

# Prioritization Process

Albany & Rensselaer Counties

Health Issue Ranking



Healthy Capital District Initiative

November 9, 2021

# Health Issue: Diabetes

Opportunity	Max Score	Region's Score
Health issue aligns with organizations' strategic goals	3	
If already invested in addressing this need, are efforts working sustainably	2	
If not already working on this need, do we have resources and expertise to lead the effort	1	
Are there organizations that would be interested in supporting efforts to address this need	2	
Is it possible to make a measureable, positive impact	3	
Other considerations	3	
Community Partner considerations	3	
<b>Total Opportunity Score</b>	<b>17</b>	<b>0</b>

Need	Max Score	Score		
		Albany	Rensselaer	Average
Is this issue a major need in the community - <b>Total number</b> of cases	2	1.16	1.27	<b>1.21</b>
Is this issue worse in our region than throughout NY - <b>Rates</b>	2	0.72	0.77	<b>0.74</b>
Is this issue more common for some populations - <b>Disparities</b>	2	1.16	1.07	<b>1.11</b>
Is this issue getting better or worse - <b>Trend</b>	2	1.13	1.42	<b>1.27</b>
How <b>seriously</b> does this issue threaten mortality	2	1.00	1.00	<b>1.00</b>
Is this issue a <b>priority for the community</b> based on the survey	3	1.97	2.00	<b>1.98</b>
Other considerations about the data	2			
Community Partner considerations	3			
<b>Total Need Score</b>	<b>18</b>	<b>7.13</b>	<b>7.52</b>	<b>7.33</b>

	Max Score	Score		Average	Contribution to Total Score
		Albany	Rensselaer		
Total Organization-based Score	14				40%
Total Data-based Score	10	5.16	5.53		29%
Total Community Partner-based Score	11	1.97	2.00		31%
<b>Total Priority Score</b>	<b>35</b>	<b>7.13</b>	<b>7.52</b>	<b>7.33</b>	

# Need Score

**18** Total Points

## 13 Points based on data

### 2 – Count

- Absolute Number

### 2 – Rate

- Compared to NYS, excl. NYC, rate

### 2 – Trend

- $\frac{(Slope) \times (Years\ of\ Data)}{(Average\ Count\ or\ Rate)}$

### 2 – Disparity

- Disparity Index among sub-populations

### 2 – Seriousness

- From health behavior to mortality

### 3 – Community Priority

- Survey results-based

### 2 – Other Considerations

- More recent or local data

### 3 – Community Partner considerations

# Health Issue & Measure Selection

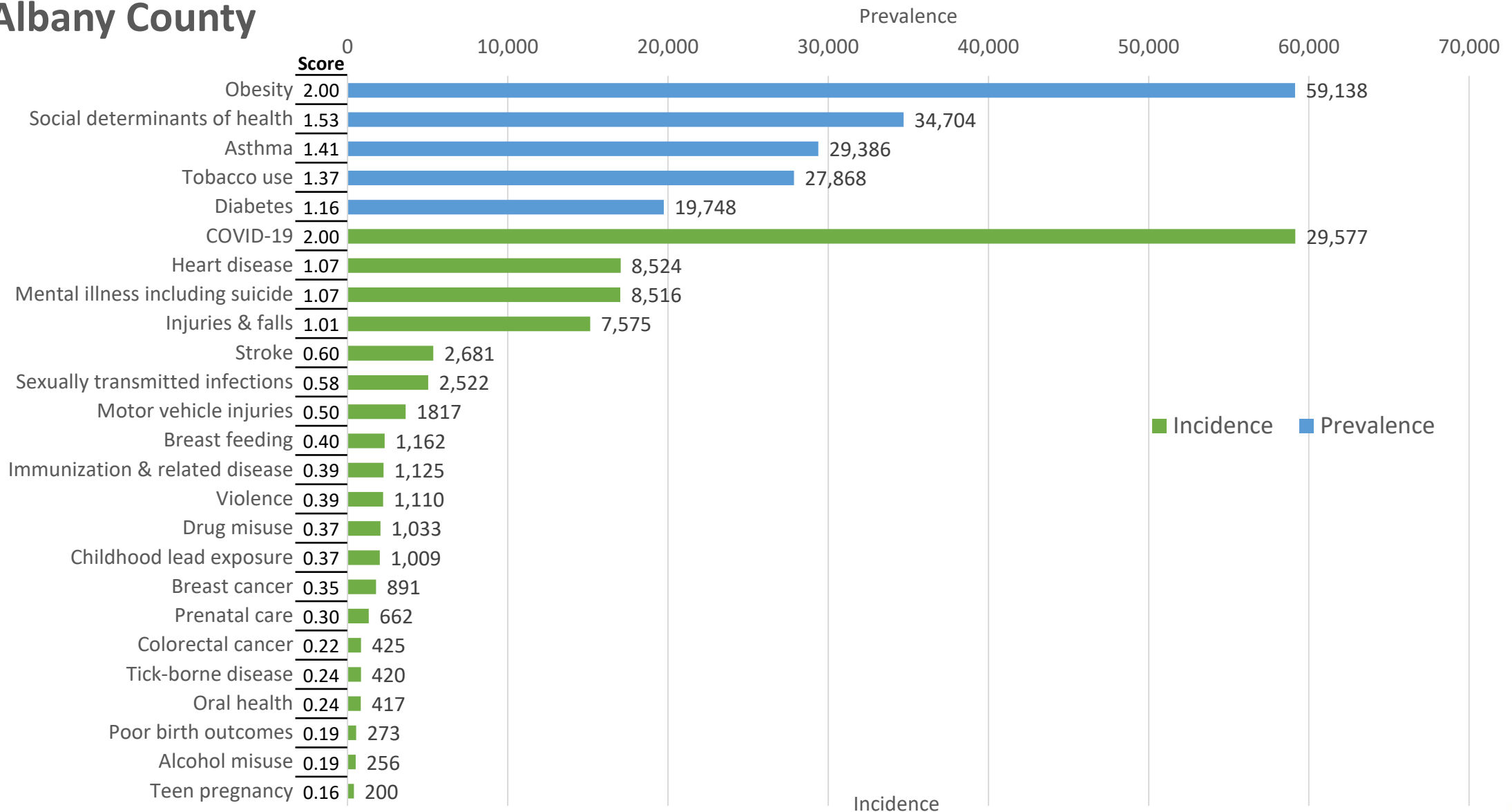
- **25 Health Issues** and around **100 Health Measures** were selected from over 700 health measures located in 8 New York State data collections:
  - Prevention Agenda Dashboard
  - Community Health Indicator Reports (CHIRS) Dashboard
  - County Health Indicators by Race/Ethnicity (CHIRE)
  - Opioid Data Dashboard
  - SPARCS data – via Common Ground Health Portal
  - Behavioral Risk Factor Surveillance Survey (BRFSS)
  - Division of Criminal Justice Services (DCJS) Index Crimes
  - DOH COVID-19 Tracker
  - Cancer Registry

#	Health Issue
1	COVID-19
2	Colorectal Cancer
3	Breast Cancer
4	Obesity
5	Asthma
6	Diabetes
7	Heart disease
8	Stroke
9	Violence
10	Injuries & falls
11	Motor vehicle injuries
12	Poor birth outcomes
13	Prenatal care
14	Breast feeding
15	Tobacco use
16	Drug misuse
17	Alcohol misuse
18	Mental illness including suicide
19	Sexually transmitted infections
20	Teen pregnancy
21	Childhood lead exposure
22	Lyme disease
23	Immunization & related disease
24	Social Determinants of Health
25	Oral Health

#	Health Issue	Measures (n)					Survey Responses (n)
		Count	Rate	Disparities	Trend	Seriousness	Community Priority
1	COVID-19	1	2	1	0	2	788
2	Colorectal Cancer	1	3	2	3	3	782
3	Breast Cancer	1	4	2	4	4	782
4	Obesity	1	2	2	2	2	787
5	Asthma	1	7	4	6	7	774
6	Diabetes	1	5	4	5	5	777
7	Heart disease	1	7	6	6	7	779
8	Stroke	1	2	2	2	2	779
9	Violence	1	5	1	5	5	783
10	Injuries & falls	1	2	4	2	2	772
11	Motor vehicle injuries	1	2	1	3	3	772
12	Poor birth outcomes	1	3	3	3	3	762
13	Prenatal care	1	3	2	3	3	0
14	Breast feeding	1	2	1	2	2	0
15	Tobacco use	1	5	2	4	5	781
16	Drug misuse	1	6	1	6	6	782
17	Alcohol misuse	1	4	2	4	4	782
18	Mental illness including suicide	1	6	1	6	6	784
19	Sexually transmitted infections	1	6	1	5	6	767
20	Teen pregnancy	1	2	1	2	2	767
21	Childhood lead exposure	1	3	1	3	3	0
22	Lyme disease	1	1	0	1	1	0
23	Immunization & related disease	1	3	1	3	3	0
24	Social Determinants of Health	1	7	2	6	7	0
25	Oral Health	1	3	1	3	3	0
	Total	25	95	40	91	96	803

# Count

## Albany County

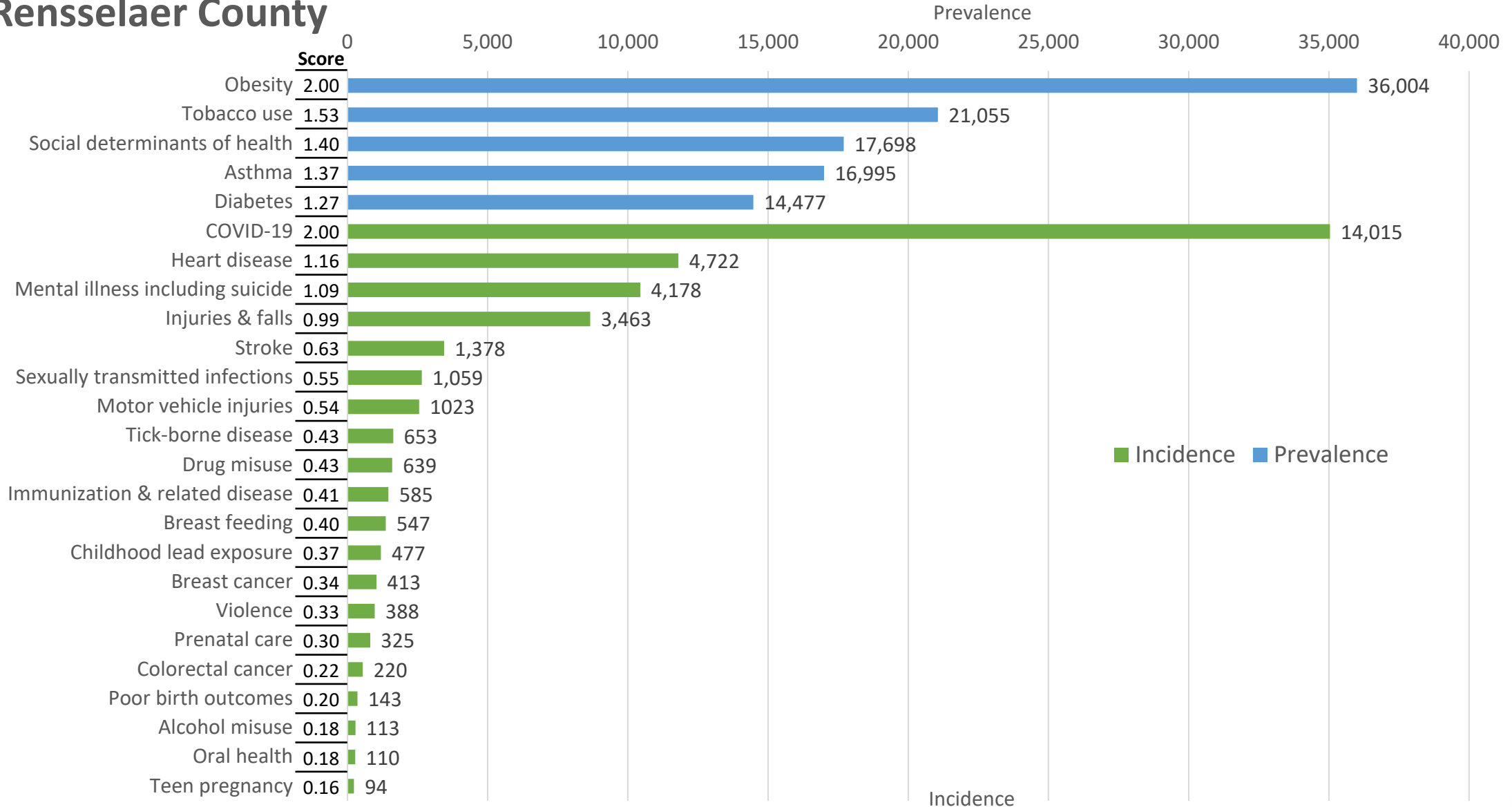


Score  $\propto \sqrt{\text{Count}}$

# Count



## Rensselaer County



Score  $\propto \sqrt{\text{Count}}$

$$\text{Rate} = \left( \frac{\text{County Rate}}{\text{NYS Rate}} \right)^*$$

\* Rate ratios are adjusted so that rates worse than NYS, excl. NYC, are above 1.0; better than, below 1.0

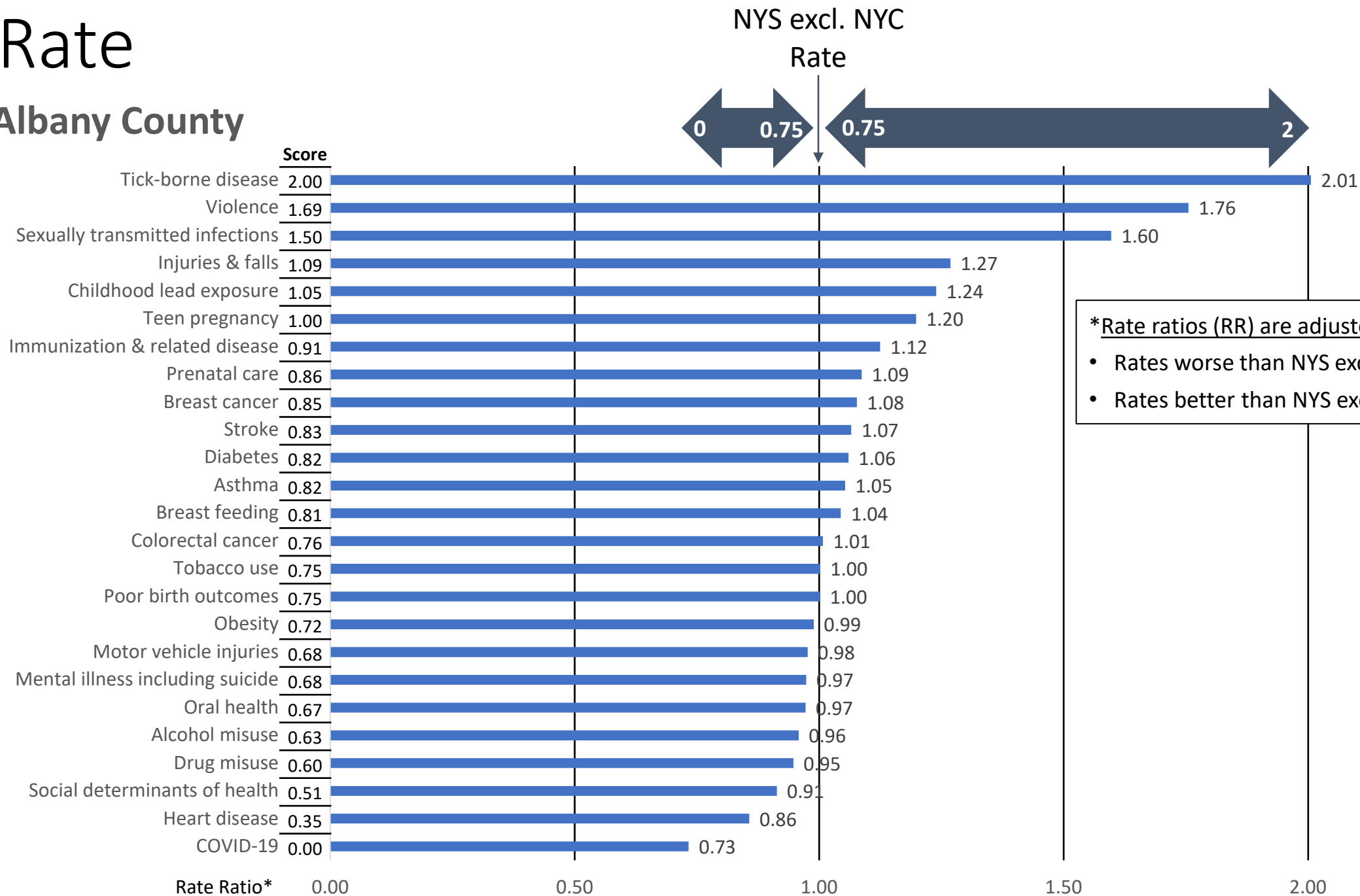
- Example: Stroke in Albany County

Health Measure	Year	Albany County	NYS excl. NYC	Rate Ratio	Average Rate Ratio
Age-adjusted cerebrovascular disease (stroke) <b>hospitalization</b> rate per 10,000	2016-2018	23.2	21	<b>1.10</b>	<b>1.13</b>
Age-adjusted cerebrovascular disease (stroke) <b>mortality</b> rate per 100,000	2016-2018	28.4	24.5	<b>1.16</b>	



# Rate

## Albany County

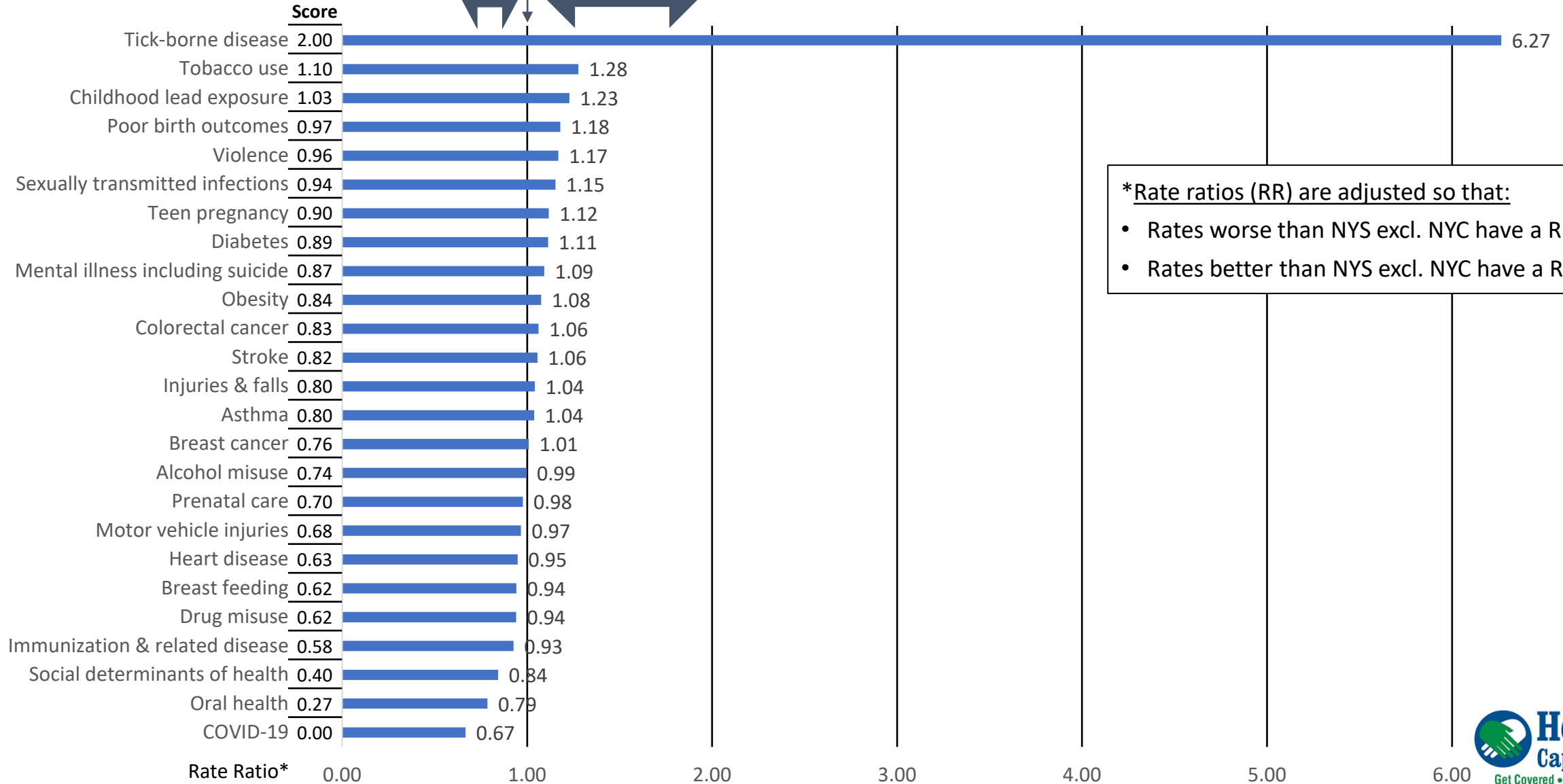
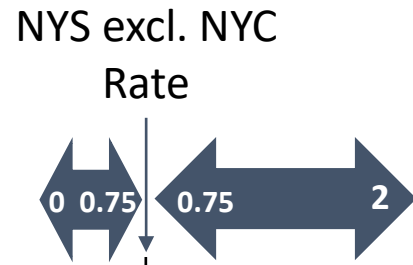


**\*Rate ratios (RR) are adjusted so that:**

- Rates worse than NYS excl. NYC have a RR > 1
- Rates better than NYS excl. NYC have a RR < 1

# Rate

## Rensselaer County



\*Rate ratios (RR) are adjusted so that:

- Rates worse than NYS excl. NYC have a RR > 1
- Rates better than NYS excl. NYC have a RR < 1

# Albany Top 10 Rates – Worse than NYS excl. NYC

	Health Measure	Health Issue	Data Years	Rate Ratio = $\left( \frac{\text{County Rate}}{\text{NYS excl. NYC Rate}} \right)$
1	<b>Anaplasmosis</b> incidence	Tick-borne disease	2016-2018	<b>3.44</b>
2	<b>Firearm assault</b> -related hospitalizations, rate per 10,000 population	Violence	2017	<b>2.62</b>
3	Early <b>syphilis</b> case rate per 100,000	Sexually transmitted infections	2016-2018	<b>2.16</b>
4	Age-adjusted <b>assault</b> hospitalization rate per 10,000	Violence	2016-2018	<b>1.94</b>
5	Incidence of confirmed <b>high blood lead level</b> (10 micrograms or higher per deciliter) - rate per 1,000 tested <b>children</b> aged <72 months	Childhood lead exposure	2016-2018	<b>1.81</b>
6	<b>Violent crime</b> rate per 100,000	Violence	2018	<b>1.69</b>
7	<b>Index crime</b> rate per 100,000	Violence	2018	<b>1.60</b>
8	<b>Lyme disease</b> incidence per 100,000	Tick-borne disease	2016-2018	<b>1.59</b>
9	<b>Gonorrhea</b> diagnoses, age-adjusted rate per 100,000 population	Sexually transmitted infections	2018	<b>1.52</b>
10	Age-adjusted Newly diagnosed <b>HIV</b> case rate per 100,000	Sexually transmitted infections	2016-2018	<b>1.48</b>

Health Measure in Top 10 Rates worse than NYS excl. NYC, for both Albany and Rensselaer counties

# Rensselaer Top 10 Rates – Worse than NYS excl. NYC

	Health Measure	Health Issue	Data Years	Rate Ratio = $\left( \frac{\text{County Rate}}{\text{NYS excl. NYC Rate}} \right)$
1	<b>Anaplasmosis</b> incidence	Tick-borne disease	2016-2018	<b>9.76</b>
2	<b>Lyme disease</b> incidence per 100,000	Tick-borne disease	2016-2018	<b>4.76</b>
3	<b>Babesiosis</b> incidence	Tick-borne disease	2016-2018	<b>4.27</b>
4	Incidence of confirmed <b>high blood lead level</b> (10 micrograms or higher per deciliter) - rate per 1,000 tested <b>children</b> aged <72 months	Childhood lead exposure	2016-2018	<b>1.67</b>
5	<b>Infant mortality</b> rate per 1,000 live births - (<1 year)	Poor birth outcomes	2016-2018	<b>1.44</b>
6	<b>Gonorrhea</b> diagnoses, age-adjusted rate per 100,000 population	Sexually transmitted infections	2018	<b>1.43</b>
7	Age-adjusted <b>oral cavity and pharynx cancer</b> incidence rate per 100,000	Tobacco use	2015-2017	<b>1.39</b>
8	Age-adjusted <b>chronic lower respiratory disease</b> mortality rate per 100,000	Asthma	2016-2018	<b>1.38</b>
9	Age-adjusted <b>oral cavity and pharynx cancer</b> mortality rate per 100,000	Tobacco use	2015-2017	<b>1.34</b>
10	Age-adj. <b>mental disease/disorder</b> primary dx hospitalization rate per 10,000	Mental illness including suicide	2016-2018	<b>1.31</b>

Health Measure in Top 10 Rates worse than NYS excl. NYC, for both Albany and Rensselaer counties

$$\text{Trend} = \left( \frac{\text{Slope} \times \text{Years of Data}}{\text{Average Value}} \right)^*$$

\* Trends adjusted so that improving trends are less than 0; worsening trends, greater than 0  
 Slope is of linear regression line (using least squares method)

- Example: Teen Pregnancy in Rensselaer County

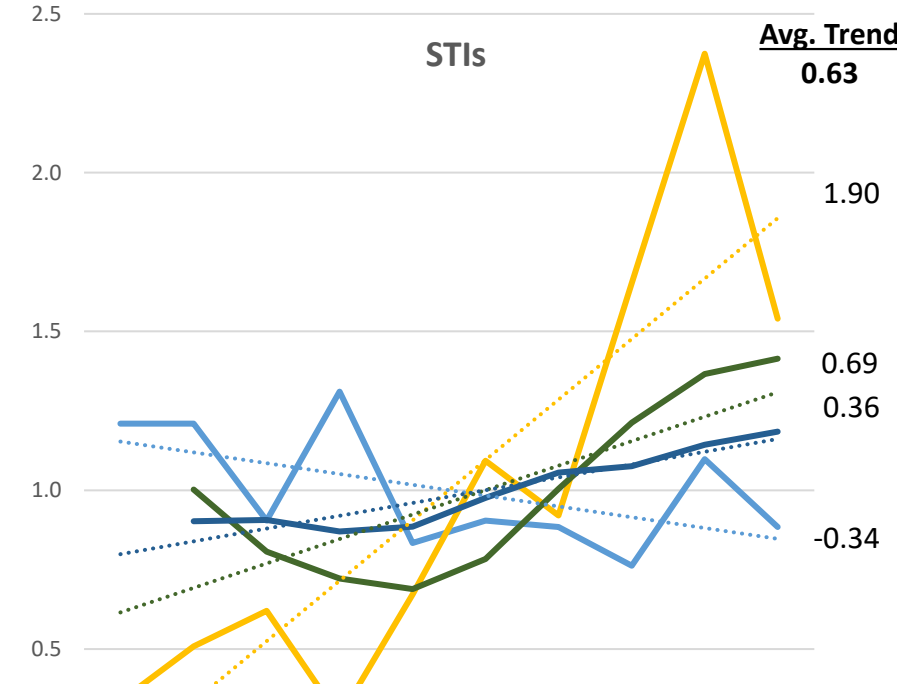
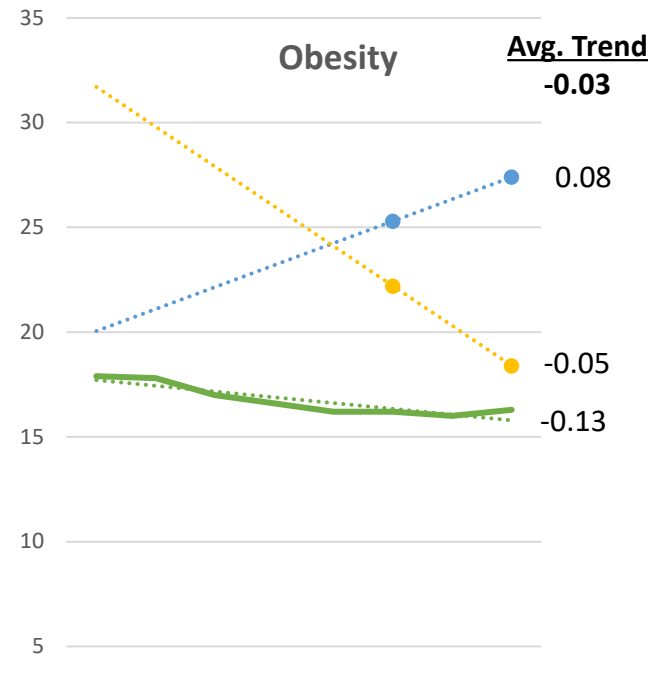
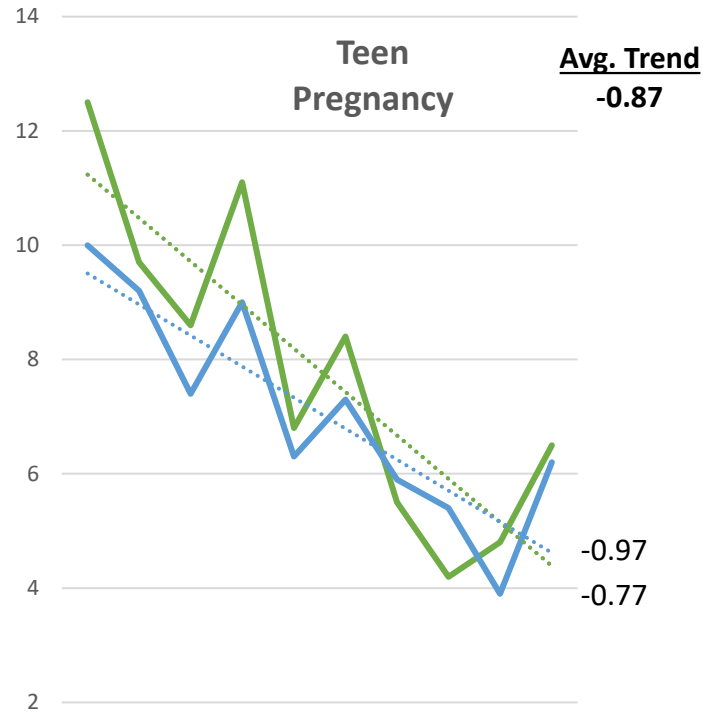
Health Measure	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Trend	Average Trend
Teen fertility rate per 1,000 (ages 15-17) (births/female population)	15.4	13.6	13.1	9.2	10.6	6.4	4.7	5.8	5.4	4.8	-1.41	-1.32
Teen pregnancy rate per 1,000 females aged <18 years	10.1	12	10.3	8.6	7.9	6.9	4.2	4.8	4.1	4.4	-1.23	

# Trend Examples

Albany County  $\left( \frac{\text{Slope} \times \text{Years of Data}}{\text{Average Value}} \right)^*$

\* Trends adjusted so that improving trends are less than 0; worsening trends, greater than 0

Slope is of linear regression line (using least squares method)



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Fertility rate	12.5	9.7	8.6	11.1	6.8	8.4	5.5	4.2	4.8	6.5
Pregnancy rate	10	9.2	7.4	9	6.3	7.3	5.9	5.4	3.9	6.2

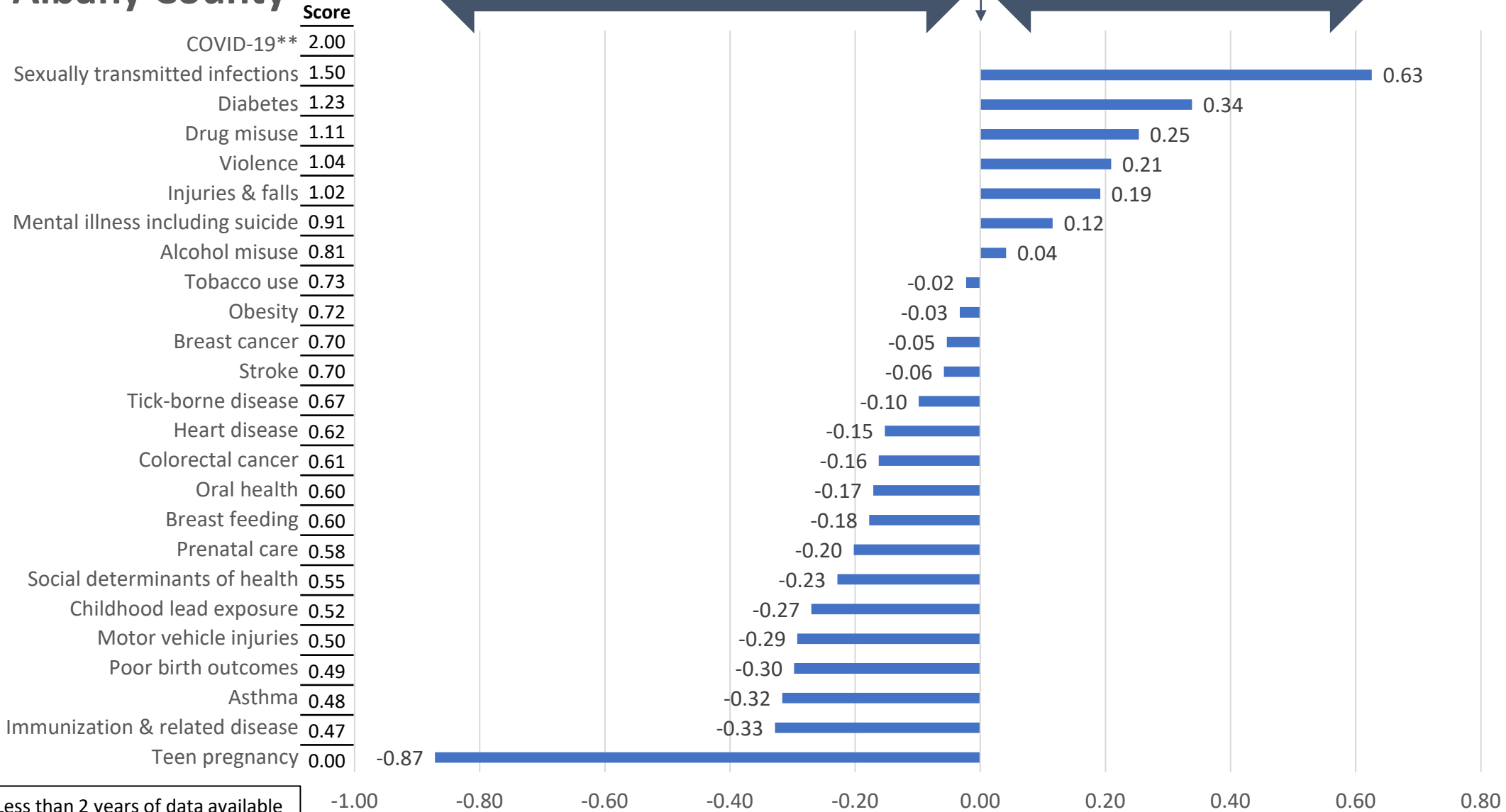
	2011	2012	2013	2014	2015	2016	2017	2018
Obesity, children and adolescents	17.9	17.8	17	16.6	16.2	16.2	16	16.3
Obesity, adults						25.3		27.4
No leisure-time physical activity, adults						22.2		18.4

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
HIV	1.2	1.2	0.9	1.3	0.8	0.9	0.9	0.8	1.1	0.9
Syphilis	0.3	0.5	0.6	0.3	0.7	1.1	0.9	1.7	2.4	1.5
Gonorrhea		1.0	0.8	0.7	0.7	0.8	1.0	1.2	1.4	1.4
Chlamydia		0.9	0.9	0.9	0.9	1.0	1.1	1.1	1.1	1.2

Trend = (Slope x Years of Data) / Average Value

\*Trends adjusted so that:
• Improving trends < 0
• Worsening trends > 0

Albany County



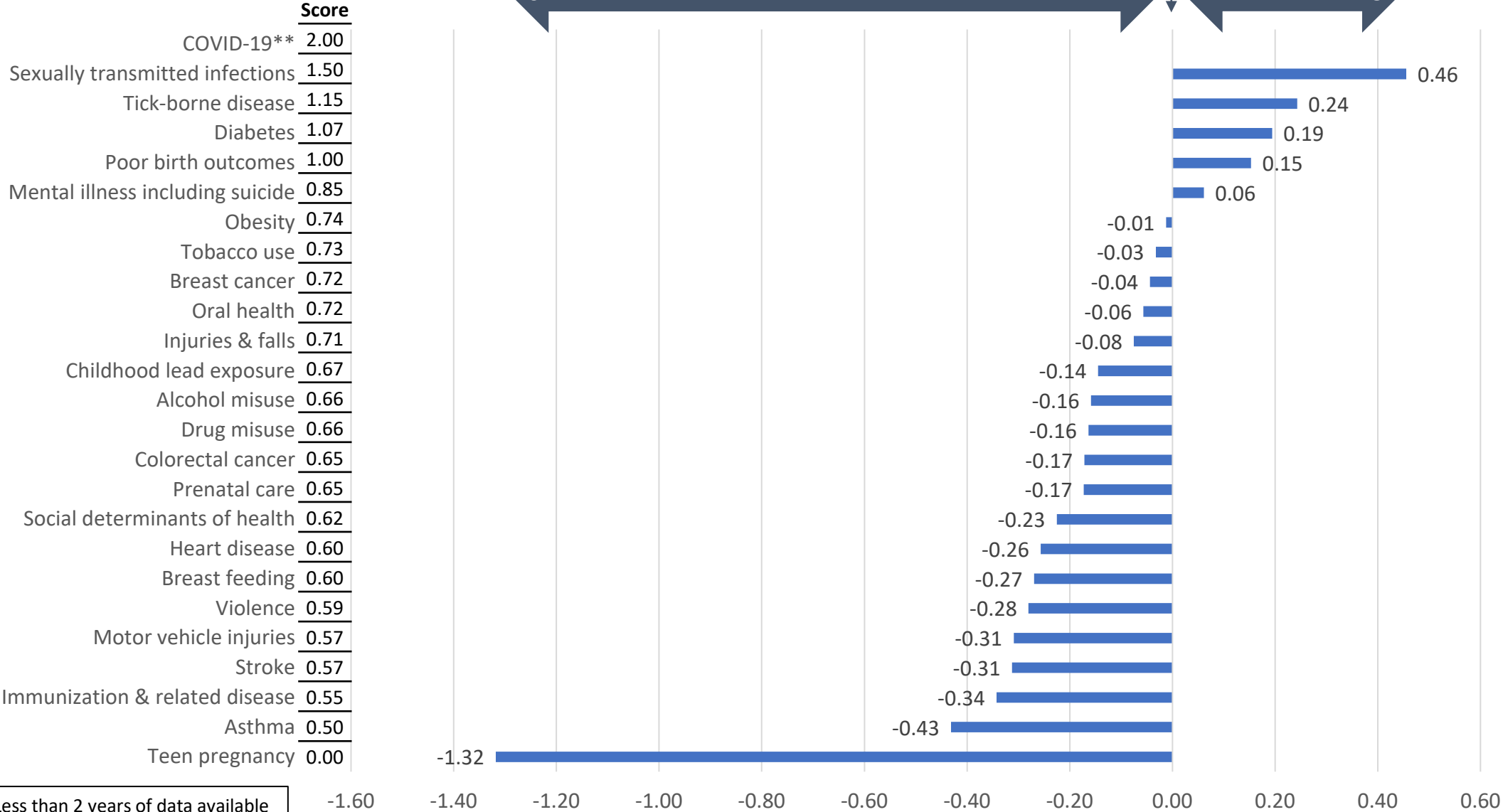
\*\* Less than 2 years of data available

$$\text{Trend} = \left( \frac{\text{Slope} \times \text{Years of Data}}{\text{Average Value}} \right)^*$$

\*Trends adjusted so that:

- Improving trends < 0
- Worsening trends > 0

## Rensselaer County



\*\* Less than 2 years of data available



# Albany Top 10 Trends - Worsening

	Health Measure	Health Issue	Trend = $\left( \frac{\text{Slope} \times \text{Years of Data}}{\text{Average Value}} \right)^*$
1	Early <b>syphilis</b> case rate per 100,000	Sexually transmitted infections	<b>1.90</b>
2	<b>Opioid overdose deaths</b> (any opioid), crude rate per 100,000 population	Drug misuse	<b>1.57</b>
3	<b>Opioid overdose ED visits</b> (including outpatients and admitted patients) involving any opioid, crude rate per 100,000 population	Drug misuse	<b>1.42</b>
4	Firearm <b>assault</b> -related hospitalizations, rate per 10,000 population	Violence	<b>1.23</b>
5	Potentially preventable <b>diabetes short-term complications hospitalization</b> rate per 10,000 - Aged 18 years and older	Diabetes	<b>0.76</b>
6	<b>Gonorrhea</b> diagnoses, age-adjusted rate per 100,000 population	Sexually transmitted infections	<b>0.60</b>
7	<b>Babesiosis</b> incidence	Tick-borne disease	<b>0.51</b>
8	Age-adjusted <b>suicide mortality</b> rate per 100,000	Mental illness including suicide	<b>0.51</b>
9	Infants born with <b>neonatal abstinence symptom</b> and/or affected by maternal use of <b>drugs</b> of addiction, rate per 1,000 newborn discharges	Drug misuse	<b>0.48</b>
10	Age-adjusted <b>cirrhosis hospitalization</b> rate per 10,000	Alcohol misuse	<b>0.47</b>

\* Trends adjusted so that:

- worsening trends > 0
- improving trends < 0

Health Measure in Top 10 Worsening Trends for both Albany and Rensselaer counties

# Rensselaer Top 10 Trends - Worsening

	Health Measure	Health Issue	Trend = $\left( \frac{\text{Slope} \times \text{Years of Data}}{\text{Average Value}} \right)^*$
1	<b>Opioid overdose deaths</b> (any opioid), crude rate per 100,000 population	Drug misuse	<b>1.77</b>
2	<b>Gonorrhea</b> diagnoses, age-adjusted rate per 100,000 population	Sexually transmitted infections	<b>1.25</b>
3	Potentially preventable <b>diabetes short-term complications hospitalization</b> rate per 10,000 - Aged 18 years and older	Diabetes	<b>0.88</b>
4	<b>Suicide mortality</b> among <b>youth</b> , rate per 100,000, aged 15-19 years	Mental illness including suicide	<b>0.78</b>
5	<b>Babesiosis</b> incidence	Tick-borne disease	<b>0.74</b>
6	<b>Opioid overdose ED visits</b> (including outpatients and admitted patients) involving any opioid, crude rate per 100,000 population	Drug misuse	<b>0.58</b>
7	<b>Chlamydia</b> diagnoses, age-adjusted rate per 100,000 population	Sexually transmitted infections	<b>0.52</b>
8	Early <b>syphilis</b> case rate per 100,000	Sexually transmitted infections	<b>0.52</b>
9	<b>Caries (cavities)</b> outpatient visit rate per 10,000 - Aged 3-5 years	Oral health	<b>0.41</b>
10	Age-adjusted <b>suicide mortality</b> rate per 100,000	Mental illness including suicide	<b>0.38</b>

\* Trends adjusted so that:

- worsening trends > 0
- improving trends < 0

Health Measure in Top 10 Worsening Trends for both Albany and Rensselaer counties

# Index of Disparity

- Example: Infant Mortality in Rensselaer County

Health Indicator	Non-Hispanic		Hispanic	Total Population
	White	Black		
Infant mortality per 1,000 live births	3.3	22.3	26.8	<b>7.0</b>

Absolute Difference of between Infant Mortality in Race/Ethnicity Group and Total Population	3.7	15.3	19.8
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<b>Average Absolute Difference – Infant Mortality</b>	<b>12.9</b>		
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<b>Index of Disparity – Infant Mortality</b>	<b>185%</b>		
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## **Index of Disparity**

*(average absolute difference  
between subpopulation rate  
and total population rate)*

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*(total population rate)*

$$\frac{12.9}{7.0} = 1.85$$

# Average Index of Disparity

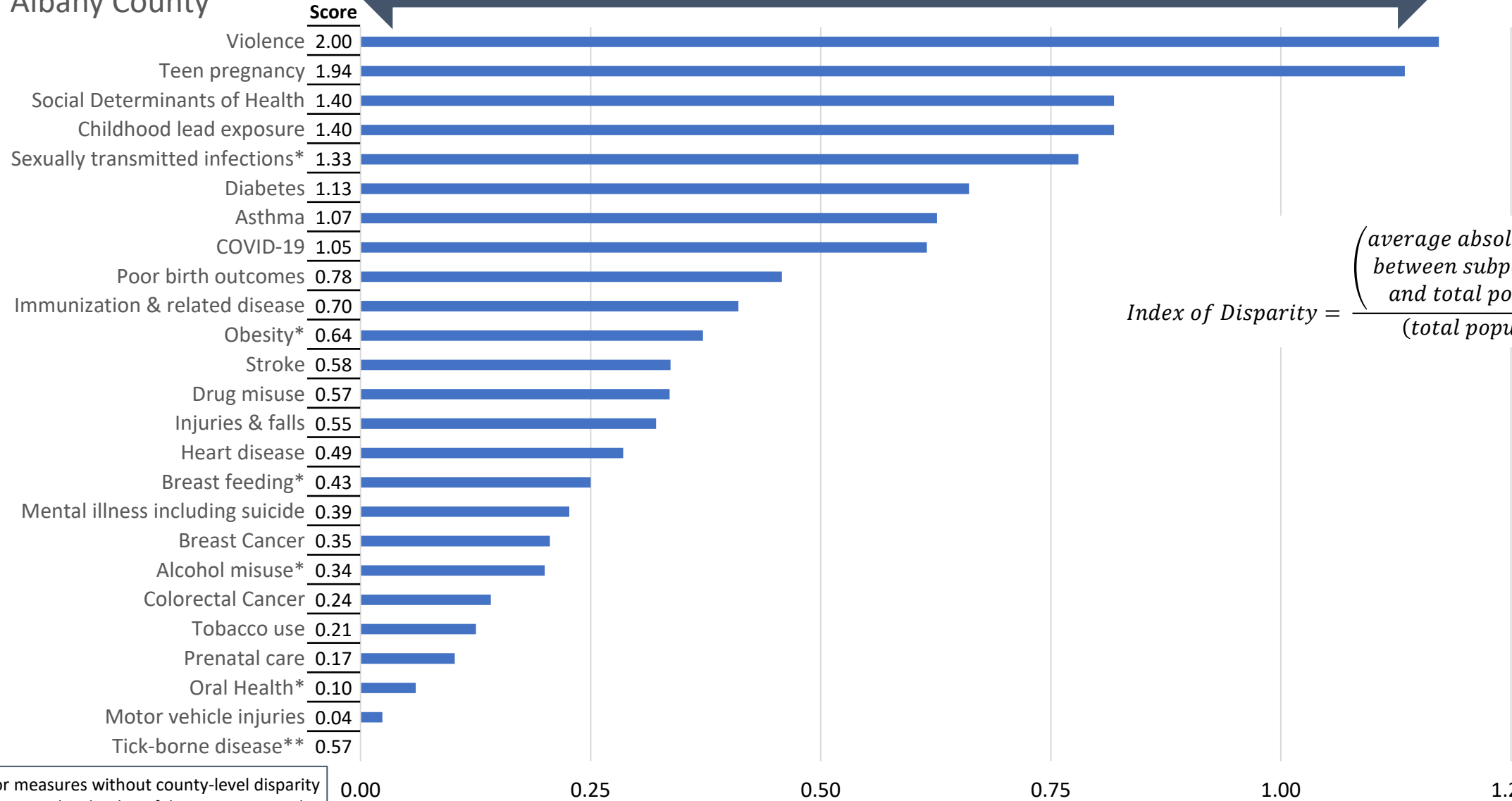
- Example: Poor Birth Outcomes in Rensselaer County

Health Indicator	Index of Disparity
Index of Disparity – Infant Mortality	185%
Index of Disparity – Premature Births	23%
Index of Disparity – Low Birthweight Births	39%
<b>Average Index of Disparity – Poor Birth Outcomes</b>	<b>82%</b>

Very High

# Disparity

Albany County



$$\text{Index of Disparity} = \frac{\left( \text{average absolute difference between subpopulation rate and total population rate} \right)}{\left( \text{total population rate} \right)}$$



\* For measures without county-level disparity data, state-level index of disparity was used.  
 \*\* Assigned median disparity score, due to lack of available data.

# Disparity

## Rensselaer County



	Score
Violence	2.00
Childhood lead exposure	1.87
Social Determinants of Health	1.87
COVID-19	1.66
Poor birth outcomes	1.51
Sexually transmitted infections*	1.43
Diabetes	1.42
Teen pregnancy	1.15
Asthma	1.04
Drug misuse	0.69
Obesity*	0.64
Immunization & related disease	0.60
Alcohol misuse*	0.47
Breast feeding*	0.46
Stroke	0.44
Tobacco use	0.39
Injuries & falls	0.36
Heart disease	0.35
Breast Cancer	0.31
Motor vehicle injuries	0.25
Prenatal care	0.17
Mental illness including suicide	0.12
Oral Health*	0.11
Colorectal Cancer	0.02
Tick-borne disease**	0.47

$$\text{Index of Disparity} = \frac{\left( \text{average absolute difference between subpopulation rate and total population rate} \right)}{\left( \text{total population rate} \right)}$$

0.00      0.25      0.50      0.75      1.00      1.25



\* For measures without county-level disparity data, state-level index of disparity was used.  
 \*\* Assigned median disparity score, due to lack of available data.

# Albany Top 10 Measures of Disparity

	Health Measure	Health Issue	Index of Disparity
1	Percentage of families below poverty (2014-2018)	Social Determinants of Health	131%
2	Assault-related hospitalizations	Violence	117%
3	Teen pregnancies per 1,000 females aged under 18 years	Teen pregnancy	113%
4	Infant mortality per 1,000 live births	Poor birth outcomes	107%
5	Asthma hospitalizations per 10,000 population, age-adjusted	Asthma	92%
6	Asthma hospitalizations per 10,000 population, aged 0-17 years	Asthma	80%
7	Diabetes (primary diagnosis) hospitalizations per 10,000 population, age-adjusted	Diabetes	78%
8	Potentially preventable diabetes short-term complications hospitalization rate per 10,000 population - Aged 18+ Years	Diabetes	77%
9	Chronic lower respiratory disease hospitalizations per 10,000 population, age-adjusted	Asthma	62%
10	Age-Adjusted COVID-19 Death Rate per 100,000 population	COVID-19	62%

Health Measure in Top 10 Measures of Disparity for both Albany and Rensselaer counties

# Rensselaer Top 10 Measures of Disparity

	Health Measure	Health Issue	Index of Disparity
1	Infant mortality per 1,000 live births	Poor birth outcomes	185%
2	Potentially preventable diabetes short-term complications hospitalization rate per 10,000 population - Aged 18+ Years	Diabetes	184%
3	Percentage of families below poverty (2014-2018)	Social Determinants of Health	179%
4	Asthma hospitalizations per 10,000 population, age-adjusted	Asthma	112%
5	Assault-related hospitalizations	Violence	109%
6	Age-Adjusted COVID-19 Death Rate per 100,000 population	COVID-19	91%
7	Diabetes (primary diagnosis) hospitalizations per 10,000 population, age-adjusted	Diabetes	68%
8	Teen pregnancies per 1,000 females aged under 18 years	Teen pregnancy	63%
9	Asthma hospitalizations per 10,000 population, aged 0-17 years	Asthma	60%
10	Diabetes (any diagnosis) hospitalizations per 10,000 population, age-adjusted	Diabetes	57%


Health Measure in Top 10 Measures of Disparity for both Albany and Rensselaer counties



# Seriousness

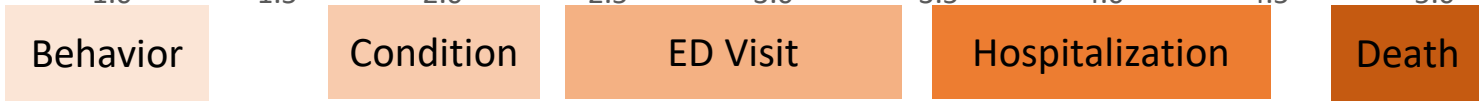
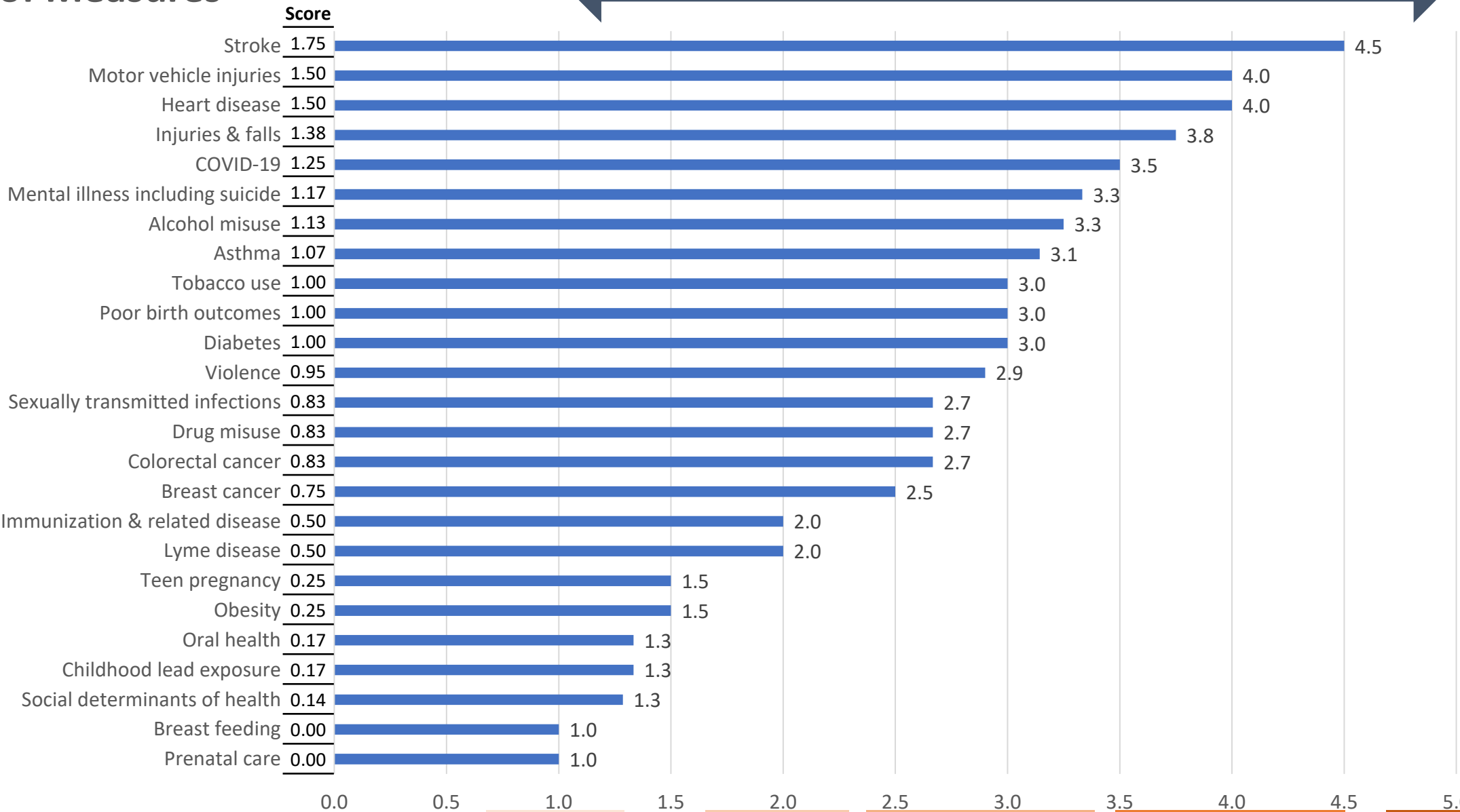
- Example: Stroke

Health Measure	Seriousness
Age-adjusted cerebrovascular disease (stroke) <b>hospitalization</b> rate per 10,000	4
Age-adjusted cerebrovascular disease (stroke) <b>mortality</b> rate per 100,000	5
<b>Average Seriousness</b>	<b>4.5</b>



Health Measure Category	Seriousness
Mortality	5
Major Hospitalization	4
Minor Hospitalization	3
Major ED Visit	3
Minor ED Visit	2
Health Condition (e.g. asthma, diabetes)	2
Health Behavior (e.g. smoking, drinking) or screening/preventive care-related	1

# Average Seriousness of Measures



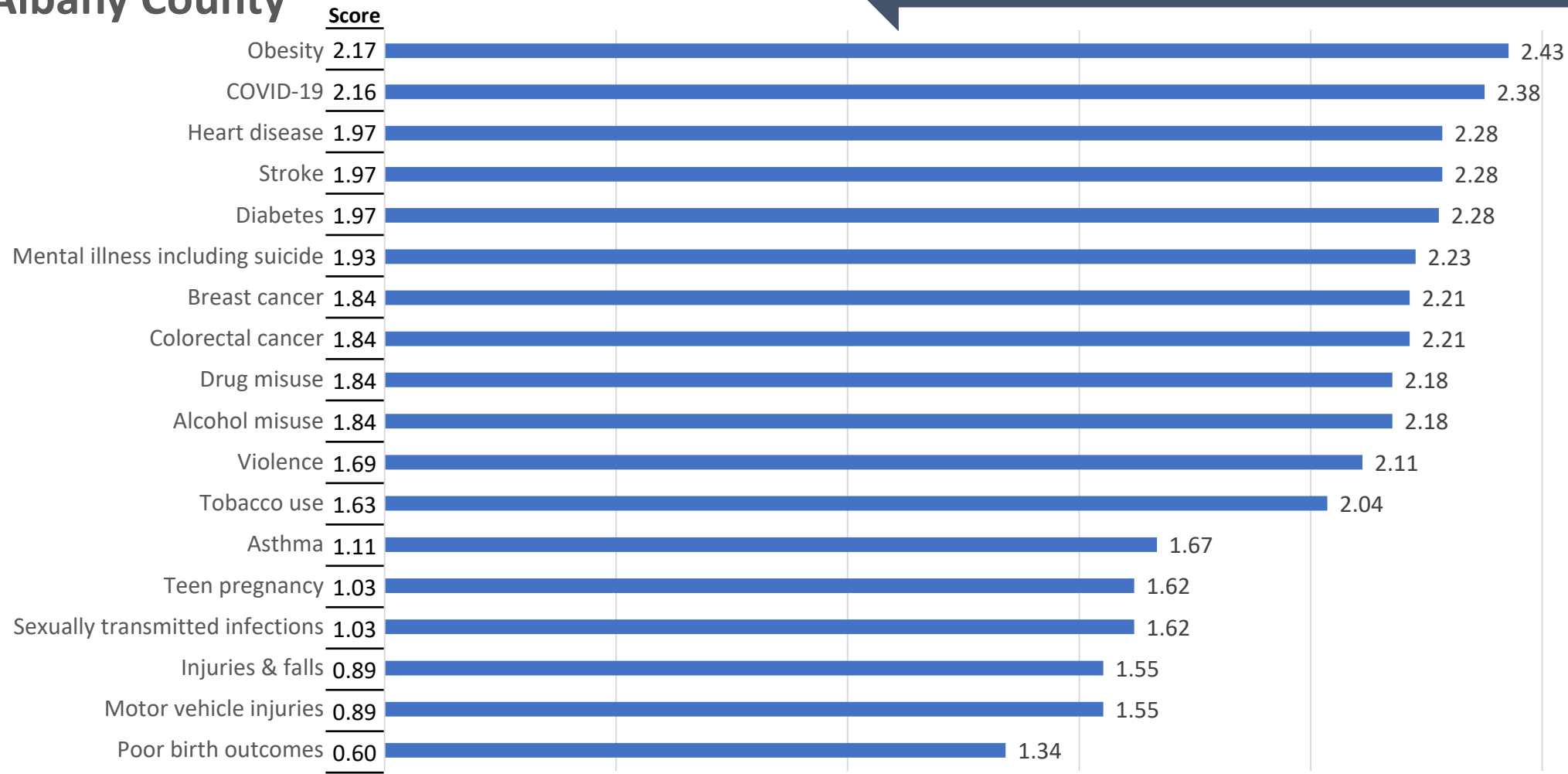
# Community Priority Scoring Example

1. How serious a public health problem in your community is each of the following?

	Not at all serious	Not too serious	Somewhat serious	Very serious	Responses	Score out of 3
Asthma Count Row %	129 9.6%	482 35.8%	587 43.6%	149 11.1%	1,347	1.56
Cancer Count Row %	40 2.9%	190 13.9%	599 43.9%	537 39.3%	1,366	2.20
COVID-19 Count Row %	62 4.5%	162 11.7%	474 34.4%	681 49.4%	1,379	2.29
	× 0	× 1	× 2	× 3		

# Community Priority – Based on Survey Results

## Albany County



0      0.5      1      1.5      2      2.5      3

Not at all Serious      Not too Serious      Somewhat Serious      Very Serious

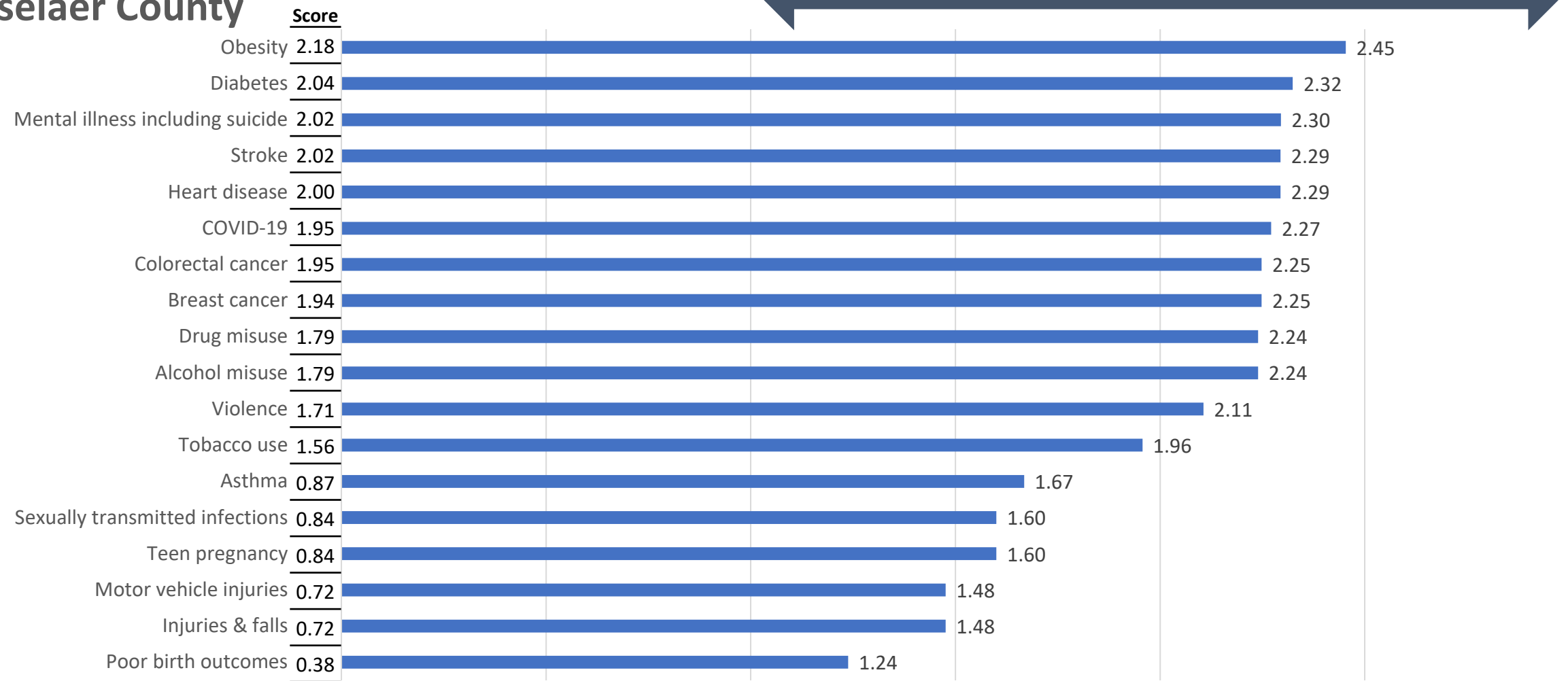
Community Survey Response Score

Community Priority data not available for: Prenatal care, Breast feeding, Childhood lead exposure, Lyme disease, Immunization & related disease, Social determinants of health, Oral health

# Community Priority – Based on Survey Results



## Rensselaer County



0      0.5      1      1.5      2      2.5      3

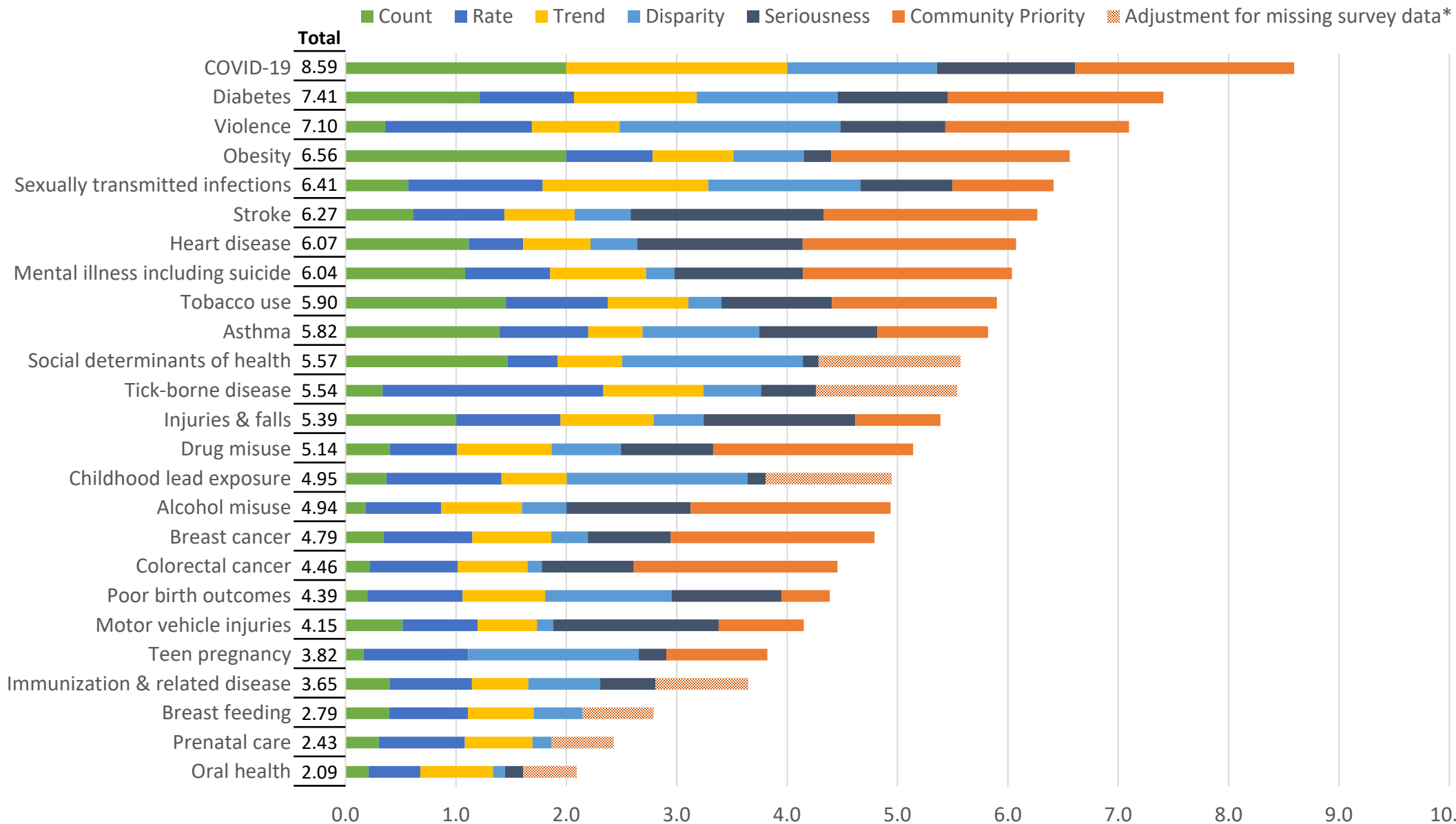
Not at all Serious      Not too Serious      Somewhat Serious      Very Serious

Community Survey Response Score

Community Priority data not available for: Prenatal care, Breast feeding, Childhood lead exposure, Lyme disease, Immunization & related disease, Social determinants of health, Oral health



# Albany & Rensselaer - Data-based Need Score (out of 13)



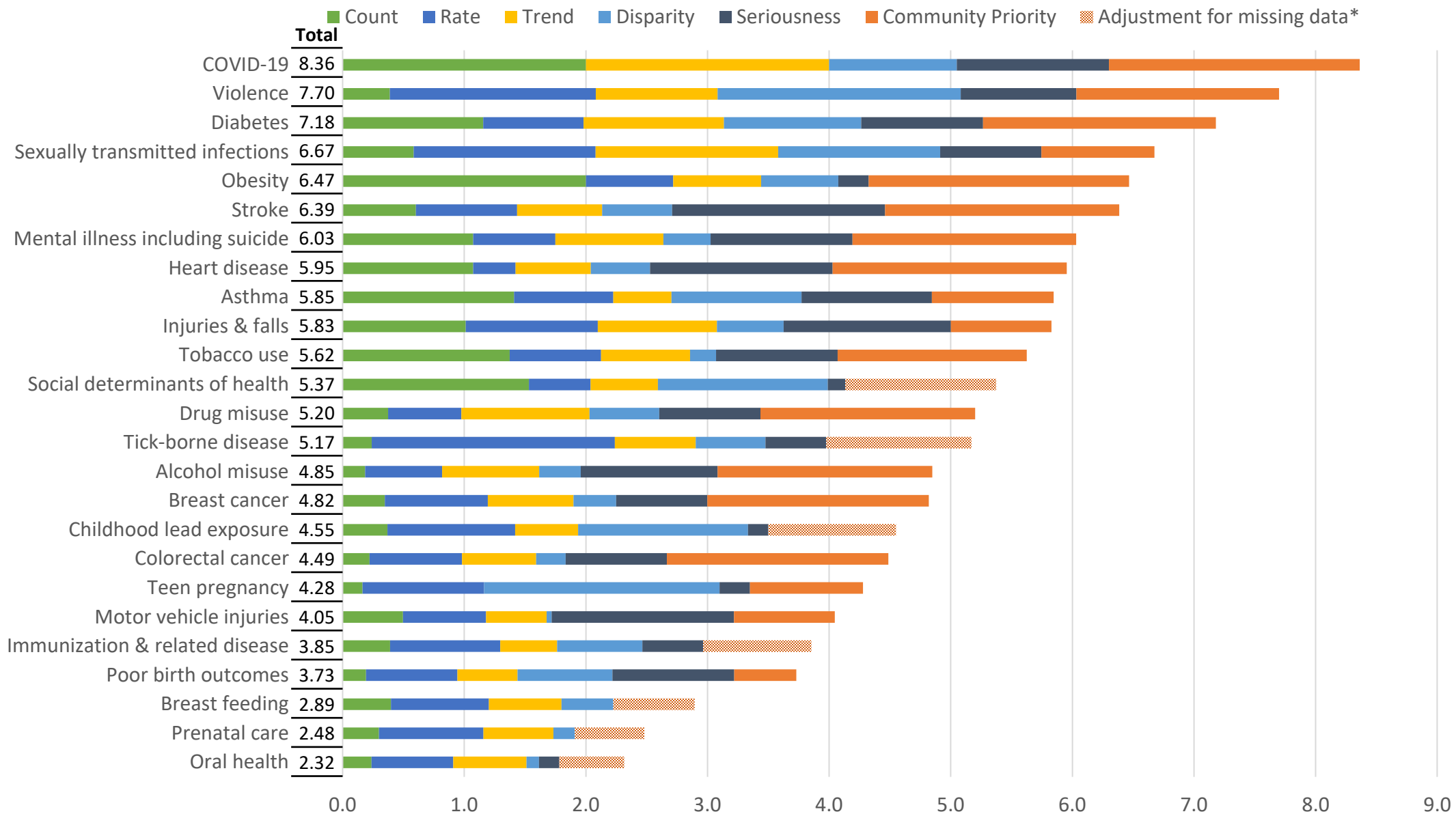
\* Health issues without survey data were weighted for a total score out of 13

Data-Based  
Need Scores



\* Health issues without survey data weighted for a total score out of 13

# Albany County - Data-based Need Score (out of 13)



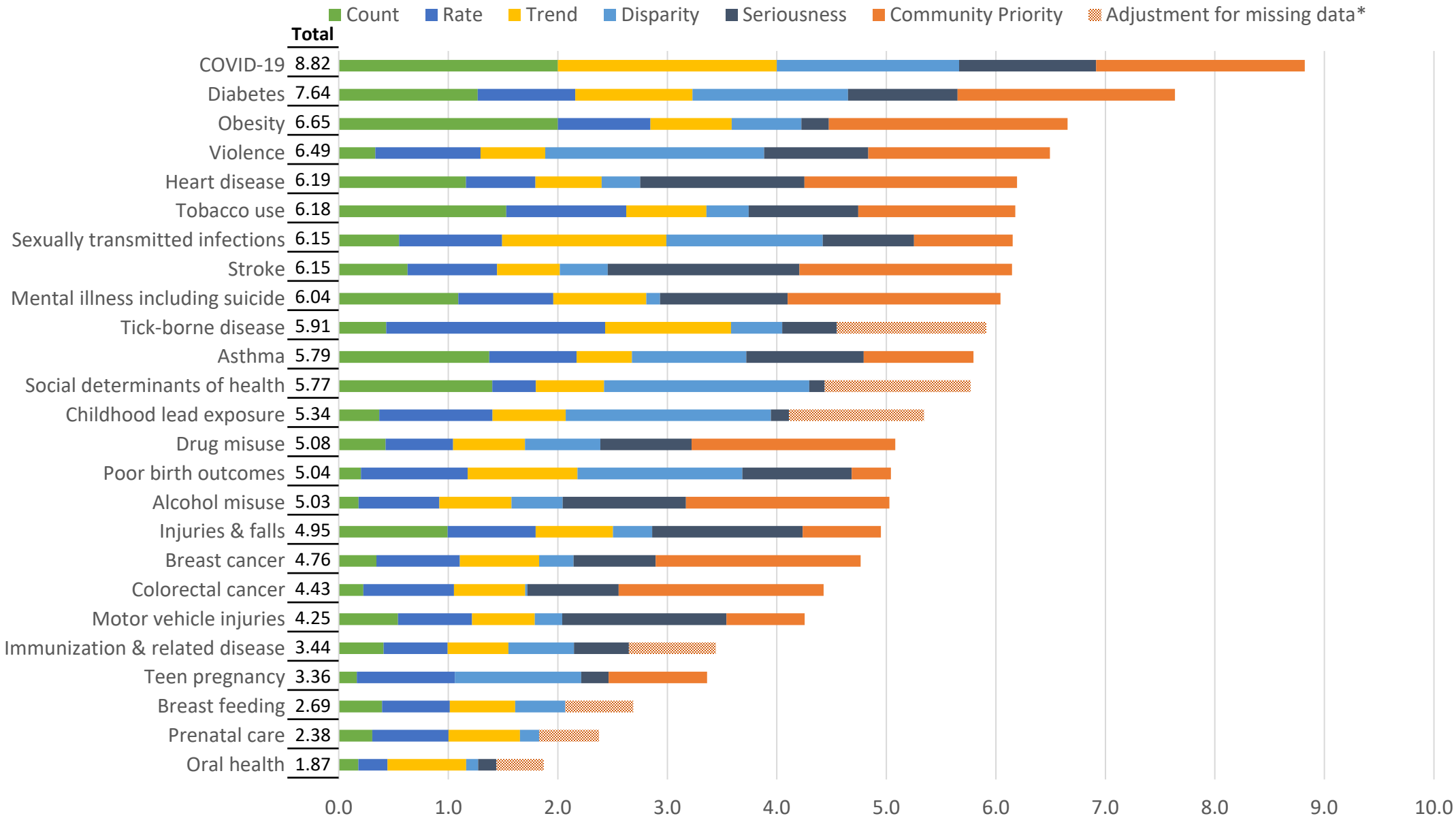
\* Health issues with missing data were weighted to have a total score out of 13



# Albany County Data-Based Need Scores



# Rensselaer County - Data-based Need Score (out of 13)



\* Health issues with missing data were weighted to have a total score out of 13

