



## STAFF REPORT

**Report To:** Board of Health **Meeting Date:** December 2, 2021

**Staff Contact:** Nicki Aaker (naaker@carson.org)

**Agenda Title:** For Discussion Only: Discussion and presentation on the County Health Rankings and Roadmaps, along with strategies to improve community health by John Packham, PhD; Associate Dean for the Office of Statewide Initiatives; University of Nevada, School of Medicine. (Staff contact – Nicki Aaker; NAKER@carson.org)

Staff Summary: The County Health Rankings and Roadmaps is a report generated by the University of Wisconsin Populations Health Institutes. This report has been compiled annually since 2010 for nearly every county in all 50 states. The information is intended to raise awareness of the different factors that have an impact on health within a community, along with different strategies that may be used for improvement of a community's health. This report can be used by community leaders and stakeholders. The website can be accessed at - <https://www.countyhealthrankings.org>.

**Agenda Action:** Other / Presentation **Time Requested:** 20 minutes

**Proposed Motion**

Other/Presentation

**Board's Strategic Goal**

Quality of Life

**Previous Action**

None

**Background/Issues & Analysis**

**Applicable Statute, Code, Policy, Rule or Regulation**

N/A

**Financial Information**

**Is there a fiscal impact?** No

**If yes, account name/number:**

**Is it currently budgeted?**

**Explanation of Fiscal Impact:**

**Alternatives**

N/A

**Attachments:**

[Packham Presentation.pdf](#)

[2020 Nevada County Health Rankings Report.pdf](#)

**Board Action Taken:**

Motion: \_\_\_\_\_

1) \_\_\_\_\_

2) \_\_\_\_\_

Aye/Nay

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
(Vote Recorded By)

# 2021 Nevada County Health Rankings and Roadmaps

John Packham, PhD  
Associate Dean, Office of Statewide Initiatives  
University of Nevada, Reno School of Medicine

December 2, 2021

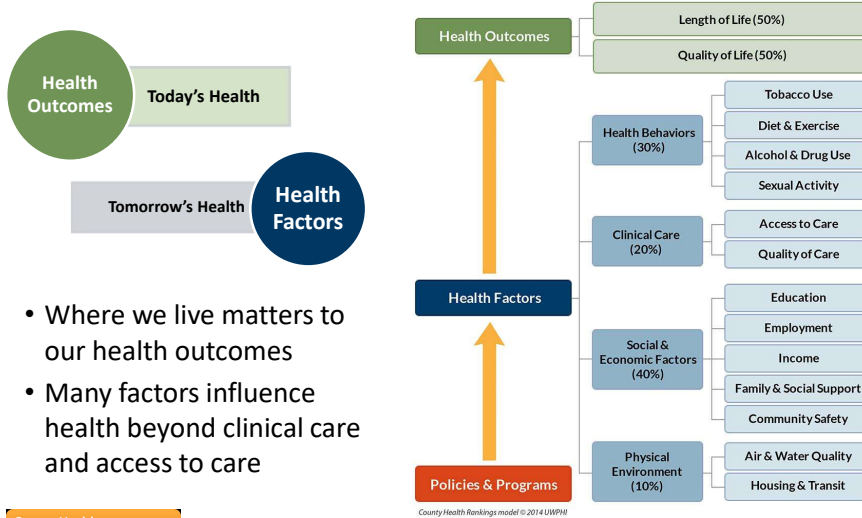
1

## County Rankings Project Partners

- Office of Statewide Initiatives, UNR School of Medicine
- Trudy Larson, MD Institute on Health Impact and Equity
- Robert Wood Johnson Foundation
- University of Wisconsin Population Health Institute
- Nevada Public Health Institute
- Nevada Public Health Association
- Nevada Public Health Training Center, UNR School of Public Health
- Carson City Health and Human Services
- Southern Nevada Health District
- Washoe County Health District
- Nevada Department of Health and Human Services
- Nevada Public Health Foundation

2

## Two Sets of Rankings – The Model



- Where we live matters to our health outcomes
- Many factors influence health beyond clinical care and access to care

County Health Rankings & Roadmaps  
Building a Culture of Health, County by County  
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County Health Rankings model © 2014 UWSPH

3

## 2021 Nevada Rankings – Health Outcomes

- |                  |                        |
|------------------|------------------------|
| 1. Lincoln (11)* | 10. White Pine (12)    |
| 2. Douglas (1)   | 11. Churchill (6)      |
| 3. Pershing (2)  | 12. Lyon (8)           |
| 4. Washoe (4)    | ➔ 13. Carson City (10) |
| 5. Storey (8)    | 14. Lander (14)        |
| 6. Clark (9)     | 15. Nye (13)           |
| 7. Elko (4)      | 16. Mineral (15)       |
| 8. Humboldt (3)  | Not ranked – Esmeralda |
| 9. Eureka (NR)   |                        |


\* Ranking in 2010

Note: Eureka County was not ranked in 2010

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## 2021 Nevada Rankings – Health Factors

- |  |                        |
|--|------------------------|
| 1. Douglas (no change)*  | 10. Lincoln (4)        |
| 2. Washoe (3)  | 11. Clark (11)         |
| 3. Eureka (NR)   | 12. Humboldt (10)      |
| 4. Storey (2)  | 13. Lyon (12)          |
| 5. Elko (6)  | 14. Pershing (14)      |
| 6. White Pine (5)  | 15. Mineral (15)       |
|  7. Carson City (8) | 16. Nye (13)           |
| 8. Churchill (7)   | Not ranked – Esmeralda |
| 9. Lander (9)  |                        |

\* Change in ranking versus 2020

Note: Eureka County was not ranked in 2010

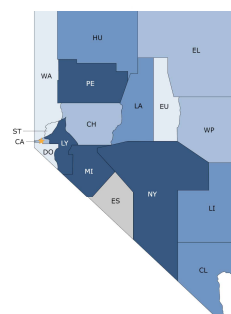
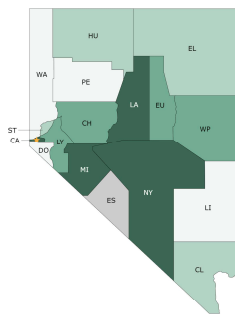


5

## Two Sets of Rankings – 2021

2021 Health Outcomes - Nevada

2021 Health Factors - Nevada



Health Outcome Ranks 1 to 4 5 to 8 9 to 11 12 to 15 Not Ranked

Health Factor Ranks 1 to 4 5 to 8 9 to 11 12 to 15 Not Ranked



6

## 2021 Sub-Rankings on Health Factors and Outcomes

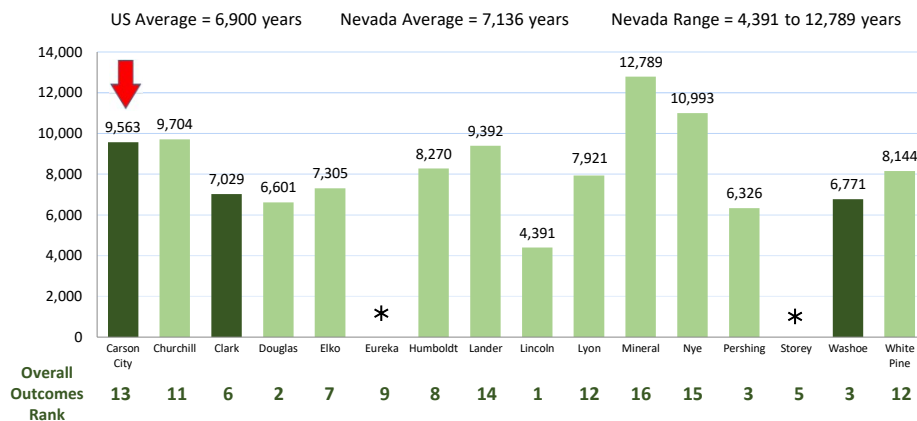
|                            | Carson City | Churchill | Clark     | Douglas  | Elko     | Eureka   | Humboldt  | Lander    | Lincoln   | Lyon      | Mineral   | Nye       | Pershing  | Storey   | Washoe   | White Pine |
|----------------------------|-------------|-----------|-----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|----------|----------|------------|
| <b>Health Outcomes</b>     | <b>13</b>   | <b>11</b> | <b>6</b>  | <b>2</b> | <b>7</b> | <b>9</b> | <b>8</b>  | <b>14</b> | <b>1</b>  | <b>12</b> | <b>16</b> | <b>15</b> | <b>3</b>  | <b>5</b> | <b>4</b> | <b>10</b>  |
| Length of Life (50%)       | 13          | 14        | 5         | 3        | 6        | 9        | 11        | 12        | 1         | 7         | 16        | 15        | 2         | 9        | 4        | 8          |
| Quality of Life (50%)      | 12          | 4         | 10        | 2        | 9        | 6        | 5         | 15        | 1         | 13        | 16        | 14        | 7         | 3        | 8        | 11         |
| <b>Health Factors</b>      | <b>7</b>    | <b>8</b>  | <b>11</b> | <b>1</b> | <b>5</b> | <b>3</b> | <b>12</b> | <b>9</b>  | <b>10</b> | <b>13</b> | <b>15</b> | <b>16</b> | <b>14</b> | <b>4</b> | <b>2</b> | <b>6</b>   |
| Health Behaviors (30%)     | 5           | 11        | 3         | 1        | 10       | 6        | 13        | 9         | 7         | 12        | 16        | 15        | 14        | 4        | 2        | 8          |
| Clinical Care (20%)        | 5           | 8         | 9         | 1        | 7        | 6        | 15        | 11        | 14        | 10        | 13        | 12        | 16        | 4        | 2        | 3          |
| Social & Economic (40%)    | 11          | 6         | 12        | 2        | 5        | 1        | 7         | 10        | 9         | 13        | 14        | 16        | 15        | 3        | 4        | 8          |
| Physical Environment (10%) | 9           | 14        | 16        | 10       | 2        | 1        | 7         | 5         | 4         | 11        | 8         | 13        | 6         | 12       | 15       | 3          |

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7

## Health Outcomes – Premature Death

Years of potential life lost before the age of 75 per 100,000 population



Source: National Center for Health Statistics – Mortality Files (2017-2019).

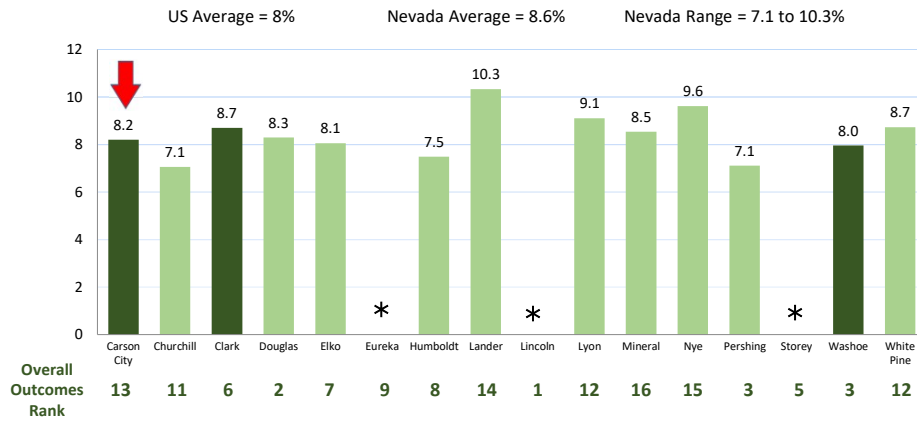
\* = Unreliable data, no estimate provided

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8

## Health Outcomes – Low Birthweight Births

Percentage of live births with low birthweight (< 2,500 grams)



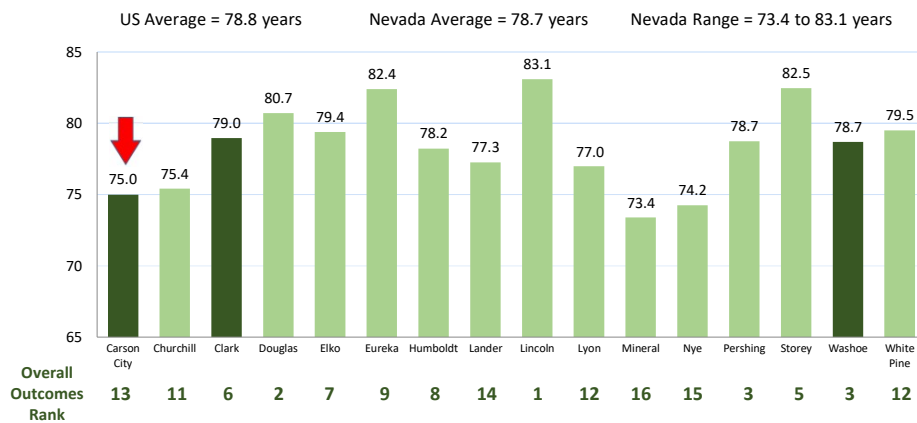
Source: National Center for Health Statistics – Natality Files (2013-2019).  
 \* = Unreliable data, no estimate provided



9

## Health Outcomes – Life Expectancy

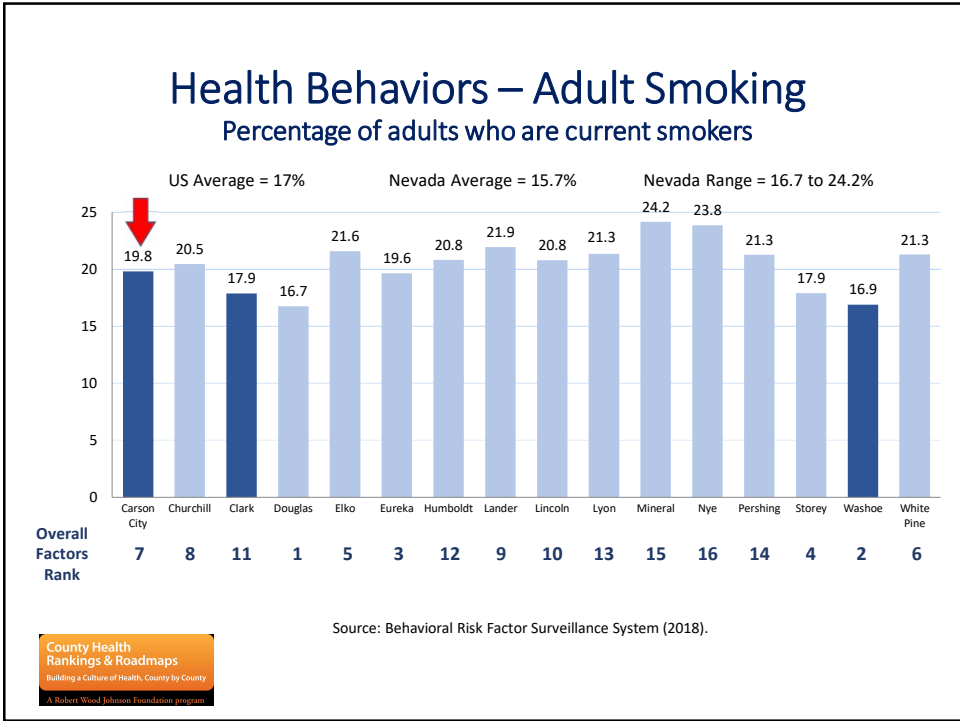
Average number of years a person can expect to live



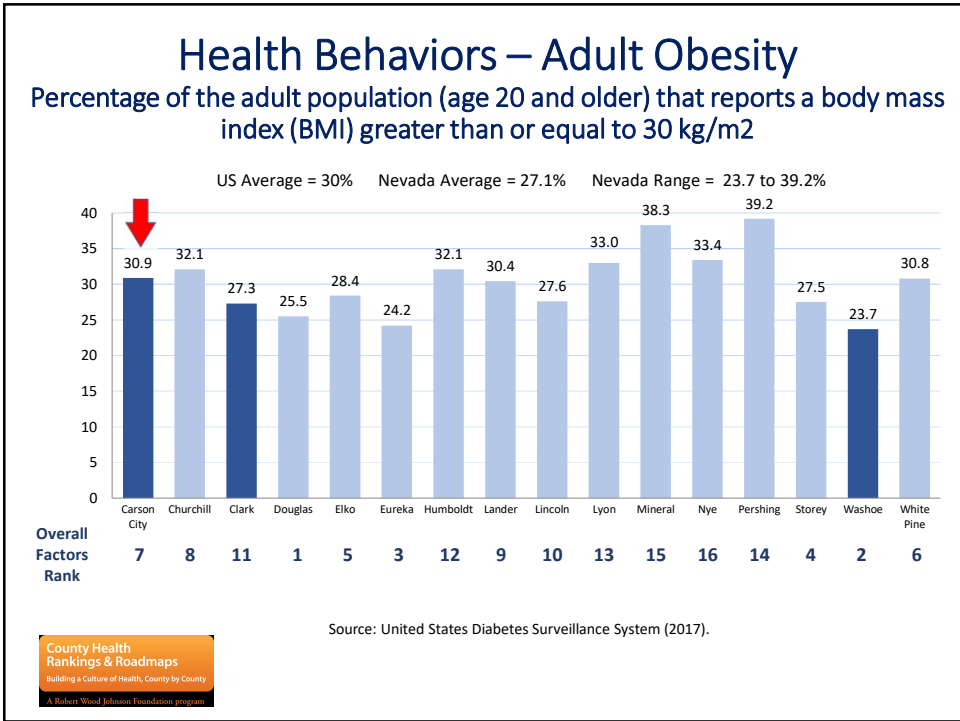
Source: National Center for Health Statistics – Mortality Files (2017-2019).



10

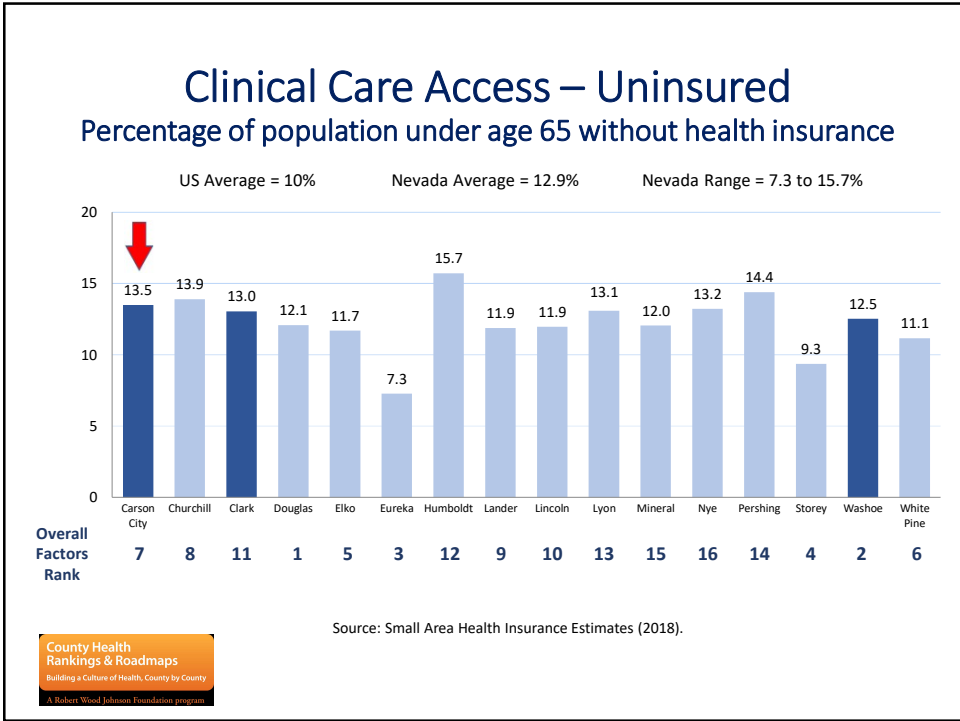


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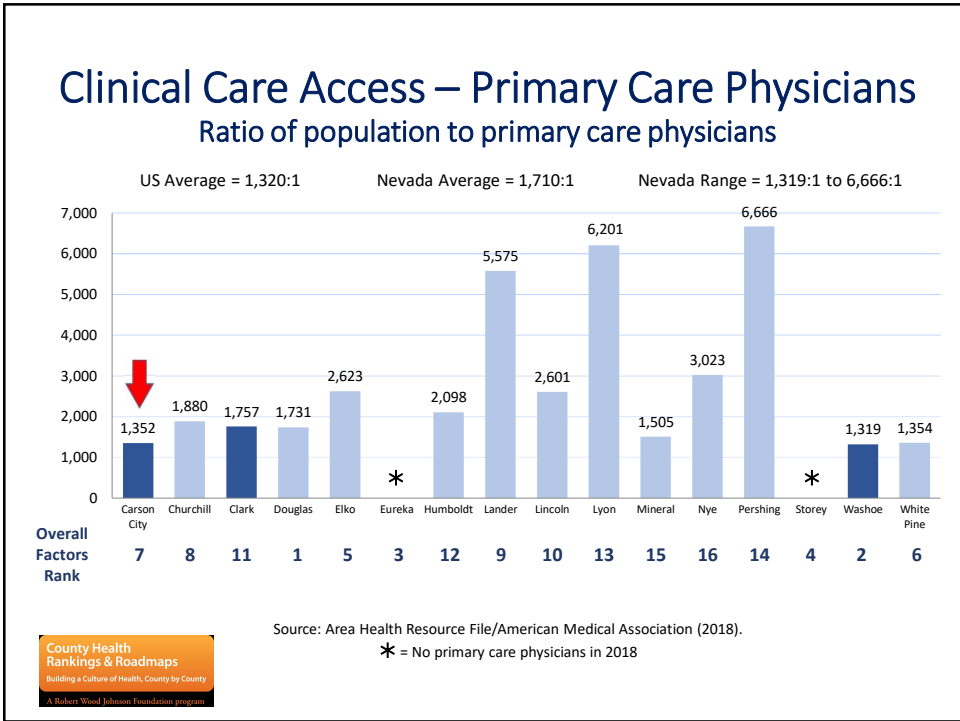


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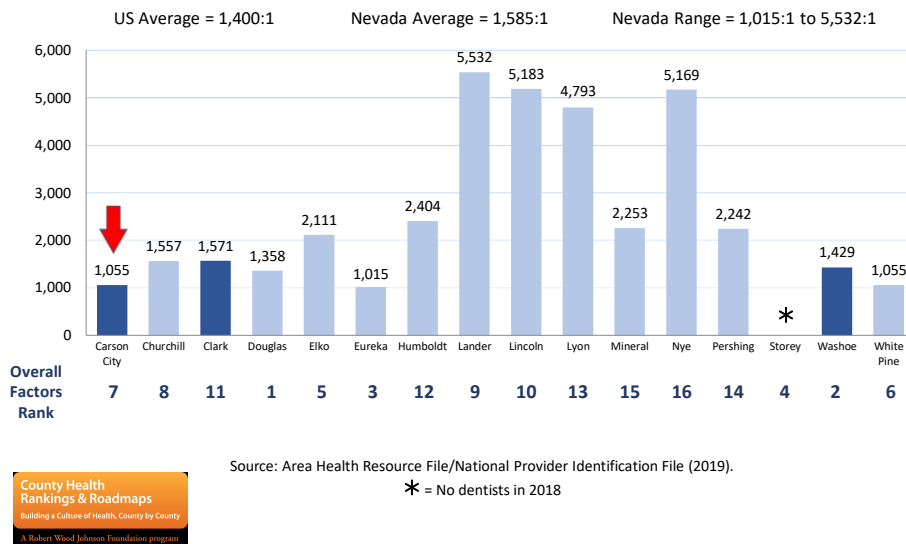
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14

## Clinical Care Access – Dentists

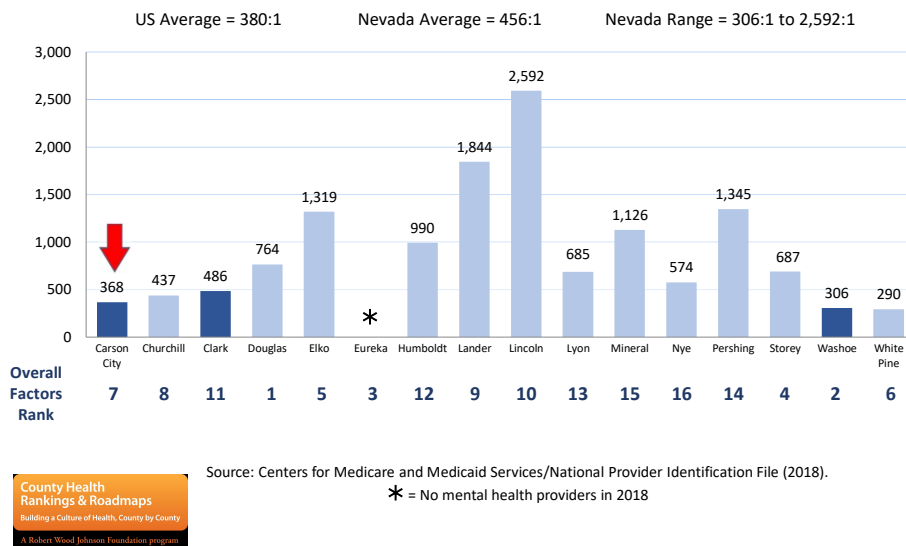
### Ratio of population to dentists



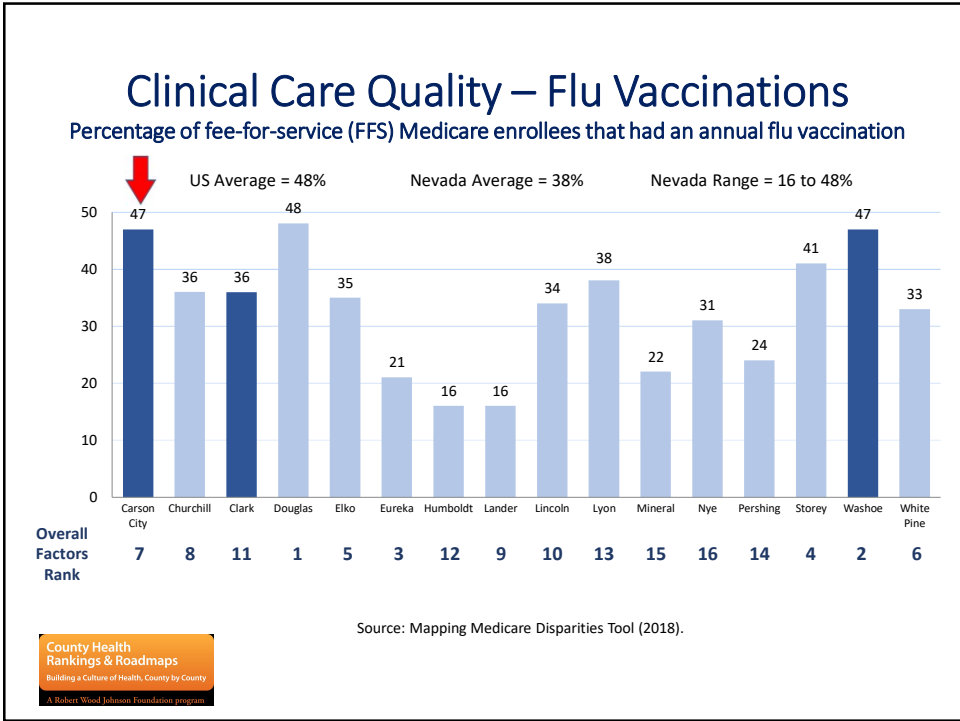
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## Clinical Care Access – Mental Health Providers

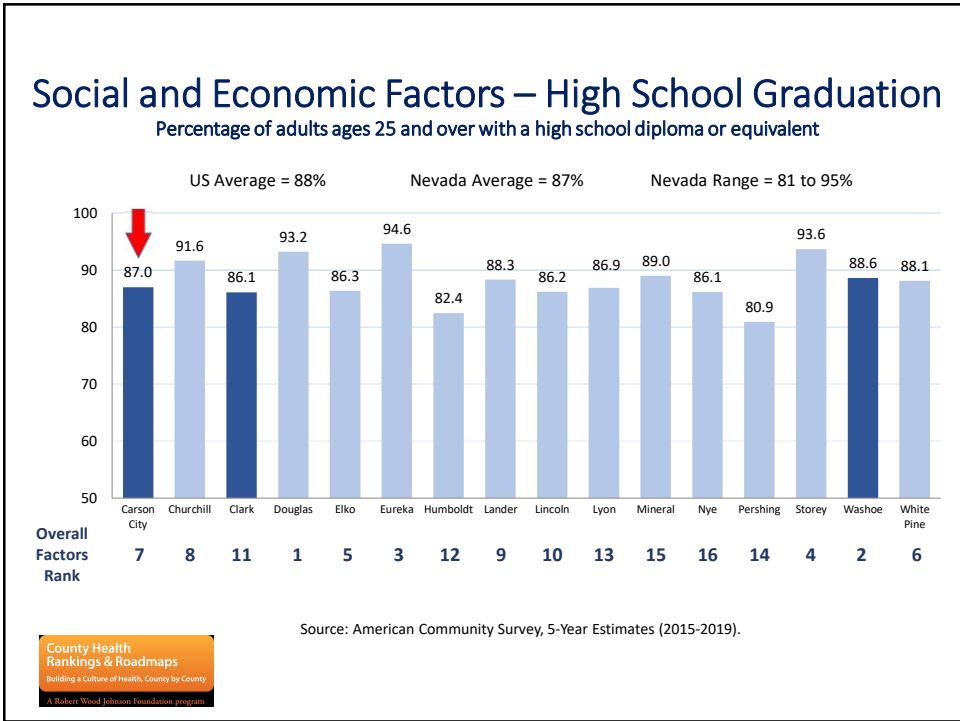
### Ratio of population to mental health providers



16



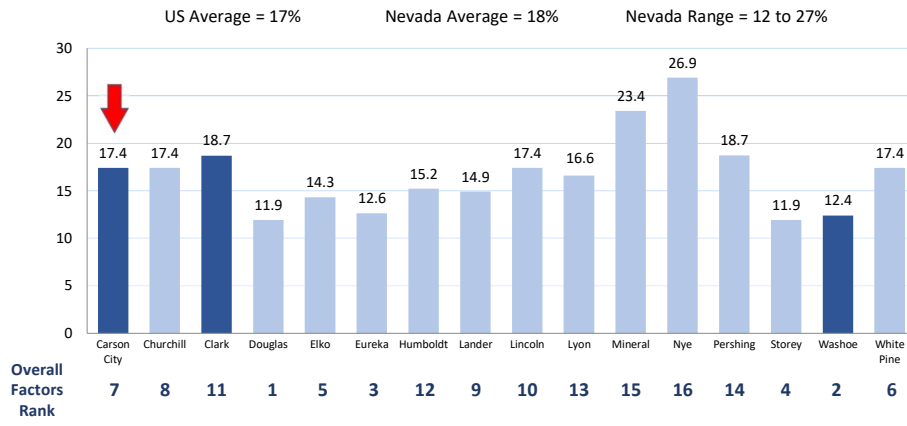
17



18

## Social and Economic Factors – Child Poverty

Percentage of people under age 18 in poverty



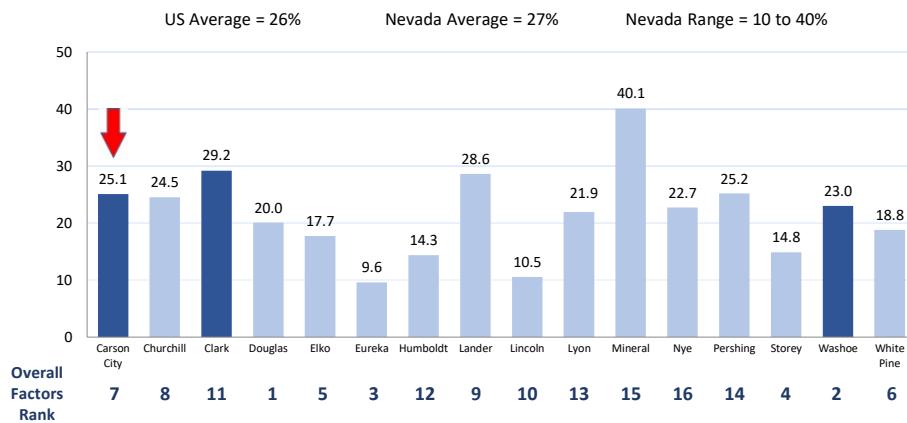
Source: Small Area Income and Poverty Estimates (2019).



19

## Social and Economic Factors – Single-Parent Households

Percentage of children that live in a household headed by a single parent



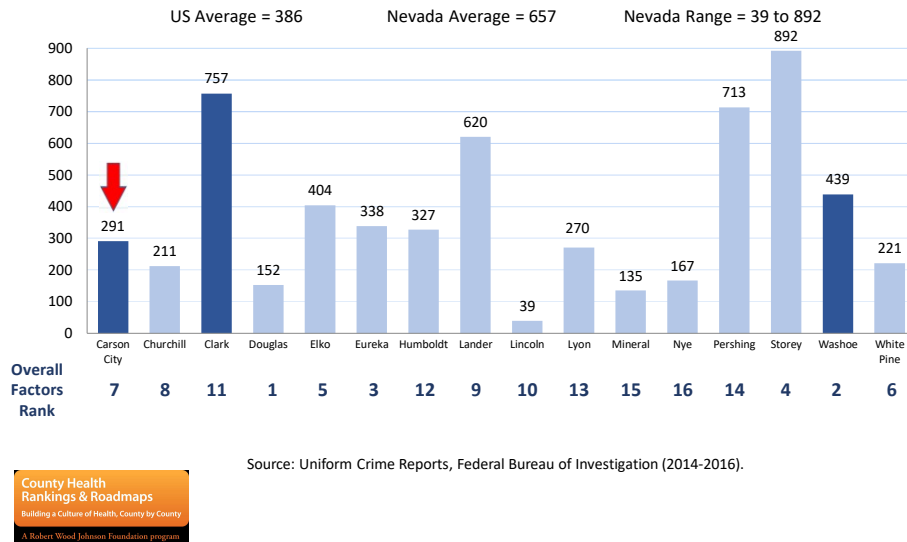
Source: American Community Survey, 5-year Estimates (2015-2019).



20

## Social and Economic Factors – Violent Crime

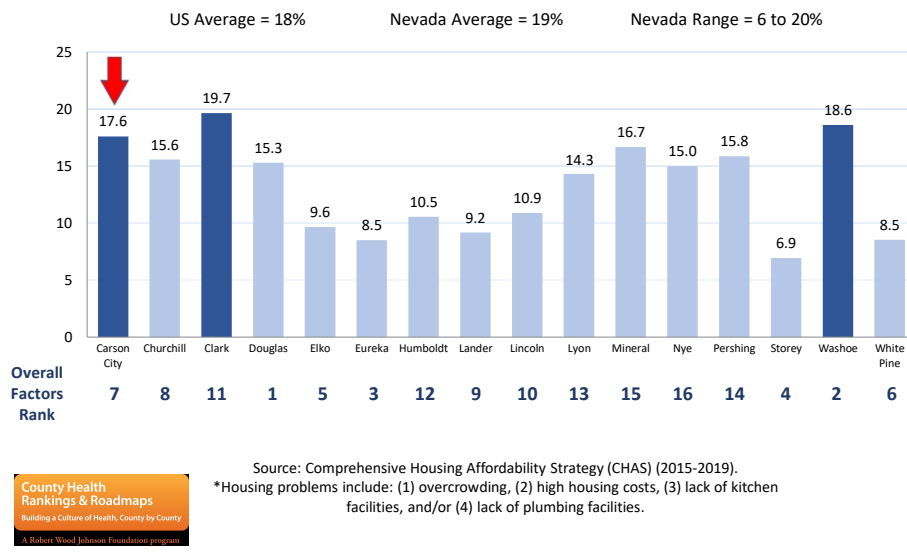
Number of reported violent crime offenses per 100,000 population



21

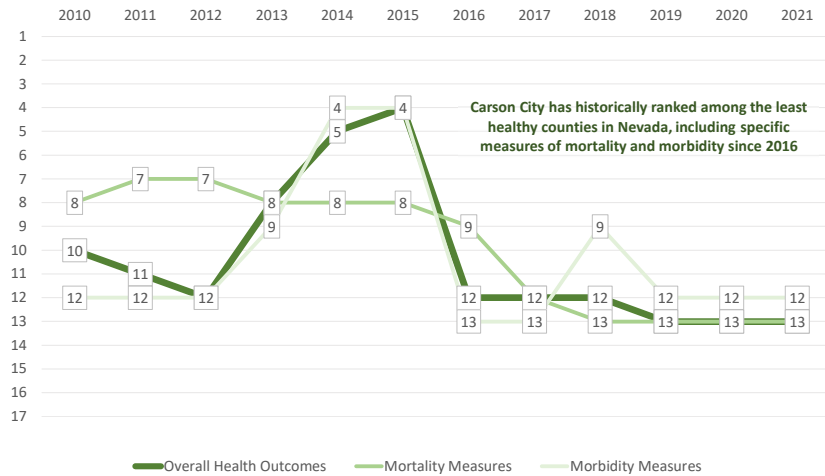
## Physical Environment – Severe Housing Problems

Percentage of households with 1 of 4 housing problems\*



22

## Carson City Health Outcomes – 2011 to 2020

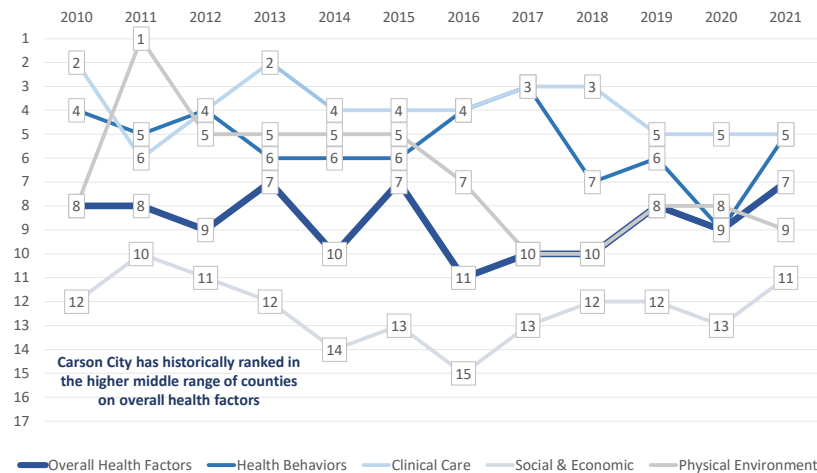


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23

23

## Carson City Health Factors – 2011 to 2020



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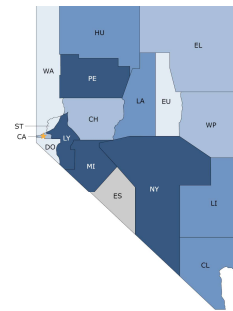
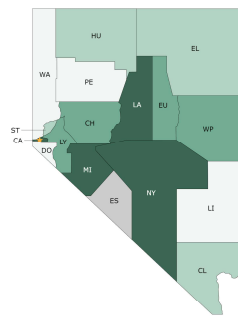
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24

# Two Sets of Rankings

2021 Health Outcomes - Nevada

2021 Health Factors - Nevada



Health Outcome Ranks 1 to 4 5 to 8 9 to 11 12 to 15 Not Ranked

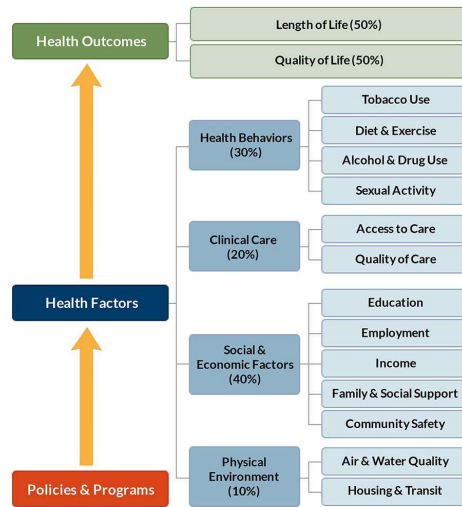
Health Factor Ranks 1 to 4 5 to 8 9 to 11 12 to 15 Not Ranked



25

# Upstream Policies and Strategies to Improve Health

- Tobacco and e-cigarette use
- Food deserts (and swamps)
- Housing policy
- Transportation policy
- Violence prevention
- Family and social supports
- Income supports
- Workforce development
- Health workforce development
- Access to care
- Preventive care and services



County Health Rankings model © 2014 UMRPH

26

# What Works for Health

Evidence matters. Our What Works for Health tool will help you find policies and programs that are a good fit for your community's priorities.

Explore new [Curated Strategy Lists](#) on a variety of topics

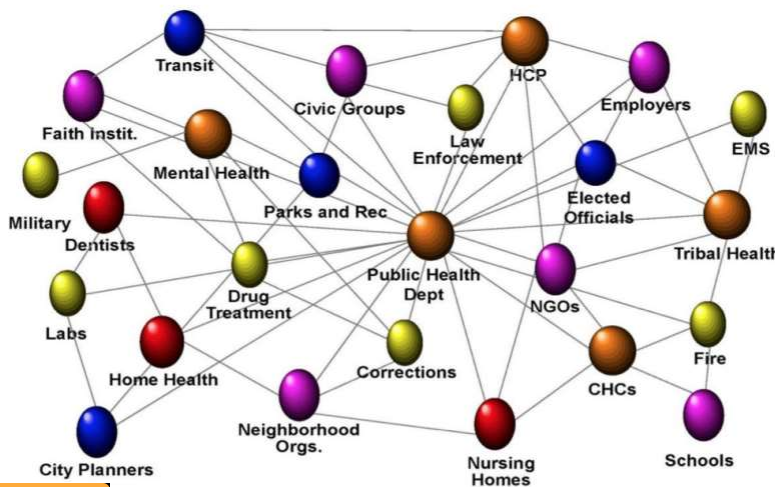
## Find Strategies by Topic

|  |   |   |   |
|--|---|---|---|
| <b>Health Behaviors</b> <ul style="list-style-type: none"><li>Alcohol and Drug Use</li><li>Diet and Exercise</li><li>Sexual Activity</li><li>Tobacco Use</li></ul> | <b>Clinical Care</b> <ul style="list-style-type: none"><li>Access to Care</li><li>Quality of Care</li></ul> | <b>Social &amp; Economic Factors</b> <ul style="list-style-type: none"><li>Community Safety</li><li>Education</li><li>Employment</li><li>Family and Social Support</li><li>Income</li></ul> | <b>Physical Environment</b> <ul style="list-style-type: none"><li>Air and Water Quality</li><li>Housing and Transit</li></ul> |
|--|---|---|---|

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27

# Local Public Health System



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28



# [www.CountyHealthRankings.org](http://www.CountyHealthRankings.org)

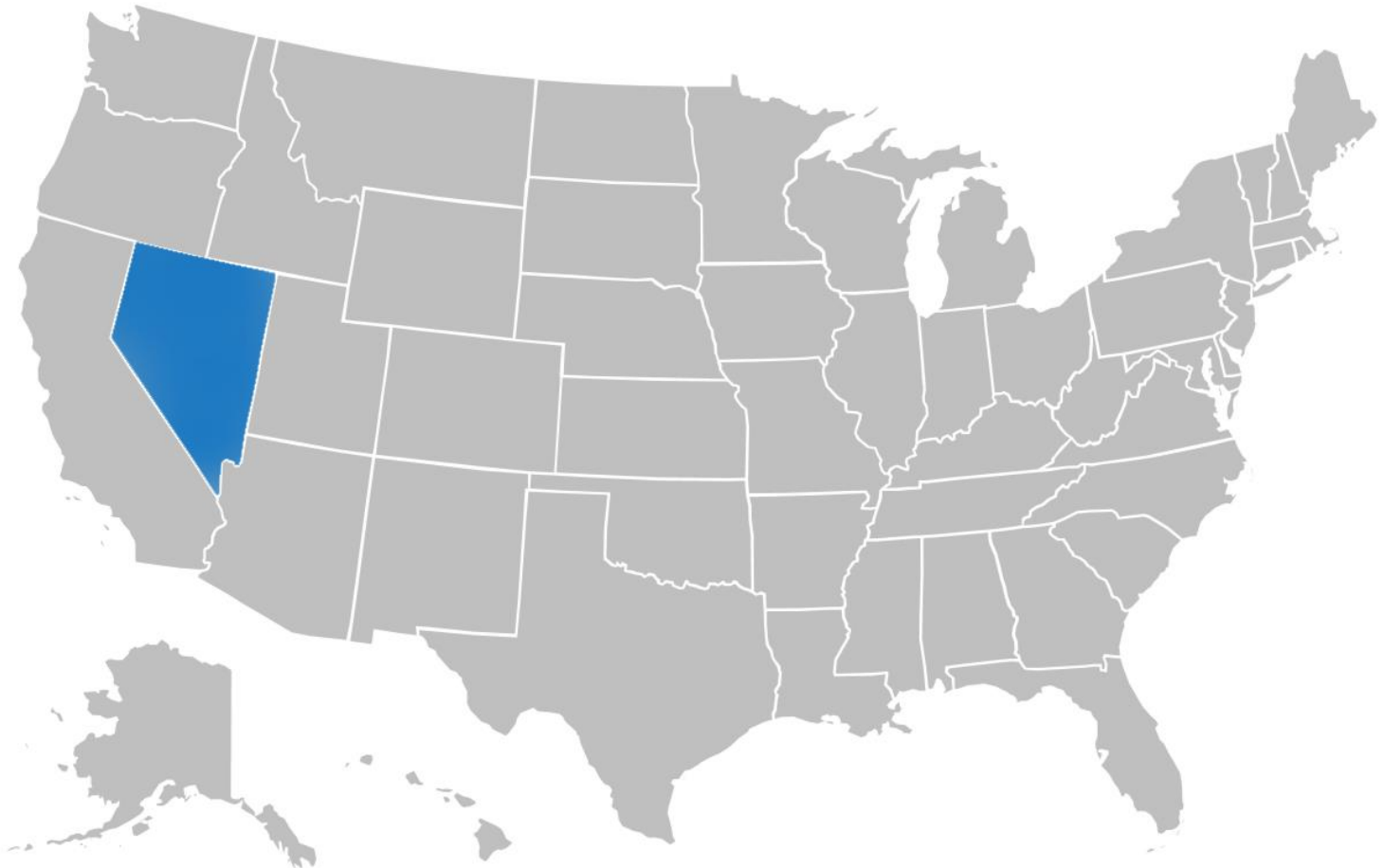


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# Nevada



## 2020 County Health Rankings Report

A collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.



Support provided by



Robert Wood Johnson Foundation

## 2020 County Health Rankings for the 15 Ranked Counties in Nevada

| County      | Health Outcomes | Health Factors |
|-------------|-----------------|----------------|
| Carson City | 13              | 9              |
| Churchill   | 9               | 10             |
| Clark       | 5               | 11             |
| Douglas     | 2               | 1              |
| Elko        | 4               | 4              |
| Esmeralda   | NR              | NR             |

| County   | Health Outcomes | Health Factors |
|----------|-----------------|----------------|
| Eureka   | NR              | NR             |
| Humboldt | 10              | 8              |
| Lander   | 12              | 5              |
| Lincoln  | 1               | 7              |
| Lyon     | 11              | 13             |
| Mineral  | 15              | 15             |

| County     | Health Outcomes | Health Factors |
|------------|-----------------|----------------|
| Nye        | 14              | 14             |
| Pershing   | 6               | 12             |
| Storey     | 7               | 2              |
| Washoe     | 3               | 3              |
| White Pine | 8               | 6              |

For more information on how these ranks are calculated, view the tables at the end of this report and visit [www.countyhealthrankings.org](http://www.countyhealthrankings.org)



### Stay Up-To-Date with County Health Rankings & Roadmaps

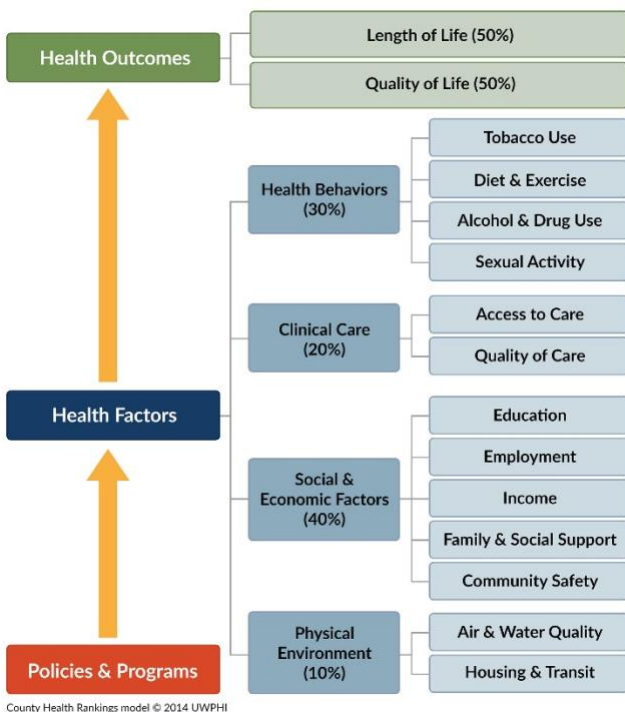
For the latest updates on Rankings, What Works for Health, community support, RWJF Culture of Health Prize communities, Action Learning Guides, and more visit [www.countyhealthrankings.org](http://www.countyhealthrankings.org). You can see what we're featuring on our webinar series, what communities are doing to improve health, and how you can get involved!

The County Health Rankings & Roadmaps (CHR&R) lifts up actionable data, evidence, guidance, and stories for communities to make it easier for people to be healthy in their neighborhoods, schools, and workplaces. Ranking the health of nearly every county in the nation (based on the model below), CHR&R illustrates what we currently know when it comes to what is keeping people healthy or making them sick and shows what we can do to create healthier places to live, learn, work, and play.

## What are the County Health Rankings?

Published online at [www.countyhealthrankings.org](http://www.countyhealthrankings.org), the Rankings help us understand what influences our health and how long and well we live. The Rankings are unique in their ability to provide measures of the current overall health of each county in all 50 states. They also look at a variety of measures that affect the future health of communities, such as high school graduation rates, access to healthy foods, rates of smoking, children in poverty, and teen births.

For the past 10 years, communities have used the Rankings to garner support for local health improvement initiatives by engaging government agencies, health care providers, community organizations, business leaders, policymakers, and the public.



## Moving with Data to Action

The [Take Action to Improve Health](#) section of our website helps communities join together to look at the many factors influencing health, select strategies that work, and make changes that can have a lasting impact. Take Action to Improve Health is a hub for information to help any community member or leader who wants to improve their community's health and foster health equity. You will find:

- [What Works for Health](#), a searchable menu of evidence-informed strategies that can make a difference locally;
- [The Action Center](#), your home for step-by-step guidance and tools to help you move with data to action;
- [Action Learning Guides](#), self-directed learning modules combining guidance, tools, and hands-on practice and reflection activities on specific topics;
- [The Partner Center](#), information to help you identify the right partners and explore tips to engage them.

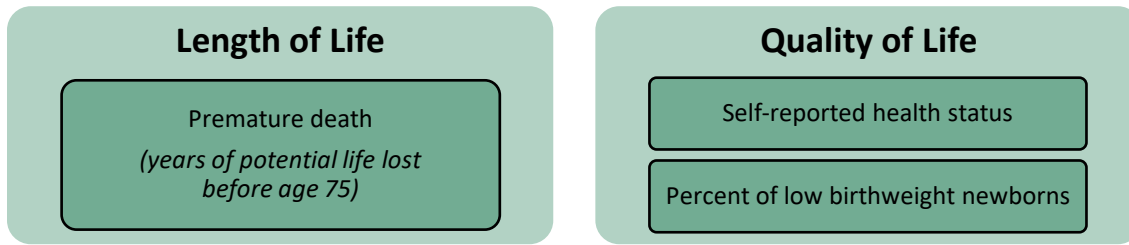
## Ensuring Healthy Places for All

Communities thrive when all people can be healthy in their neighborhoods, schools, and workplaces. CHR&R brings actionable data and strategies to communities working to ensure that healthy places are available to all. Pages 4 and 5 of this report highlights how health outcomes and health factors differ by place within your state. On pages 6 and 7, we illustrate how health differs among racial/ethnic groups within places.

The Robert Wood Johnson Foundation (RWJF) collaborates with the University of Wisconsin Population Health Institute (UWPHI) to bring this program to cities, counties, and states across the nation.

## What are Health Outcomes?

Everyone wants to experience long and healthy lives, yet places have different resources and opportunities. To understand the health outcomes in a community, we measure both length and quality of life by county within Nevada.



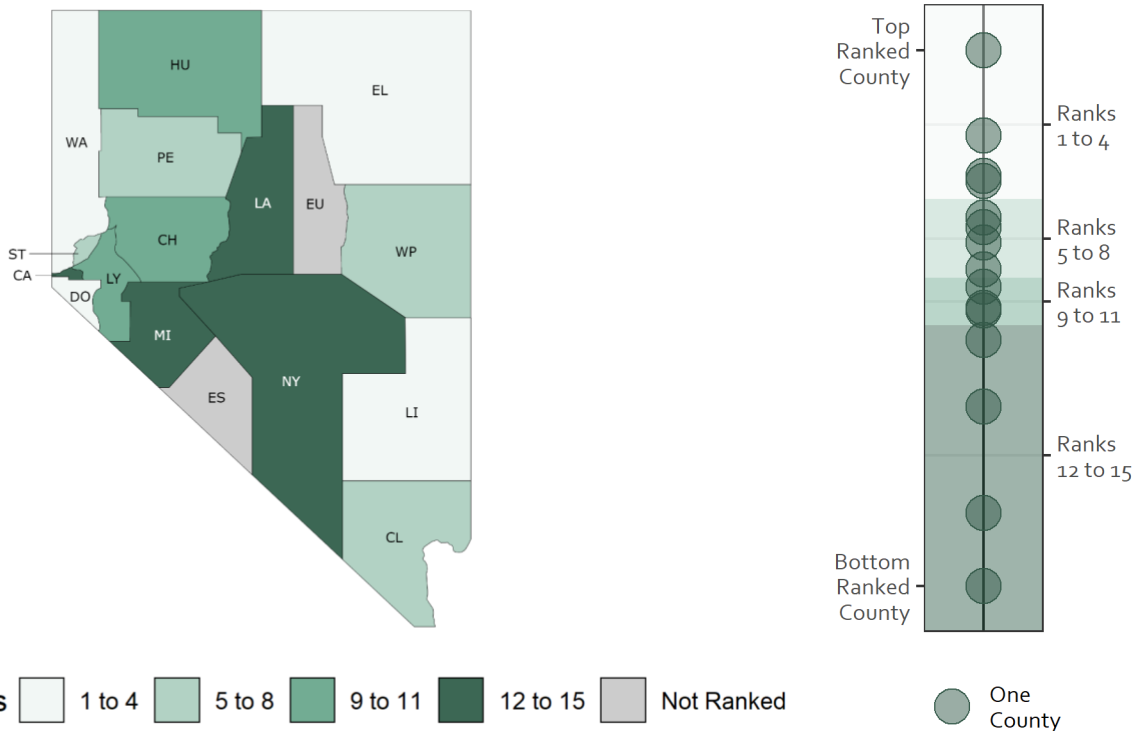
## How Do Counties Rank for Health Outcomes?

The green map shows the distribution of Nevada’s **health outcome ranks** across counties. The map is divided into four quartiles with less color intensity indicating better health outcomes in the respective summary rankings. Specific county ranks can be found in the table on page 2.

Detailed information on the measures and their associated weights is available on page 9. You can also learn about how we calculate health outcome ranks at [www.countyhealthrankings.org](http://www.countyhealthrankings.org).

## What Do Differences Between Ranks Mean?

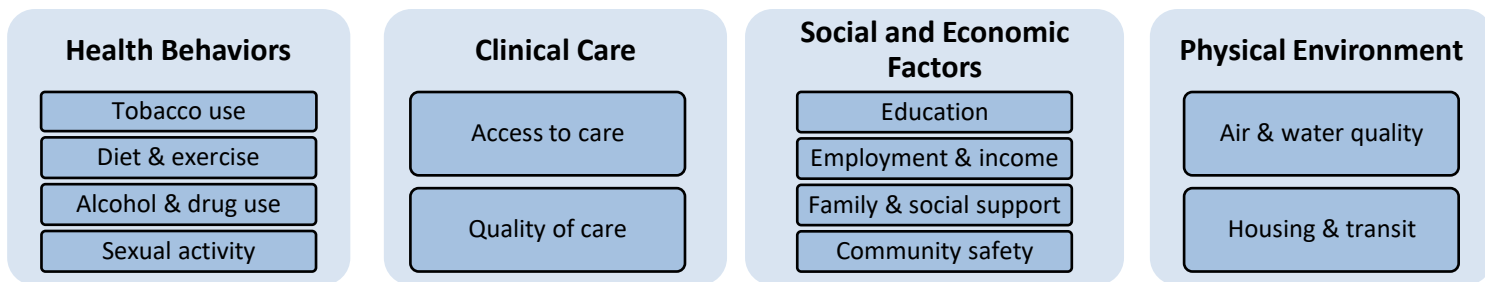
Counties are ordered by the health outcome rank, with a top-ranked county (rank = 1) having the best health outcome score. Ranks are easy to communicate, but they mask differences in health within counties and from one ranked county to the next. The chart next to the map shows the spread of health outcome scores (ranks) for each county (green circles) in Nevada. This graphic shows the size of the gap *between* ranked counties. The different background colors correspond to the four quartiles used in the map.



**Figure 1. Health outcome ranks displayed using quartiles (map) and underlying health outcome scores (chart)**

## What are Health Factors?

Many factors shape our opportunities to be healthy and influence how well and how long we live. Health factors represent the things we can change to improve health for all, like opportunities for quality education, good paying jobs, access to quality clinical care, healthy foods, green spaces, and secure and affordable housing. We measure four health factor areas.



## How Do Counties Rank for Health Factors?

The blue map shows the distribution of Nevada’s **health factor ranks** across counties. The map is divided into four quartiles with less color intensity indicating better health factors in the respective summary rankings. Specific county ranks can be found in the table on page 2.

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## What Do Differences Between Ranks Mean?

Counties are ordered by the health factor rank, with a top-ranked county (rank = 1) having the best health factor score. As previously noted, ranks mask differences in the opportunity for health within counties and from one county to the next. The chart next to the map shows the spread of health factor scores (ranks) for each ranked county (blue circles) in Nevada. This graphic shows the size of the gap *between* ranked counties. The different background colors correspond to the four quartiles used in the map.

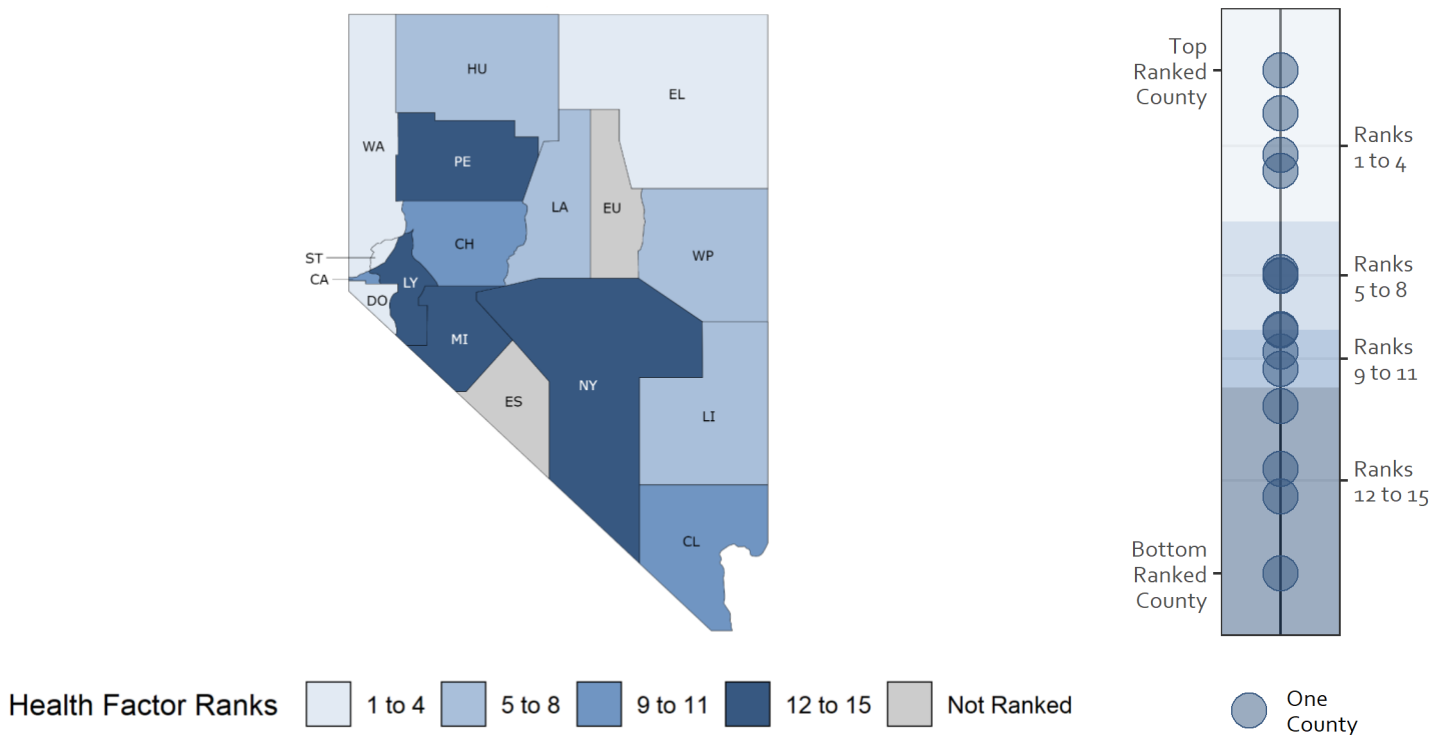


Figure 2. Health factor ranks displayed using quartiles (map) and underlying health factor scores (chart)

## Growing Healthy Places Means Ensuring Opportunities for All

Health is influenced by every aspect of how and where we live. Access to secure and affordable housing, safe neighborhoods, good paying jobs and quality early childhood education are examples of important factors that can put people on a path to a healthier life. But access to these opportunities often looks different based on where you live, the color of your skin, or the circumstances you were born into. Data show a persistent pattern in barriers to opportunity for people with lower incomes and for communities of color across the United States. Patterned differences in a range of health factors emerge from unfair policies and practices at many levels and over many decades.



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### A Pattern of Unfair Differences Exists for People with Lower Incomes and Communities of Color in:

-  Access to Care
-  Air and Water Quality
-  Availability of Healthy Foods
-  Community Safety
-  Educational Supports
-  Employment Opportunities
-  Housing Opportunities
-  Income
-  Quality of Care

### Using Data for Action

Achieving health equity means reducing and ultimately eliminating unjust and avoidable differences in opportunity and health. Our progress toward health equity will be measured by how health disparities change over time. Visit [www.countyhealthrankings.org](http://www.countyhealthrankings.org) to learn more about:

1. Health outcome and factor measures for your state and county;
2. Measures that have data available for racial and ethnic groups to illuminate differences in opportunities for health in your state and county;
3. Additional data resources for Nevada that provide information about health and opportunity among other subgroups, such as gender, age, or zip code.

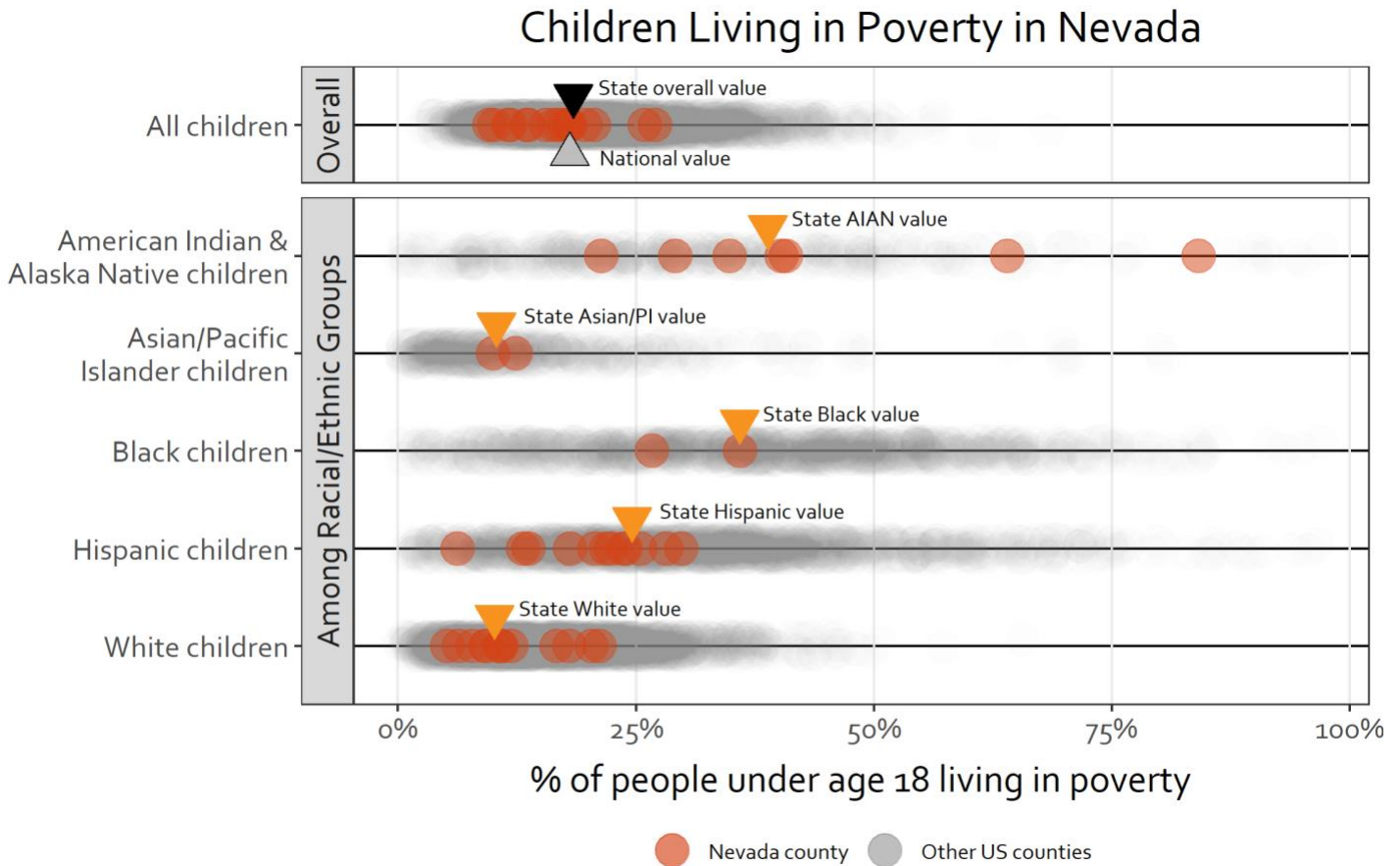
### What Has Been Done Can Be Undone

Many communities are mobilizing state and local efforts to harness the collective power of community members, partners, and policymakers – working together to dismantle unfair patterns and ensure the growth of healthy places for all. To learn from others who are igniting possibilities and inspiring action, visit our **Learn from Others** page at [www.countyhealthrankings.org](http://www.countyhealthrankings.org).

## Opportunities for Health Within Nevada Counties

A healthy beginning is essential to a healthy future for our children and our communities. **Children in poverty** is a measure of both current and future opportunities for the health of the community. Patterns of unfair and avoidable differences at the local, state, and national level exist among racial and ethnic groups for children living in poverty.

The graphic below shows the patterns of children living in poverty for individual counties in Nevada and among racial and ethnic groups within counties of Nevada. It also shows the data for all counties across the nation in the gray circles beneath the Nevada data.



Note: Extreme values or missing/suppressed values can occur in places with small populations.

## Key Takeaways for Children Living in Poverty in Nevada

Overall

- 18% of Nevada children are living in poverty, similar to the national average.
- Rates for children living in poverty range from 10% to 27% across Nevada counties.

Among Racial & Ethnic Groups

- Rates for children living in poverty differ among racial and ethnic groups in Nevada and the nation.
- In Nevada, state values (orange triangles) range from 10% for White children to 39% for American Indian & Alaska Native children.
- Within Nevada counties (orange circles) and US counties (gray circles), rates of children living in poverty also vary among racial and ethnic groups.

Want to learn more? Visit our **State Reports** page at [www.countyhealthrankings.org](http://www.countyhealthrankings.org) to interact with the data and explore patterns in other measures by place and among racial and ethnic groups.



## 2020 County Health Rankings for Nevada: Measures and National/State Results

| Measure                              | Description   | US      | NV      | NV<br>Minimum | NV<br>Maximum |
|--------------------------------------|---|---------|---------|---------------|---------------|
| <b>HEALTH OUTCOMES</b>               |   |         |         |               |               |
| Premature death*                     | Years of potential life lost before age 75 per 100,000 population (age-adjusted).   | 6,900   | 7,300   | 5,800         | 11,500        |
| Poor or fair health                  | Percentage of adults reporting fair or poor health (age-adjusted).  | 17%     | 20%     | 15%           | 22%           |
| Poor physical health days            | Average number of physically unhealthy days reported in past 30 days (age-adjusted).  | 3.8     | 3.9     | 3.8           | 4.9           |
| Poor mental health days              | Average number of mentally unhealthy days reported in past 30 days (age-adjusted).  | 4.0     | 3.5     | 3.7           | 5.0           |
| Low birthweight*                     | Percentage of live births with low birthweight (< 2,500 grams).   | 8%      | 8%      | 5%            | 10%           |
| <b>HEALTH FACTORS</b>                |   |         |         |               |               |
| <b>HEALTH BEHAVIORS</b>              |   |         |         |               |               |
| Adult smoking                        | Percentage of adults who are current smokers.   | 17%     | 18%     | 14%           | 21%           |
| Adult obesity                        | Percentage of the adult population (age 20 and older) that reports a body mass index (BMI) greater than or equal to 30 kg/m2.                                 | 29%     | 26%     | 23%           | 35%           |
| Food environment index               | Index of factors that contribute to a healthy food environment, from 0 (worst) to 10 (best).  | 7.6     | 7.9     | 4.0           | 8.7           |
| Physical inactivity                  | Percentage of adults age 20 and over reporting no leisure-time physical activity.   | 23%     | 23%     | 18%           | 31%           |
| Access to exercise opportunities     | Percentage of population with adequate access to locations for physical activity.   | 84%     | 93%     | 13%           | 100%          |
| Excessive drinking                   | Percentage of adults reporting binge or heavy drinking.   | 19%     | 19%     | 16%           | 24%           |
| Alcohol-impaired driving deaths      | Percentage of driving deaths with alcohol involvement.  | 28%     | 29%     | 11%           | 57%           |
| Sexually transmitted infections      | Number of newly diagnosed chlamydia cases per 100,000 population.   | 524.6   | 542.4   | 138.3         | 639.7         |
| Teen births*                         | Number of births per 1,000 female population ages 15-19.  | 23      | 27      | 10            | 49            |
| <b>CLINICAL CARE</b>                 |   |         |         |               |               |
| Uninsured                            | Percentage of population under age 65 without health insurance.   | 10%     | 13%     | 8%            | 15%           |
| Primary care physicians              | Ratio of population to primary care physicians.   | 1,330:1 | 1,770:1 | 6,010:1       | 850:1         |
| Dentists                             | Ratio of population to dentists.  | 1,450:1 | 1,630:1 | 830:0         | 1,000:1       |
| Mental health providers              | Ratio of population to mental health providers.   | 400:1   | 470:1   | 830:0         | 300:1         |
| Preventable hospital stays*          | Rate of hospital stays for ambulatory-care sensitive conditions per 100,000 Medicare enrollees.   | 4,535   | 4,383   | 1,453         | 5,390         |
| Mammography screening*               | Percentage of female Medicare enrollees ages 65-74 that received an annual mammography screening.   | 42%     | 34%     | 16%           | 44%           |
| Flu vaccinations*                    | Percentage of fee-for-service (FFS) Medicare enrollees that had an annual flu vaccination.  | 46%     | 37%     | 18%           | 46%           |
| <b>SOCIAL &amp; ECONOMIC FACTORS</b> |   |         |         |               |               |
| High school graduation               | Percentage of ninth-grade cohort that graduates in four years.  | 85%     | 81%     | 70%           | 100%          |
| Some college                         | Percentage of adults ages 25-44 with some post-secondary education.   | 66%     | 58%     | 40%           | 73%           |
| Unemployment                         | Percentage of population ages 16 and older unemployed but seeking work.   | 3.9%    | 4.6%    | 2.7%          | 5.7%          |
| Children in poverty*                 | Percentage of people under age 18 in poverty.   | 18%     | 18%     | 10%           | 27%           |
| Income inequality                    | Ratio of household income at the 80th percentile to income at the 20th percentile.  | 4.9     | 4.3     | 3.2           | 8.3           |
| Children in single-parent households | Percentage of children that live in a household headed by single parent.  | 33%     | 37%     | 16%           | 65%           |
| Social associations                  | Number of membership associations per 10,000 population.  | 9.3     | 4.2     | 0.0           | 8.7           |
| Violent crime                        | Number of reported violent crime offenses per 100,000 population.   | 386     | 657     | 39            | 892           |
| Injury deaths*                       | Number of deaths due to injury per 100,000 population.  | 70      | 77      | 65            | 125           |
| <b>PHYSICAL ENVIRONMENT</b>          |   |         |         |               |               |
| Air pollution - particulate matter   | Average daily density of fine particulate matter in micrograms per cubic meter (PM2.5).   | 8.6     | 6.5     | 4.5           | 9.4           |
| Drinking water violations            | Indicator of the presence of health-related drinking water violations. 'Yes' indicates the presence of a violation, 'No' indicates no violation.              | N/A     | N/A     | No            | Yes           |
| Severe housing problems              | Percentage of households with at least 1 of 4 housing problems: overcrowding, high housing costs, lack of kitchen facilities, or lack of plumbing facilities. | 18%     | 20%     | 7%            | 20%           |
| Driving alone to work*               | Percentage of the workforce that drives alone to work.  | 76%     | 78%     | 57%           | 83%           |
| Long commute - driving alone         | Among workers who commute in their car alone, the percentage that commute more than 30 minutes.   | 36%     | 31%     | 12%           | 53%           |

\* Indicates subgroup data by race and ethnicity is available

## 2020 County Health Rankings: Ranked Measure Sources and Years of Data

|                                      | Measure   | Weight | Source  | Years of Data |
|--------------------------------------|---|--------|---|---------------|
| <b>HEALTH OUTCOMES</b>               |   |        |   |               |
| Length of Life                       | Premature death*                                | 50%    | National Center for Health Statistics - Mortality Files               | 2016-2018     |
| Quality of Life                      | Poor or fair health                             | 10%    | Behavioral Risk Factor Surveillance System                            | 2017          |
|                                      | Poor physical health days                       | 10%    | Behavioral Risk Factor Surveillance System                            | 2017          |
|                                      | Poor mental health days                         | 10%    | Behavioral Risk Factor Surveillance System                            | 2017          |
|                                      | Low birthweight*                                | 20%    | National Center for Health Statistics - Natality files                | 2012-2018     |
| <b>HEALTH FACTORS</b>                |   |        |   |               |
| <b>HEALTH BEHAVIORS</b>              |   |        |   |               |
| Tobacco Use                          | Adult smoking                                   | 10%    | Behavioral Risk Factor Surveillance System                            | 2017          |
| Diet and Exercise                    | Adult obesity                                   | 5%     | United States Diabetes Surveillance System                            | 2016          |
|                                      | Food environment index                          | 2%     | USDA Food Environment Atlas, Map the Meal Gap from Feeding America    | 2015 & 2017   |
|                                      | Physical inactivity                             | 2%     | United States Diabetes Surveillance System                            | 2016          |
|                                      | Access to exercise opportunities                | 1%     | Business Analyst, Delorme map data, ESRI, & US Census Tigerline Files | 2010 & 2019   |
| Alcohol and Drug Use                 | Excessive drinking                              | 2.5%   | Behavioral Risk Factor Surveillance System                            | 2017          |
|                                      | Alcohol-impaired driving deaths                 | 2.5%   | Fatality Analysis Reporting System                                    | 2014-2018     |
| Sexual Activity                      | Sexually transmitted infections                 | 2.5%   | National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention | 2017          |
|                                      | Teen births*                                    | 2.5%   | National Center for Health Statistics - Natality files                | 2012-2018     |
| <b>CLINICAL CARE</b>                 |   |        |   |               |
| Access to Care                       | Uninsured                                       | 5%     | Small Area Health Insurance Estimates                                 | 2017          |
|                                      | Primary care physicians                         | 3%     | Area Health Resource File/American Medical Association                | 2017          |
|                                      | Dentists  | 1%     | Area Health Resource File/National Provider Identification file       | 2018          |
|                                      | Mental health providers                         | 1%     | CMS, National Provider Identification                                 | 2019          |
| Quality of Care                      | Preventable hospital stays*                     | 5%     | Mapping Medicare Disparities Tool                                     | 2017          |
|                                      | Mammography screening*                          | 2.5%   | Mapping Medicare Disparities Tool                                     | 2017          |
|                                      | Flu vaccinations*                               | 2.5%   | Mapping Medicare Disparities Tool                                     | 2017          |
| <b>SOCIAL &amp; ECONOMIC FACTORS</b> |   |        |   |               |
| Education                            | High school graduation                          | 5%     | Nevada Department of Education  | 2016-2017     |
|                                      | Some college                                    | 5%     | American Community Survey, 5-year estimates                           | 2014-2018     |
| Employment                           | Unemployment                                    | 10%    | Bureau of Labor Statistics  | 2018          |
| Income                               | Children in poverty*                            | 7.5%   | Small Area Income and Poverty Estimates                               | 2018          |
|                                      | Income inequality                               | 2.5%   | American Community Survey, 5-year estimates                           | 2014-2018     |
| Family and Social Support            | Children in single-parent households            | 2.5%   | American Community Survey, 5-year estimates                           | 2014-2018     |
|                                      | Social associations                             | 2.5%   | County Business Patterns  | 2017          |
| Community Safety                     | Violent crime                                   | 2.5%   | Uniform Crime Reporting - FBI   | 2014&2016     |
|                                      | Injury deaths*                                  | 2.5%   | National Center for Health Statistics - Mortality Files               | 2014-2018     |
| <b>PHYSICAL ENVIRONMENT</b>          |   |        |   |               |
| Air and Water Quality                | Air pollution - particulate matter <sup>+</sup> | 2.5%   | Environmental Public Health Tracking Network                          | 2014          |
|                                      | Drinking water violations                       | 2.5%   | Safe Drinking Water Information System                                | 2018          |
| Housing and Transit                  | Severe housing problems                         | 2%     | Comprehensive Housing Affordability Strategy (CHAS) data              | 2012-2016     |
|                                      | Driving alone to work*                          | 2%     | American Community Survey, 5-year estimates                           | 2014-2018     |
|                                      | Long commute - driving alone                    | 1%     | American Community Survey, 5-year estimates                           | 2014-2018     |

\* Indicates subgroup data by race and ethnicity is available

+ Not available for AK and HI

## 2020 County Health Rankings: Additional Measure Sources and Years of Data

|                                      | Measure   | Source  | Years of Data |
|--------------------------------------|---|---|---------------|
| <b>HEALTH OUTCOMES</b>               |   |   |               |
| Length of Life                       | Life expectancy*                                  | National Center for Health Statistics - Mortality Files               | 2016-2018     |
|                                      | Premature age-adjusted mortality*                 | National Center for Health Statistics - Mortality Files               | 2016-2018     |
|                                      | Child mortality*                                  | National Center for Health Statistics - Mortality Files               | 2015-2018     |
|                                      | Infant mortality*                                 | National Center for Health Statistics - Mortality Files               | 2012-2018     |
| Quality of Life                      | Frequent physical distress                        | Behavioral Risk Factor Surveillance System                            | 2017          |
|                                      | Frequent mental distress                          | Behavioral Risk Factor Surveillance System                            | 2017          |
|                                      | Diabetes prevalence                               | United States Diabetes Surveillance System                            | 2016          |
|                                      | HIV prevalence                                    | National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention | 2016          |
| <b>HEALTH FACTORS</b>                |   |   |               |
| <b>HEALTH BEHAVIORS</b>              |   |   |               |
| Diet and Exercise                    | Food insecurity                                   | Map the Meal Gap  | 2017          |
|                                      | Limited access to healthy foods                   | USDA Food Environment Atlas   | 2015          |
| Alcohol and Drug Use                 | Drug overdose deaths*                             | National Center for Health Statistics - Mortality Files               | 2016-2018     |
|                                      | Motor vehicle crash deaths*                       | National Center for Health Statistics - Mortality Files               | 2012-2018     |
| Other Health Behaviors               | Insufficient sleep                                | Behavioral Risk Factor Surveillance System                            | 2016          |
| <b>CLINICAL CARE</b>                 |   |   |               |
| Access to Care                       | Uninsured adults                                  | Small Area Health Insurance Estimates                                 | 2017          |
|                                      | Uninsured children                                | Small Area Health Insurance Estimates                                 | 2017          |
|                                      | Other primary care providers                      | CMS, National Provider Identification                                 | 2019          |
| <b>SOCIAL &amp; ECONOMIC FACTORS</b> |   |   |               |
| Education                            | Disconnected youth                                | American Community Survey, 5-year estimates                           | 2014-2018     |
|                                      | Reading scores**                                  | Stanford Education Data Archive                                       | 2016          |
|                                      | Math scores**                                     | Stanford Education Data Archive                                       | 2016          |
| Income                               | Median household income*                          | Small Area Income and Poverty Estimates                               | 2018          |
|                                      | Children eligible for free or reduced price lunch | National Center for Education Statistics                              | 2017-2018     |
| Family and Social Support            | Residential segregation - Black/White             | American Community Survey, 5-year estimates                           | 2014-2018     |
|                                      | Residential segregation - non-White/White         | American Community Survey, 5-year estimates                           | 2014-2018     |
| Community Safety                     | Homicides*  | National Center for Health Statistics - Mortality Files               | 2012-2018     |
|                                      | Suicides*   | National Center for Health Statistics - Mortality Files               | 2014-2018     |
|                                      | Firearm fatalities*                               | National Center for Health Statistics - Mortality Files               | 2014-2018     |
|                                      | Juvenile arrests*                                 | Easy Access to State and County Juvenile Court Case Counts            | 2017          |
| <b>PHYSICAL ENVIRONMENT</b>          |   |   |               |
| Housing and Transit                  | Traffic volume                                    | EJSCREEN: Environmental Justice Screening and Mapping Tool            | 2018          |
|                                      | Homeownership                                     | American Community Survey, 5-year estimates                           | 2014-2018     |
|                                      | Severe housing cost burden                        | American Community Survey, 5-year estimates                           | 2014-2018     |

\*Indicates subgroup data by race and ethnicity is available.

\* Not available in all states

See additional contextual demographic information and measures online at [www.countyhealthrankings.org](http://www.countyhealthrankings.org)

## Technical Notes and Glossary of Terms

### What is health equity? What are health disparities? And how do they relate?

**Health equity** means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty and discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care.

**Health disparities** are differences in health or in the key determinants of health such as education, safe housing, and discrimination, which adversely affect marginalized or excluded groups.

Health equity and health disparities are closely related to each other. Health equity is the ethical and human rights principle or value that motivates us to eliminate health disparities. Reducing and ultimately eliminating disparities in health and its determinants of health is how we measure progress toward health equity.

*Braveman P, Arkin E, Orleans T, Proctor D, and Plough A. What is Health Equity? And What Difference Does a Definition Make? Robert Wood Johnson Foundation. May 2017*

### How do we define racial and ethnic groups?

In our analyses by race and ethnicity we define each category as follows:

- Hispanic includes those who identify themselves as Mexican, Puerto Rican, Cuban, Central or South American, other Hispanic, or Hispanic of unknown origin and can be of any racial background.
- American Indian & Alaska Native (AIAN) includes people who identify themselves as American Indian or Alaska Native.
- Asian/Pacific Islander (Asian/PI) includes people who identify themselves as Asian or Pacific Islander.
- Black includes people who identify themselves as Black or African American.
- White includes people who identify themselves as White and do not identify as Hispanic.

Our analyses do not include people reporting more than one race, as this category was not measured uniformly across the data sources used in the County Health Rankings. These racial and ethnic categories can mask variation within groups and can hide historical context that underlies health differences.

We recognize that “race” is a social category, meaning the way society may identify individuals based on their cultural ancestry, not a way of characterizing individuals based on biology or genetics. A strong and growing body of empirical research provides support for the fact that genetic factors are not responsible for racial differences in health factors and very rarely for health outcomes.

### How do we rank counties?

To calculate the ranks, we first standardize each of the measures using z-scores. Z-scores allow us to combine multiple measures because the measures are now on the same scale. The ranks are then calculated based on weighted sums of the measure z-scores within each state to create an aggregate z-score. The county with the best aggregate z-score (healthiest) gets a rank of #1 for that state. The aggregate z-scores are graphed next to the maps for health outcomes and health factors on pages 4 and 5 to show the distribution of the values that contribute to the rank. To see more detailed information on rank calculation please visit our methods in **Explore Health Rankings** on our website: [www.countyhealthrankings.org](http://www.countyhealthrankings.org).

### Technical Notes:

- In this report, we use the terms disparities, differences, and gaps interchangeably.
- We follow basic design principles for cartography in displaying color spectrums with less intensity for lower values and increasing color intensity for higher values. We do not intend to elicit implicit biases that “darker is bad”.
- Overall county level values of children in poverty are obtained from one-year modeled estimates from the Small Area Income and Poverty Estimates (SAIPE) Program. Because SAIPE does not provide estimates by racial and ethnic groups, data from the 5-year American Community Survey (ACS) was used to quantify children living in poverty by racial and ethnic groups.
- County-level data for children in poverty among racial and ethnic groups are not shown if the estimate was considered to be unreliable (confidence interval width was greater than 40% or value was 0% or 100%). Unreliable estimates are often due to a very small sample size.
- Given the suppression of data for small sample sizes particularly for county data by race, there may be a gap between the state value and the data for the county data that are available.
- In many of the images using one circle to depict a county the values are very close causing overlapping circles. In these cases, greater color intensity indicates overlapping of multiple counties.

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