



Iowa County Health Snapshot Series

*99 county reports prepared for the Iowa State University
Extension and Outreach Community and Economic
Development Unit*



May 2024

By Matthew Voss & Shawn Dorius

This project was supported by funding from Iowa State University's Extension and Outreach Community and Economic Development Unit via an award from Iowa State University's Presidential Strategic Initiative Plan 2022-2031.

Iowa County Health Snapshot Series

Table of contents

Health in Plymouth County: Overview	3
Strengths	3
Opportunities	4
How to Use this Report	5
Using Story County as an Example	6
Health Status	7
Poor General Health	7
Poor Physical Health	8
Poor Mental Health	8
Health Risk Behaviors	9
Binge Drinking	9
Current Smoking	10
Physical Inactivity	10
Sleep <7 hours	11
Health Outcomes	12
Arthritis	12
High Blood Pressure	13
Cancer (except skin)	13
Current Asthma	14
Coronary Heart Disease	14
COPD	15
Depression	15
Diabetes	16
High Cholesterol	16
Chronic Kidney Disease	17
Obesity	17
Stroke	18
All Teeth Lost	18
Prevention	19
Lack of Health Insurance	19
Taking BP Medication	20
Cervical Cancer Screening	20
Annual Checkup	21
Cholesterol Screening	21

Colorectal Cancer Screening	22
Core preventive services for older men	22
Core preventive services for older women	24
Dental Visit	24
Mammography	26
Disability	27
Hearing disability	27
Vision disability	28
Cognitive disability	28
Mobility disability	29
Self-care disability	29
Independent living disability	30
Any disability	30
Appendix 1: CDC PLACES Data	31
Appendix 2: Plymouth County PLACES Data	32
Appendix 3: Rural Counties	34
Appendix 4: County Maps	36

Health in Plymouth County: Overview

Dear Community Members & Stakeholders of Plymouth County,

We are pleased to share the Iowa County Health Snapshot series, a set of reports designed in partnership with Iowa State University's Community Economic Development to assess the overall landscape of health and well-being across Iowa's 99 counties. The following pages include the health snapshot for your county. The snapshot can be used to see how Plymouth County ranks across various health measures compared to the rest of the state and similarly-sized counties. This comparison allows us to identify Plymouth County's strengths and opportunities for growth by leveraging data from the Centers for Disease Control and Prevention PLACES dataset.

The report includes 37 health measures organized topically by general health status, risky behavior, health outcomes, prevention, and disability. We provide a general overview of each health topic, followed by a description of each health measure. Health measure descriptions include crude and age-adjusted rates and a ranking that tells you how your county ranks compared to all Iowa counties and counties of similar size to Plymouth County. Crude rates tell you the raw, un-adjusted percent of the population experiencing the health measure. Age-adjusted rates account for the age distribution present in your county and presents what the rate would be if your county had a standard age distribution. Crude rates can provide a general comparison between counties and age-adjusted rates can give a fairer comparison between counties with different age structures.

Strengths

Take a look at the top strengths of your county! Below are unadjusted and age-adjusted health measures that represent your county's strengths. We recommend using continued investment in these areas to maintain them as strengths, as well as building on them to improve in other health domains.

Crude			Age-Adjusted		
Health Domain	Statewide County Rank	Rural County Rank	Health Domain	Statewide County Rank	Rural County Rank
Current Asthma	4th	2nd	Cholesterol Screening	3rd	1st
Cholesterol Screening	4th	2nd	Chronic Kidney Disease	3rd	1st
Sleep <7 hours	7th	3rd	Current Asthma	4th	2nd
Mental Health	9th	4th	Sleep <7 hours	6th	2nd
Core preventive services for older men	10th	4th	Coronary Heart Disease	9th	3rd

Opportunities

Below are health measures that represent potential areas for growth in your county. We recommend increasing investment in these areas to support community health and well-being.

Crude			Age-Adjusted		
Health Domain	Statewide County Rank	Rural County Rank	Health Domain	Statewide County Rank	Rural County Rank
Binge Drinking	81st	60th	Binge Drinking	89th	59th
Mammography	73rd	45th	Mammography	74th	46th
Taking BP Medication	66th	52nd	High Cholesterol	71st	45th
Core preventive services for older women	44th	17th	Core preventive services for older women	45th	20th
High Cholesterol	39th	19th	Taking BP Medication	41st	26th

Please review the rest of the report to learn more about your county and reach out to us with questions about the report or for recommendations to improve the overall health and well-being in Plymouth County.

Sincerely,



Shawn F. Dorius, PhD
Iowa State University
Public Science Collaborative



IOWA STATE UNIVERSITY
Extension and Outreach
Community and Economic Development

This project was supported by funding from Iowa State University’s Extension and Outreach Community and Economic Development Unit, via an award from Iowa State University’s Presidential Strategic Initiative Plan 2022-2031.

How to Use this Report

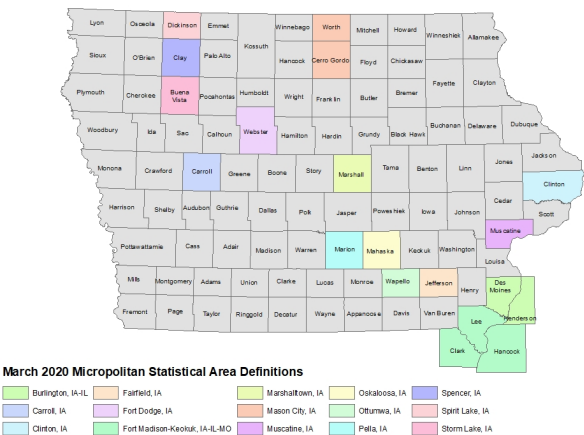
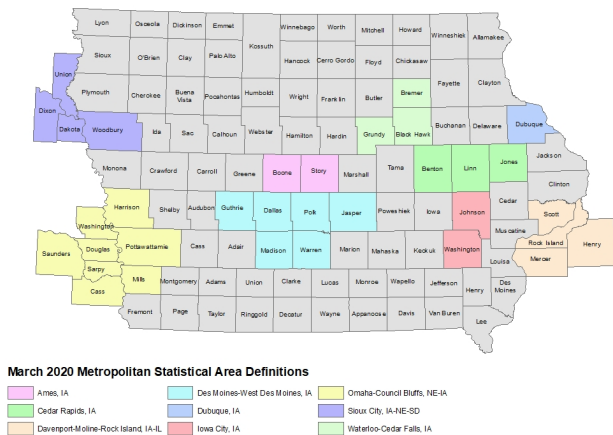
The purpose of the Iowa County Health Snapshot Series is to provide an overview of health in Plymouth County that can be used to help inform health-related interventions and programming. This report contains five sections, including the overall health status of Plymouth County, a review of risky behaviors in the county, and information on various health outcomes, prevention measures, and disability needs. Each section includes an overview of the health domain, a breakdown of its underlying health measures, and data to see how Plymouth County compares to the rest of the state and similarly-sized counties.

With a population of 25,650, Plymouth County’s similarly sized counties are defined as rural counties. In Iowa, rural counties have an average population of 12,547, and there are 63 counties that are considered rural counties. To learn more about the county population classifications used in this report, please see the information below the table as well as Appendix 3.

Group	Population Avg.	Number of Counties
Metropolitan Core	175,797	9
Micropolitan	30,839	15
Metropolitan Non-Core	29,821	12
Rural	12,547	63
Total		99

The counties included in each category above are determined by the United States Office of Management and Budget. Iowa has counties in nine metropolitan statistical areas and 15 micropolitan statistical areas. The counties identified as metropolitan and micropolitan can be found in the link and the maps below. Metropolitan core counties are those counties in metropolitan areas that have the city that defines the metropolitan area (e.g., Des Moines and Polk County for the Des Moines Metropolitan Area). Metropolitan non-core counties are those that fall within the metropolitan area, but do not have the core city of the metropolitan area (e.g., Dallas and Jasper Counties in the Des Moines Metropolitan Area).

<https://www.icip.iastate.edu/maps/refmaps/cofips>



Using Story County as an Example

The graphic below is an example of the details included for each health measure. The table in the upper right shows your county's crude and age-adjusted rate estimates alongside their averages across all Iowa counties and similarly-sized counties. The images below show the distribution of the health measure across counties. The vertical lines correspond with the values in the table to show the estimate for the specific county compared to counties across the state. The solid black line in each plot represents the county rate, with the dashed lines indicating the average rate for all Iowa counties and the dotted lines showing the average rate for similarly-sized counties.



The example graphic above displays the poor mental health rate in Story County, Iowa. The left plot shows the crude rate of poor mental health in the county. Crude rates are the raw, un-adjusted percent of the population experiencing the health measure. Notice how the solid black line is closer to the right of the plot than the dashed and dotted lines; this indicates that Story County has a higher crude rate of poor mental health than most counties in the state. However, the age-adjusted rate plot on the right shows the solid line closer to the peak of the distribution and averages for the state and similarly-sized counties, indicating that when accounting for Story County's unique age distribution, Story County's poor mental health rate is not a significant outlier, and is estimated to be lower than the statewide average. Accounting for crude and age-adjusted rates is critical to help inform health interventions as age-adjusted rates can help contextualize the health measure within the population.

Health Status

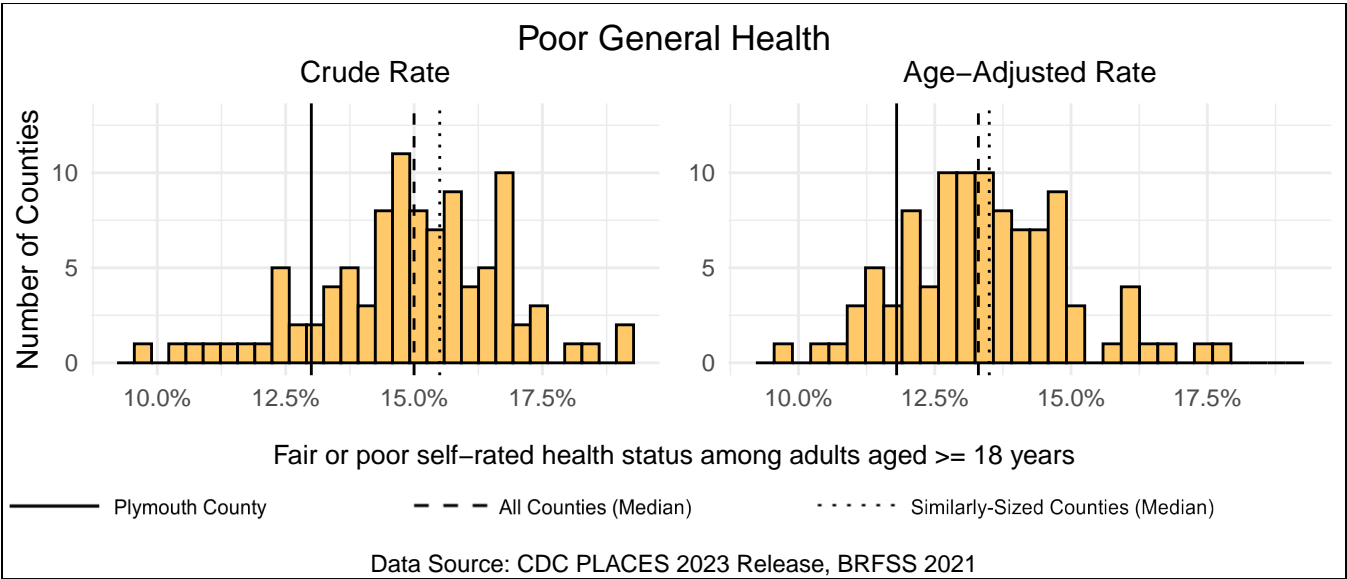
This section reflects measures for overall health, including general, physical, and mental health. These measures are a valuable way to see a simple summary of the health of a country’s population. The questions to calculate these measures ask respondents to evaluate their health status. General health is evaluated on a 5-point scale where respondents can report their health status as one of “excellent,” “very good,” “good,” “fair,” or “poor,” from which the respondents who answer “fair” or “poor” are included in the measure. Physical and mental health are evaluated as the rate of respondents who say they have had 14 or more days in the last 30 days in which their physical or mental health was not good. The URL below includes more information about each variable.

<https://www.cdc.gov/places/measure-definitions/health-status/index.html>

Poor General Health

Plymouth County has a crude rate of 13.0% for fair or poor self-rated health status among adults aged >= 18 years, which ranks 15th out of 99 Iowa counties (3rd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 11.8%, which ranks 14th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

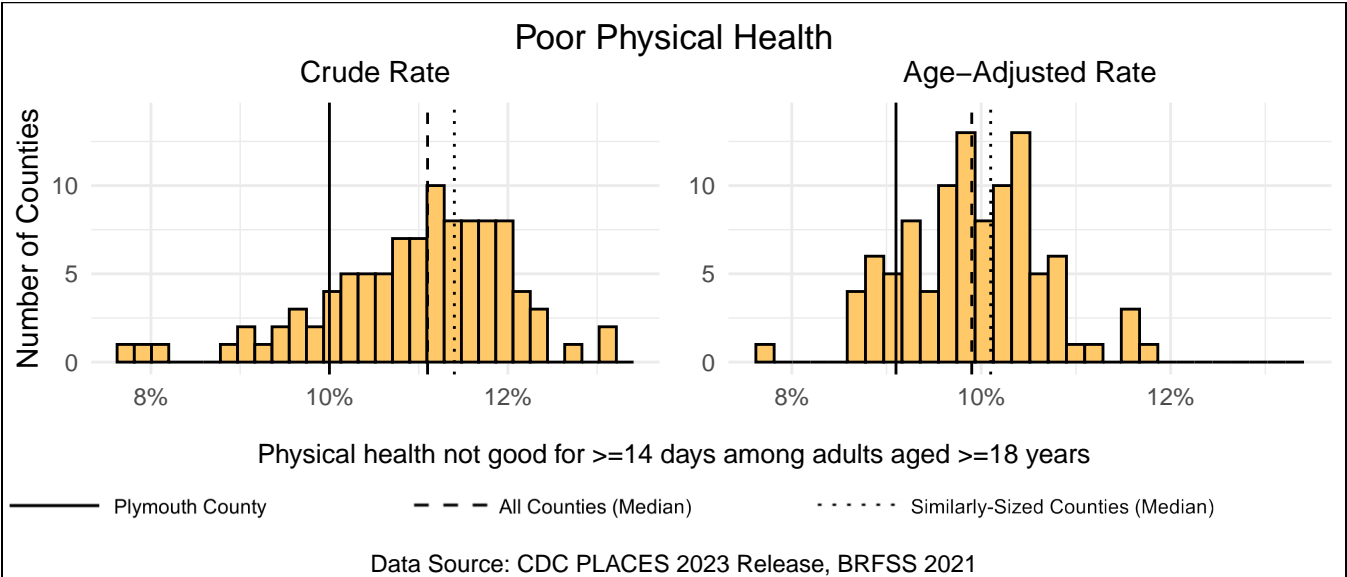
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	13.0%	15.0%	15.5%
Age-Adjusted	11.8%	13.3%	13.5%



Poor Physical Health

Plymouth County has a crude rate of 10.0% for physical health not good for >=14 days among adults aged >=18 years, which ranks 15th out of 99 Iowa counties (3rd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 9.1%, which ranks 16th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

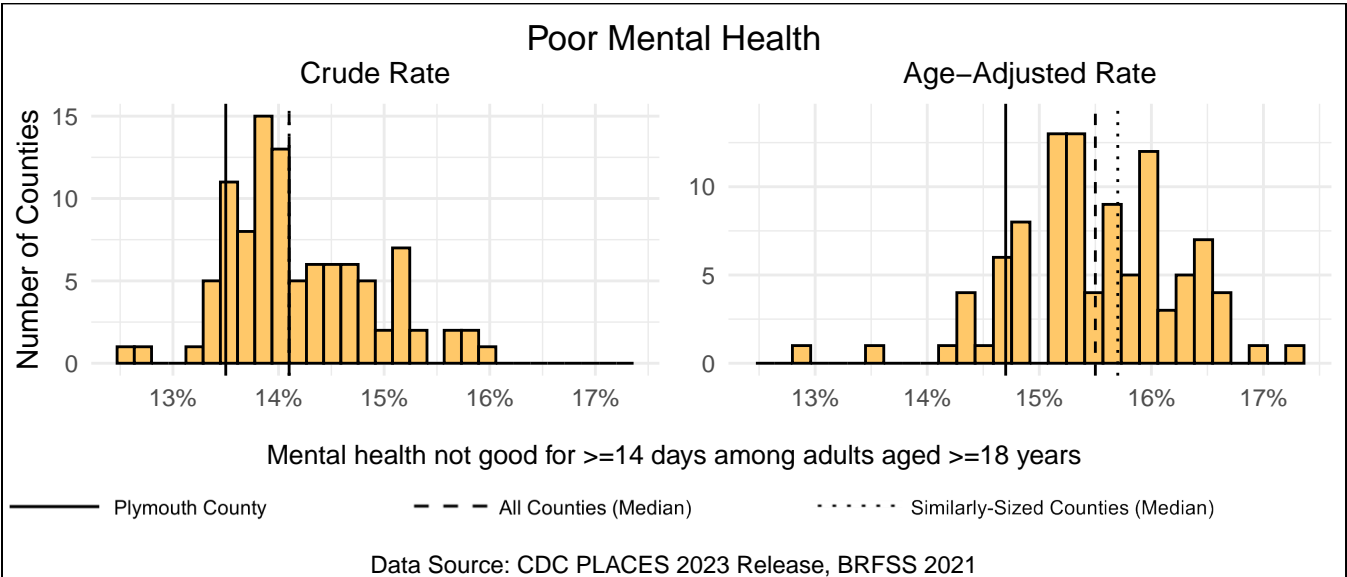
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	10.0%	11.1%	11.4%
Age-Adjusted	9.1%	9.9%	10.1%



Poor Mental Health

Plymouth County has a crude rate of 13.5% for mental health not good for >=14 days among adults aged >=18 years, which ranks 9th out of 99 Iowa counties (4th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 14.7%, which ranks 10th out of 99 Iowa counties (2nd out of 63 similarly-sized counties).

Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	13.5%	14.1%	14.1%
Age-Adjusted	14.7%	15.5%	15.7%



Health Risk Behaviors

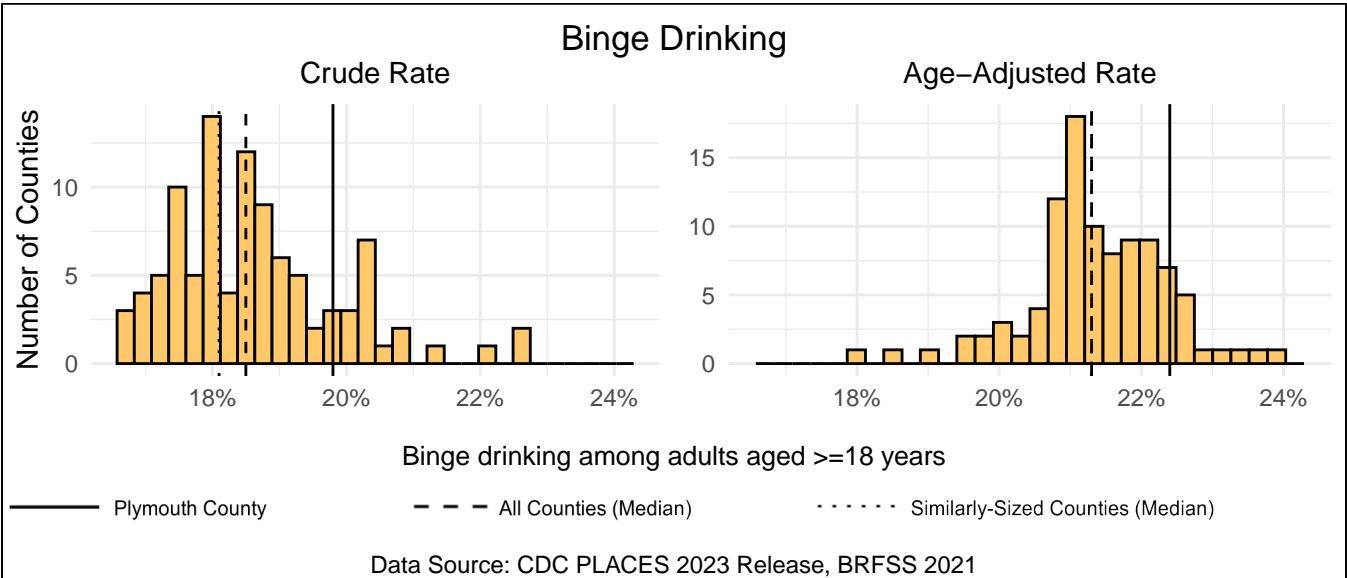
Health risk measures are measures of individual behaviors that can lead to poor health outcomes. These include binge drinking, current smoking, physical inactivity, and getting less than seven hours of nightly sleep. Risk behaviors are the most critical intervention points as they can help save lives and drastically improve health outcomes later in life. Each measure is calculated as the rate of respondents participating in a high level of risk behavior. The exact cutoff points for the behavior depend on the health area. The link below includes more information about each variable.

<https://www.cdc.gov/places/measure-definitions/unhealthy-behaviors/index.html>

Binge Drinking

Plymouth County has a crude rate of 19.8% for binge drinking among adults aged ≥ 18 years, which ranks 81st out of 99 Iowa counties (60th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 22.4%, which ranks 89th out of 99 Iowa counties (59th out of 63 similarly-sized counties).

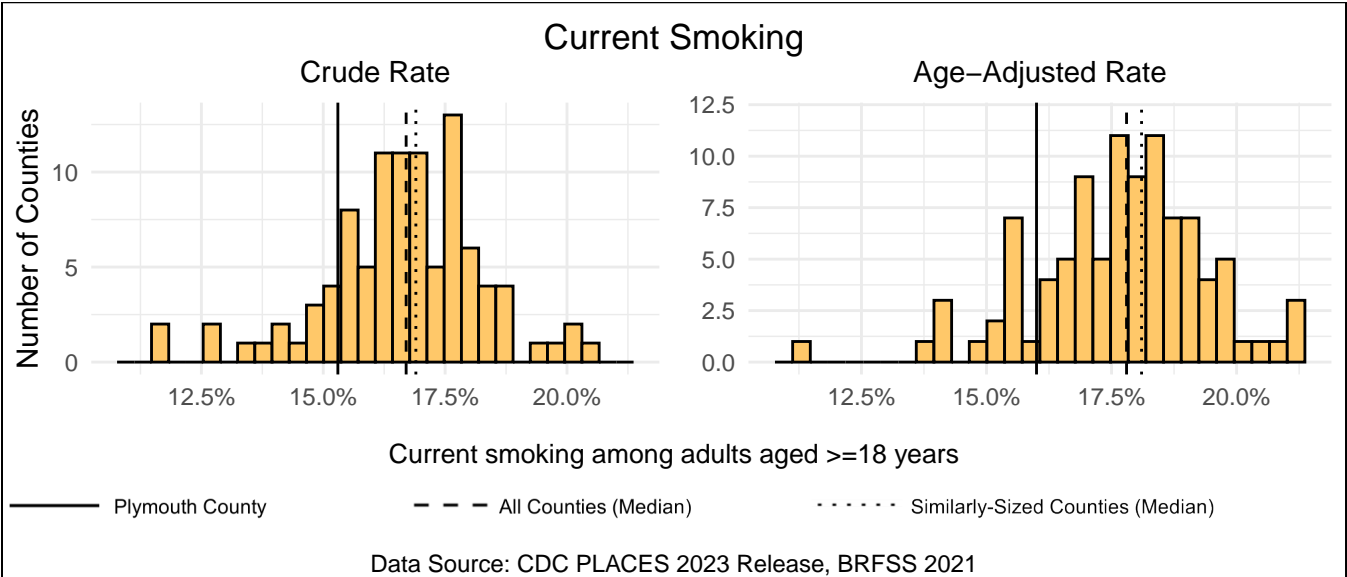
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	19.8%	18.5%	18.1%
Age-Adjusted	22.4%	21.3%	21.3%



Current Smoking

Plymouth County has a crude rate of 15.3% for current smoking among adults aged ≥ 18 years, which ranks 15th out of 99 Iowa counties (4th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 16.0%, which ranks 16th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

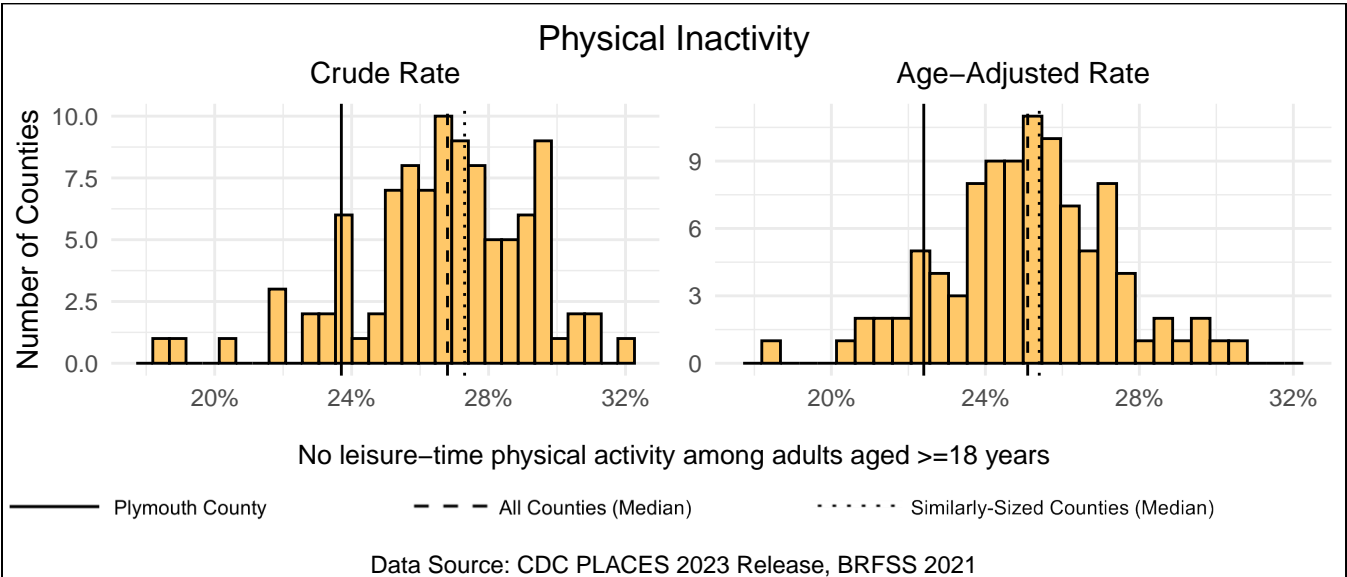
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	15.3%	16.7%	16.9%
Age-Adjusted	16.0%	17.8%	18.1%



Physical Inactivity

Plymouth County has a crude rate of 23.7% for no leisure-time physical activity among adults aged ≥ 18 years, which ranks 12th out of 99 Iowa counties (2nd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 22.4%, which ranks 12th out of 99 Iowa counties (2nd out of 63 similarly-sized counties).

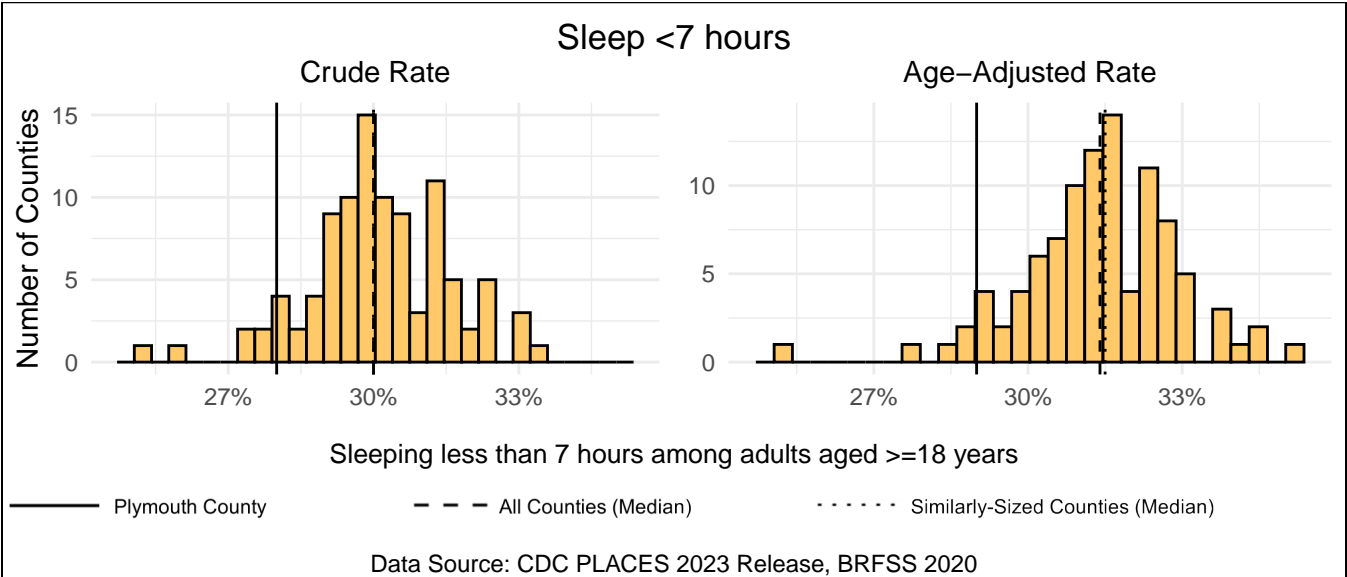
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	23.7%	26.8%	27.3%
Age-Adjusted	22.4%	25.1%	25.4%



Sleep <7 hours

Plymouth County has a crude rate of 28.0% for sleeping less than 7 hours among adults aged ≥ 18 years, which ranks 7th out of 99 Iowa counties (3rd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 29.0%, which ranks 6th out of 99 Iowa counties (2nd out of 63 similarly-sized counties).

Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	28.0%	30.0%	30.0%
Age-Adjusted	29.0%	31.4%	31.5%



Health Outcomes

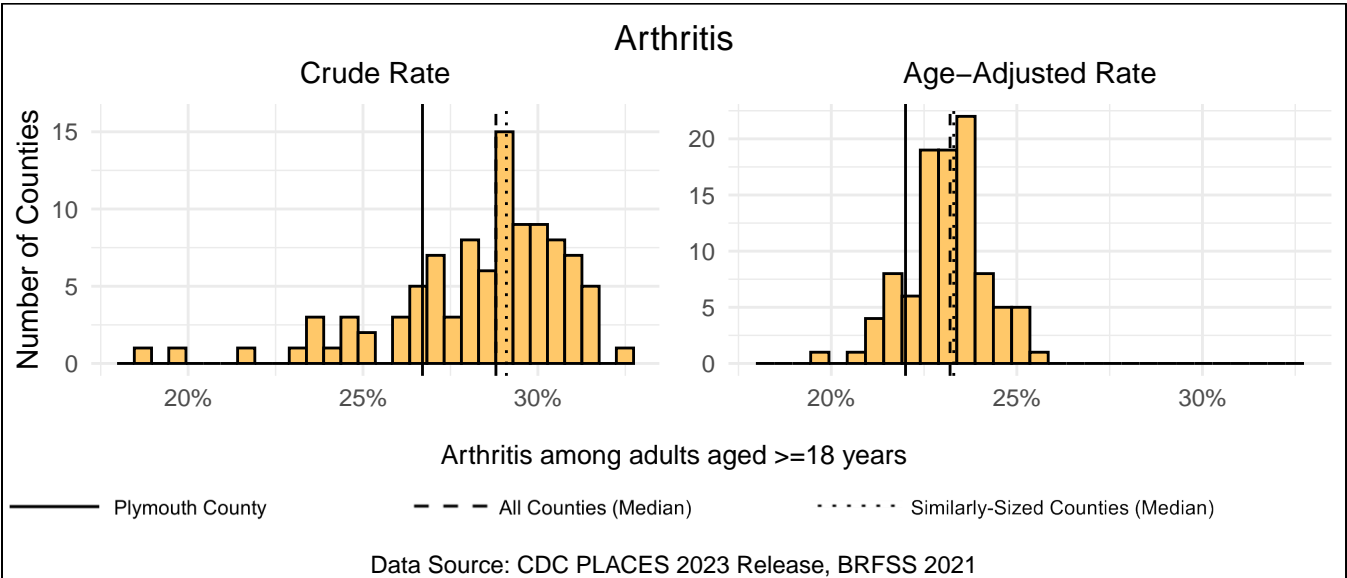
This section includes measures about specific health outcomes such as chronic illness, mental health conditions, and risk factors for future disease. Health outcome measures include but are not limited to arthritis, high blood pressure, cancer, depression, and obesity. Each measure is the percentage of respondents reporting receiving the diagnosis by a doctor, nurse, or other health professional. The link below includes more information about each variable.

<https://www.cdc.gov/places/measure-definitions/health-outcomes/index.html>

Arthritis

Plymouth County has a crude rate of 26.7% for arthritis among adults aged ≥ 18 years, which ranks 20th out of 99 Iowa counties (5th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 22.0%, which ranks 15th out of 99 Iowa counties (5th out of 63 similarly-sized counties).

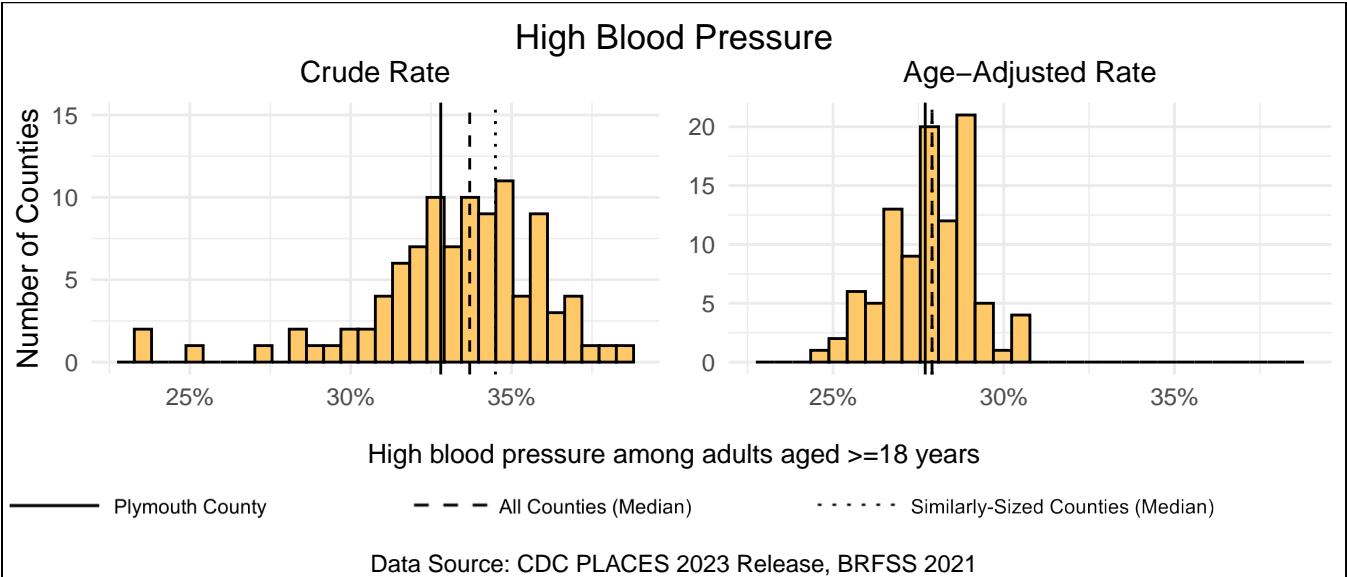
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	26.7%	28.8%	29.1%
Age-Adjusted	22.0%	23.2%	23.3%



High Blood Pressure

Plymouth County has a crude rate of 32.8% for high blood pressure among adults aged ≥ 18 years, which ranks 36th out of 99 Iowa counties (14th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 27.7%, which ranks 40th out of 99 Iowa counties (23rd out of 63 similarly-sized counties).

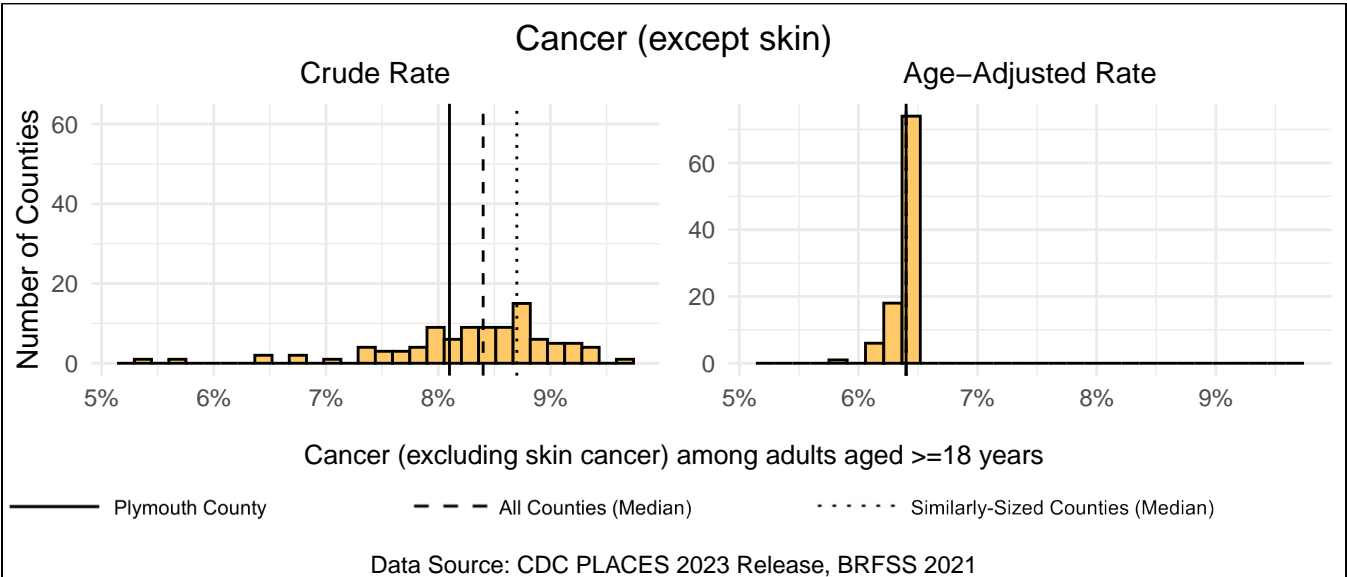
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	32.8%	33.7%	34.5%
Age-Adjusted	27.7%	27.9%	27.9%



Cancer (except skin)

Plymouth County has a crude rate of 8.1% for cancer (excluding skin cancer) among adults aged ≥ 18 years, which ranks 31st out of 99 Iowa counties (10th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 6.4%, which ranks 26th out of 99 Iowa counties (14th out of 63 similarly-sized counties).

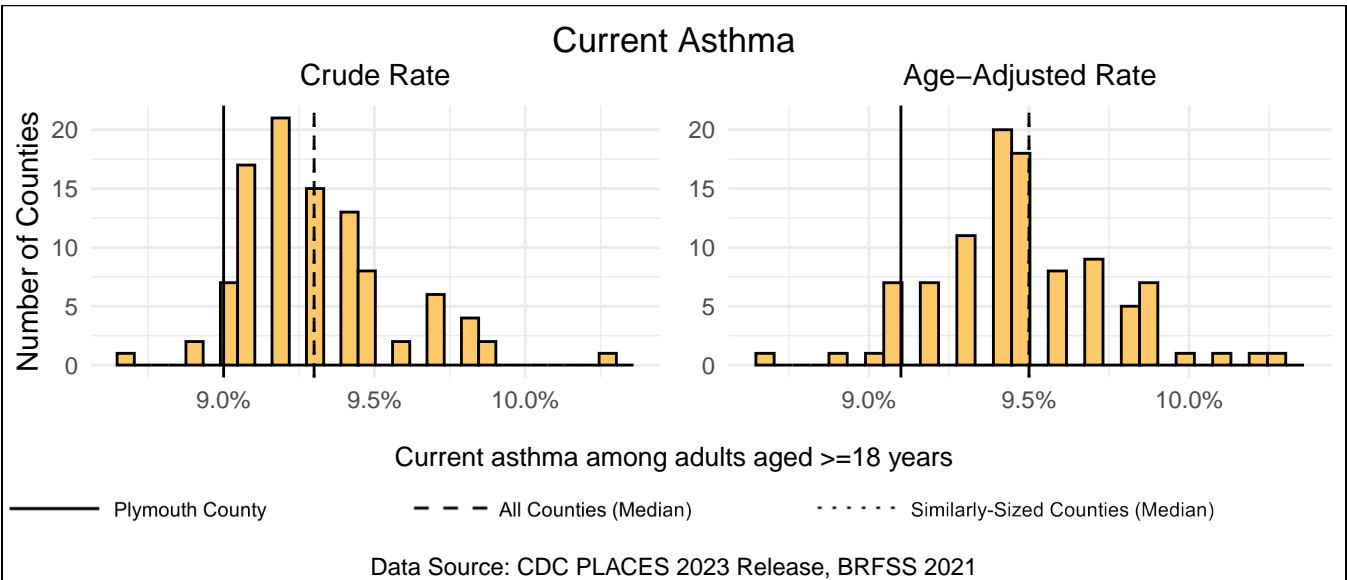
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	8.1%	8.4%	8.7%
Age-Adjusted	6.4%	6.4%	6.4%



Current Asthma

Plymouth County has a crude rate of 9.0% for current asthma among adults aged ≥ 18 years, which ranks 4th out of 99 Iowa counties (2nd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 9.1%, which ranks 4th out of 99 Iowa counties (2nd out of 63 similarly-sized counties).

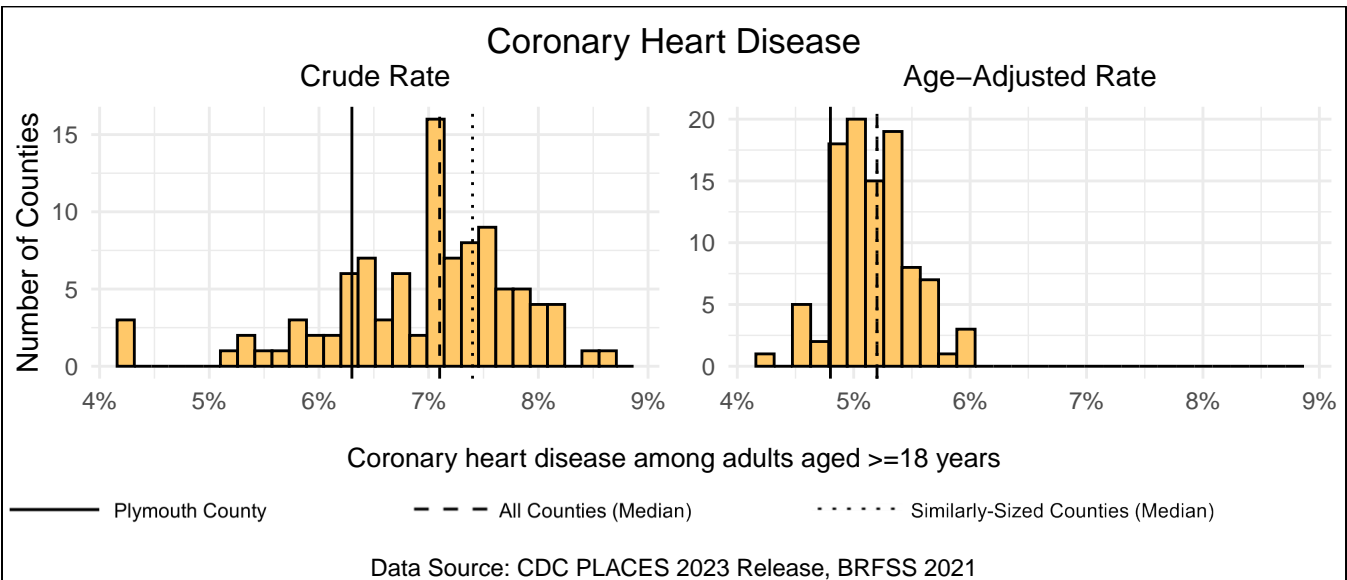
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	9.0%	9.3%	9.3%
Age-Adjusted	9.1%	9.5%	9.5%



Coronary Heart Disease

Plymouth County has a crude rate of 6.3% for coronary heart disease among adults aged ≥ 18 years, which ranks 16th out of 99 Iowa counties (3rd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 4.8%, which ranks 9th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

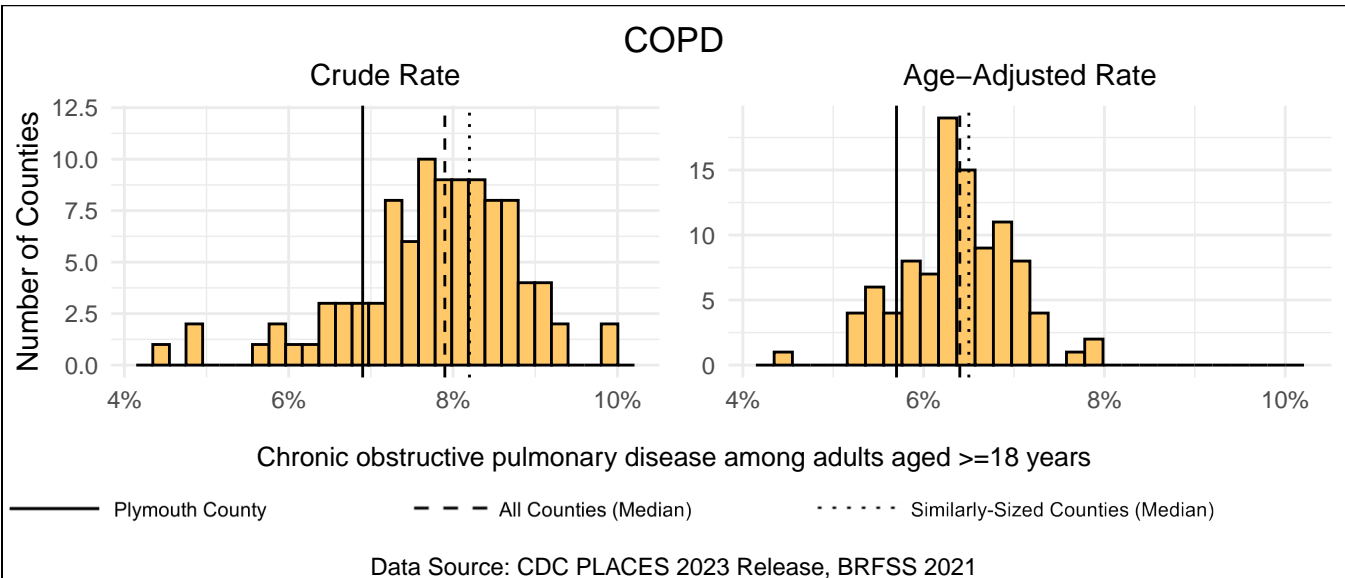
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	6.3%	7.1%	7.4%
Age-Adjusted	4.8%	5.2%	5.2%



COPD

Plymouth County has a crude rate of 6.9% for chronic obstructive pulmonary disease among adults aged ≥ 18 years, which ranks 15th out of 99 Iowa counties (3rd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 5.7%, which ranks 15th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

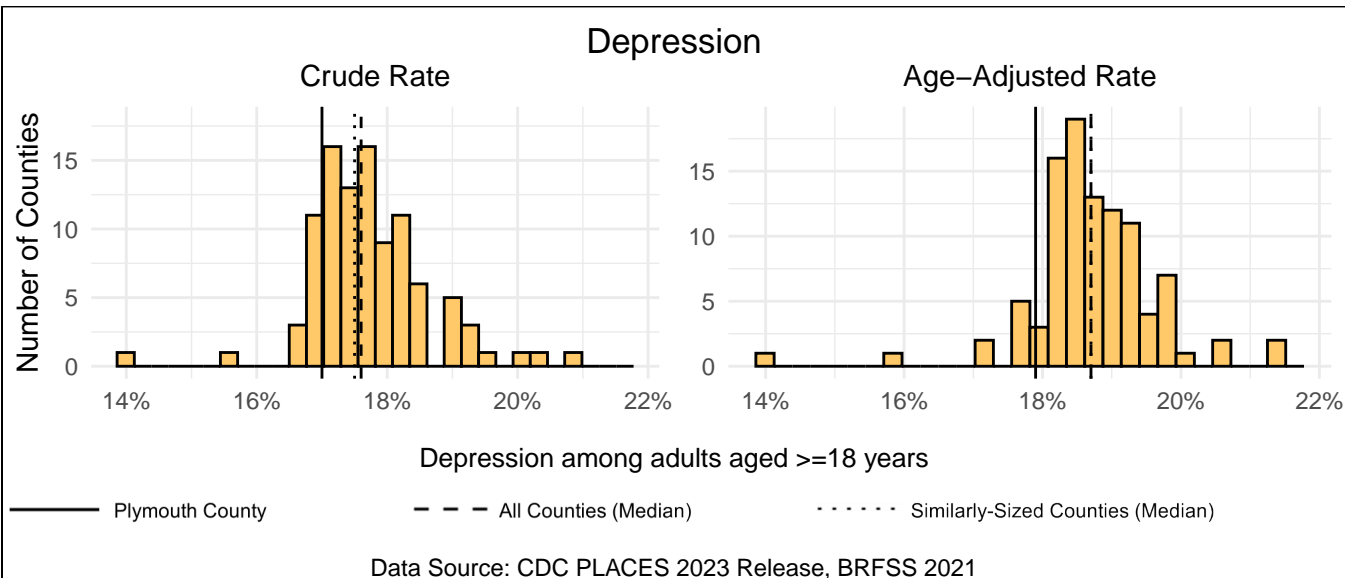
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	6.9%	7.9%	8.2%
Age-Adjusted	5.7%	6.4%	6.5%



Depression

Plymouth County has a crude rate of 17.0% for depression among adults aged ≥ 18 years, which ranks 12th out of 99 Iowa counties (10th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 17.9%, which ranks 10th out of 99 Iowa counties (5th out of 63 similarly-sized counties).

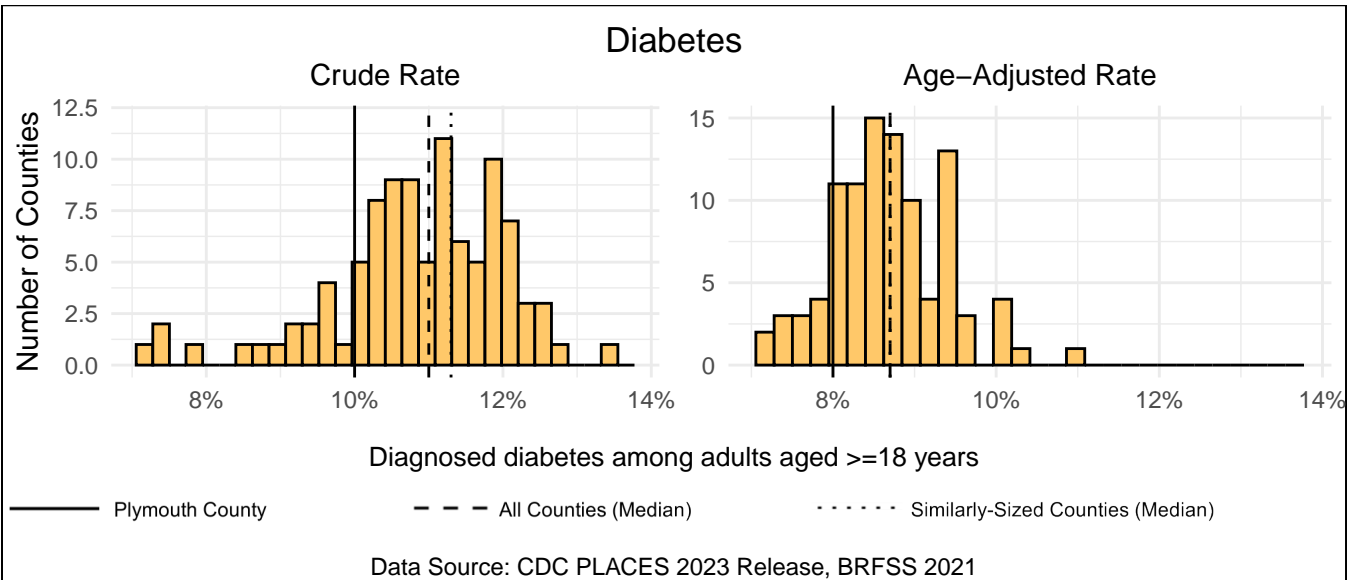
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	17.0%	17.6%	17.5%
Age-Adjusted	17.9%	18.7%	18.7%



Diabetes

Plymouth County has a crude rate of 10.0% for diagnosed diabetes among adults aged ≥ 18 years, which ranks 17th out of 99 Iowa counties (6th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 8.0%, which ranks 13th out of 99 Iowa counties (6th out of 63 similarly-sized counties).

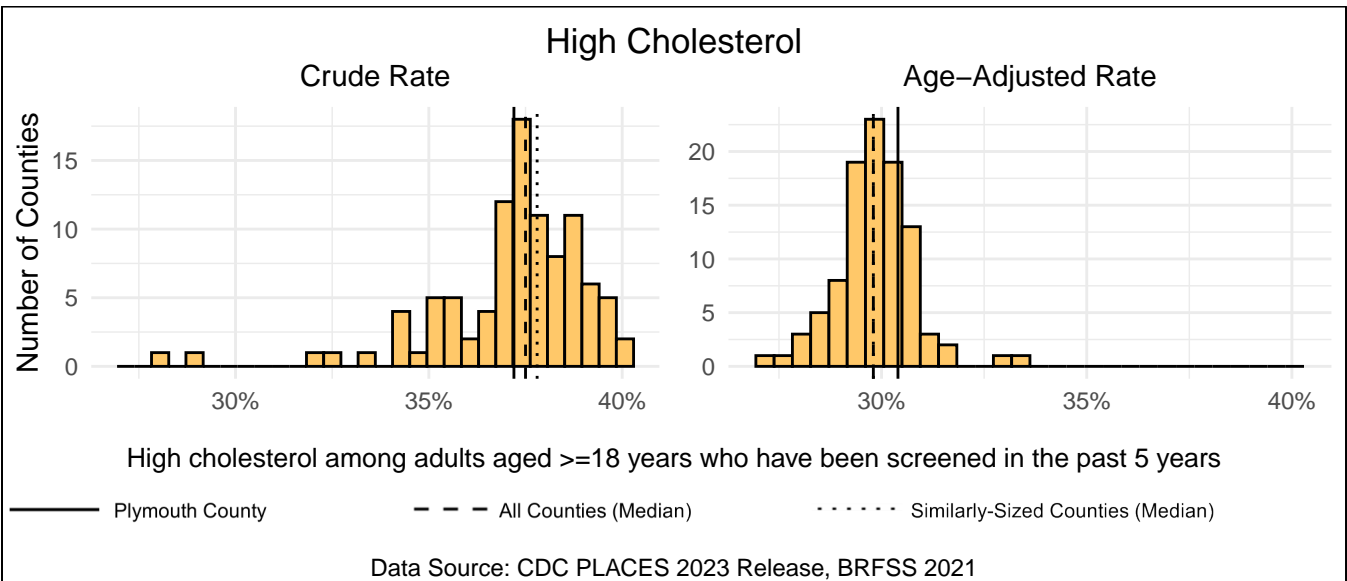
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	10.0%	11.0%	11.3%
Age-Adjusted	8.0%	8.7%	8.7%



High Cholesterol

Plymouth County has a crude rate of 37.2% for high cholesterol among adults aged ≥ 18 years who have been screened in the past 5 years, which ranks 39th out of 99 Iowa counties (19th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 30.4%, which ranks 71st out of 99 Iowa counties (45th out of 63 similarly-sized counties).

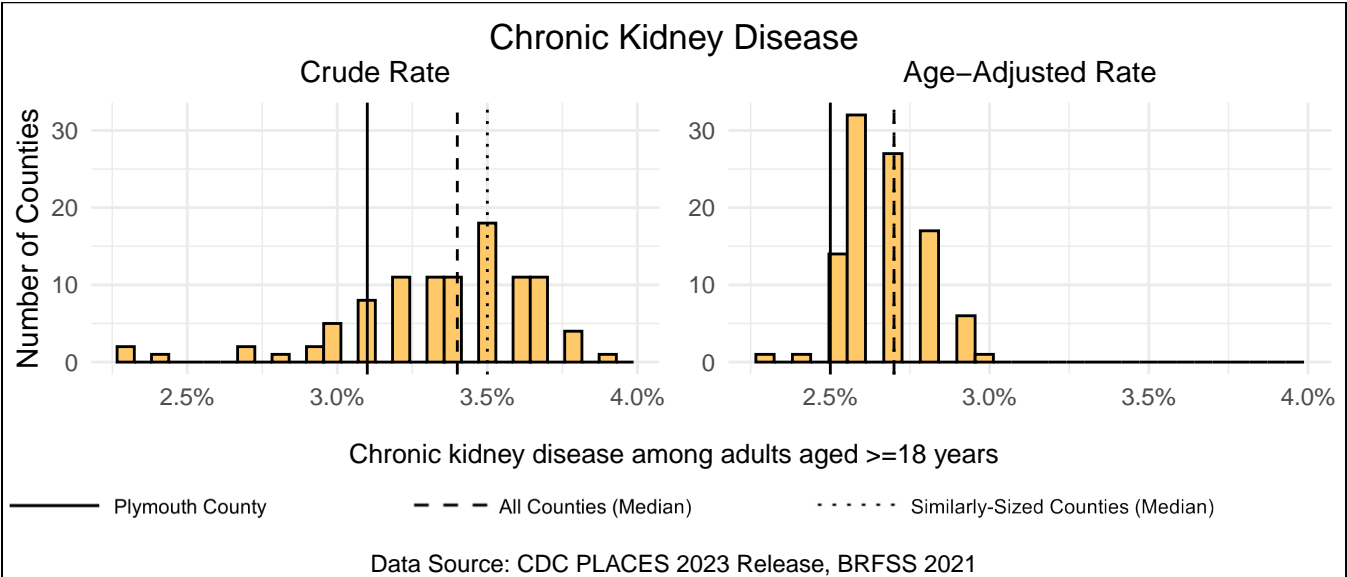
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	37.2%	37.5%	37.8%
Age-Adjusted	30.4%	29.8%	29.8%



Chronic Kidney Disease

Plymouth County has a crude rate of 3.1% for chronic kidney disease among adults aged ≥ 18 years, which ranks 14th out of 99 Iowa counties (2nd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 2.5%, which ranks 3rd out of 99 Iowa counties (1st out of 63 similarly-sized counties).

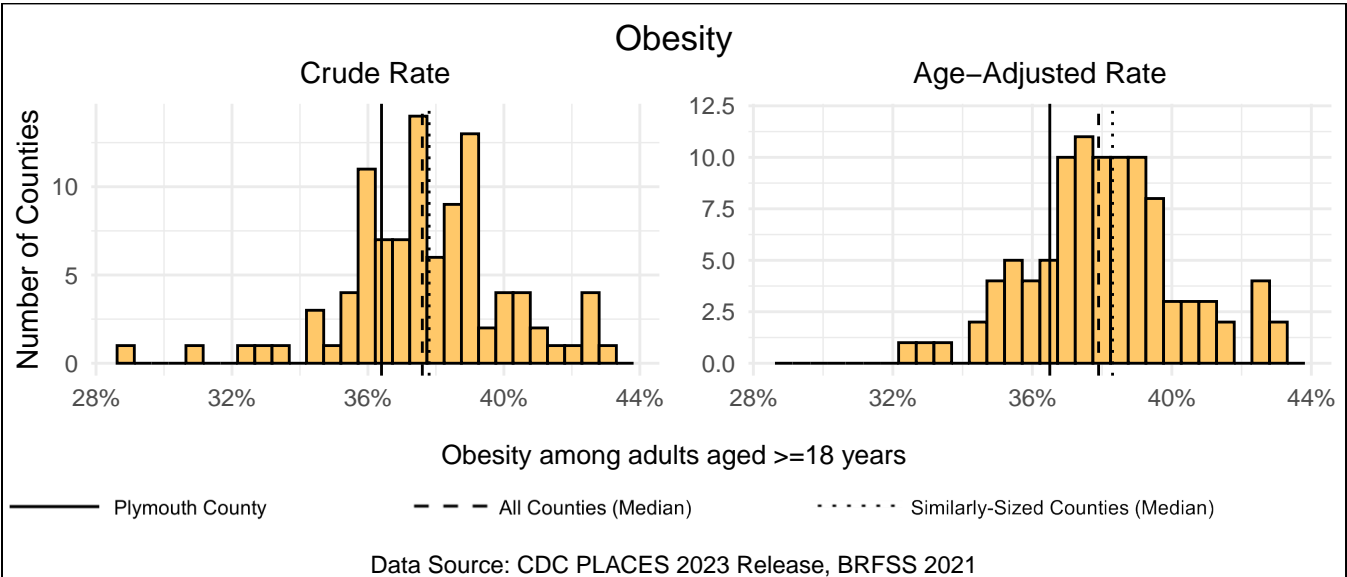
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	3.1%	3.4%	3.5%
Age-Adjusted	2.5%	2.7%	2.7%



Obesity

Plymouth County has a crude rate of 36.4% for obesity among adults aged ≥ 18 years, which ranks 28th out of 99 Iowa counties (14th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 36.5%, which ranks 20th out of 99 Iowa counties (8th out of 63 similarly-sized counties).

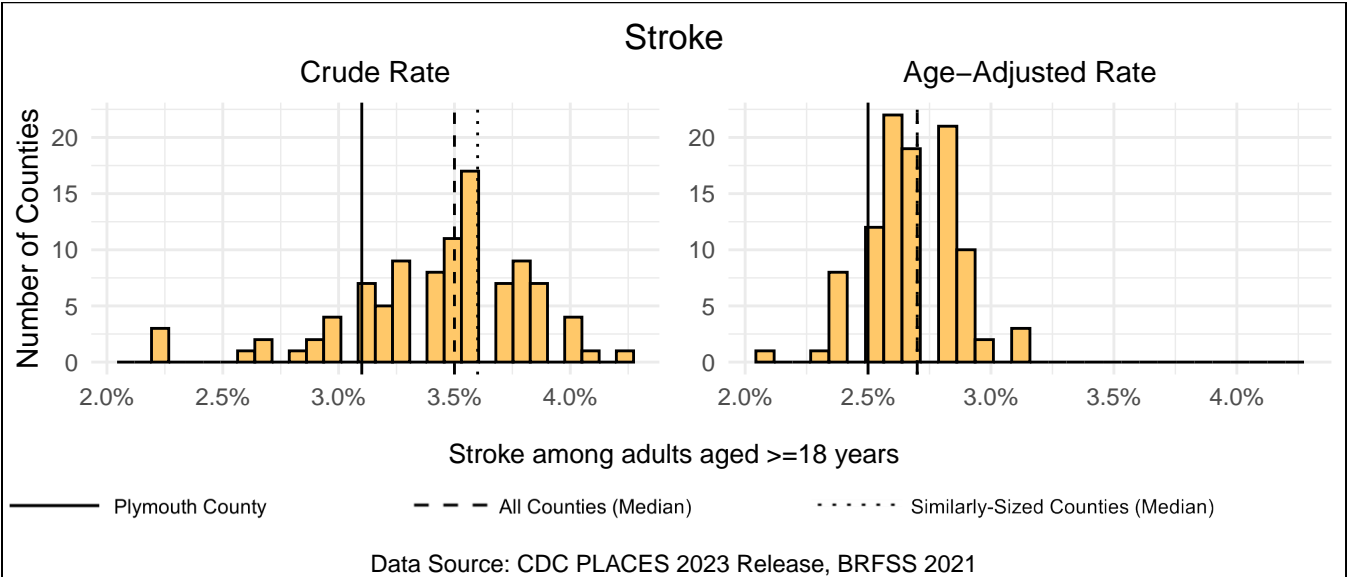
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	36.4%	37.6%	37.8%
Age-Adjusted	36.5%	37.9%	38.3%



Stroke

Plymouth County has a crude rate of 3.1% for stroke among adults aged ≥ 18 years, which ranks 14th out of 99 Iowa counties (3rd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 2.5%, which ranks 11th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

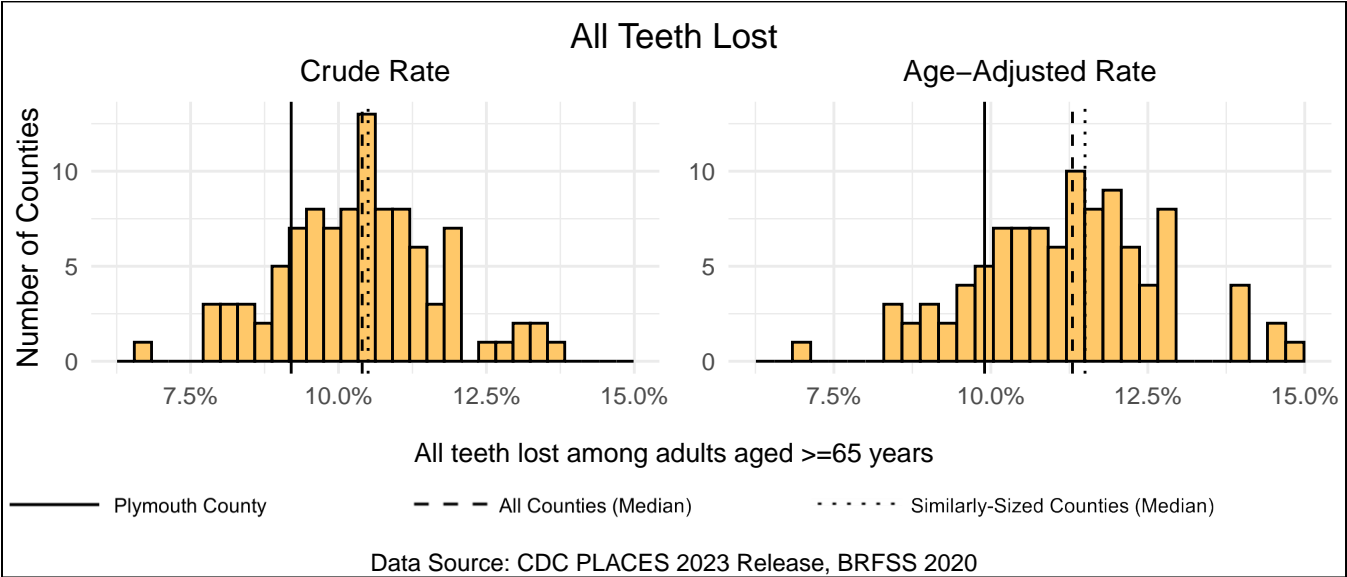
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	3.1%	3.5%	3.6%
Age-Adjusted	2.5%	2.7%	2.7%



All Teeth Lost

Plymouth County has a crude rate of 9.2% for all teeth lost among adults aged ≥ 65 years, which ranks 18th out of 99 Iowa counties (7th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 9.9%, which ranks 17th out of 99 Iowa counties (6th out of 63 similarly-sized counties).

Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	9.2%	10.4%	10.5%
Age-Adjusted	9.9%	11.3%	11.5%



Prevention

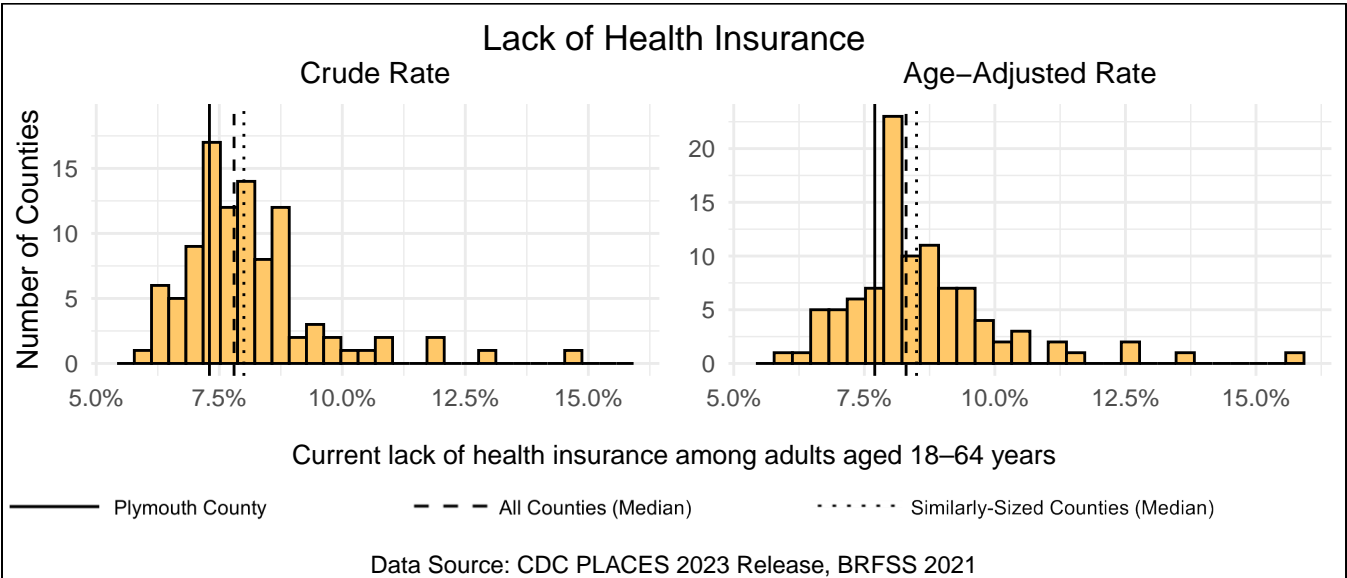
Preventive measures are another practical intervention point for public health professionals as they allow for the early detection of health conditions and improve overall treatment efficacy. This section includes a review of your county’s prevention measures, including preventive screenings and doctor visits. Besides the measure for lack of health insurance, all measures in this section are positive, where a higher rate is a strength for your county. The link below includes more information about each variable.

<https://www.cdc.gov/places/measure-definitions/prevention/index.html>

Lack of Health Insurance

Plymouth County has a crude rate of 7.3% for current lack of health insurance among adults aged 18–64 years, which ranks 23rd out of 99 Iowa counties (9th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 7.7%, which ranks 20th out of 99 Iowa counties (7th out of 63 similarly-sized counties).

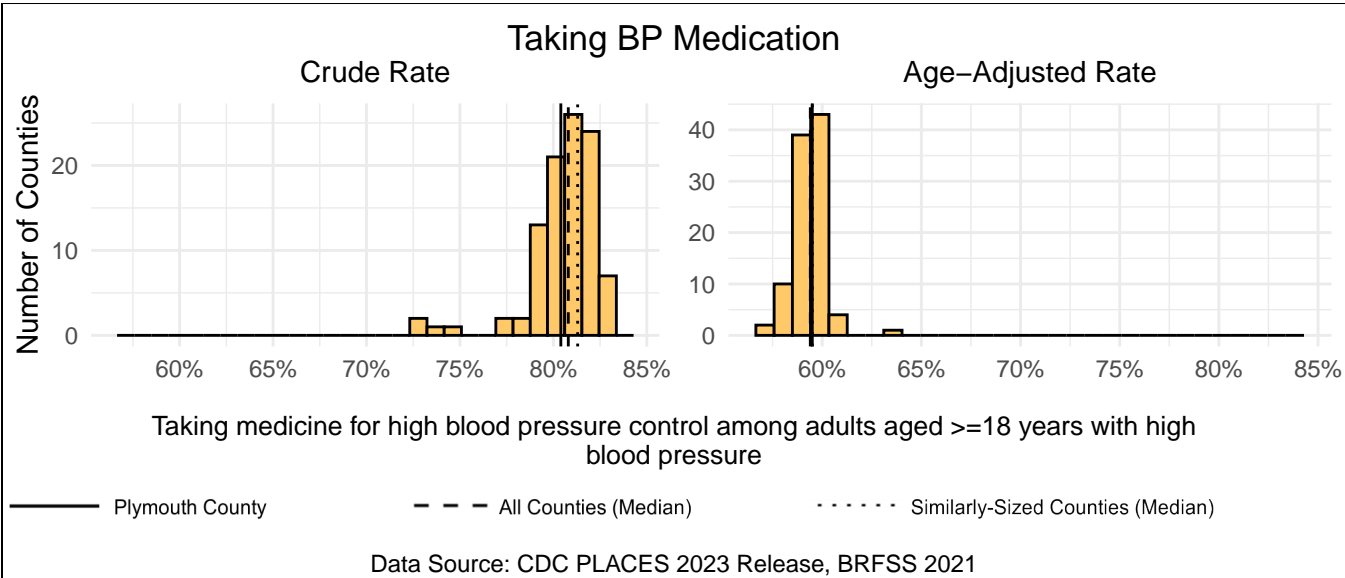
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	7.3%	7.8%	8.0%
Age-Adjusted	7.7%	8.3%	8.5%



Taking BP Medication

Plymouth County has a crude rate of 80.4% for taking medicine for high blood pressure control among adults aged >=18 years with high blood pressure, which ranks 66th out of 99 Iowa counties (52nd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 59.5%, which ranks 41st out of 99 Iowa counties (26th out of 63 similarly-sized counties).

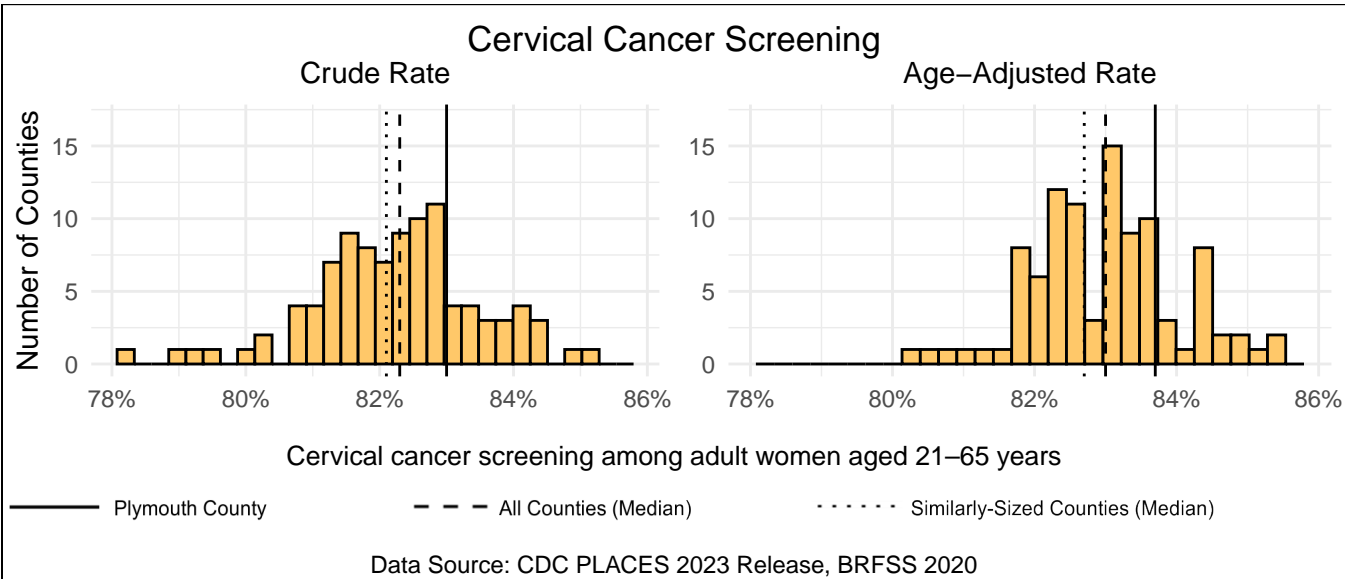
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	80.4%	80.8%	81.3%
Age-Adjusted	59.5%	59.4%	59.5%



Cervical Cancer Screening

Plymouth County has a crude rate of 83.0% for cervical cancer screening among adult women aged 21–65 years, which ranks 22nd out of 99 Iowa counties (9th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 83.7%, which ranks 20th out of 99 Iowa counties (8th out of 63 similarly-sized counties).

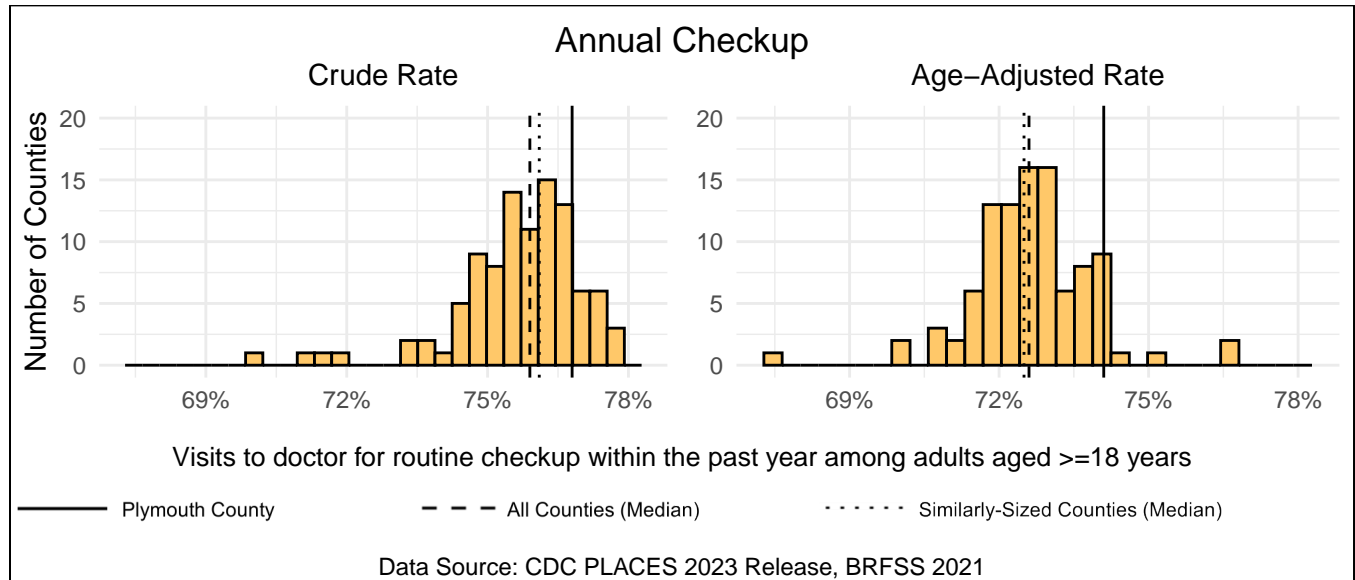
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	83.0%	82.3%	82.1%
Age-Adjusted	83.7%	83.0%	82.7%



Annual Checkup

Plymouth County has a crude rate of 76.8% for visits to doctor for routine checkup within the past year among adults aged ≥ 18 years, which ranks 16th out of 99 Iowa counties (12th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 74.1%, which ranks 9th out of 99 Iowa counties (2nd out of 63 similarly-sized counties).

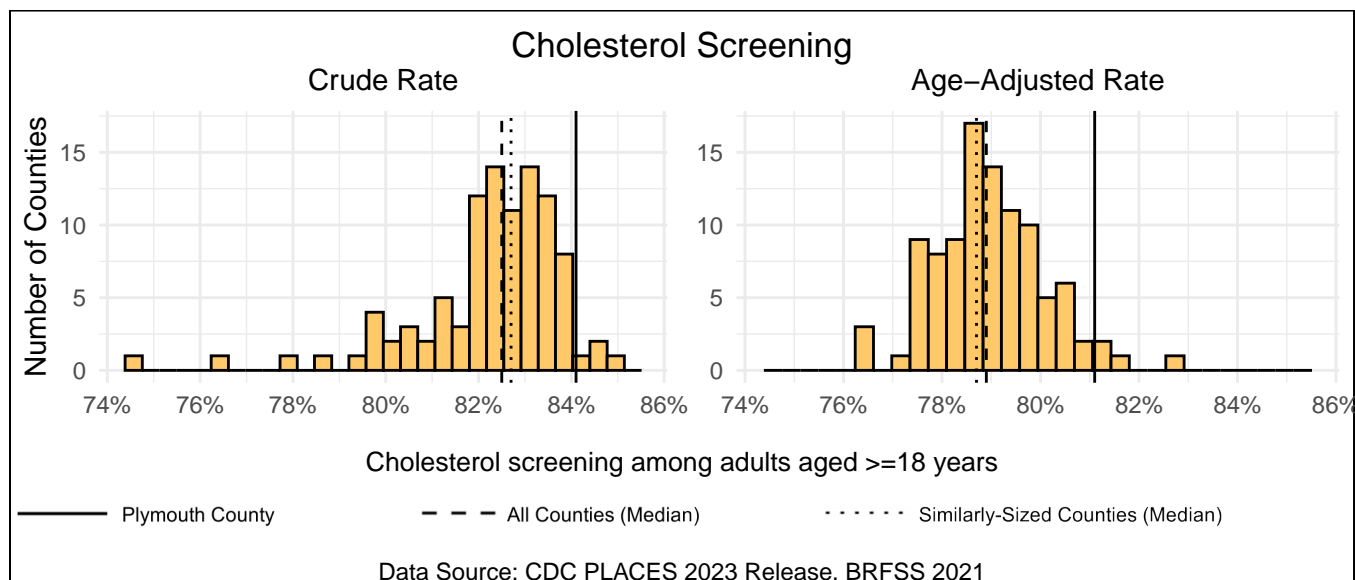
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	76.8%	75.9%	76.1%
Age-Adjusted	74.1%	72.6%	72.5%



Cholesterol Screening

Plymouth County has a crude rate of 84.1% for cholesterol screening among adults aged ≥ 18 years, which ranks 4th out of 99 Iowa counties (2nd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 81.1%, which ranks 3rd out of 99 Iowa counties (1st out of 63 similarly-sized counties).

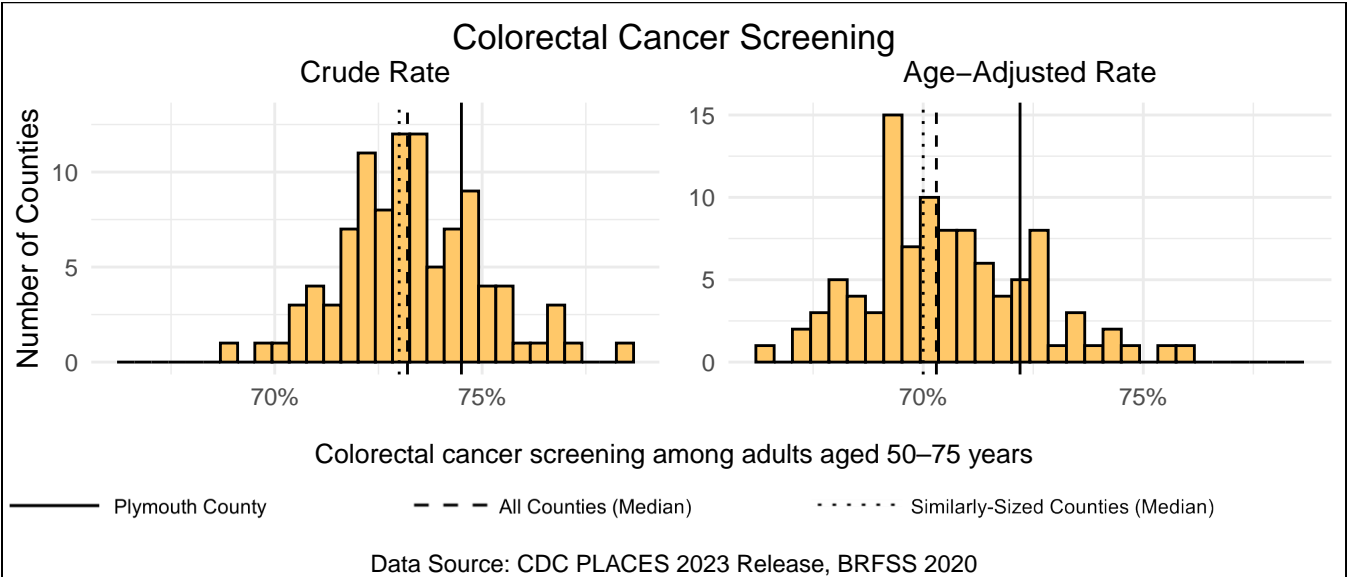
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	84.1%	82.5%	82.7%
Age-Adjusted	81.1%	78.9%	78.7%



Colorectal Cancer Screening

Plymouth County has a crude rate of 74.5% for colorectal cancer screening among adults aged 50–75 years, which ranks 22nd out of 99 Iowa counties (11th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 72.2%, which ranks 21st out of 99 Iowa counties (7th out of 63 similarly-sized counties).

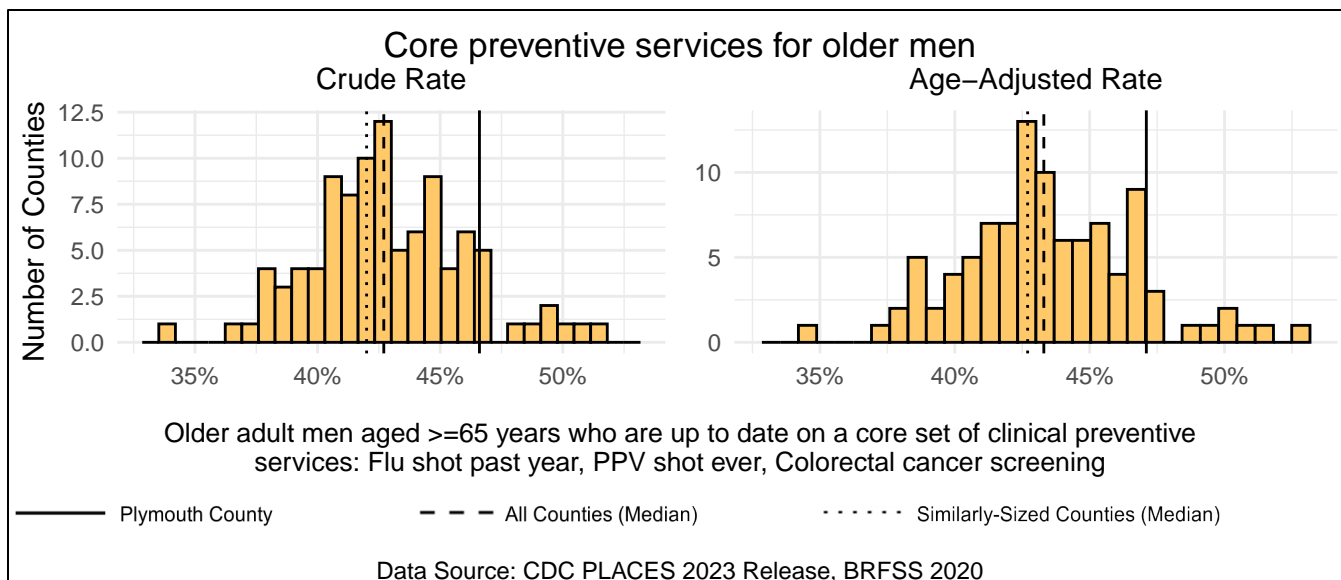
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	74.5%	73.2%	73.0%
Age-Adjusted	72.2%	70.3%	70.0%



Core preventive services for older men

Plymouth County has a crude rate of 46.6% for older adult men aged ≥ 65 years who are up to date on a core set of clinical preventive services: flu shot past year, ppv shot ever, colorectal cancer screening, which ranks 10th out of 99 Iowa counties (4th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 47.1%, which ranks 10th out of 99 Iowa counties (4th out of 63 similarly-sized counties).

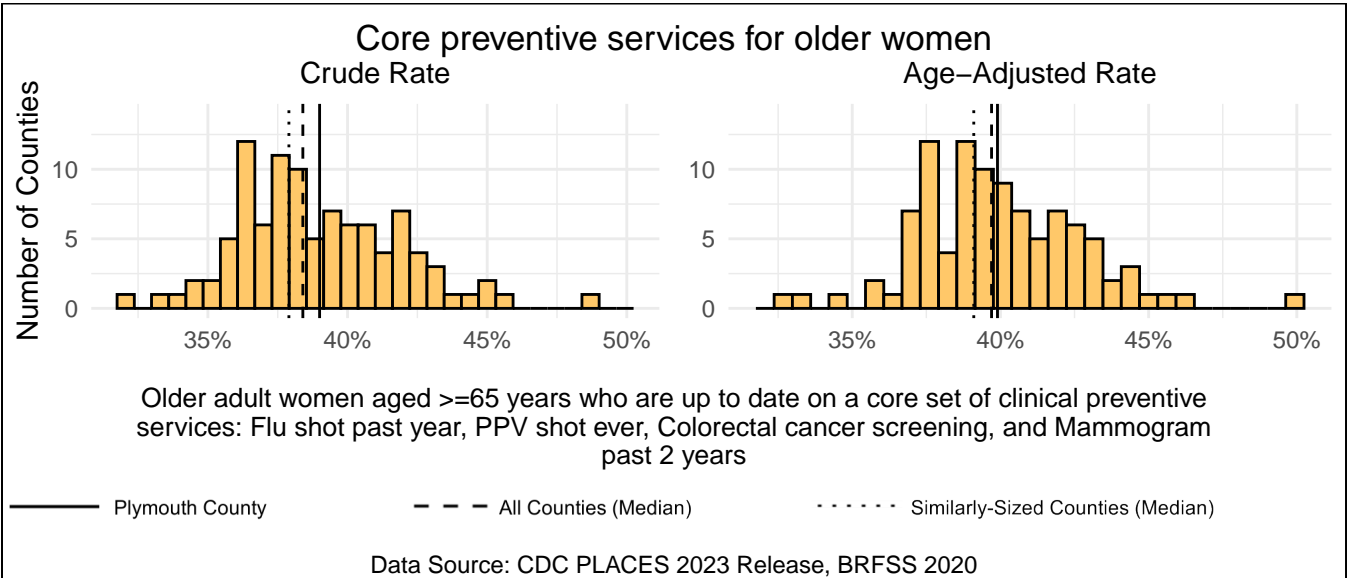
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	46.6%	42.7%	42.0%
Age-Adjusted	47.1%	43.3%	42.7%



Core preventive services for older women

Plymouth County has a crude rate of 39.0% for older adult women aged ≥ 65 years who are up to date on a core set of clinical preventive services: flu shot past year, ppv shot ever, colorectal cancer screening, and mammogram past 2 years, which ranks 44th out of 99 Iowa counties (17th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 39.9%, which ranks 45th out of 99 Iowa counties (20th out of 63 similarly-sized counties).

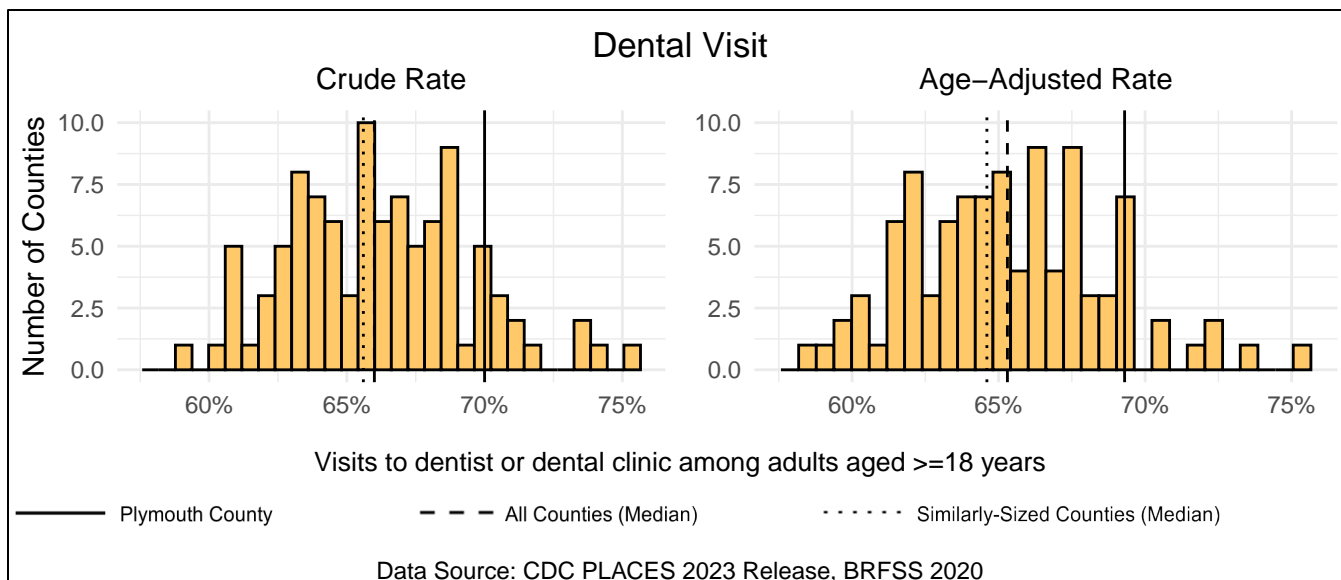
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	39.0%	38.4%	37.9%
Age-Adjusted	39.9%	39.7%	39.1%



Dental Visit

Plymouth County has a crude rate of 70.0% for visits to dentist or dental clinic among adults aged ≥ 18 years, which ranks 11th out of 99 Iowa counties (5th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 69.3%, which ranks 13th out of 99 Iowa counties (6th out of 63 similarly-sized counties).

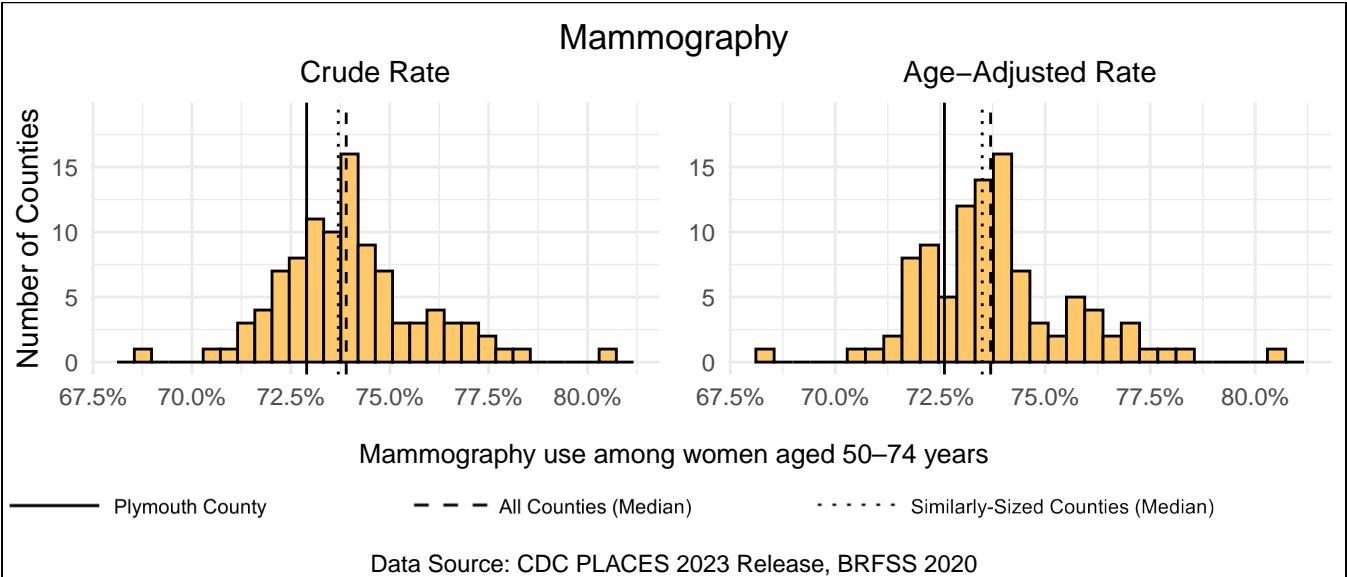
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	70.0%	66.0%	65.6%
Age-Adjusted	69.3%	65.3%	64.6%



Mammography

Plymouth County has a crude rate of 72.9% for mammography use among women aged 50–74 years, which ranks 73rd out of 99 Iowa counties (45th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 72.6%, which ranks 74th out of 99 Iowa counties (46th out of 63 similarly-sized counties).

Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	72.9%	73.9%	73.7%
Age-Adjusted	72.6%	73.7%	73.5%



Disability

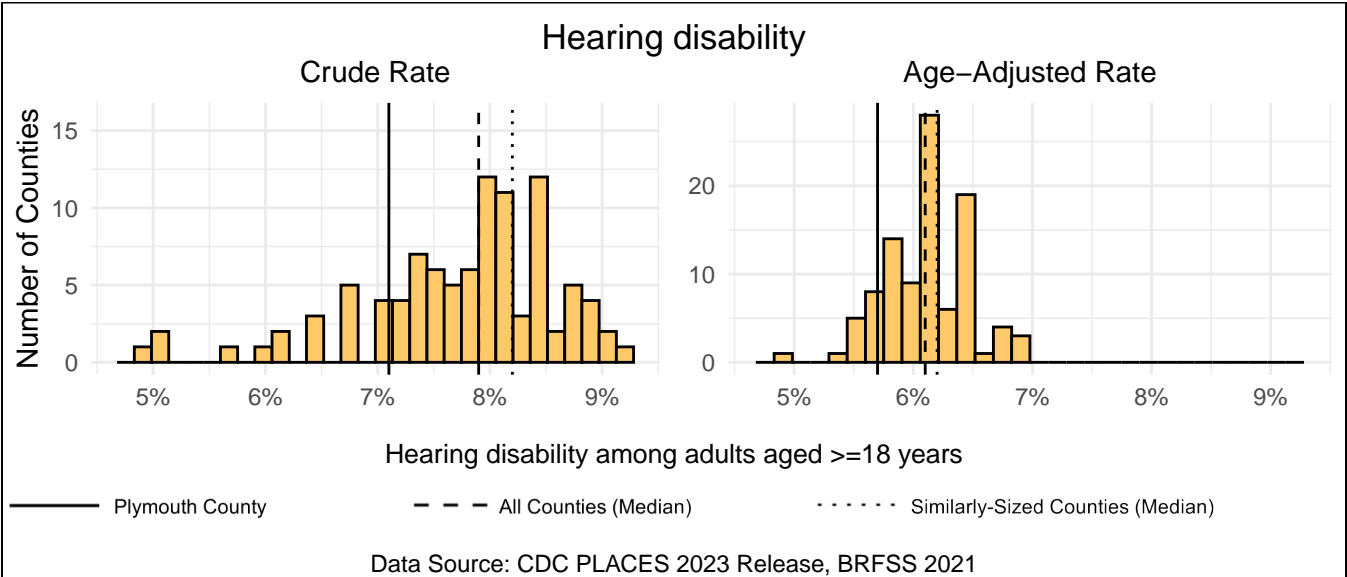
This section includes measures of physical and cognitive disabilities. Respondents were asked to report on six disabilities: hearing, vision, cognition, mobility, self-care, and independent living. The final measure reports the rate of respondents that answered yes to any of the previous six disabilities. The link below includes more information about each variable.

<https://www.cdc.gov/places/measure-definitions/unhealthy-behaviors/index.html>

Hearing disability

Plymouth County has a crude rate of 7.1% for hearing disability among adults aged ≥ 18 years, which ranks 17th out of 99 Iowa counties (3rd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 5.7%, which ranks 12th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

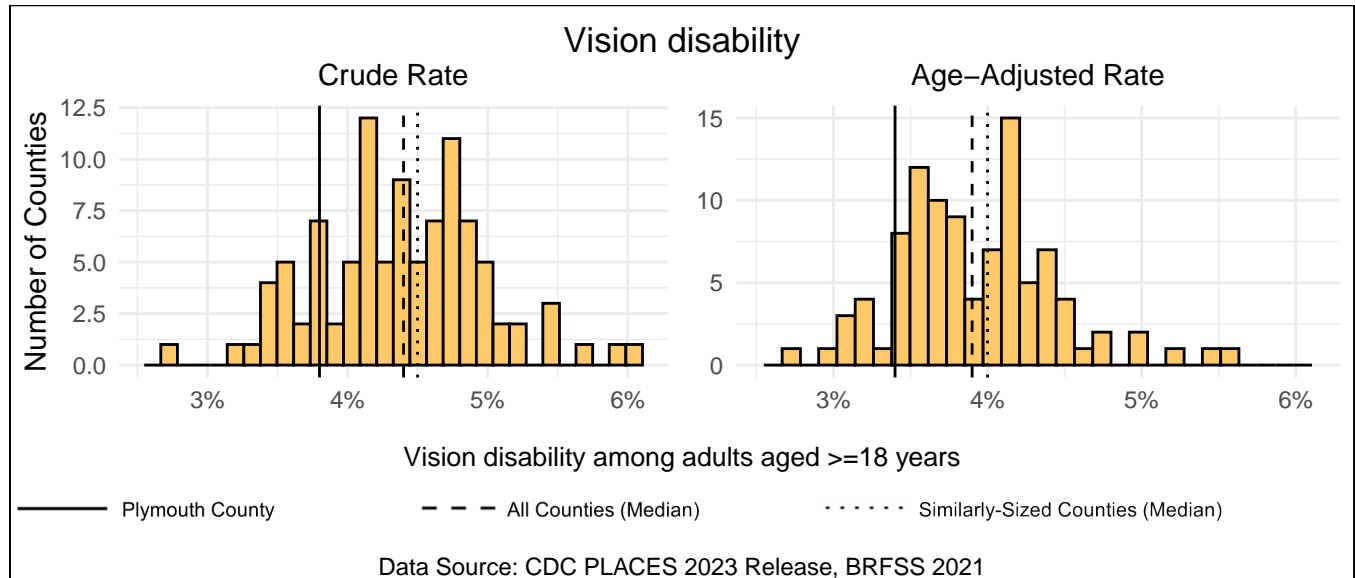
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	7.1%	7.9%	8.2%
Age-Adjusted	5.7%	6.1%	6.2%



Vision disability

Plymouth County has a crude rate of 3.8% for vision disability among adults aged ≥ 18 years, which ranks 15th out of 99 Iowa counties (4th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 3.4%, which ranks 11th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

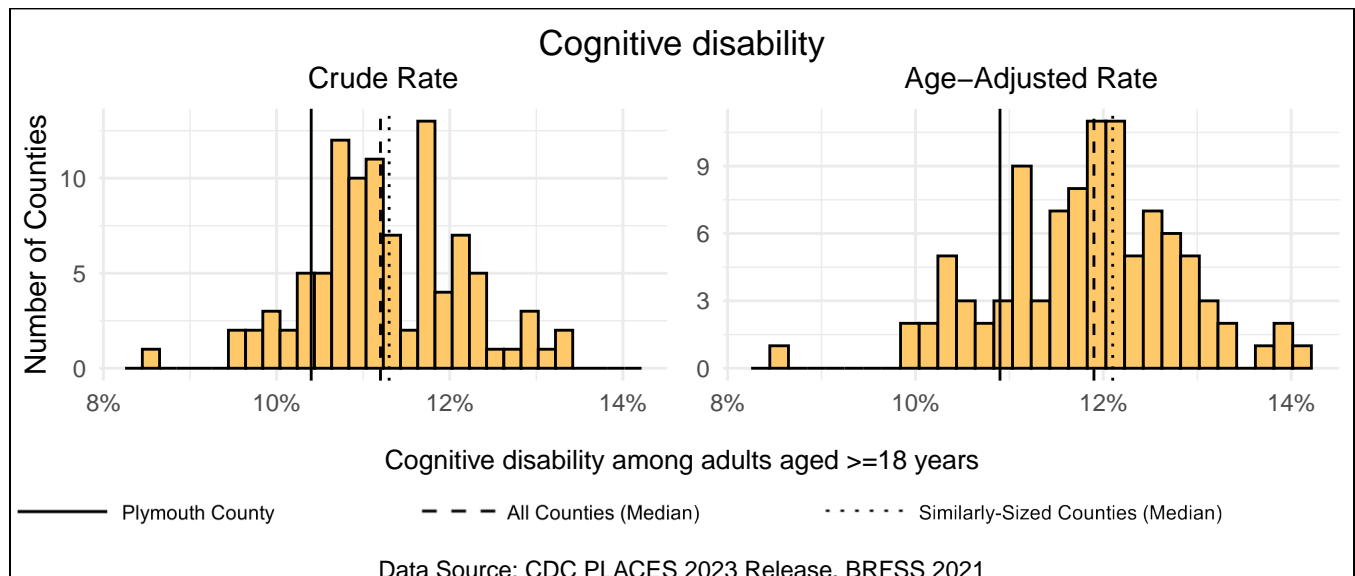
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	3.8%	4.4%	4.5%
Age-Adjusted	3.4%	3.9%	4.0%



Cognitive disability

Plymouth County has a crude rate of 10.4% for cognitive disability among adults aged ≥ 18 years, which ranks 13th out of 99 Iowa counties (4th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 10.9%, which ranks 16th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

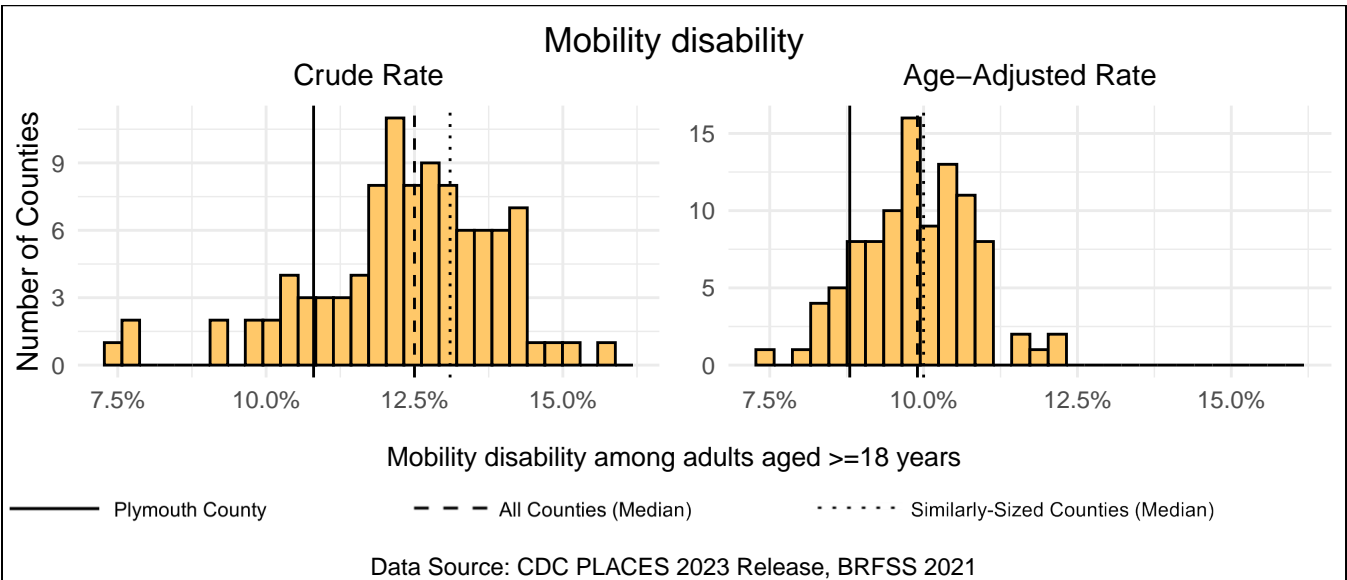
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	10.4%	11.2%	11.3%
Age-Adjusted	10.9%	11.9%	12.1%



Mobility disability

Plymouth County has a crude rate of 10.8% for mobility disability among adults aged >=18 years, which ranks 16th out of 99 Iowa counties (4th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 8.8%, which ranks 12th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

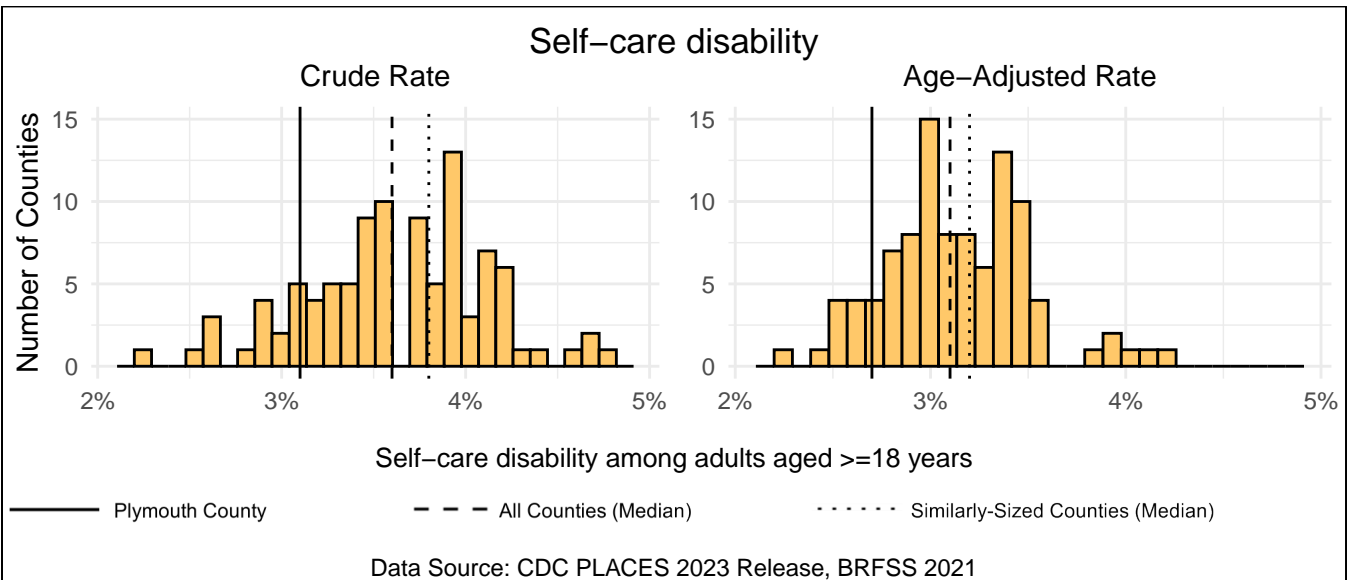
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	10.8%	12.5%	13.1%
Age-Adjusted	8.8%	9.9%	10.0%



Self-care disability

Plymouth County has a crude rate of 3.1% for self-care disability among adults aged >=18 years, which ranks 13th out of 99 Iowa counties (3rd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 2.7%, which ranks 11th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

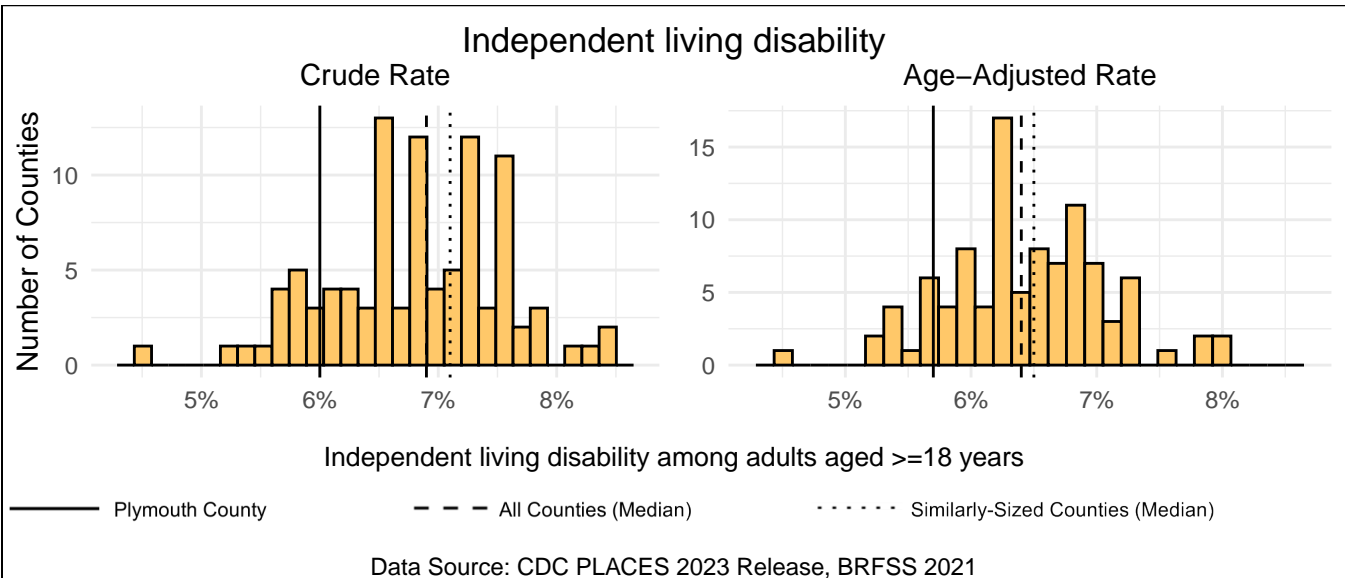
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	3.1%	3.6%	3.8%
Age-Adjusted	2.7%	3.1%	3.2%



Independent living disability

Plymouth County has a crude rate of 6.0% for independent living disability among adults aged ≥ 18 years, which ranks 14th out of 99 Iowa counties (3rd out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 5.7%, which ranks 13th out of 99 Iowa counties (3rd out of 63 similarly-sized counties).

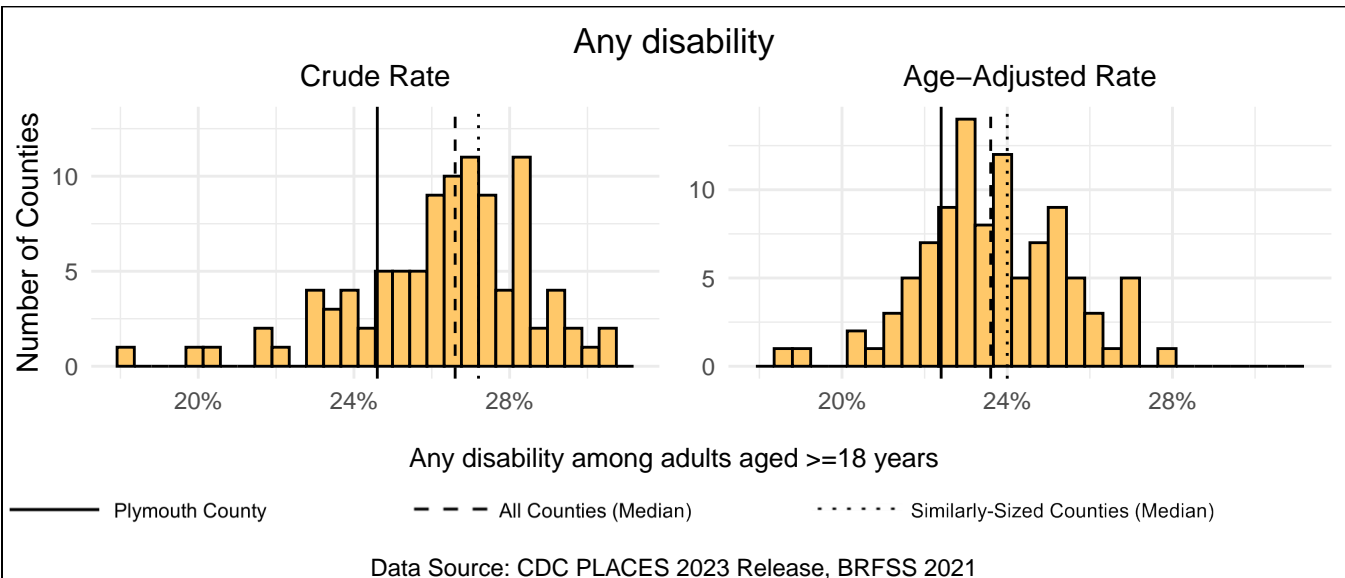
Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	6.0%	6.9%	7.1%
Age-Adjusted	5.7%	6.4%	6.5%



Any disability

Plymouth County has a crude rate of 24.6% for any disability among adults aged ≥ 18 years, which ranks 20th out of 99 Iowa counties (6th out of 63 similarly-sized counties). The age-adjusted rate for Plymouth County is 22.4%, which ranks 21st out of 99 Iowa counties (8th out of 63 similarly-sized counties).

Measure Type	Plymouth County	All Counties	Similarly-Sized Counties
Crude	24.6%	26.6%	27.2%
Age-Adjusted	22.4%	23.6%	24.0%



Appendix 1: CDC PLACES Data

This report uses a novel dataset from the Centers for Disease Control and Prevention (CDC) called PLACES: Local Data for Better Health. The PLACES dataset uses small area estimation methods to provide estimates of health measures for counties, places, census tracts, and zip code tabulation areas. The estimates are created with a multilevel statistical modeling framework that utilizes CDC's Behavioral Risk Factor Surveillance System (BRFSS), Census population counts, and American Community Survey demographic and socioeconomic data.

Relevant links for CDC PLACES can be found below:

- [PLACES Homepage](#)
- [Measure Definitions](#)
- [Methodology](#)



Appendix 2: Plymouth County PLACES Data

Category	Health Domain	Crude Rate Rank	Crude Rate (95% CI)	Age-Adj. Rate Rank	Age-Adj. Rate (95% CI)
Health Status	Mental Health	9	13.5% (11.5% - 15.7%)	10	14.7% (12.6% - 17.1%)
Health Status	Physical Health	15	10.0% (8.5% - 11.8%)	16	9.1% (7.7% - 10.7%)
Health Status	General Health	15	13.0% (10.8% - 15.6%)	14	11.8% (9.8% - 14.1%)
Health Risk Behaviors	Sleep <7 hours	7	28.0% (26.5% - 29.5%)	6	29.0% (27.5% - 30.5%)
Health Risk Behaviors	Current Smoking	15	15.3% (12.1% - 19.3%)	16	16.0% (12.5% - 19.9%)
Health Risk Behaviors	Physical Inactivity	12	23.7% (19.3% - 28.5%)	12	22.4% (18.3% - 26.9%)
Health Risk Behaviors	Binge Drinking	81	19.8% (16.5% - 23.3%)	89	22.4% (18.8% - 26.3%)
Health Outcomes	Arthritis	20	26.7% (23.1% - 30.4%)	15	22.0% (18.8% - 25.2%)
Health Outcomes	COPD	15	6.9% (5.7% - 8.3%)	15	5.7% (4.7% - 6.9%)
Health Outcomes	Coronary Heart Disease	16	6.3% (5.4% - 7.2%)	9	4.8% (4.1% - 5.5%)
Health Outcomes	Chronic Kidney Disease	14	3.1% (2.8% - 3.5%)	3	2.5% (2.3% - 2.8%)
Health Outcomes	Current Asthma	4	9.0% (7.9% - 10.2%)	4	9.1% (8.0% - 10.4%)
Health Outcomes	Obesity	28	36.4% (30.1% - 42.7%)	20	36.5% (30.1% - 42.8%)
Health Outcomes	All Teeth Lost	18	9.2% (5.9% - 13.0%)	17	9.9% (6.5% - 13.9%)
Health Outcomes	High Blood Pressure	36	32.8% (28.9% - 36.7%)	40	27.7% (24.3% - 31.3%)
Health Outcomes	Diabetes	17	10.0% (8.3% - 11.6%)	13	8.0% (6.8% - 9.4%)
Health Outcomes	Cancer (except skin)	31	8.1% (7.3% - 9.0%)	26	6.4% (5.7% - 7.0%)
Health Outcomes	High Cholesterol	39	37.2% (32.8% - 41.5%)	71	30.4% (26.2% - 34.5%)
Health Outcomes	Stroke	14	3.1% (2.7% - 3.6%)	11	2.5% (2.2% - 2.8%)
Health Outcomes	Depression	12	17.0% (13.9% - 20.2%)	10	17.9% (14.7% - 21.2%)
Prevention	Taking BP Medication	66	80.4% (77.1% - 83.2%)	41	59.5% (54.5% - 64.3%)
Prevention	Cholesterol Screening	4	84.1% (81.3% - 86.6%)	3	81.1% (77.8% - 84.2%)
Prevention	Mammography	73	72.9% (68.2% - 76.8%)	74	72.6% (67.8% - 76.7%)
Prevention	Dental Visit	11	70.0% (66.7% - 73.4%)	13	69.3% (66.0% - 72.6%)
Prevention	Health Insurance	23	7.3% (5.6% - 9.2%)	20	7.7% (6.0% - 9.9%)
Prevention	Core preventive services for older men	10	46.6% (37.8% - 55.6%)	10	47.1% (38.4% - 55.9%)

Category	Health Domain	Crude Rate Rank	Crude Rate (95% CI)	Age-Adj. Rate Rank	Age-Adj. Rate (95% CI)
Prevention	Colorectal Cancer Screening	22	74.5% (71.6% - 77.3%)	21	72.2% (69.1% - 75.4%)
Prevention	Core preventive services for older women	44	39.0% (31.3% - 47.1%)	45	39.9% (32.3% - 47.9%)
Prevention	Annual Checkup	16	76.8% (72.2% - 80.7%)	9	74.1% (69.2% - 78.4%)
Prevention	Cervical Cancer Screening	22	83.0% (80.4% - 85.6%)	20	83.7% (81.3% - 86.1%)
Disability	Vision Disability	15	3.8% (3.2% - 4.4%)	11	3.4% (2.9% - 4.0%)
Disability	Any Disability	20	24.6% (20.7% - 28.9%)	21	22.4% (18.9% - 26.6%)
Disability	Mobility Disability	16	10.8% (8.9% - 12.8%)	12	8.8% (7.3% - 10.5%)
Disability	Cognitive Disability	13	10.4% (8.7% - 12.4%)	16	10.9% (9.1% - 13.1%)
Disability	Hearing Disability	17	7.1% (6.2% - 8.0%)	12	5.7% (5.0% - 6.6%)
Disability	Self-care Disability	13	3.1% (2.6% - 3.6%)	11	2.7% (2.3% - 3.2%)
Disability	Independent Living Disability	14	6.0% (5.0% - 7.1%)	13	5.7% (4.8% - 6.8%)

The 95% confidence interval shown in parentheses represents the range of 95% of CDC area estimates under different model assumptions using Monte Carlo simulations.

Appendix 3: Rural Counties

Plymouth County falls into the group of rural counties. In this data, 63 counties fall into this group. The table below lists all counties in the group, sorted by the population estimate in the CDC PLACES dataset.

County	Population	County	Population	County	Population
Sioux County	35,893	Lyon County	12,011	Pocahontas County	7,074
Boone County	26,723	Chickasaw County	11,887	Ida County	6,956
Plymouth County	25,650	Shelby County	11,770	Fremont County	6,567
Buchanan County	20,657	Cherokee County	11,503	Wayne County	6,508
Henry County	20,387	Louisa County	10,749	Osceola County	6,159
Winneshiek County	19,892	Hancock County	10,663	Taylor County	5,868
Jackson County	19,368	Winnebago County	10,656	Audubon County	5,635
Fayette County	19,258	Mitchell County	10,555	Ringgold County	4,639
Poweshiek County	18,586	Montgomery County	10,322	Adams County	3,641
Cedar County	18,410	Franklin County	9,952		
Delaware County	17,510	Calhoun County	9,915		
Clayton County	16,998	Keokuk County	9,914		
Tama County	16,867	Clarke County	9,785		
Hardin County	16,708	Sac County	9,752		
Iowa County	16,568	Humboldt County	9,634		
Crawford County	16,193	Howard County	9,478		
Floyd County	15,413	Emmet County	9,321		
Page County	15,197	Davis County	9,138		
Hamilton County	14,887	Palo Alto County	8,906		
Kossuth County	14,529	Greene County	8,717		
Butler County	14,332	Lucas County	8,710		
O'Brien County	14,015	Monona County	8,574		
Allamakee County	13,926	Decatur County	7,659		
Cass County	13,050	Monroe County	7,610		
Wright County	12,785	Adair County	7,541		
Appanoose County	12,257	Worth County	7,385		
Union County	12,018	Van Buren County	7,243		

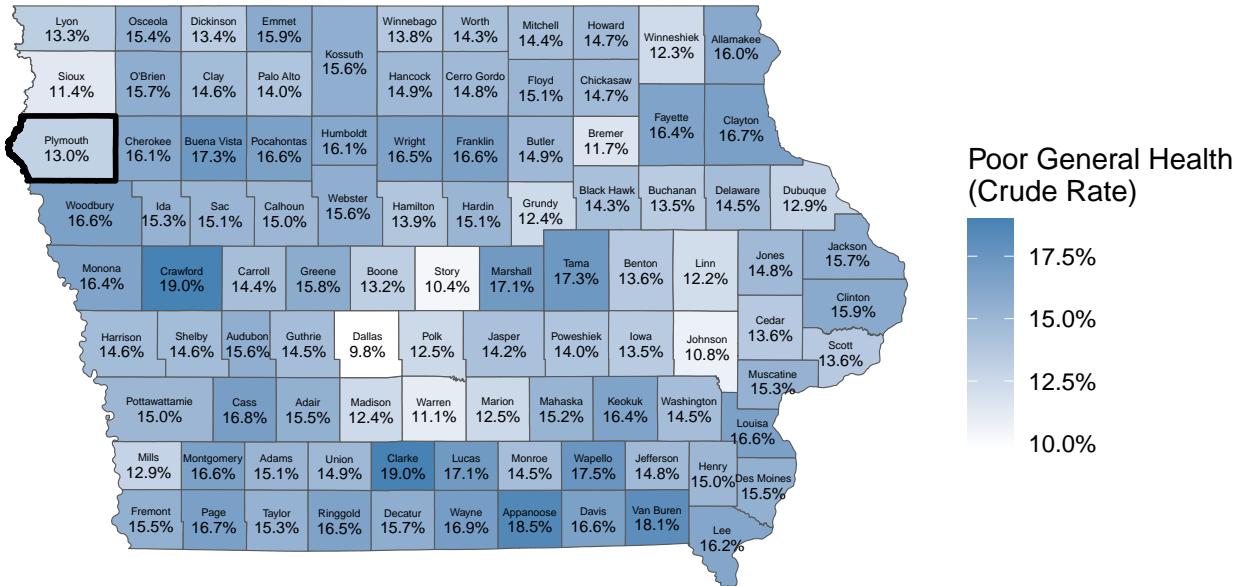
Metropolitan and micropolitan areas can be found in the link and the maps below.



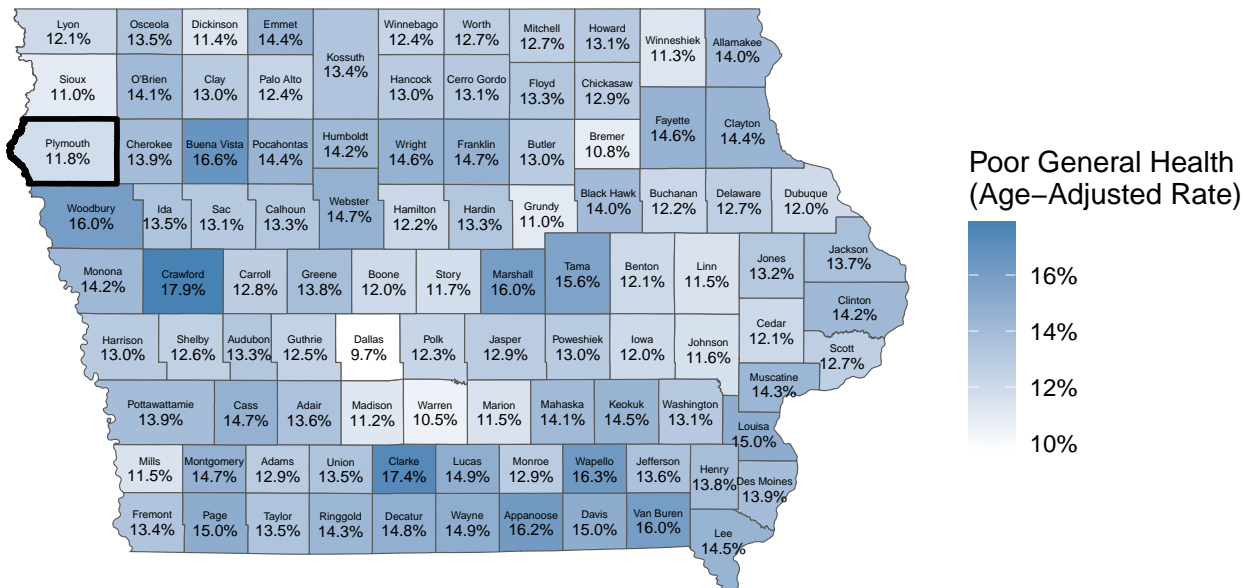
Appendix 4: County Maps

Poor General Health

Fair or poor self-rated health status among adults aged ≥ 18 years



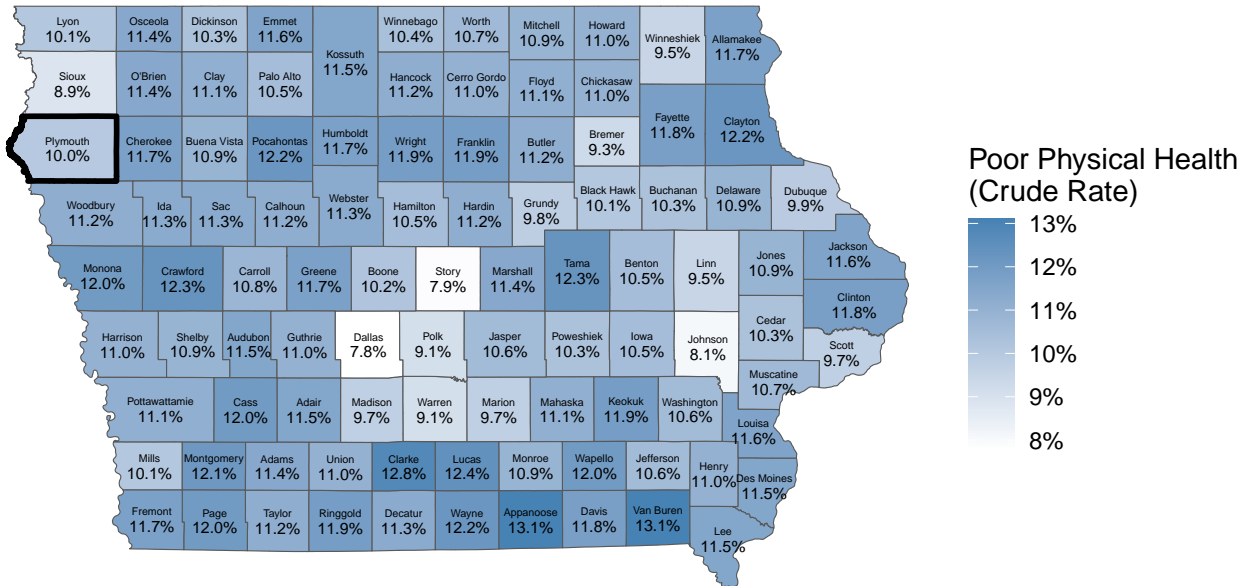
Data Source: CDC PLACES 2023 Release, BRFSS 2021



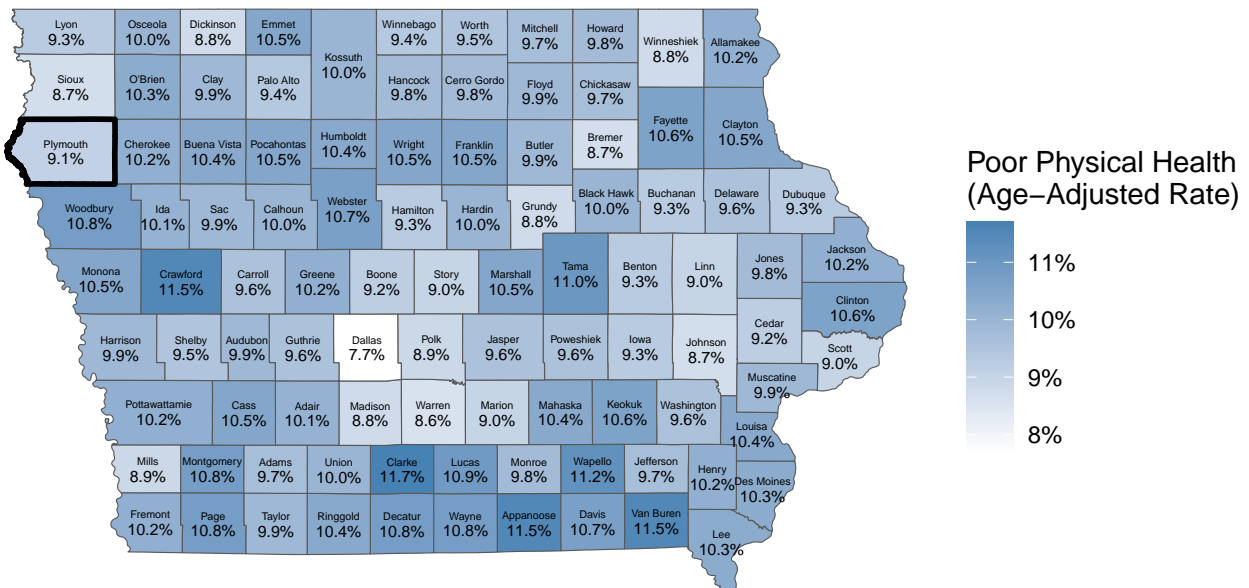
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Poor Physical Health

Physical health not good for ≥ 14 days among adults aged ≥ 18 years



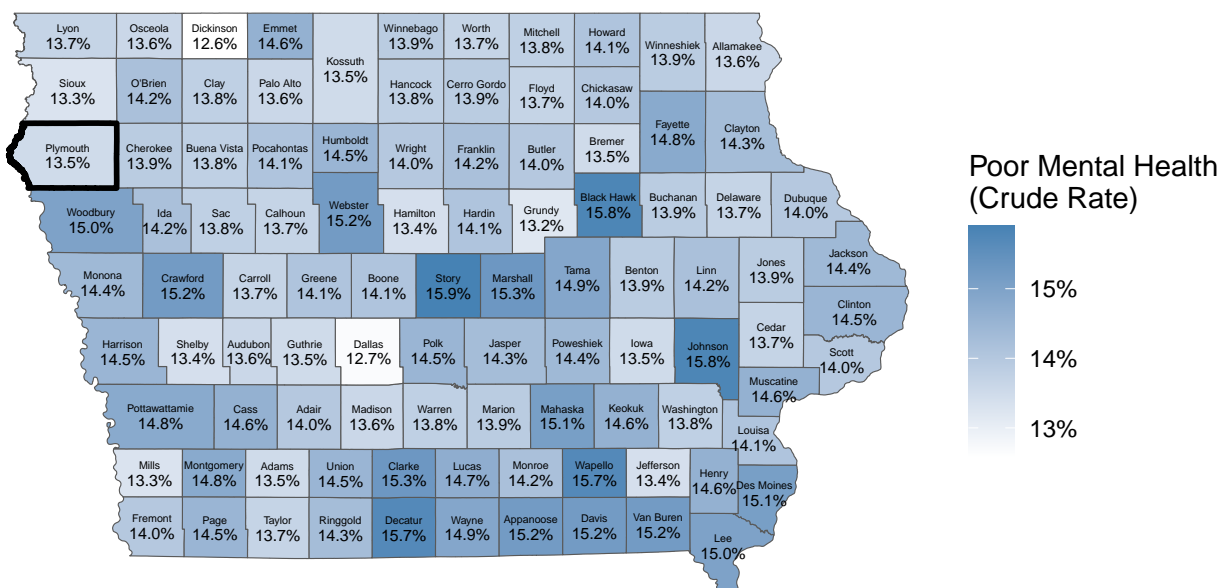
Data Source: CDC PLACES 2023 Release, BRFSS 2021



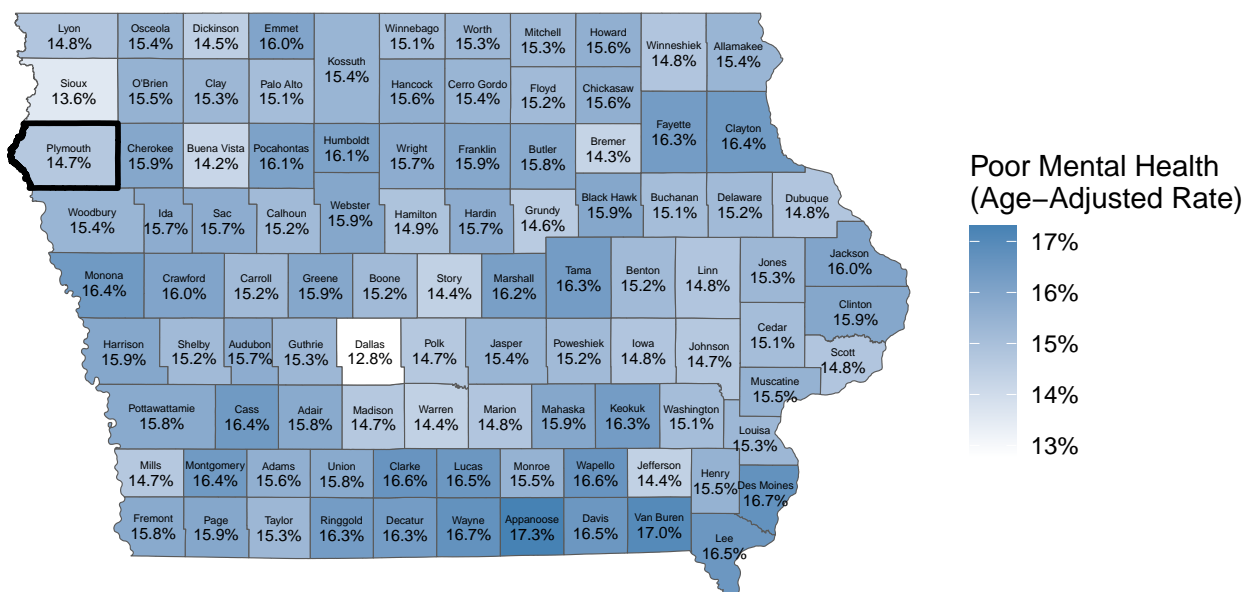
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Poor Mental Health

Mental health not good for ≥ 14 days among adults aged ≥ 18 years



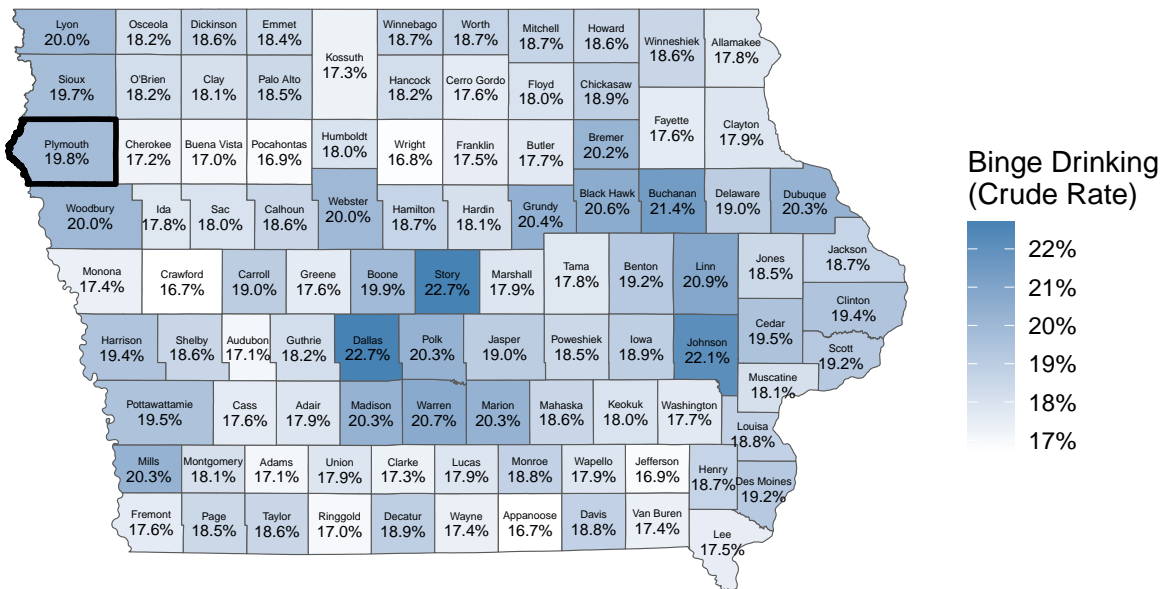
Data Source: CDC PLACES 2023 Release, BRFSS 2021



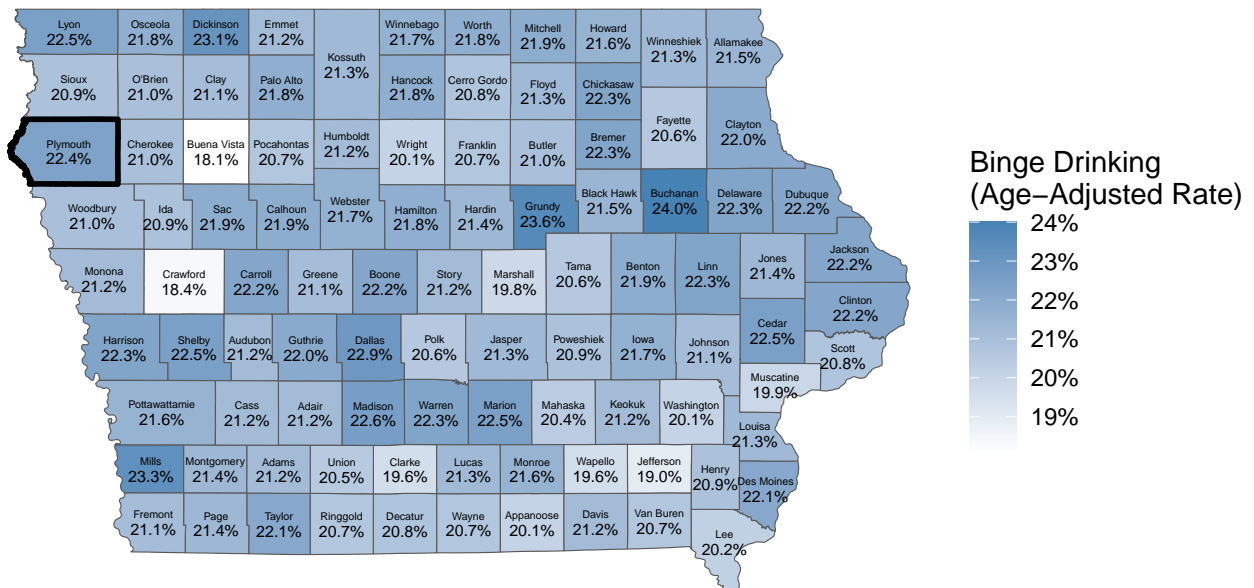
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Binge Drinking

Binge drinking among adults aged >=18 years



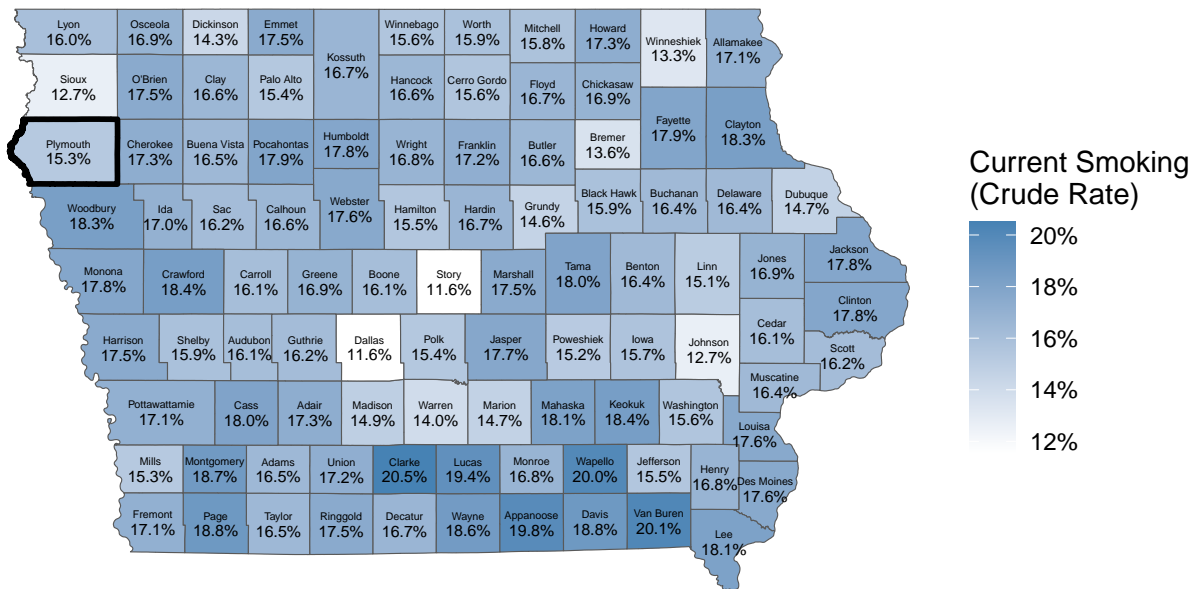
Data Source: CDC PLACES 2023 Release, BRFSS 2021



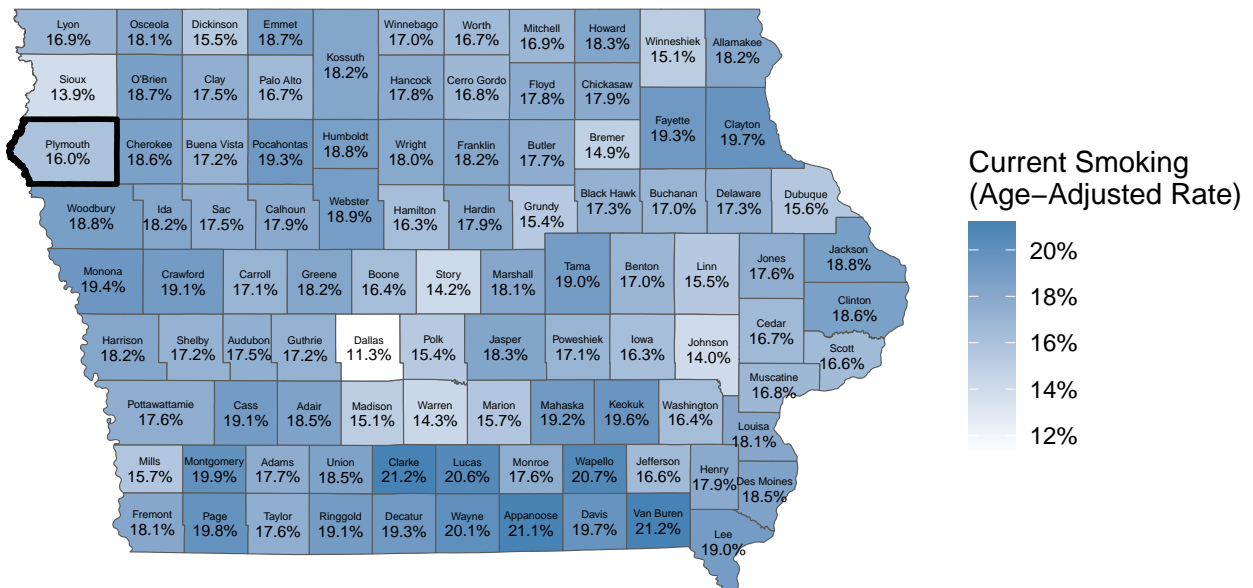
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Current Smoking

Current smoking among adults aged ≥ 18 years



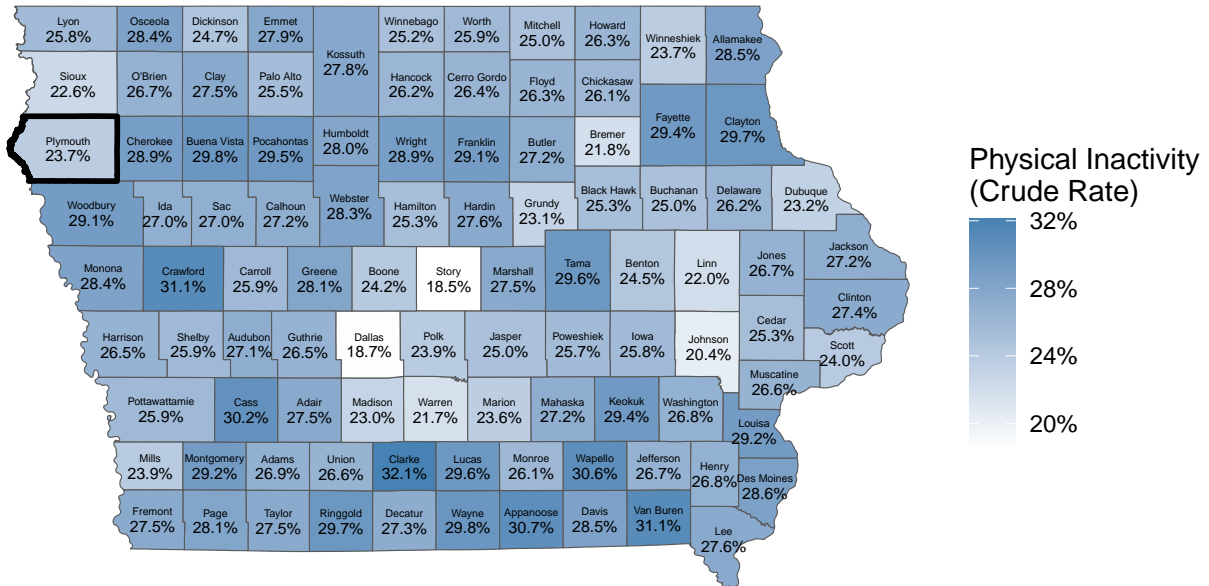
Data Source: CDC PLACES 2023 Release, BRFSS 2021



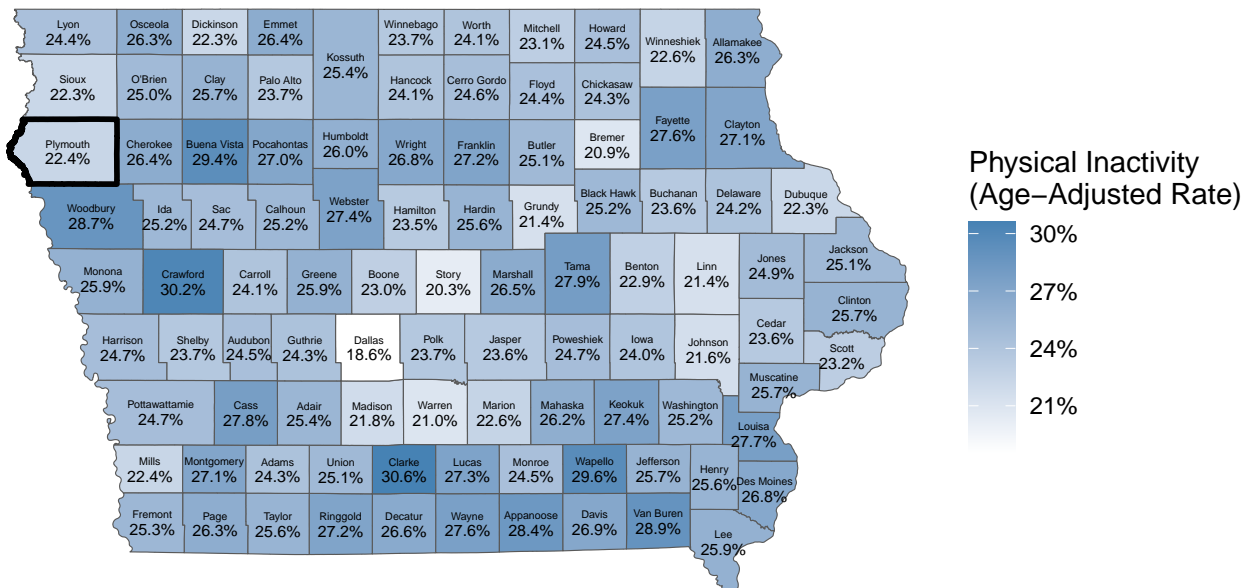
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Physical Inactivity

No leisure-time physical activity among adults aged ≥ 18 years



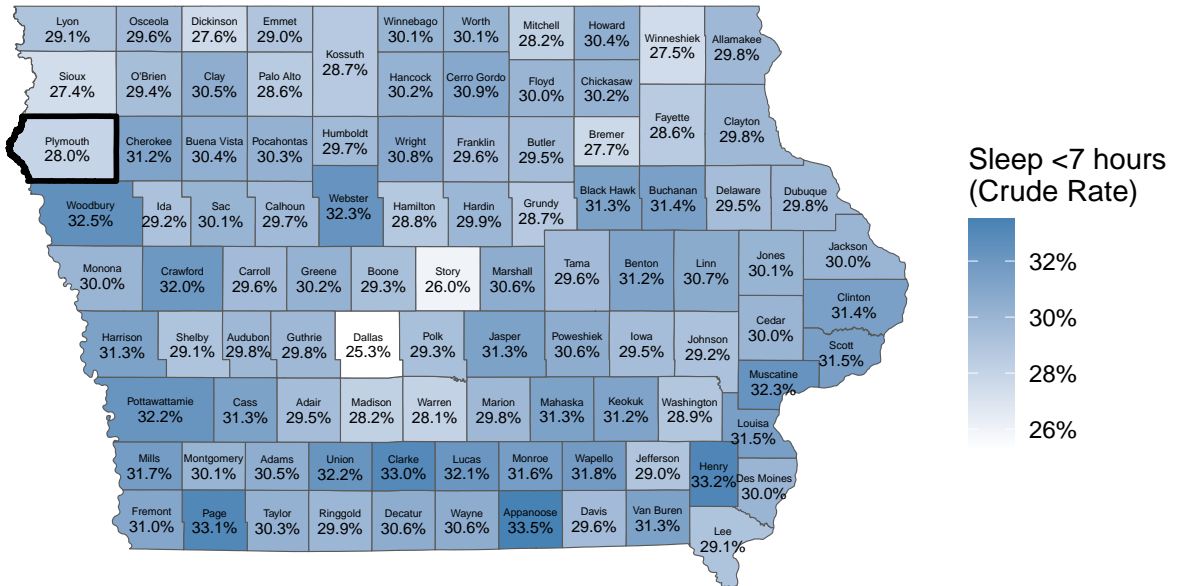
Data Source: CDC PLACES 2023 Release, BRFSS 2021



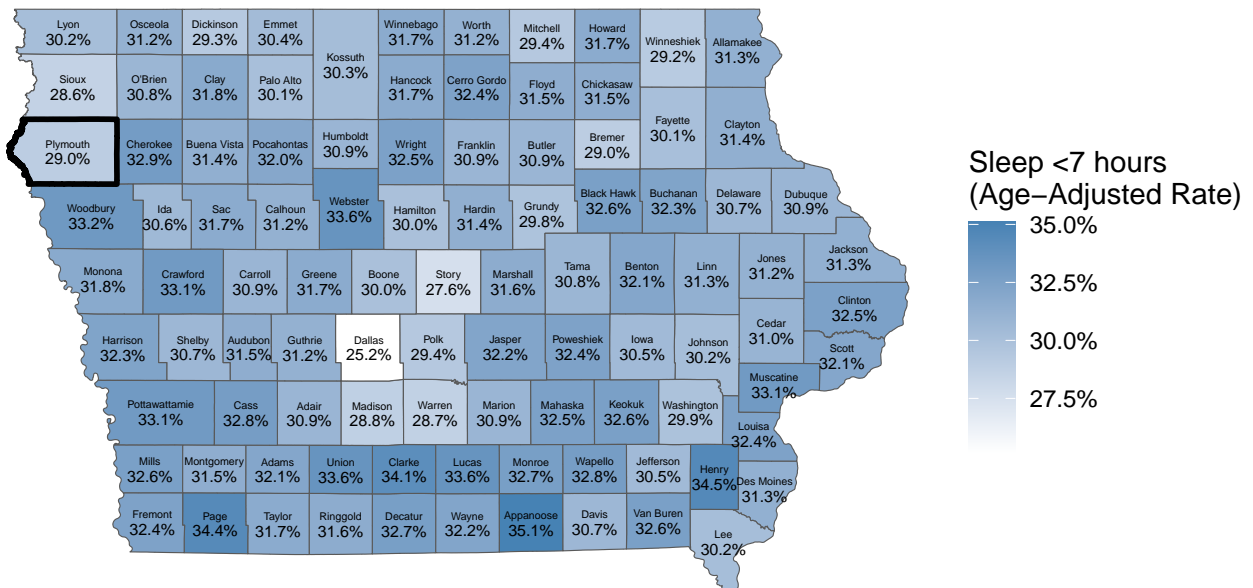
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Sleep <7 hours

Sleeping less than 7 hours among adults aged ≥ 18 years



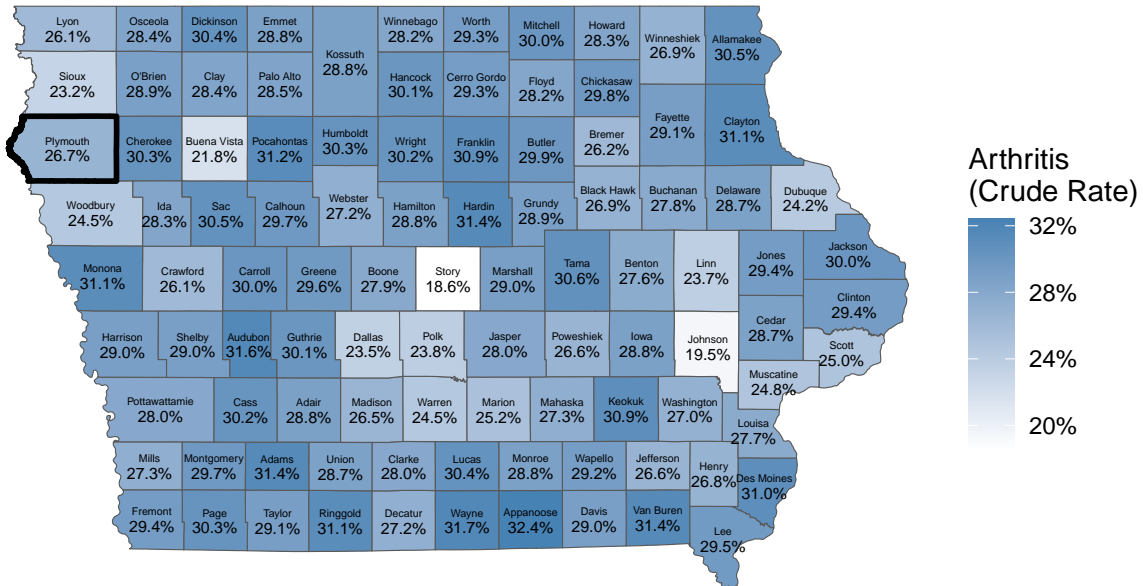
Data Source: CDC PLACES 2023 Release, BRFSS 2020



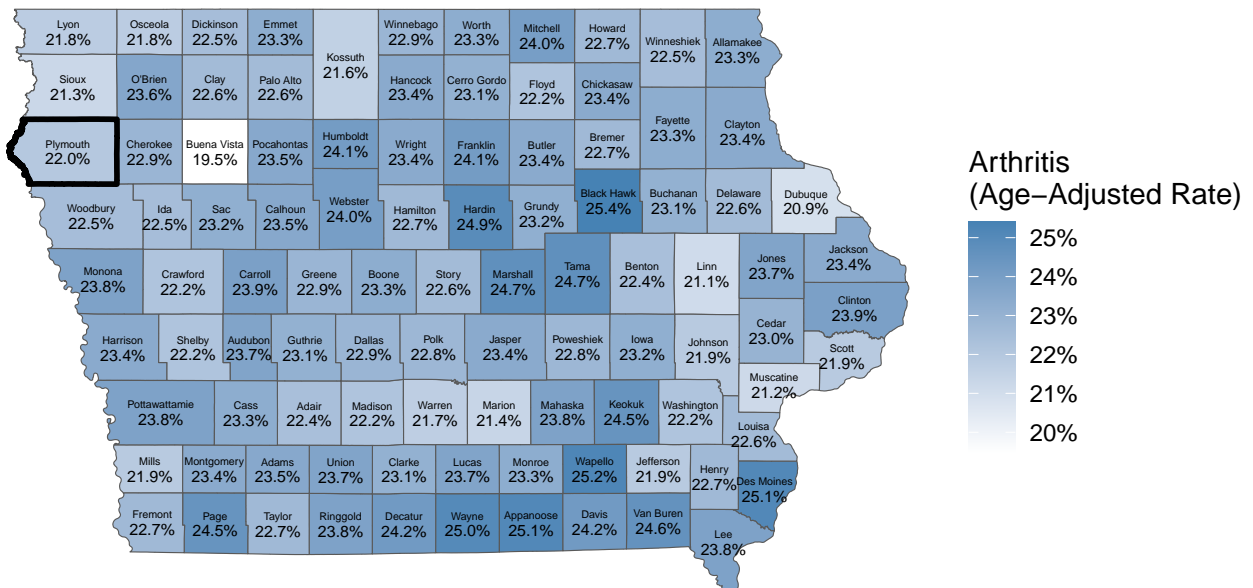
Data Source: CDC PLACES 2023 Release, BRFSS 2020

Arthritis

Arthritis among adults aged ≥ 18 years



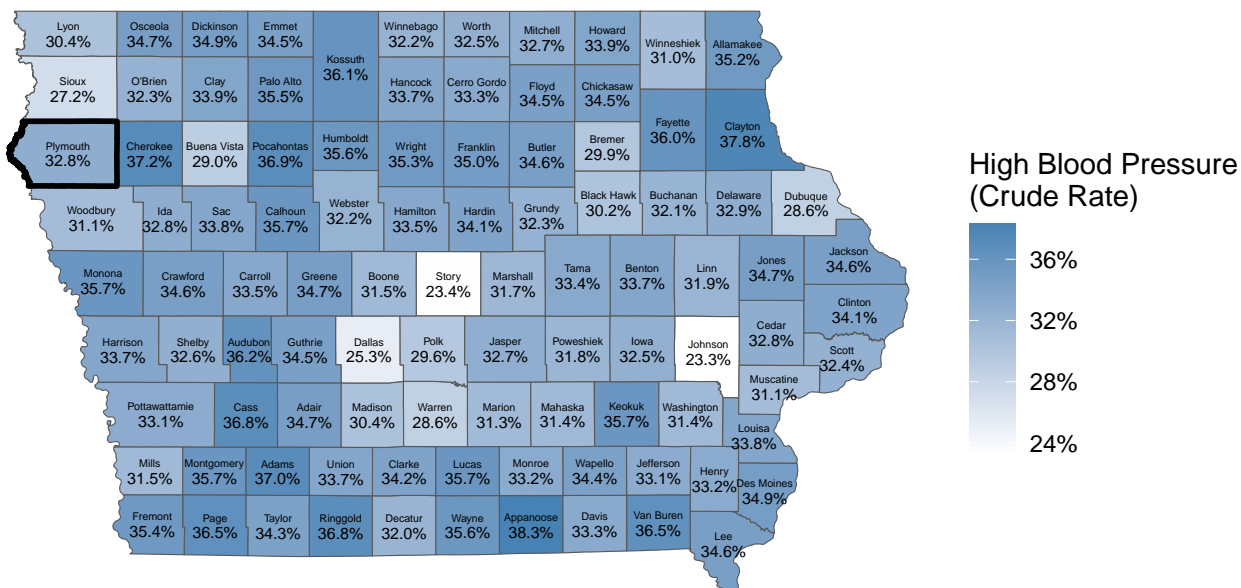
Data Source: CDC PLACES 2023 Release, BRFSS 2021



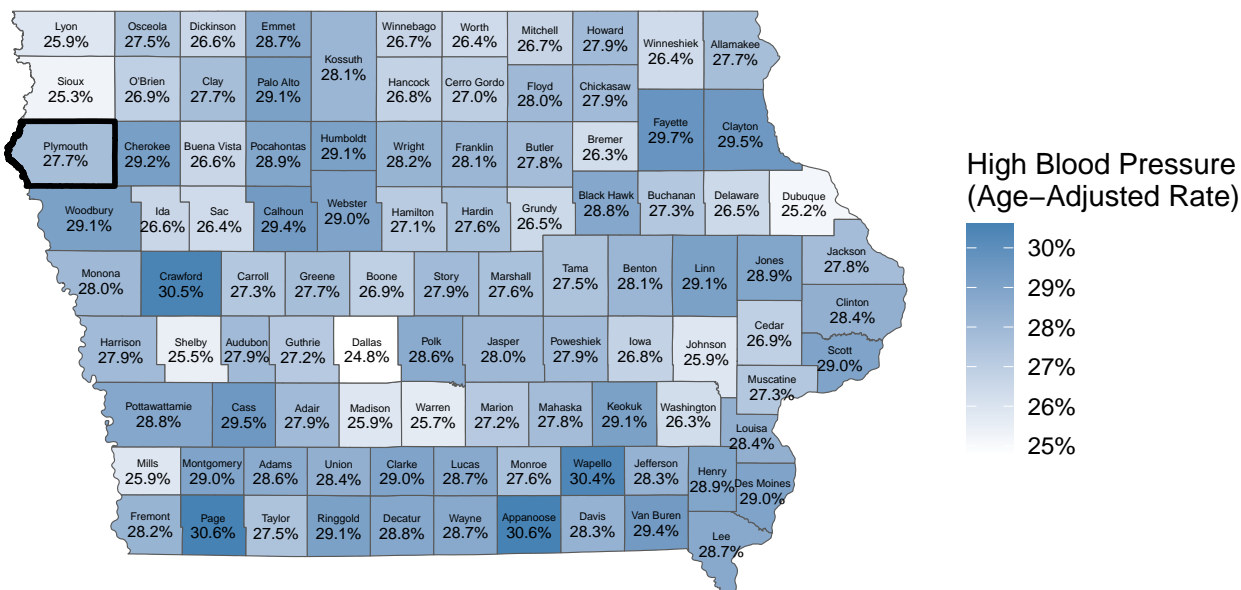
Data Source: CDC PLACES 2023 Release, BRFSS 2021

High Blood Pressure

High blood pressure among adults aged ≥ 18 years



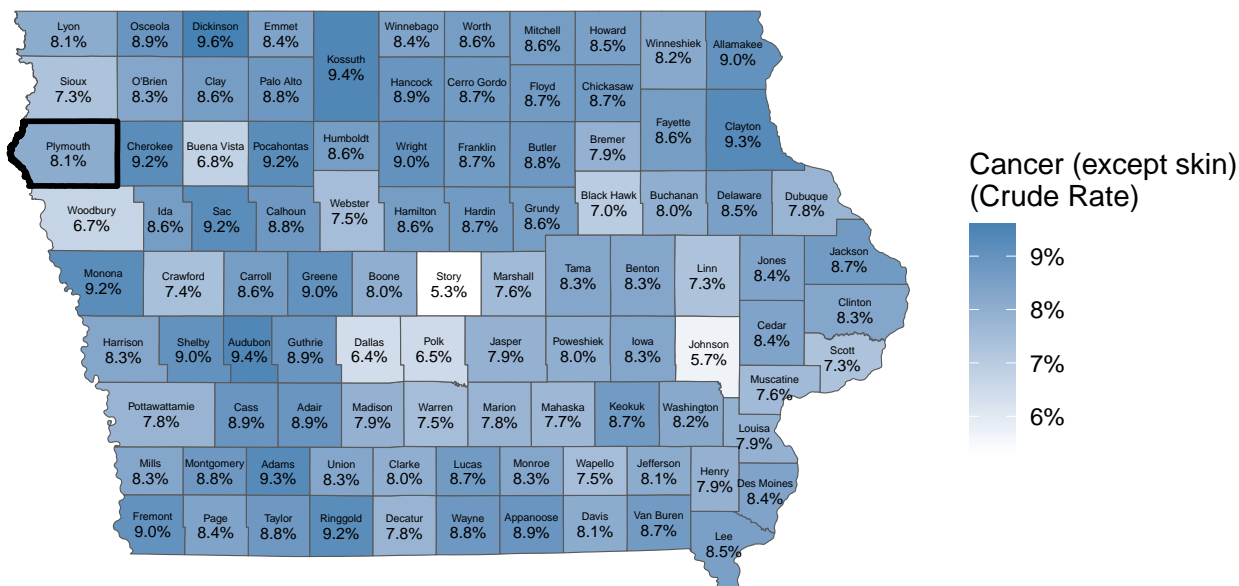
Data Source: CDC PLACES 2023 Release, BRFSS 2021



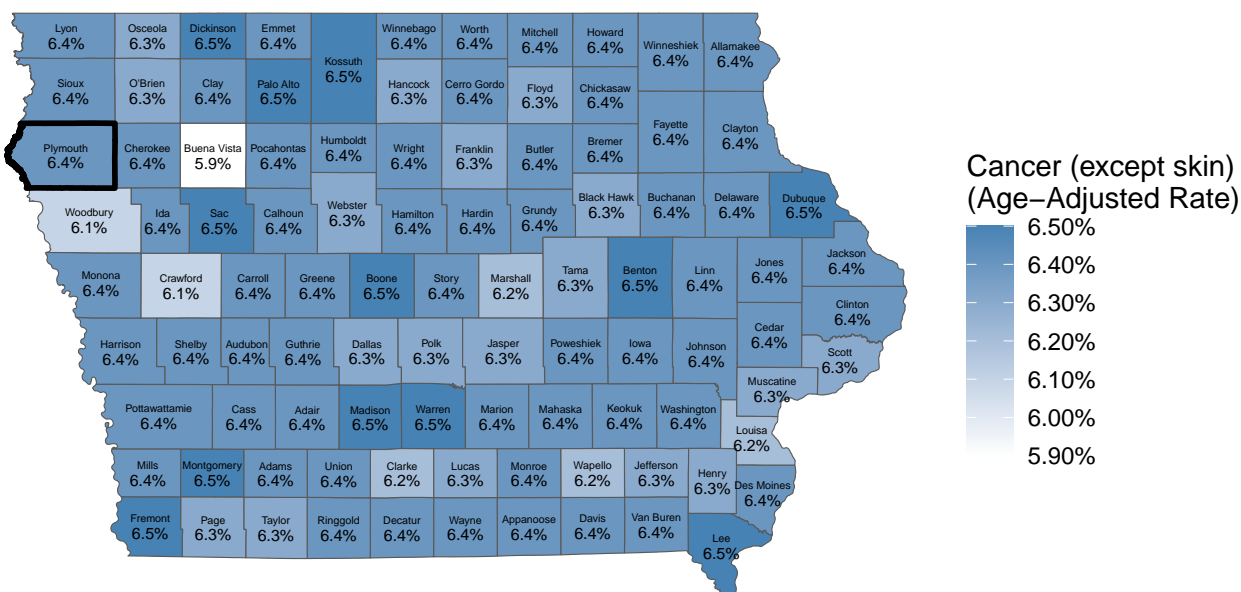
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Cancer (except skin)

Cancer (excluding skin cancer) among adults aged ≥ 18 years



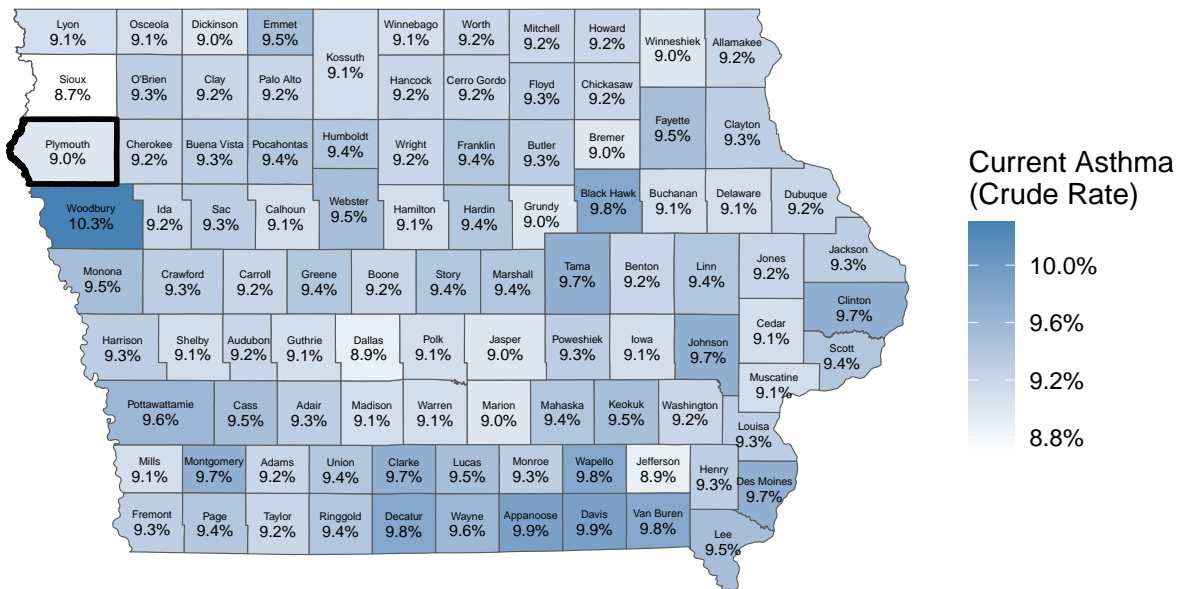
Data Source: CDC PLACES 2023 Release, BRFSS 2021



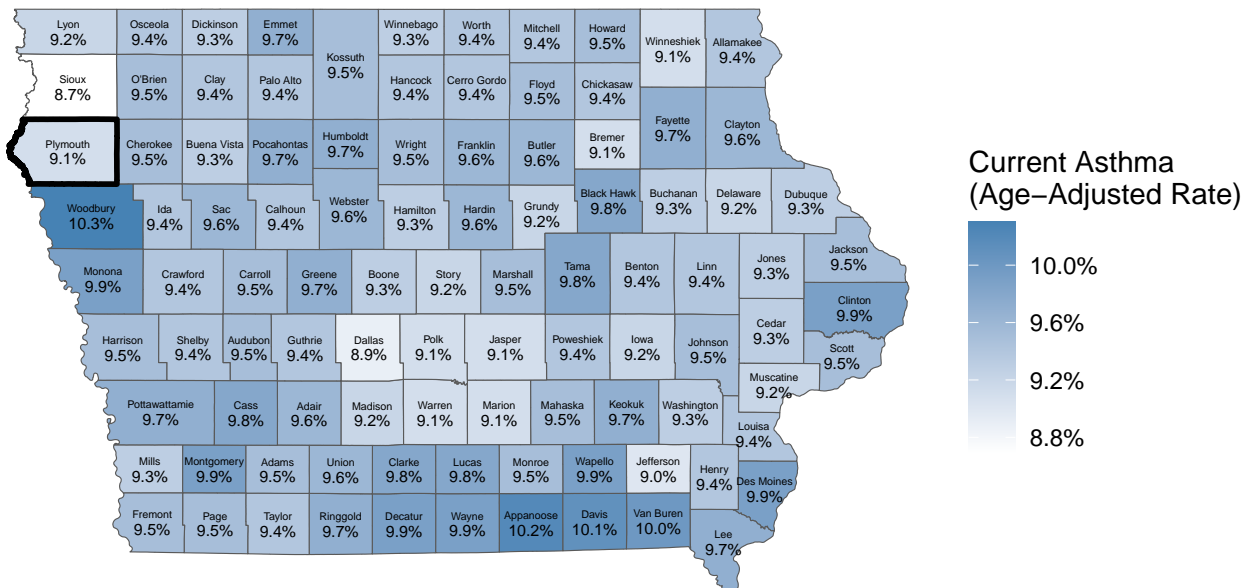
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Current Asthma

Current asthma among adults aged ≥ 18 years



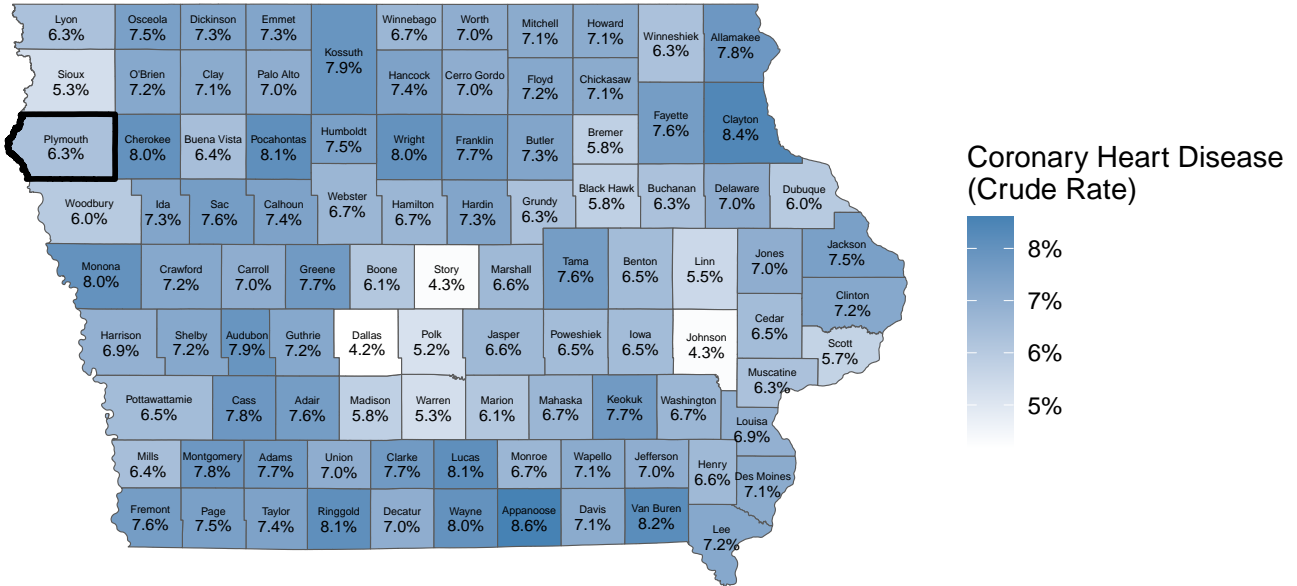
Data Source: CDC PLACES 2023 Release, BRFSS 2021



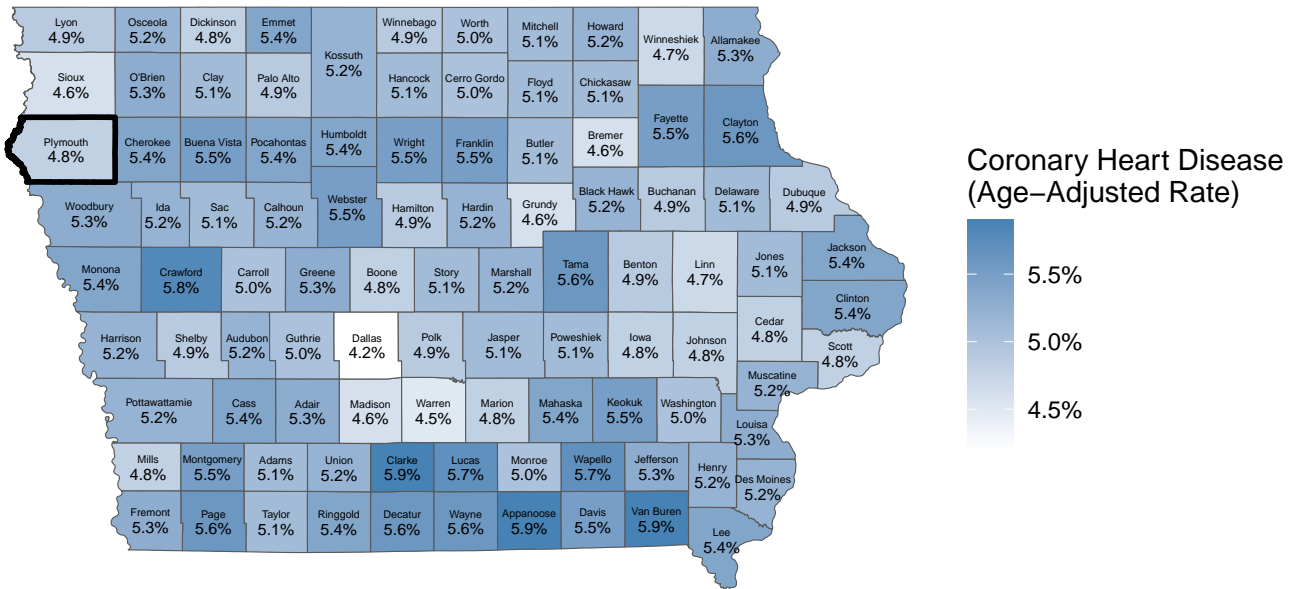
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Coronary Heart Disease

Coronary heart disease among adults aged ≥ 18 years



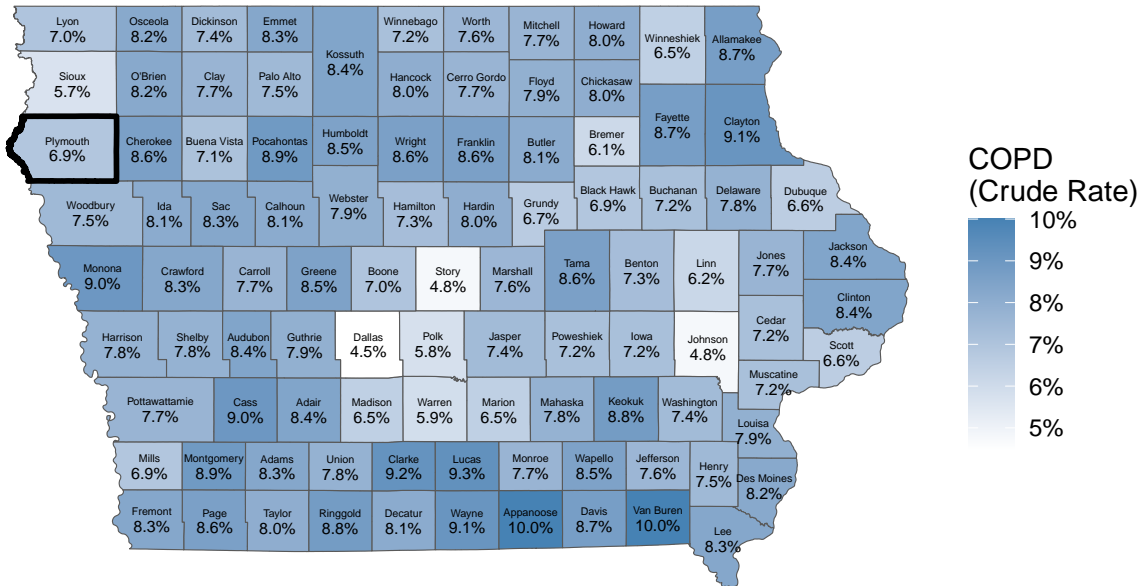
Data Source: CDC PLACES 2023 Release, BRFSS 2021



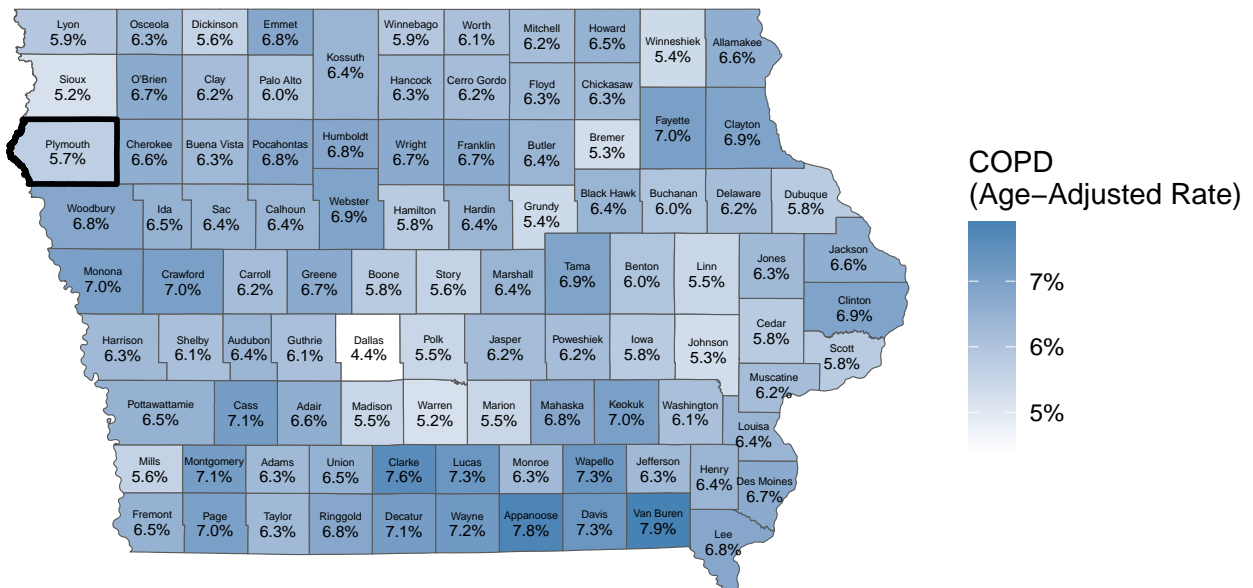
Data Source: CDC PLACES 2023 Release, BRFSS 2021

COPD

Chronic obstructive pulmonary disease among adults aged ≥ 18 years



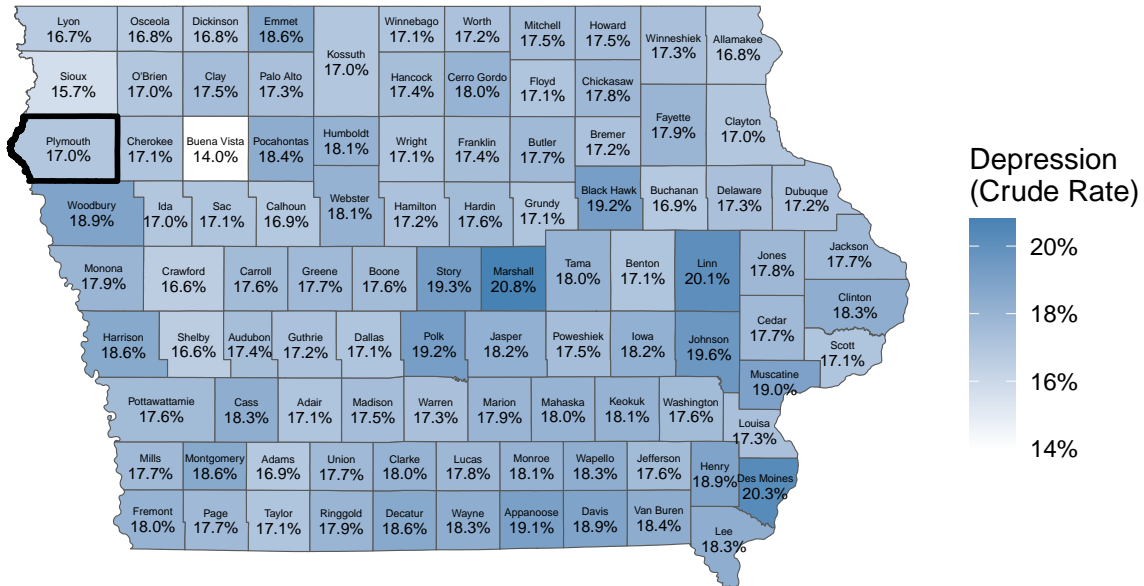
Data Source: CDC PLACES 2023 Release, BRFSS 2021



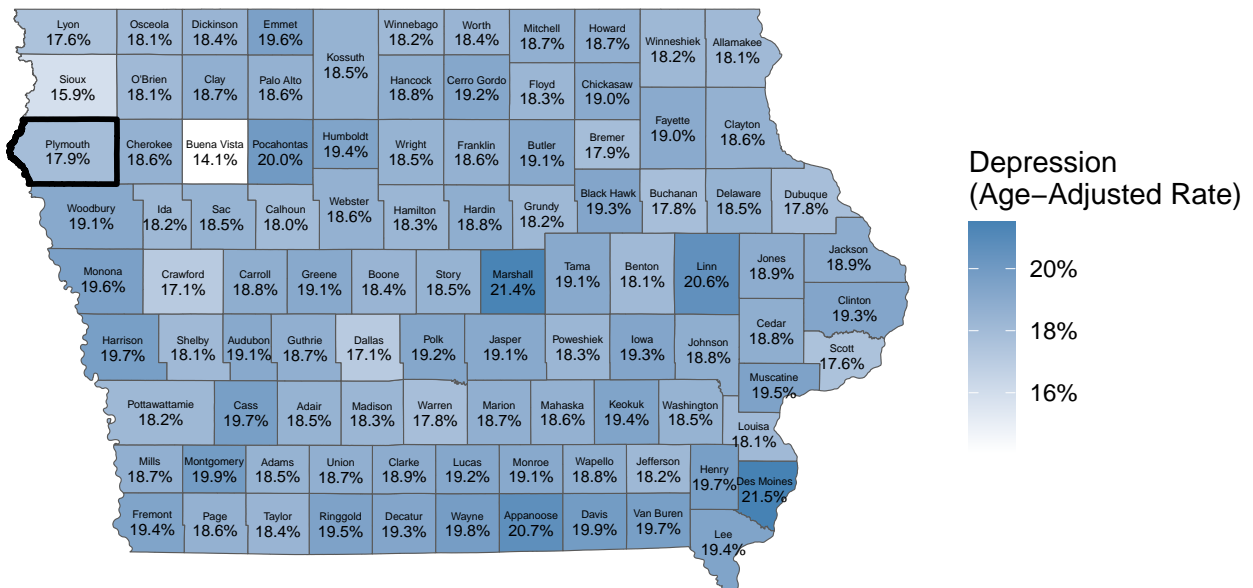
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Depression

Depression among adults aged >=18 years



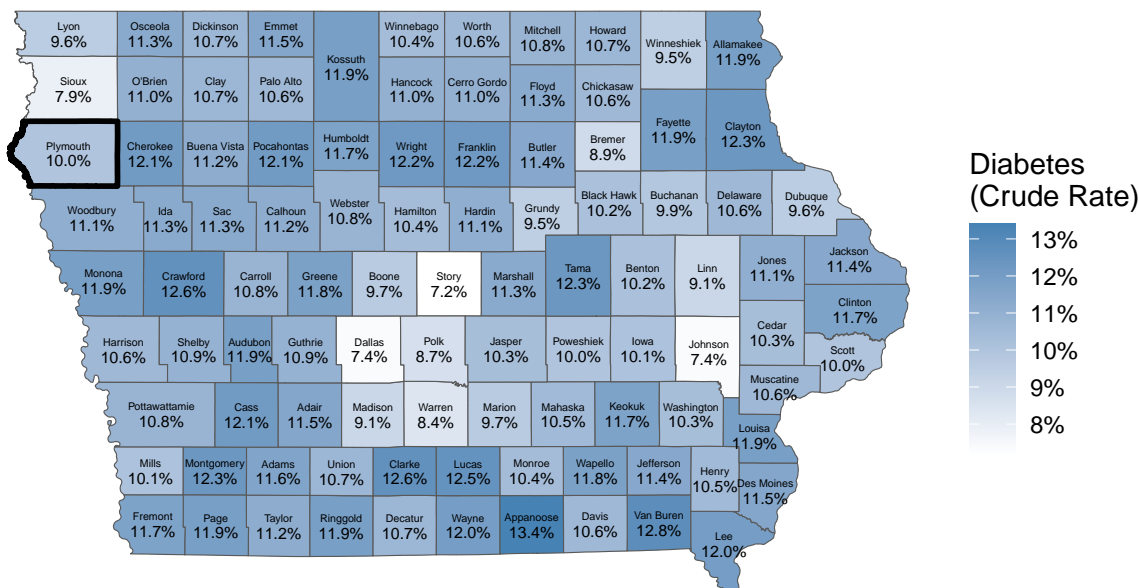
Data Source: CDC PLACES 2023 Release, BRFSS 2021



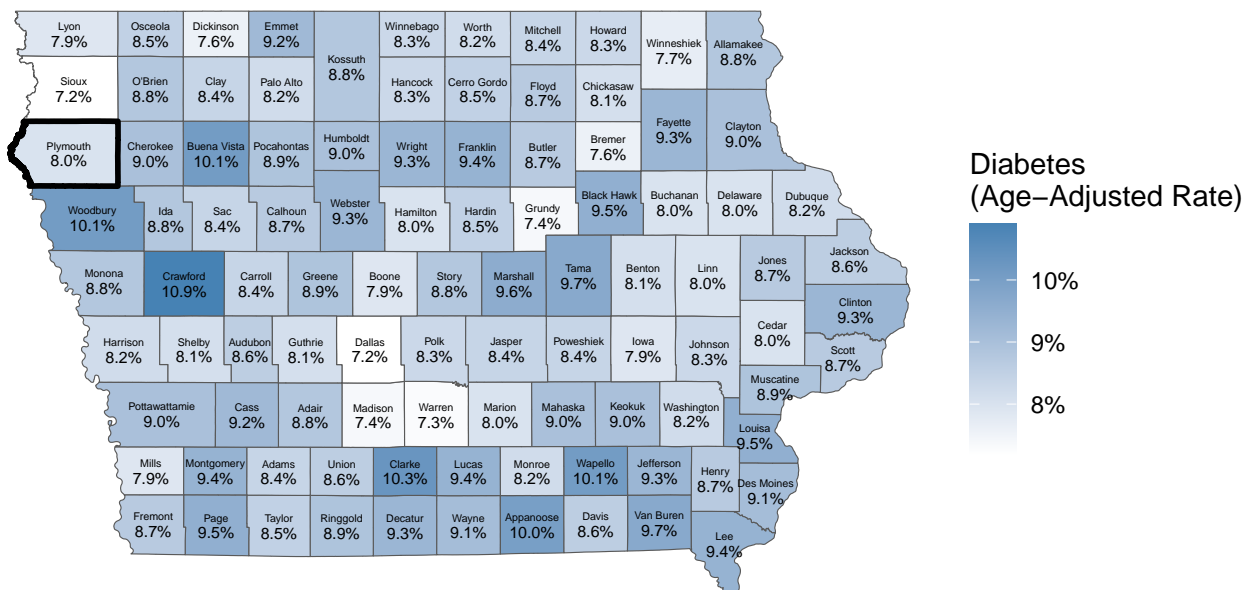
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Diabetes

Diagnosed diabetes among adults aged >=18 years



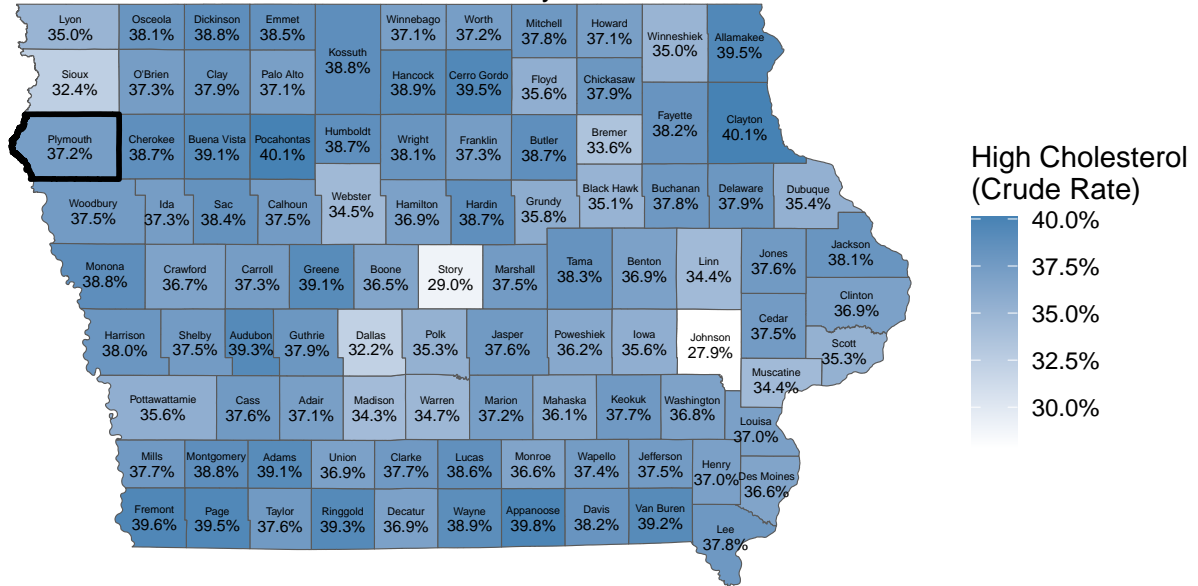
Data Source: CDC PLACES 2023 Release, BRFSS 2021



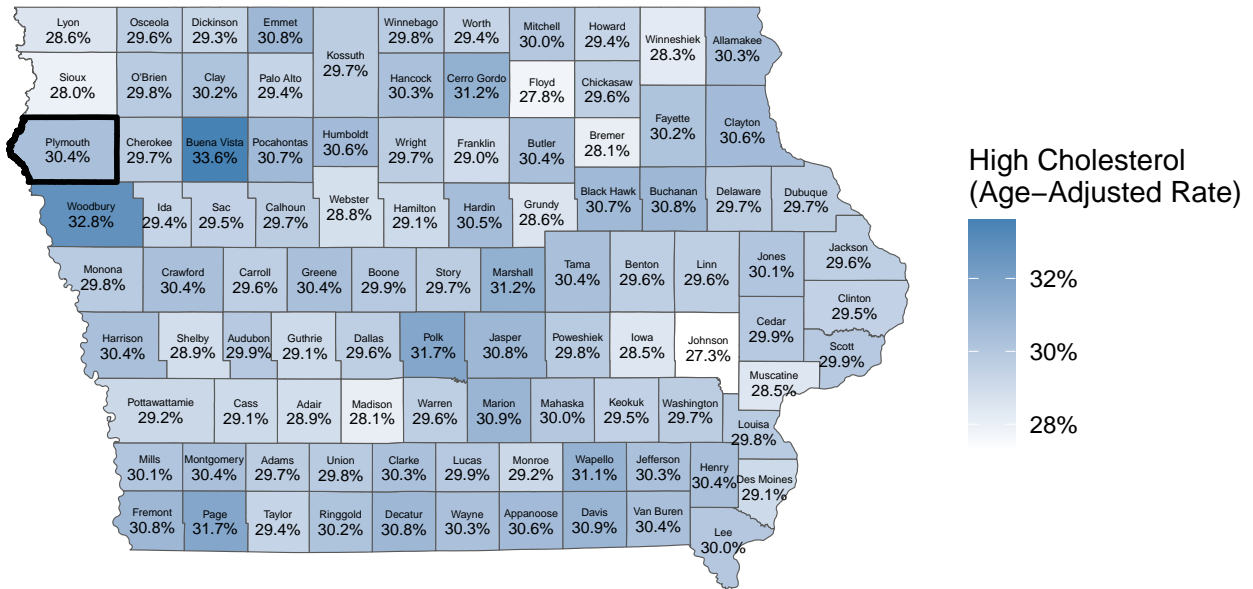
Data Source: CDC PLACES 2023 Release, BRFSS 2021

High Cholesterol

High cholesterol among adults aged ≥ 18 years who have been screened in the past 5 years



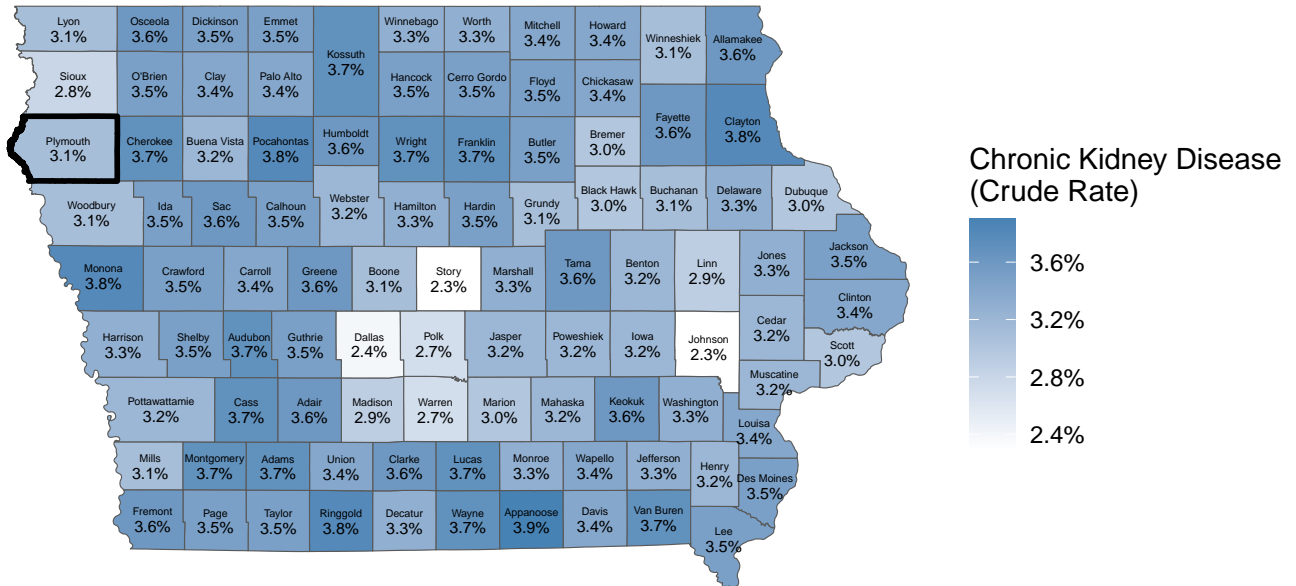
Data Source: CDC PLACES 2023 Release, BRFSS 2021



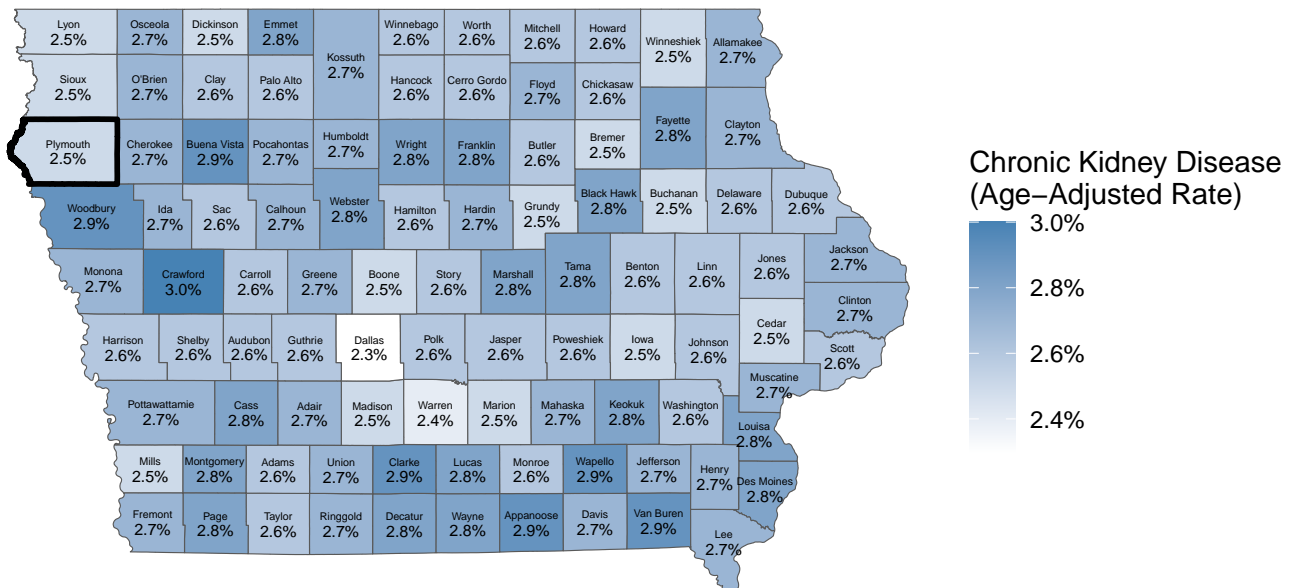
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Chronic Kidney Disease

Chronic kidney disease among adults aged ≥ 18 years



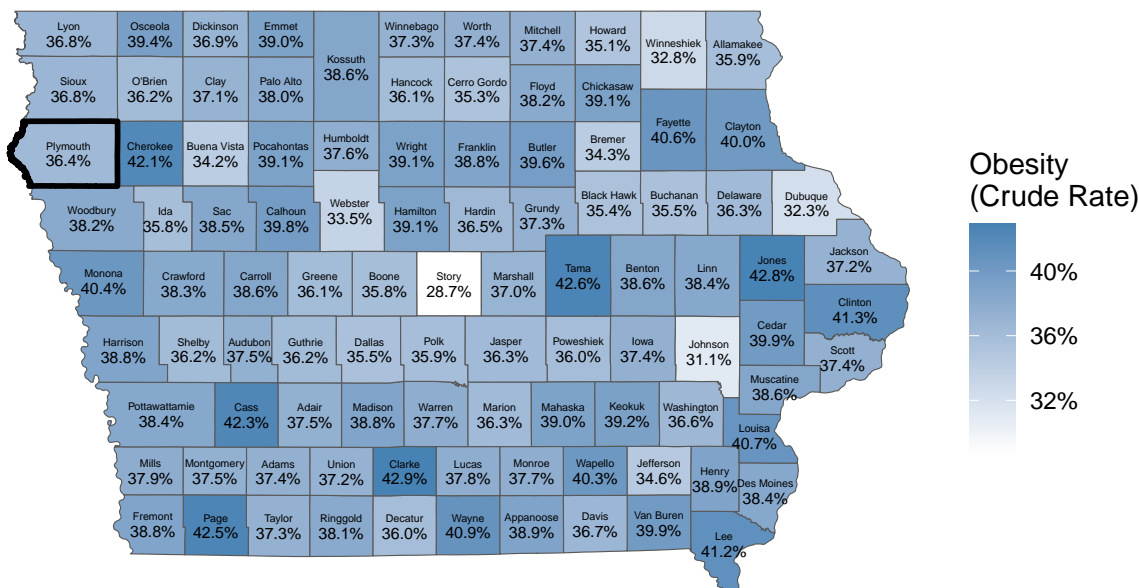
Data Source: CDC PLACES 2023 Release, BRFSS 2021



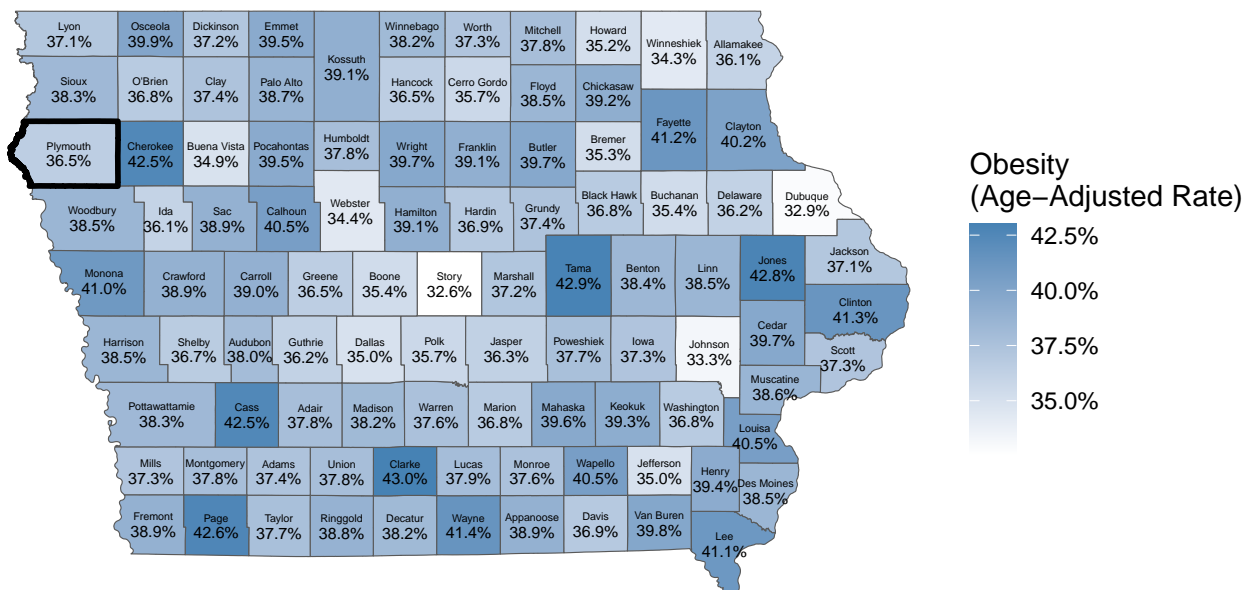
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Obesity

Obesity among adults aged >=18 years



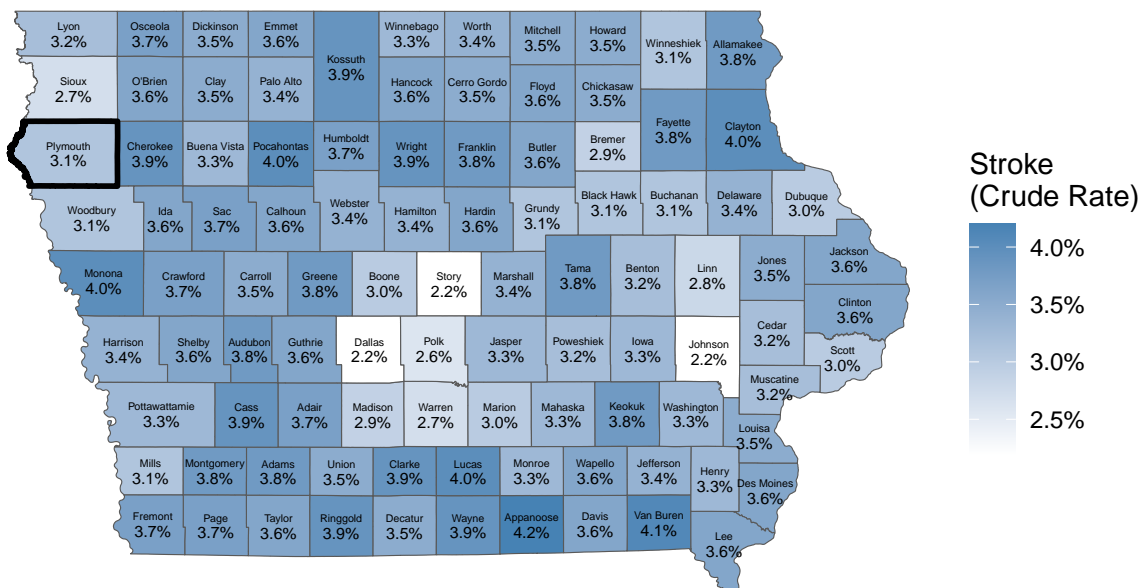
Data Source: CDC PLACES 2023 Release, BRFSS 2021



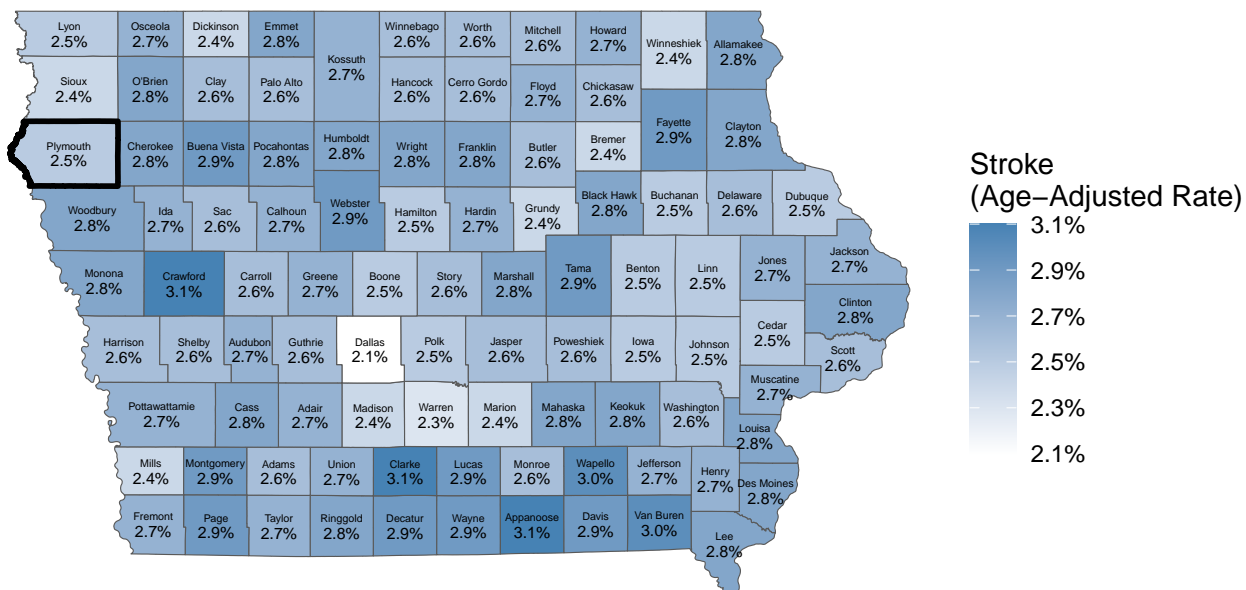
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Stroke

Stroke among adults aged >=18 years



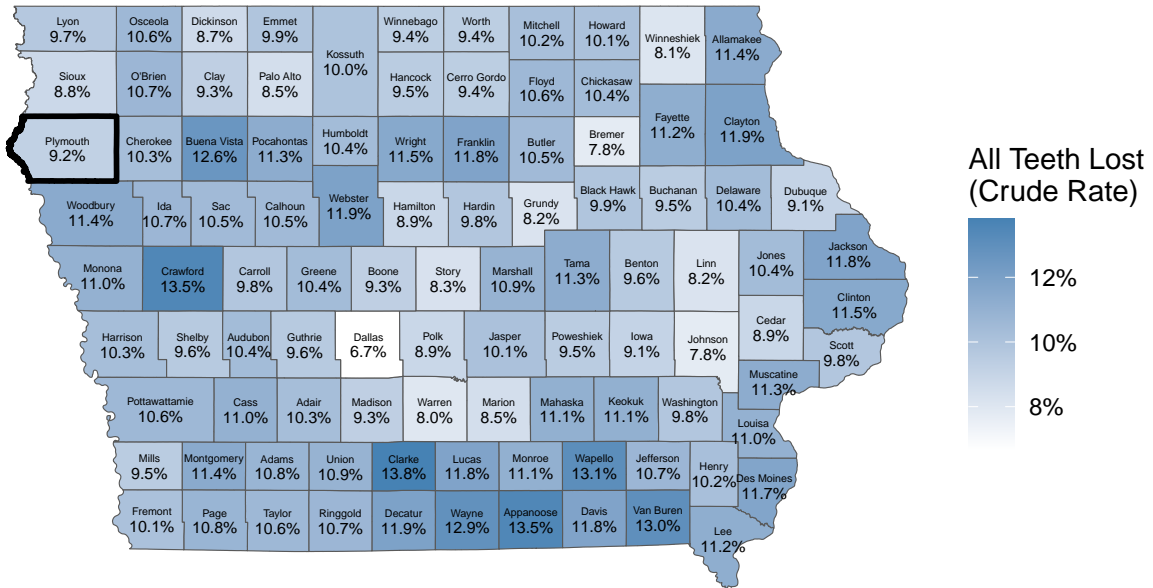
Data Source: CDC PLACES 2023 Release, BRFSS 2021



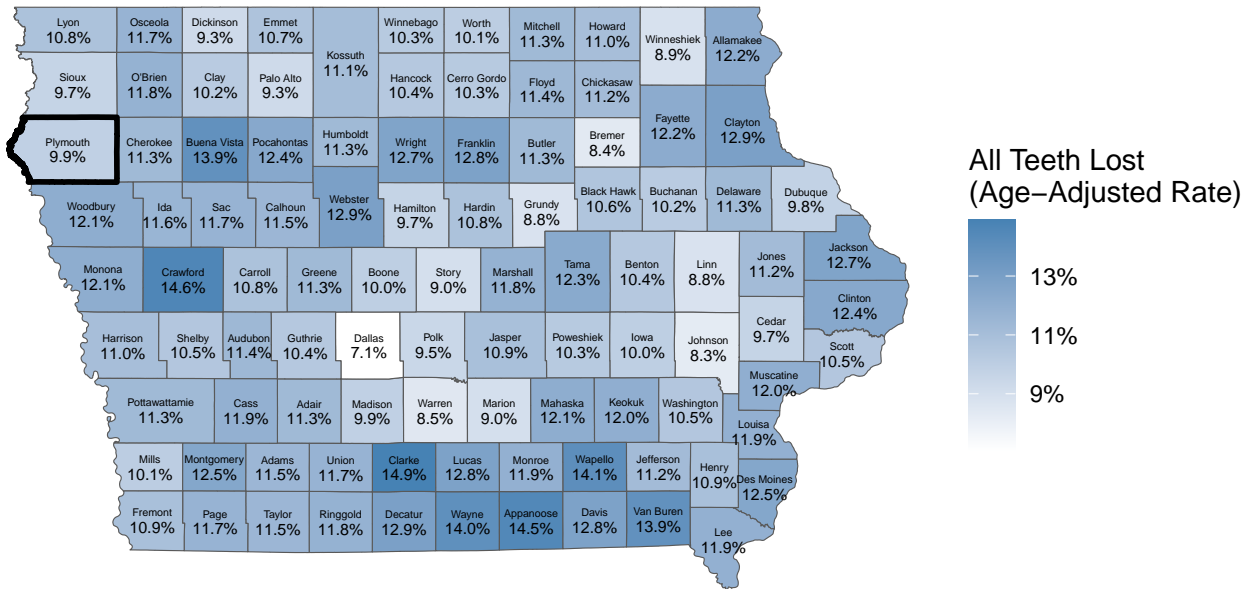
Data Source: CDC PLACES 2023 Release, BRFSS 2021

All Teeth Lost

All teeth lost among adults aged ≥ 65 years



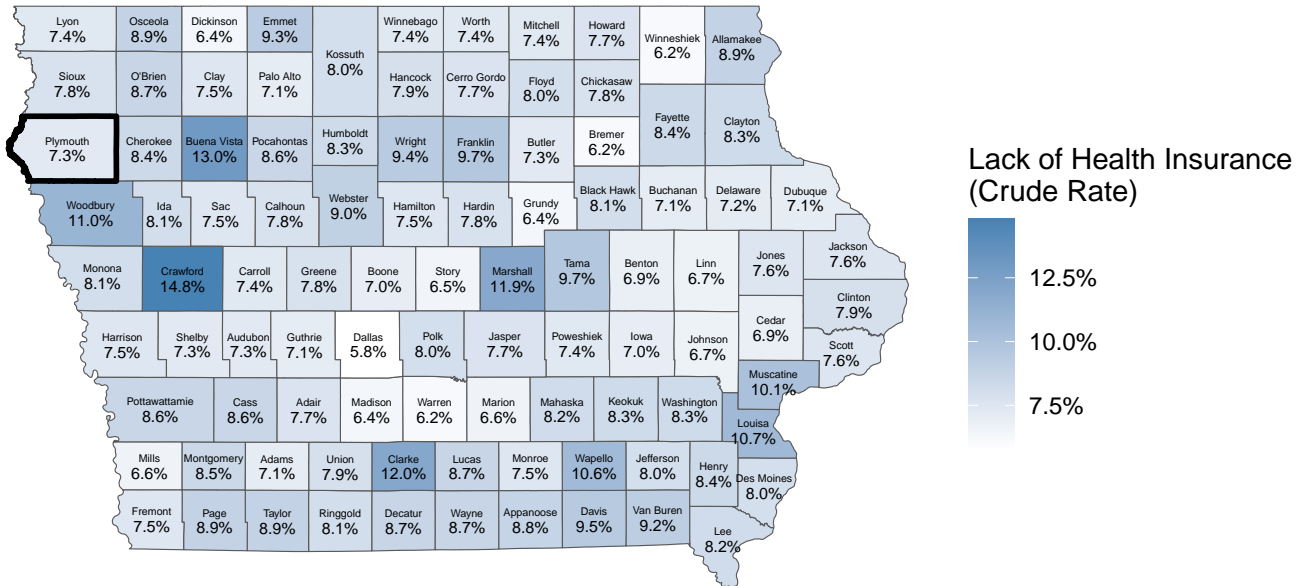
Data Source: CDC PLACES 2023 Release, BRFSS 2020



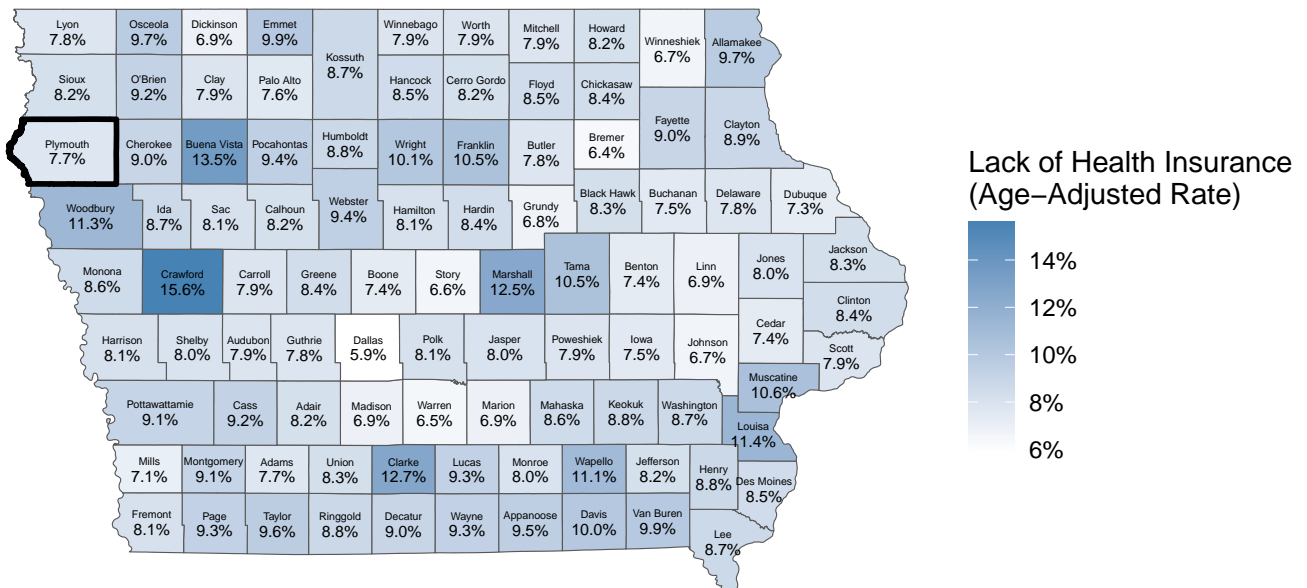
Data Source: CDC PLACES 2023 Release, BRFSS 2020

Lack of Health Insurance

Current lack of health insurance among adults aged 18–64 years



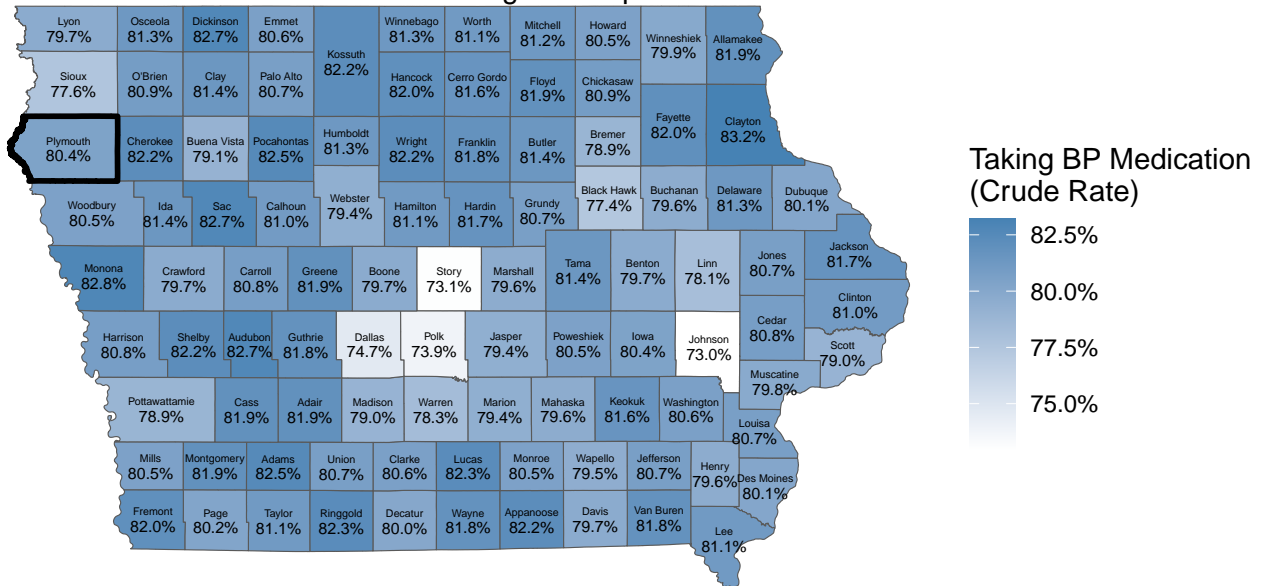
Data Source: CDC PLACES 2023 Release, BRFSS 2021



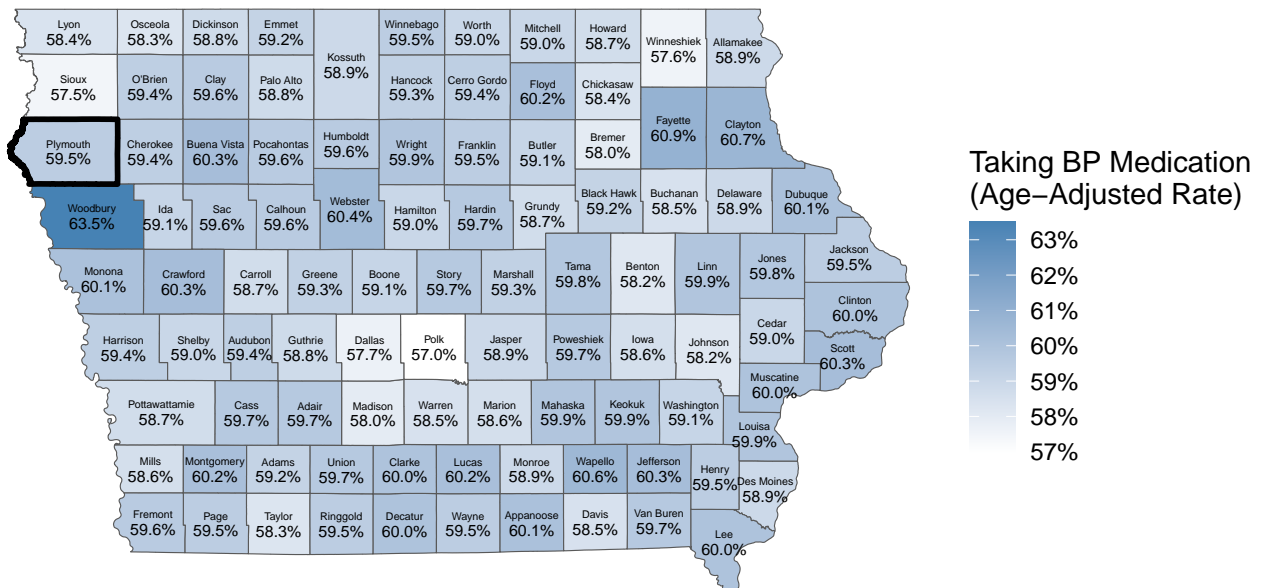
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Taking BP Medication

Taking medicine for high blood pressure control among adults aged ≥ 18 years with high blood pressure



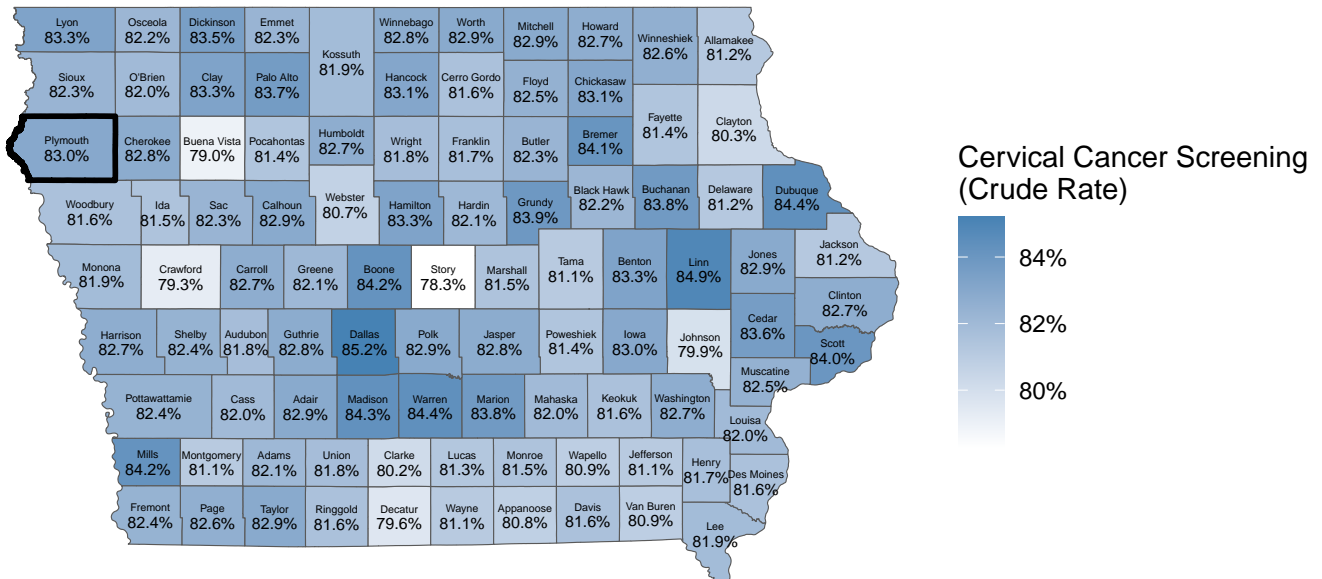
Data Source: CDC PLACES 2023 Release, BRFSS 2021



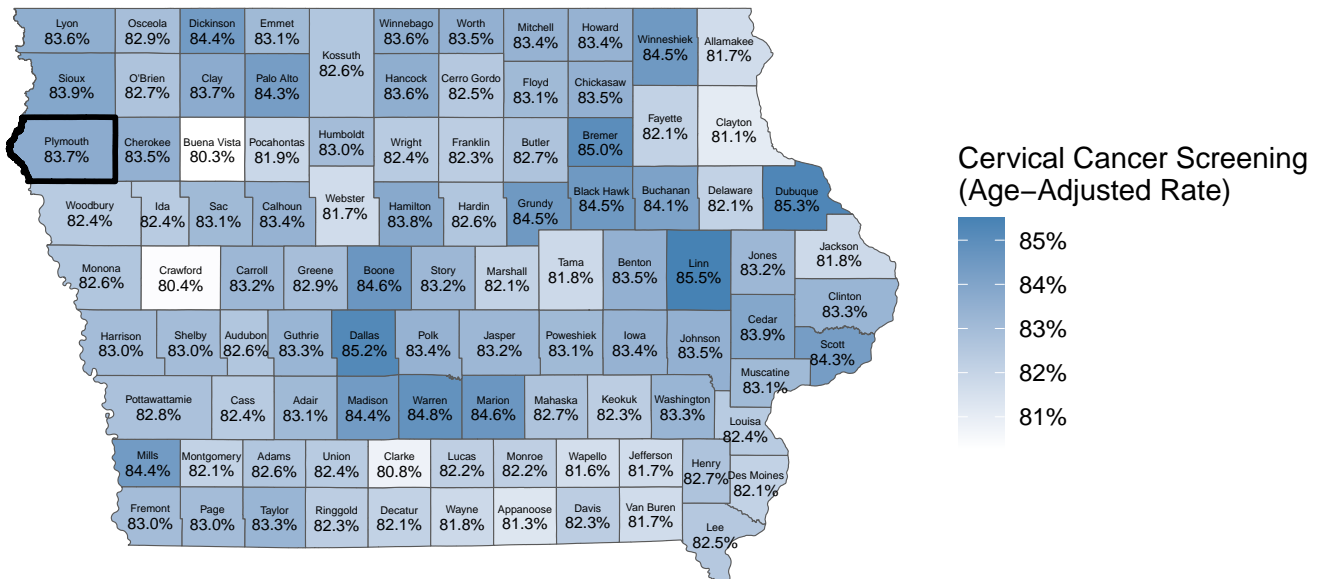
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Cervical Cancer Screening

Cervical cancer screening among adult women aged 21–65 years



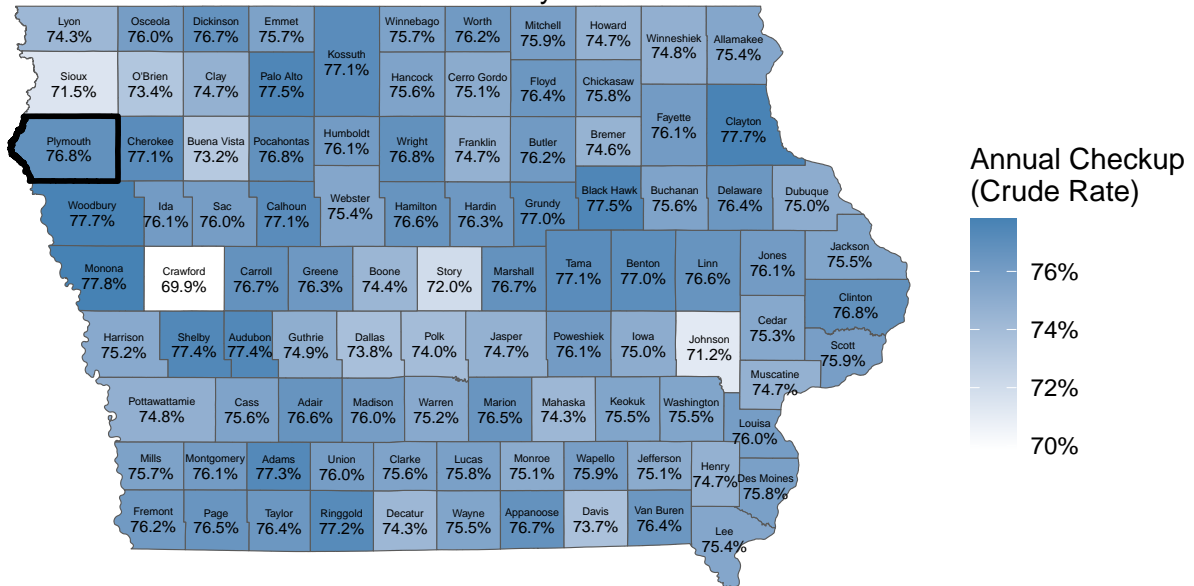
Data Source: CDC PLACES 2023 Release, BRFSS 2020



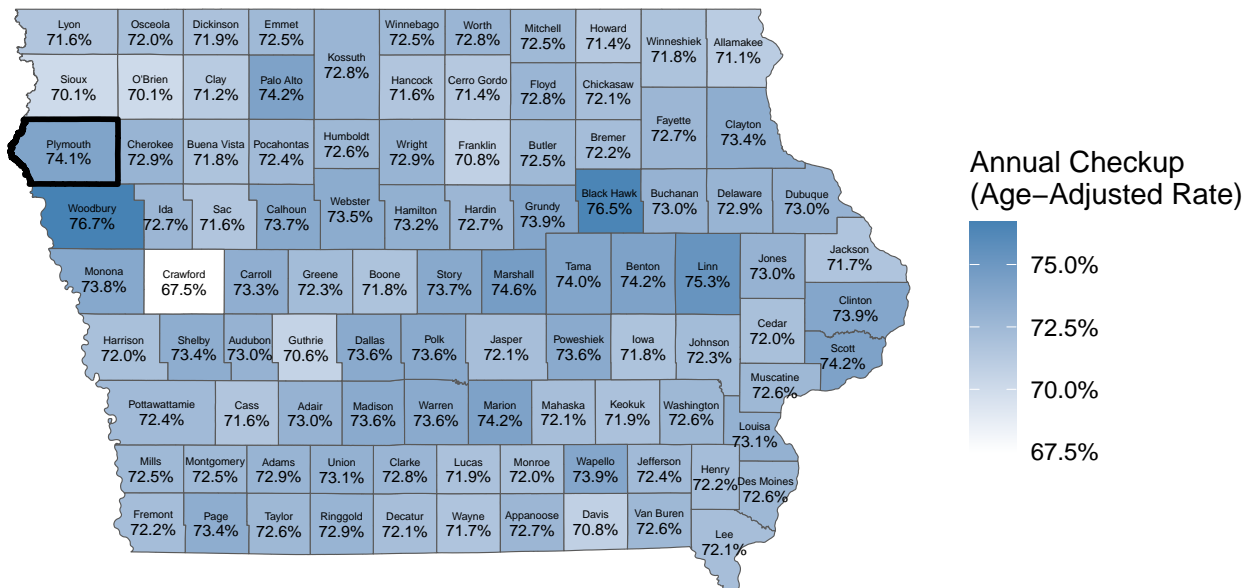
Data Source: CDC PLACES 2023 Release, BRFSS 2020

Annual Checkup

Visits to doctor for routine checkup within the past year among adults aged ≥ 18 years



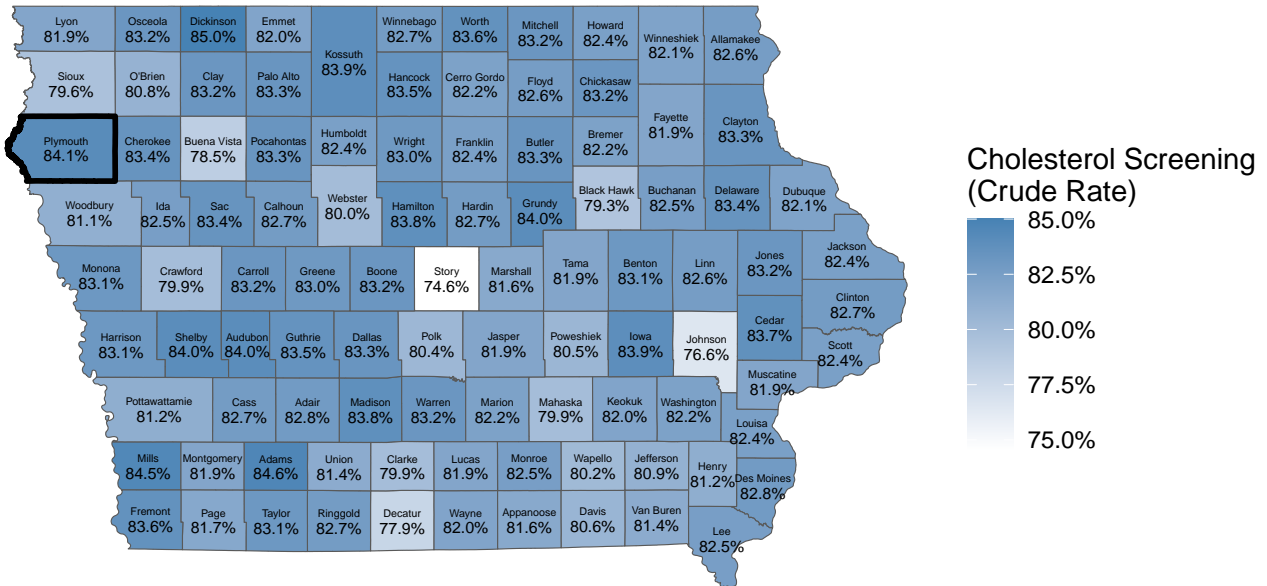
Data Source: CDC PLACES 2023 Release, BRFSS 2021



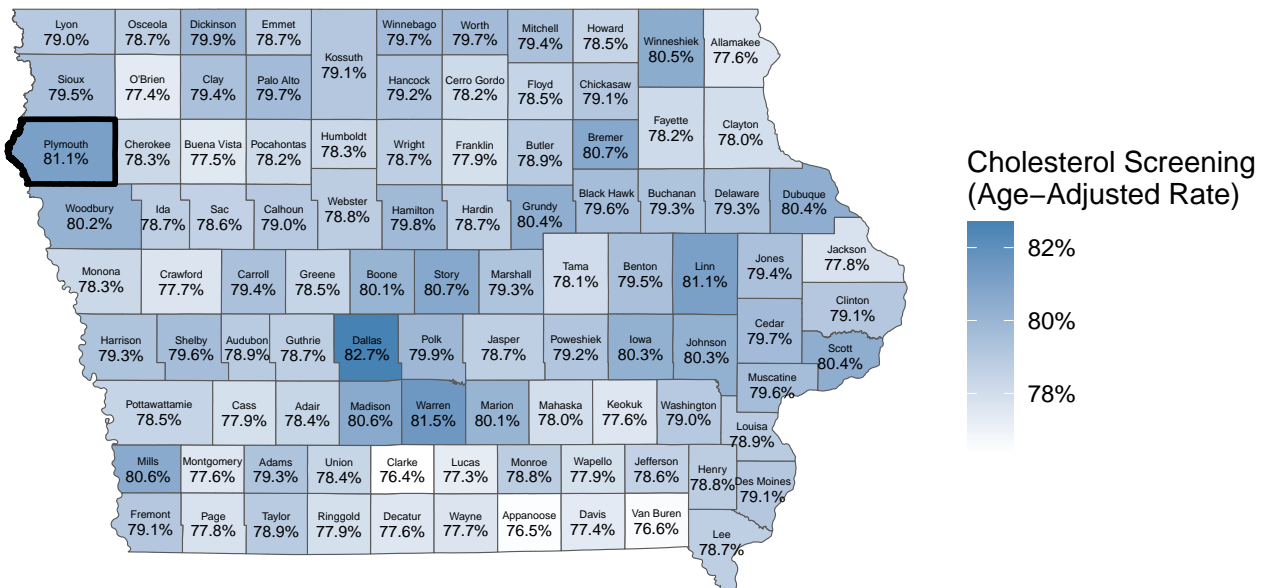
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Cholesterol Screening

Cholesterol screening among adults aged ≥ 18 years



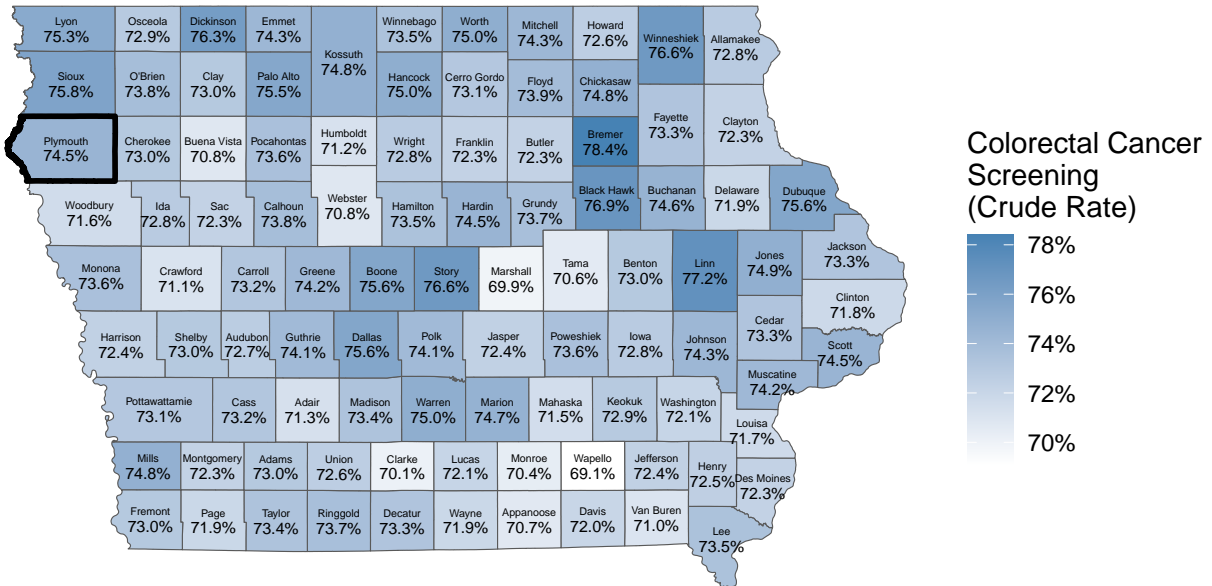
Data Source: CDC PLACES 2023 Release, BRFSS 2021



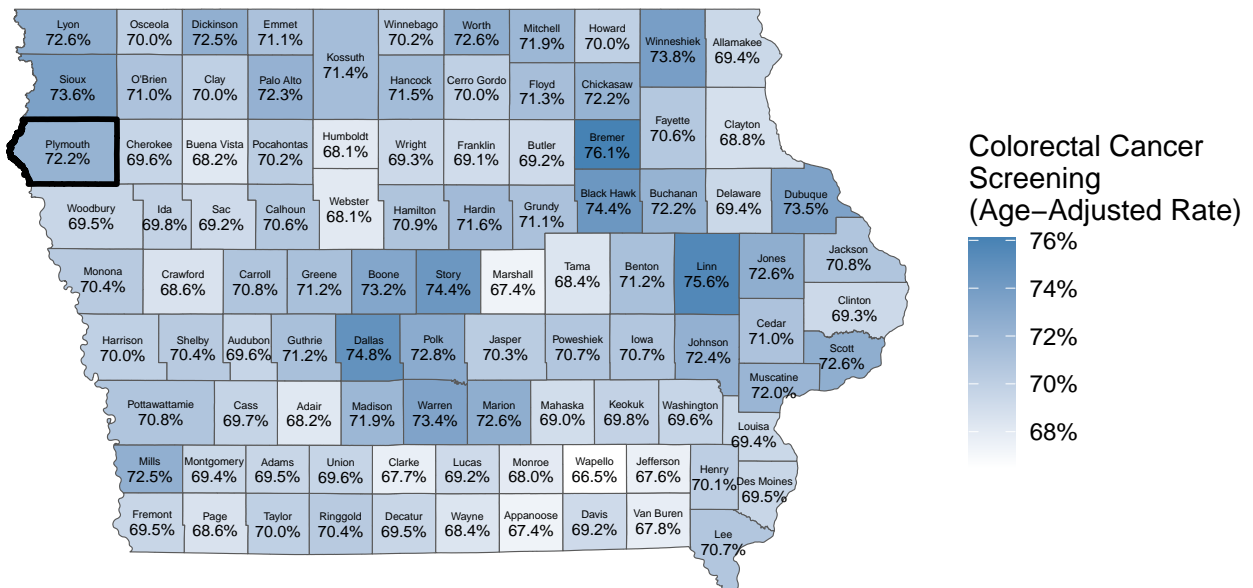
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Colorectal Cancer Screening

Colorectal cancer screening among adults aged 50–75 years



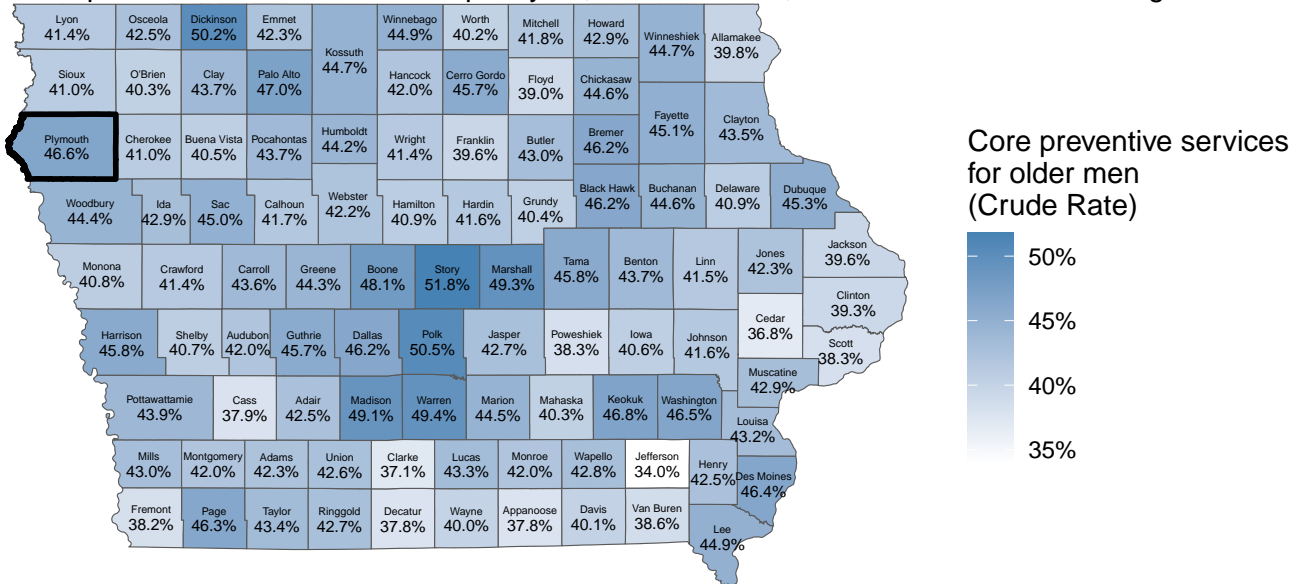
Data Source: CDC PLACES 2023 Release, BRFSS 2020



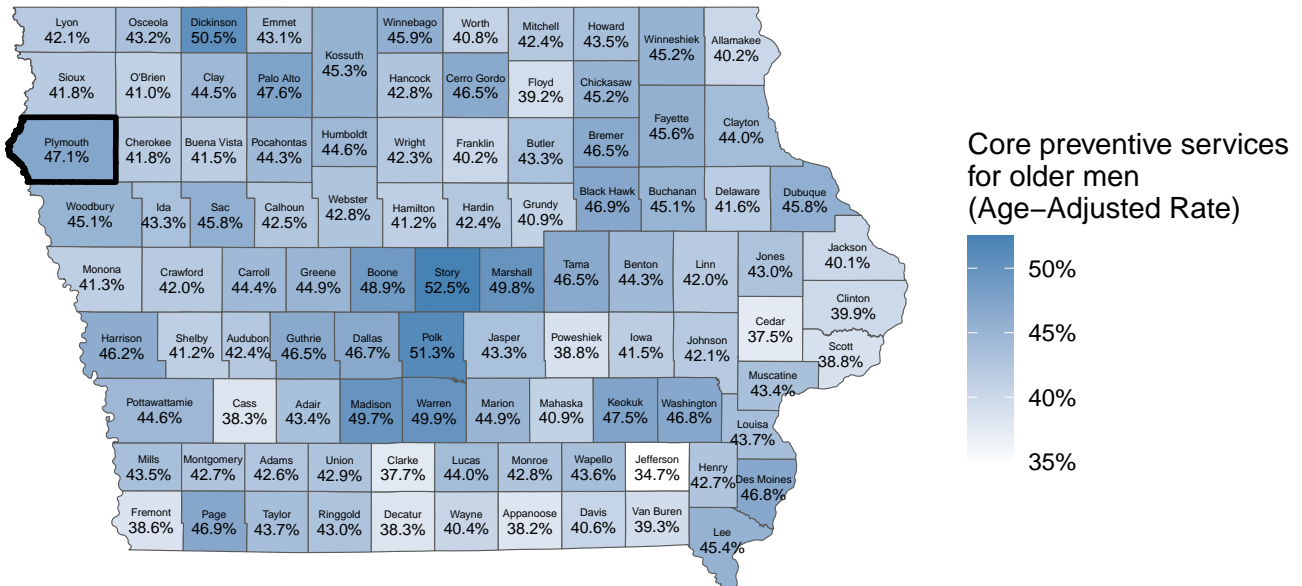
Data Source: CDC PLACES 2023 Release, BRFSS 2020

Core preventive services for older men

Older adult men aged ≥ 65 years who are up to date on a core set of clinical preventive services: Flu shot past year, PPV shot ever, Colorectal cancer screening



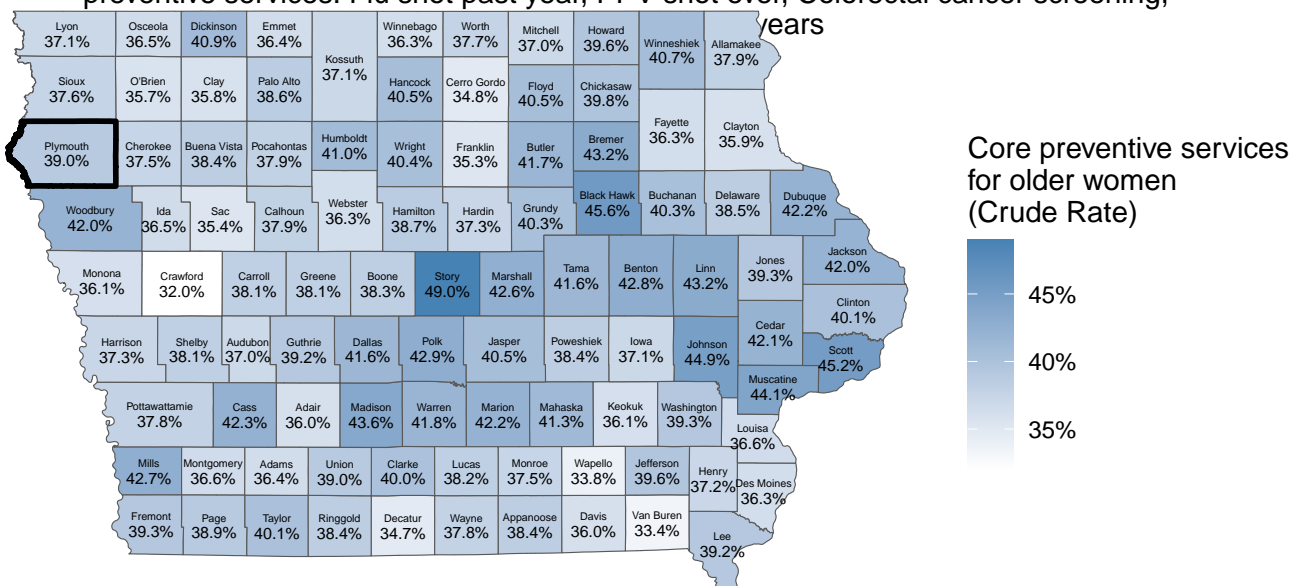
Data Source: CDC PLACES 2023 Release, BRFSS 2020



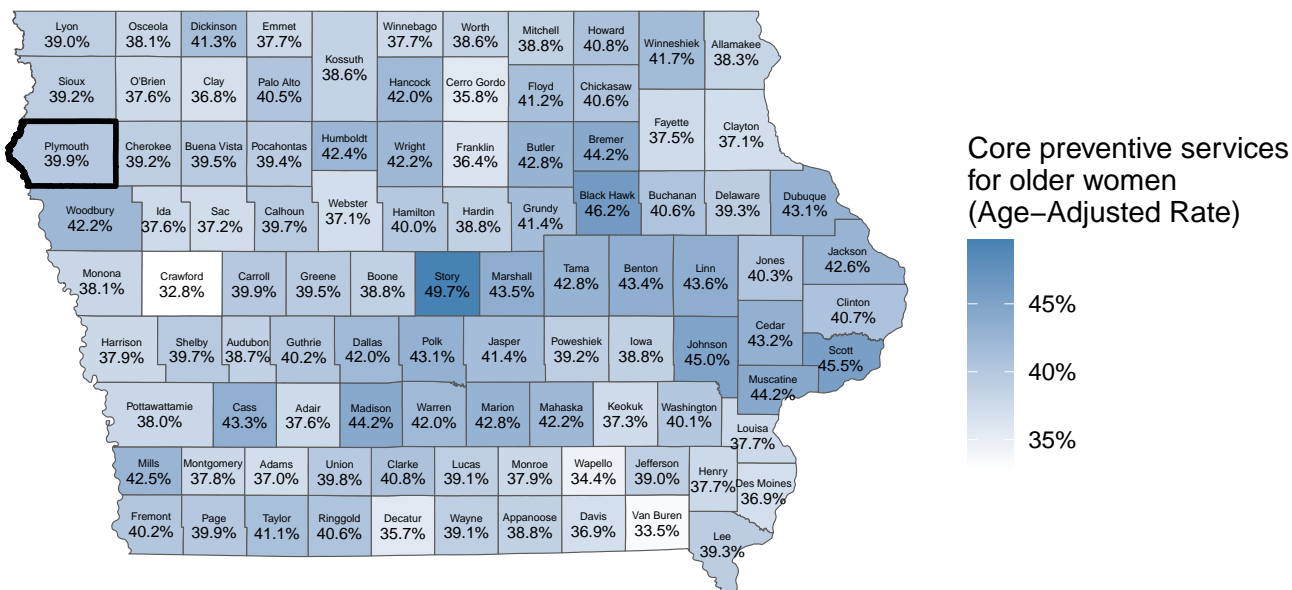
Data Source: CDC PLACES 2023 Release, BRFSS 2020

Core preventive services for older women

Older adult women aged ≥ 65 years who are up to date on a core set of clinical preventive services: Flu shot past year, PPV shot ever, Colorectal cancer screening,



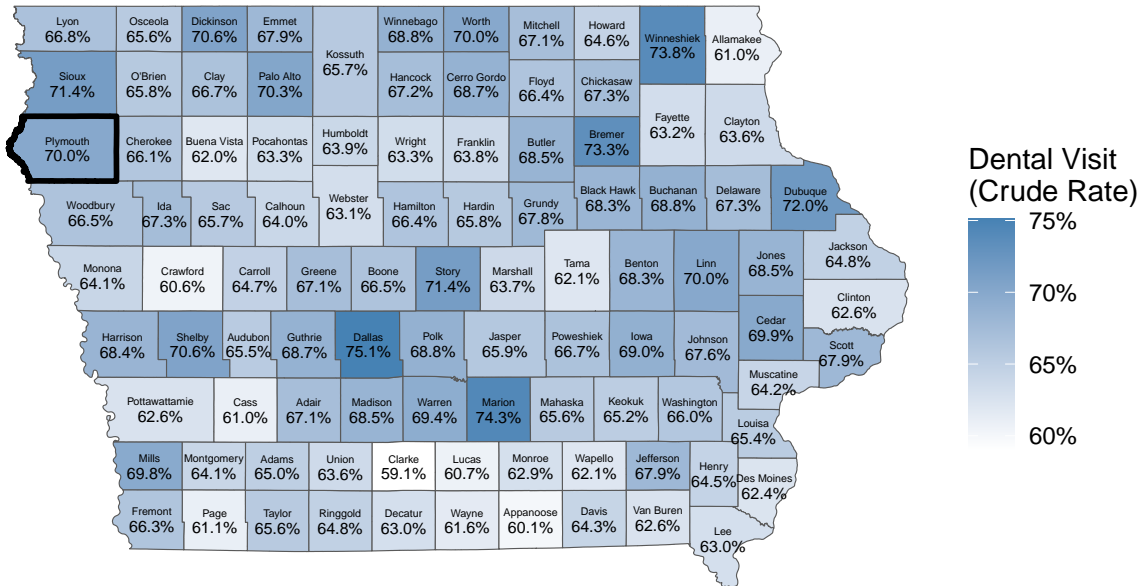
Data Source: CDC PLACES 2023 Release, BRFSS 2020



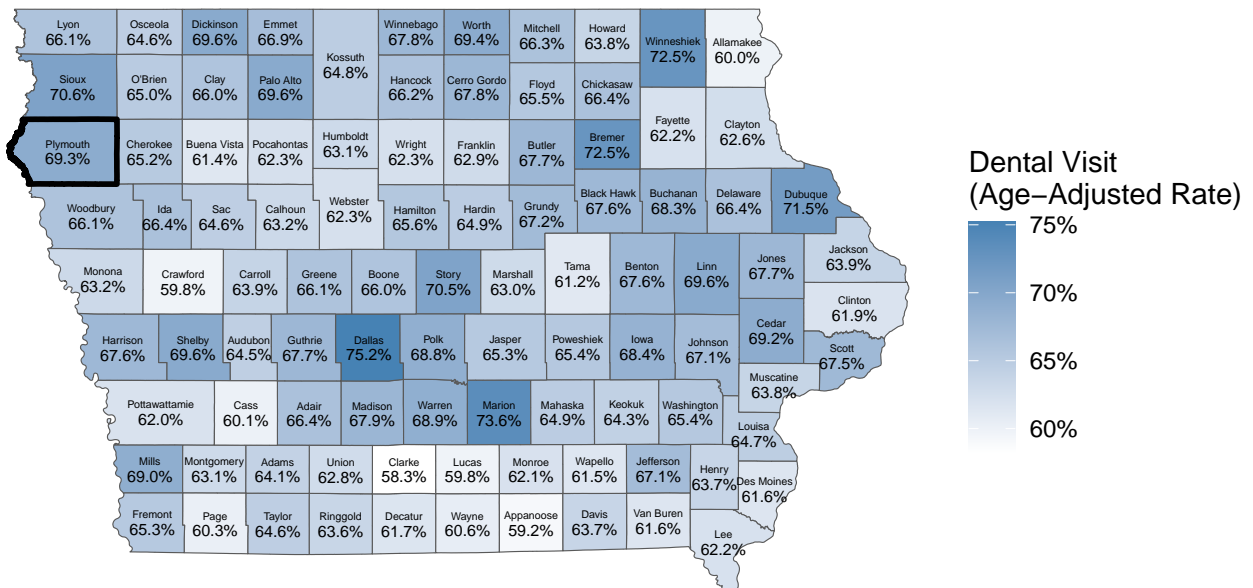
Data Source: CDC PLACES 2023 Release, BRFSS 2020

Dental Visit

Visits to dentist or dental clinic among adults aged >=18 years



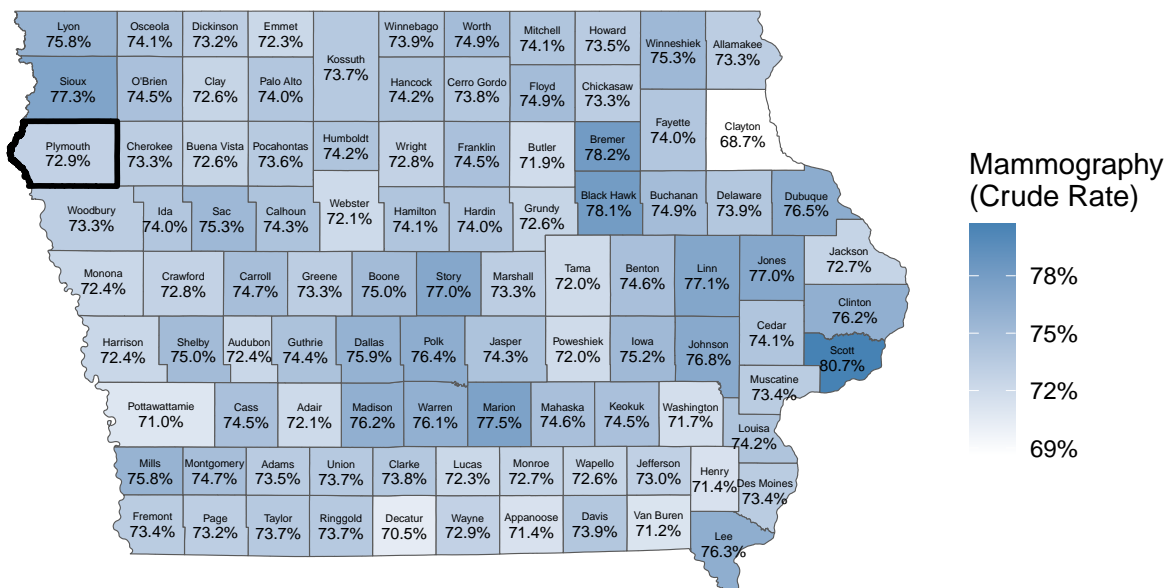
Data Source: CDC PLACES 2023 Release, BRFSS 2020



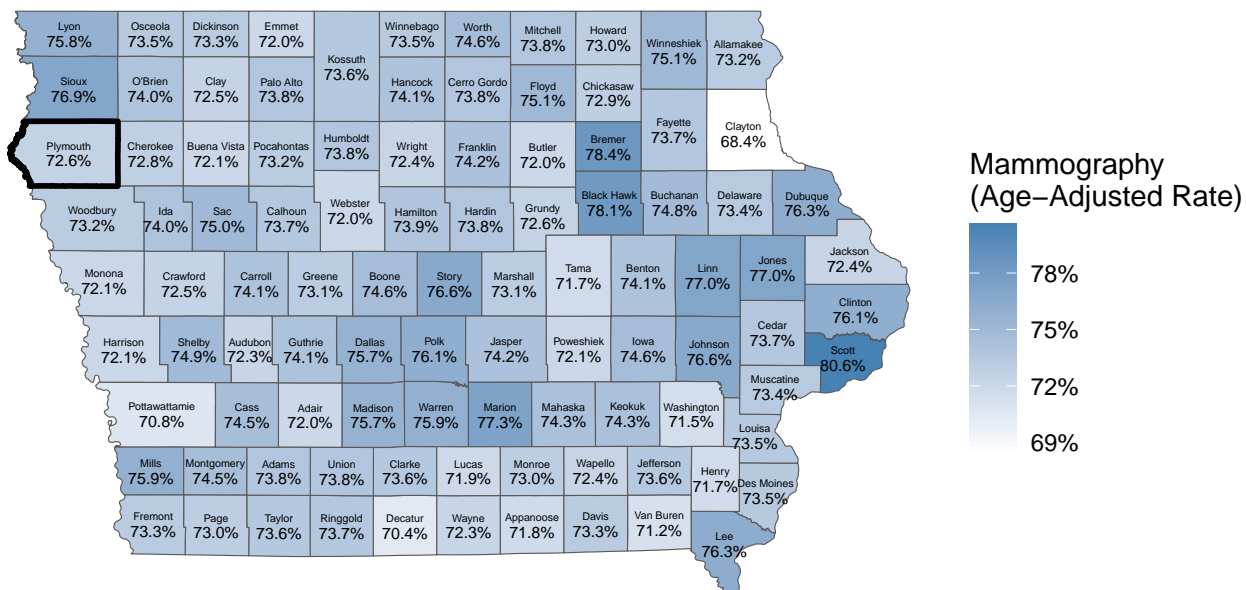
Data Source: CDC PLACES 2023 Release, BRFSS 2020

Mammography

Mammography use among women aged 50–74 years



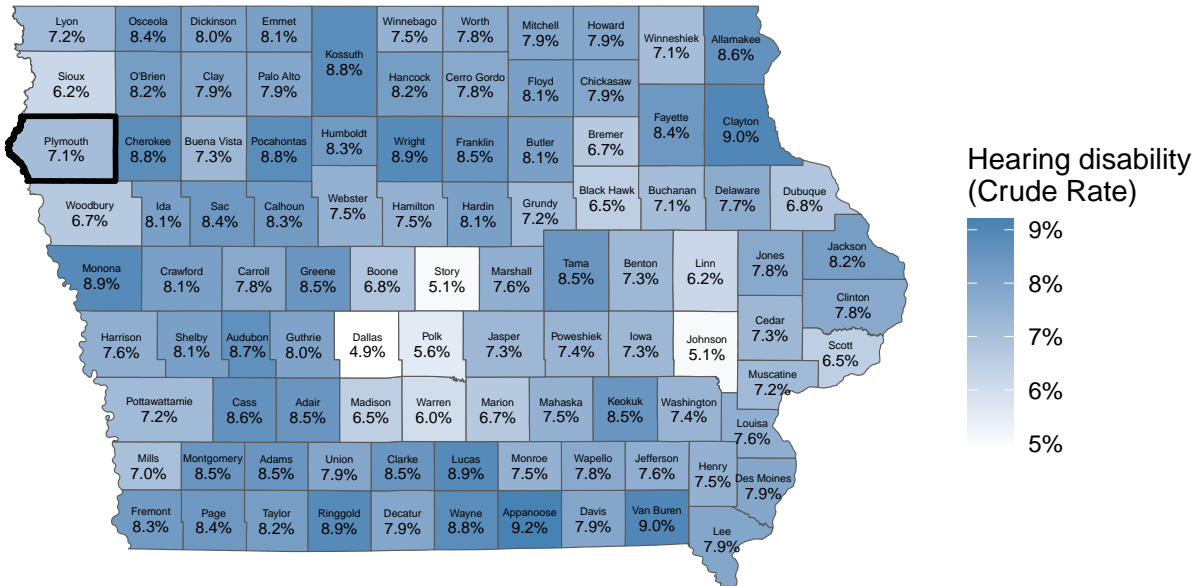
Data Source: CDC PLACES 2023 Release, BRFSS 2020



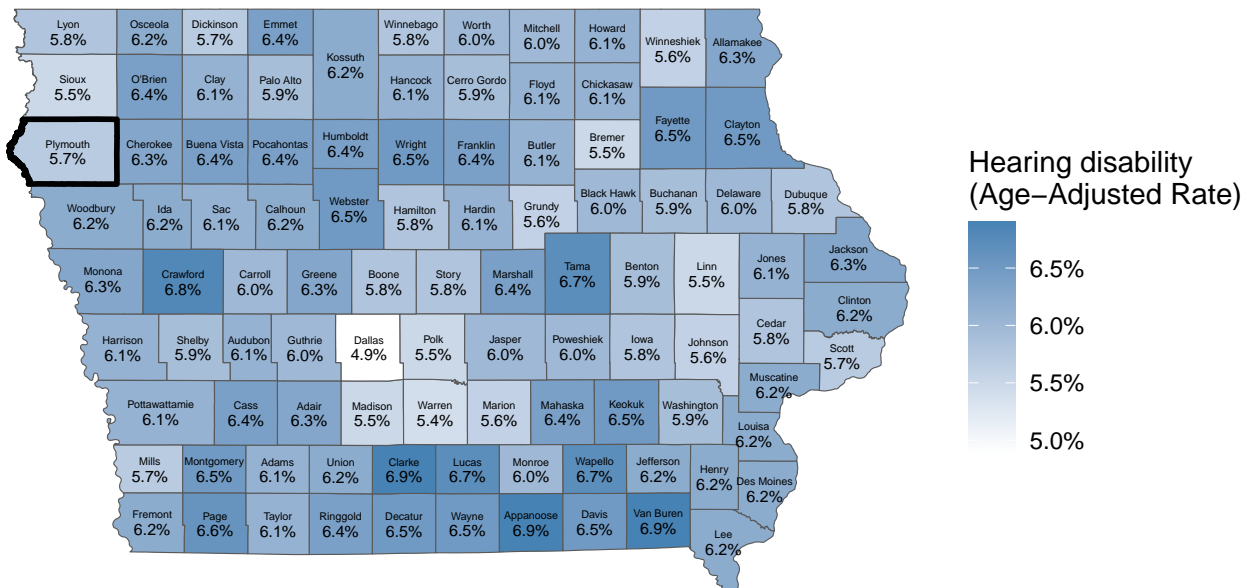
Data Source: CDC PLACES 2023 Release, BRFSS 2020

Hearing disability

Hearing disability among adults aged ≥ 18 years



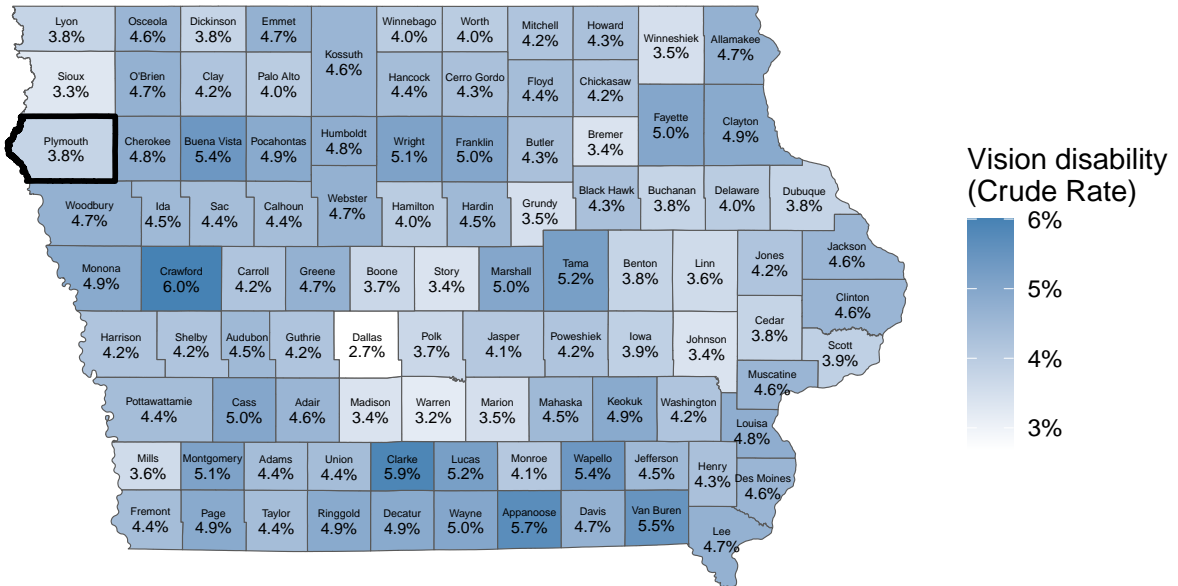
Data Source: CDC PLACES 2023 Release, BRFSS 2021



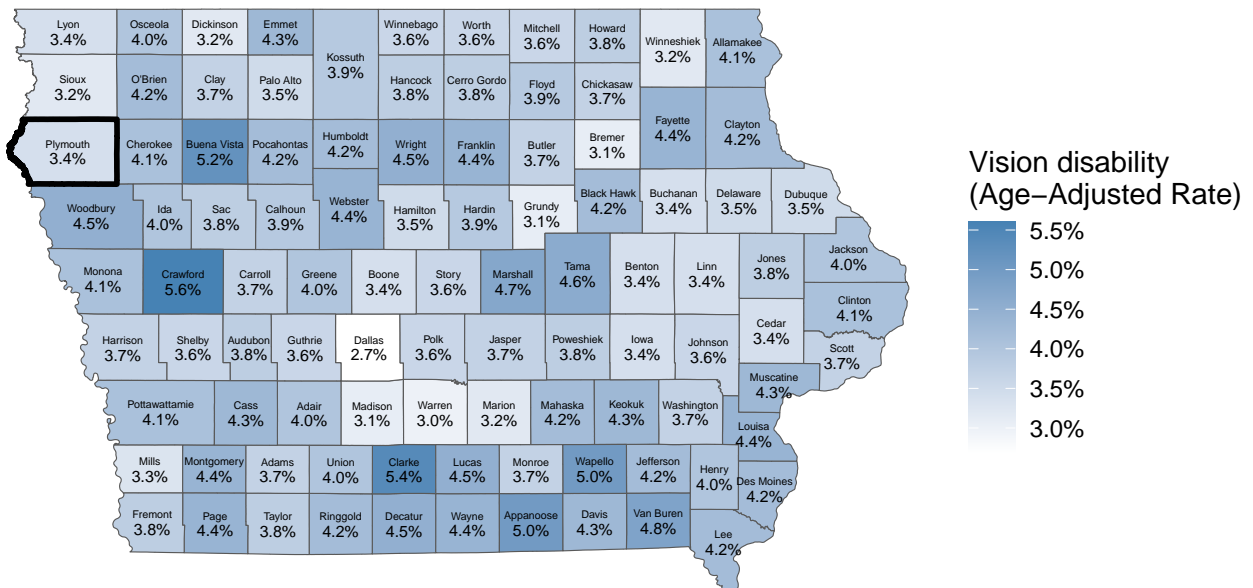
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Vision disability

Vision disability among adults aged >=18 years



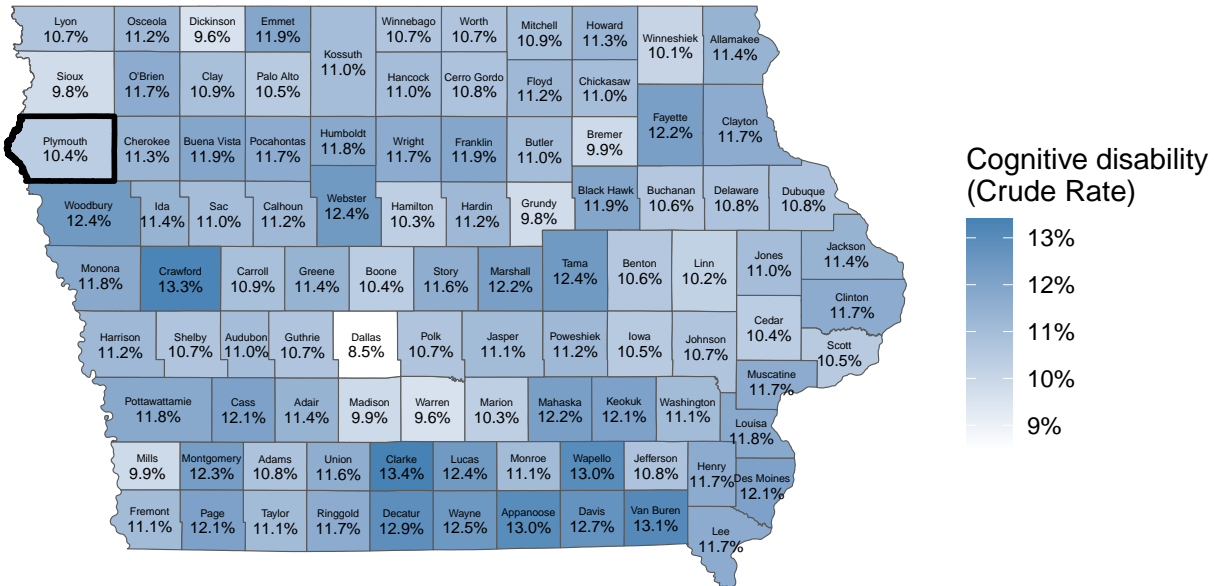
Data Source: CDC PLACES 2023 Release, BRFSS 2021



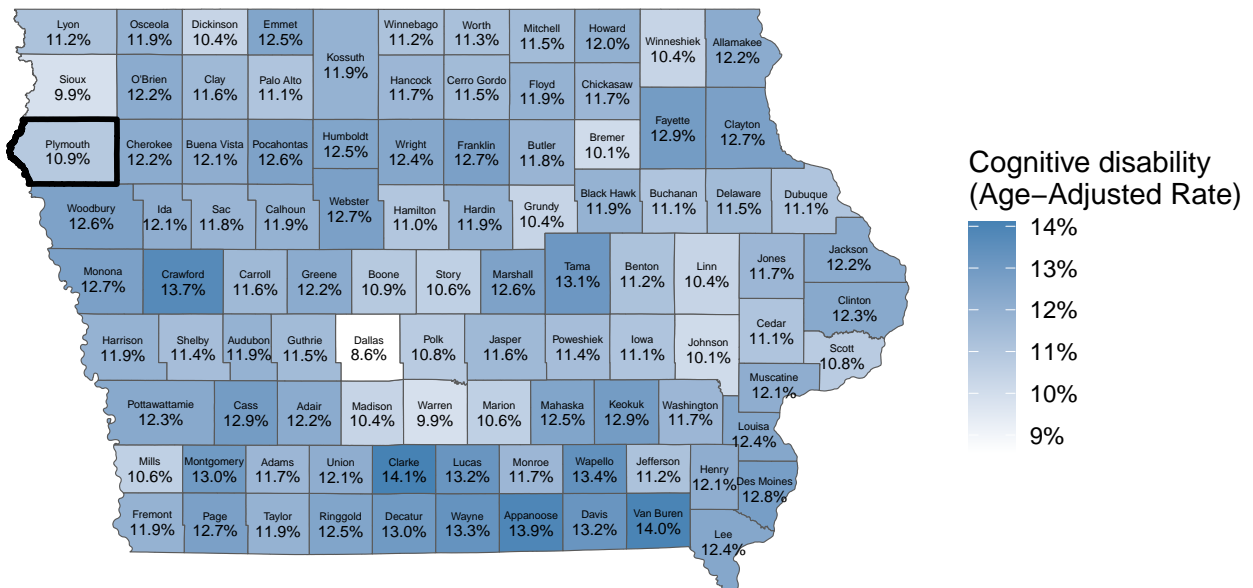
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Cognitive disability

Cognitive disability among adults aged >=18 years



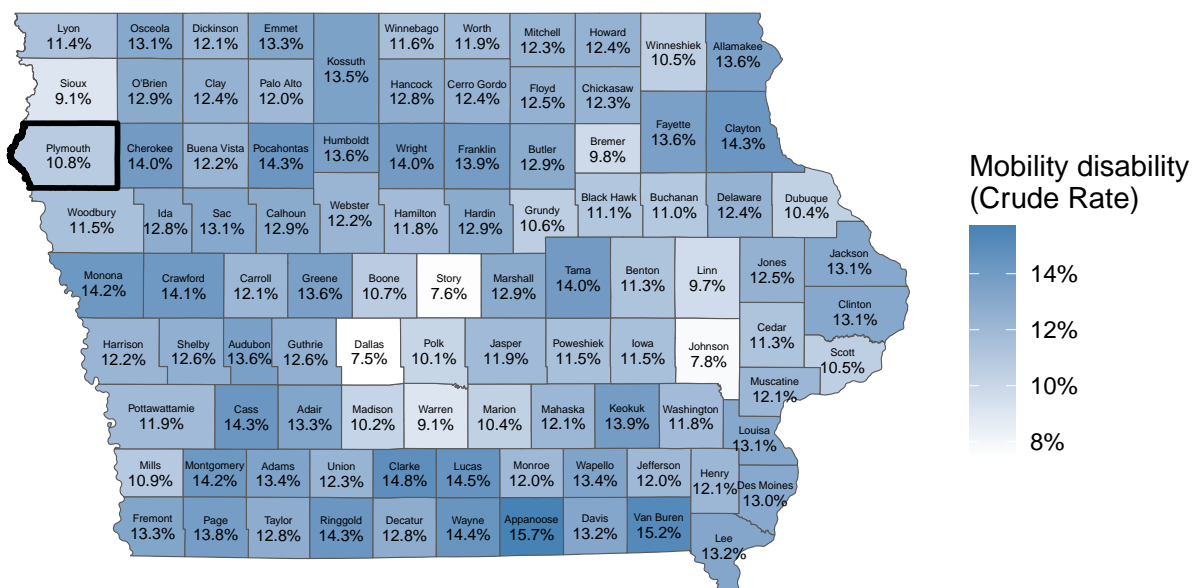
Data Source: CDC PLACES 2023 Release, BRFSS 2021



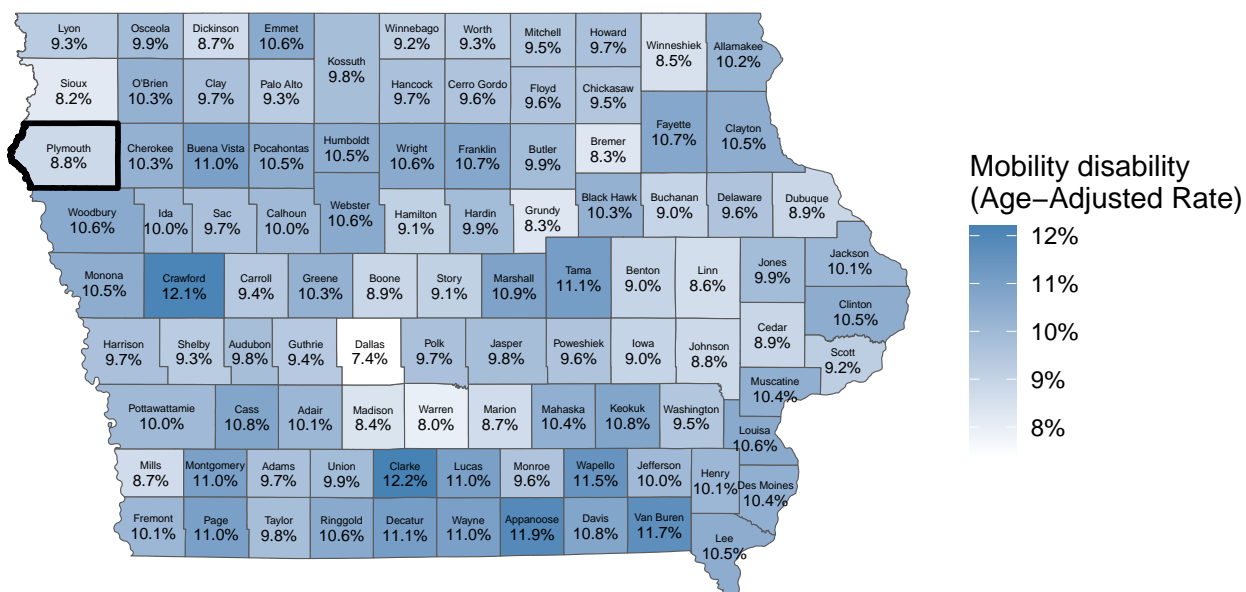
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Mobility disability

Mobility disability among adults aged >=18 years



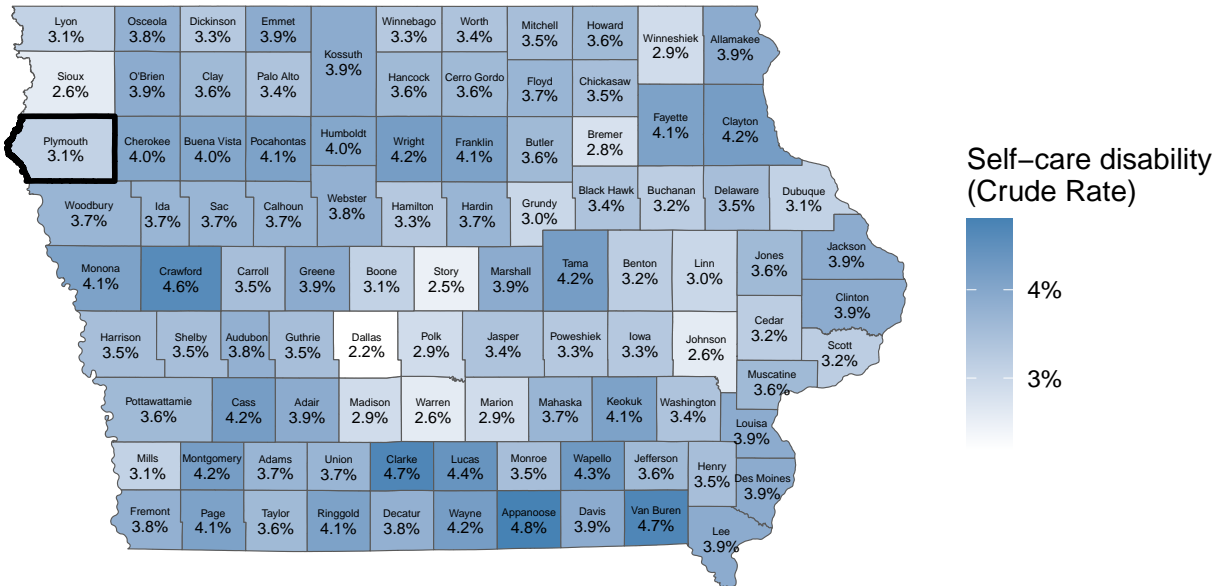
Data Source: CDC PLACES 2023 Release, BRFSS 2021



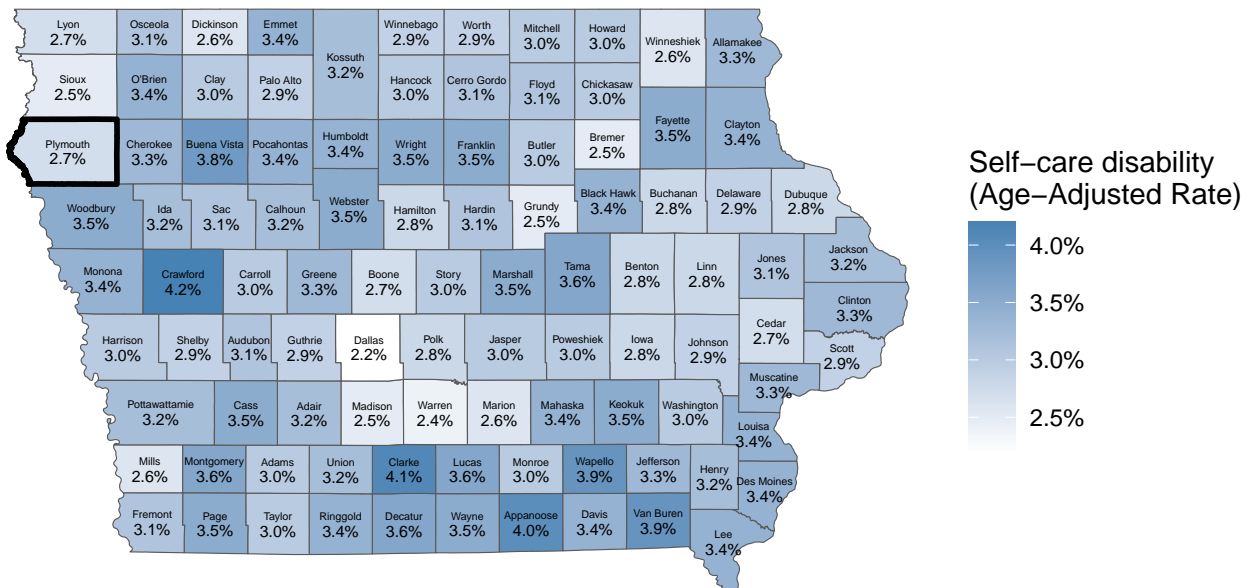
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Self-care disability

Self-care disability among adults aged >=18 years



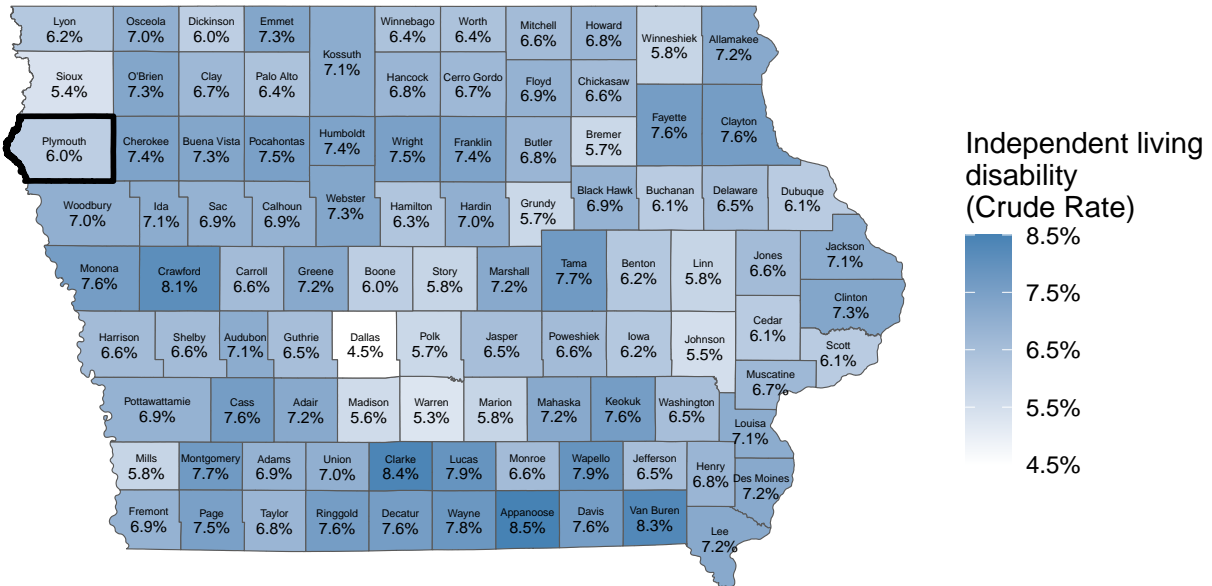
Data Source: CDC PLACES 2023 Release, BRFSS 2021



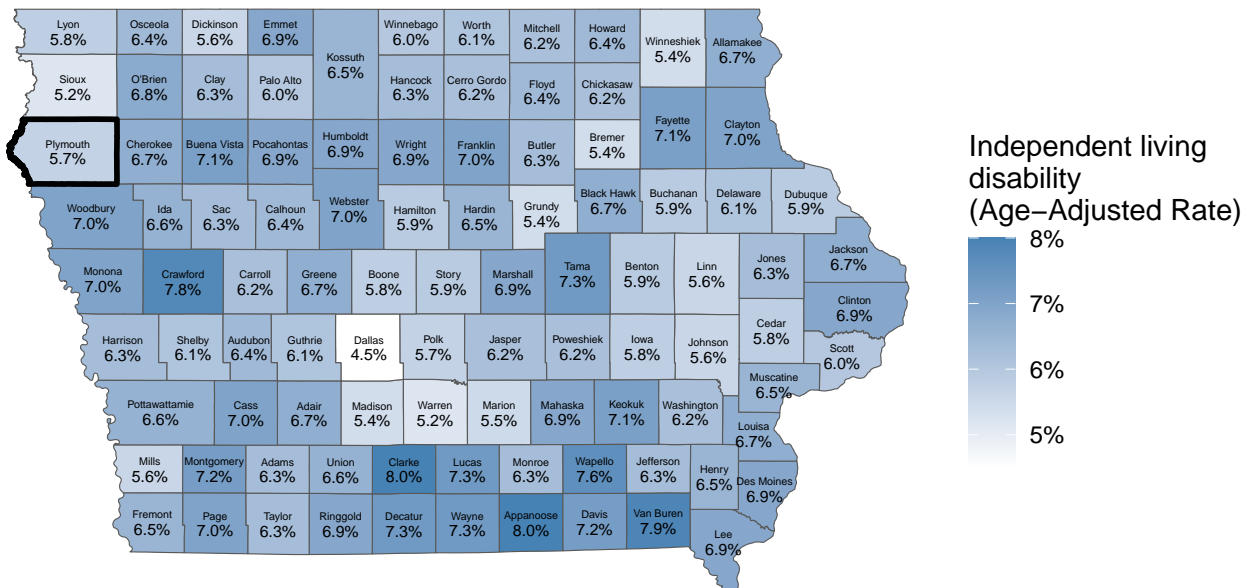
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Independent living disability

Independent living disability among adults aged ≥ 18 years



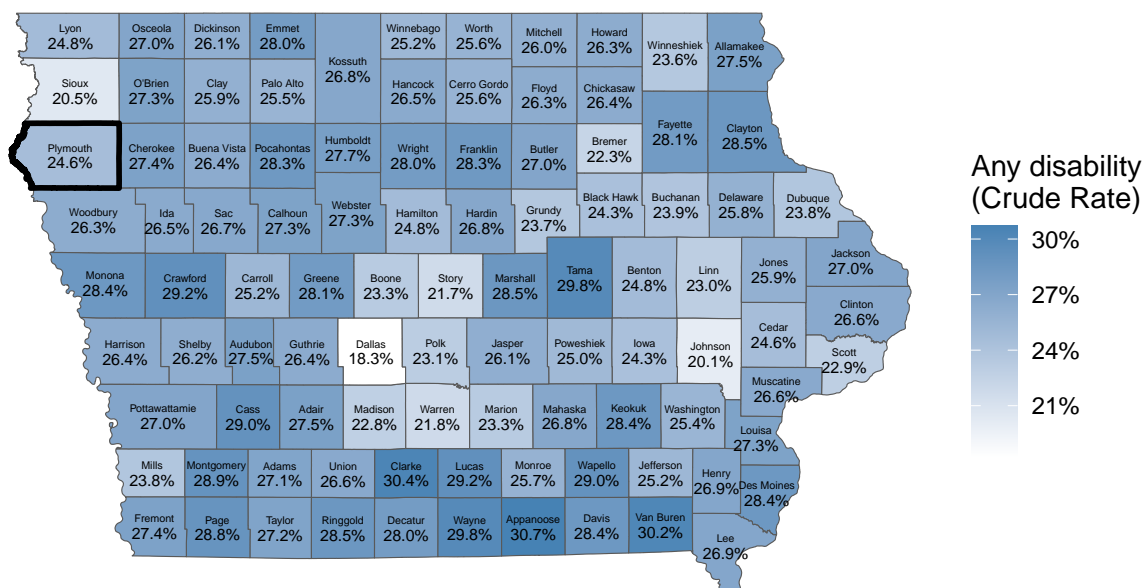
Data Source: CDC PLACES 2023 Release, BRFSS 2021



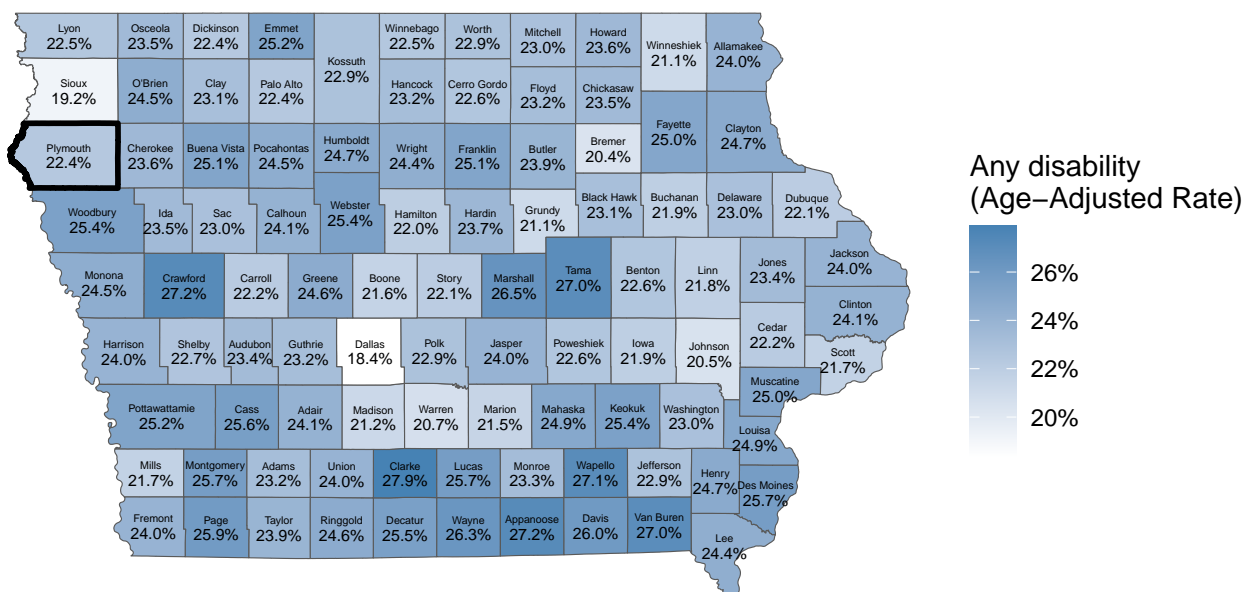
Data Source: CDC PLACES 2023 Release, BRFSS 2021

Any disability

Any disability among adults aged >=18 years



Data Source: CDC PLACES 2023 Release, BRFSS 2021



Data Source: CDC PLACES 2023 Release, BRFSS 2021