



Burden of Asthma in Ohio 2019

Ohio | Department
of Health



**ASTHMA
PROGRAM**

Background

Asthma is the most common chronic disease in children, imposing a consistent burden on Ohio's healthcare system and a significant impact on overall health, quality of life, and healthcare costs. Common asthma symptoms include wheezing, coughing at night or early in the morning, chest tightness, and shortness of breath; resulting in fatigue and restrictions in performing daily activities.

The Ohio Department of Health Asthma Program (ODHAP) strives to share current and meaningful data to assist stakeholders with maximizing the reach, impact, efficiency, and sustainability of comprehensive asthma control services. Other asthma data is available upon request by emailing asthma@odh.ohio.gov or submitting a data request form found on our website.

1,000,000

Number of Ohioans living with
asthma.

190,000

Number of Ohio children under
the age of 18 with asthma.

129

Number of Ohio deaths due to
asthma in 2018.

Ohio Asthma Fast Facts

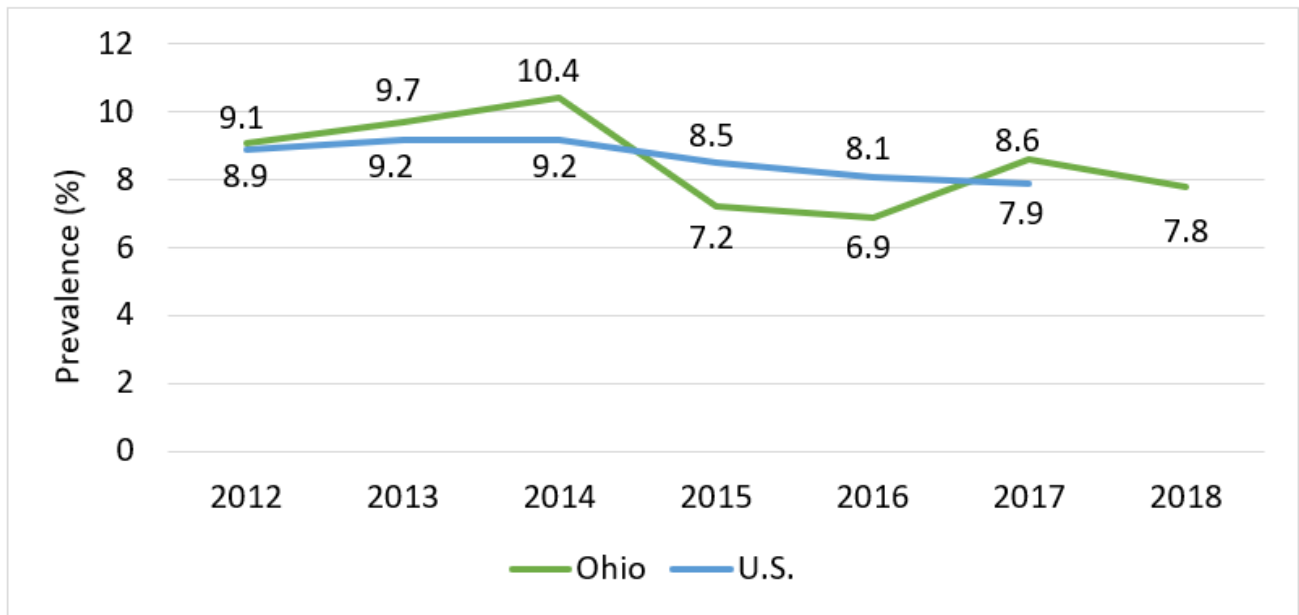
- There are more than 1 million Ohioans living with asthma.
- There are racial, educational, and economic disparities in asthma prevalence.
- Black children in Ohio visit the emergency room and hospital at a rate more than four times greater than that of white children.
- The rate of emergency department visits and hospitalizations is greatest among young children under the age of five, with a rate of 104.0 visits per 10,000 residents.
- In 2018, there were 129 deaths in Ohio due to asthma.

Prevalence of Asthma in Ohio and the U.S.

- Nearly 190,000 Ohio children under the age of 18 have asthma.
- 7.8% of children in Ohio currently have asthma.
- 9.5% of adults in Ohio currently have asthma.
- There is no significant change in child or adult asthma prevalence rates from 2012-2018.

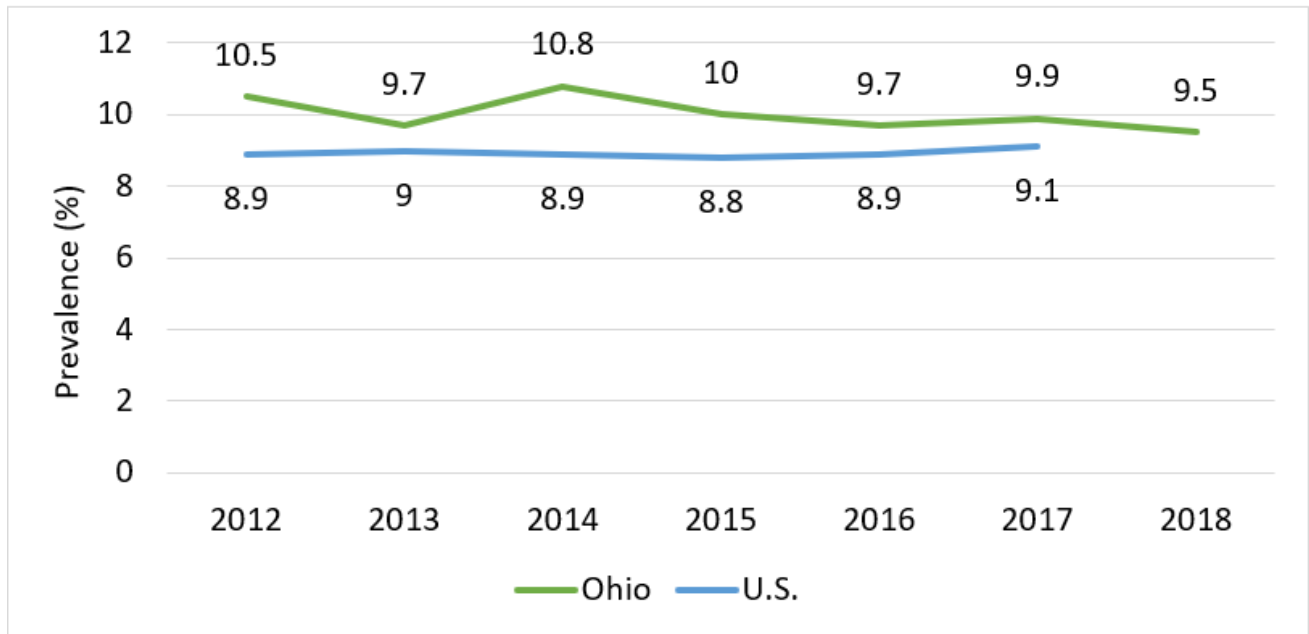
Prevalence of Asthma in Ohio and the U.S.

Figure 1. Asthma Prevalence Among Children in Ohio and the U.S., 2012-2018.



Sources: CDC, Behavioral Risk Factor Surveillance System Survey Data, 2012-2018

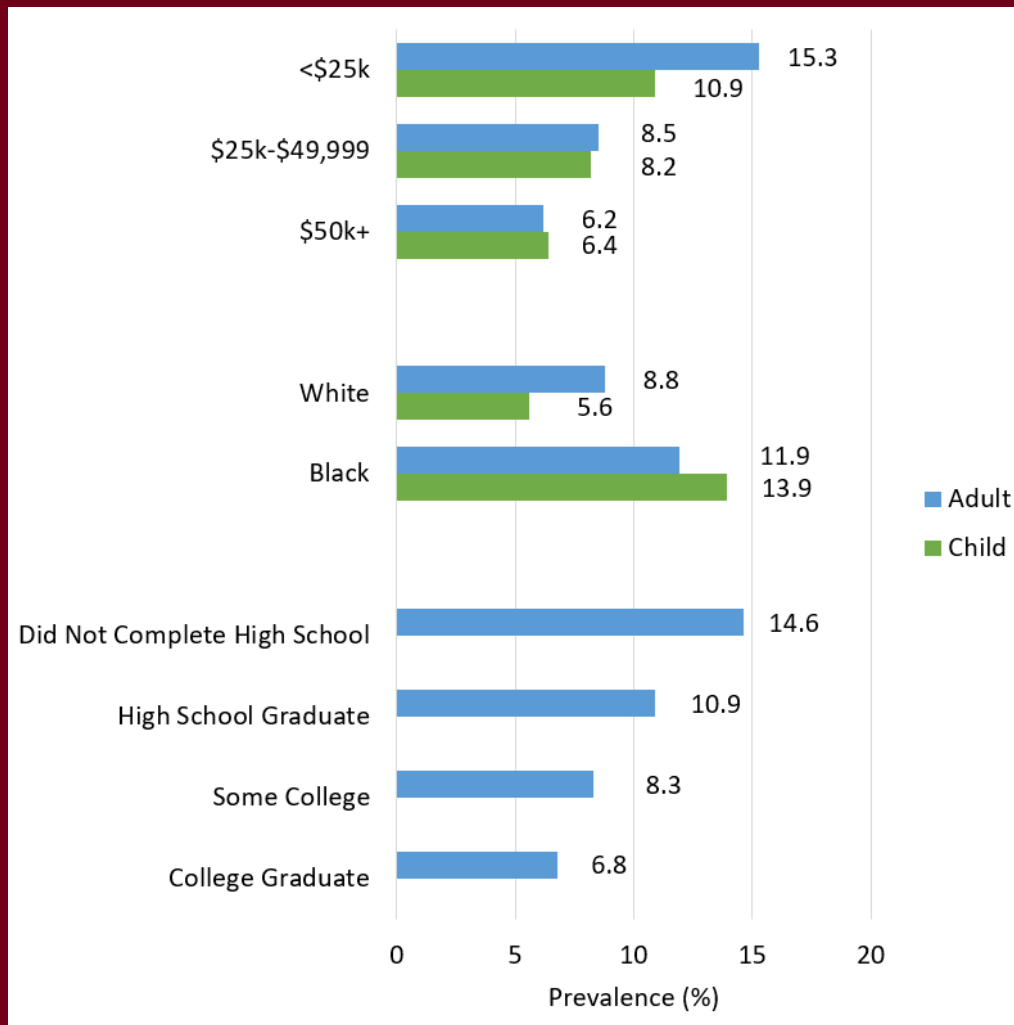
Figure 2. Asthma Prevalence Among Adults in Ohio and the U.S., 2012-2018.



Sources: CDC, Behavioral Risk Factor Surveillance System Survey Data, 2012-2018

Race, Income, and Educational Attainment

Figure 3. Asthma Prevalence Among Children and Adults in Ohio by Race, Income, and Educational Attainment, 2018.



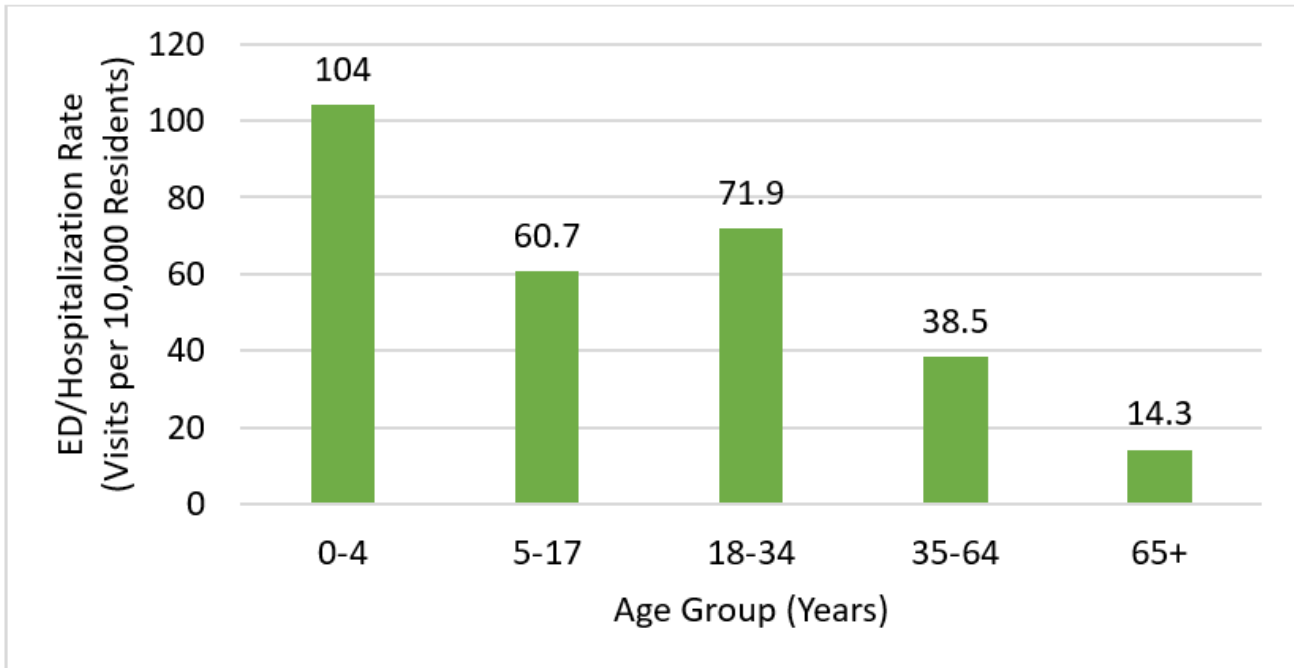
Sources: CDC, Behavioral Risk Factor Surveillance System Survey Data, 2012-2018

The prevalence rate of asthma in Ohio is significantly higher among low-income families; adults without a high school degree; and the black population, especially children:

- The prevalence rate of asthma among children in low-income households (<\$25k per year) is 10.9% compared to 6.4% among children with a household income of \$50k or more.
- The prevalence of asthma among black children is more than two times that of white children (13.9% compared to 5.6%, respectively).
- Asthma prevalence is greatest among adults who did not complete high school (14.6%), compared to college graduates (6.8%).

Emergency Department Visits and Hospitalizations

Figure 4. Emergency Department Visits and Hospitalizations in Ohio by Age Group, 2017-2018.

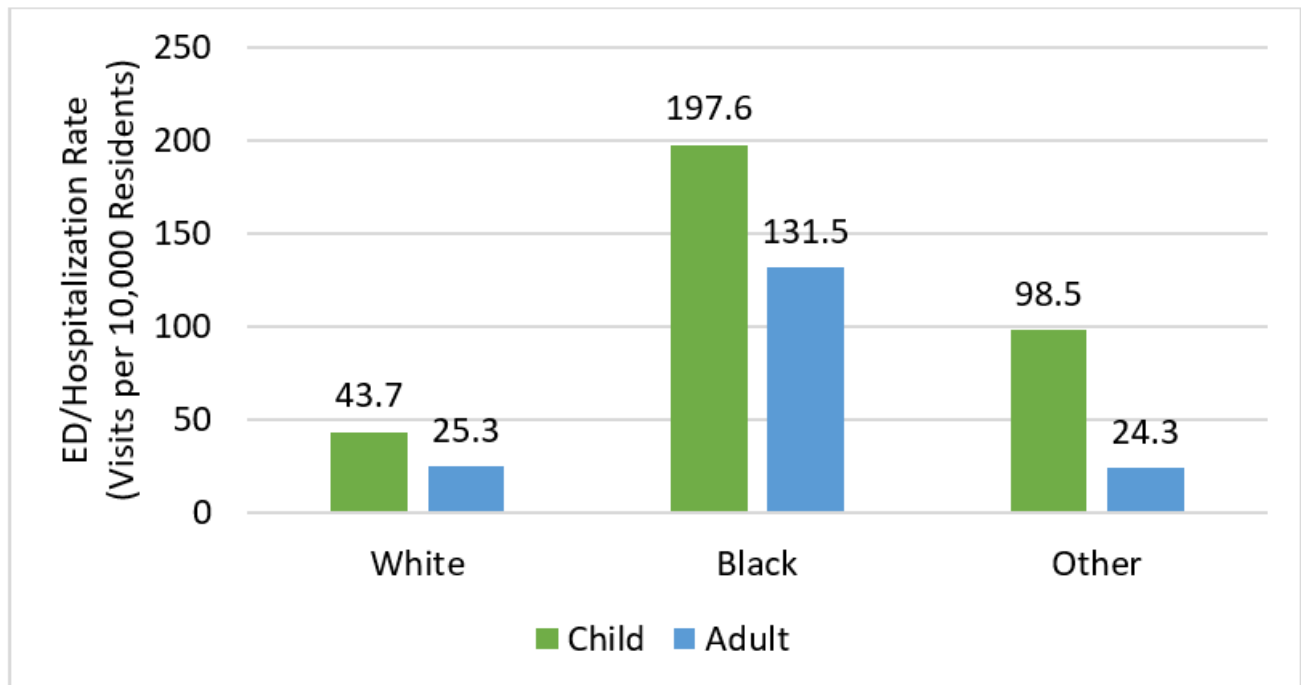


Sources: Ohio Hospital Association; Bridged-Race Population Estimates, on CDC WONDER On-line Database, 2017-2018.

- From 2017-2018, there were a total of 41,786 asthma emergency department visits and hospitalizations for children in Ohio, a rate of 80.3 per 10,000 residents, and 115,356 visits for adults, a rate of 49.4 per 10,000 residents.
- The rate of ED visits and hospitalizations is greatest among children under the age of five (104.0 visits per 10,000 residents).

Emergency Department Visits and Hospitalizations

Figure 5. Emergency Department Visits and Hospitalizations Among Children and Adults in Ohio by Race, 2017-2018.

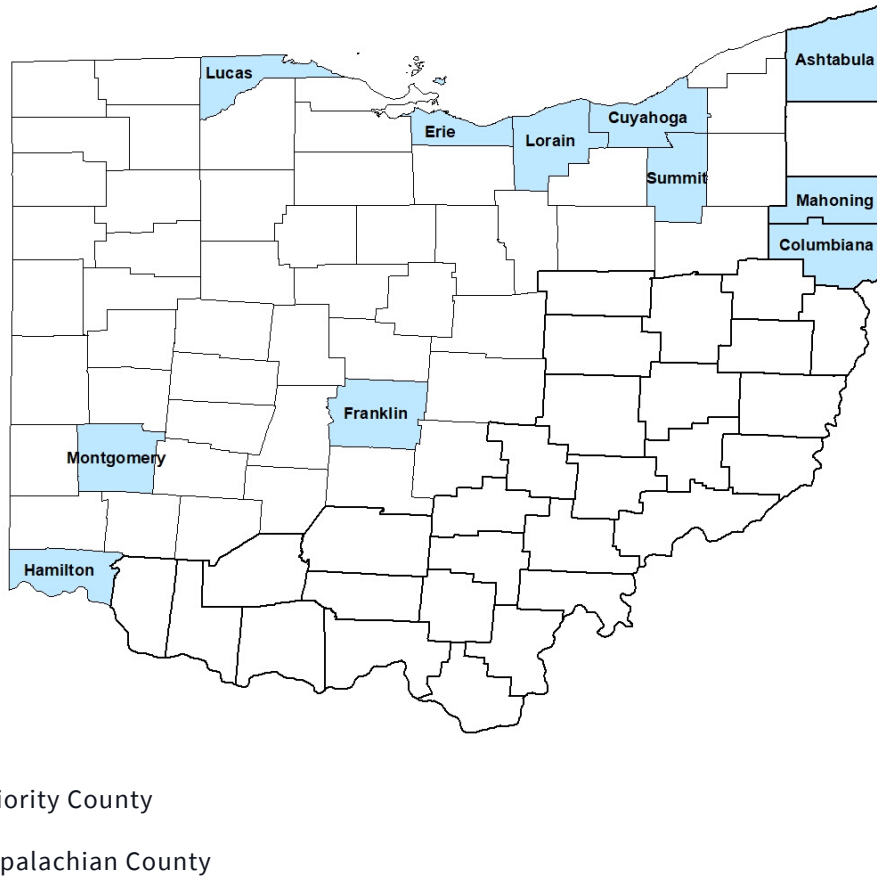


Sources: Ohio Hospital Association; Bridged-Race Population Estimates, on CDC WONDER On-line Database, 2017-2018.

- Black children in Ohio visit the emergency room/hospital at a rate more than four times greater than that of white children (197.6 per 10,000 residents vs. 43.7 per 10,000 residents).
- While black children account for about 18% of the child population in Ohio, one half (49.0%) of asthma emergency department visits and hospitalizations for children in Ohio are by black children.

Emergency Department Visits and Hospitalizations

Figure 6. ODH Asthma Program Priority Counties, 2019-2024.

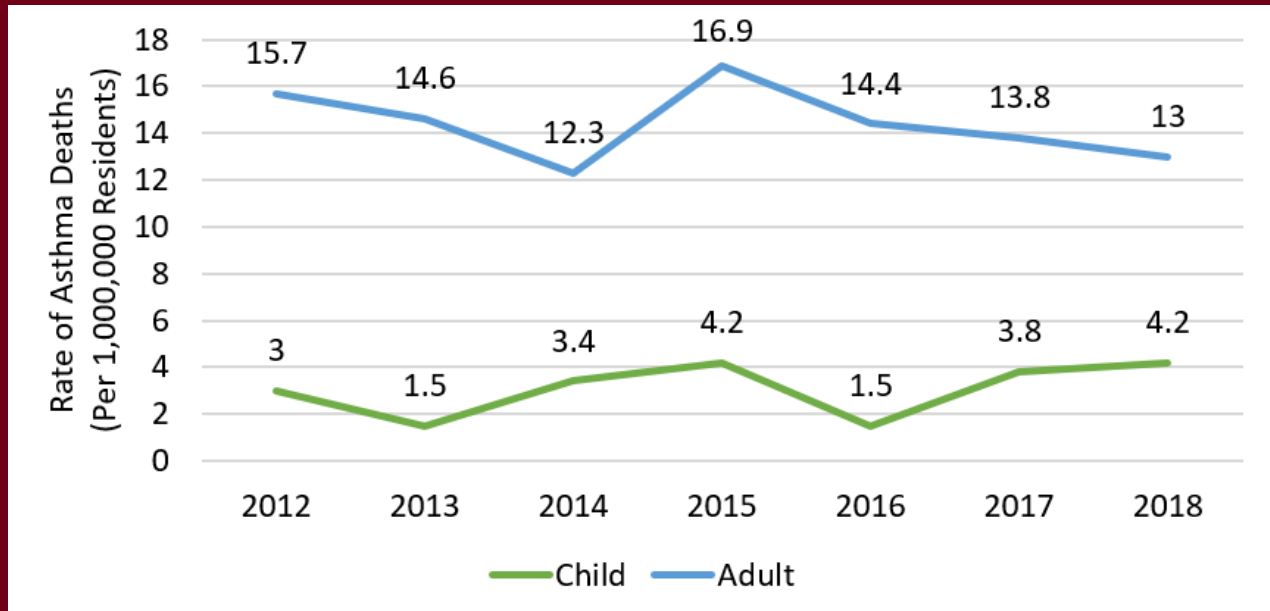


Sources: Ohio Hospital Association; Bridged-Race Population Estimates on CDC WONDER On-line Database, 2017-2018.

All Ohio counties with a child emergency department/hospitalization rate for asthma greater than the Ohio rate are designated as priority counties for the 2019-2024 grant period. In 2017-2018, eleven counties had a child ED/hospitalization rate for asthma greater than the state rate of 80.3 visits per 10,000 residents. See Appendix A for asthma ED and hospitalization rates for all Ohio counties.

Asthma-Related Deaths

Figure 7. Asthma-Related Deaths Among Children and Adults in Ohio, 2012-2018.



Sources: Ohio Department of Health, Bureau of Vital Statistics, 2012-2018; Bridged-Race Population Estimates on CDC WONDER On-line Database, 2012-2018.

In 2018, there were 129 deaths in Ohio due to asthma.

- 118 were among adults.
- 11 were among children.

Sources

1. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2012-2018.
2. United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Bridged-Race Population Estimates, on CDC WONDER On-line Database, 2017-2018.
3. Ohio Hospital Association (OHA).
4. Ohio Department of Health, Bureau of Vital Statistics, 2012-2018.

Appendix

Appendix A.

Table 1. Emergency Department Visits and Hospitalization Rates per 10,000 Residents for Patients with a Primary Diagnosis of Asthma, by County, Ohio, 2017-2018.

County	Child Rate (per 10,000 residents)	Adult Rate (per 10,000 residents)
Adams	43.6	49.7
Allen	64.6	42.5
Ashland	52.3	31.8
Ashtabula	103.4	49.2
Athens	68.0	15.4
Auglaize	36.1	18.9
Belmont	14.0	20.9
Brown	42.1	30.7
Butler	58.6	31.2
Carroll	27.1	13.3
Champaign	43.3	31.9
Clark	75.8	38.4
Clermont	44.2	29.7
Clinton	55.5	34.4
Columbiana	84.4	28.9
Coshocton	70.5	49.6
Crawford	55.3	41.4
Cuyahoga	138.7	63.9
Darke	52.0	28.4
Defiance	36.5	37.2
Delaware	39.5	16.2
Erie	104.3	72.3
Fairfield	46.5	21.9
Fayette	51.2	36.7
Franklin	82.2	41.2
Fulton	55.5	24.3
Gallia	43.8	20.7
Geauga	38.6	13.7
Greene	78.2	37.7
Guernsey	33.5	27.3

Appendix

Hamilton	80.4	56.8
Hancock	36.7	27.2
Hardin	49.3	27.8
Harrison	59.5	46.7
Henry	48.3	28.1
Highland	52.5	33.8
Hocking	27.1	19.9
Holmes	19.3	17.8
Huron	62.6	38.5
Jackson	61.8	45.4
Jefferson	34.2	30.6
Knox	47.8	26.9
Lake	65.3	25.4
Lawrence	1.5	0.6
Licking	44.2	20.2
Logan	29.1	21.4
Lorain	118.4	53.9
Lucas	123.0	54.2
Madison	73.6	25.3
Mahoning	190.1	58.6
Marion	78.3	32.6
Medina	44.7	25.3
Meigs	53.4	21.0
Mercer	22.8	15.1
Miami	49.9	31.6
Monroe	28.3	13.1
Montgomery	127.6	57.7
Morgan	40.6	18.2
Morrow	57.4	42.5
Muskingum	55.2	28.8
Noble	24.5	6.0
Ottawa	53.2	36.9
Paulding	47.3	31.0
Perry	54.1	25.8
Pickaway	57.3	24.9
Pike	30.7	19.1
Portage	71.7	24.5
Preble	45.9	25.8
Putnam	22.6	14.5
Richland	75.1	41.2

Appendix

Ross	54.2	27.0
Sandusky	73.5	47.9
Scioto	25.0	15.2
Seneca	57.5	33.4
Shelby	49.3	34.0
Stark	68.1	43.1
Summit	126.5	40.9
Trumbull	77.0	40.2
Tuscarawas	49.4	37.5
Union	26.0	16.2
Van Wert	25.0	15.5
Vinton	74.3	34.2
Warren	31.2	20.7
Washington	44.9	24.6
Wayne	45.1	33.4
Williams	38.1	36.7
Wood	34.8	17.6
Wyandot	55.2	28.2

Table 2. Emergency Department Visits and Hospitalization Rates per 10,000 Residents for Patients with a Primary Diagnosis of Asthma, Ohio, 2017-2018.

State	Child Rate (per 10,000 residents)	Adult Rate (per 10,000 residents)
Ohio	80.3	40.5

Sources: Ohio Hospital Association; Bridged-Race Population Estimates on CDC WONDER On-line Database, 2017-2018.