

# 2016

## Community Health Needs Assessment DETAILED DATA INDEX



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Boardman, Ohio 44512

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## INTRODUCTION

To conduct the 2016 Community Health Needs Assessment, the Kent State University College of Public Health (KSU) followed several recommendations offered by the Catholic Health Association of the United States in its 2015 second edition of Assessing and Addressing Community Health Needs. This Data Appendix includes epidemiological data for the indicators that were identified as significant health needs for the hospital service area.

Epidemiologic data from a variety of sources were collected on a large number of child health indicators where available. To identify the epidemiological significant health needs for Akron Children's Hospital Mahoning Valley, child data from each of the three counties in the Akron Children's Hospital Mahoning Valley service area was compared to two peer counties in Ohio that were demographically similar, the state and US averages, and the Healthy People 2020 target, if one was available.

Identification of a significant health issue is demonstrated with this example using Mahoning County. Indicators listed on the left-hand side of the matrix compared unfavorably to the two comparison counties, the state, and the US. Indicators on the right-hand side of the matrix compared favorably to those benchmarks. In addition, on each side of the matrix, it was noted if the indicators were higher/lower than 2, 3, or 4 of the benchmarks.

For example, indicators in the upper left box of the matrix (shaded in red) were “worse” in Mahoning County compared to the two comparison counties, the State, and the US. Indicators in the bottom right (shaded in blue) were “better” in Mahoning County compared to these benchmarks. The use of this classification system helped KSU quickly compare the vast amount of data to key benchmarks and identify the significant health needs. At a meeting on May 1, 2016 it was agreed that any epidemiological indicator that was “worse” on 3 or more benchmarks would be considered a “significant health need”. These indicators are described and detailed data presented on each for the hospital's entire service area in the pages that follow.

**Mahoning Valley Children (Example)**

Unfavorable Comparisons		Favorable Comparisons	
4 Benchmarks	<ul style="list-style-type: none"><li>Indicator 1</li><li>Indicator 2</li><li>Indicator 3</li></ul>	<ul style="list-style-type: none"><li>Indicator 10</li><li>Indicator 11</li><li>Indicator 12</li></ul>	4 Benchmarks
3 Benchmarks	<ul style="list-style-type: none"><li>Indicator 4</li><li>Indicator 5</li><li>Indicator 6</li></ul>	<ul style="list-style-type: none"><li>Indicator 13</li><li>Indicator 14</li><li>Indicator 15</li></ul>	3 Benchmarks
2 Benchmarks	<ul style="list-style-type: none"><li>Indicator 7</li><li>Indicator 8</li><li>Indicator 9</li></ul>		



## AKRON CHILDREN'S HOSPITAL MAHONING VALLEY CHILD INDICATORS

### Access to Healthcare

Access to healthcare is a broad term used to describe the availability, acceptability, affordability, and accessibility of healthcare systems and providers. Lack of access to healthcare makes it difficult for people to get the care that they need, which can lead to acute and/or prolonged sickness, premature disability, and even death. With respect to children, access to healthcare is vital to ensure proper development. While family insurance coverage, as well as governmental assistance programs such as The Children's Health Insurance Program (CHIP), reduce barriers to care, merely having insurance coverage does not guarantee that children will be able to access that care (Clemans-Cope et al. 2015).

The access to healthcare issues identified as significant health needs in the Akron Children's Hospital Mahoning Valley service area are:

- Access to dental care
- Dental insurance coverage
- Health insurance coverage
- Mental health insurance coverage
- Vision insurance coverage

### **Percentage of 3<sup>rd</sup> Graders with Untreated Tooth Decay**

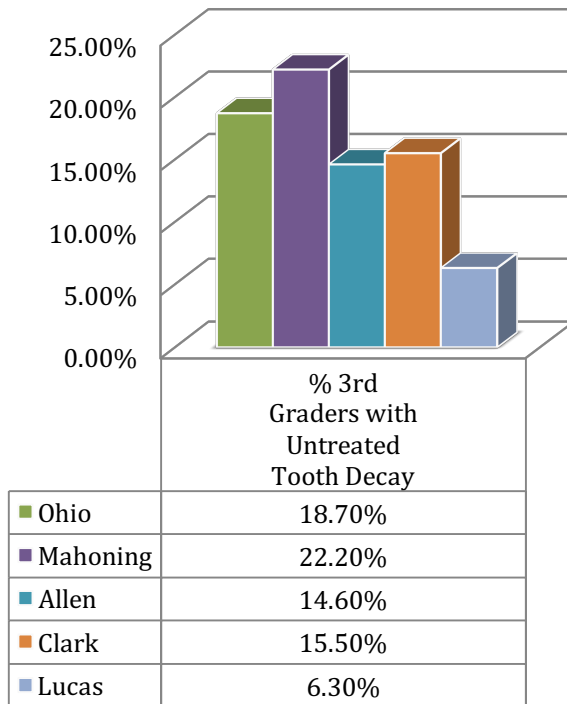
#### ***What is the data source for this indicator?***

"Percentage of Third Graders with Untreated Tooth Decay" is the percentage of third graders with untreated tooth decay based on clinical study. The most recent data (2010) is utilized here, which is provided by the Ohio Department of Health's Oral Health and BMI Survey, is available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org).

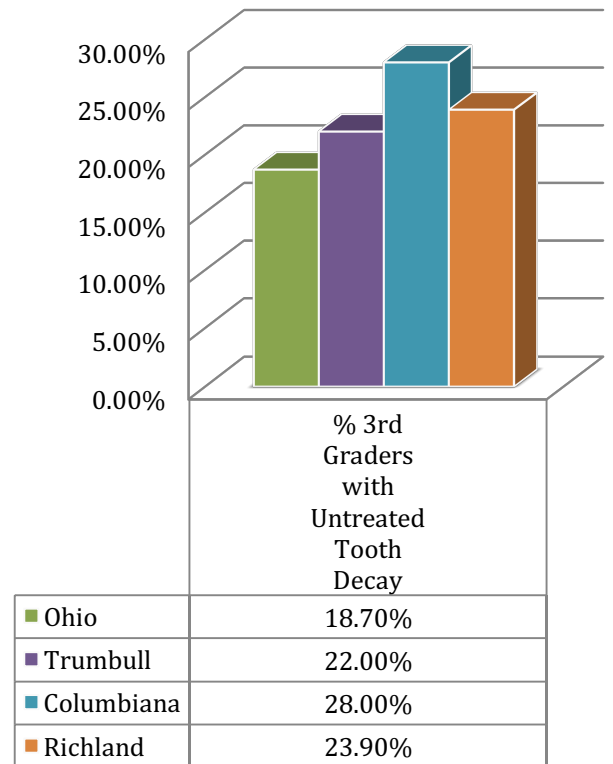
#### ***How does our community rank?***

The "Percentage of Third Graders with Untreated Tooth Decay" in Mahoning County was greater than the state percentage, as well as all three comparison county percentages. The "Percentage of Third Graders with Untreated Tooth Decay" in Columbiana County was greater than the state percentage and both comparison county percentages. The "Percentage of Third Graders with Untreated Tooth Decay" in Trumbull County did not meet the methodological criteria for identification as a significant health need. A Healthy People 2020 goal and national percentage were not available.

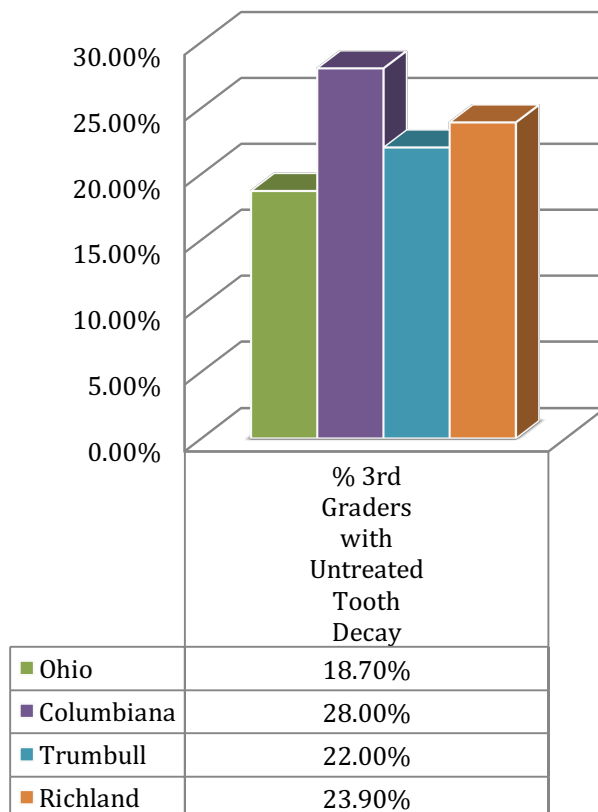
**Mahoning County  
Percentage of 3rd Graders  
with Untreated Tooth Decay**



**Trumbull County  
Percentage of 3rd Graders  
with Untreated Tooth Decay**



**Columbiana County  
Percentage of 3rd Graders  
with Untreated Tooth Decay**



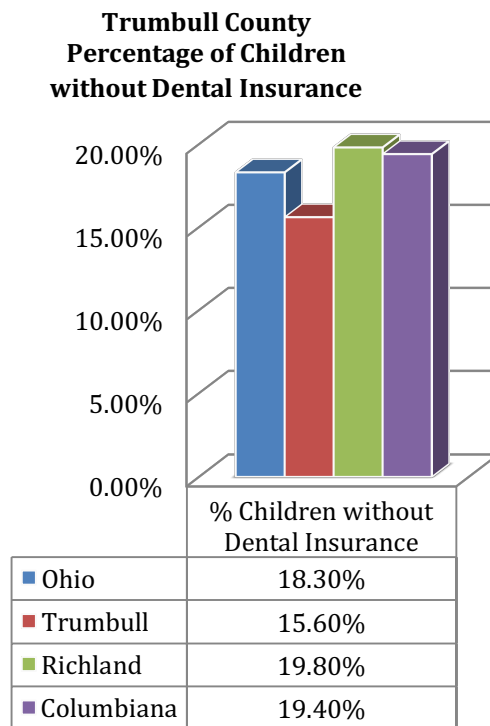
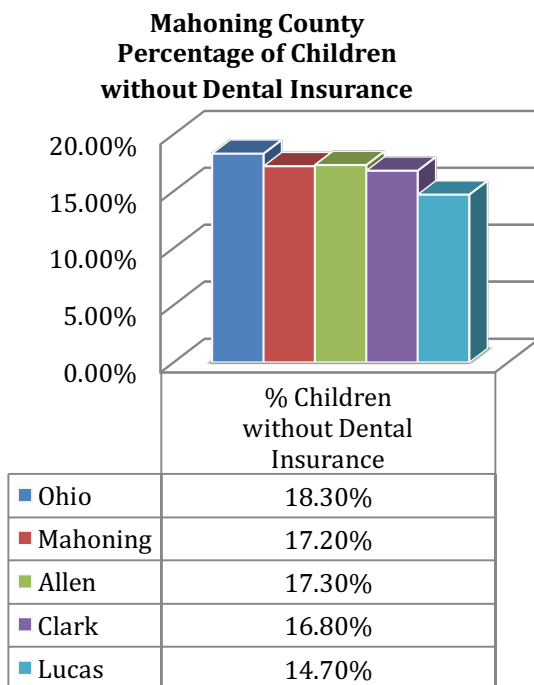
## **Percentage of Children without Dental Insurance**

### ***What is the data source for this indicator?***

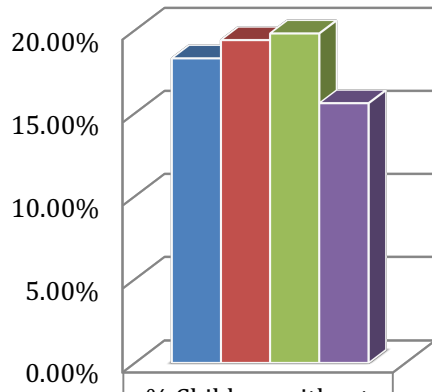
“Percentage of Children without Dental Insurance” is an estimate of the uninsured rate for dental insurance coverage for children under 18 years of age, excluding 1 year olds. The most recent data (2008) is utilized here, which is provided by the Ohio College of Medicine Government Research Center’s Family Health Survey (OFHS), 2008-09 and is available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org).

### ***How does our community rank?***

The “Percentage of Children without Dental Insurance” is highest in Columbiana County whose rate of 19.4 children per 1,000 exceeds the State of Ohio rate of 18.3 per 1,000. A Healthy People 2020 goal and national percentage estimate were not available. While benchmark comparisons did not identify this as a significant health need, hospital staff and clinicians identified Children without Dental Insurance as a health need in the hospital service area. It was also identified by focus group participants as a significant need in the Mahoning Valley.



**Columbiana County  
Percentage of Children  
without Dental Insurance**



	% Children without Dental Insurance
■ Ohio	18.30%
■ Columbiana	19.40%
■ Richland	19.80%
■ Trumbull	15.60%

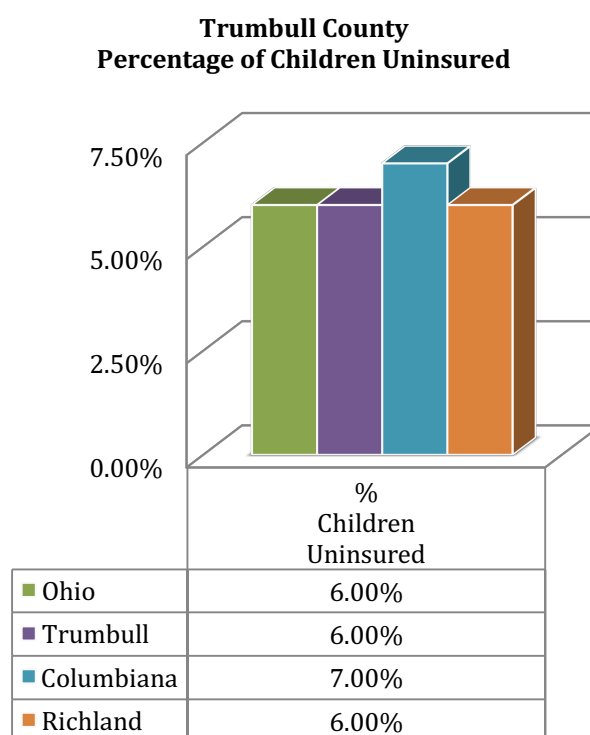
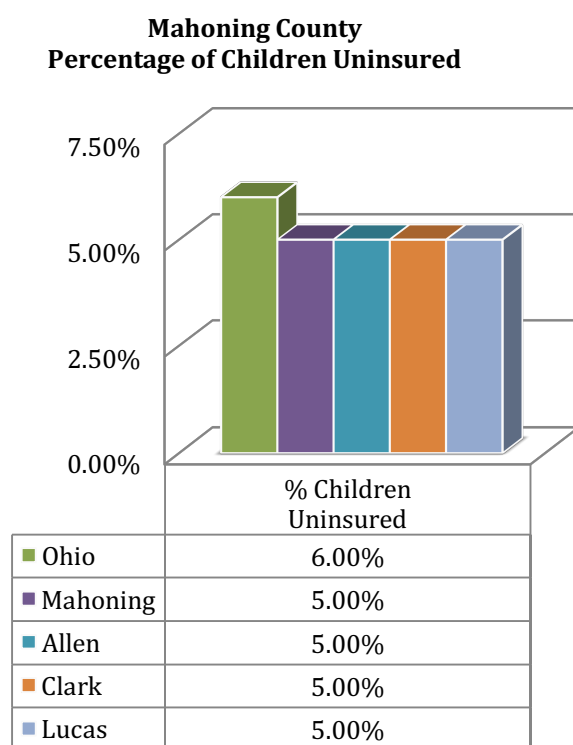
## Percentage of Children Uninsured

### ***What is the data source for this indicator?***

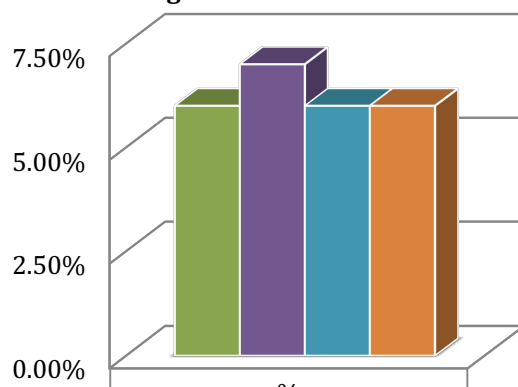
“Percentage of Children Uninsured” refers to the percentage of children whom are without health insurance coverage. The most recent data (2015) is utilized here, which is provided by the U.S. Census Bureau’s Small Area Health Insurance Estimates (SAHIE) program, reported by County Health Rankings, and is available at [www.countyhealthrankings.org](http://www.countyhealthrankings.org).

### ***How does our community rank?***

The “Percentage of Children Uninsured” in Columbiana County is greater than the state and both comparison county percentages, respectively. The “Percentage of Children Uninsured” in Mahoning and Trumbull counties did not meet the methodological criteria for identification as a significant health need. A Healthy People 2020 goal and national percentage were not available.



**Columbiana County  
Percentage of Children Uninsured**



■ Ohio	6.00%
■ Columbiana	7.00%
■ Trumbull	6.00%
■ Richland	6.00%



## **Percentage of Children without Mental Health Coverage**

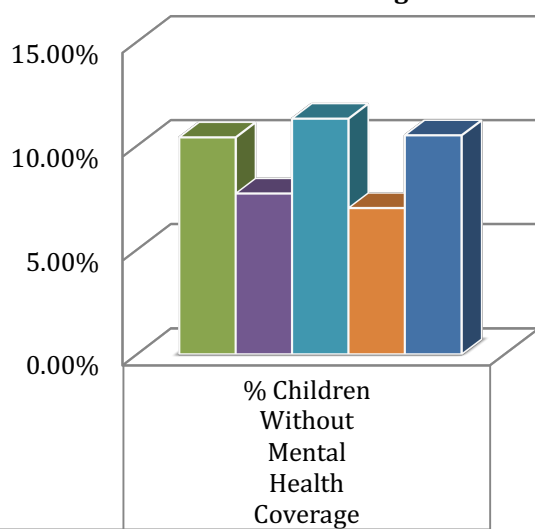
### ***What is the data source for this indicator?***

“Percentage of Children without Mental Health Coverage” is an estimate of the uninsured rate for mental health insurance coverage for children under 18 years of age, excluding 1 year olds. The most recent data (2008) is utilized here, which is provided by the Ohio College of Medicine Government Research Center’s Family Health Survey (OFHS), 2008-09 and is available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org).

### ***How does our community rank?***

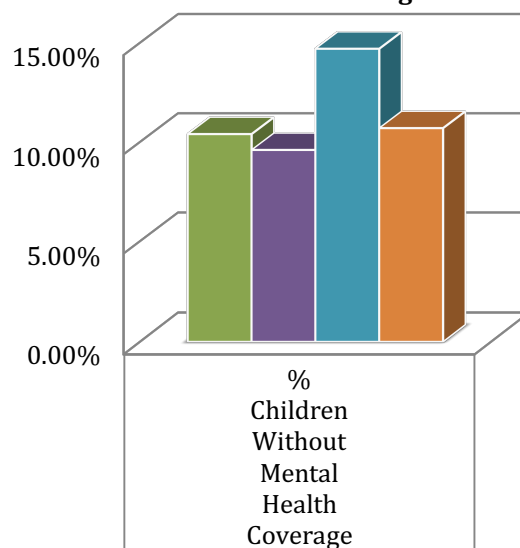
The “Percentage of Children without Mental Health Coverage” is highest in Columbiana County whose rate exceeds the State of Ohio rate, and was also higher than one comparison county. The “Percentage of Children without Mental Health Coverage” in Trumbull County was lower than each of its comparisons. Mahoning County’s “Percentage of Children without Mental Health Coverage” was higher than one comparison county. A Healthy People 2020 goal and national percentage estimate were not available. While benchmark comparisons did not identify this as a significant health need, hospital staff and clinicians identified Children without Dental Insurance as a health need in the hospital service area. It was also identified by focus group participants in all three counties as a significant health need in the Mahoning Valley.

**Mahoning County  
Percentage of Children  
without Mental Health Coverage**



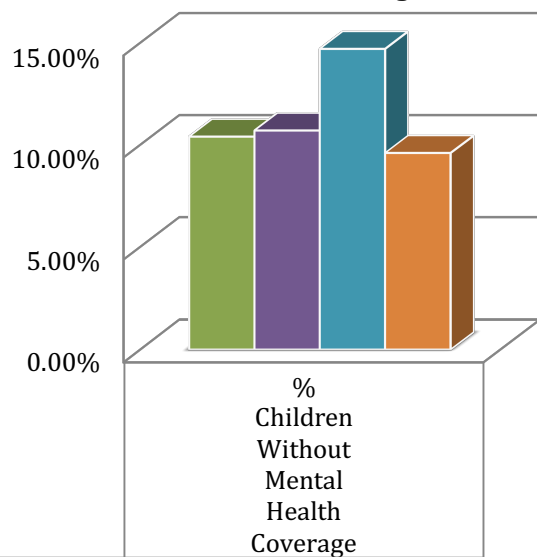
Ohio	10.40%
Mahoning	7.70%
Allen	11.30%
Clark	7.00%
Lucas	10.50%

**Trumbull County  
Percentage of Children  
without Mental Health Coverage**



Ohio	10.40%
Trumbull	9.60%
Richland	14.70%
Columbiana	10.70%

**Columbiana County  
Percentage of Children  
without Mental Health Coverage**



■ Ohio	10.40%
■ Columbiana	10.70%
■ Richland	14.70%
■ Trumbull	9.60%

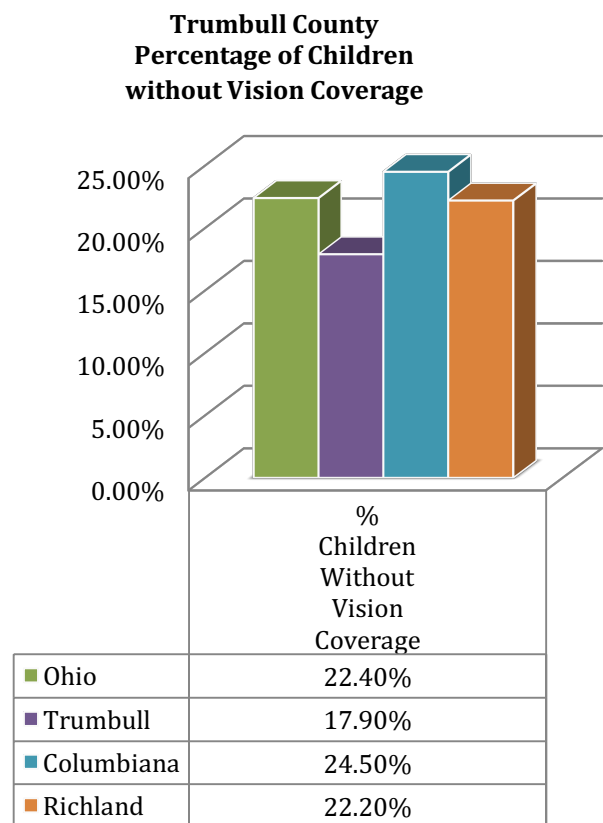
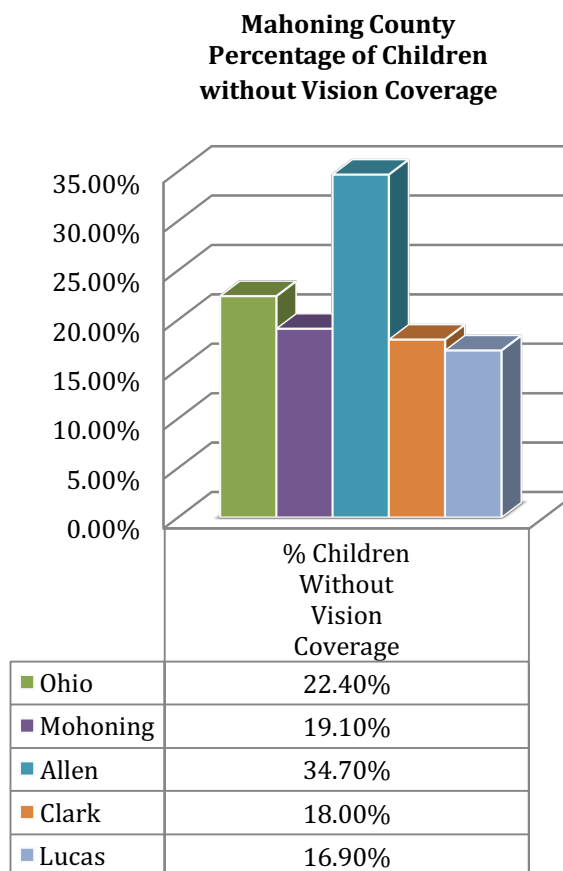
## **Percentage of Children without Vision Coverage**

### ***What is the data source for this indicator?***

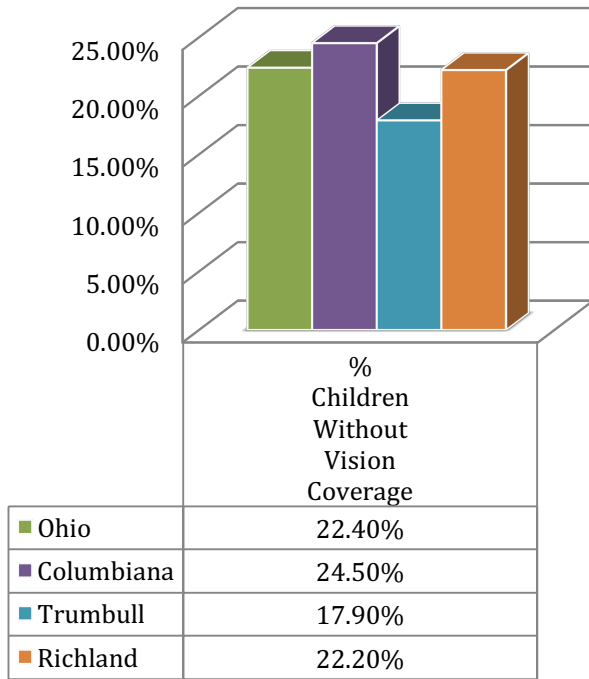
“Percentage of Children without Vision Coverage” represents an estimate of those children, under the age of 18, that do not currently have vision coverage; this estimate excludes 1-year olds. The most recent data (2008) is utilized here, which is provided by Ohio’s Children Defense Fund, and is reported by the Kids Count Data Center. The following data is available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org).

### ***How does our community rank?***

The “Percentage of Children without Vision Coverage” in Columbiana County was greater than the state and both comparison county percentages, respectively. The “Percentage of Children without Vision Coverage” in Mahoning and Trumbull did not meet the methodological criteria for identification as a significant health need. A Healthy People 2020 and national percentage were not available.



**Columbiana County  
Percentage of Children  
without Vision Coverage**



## **Child Lifestyle Factors**

Child lifestyle factors pertain to a number of influences that can have an impact on a child's development and health status, such as (but not limited to): regular physical activity, social interaction, adequate nutrition and proper diet, weight, and the environment. Two important factors here, food insecurity and obesity, are closely related, as low-income households typically have a greater presence of inexpensive, low-nutrient, calorically-dense food options that contribute to overweightness and obesity (Nackers and Appelhans 2013).

Being overweight is a condition where an individual's body weight, in proportion to their height, is higher than what is medically recommended. This measurement of medically significant weight is based on Body Mass Index (BMI), a calculation that divides an individual's weight (in kilograms) by height (square meters), deems those with a BMI between 25 and 29.9 are overweight, while those with a BMI of 30 or more as obese (CDC 2015). Health risks associated with overweightness and obesity in children include: high blood pressure, high cholesterol, diminished glucose tolerance, insulin resistance, type-II diabetes, respiratory and joint problems, fatty liver disease, gallstones, heartburn, depression, behavioral problems, low quality of life, and problems with social, emotional, and physical functioning (CDC 2015).

The child lifestyle factors identified as significant health needs in the Akron Children's Hospital Mahoning Valley service area are:

- Food insecurity
- Obesity

### **Percentage of Children Eligible for Free Lunch**

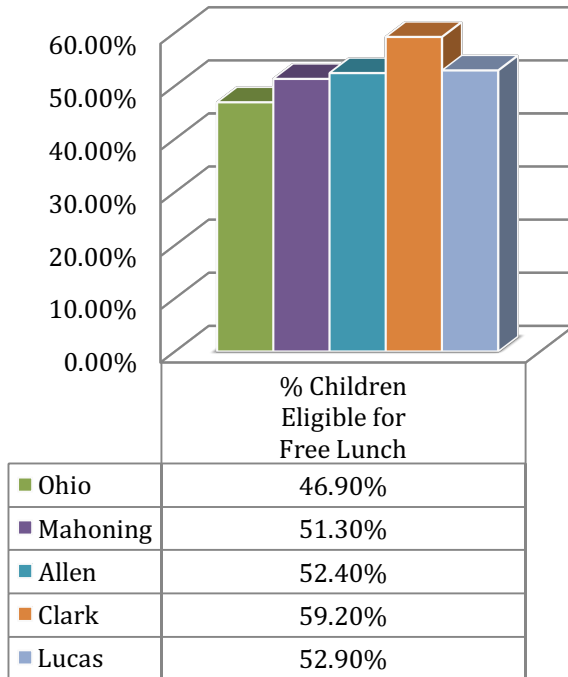
#### ***What is the data source for this indicator?***

"Percentage of Children Eligible for Free Lunch" is an estimate of the percentage of Ohio children that participated in the National School Lunch program, which is often referred to as free and reduced-price lunch. The most recent data (2012) is utilized here, which is provided by the National Center for Education Statistics, is reported by the Community Commons, and is available at [www.communitycommons.org](http://www.communitycommons.org).

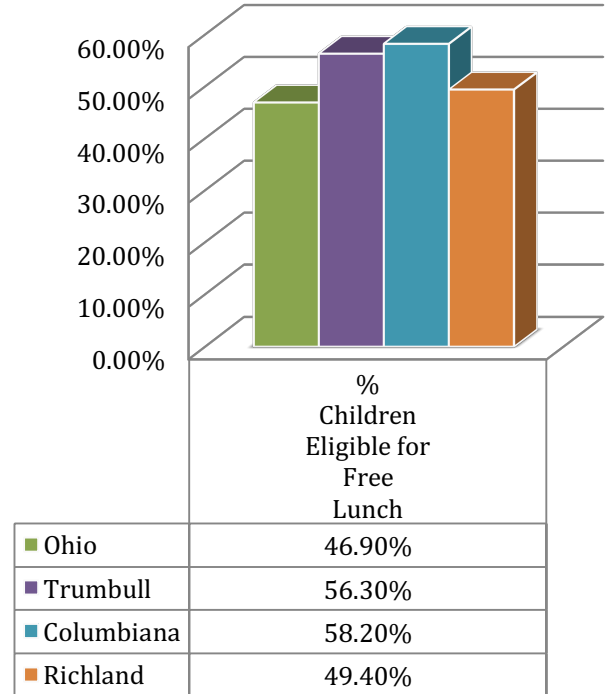
#### ***How does our community rank?***

The "Percentage of Children Eligible for Free Lunch" in Columbiana County is greater than the state and both comparison county percentages, respectively. The "Percentage of Children Eligible for Free Lunch" in Mahoning and Trumbull counties did not meet the methodological criteria for identification as a significant health need. A Healthy People 2020 goal and national percentage were not available.

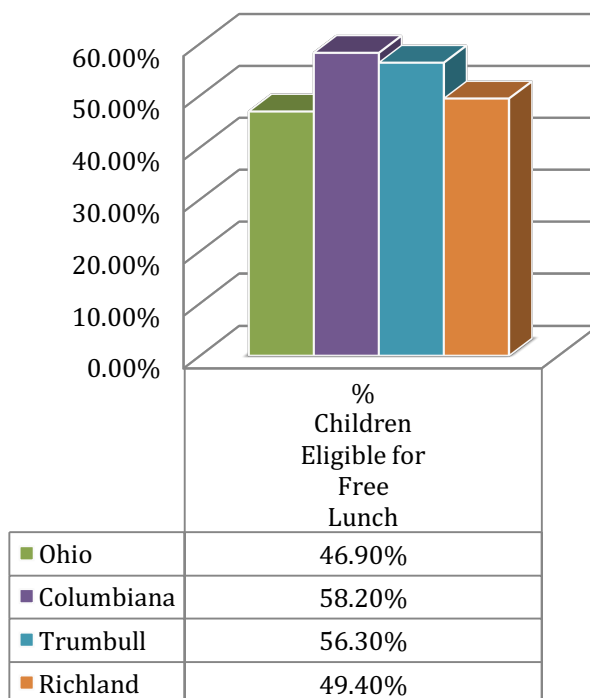
**Mahoning County  
Percentage of Children  
Eligible for Free Lunch**



**Trumbull County  
Percentage of Children  
Eligible for Free Lunch**



**Columbiana County  
Percentage of Children  
Eligible for Free Lunch**





## Percentage of Children Eligible for SNAP

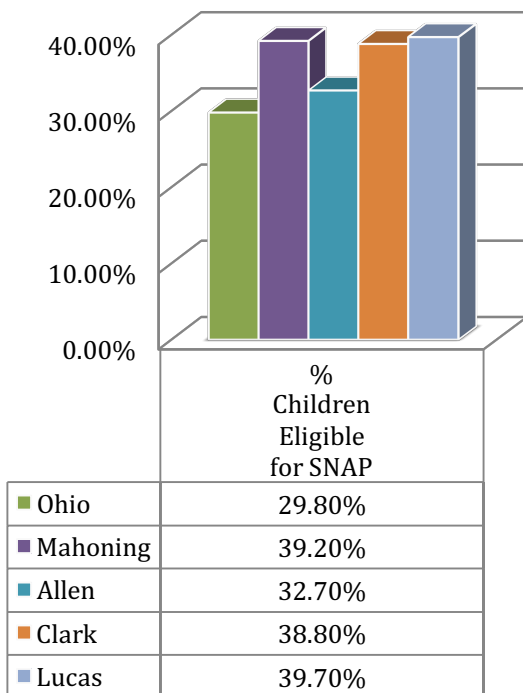
### ***What is the data source for this indicator?***

“Percentage of Children Eligible for SNAP” refers to the percentage of children eligible to receive Supplemental Nutrition Assistance Program benefits. The most recent data (2013) is utilized here, which is provided by the Ohio’s Children Defense Fund, reported by Kids Count Data Center, and available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org).

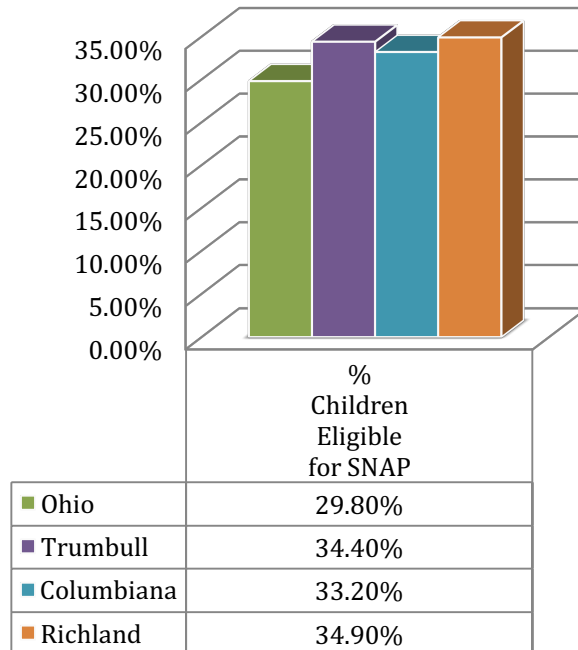
### ***How does our community rank?***

The “Percentage of Children Eligible for SNAP” in Mahoning County was greater than the state and nation percentages, as well as one comparison county percentage, and was lower than the one comparison county percentage. The “Percentage of Children Eligible for SNAP” in Trumbull County is higher than the state and one comparison county. The “Percentage of Children Eligible for SNAP” in Columbiana County is higher than the state but lower than two comparison counties. A Healthy People 2020 goal and national percentage were not available for Columbiana, Trumbull and Mahoning counties.

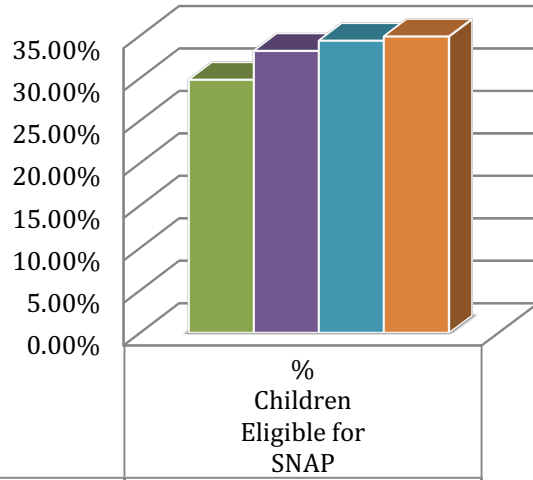
**Mahoning County**  
**Percentage of Children Eligible for SNAP**



**Trumbull County**  
**Percentage of Children Eligible for SNAP**



**Columbiana County  
Percentage of Children Eligible for SNAP**



■ Ohio	29.80%
■ Columbiana	33.20%
■ Trumbull	34.40%
■ Richland	34.90%

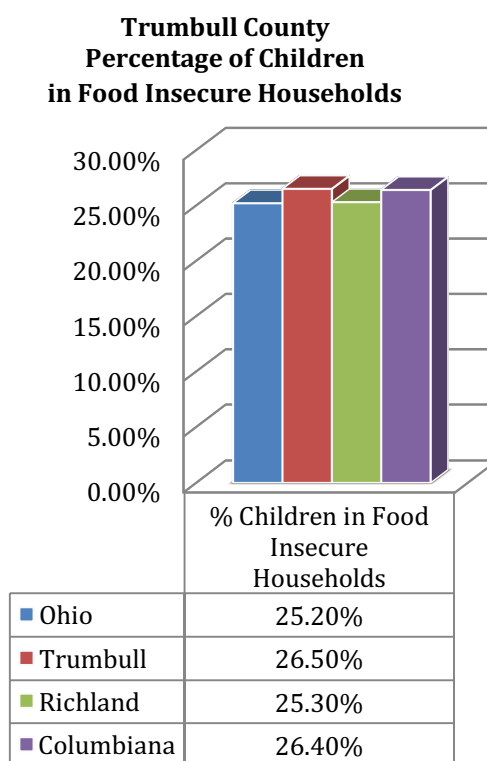
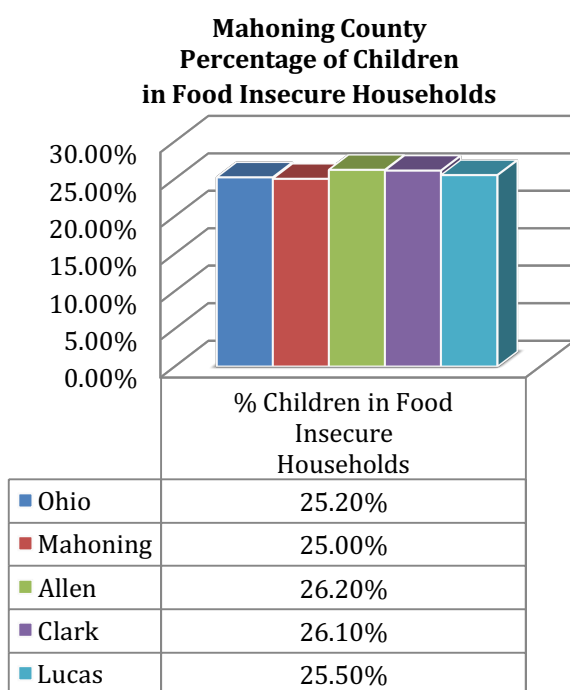
## **Percentage of Children in Food Insecure Households**

### ***What is the data source for this indicator?***

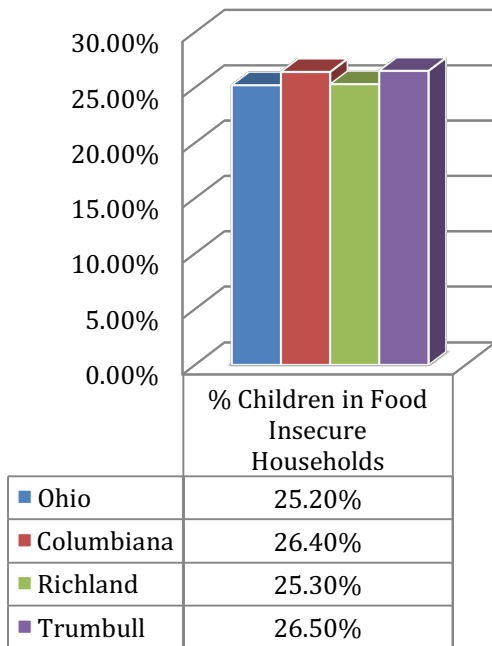
“Percentage of Children in Food Insecure Households” consists of children, under the age of 18, living in households that were uncertain of the ability or were unable to acquire enough food for all members of the household, due to insufficient money or resources. The most recent data (2012) is utilized here, which is provided by the National Kids Count, reported by the Kids Count Data Center, and is available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org).

### ***How does our community rank?***

The “Percentage of Children in Food Insecure Households” in Trumbull County was greater than the state percentage and both comparison county percentages. The “Percentage of Children in Food Insecure Households” in Columbiana County is higher than the state and one comparison county. The “Percentage of Children in Food Insecure Households” in Mahoning County was lower than all of the comparisons. A Healthy People 2020 and national percentage were not available. Food insecurity among children in households was also identified as a serious health need by both community leaders and focus group participants in all three counties in the hospital service area.



**Columbiana County  
Percentage of Children  
in Food Insecure Households**



## **Percentage of 2 to 5 Year Olds Overweight**

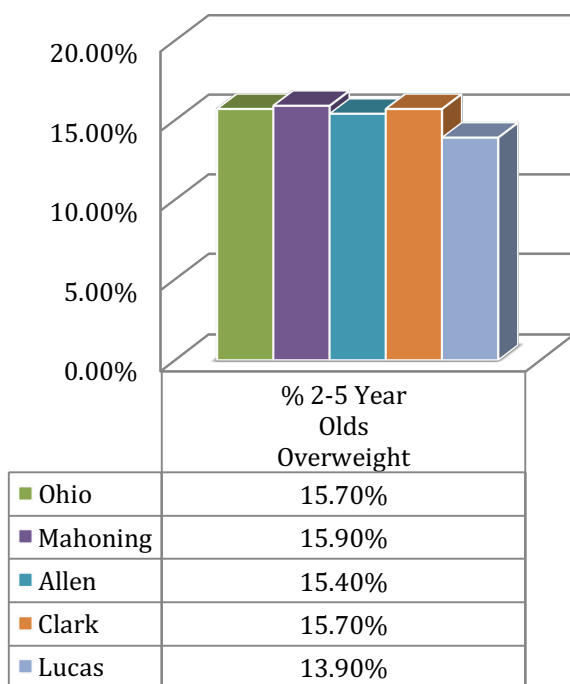
### ***What is the data source for this indicator?***

“Percentage of 2 to 5 Year Olds Overweight” represents the percentage of children, ages 2 to 5, that fall between the 85<sup>th</sup> and 95<sup>th</sup> percentile with respect to weight. The most recent data (2015) is utilized here, which is provided by the Ohio Department of Health’s Oral Health and BMI Survey, available at [www.odh.ohio.gov](http://www.odh.ohio.gov).

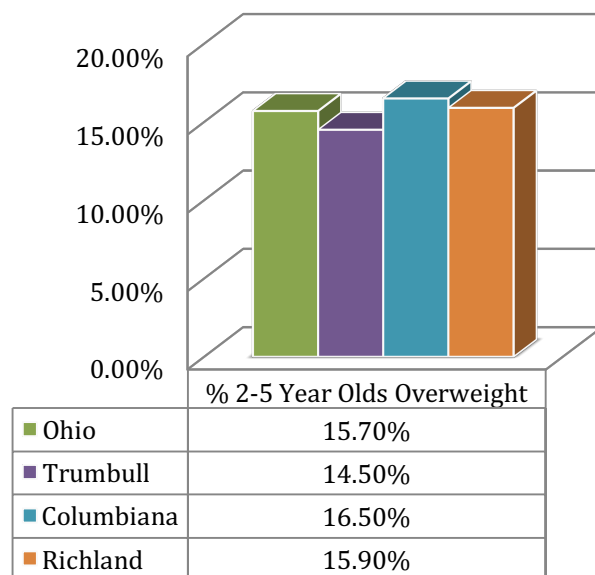
### ***How does our community rank?***

The “Percentage of 2 to 5 Year Olds Overweight” in Mahoning County was greater than the state percentage, as well as all three comparison counties, respectively. The “Percentage of 2 to 5 Year Olds Overweight” in Columbiana County exceeded the state percentage and both comparison county percentages. The “Percentage of 2 to 5 Year Olds Overweight” in Trumbull County did not meet the methodological criteria for identification as a significant health need. A Healthy People 2020 goal and national percentage were not available.

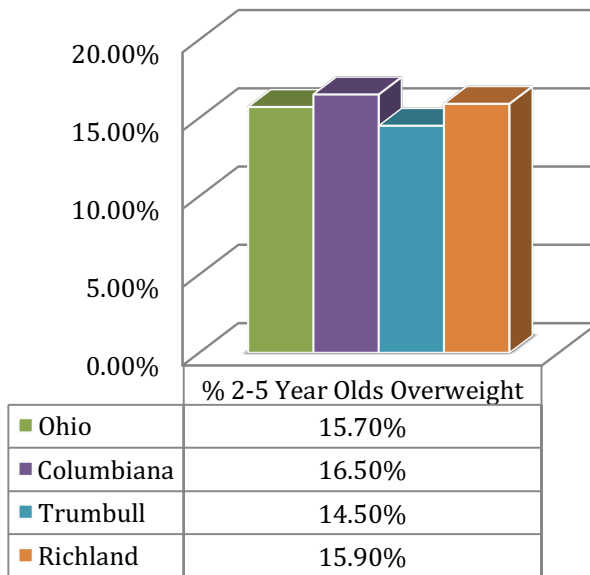
**Mahoning County  
Percentage of 2 to 5 Year Olds Overweight**



**Trumbull County  
Percentage of 2 to 5 Year Olds Overweight**



**Columbiana County  
Percentage of 2 to 5 Year Olds Overweight**





## **Percentage of 2 to 5 Year Olds Obese**

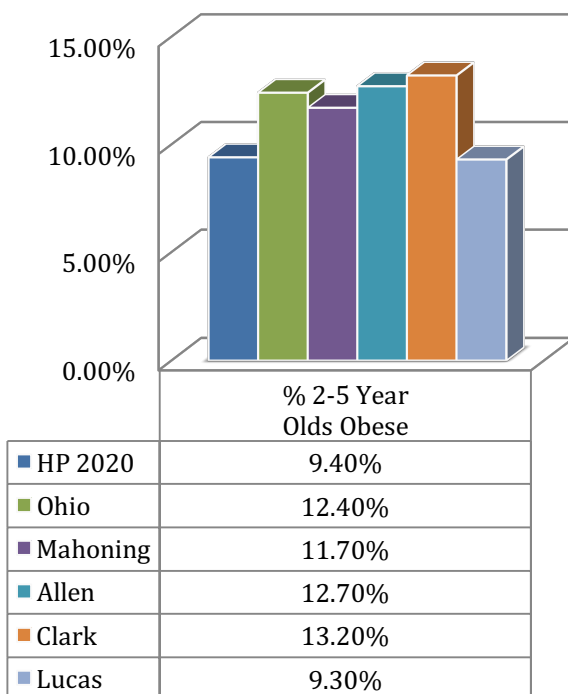
### ***What is the data source for this indicator?***

“Percentage of 2 to 5 Year Olds Obese” refers to children between the ages 2 and 5 years who fall above the 95th percentile in weight. The most recent data (2015) is utilized here, which is provided by the Ohio Department of Health’s Oral Health and BMI Survey, available at [www.odh.ohio.gov](http://www.odh.ohio.gov).

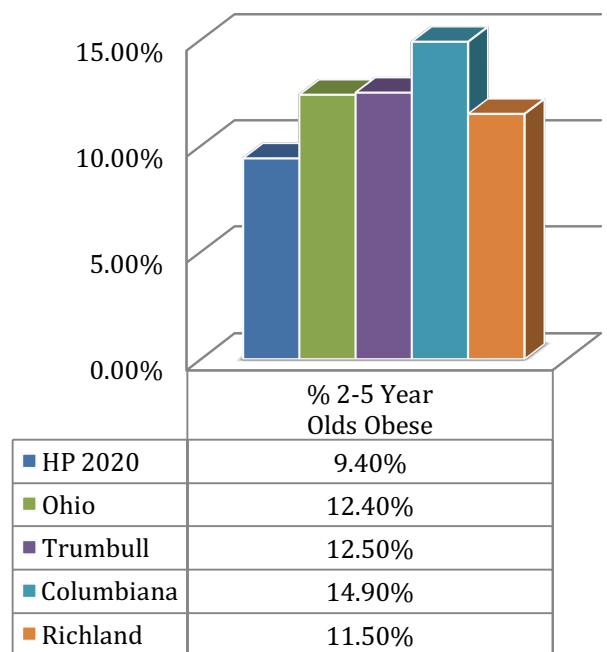
### ***How does our community rank?***

The “Percentage of 2 to 5 Year Olds Obese” in Trumbull County was greater than the Healthy People 2020 goal, in addition to the state percentage and one comparison county percentage, while lower than the other comparison county. The “Percentage of 2 to 5 Year Olds Obese” in Columbiana County was greater than the Healthy People 2020 goal, as well as the state percentage and both comparison county percentages. The “Percentage of 2 to 5 Year Olds Obese” in Mahoning County did not meet the methodological criteria for identification as a significant health need. A national percentage was not available.

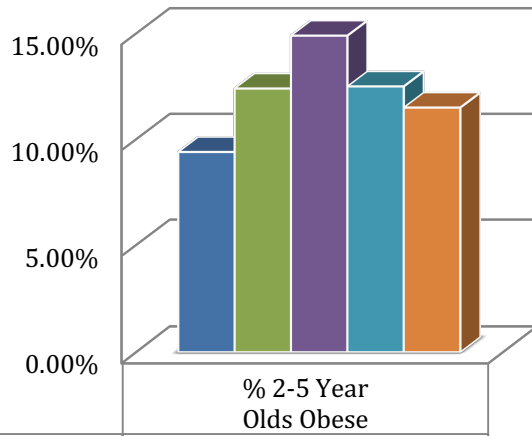
**Mahoning County  
Percentage of 2 to 5 Year Olds Obese**



**Trumbull County  
Percentage of 2 to 5 Year Olds Obese**



**Columbiana County  
Percentage of 2 to 5 Year Olds Obese**



■ HP 2020	9.40%
■ Ohio	12.40%
■ Columbiana	14.90%
■ Trumbull	12.50%
■ Richland	11.50%

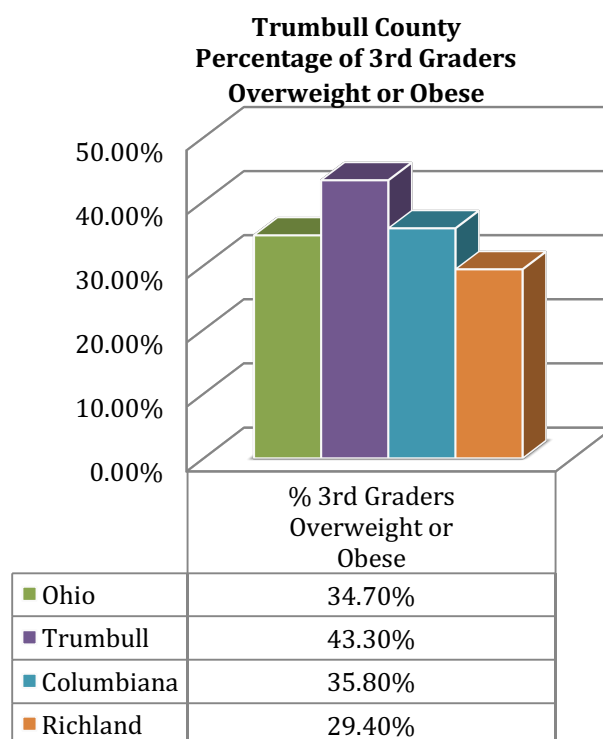
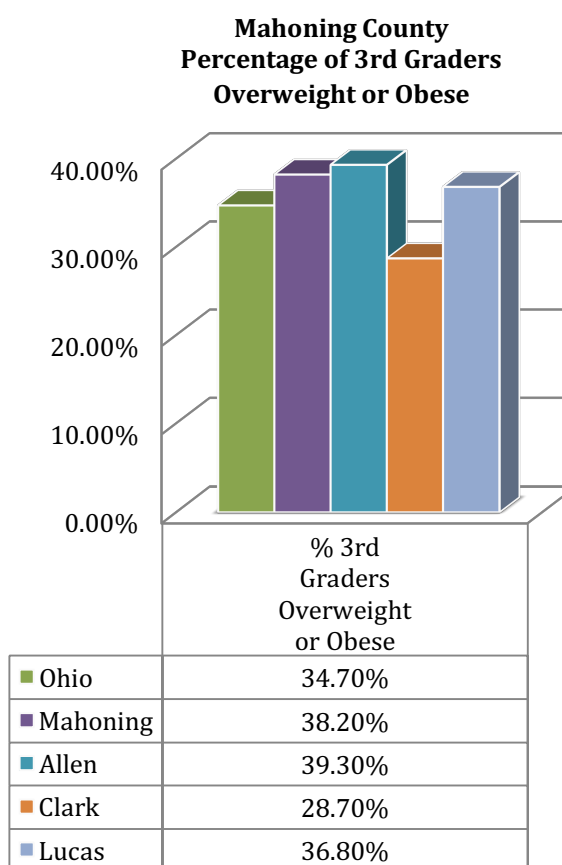
## **Percentage of 3<sup>rd</sup> Graders Overweight or Obese**

### ***What is the data source for this indicator?***

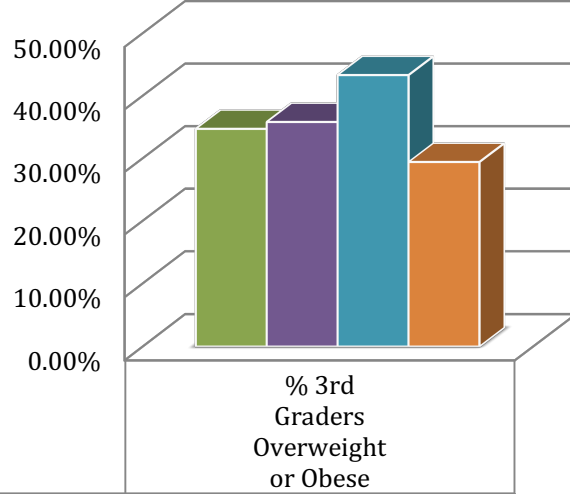
“Percentage of 3<sup>rd</sup> Graders Overweight or Obese” refers to 3<sup>rd</sup> grade children who fall between the 85th and 95th percentile (overweight), or above the 95th percentile (obese), with respect to their weight. The most recent data (2010) is utilized here, which is provided by the Ohio Department of Health, reported by the Ohio Children’s Defense Fund, and is available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org). Child obesity was also identified as a significant health concern by members of the Akron Children’s Hospital Community Benefit Steering Committee in March 2016 and by a representative panel of community leaders at Akron Children’s Hospital in February 2016.

### ***How does our community rank?***

The “Percentage of 3<sup>rd</sup> Graders Overweight or Obese” in Mahoning County was greater than the state and two of the three comparison county percentages, respectively, while lower than one comparison county percentage. The “Percentage of 3<sup>rd</sup> Graders Overweight or Obese” in Trumbull County was greater than the state and both comparison county percentages, respectively. The “Percentage of 3<sup>rd</sup> Graders Overweight or Obese” in Columbiana County was higher than the state and one comparison county. A Healthy People 2020 goal and national percentage were not available.



**Columbiana County  
Percentage of 3rd Graders  
Overweight or Obese**



■ Ohio	34.70%
■ Columbiana	35.80%
■ Trumbull	43.30%
■ Richland	29.40%

## **Chronic Disease**

Chronic diseases are a type of disease that a person can live with for a prolonged period of time, and sometimes indefinitely. Those with a chronic disease usually need to see their doctors on a regular basis in order to monitor the disease progression and receive treatment. Indicators included data that were provided by, and included at the request of, the participating hospital system. They are not consistent with the rest of the epidemiological data presented in this appendix, as they lack Healthy People 2020, national, and state data, and did not meet the methodological criteria for identification as a significant health need.

The chronic diseases identified as significant health needs in the Akron Children's Hospital Mahoning Valley service area are:

- Asthma
- Diabetes

### **Percentage of Children with Asthma**

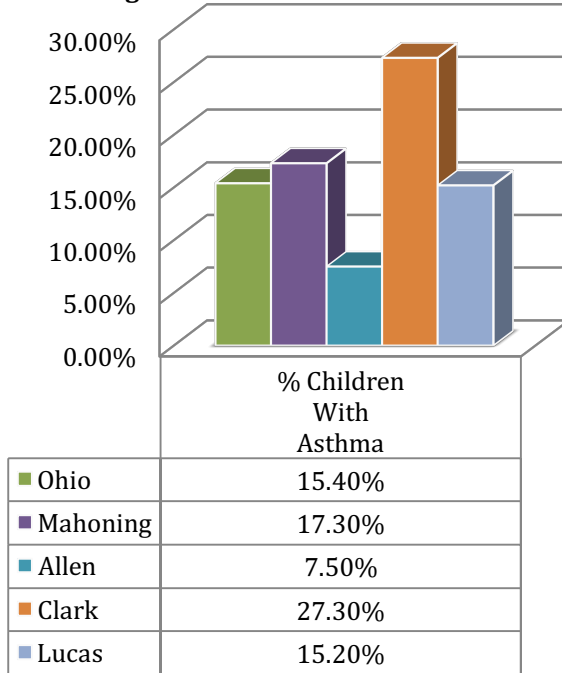
#### ***What is the data source for this indicator?***

“Percentage of Children with Asthma” refers to the number of children whom have been diagnosed with asthma. The most recent data (2008) is utilized here, which is provided by the Ohio Department of Health, and is available at [www.networkofcare.org](http://www.networkofcare.org). Child asthma was also identified as a significant health issue at a focus group discussion held with members of the Akron Children’s Hospital Community Benefit Steering Committee in March 2016.

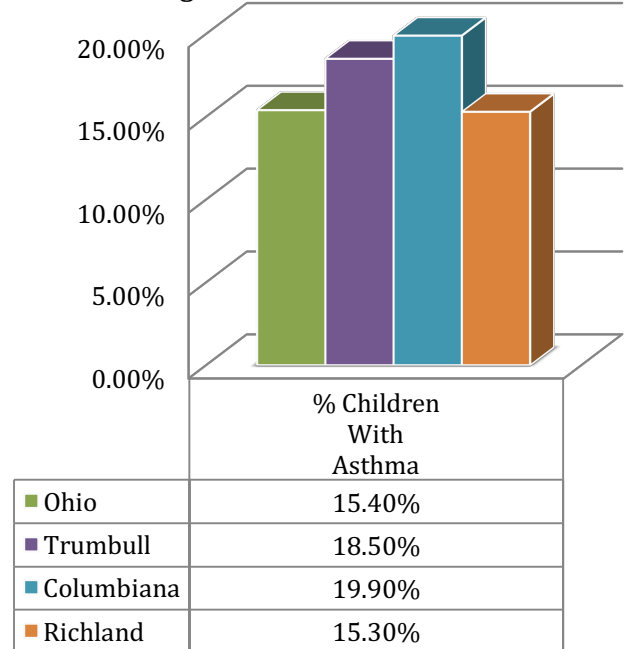
#### ***How does our community rank?***

The “Percentage of Children with Asthma” in Mahoning County was greater than the state percentage, as well as two comparison counties, and less than one comparison county percentage. The “Percentage of Children with Asthma” in Columbiana County was greater the state and both comparison county percentages, respectively. The “Percentage of Children with Asthma” in Trumbull County did not meet the methodological criteria for identification as a significant health need, although higher than the state and one comparison county. A Healthy People 2020 goal and national percentage were not available.

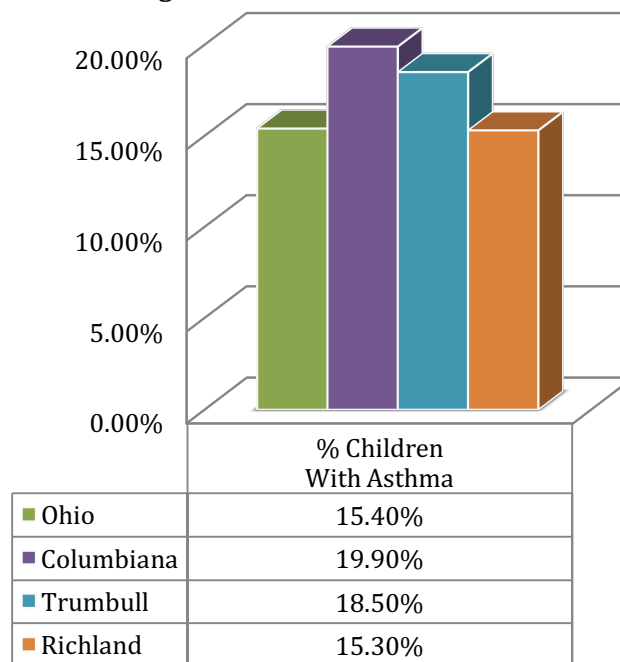
**Mahoning County**  
**Percentage of Children with Asthma**



**Trumbull County**  
**Percentage of Children with Asthma**



**Columbiana County**  
**Percentage of Children with Asthma**





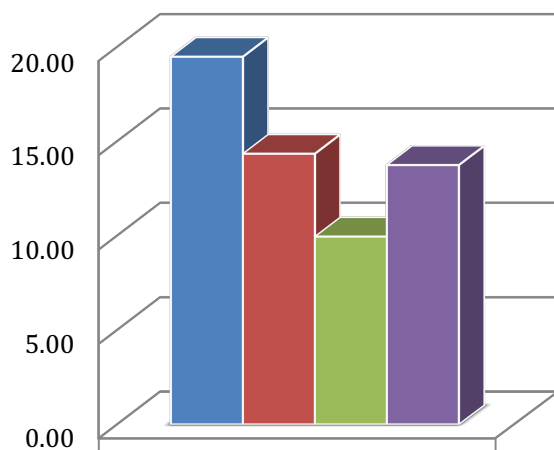
### **Asthma Rate among Children 0 to 18 Years**

“Asthma Rate among Children 0 to 18 Years” refers to the rate of asthma among children, ages 0 to 18 years, at a rate of per 1,000 children. The most recent data (2013) is utilized here, which was provided by the Ohio Hospital Association, and is not consistent with the rest of the epidemiological data presented in this appendix People 2020, national, and state data. Child asthma was also identified as a significant health issue at a focus group discussion held with members of the Akron Children’s Hospital Community Benefit Steering Committee in March 2016.

#### ***How does our community rank?***

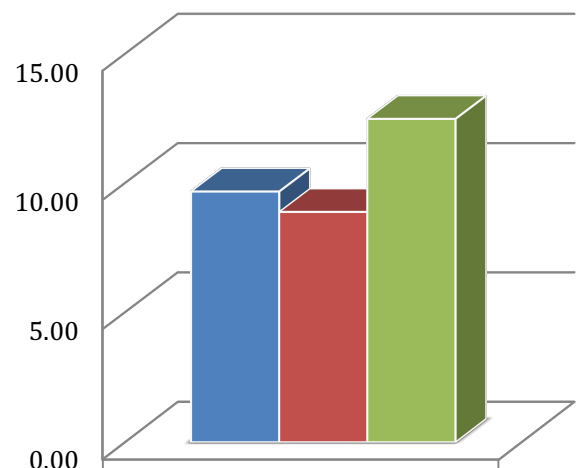
In Mahoning County the “Asthma Rate among Children 0 to 18 Years” was higher than in the three comparison counties shown. In Columbiana County the “Asthma Rate among Children 0 to 18 Years” is higher than two comparison counties. In Trumbull County the “Asthma Rate among Children 0 to 18 Years” is higher than one comparison county. In addition, asthma was identified by community leaders in all three counties as a significant health problem.

**Mahoning County**  
**Asthma Rate Among Children 0 to 18**  
**(per 1,000)**



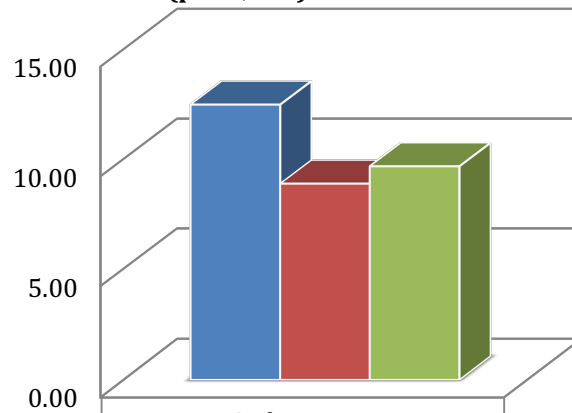
Asthma Rate Among Children 0-18 2013	
■ Mahoning	19.48
■ Allen	14.34
■ Clark	9.95
■ Lucas	13.74

**Trumbull County**  
**Asthma Rate Among Children 0 to 18**  
**(per 1,000)**



Asthma Rate Among Children 0-18 2013	
■ Trumbull	9.67
■ Richland	8.88
■ Columbiana	12.48

**Columbiana County  
Asthma Rate Among Children 0 to 18  
(per 1,000)**



Asthma Rate Among Children 0-18 2013	
■ Columbiana	12.48
■ Richland	8.88
■ Trumbull	9.67

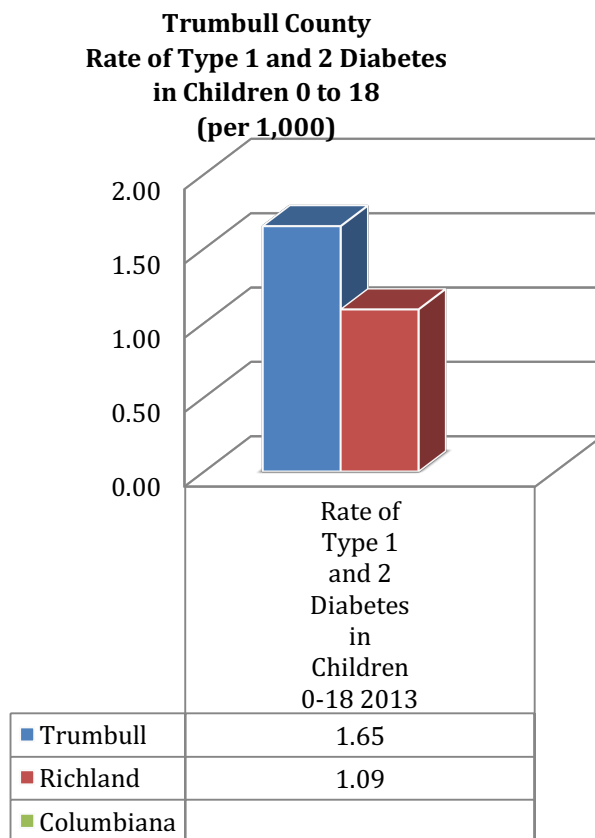
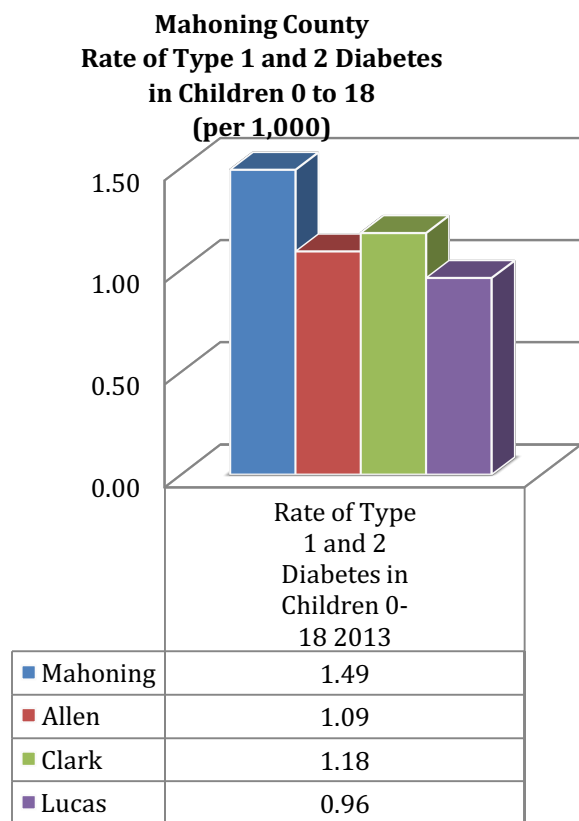
## **Rate of Type 1 and 2 Diabetes in Children 0 to 18 Years**

### ***What is the data source for this indicator?***

“Rate of Type I and II Diabetes in Children 0 to 18 Years” is defined as the rate of type 1 and 2 diabetes in per 1,000 children, ages 0 to 18 years. The most recent data (2013) is utilized here, which is provided by the Ohio Hospital Association, and is not consistent with the rest of the epidemiological data presented in this appendix, as it lacks Healthy People 2020, national, and state data. Childhood diabetes was also identified as a significant health concern by members of the Akron Children’s Hospital Community Benefit Steering Committee in March 2016 and by a representative panel of community leaders at Akron Children’s Hospital in February 2016.

### ***How does our community rank?***

The “Rate of Type I and II Diabetes in Children 0 to 18 Years” was highest in Trumbull County, followed by Mahoning County. Data was not available for Columbiana County.



## **Crime and Violence**

The rate of childhood abuse and neglect in the United States is a staggering 1 in 4 (HHS 2016), the rate of which is often thought under-reported due to the nature of the abuse. Moreover, the physical and psychological repercussions of this abuse is wide-reaching, which is associated with improper brain development, poor cognitive, social skills, and language development, cerebral palsy, anxiety, blindness, cardiovascular disease, obesity, cancer, high blood pressure, high cholesterol, and substance use (CDC 2016). The rate of teen felonies is also a concern, as those adolescents that come in contact with the juvenile justice system are increasingly at risk for substance abuse, early pregnancy, dropping out of schooling (Nellis 2012).

The Crime and Violence issues identified as significant health needs in the Akron Children's Hospital Mahoning Valley service area are:

- Child Abuse and Neglect
- Child Trafficking
- Teen Felony Rate

### **Child Abuse and Neglect**

The most recent data (2013) provided by the Ohio Department of Job and Family Services (available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org)) was reviewed, however, no epidemiological data were available to compare the Hospital's service counties against, this area was specifically probed in the community leader interviews and focus groups. Child neglect related to parental heroin and opioid use was identified as a significant health problem in all three of the Akron Children's Hospital Mahoning Valley service counties. Focus group participants in Columbiana, Trumbull and Mahoning counties also identified child abuse and neglect as a very significant health concern.

### **Child Trafficking**

Human trafficking is a form of modern day slavery where people profit from the control and exploitation of others. The Governor's Ohio Human Trafficking Task Force Report of July 2015 documented that more than 1,000 Ohio children are estimated to be trafficked every year in the sex trade, while an additional 3,000 more Ohio children are at risk of becoming victims. In 2014, the Ohio Attorney General's Office reported 22,650 missing persons, with 18,097 of them being missing and runaway youth. Between July 2013 and April 2015, the Ohio Network of Children's Advocacy Centers identified 135 cases of minor and young adult victims of trafficking. The majority of victims were females between the ages of 13-18, twenty victims were under the age of 13.3. While no epidemiological data were available to measure this indicator, community leaders interviewed in Trumbull County identified child trafficking as a problem as did focus group participants in both Trumbull and Columbiana counties.

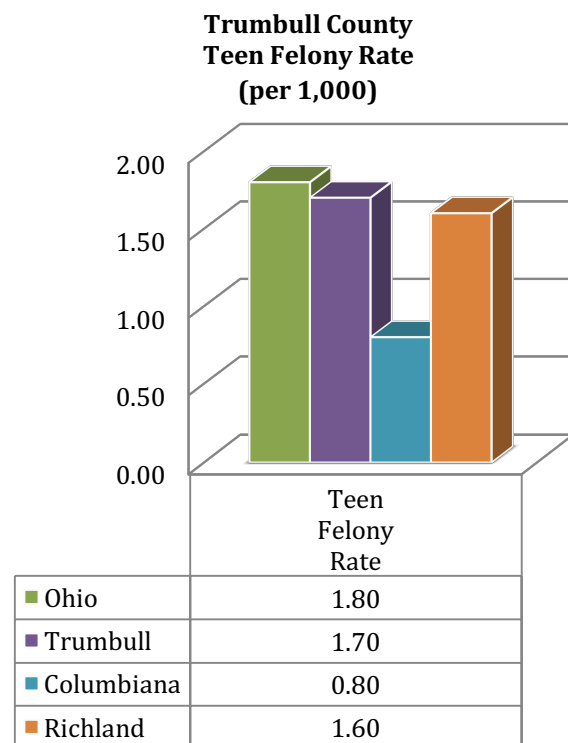
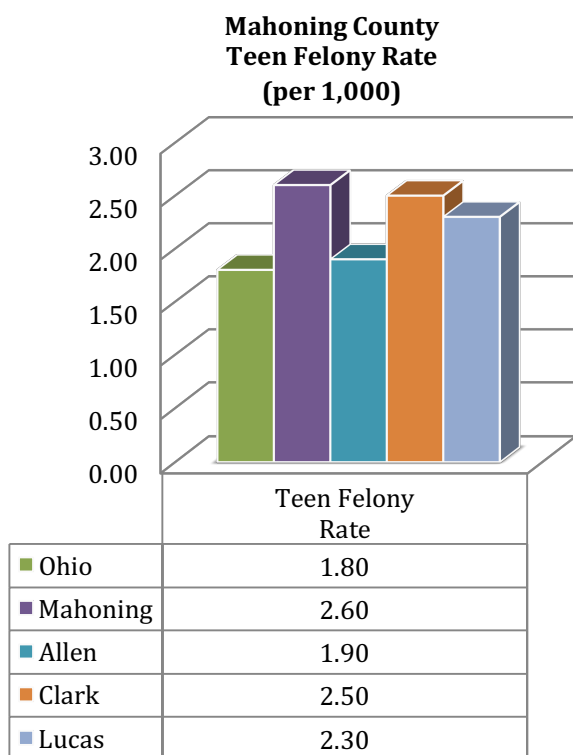
## **Teen Felony Rate**

### ***What is the data source for this indicator?***

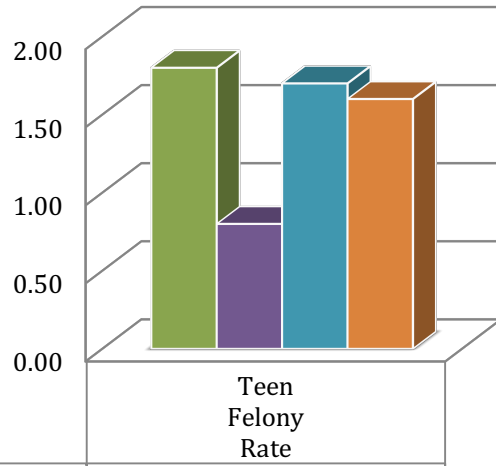
“Teen Felony Rate” refers to the rate of which youths, under the age of 18, have been adjudicated for felony-level offenses; the rate is the number of adjudications per 1,000 youths in the population. The most recent data (2013) is utilized here, which is provided by the Ohio Department of Youth Service’s Profile of Youth Adjudicated or Committed for Felony Offenses: Fiscal Year 2015, is reported by the Ohio Children’s Defense Fund, and is available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org). Focus group participants in Mahoning County identified teen crime as a serious problem in the community.

### ***How does our community rank?***

The “Teen Felony Rate” in Mahoning County was greater than the state rate, as well as all three comparison county rates. The “Teen Felony Rate” in Trumbull and Columbiana County did not meet the methodological criteria for identification as a significant health need. A Healthy People 2020 goal and national rate were not available.



**Columbiana County  
Teen Felony Rate  
(per 1,000)**



■ Ohio	1.80
■ Columbiana	0.80
■ Trumbull	1.70
■ Richland	1.60

## **Environmental Factors**

Environmental risk factors are a broad category of external conditions that can negatively affect health outcomes. These include air and water quality, presence of toxic substances, public health infrastructure, and community assets and deficits. They are especially important for children, since they can have a lasting impact on healthy physical and mental development.

The environmental factors identified as significant health needs in the Akron Children's Hospital Mahoning Valley service area are:

- Elevated Blood Levels

### **Percentage of Children with Elevated Blood Lead Levels**

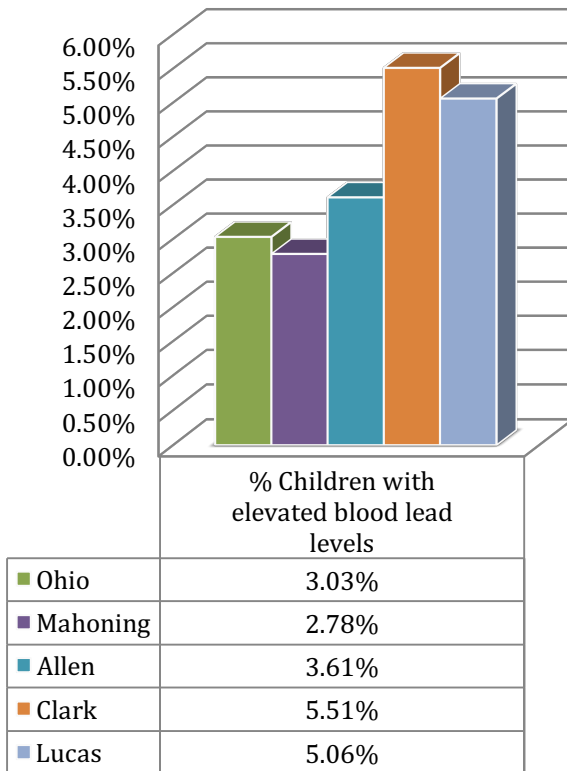
#### ***What is the data source for this indicator?***

"Percentage of Children with Elevated Blood Lead Levels" refers to the percentage of children who were screened, and subsequently tested positive, for elevated blood lead levels. The most recent data (2015) is utilized here, which is provided by the Ohio Department of Health, is available at [www.odh.ohio.gov](http://www.odh.ohio.gov). Lead poisoning was also identified as a significant health concern by members of the Akron Children's Hospital Community Benefit Steering Committee in March 2016 and by community leaders interviewed in Trumbull County.

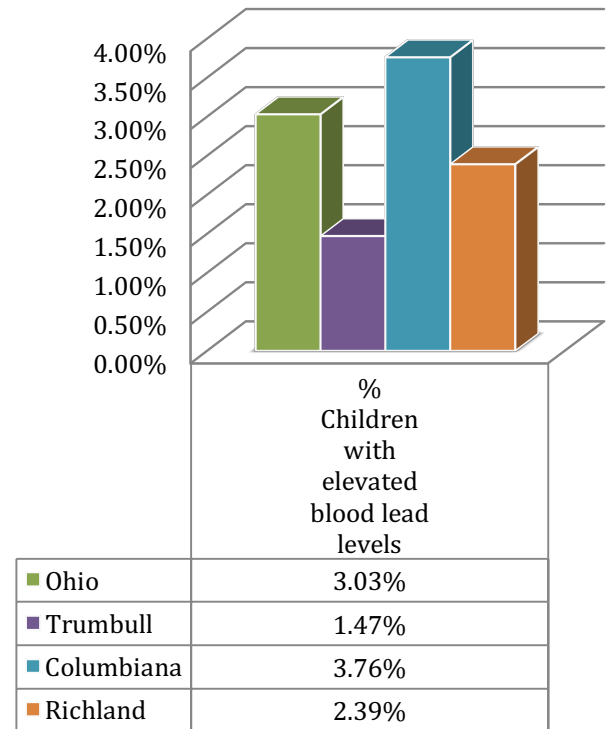
#### ***How does our community rank?***

The "Percentage of Children with Elevated Blood Lead Levels" in Columbiana County was greater than the state percentage, as well as both comparison county percentages. The "Percentage of Children with Elevated Blood Lead Levels" in Mahoning and Trumbull did not meet the methodological criteria for identification as a significant health need. A Healthy People 2020 goal and national percentage were not available.

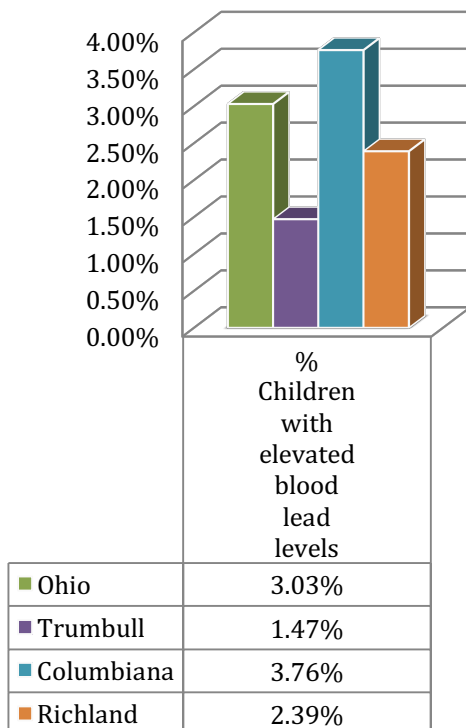
**Mahoning County  
Percentage of Children  
with Elevated Blood Lead Levels**



**Trumbull County  
Percentage of Children  
with Elevated Blood Lead Levels**



**Columbiana County  
Percentage of Children  
with Elevated Blood Lead Levels**





## Injury

Unintentional injuries comprise an increasingly large yearly percentage of mortality and morbidity events here in the United States. On average 12,175 children 0 – 19 years of age died each year in the United States from an unintentional injury (CDC 2016).

The injuries identified as significant health needs in the Akron Children's Hospital Mahoning Valley service area are:

- Falls
- Motor vehicle crashes

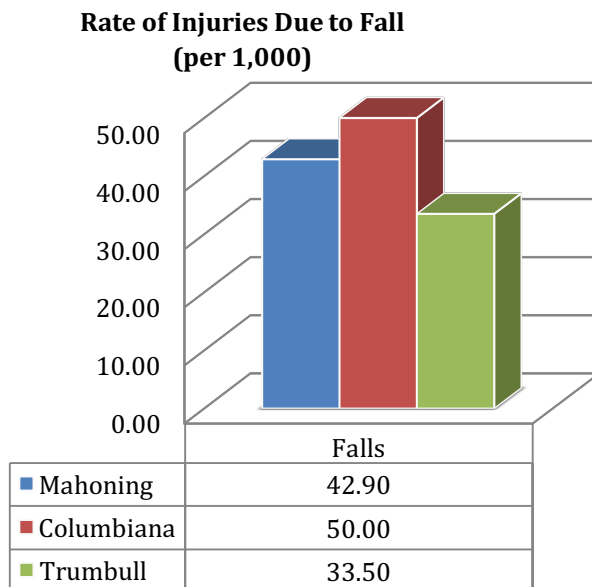
### Fall-related Injury Rate

#### ***What is the data source for this indicator?***

“Rate of Injuries Due to Fall” is the rate of injuries due to fall per 1,000 children living in the respective county. The following data was provided by the Ohio Hospital Association and Akron Children’s Hospital, and is not consistent with the rest of the epidemiological data presented in this appendix, as it lacks Healthy People 2020, national, and state data, and did not meet the methodological criteria for identification as a significant health need. Fall-related injuries was identified as a significant health issue by the Akron Children’s Hospital internal team of medical leaders and hospital administrators in their service area.

#### ***How does our community rank?***

The “Rate of Injuries Due to Fall” was the highest in Columbiana County, followed by Mahoning County, and Trumbull County.



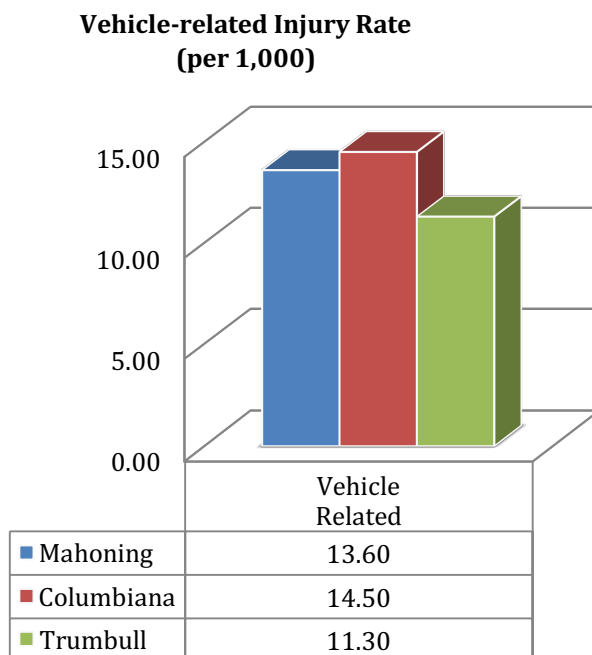
## **Vehicle-related Injury Rate**

### ***What is the data source for this indicator?***

“Vehicle-related Injury Rate” refers to injury brought forth by a vehicle-related injury, and is presented as a rate per 1,000 children in the respective county. The following data was provided by the Ohio Hospital Association and Akron Children’s Hospital, and is not consistent with the rest of the epidemiological data presented in this appendix, as it lacks Healthy People 2020, national, and state data, and did not meet the methodological criteria for identification as a significant health need. Community leaders interviewed in Columbiana County identified traffic-related deaths as a significant health problem for children. Vehicle-related injuries were identified as a significant health issue by the Akron Children’s Hospital internal team of medical leaders and hospital administrators in their service area.

### ***How does our community rank?***

The “Vehicle-related Injury Rate” was highest in Columbiana County, followed by Mahoning County, and Trumbull County.



## **Maternal and Infant Health**

Maternal and infant health refers to a number of factors that affect pregnancy, delivery, and subsequent infant health. Pregnancy and childbirth impact the physical, mental, emotional, and socioeconomic health of the mother, as well as the immediate family (CDC 2016). Though typically attributed to less developed countries, disparities in maternal health, mortality, and morbidity still persist here in the United States (Agrawal 2015). As such, improving the health and well-being of mothers and infants is an important public health goal. Data provided here are not consistent with the rest of the epidemiological data presented in this appendix, as it lacks Healthy People 2020, national, and state data, and did not meet the methodological criteria for identification as a significant health need.

The Maternal and Infant Health issues identified as significant health needs in the Akron Children's Hospital Mahoning Valley service area are:

- Infant mortality
- Low birth weight
- Teen Pregnancy

### **Infant Mortality Rate, 2014**

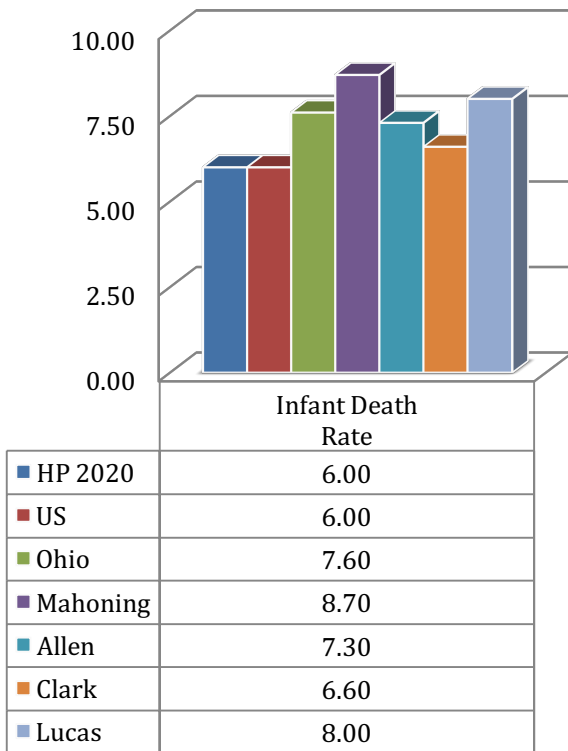
#### ***What is the data source for this indicator?***

“Infant Mortality Rate, 2005 - 2014” refers to the number of infants that die prior to their first birthday, per 1,000 live births; the following rate is then averaged over a given 10 year timespan. The most recent data (2005-2014) is utilized here, which is provided by the Ohio Department of Health, and is available at [www.odh.ohio.gov](http://www.odh.ohio.gov).

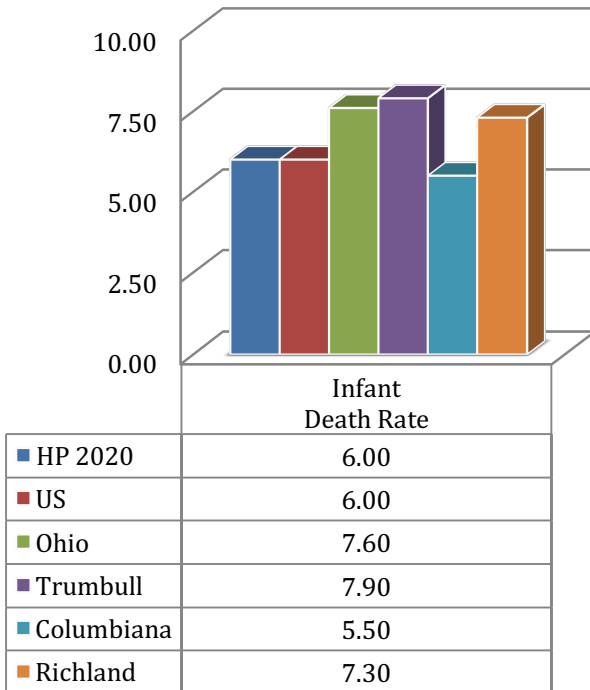
#### ***How does our community rank?***

The “Infant Mortality Rate, 2005 - 2014” in Mahoning County was greater than the Healthy People 2020 goal, as well as the national, state, and all three comparison county rates, respectively. The “Infant Death Rate” in Trumbull County was greater than the Healthy People 2020 goal, as well as the national, state, and both comparison county rates, respectively. The “Infant Mortality Rate” in Columbiana County did not meet the methodological criteria for identification as a significant health need. Infant mortality was identified as a serious health issue by community leaders in Mahoning and Trumbull counties and by focus group participants in those same two counties. Infant mortality was also identified as a significant health concern by members of the Akron Children’s Hospital Community Benefit Steering Committee in March 2016 and by a representative panel of community leaders at Akron Children’s Hospital in February 2016.

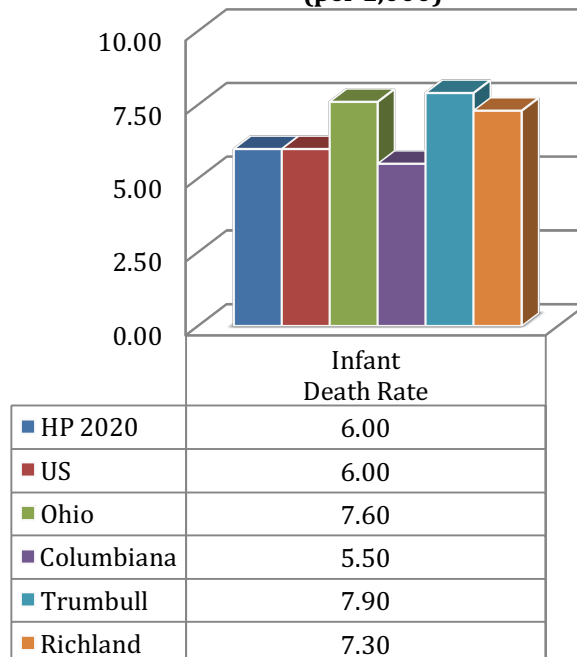
**Mahoning County  
Infant Mortality Rate  
(per 1,000)**



**Trumbull County  
Infant Mortality Rate  
(per 1,000)**



**Columbiana County  
Infant Mortality Rate  
(per 1,000)**



## Neonatal Death Rate 0 to 28 Days

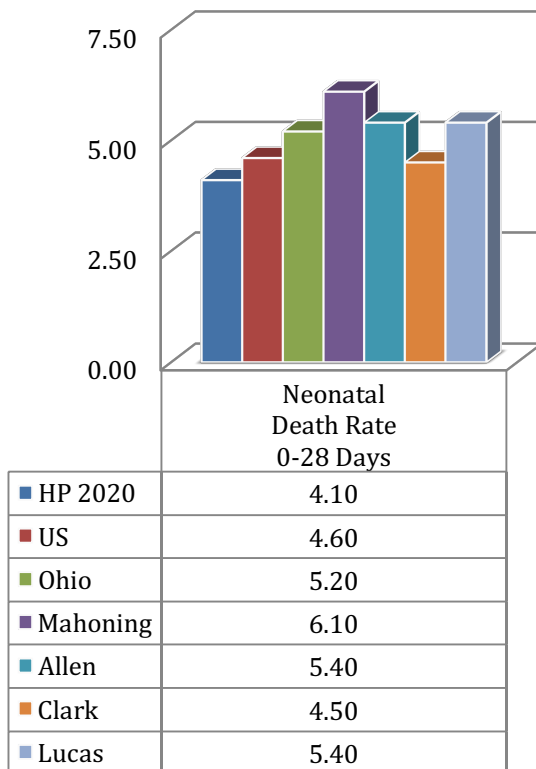
### What is the data source for this indicator?

“Neonatal Death Rate 0 to 28 Days” is the number of infants that die between their birth and 28<sup>th</sup> day of life, the rate of which is per 1,000 live births. The most recent data (2014) is utilized, which is sourced from death certificates provided by the Ohio Department of Health via the Office of Vital Statistics, and is available at [www.networkofcare.org](http://www.networkofcare.org).

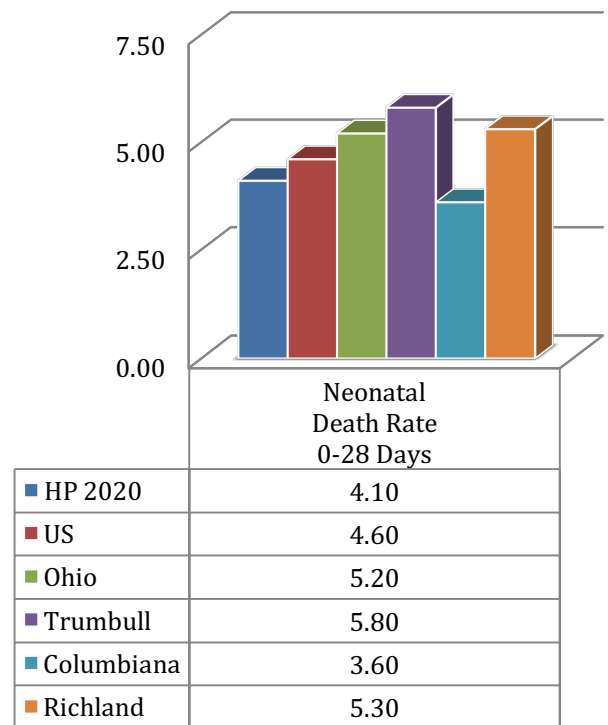
### How does our community rank?

The “Neonatal Death Rate 0 to 28 Days” in Trumbull County was greater than the Healthy People 2020 goal, as well as the national, state, and both comparison county rates, respectively. The “Neonatal Death Rate 0 to 28 Days” in Mahoning County is higher than the state, the nation, Healthy People 2020 and three comparison counties. Columbiana County did not meet the methodological criteria for identification as a significant health need.

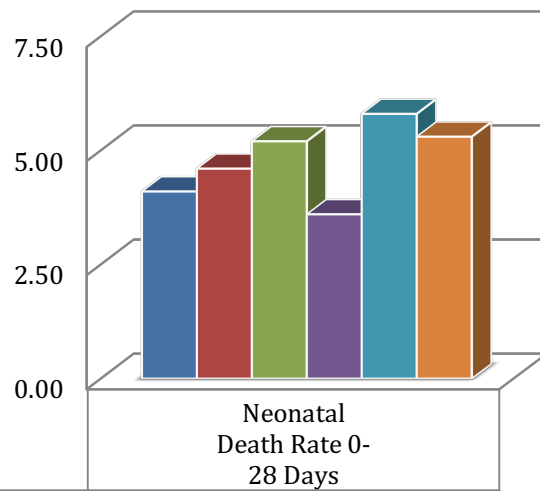
**Mahoning County  
Neonatal Death Rate 0 to 28 Days  
(per 1,000)**



**Trumbull County  
Neonatal Death Rate 0 to 28 Days  
(per 1,000)**



**Columbiana County  
Neonatal Death Rate 0 to 28 Days  
(per 1,000)**



■ HP 2020	4.10
■ US	4.60
■ Ohio	5.20
■ Columbiana	3.60
■ Trumbull	5.80
■ Richland	5.30

## **Postneonatal Death Rate 28 to 364 Days**

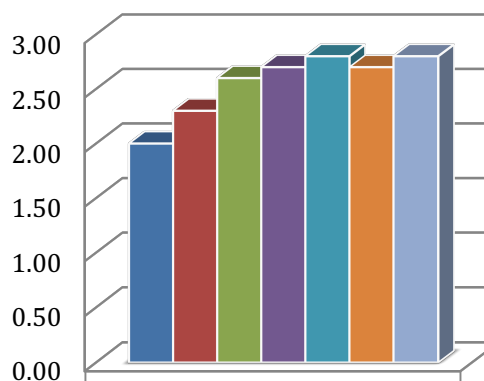
### ***What is the data source for this indicator?***

“Postneonatal Death Rate 28 to 364 Days” is the number of infants that die between their 28<sup>th</sup> and 364<sup>th</sup> day of life, the rate of which is per 1,000 live births. The most recent data (2014) is utilized, which is sourced from death certificates provided by the Ohio Department of Health via the Office of Vital Statistics, and is available at [www.networkofcare.org](http://www.networkofcare.org).

### ***How does our community rank?***

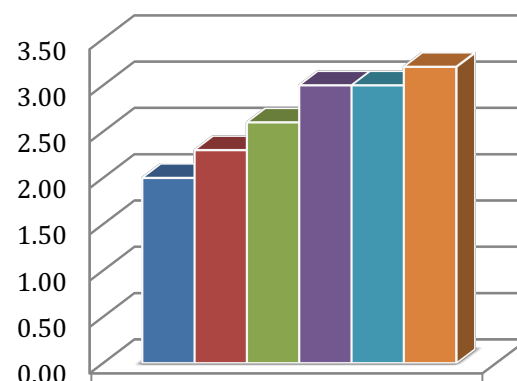
The “Postneonatal Death Rate 28 to 364 Days” in Mahoning, and Trumbull counties was greater than the Healthy People 2020 goal, as well as the national and state rates. In Columbiana County the “Postneonatal Death Rate 28 to 364 Days” was higher than the state, nation and Healthy People 2020 goal.

**Mahoning County**  
**Postneonatal Death Rate 28 to 364 Days**  
**(per 1,000)**



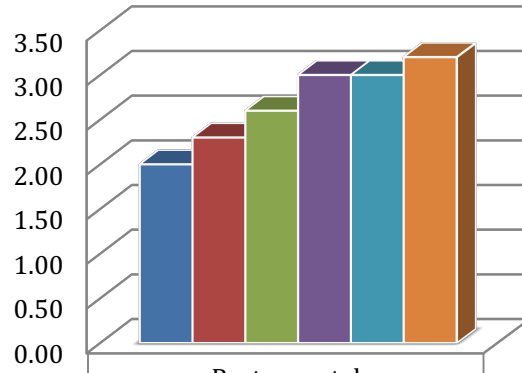
■ HP 2020	2.00
■ US	2.30
■ Ohio	2.60
■ Mahoning	2.70
■ Allen	2.80
■ Clark	2.70
■ Lucas	2.80

**Trumbull County**  
**Postneonatal Death Rate 28 to 364 Days**  
**(per 1,000)**



■ HP 2020	2.00
■ US	2.30
■ Ohio	2.60
■ Trumbull	3.00
■ Columbiana	3.00
■ Richland	3.20

**Columbiana County  
Postneonatal Death Rate 28 to 364 Days  
(per 1,000)**



	Postneonatal Death Rate 28-364 Days
■ HP 2020	2.00
■ US	2.30
■ Ohio	2.60
■ Columbiana	3.00
■ Trumbull	3.00
■ Richland	3.20



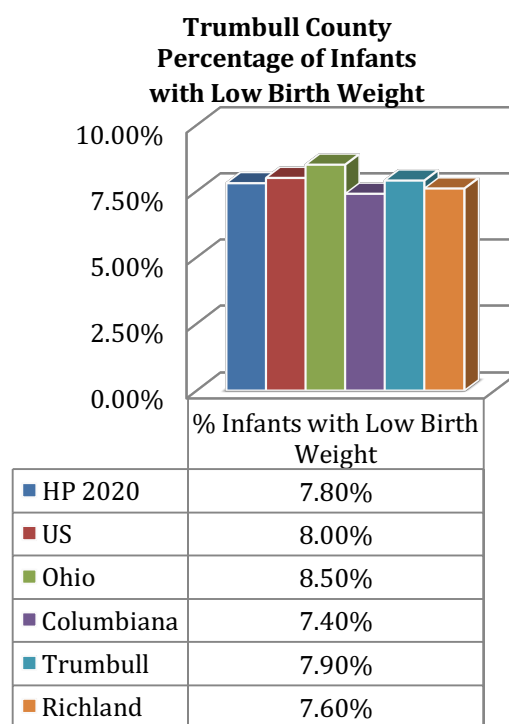
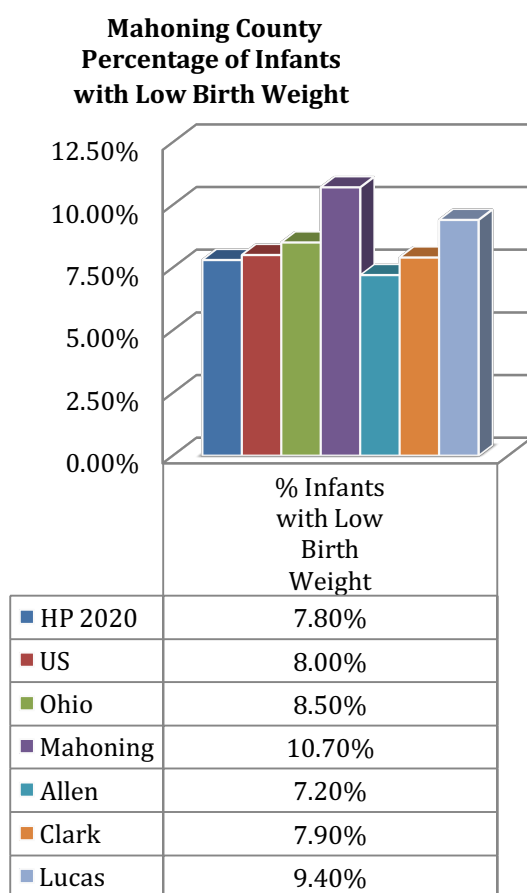
## **Percentage of Infants with Low Birth Weight**

### ***What is the data source for this indicator?***

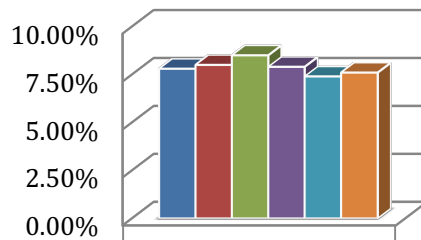
“Percentage of Infants with Low Birth Weight” is defined as the percentage of those born below 5 pounds 8 ounces. The most recent data (2013) is utilized here, which is collected by the Ohio Department of Health’s Center for Vital and Health Statistics, provided by Ohio’s Children Defense Fund, and is available at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org).

### ***How does our community rank?***

The “Percentage of Infants with Low Birth Weight” in Mahoning County was greater than the Healthy People 2020 goal, as well as the national, state, and all three comparison county percentages, respectively. The “Percentage of Infants with Low Birth Weight” in Trumbull County was greater than the Healthy People 2020 goal, in addition to both comparison county percentages. The “Percentage of Infants with Low Birth Weight” in Columbiana County did not meet the methodological criteria for identification as a significant health need.



**Columbiana County  
Percentage of Infants  
with Low Birth Weight**



	% Infants with Low Birth Weight
■ HP 2020	7.80%
■ US	8.00%
■ Ohio	8.50%
■ Trumbull	7.90%
■ Columbiana	7.40%
■ Richland	7.60%

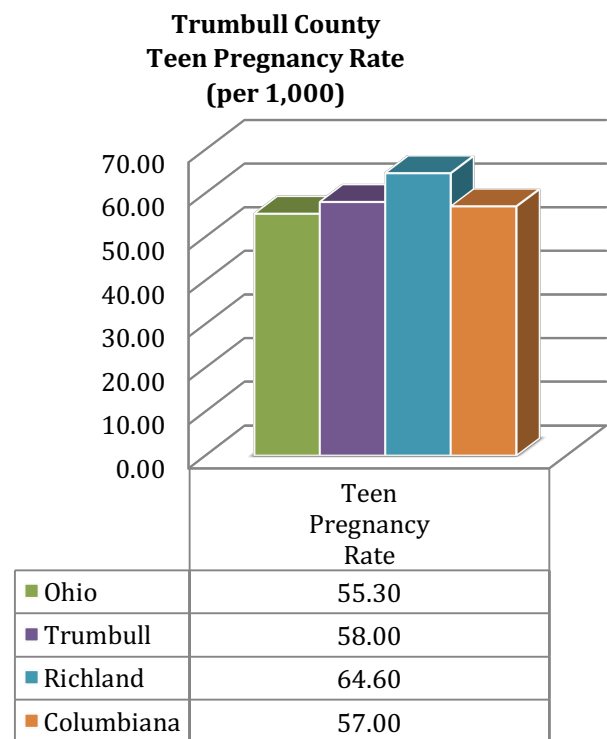
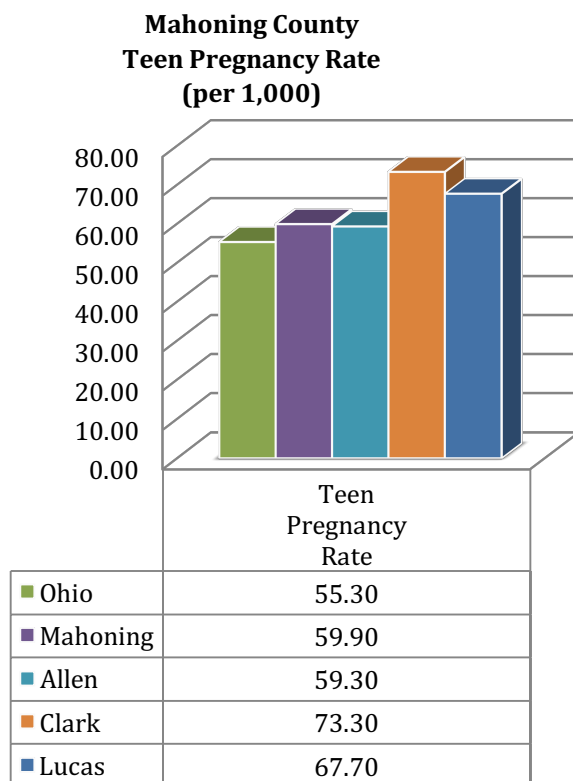
## Teen Pregnancy Rate

### What is the data source for this indicator?

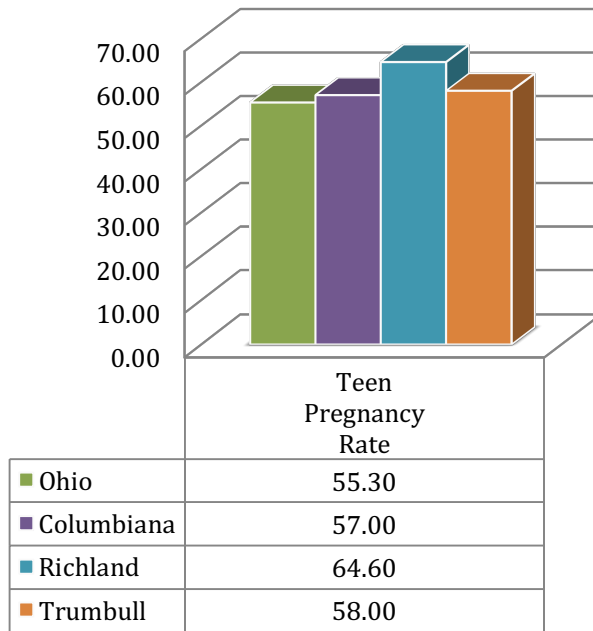
The “Teen Pregnancy Rate” is the number of pregnancies aged 15-19, including live births, induced abortions and estimated miscarriages per 1,000 females. The most recent data (2010) is utilized here, which is provided by the County Health Rankings at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org).

### How does our community rank?

The “Teen Pregnancy Rate” in Mahoning and Trumbull counties is higher than the state rate and one comparison county, respectively. The “Teen Pregnancy Rate” in Columbiana County is higher than the state rate. While the benchmark comparisons did not identify this as a significant health need, hospital staff and clinicians identified teen pregnancy as a health need in the hospital service area.



**Columbiana County  
Teen Pregnancy Rate  
(per 1,000)**



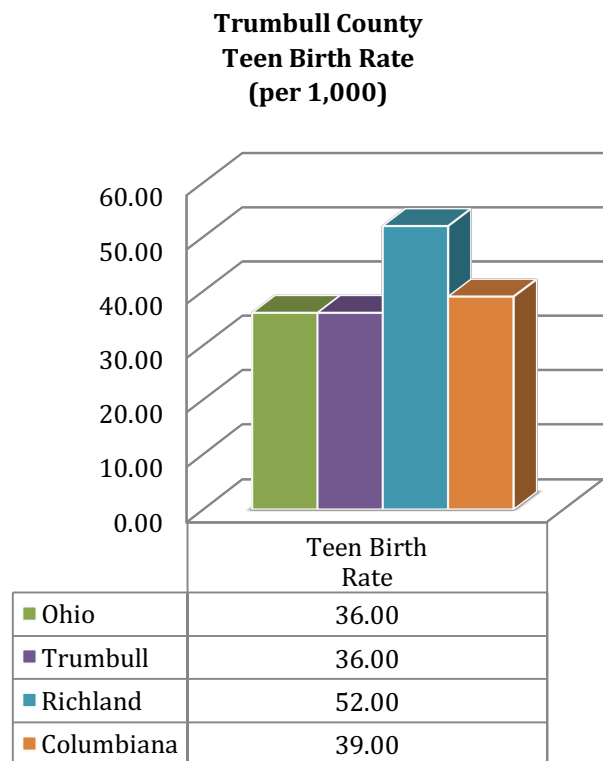
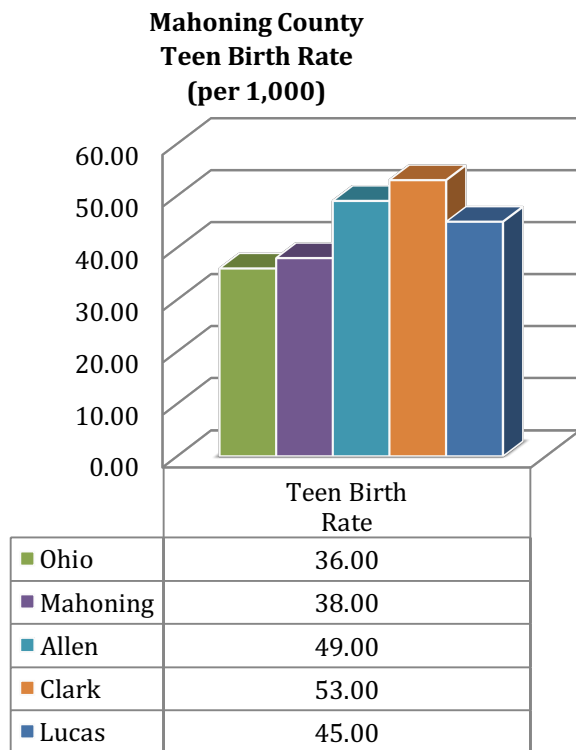
## Teen Birth Rate

### What is the data source for this indicator?

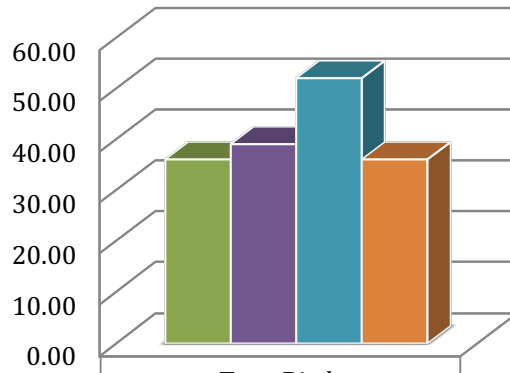
The “Teen Birth Rate” is the number of live births per 1,000 females aged 15-19. The most recent data (2010) is utilized here, which is provided by the County Health Rankings at [www.datacenter.kidscount.org](http://www.datacenter.kidscount.org).

### How does our community rank?

The “Teen Birth Rate” is highest in Columbiana and Mahoning counties which both exceed the State of Ohio rate of 36.0 per 1,000. Trumbull County has the same rate as Ohio. While teen birth rates have been falling across the nation in recent years, the National campaign to Prevent Teen and Unwanted Pregnancy reported that in 2014 Ohio ranked only 28<sup>th</sup> best in preventing teen births among the states. Information can be found at: <https://thenationalcampaign.org/data/landing>. While the benchmark comparisons did not identify this as a significant health need, hospital staff and clinicians identified Teen Pregnancy as a health need in the hospital service area.



**Columbiana County  
Teen Birth Rate  
(per 1,000)**



	Teen Birth Rate
■ Ohio	36.00
■ Columbiana	39.00
■ Richland	52.00
■ Trumbull	36.00

## **Mental Health**

Mental health pertains to mental function and performance, in addition to the level of which an individual can participate in activities, share fulfilling relationships with others, adapt to change, and deal with adversity. According to the World Health Organization, mental health can be described as “the state of well-being in which the individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to his or her community” (WHO 2001). Diminished mental health is associated with poor health outcomes and reduced quality of life (Naylor et al. 2012).

The Mental Health issues identified as significant health needs in the Akron Children's Hospital Mahoning Valley service area are:

- ADHD/Autism
- Geographic access to services
- Self-Harm/Teen Suicide

### **Rate of Mental Health Problems Ages 0 to 18 Years**

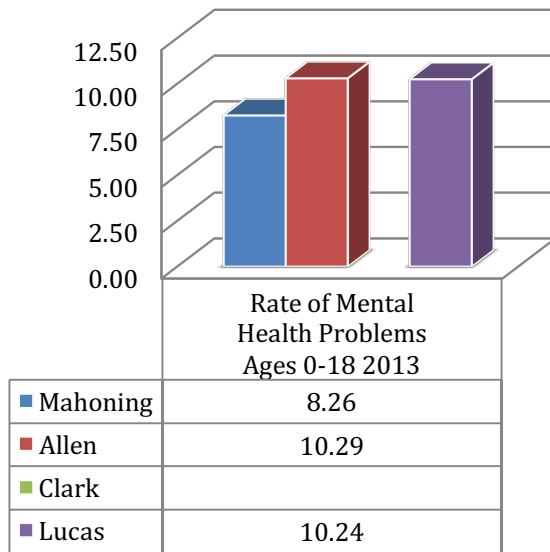
#### ***What is the data source for this indicator?***

“Rate of Mental Health Problems Ages 0 to 18 Years” refers to the rate of mental health problems in children, ages 0 to 18 years, per 1,000 children. The most recent data (2013) is utilized here, which is provided by the Ohio Hospital Association, and is not consistent with the rest of the epidemiological data presented in this appendix, as it lacks Healthy People 2020, national, and state data, and did not meet the methodological criteria for identification as a significant health need. Mental health was identified focus group participants as a significant child health issue by community leaders in all three counties in the hospital service area. It also was identified as a significant health concern by members of the Akron Children’s Hospital Community Benefit Steering Committee at a discussion in March 2016 and by a representative panel of community leaders at Akron Children’s Hospital in February 2016.

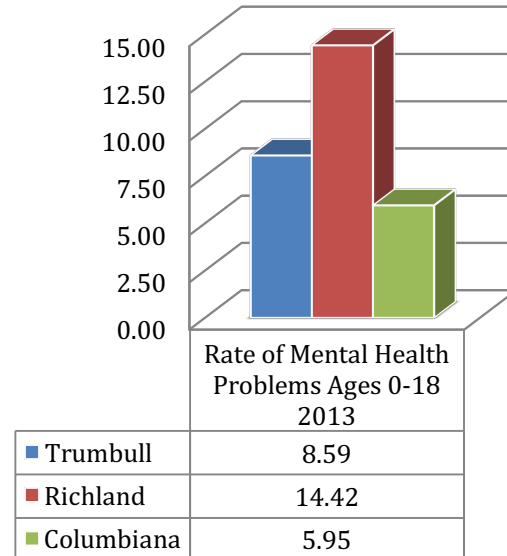
#### ***How does our community rank?***

The “Rate of Mental Health Problems Ages 0 to 18 Years” was highest in Trumbull County, followed by Mahoning and Columbiana counties, respectively.

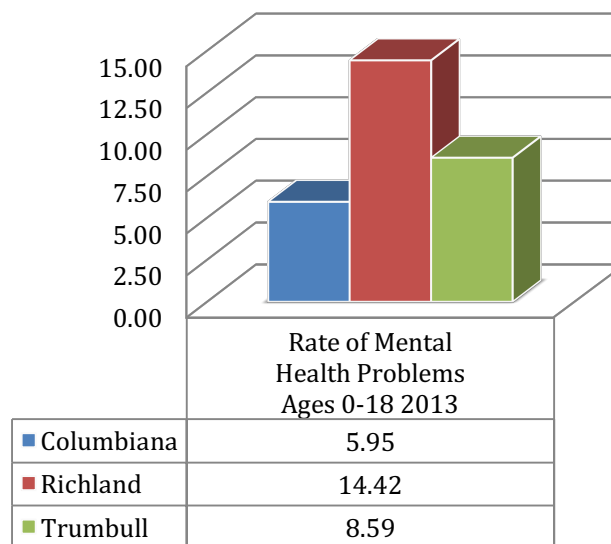
**Mahoning County Rate of Mental Health Problems Among Ages 0 to 18 (per 1,000)**



**Trumbull County Rate of Mental Health Problems Among Ages 0 to 18 (per 1,000)**



**Columbiana County Rate of Mental Health Problems Among Ages 0 to 18 (per 1,000)**





### **ADHD/Autism**

ADHD is a brain disorder marked by an ongoing pattern of inattention, hyperactivity, and sometimes impulsivity. ADHD begins in childhood and often lasts into adulthood. As many as 2 out of every 3 children with ADHD continue to have symptoms as adults (NIMH, 2016). Autism is a neurodevelopmental disorder characterized by impaired social interaction, verbal and non-verbal communication, and restricted and repetitive behavior. Symptoms often appear in the first two years of life. Epidemiological data were not available to compare the rates of ADHD or Autism in the Akron Children's Hospital Mahoning Valley service area counties to benchmark counties or to the state and nation. However, community leaders interviewed in Trumbull, Mahoning and Columbiana counties identified mental health and behavioral health as significant health concerns for youth in their regions. It was also identified by focus group participants throughout the three counties. Behavioral health, autism, ADHD and access to mental health services (e.g., need for child psychiatric services) were especially noted.

### **Geographic Access to Services**

Geographic access to services is defined as the ease or difficulty in seeking or attending health care services because of the patients' geographical residence or the geographical location or distribution of health care services. Frequently lack of access to reliable transportation limits patient's geographic access. This concept was not directly measured with epidemiological data. This was a significant health need identified by community leaders interviewed in every one of Akron Children's Hospital Mahoning Valley's service counties of Mahoning, Trumbull and Columbiana counties. Focus group participants in every one of those counties also identified geographic access problems as a serious health concern.

### **Self-Harm/Teen Suicide**

According to the Mayo Clinic, self-harm involves "deliberately harming the surface of your own body, such as cutting or burning yourself. It's typically not meant as a suicide attempt. Rather, this type of self-injury is an unhealthy way to cope with emotional pain, intense anger and frustration." Staff and clinicians from Akron Children's Mahoning Valley Hospital identified self-harm and teen suicide as significant health issues based on the frequency with which they address such cases.

## **Substance Abuse**

The main substance abuse issue identified as a significant health need in the Akron Children's Hospital Mahoning Valley service area is:

- Opioid/Heroin use and abuse
- Neonatal abstinence syndrome

### **Opioid /Heroin Use and Abuse**

Opioids are medications that relieve pain. They reduce the intensity of pain signals reaching the brain and affect those brain areas controlling emotion, which diminishes the effects of a painful stimulus. Medications that fall within this class include hydrocodone (e.g., Vicodin), oxycodone (e.g., OxyContin, Percocet), morphine (e.g., Kadian, Avinza), codeine, and related drugs. Longer term use or abuse of opioids can lead to physical dependence and, in some cases, addiction. (National Institute of Drug Abuse, 2014). The emergence of chemical tolerance toward prescribed opioids, perhaps combined with an increasing difficulty in obtaining these medications illegally, may in some instances explain the transition to abuse of heroin, which is cheaper and in some communities easier to obtain than prescription opioids. Heroin is also being mixed with other extremely dangerous drugs such as Fentanyl. The latest Ohio Department of Health *Ohio Drug Overdose Data at a Glance* documents that the number of unintended Fentanyl-related drug overdoses increased in Ohio from 75 in 2012 to 1155 in 2015, an explosive rate of growth. While epidemiological data were not available to measure Akron Children's Hospital Mahoning Valley counties against benchmark counties, the state and the nation on these indicators, community leaders interviewed in all three of the hospital's service counties identified this as a very significant health concern along with members of focus groups in all three counties. Alcohol abuse was also identified as a problem in all three counties as well.

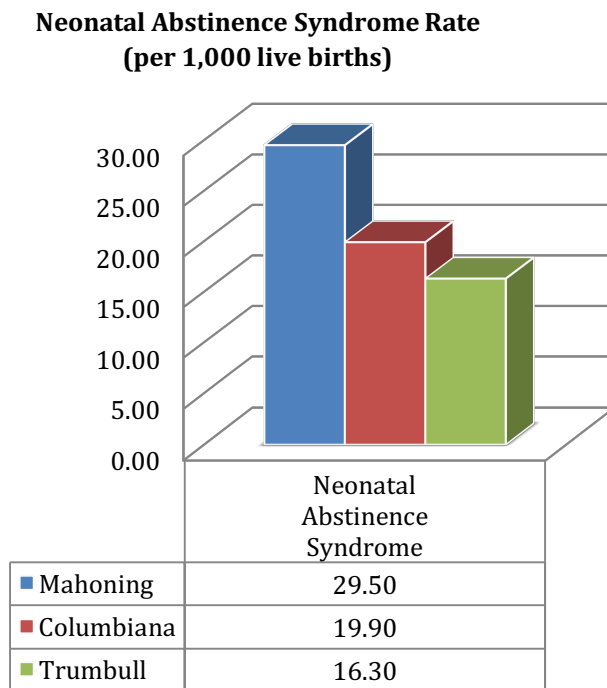
## **Neonatal Abstinence Syndrome Rate**

### ***What is the data source for this indicator?***

“Neonatal Abstinence Syndrome” refers to the rate of neonates that are born with illicit substance abstinence syndrome. Neonatal abstinence syndrome occurs when babies are born exposed to opiates and experience withdrawal symptoms. The following data was provided by the Ohio Hospital Association, is not consistent with the rest of the epidemiological data presented in this appendix, as it lacks Healthy People 2020, national, and state data, and did not meet the methodological criteria for identification as a significant health need. Community leaders interviewed in all three of the hospital’s service counties identified this as a very significant health concern.

### ***How does our community rank?***

The “Neonatal Abstinence Syndrome Rate” was the highest in Mahoning County, followed by Columbiana County, and Trumbull County.



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