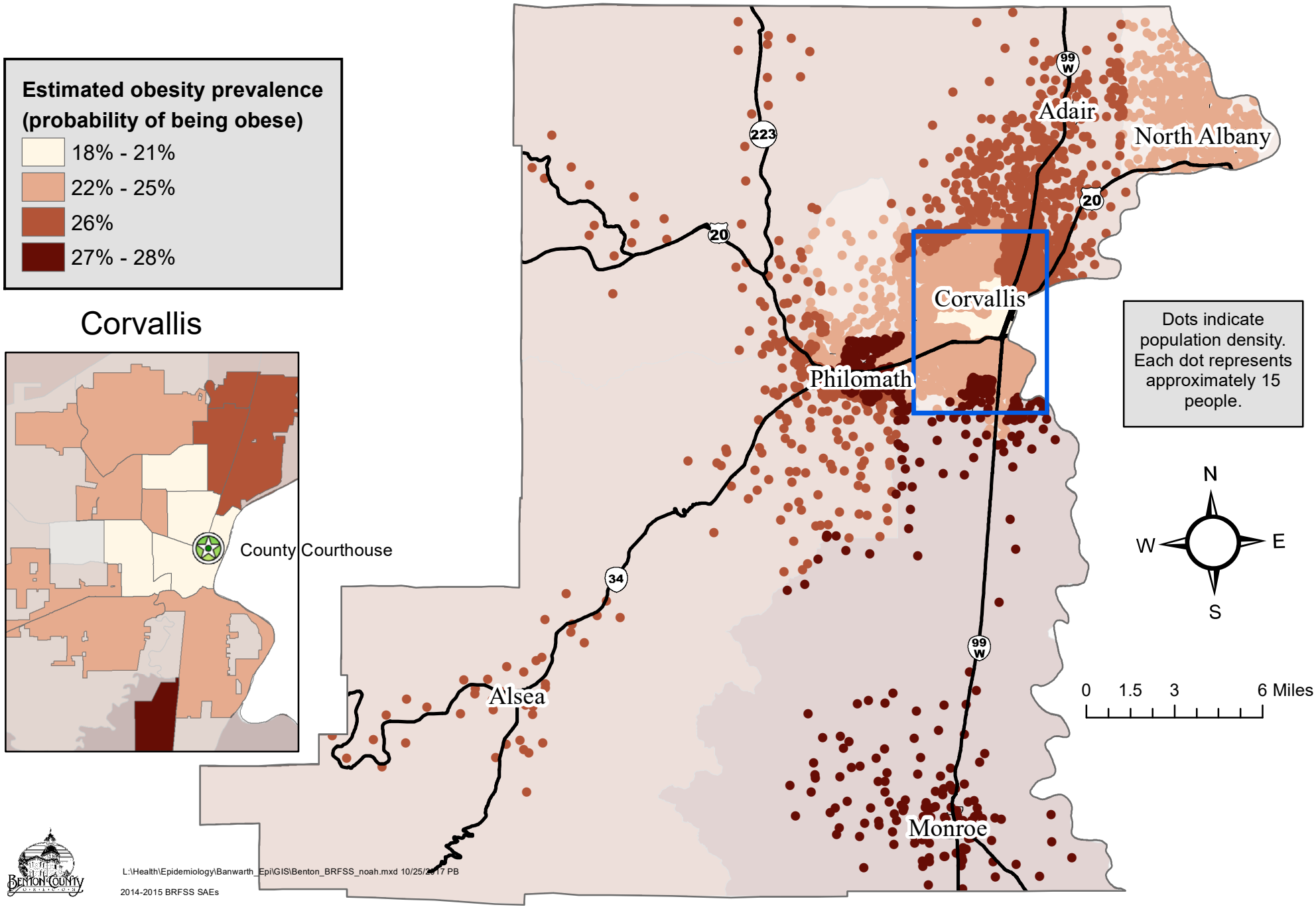
Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated obesity prevalence

Benton County 2014-2015



A.17 Estimated smoking prevalence by census tract

Benton County, 2015

Map notes:

The estimates of smoking prevalence by census tract are produced by statistical modeling. The Oregon Behavioral Risk Factors Surveillance System (BRFSS) conducts a phone survey of Oregonians throughout the state. BRFSS questions include age, sex, race/ethnicity, and county of residence. The BRFSS survey also asks if the respondent has smoked cigarettes in the previous 30 days. Data from 2014 and 2015 are combined to create a larger sample. The statistical modeling process then estimates the probability of smoking for different age, sex, and race/ethnicity throughout Oregon. These estimates are averaged according to the demographics of the census tract to produce a local estimate of smoking prevalence. The census tract demographics are obtained from the U.S. Census Bureau American Community Survey 2011-2015 5-year estimates.

Limitations and suggested interpretation:

Smoking prevalence is an estimate produced by statistical modeling. The accuracy of the estimates depends on the reliability of the survey data from BRFSS and the American Community Survey, and also the precision of the model parameters used to generate the estimates. Estimated values should not be interpreted as precisely accurate. Instead, this map should be interpreted as displaying areas of expected lower and higher smoking prevalence, ranging between approximately 6 and 32 percent.

Data sources:

Oregon Behavioral Risk Factors Surveillance System, 2014 and 2015 data.

U.S. Census Bureau American Community Survey 2011-2015 5-year estimates. Retrieved from https://factfinder.census.gov

Estimated smoking prevalence

Benton County 2014-2015