



Source: Census American Communities Survey 2020 (Map created in Microsoft Excel)

Prepared by Susan Knoll, MPH, CDC Foundation Support Epidemiologist and Alyssa Hosom, MPH, Southeastern Ohio Regional Epidemiologist

## **Table of Contents**

Inti	od	luc	tio	n

<ul><li>Table 1: County-Level Demographics</li><li>Table 2: Population Movement</li></ul>	
Social Determinants of Health (SDOH)	
<ul> <li>Table 3: SDOH, Community Composition</li> <li>Table 4: SDOH, Community Health Markers</li> <li>Table 5: SDOH by County, Community Composition</li> <li>Table 6: SDOH by County, Community Health Markers</li> </ul>	
<ul> <li>Behavioral Risk Factors</li> <li>Table 7: Behavioral Risk Factors by County</li> <li>Table 8: Prevalence of Insufficient Fruit and Vegetable Consumption by Adults by Ohio BRFS Region, 2019</li> </ul>	7 7
<ul> <li>Health Services Access</li> <li>Table 9: Utilization of Health Services by Ohio BRFS Region, 2019</li> </ul>	8
<ul> <li>Medicaid</li> <li>Table 10: Medicaid Coverage</li> <li>Table 11: Medicaid Coverage by Gender</li> </ul>	9 9
Morbidity & Mortality	
- Table 12: Top 10 Causes of Death	10-12
Cancer  - Table 13: Cancer	13
<ul><li><u>Chronic Disease</u></li><li>Table 14: Chronic Conditions by Ohio BRFS Region, 2019</li></ul>	14
Maternal & Child Health  - Table 15: Maternal & Child Health	15-17
Reportable Conditions  - Table 16: Reportable Conditions	18-19
Substance Abuse  - Table 17: Drug Overdose Deaths	20-22
<u>Data Selection</u>	
<ul><li>Text References</li><li>Table References</li></ul>	

## Introduction

The Southeastern Ohio Epidemiology Region provides epidemiology services to 12 health districts across 10 Appalachian counties, serving approximately 360,000 Ohio residents<sup>1</sup>. The region includes the health districts Belmont, Coshocton, Guernsey, Harrison, Jefferson, Monroe, Morgan, Noble, Perry, and Washington counties, as well as Coshocton, Marietta and Belpre cities. Due to the primarily rural composition of the region, data available to local health districts is limited and often lacks county-level health data essential for development of public health programs. The purpose of this document is to provide a concise review of demographic, socioeconomic, and health data currently available for all served counties to promote access to essential health data at the county level. Through this, local health agencies may better understand and address areas of need in their communities.

**Table 1: County-Level Demographics** 

	Ohi	0	Belme	ont	Cosho	cton	Guern	sey	Harri	son	Jeffer	son
	n	%	n	%	n	%	n	%	n	%	n	%
Population	11.7M		67,424		36,558		38,996		15,211		65,325	
0-9	1.4M	11.9	6,742	10.0	4,753	13.0	4,290	11.0	1,693	11.1	6,539	10.0
10-19	1.5M	12.9	7,417	11.0	4,753	13.0	5,069	13.0	1,799	11.8	7,712	11.8
20-29	1.6M	13.3	8,091	12.0	4,021	11.0	4,680	12.0	1,521	10.0	8,197	12.6
30-39	1.5M	12.5	8,091	12.0	4,387	12.0	4,290	11.0	1,512	9.9	6,563	10.1
40-49	1.4M	12.1	8,765	13.0	3,656	10.0	4,680	12.0	1,781	11.7	7,556	11.6
50-59	1.6M	13.6	10,114	15.0	4,753	13.0	5,459	14.0	2,231	14.7	9,181	14.1
60-69	1.4M	12.4	10,114	15.0	5,484	15.0	5,459	14.0	2,508	16.5	10,112	15.5
70-79	841k	7.2	5,394	8.0	2,925	8.0	3,120	8.0	1,447	9.5	6,604	10.1
80+	490k	4.2	4,045	6.0	1,828	5.0	1,560	4.0	719	4.7	2,861	4.4
Gender												
Male	5.7M	49.0	33,038	49.0	17,913	49.0	19,498	50.0	7,489	49.2	31,747	48.6
Female	5.9M	51.0	34,386	51.0	18,645	51.0	19,498	50.0	7,722	50.8	33,578	51.4
Race/Ethnicity												
White	9.1M	78.3	62,435	92.6	35,023	95.8	36,695	94.1	14,345	94.8	59,415	90.1
Black	1.4M	12.2	2,360	3.5	439	1.2	663	1.7	424	2.8	3,693	5.6
Asian	268k	2.3	405	0.6	110	0.3	156	0.4	76	0.5	396	0.6
Multiracial	338k	2.9	1,416	2.1	475	1.3	195	0.5	30	0.2	132	0.2
Other	46k	0.4	0	0.0	37	0.1	741	1.9	197	1.3	1,319	2.0
Hispanic*	445k	3.9	674	1.0	402	1.1	468	1.2	61	0.4	989	1.5

<sup>\*</sup>Hispanic includes respondents of any race. Other categories are non-Hispanic

Data from U.S. Census Bureau (2020). American Community Survey. Retrieved from Census Reporter.

Table 1 (Continued): County-Level Demographics

	Mon	roe	Moi	rgan	Nob	le	Perr	·y	Washin	gton	Regio	n
	n	%	n	%	n	%	n	%	n	%	n	%
Population	13,827		14,557		14,410		36,076		60,217		363,140	
0-9	1,521	11.0	1,310	9.0	1,585	11.0	4,690	13.0	5,420	9.0	38,569	10.6
10-19	1,659	12.0	2,038	14.0	1,297	9.0	4,690	13.0	7,828	13.0	44,480	12.2
20-29	1,383	10.0	1,456	10.0	1,585	11.0	3,968	11.0	7,226	12.0	41,836	11.5
30-39	1,383	10.0	1,601	11.0	1,585	11.0	4,329	12.0	7,226	12.0	41,659	11.5
40-49	1,659	12.0	1,892	13.0	1,153	8.0	4,690	13.0	6,624	11.0	42,037	11.6
50-59	2,074	15.0	2,184	15.0	1,873	13.0	5,051	14.0	9,033	15.0	52,701	14.5
60-69	2,074	9.0	2,038	14.0	2,882	20.0	5,411	15.0	9,033	15.0	54,959	15.1
70-79	1,244	9.0	1,456	10.0	1,441	10.0	2,165	6.0	4,817	8.0	29,858	8.2
80+	830	6.0	728	5.0	1,153	8.0	1,082	3.0	3,011	5.0	18,290	5.0
Gender												
Male	6,914	50.0	7,279	50.0	8,502	59.0	18,038	50.0	29,506	49.0	180,414	49.7
Female	6,914	50.0	7,279	50.0	5,908	41.0	18,038	50.0	30,711	51.0	182,726	50.3
Race/Ethnicity												
White	13,426	97.1	13,320	91.500	13,257	92.0	34,813	96.5	57,206	95.0	339,935	93.6
Black	69	0.5	539	3.700	807	5.6	253	0.7	783	1.3	10,028	2.8
Asian	69	0.5	15	0.100	14	0.1	36	0.1	422	0.7	1,697	0.5
Multiracial	0	0.0	73	0.500	0	0.0	0	0.0	0	0.0	2,321	0.6
Other	263	1.9	451	3.100	159	1.1	541	1.5	963	1.6	4,670	1.3
Hispanic*	14	0.1	146	1.000	144	1.0	325	0.9	662	1.1	3,885	1.1

<sup>\*</sup>Hispanic includes respondents of any race. Other categories are non-Hispanic

Data from U.S. Census Bureau (2020). American Community Survey. Retrieved from Census Reporter.

#### **Health Barriers & Issues**

The Southeastern Ohio Epidemiology region struggles with poor economic conditions, fewer healthcare providers and limited opportunity for healthcare coverage. Furthermore, the epidemiology region faces a unique set of health issues due to its largely rural composition and placement within the Appalachian foothills of Ohio. The Ohio Appalachian region, as well as the overall Appalachian area, suffers from low incomes, high poverty rates, high unemployment rates, and low post-secondary education rates<sup>2</sup>. Of the top 10 leading causes of death, the Ohio Appalachian Region leads the country in heart disease, cancer, chronic obstructive pulmonary disease (COPD), injury, stroke, diabetes, and suicide. Deaths related to poisonings, including drug overdoses, are 37% higher in the Appalachian region than the national rate<sup>2</sup>, while the rate of suicide is 17% higher than the national level<sup>2</sup>. Additionally, the Ohio Appalachian region's infant mortality rate is 16% higher than the rest of the nation as a whole<sup>2</sup>. Local health data within the 10 counties reflects the increased rates of health issues seen within the Ohio Appalachian region.

 Table 2: Population Movement

	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Population Migration Since	Previous Ye	ear (%)								
Same Residence	90	81	87	92	87	93	90	89	90	88
From Same County	7	15	9	5	8	5	5	2	4	7
From Different County	2	4	3	2	2	1	4	7	5	2
From Different State	1	0	1	1	2	1	0	1	1	3
Year of Move to County (%	5)									
Prior to 1990	16	14	17	2	19	21	17	22	14	17
1990's	10	13	13	15	15	16	14	21	16	15
2000's	24	23	27	26	15	29	29	25	28	27
2010-2014	18	23	23	25	11	19	23	18	22	21
2015-2016	9	19	12	1	16	11	11	11	13	11
2017+	23	8	8	5	23	5	6	3	7	8
Housing Status										
Median House Unit	\$103,600	\$82,200	\$114,700	\$92,700	\$98,600	\$110,000	\$99,900	\$100,500	\$114,100	\$132,400
Occupied Units (%)	80	90	84	77	85	77	77	82	88	89
Resident Owned Occupied Units (%)	73	62	71	79	68	78	77	82	74	74

Source: Census Bureau American Community Survey 2020

# **Social Determinants of Health**

**Table 3:** Social Determinants of Health, Community Composition

Community Composition	Ohio	Region Average
Marital Status		
Married (%)	49.1	52.8
Unmarried (%)	50.9	47.2
Avg. # Person/Household	2.4	2.4
Median Age (years)	39.5	44.7
<b>Education (Highest Level Completed)</b>		
No Degree (%)	9.2	12.2
HS Graduation Rate (%)	32.8	45.4
Some College (%)	29.1	28.4
College Graduation Rate (%)	17.9	9.1
Post Graduate Education (%)	11	5.1
Subpopulations		
Foreign Population (%)	4.7	0.9
Veteran Status (%)	7.6	9.0
<b>Economic Stability</b>		
% Below poverty line	13.6	15.8
Per Capita Income	\$32,465	\$26,069
Median HH Income	\$58,116	\$48,767

Source: Data from U.S. Census Bureau (2020). American Community Survey. Retrieved from Census Reporter.

**Table 4:** Social Determinants of Health, Community Health Markers

·	Ohio	Region Average
Fair/Poor Health (%)	18	21
Adults with Obesity (%)	34	37
Uninsured (%)	8	8
PC Physicians (n)	8969	14
Dentists (n)	7503	15
Mental Health Providers (n)	30543	57
Had Annual Mammogram (%)	43	41
Had Flu Vaccination (%)	51	45
Unemployment (%)	4.1	5.8
Labor Force (n)	5,802,322	157,744
Children in Poverty (%)	18	20
Caucasian (%)	14	23
Black (%)	43	36
Asian (%)	12	
Other (%)	28	
Hispanic (%)	32	27
Children in Single Parent HH (n)	704,578	17,284
Children in Single Parent (%)	27	22
Ave. Violent Crimes Annually (n)	33,954	37

Source: County Health Rankings 2021 V1

Table 5: Social Determinants of Health by County, Community Composition

	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Marital Status										
Married (%)	49	56	50	55	50	59	54	49	53	53
Unmarried (%)	51	44	50	45	50	41	46	51	47	47
Avg. # Person/Household	2.5	2.5	2.4	2.4	2.3	2.3	2.4	2.4	2.7	2.4
Median Age (years)	44.5	41.1	42.6	46.1	44.9	47	44.8	51.2	40.7	44.4
<b>Education (Highest Level</b>	Completed)	)								
No Degree (%)	9	14	15	12	9	10	14	17	13	9
HS Graduation Rate (%)	44	44	42	49	44	51	45	48	47	40
Some College (%)	31	27	28	26	30	28	30	25	27	32
College Graduation (%)	10	10	10	8	11	7	7	8	9	11
Post Grad Education (%)	6	5	5	5	6	5	4	4	4	7
Subpopulations										
Foreign Population (%)	1.6	0.7	0.9	0.9	1.3	0.6	0.3	0.6	0.5	1.6
Veteran Status (%)	7.9	8.2	9	8.6	9.3	8.9	8.6	10.5	9.2	9.6
<b>Economic Stability</b>										
% Below poverty line	11.8	17.4	19	16.3	16.8	14.6	17.2	15.2	16.5	13.2
Per Capita Income	\$27,393	\$23,863	\$25,878	\$25,751	\$25,602	\$28,521	\$23,053	\$25,77 5	\$24,668	\$30,184
Median HH Income	\$51,574	\$48,552	\$46,352	\$49,454	\$46,849	\$46,241	\$43,791	\$50,07 0	\$52,978	\$51,808

Source: Census Bureau American Community Survey 2020

**Table 6:** Social Determinants of Health by County, Community Health Markers

	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Fair/Poor Health (%)	19	22	22	21	20	21	24	21	22	20
Adults with Obesity (%)	35	38	36	38	38	36	35	38	39	36
Uninsured (%)	8	10	9	8	7	9	8	8	8	8
PC Physicians (n)	24	12	16	4	27	2	1	2	8	47
Dentists (n)	30	13	19	1	37	2	3	3	10	35
Mental Health Providers (n)	135	31	79	4	134	4	18	14	50	96
Had Annual Mammogram (%)	43	43	41	34	36	42	46	39	42	45
Had Flu Vaccination (%)	41	45	45	41	45	40	42	50	46	52
Unemployment (%)	5.6	5.8	5.5	5.3	5.9	8.3	6.5	6.9	5.2	3.2
Labor Force (n)	30,153	14,377	18,623	6,800	27,729	5,345	6,714	4,699	15,914	27,390
Children in Poverty (%)	16	19	22	22	25	20	21	16	21	14
Caucasian (%)	15	21	30	23	23		27		27	19
Black (%)	9	4	76	70	49		25			18
Asian*										
Other*										
Hispanic (%)	14	19	30		53				16	27
Children in Single Parent HH (n)	2,821	1,618	2,286	612	3,492	615	703	396	2,518	2,223
Children in Single Parent (%)	22	19	26	19	27	21	23	15	30	19
Ave. Violent Crimes Annually (n)	81	39		22	54	9	34	0	40	58

Source: County Health Rankings 2021 V1

<sup>\*</sup>Data Unavailable

## **Behavioral Risk Factors**

Table 7: Behavioral Risk Factors by County

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Adult Smoking (%)	21	24	27	27	27	27	27	28	26	28	25
Excessive Drinking (%)	18	19	17	16	17	17	17	18	20	22	19
Adult Obesity (%)	34	35	38	36	38	38	36	35	38	39	36
Physical Inactivity (%)	26	31	32	32	28	36	32	29	33	35	30
Insufficient Sleep (%)	41	40	40	42	42	41	41	43	42	43	41

Source: County Health Rankings 2021 v1

Table 8: Prevalence of Insufficient Fruit and Vegetable Consumption by Adults by Ohio BRFS Region

	BRFS Region 12	BRFS Region 13
Prevalence of Insufficient Fruit Consumption (18+) %	42.7	48.5
Prevalence of Insufficient Vegetable Consumption (18+) %	22.3	21.4

Source: Behavioral Risk Factor Survey 2019

Fruit and vegetable consumption between regions as defined by the 2019 Behavioral Risk Factor Survey (BRFS). BRFS Region 12 is comprised of Coshocton, Guernsey, Morgan, Muskingum, Noble, Perry, and Tuscarawas Counties, while BRFS Region 13 is comprised of Belmont, Carroll, Harrison, Jefferson, Monroe, and Washington Counties<sup>3</sup>.

## **Health Services Access**

Utilization of healthcare services between the regions defined by the 2019 Behavioral Risk Factor Survey (BRFS). BRFS Region 12 is comprised of Coshocton, Guernsey, Morgan, Muskingum, Noble, Perry, and Tuscarawas Counties, while BRFS Region 13 is comprised of Belmont, Carroll, Harrison, Jefferson, Monroe, and Washington Counties<sup>3</sup>.

Table 9: Utilization of Health Services by Ohio BRFS Region

	BRFS Region 12	BRFS Region 13
Prevalence of Health Care Coverage (18+) %	92.6	88.2
Prevalence Routine Check-up (18+) %	81.3	77.4
Prevalence of Pap Testing in the Past Three Years (Female 21-65) %	72.4	73.0
Prevalence of Mammogram Testing in the Past Two Years (Female 50-74) %	86.2	78.6
Prevalence of Colorectal Screening (50-75) %	69.3	63.6
Prevalence Flu Vaccination (18+) %	39.0	39.6
Prevalence HIV Testing (18+) %	26.9	32.6

Source: Behavioral Risk Factor Survey 2019

### **Medicaid**

For June 2021, Medicaid recipients in the Southeast Ohio Epidemiology region account for nearly 32% of the area's total population with claims totaling \$62.3 million<sup>4</sup>. Of this, 14.1% of the enrollments were from males and 16.9% of the enrollments were from females<sup>5</sup>.

Table 10: Medicaid Coverage

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Medicaid Recipients (n)	3.2M	18,526	12,638	15,235	4,460	22,006	3,755	5,240	3,280	13,173	17,593
Population (%)	28.07	27.65	34.54	38.95	29.32	33.69	26.93	35.79	22.75	36.57	29.11
Claims (n)	12.9B	74,338	48,361	62,663	15,680	81,865	12,392	18,201	10,883	47,686	65,846
Total Claims (\$)	2.4B	11,411,957	6,827,520	8,452,394	2,250,323	11,819,715	1,520,790	2,278,159	1,818,360	6,684,285	9,275,861

Source: Ohio Dept. of Medicaid (June 2021)

Table 11: Medicaid Coverage by Gender

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Enrollments											
Male (n)	1.5M	8,235	5,619	6,018	2,042	10,435	1,869	2,113	1,519	5,864	7,272
Population (%)	13.01	12.29	15.36	15.39	13.42	15.97	13.41	14.43	10.54	16.28	12.03
Female (n)	1.8M	10,264	6,505	7,256	2,440	12,523	2,174	2,450	1,791	6,824	8,904
Population (%)	15.48	15.32	17.78	18.55	16.04	19.17	15.59	16.73	12.42	18.94	14.74

Source: Ohio Department of Medicaid (December 2021)

## **Morbidity & Mortality**

The top 10 causes of death, per the CDC 2015-2020<sup>6</sup>, are reflected in the tables below. Rates were retrieved from the Ohio Public Health Information Warehouse Mortality Dataset. Rates discussed are for 2021 and are provisional at the time of writing. Coshocton County rated highest in diabetes mellitus (65.9) at 133% higher than the statewide rate (28.2). Perry County is highest in malignant neoplasms (cancers) at a rate of 211.7, at 33% higher than state-wide rate of 158.5. Perry County also was 62% higher in accidents/unintentional injuries than the state rate (113.9 compared to 70.1). Jefferson County rated higher in influenza and pneumonia, at 126% above the statewide rate (24 compared to 10.6), and suicides, 25% above the statewide rate (16.6. v 13.3). Guernsey County was 53% higher than the statewide rate in disease of the heart at 296.7 versus Ohio's rate of 191.0. Alzheimer's was highest in Harrison County with a rate of 47.3, 50% above the statewide rate of 31.5. Morgan County was higher in chronic lower respiratory diseases with a rate of 91.8, 129% higher than the state-wide rate of 40. Washington County ranked higher in primary hypertension and hypertensive renal disease at a rate of 18.5, that is 95% above the statewide rate of 9.5.

**Table 12:** Top 10 Causes of Death (Age-Adjusted Rates)

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Diseases of heart	t										
2018	191.7	238.9	215.7	213.7	245.4	246.4	203.5	187.5	102.6	253.2	136.3
2019	189.2	217.1	204.7	206.0	215.2	259.3	106.3	140.8	123.7	261.4	162.0
2020*	196.7	263.9	217.5	241.7	244.7	254.4	236.6	180.8	105.2	259.8	170.4
2021*	191.0	258.2	166.7	296.7	246.5	272.0	155.4	257.6	121.4	232.3	168.0
Malignant neopl	asms										
2018	165.7	153.5	174.5	169.5	156.1	202.7	176.7	211.9	134.7	170.8	151.8
2019	163.2	154.0	201.6	211.7	167.6	180.8	176.6	191.3	130.9	190.2	178.4
2020*	159.1	165.8	158.5	172.3	163.0	171.5	102.4	165.4	107.5	183.6	169.7
2021*	158.5	172.4	162.6	187.8	195.0	177.6	155.1	146.4	105.7	211.7	177.2
Accidents (UNIN	NTENTIONAL	L INJURIES)									
2018	63.9	60.3	63.0	50.7	68.2	84.0	58.2	125.4	85.1	89.2	66.1
2019	67.7	56.6	62.1	70.1		86.6	74.1			78.0	43.6
2020*	78.2	70.1	76.4	82.8	72.2	95.4		94.0		103.5	66.0
2021*	70.1	52.2	66.8	81.8	60.4	86.2	84.9	81.2		113.9	66.9

Source: Ohio Public Health Information Warehouse Mortality Dataset

<sup>\*</sup> Years are considered partial and maybe incomplete.

<sup>--</sup> indicates rates have been suppressed for counts <10 or where populations counts are not available.

**Table 12 Continued:** Top 10 Causes of Death (Age-Adjusted Rates)

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
	Omo	Demone	Cosnocton	Guernsey	1141113011	ocher son	William	Morgan	Nobic	Terry	washington
Chronic lower re	espiratory dis	eases									
2018	49.1	52.0	57.6	46.4	75.2	50.0		49.2	33.0	54.7	45.4
2019	46.0	62.1	55.3	73.3	72.5	47.3		83.3		55.3	58.2
2020*	44.6	43.1	48.2	86.4		54.0	44.9	82.6	60.5	58.7	38.0
2021*	40.0	43.5	67.4	77.2	91.8	48.4	58.4	98.6		63.5	52.1
Alzheimer's dise	ase										
2018	35.1	47.6	39.3	45.5		29.2				34.4	27.8
2019	33.7	28.5	39.3	35.2		27.4	44.6			29.4	28.5
2020*	38.0	31.5	53.6	29.1	39.3	28.7				27.8	30.2
2021*	31.5	11.6	32.2	36.4	47.3	34.2					20.2
Diabetes mellitus	S										
2018	25.4	37.6	34.2	41.9	50.4	35.8					33.4
2019	25.5	59.9	50.0	32.3		44.4	40.1		35.8		36.2
2020*	28.3	52.7	53.2	32.5	46.4	40.6					29.5
2021*	28.2	45.5	65.9	61.1	38.5	38.9		60.2	37.0	21.4	48.6
Influenza and pr	eumonia										
2018	15.8	35.2	26.5	25.7		15.8				28.0	26.7
2019	12.7	31.5				25.6					14.1
2020*	13.3	23.3				20.7					
2021*	10.6	19.1				24.0					
Cerebrovascular	diseases										
2018	42.8	17.6	46.6	39.1	59.8	33.3	60.3				42.7
2019	42.3	26.2	38.3	39.2	38.1	47.2				29.3	46.2
2020*	45.4	33.6	67.9	40.7		38.9		40.7		28.7	42.1
2021*	45.7	31.7	51.8	33.2		44.5				36.0	29.9

Source: Ohio Public Health Information Warehouse Mortality Dataset

<sup>\*</sup> Years are considered partial and maybe incomplete.

<sup>--</sup> indicates rates have been suppressed for counts <10 or where counts are not available.

**Table 12 Continued:** Top 10 Causes of Death (Age-Adjusted Rates)

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Essential (prima	ry) hypertension	and hyperter	sive renal disc	ease					1		
2018	9.1	14.2				9.9					
2019	8.9	12.5				12.5					17.6
2020*	9.9					8.7					
2021*	9.5	9.4				9.9					18.5
Intentional self-l	narm (suicide)										
2018	15.3	27.0				22.8					
2019	15.2	14.2	24.8			22.2					16.8
2020*	13.8	16.6	24.6			13.6					19.5
2021*	13.3	15.6				16.6					

Source: Ohio Public Health Information Warehouse Mortality Dataset

Ohio death rates include individuals that resided in Ohio at the time of death. Excludes 0 deaths and 0 population records with unknown/missing data.

#### **Cancer**

Cancer rates (age-adjusted) in the Southeastern Ohio Epidemiology Region tend to be higher than the rates for the state of Ohio, per the Ohio Cancer Incidence Surveillance System (OCISS) 1996-2018 available in the Ohio Department of Health data warehouse. The average breast cancer rate in Morgan County from 2016 to 2018 was 85.7 as compared to an average of 69.5 for the state of Ohio for that same time period. Colon & rectum cancer rates also exceeded age-adjusted state rates in Coshocton (44.3), Guernsey (50.3), and Jefferson (45.8) as compared to the state rate of 40.3 for the 2016 –2018 time period. Lung and bronchus cancers exceeded the state age-adjusted rate (65.7) by more than 40% in the following three counties: Guernsey (93.8), Morgan (106.0), and Perry (90.4). Skin melanoma rates were 139.3% above the state rate in Monroe County in 2018 (52.2 compared to 24.2, respectively) and 44.2% above the state rate in Belmont County (35.2 compared to 24.4, respectively).

<sup>\*</sup> Years are considered partial and maybe incomplete.

<sup>--</sup> indicates rates have been suppressed for counts <10 or where populations counts are not available.

 Table 13: Cancer (Age-Adjusted Rates)

14010 101	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Breast											
2016	69.6	68.2	53.8	53.8	95.9	66.8	56.3	86.5	39.3	85.8	61.8
2017	69.9	65.2	59.4	59.4	67	57.2	62.1	97.9	52.9	65.0	63.2
2018	69.1	52.0	60.6	60.6	53.0	57.8	52.6	72.7	43.5	57.1	60.1
Colon & Rec	ctum										
2016	40.8	39.1	48.6	56.0	47.5	43.8	34.7	48.1	32.5	49.9	46.2
2017	40.1	53.9	42.0	49.2	32.0	50.0	42.9	19.6	39.1	37.6	53.9
2018	39.9	44.9	42.1	45.7	44.6	43.6	47.6	42.6	31.6	49.1	46.5
Lung and Bi	ronchus										
2016	67.2	69.9	69.8	97.0	48.8	85.4	57.1	124.4	64.4	97.2	81.7
2017	65.2	75.0	67.9	107.3	63.8	57.4	73.8	95.5	54.3	86.9	80.0
2018	64.6	55.2	55.3	77.1	36.7	72.2	51.5	98.2	63.9	87.2	77.8
Melanoma o	f Skin										
2016	26.5	15.2	47.2	19.8	47.4	12.5				25.4	28.0
2017	24.3	27.8	23.4	10.0		34.7	38.5	19.7		38.4	30.4
2018	24.2	35.2	21.1	19.6	24.1	29.3	52.2	19.1	23.9	28.9	30.4

Source: Ohio Cancer Incidence Surveillance System (OCISS) 2016 – 2018 via the Ohio Department of Health Data Warehouse

## **Chronic Disease**

Chronic conditions vary between regions as defined by the 2019 Behavioral Risk factor Survey (BRFS). BRFS Region 12 is comprised of Coshocton, Guernsey, Morgan, Muskingum, Noble, Perry, and Tuscarawas Counties, while BRFS Region 13 is comprised of Belmont, Carroll, Harrison, Jefferson, Monroe, and Washington Counties<sup>3</sup>.

Table 14: Chronic Conditions by Ohio BRFS Region, 2019

	BRFS Region 12	BRFS Region 13
Prevalence of Arthritis (18+) %	33.7	34.6
Prevalence of Heart Disease (18+) %	9.1	9.3
Prevalence of Asthma (18+) %	10.3	12.3
Prevalence of Childhood Asthma (0-17) %	12.5	4.7
Prevalence of Chronic Obstructive Pulmonary Disease (COPD) (18+) %	11.6	14.1
Prevalence of Kidney Disease (18+) %	3	4.7
Prevalence of High Blood Pressure (18+) %	40.3	37.2
Prevalence of High Cholesterol (18+) %	29.7	29.8
Prevalence of Obesity (18+) %	36	32.9
Prevalence of Depression (18+) %	21.8	21.1

Source: Behavioral Risk Factor Survey 2019

#### **Maternal & Child Health**

Maternal and Child Health indicators in the Southeastern Ohio Epidemiology Region for the most part reflect state percentages. From 2013 – 2019, statewide low birth weight in Ohio ranged from 14% for individuals identifying as Black, to 10% for Alaskan Natives & American Indians, to 9% for Asians, 8% for Hispanics, and 7% for Whites, with an overall rate of 9%. The rate of low birth weight by race for the individual counties was not available. The following data were taken from the Ohio Data Warehouse from 2016 through 2021. The epidemiology region's 2020 live births to married mother's percentage was 54.4%, just slightly under the state at 56.4%. Conversely, the region's 2020 live births to unmarried mothers was 45.6%, just over that of the state at 43.6%. Live pre-term births less than 32 weeks in 2020 in Belmont Count were 2.2% versus the state at 1.6%. 2020 live pre-term births between 32 and 36 weeks exceeded the state (8.7%) in Washington County (10%), Harrison County (9.8%), and Guernsey County (9.4%). The epidemiology region's live term births (37-41 weeks) were 90%, similar to the statewide 89.4%.

Table 15: Maternal and Child Health

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
2013 - 2019 Yearly Ave. Infant Deaths per 1,000 live births	7.0	7.0	8.0	10.0		9.0					5.0
2013 - 2019 Low Birth Weight (%)	9.0	8.0	7.0	8.0	5.0	9.0	7.0	6.0	6.0	8.0	7.0
Teen Pregnancy											
2016 (%)	6.0	6.9	7.3	6.9	8.0	7.1	4.7	9.8	9.6	7.6	6.3
2017 (%)	5.8	5.9	6.7	7.4	7.2	7.9	7.8	9.3	6.5	8.1	6.2
2018 (%)	5.3	4.8	5.9	6.9	7.7	7.1	3.9	5.3	6.5	6.1	5.6
2019 (%)	5.2	6.7	6.3	1.8	4.9	7.2	5.7	9.8	9.7	8.2	7.6
2020 (%)	5.0	4.8	4.2	6.7	4.6	5.3	8.2	7.3	2.7	6.7	5.1
2021* (%)	4.6	4.6	3.4	8.0	6.1	5.7	8.0	4.2	4.6	5.8	4.9

Source: County Health Rankings 2021 v1; Ohio Public Health Data Warehouse Resident Live Births by County of Residence 2016 -2021

<sup>\*</sup>Data as of 12/30/2021

<sup>--</sup> Data unreliable, missing, or otherwise suppressed

Table 15 Continued: Maternal and Child Health

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Live Births											
2016 (n)	138,193	605	463	475	150	662	129	143	125	410	574
2017 (n)	136,890	607	462	443	152	634	115	161	139	420	632
2018 (n)	135,220	642	460	435	143	680	129	133	153	408	570
2019 (n)	134,560	657	445	447	144	664	141	133	145	416	622
2020 (n)	129,313	600	432	448	174	638	134	150	147	416	548
2021* (n)	128,010	566	410	411	147	596	138	143	151	364	536
Live Births, Unn	narried Mothe	ers									
2016 (%)	42.9	45.3	40.6	51.6	36.0	51.8	37.2	43.4	33.6	41.2	42.9
2017 (%)	43.2	49.1	39.0	45.6	40.1	50.2	37.4	52.8	32.4	46.7	39.6
2018 (%)	43.1	45.8	37.6	48.5	33.6	51.0	38.0	48.1	38.6	45.8	38.4
2019 (%)	43.5	47.8	37.3	51.0	39.6	52.4	31.9	37.6	37.2	47.6	44.1
2020 (%)	43.6	48.5	37.7	44.9	35.6	54.1	39.6	53.3	29.9	49.3	43.2
2021* (%)	42.6	45.8	41.2	47.2	42.9	53.2	31.9	51.0	36.4	44.5	44.0
Live Births, Mai	ried Mothers										
2016 (%)	57.0	54.7	59.4	48.4	63.3	47.9	62.8	56.6	66.4	58.8	57.1
2017 (%)	56.8	50.9	61.0	54.4	59.9	49.7	62.6	47.2	67.6	53.3	60.4
2018 (%)	56.9	54.2	62.4	51.5	66.4	49.0	62.0	51.9	61.4	54.2	61.2
2019 (%)	56.4	52.2	62.7	49.0	60.4	47.6	68.1	62.4	62.8	52.4	55.9
2020 (%)	56.4	51.5	62.3	55.1	63.8	46.1	60.4	46.7	70.1	50.7	56.8
2021* (%)	57.4	55.8	60.0	53.5	58.5	49.0	68.8	50.3	64.9	56.0	57.5

Source: Ohio Public Health Data Warehouse Resident Live Births by County of Residence 2016 -2021

<sup>\*</sup>Data as of 12/30/2021

**Table 15 Continued:** Maternal and Child Health

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Live Births Very	Pre-Term (<	32 Weeks)		l	l	•	l	l	l	•	
2016 (%)	1.8	1.3	1.5	2.5	2.7	1.2	0.8		0.8	0.7	1.6
2017 (%)	1.8	1.8	0.9	1.6	0.7	1.6	0.9	0.6	0.7	0.7	1.7
2018 (%)	1.7	1.1	1.5	2.3	2.1	1.3	1.6	1.5	2.6	0.7	1.4
2019 (%)	1.8	1.8	0.7	2.0	1.4	0.9	2.1		0.7	1.0	1.6
2020 (%)	1.6	2.2	1.2	1.1	0.6	1.1		1.3	1.4	1.2	0.7
2021* (%)	1.7	1.2	0.7	1.5		2.3		0.7	2.0	0.8	1.1
Live Births Pre-T	Term (32-36 V	Weeks)									
2016 (%)	8.6	8.1	7.1	7.6	8.0	8.0	6.2	7.0	8.8	7.3	9.8
2017 (%)	8.6	7.6	0.6	9.0	5.3	8.4	5.2	6.8	9.4	7.6	7.6
2018 (%)	8.6	9.8	7.8	7.8	7.0	10.6	7.8	9.0	8.5	8.8	9.5
2019 (%)	8.7	9.4	8.8	5.8	8.3	10.1	11.3	1.5	9.7	11.5	9.8
2020 (%)	8.7	8.5	6.7	9.4	9.8	8.2	9.7	7.3	4.8	7.5	10.0
2021* (%)	8.8	8.1	11.5	10.0	6.8	8.7	8.7	7.0	9.3	10.7	8.6
Live Births Term	(37-41 Weel	(s)									
2016 (%)	89.2	90.1	90.3	89.7	88.7	90.2	91.5	92.3	89.6	92.0	88.3
2017 (%)	89.3	90.4	90.5	89.4	93.4	89.6	93.0	92.5	89.2	91.0	90.5
2018 (%)	89.4	89.1	90.0	89.9	90.9	87.8	89.9	88.7	87.6	90.2	88.9
2019 (%)	89.2	88.6	90.3	91.5	90.3	88.4	85.1	98.5	89.7	86.8	88.6
2020 (%)	89.4	89.3	91.4	88.8	88.5	90.4	89.6	91.3	93.9	91.1	88.9
2021* (%)	89.1	92.0	88.3	89.1	93.2	91.1	91.3	92.3	89.4	87.9	91.2

Source: Ohio Public Health Data Warehouse Resident Live Births by County of Residence 2016 -2021

<sup>\*</sup>Data as of 12/30/2021

### **Reportable Conditions**

Among the diseases that are required for public health reporting in Ohio, eight conditions dominate the Southeastern Ohio Epidemiology Region. Yearly incidence rates of these conditions are represented in Table 14. Incidence rates for years 2020 and 2021 may be impacted by the COVID-19 pandemic. Belmont and Noble Counties are home to incarcerated populations that experience a unique set of risk factors in the development of infectious disease due to their status. These populations were excluded from analysis for the conditions hepatitis B and C.

**Table 16:** Reportable Conditions (Rate per 100,000 persons)

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Campylob	acteriosis										
2017	17.8	8.8	10.9	25.6	26.3	22.6	14.3	13.6	13.9	16.7	82.8
2018	18.8	10.4	35.5	38.4	26.4	18.2	21.8	82.2	48.8	36.1	73.1
2019	20.9	11.9	27.3	30.9	19.9	19.9	29.3	34.5	41.6	19.4	88.5
2020*	**	6.1	30.2	12.9	6.7	15.4	22.1	35.0	20.9	13.8	48.6
2021*	**	13.5	24.6	20.8	34.5	3.1	37.4	72.5	92.1	14.1	100.4
Chlamydi	a Infection										
2017	526.8	294.0	295.5	286.5	243.2	315.0	129.1	197.2	180.5	316.5	220.1
2018	543.1	268.0	292.4	515.2	217.6	272.1	116.1	377.2	250.9	285.8	269.5
2019	561.3	280.6	303.3	352.4	212.8	339.8	197.7	351.5	298.1	362.5	262.1
2020	504.8	207.4	237.7	334.4	259.3	303.1	153.8	296.4	166.4	246.3	217.0
2021*	**	171.4	251.3	301.8	158.8	294.3	156.9	210.1	163.0	234.4	199.1
Gonococc	al Infection	ļ.									
2017	205.7	79.4	30.1	58.8	39.4	73.8	7.2	27.2		83.3	24.8
2018	216.2	40.0	92.9	128.2	39.6	123.1		102.9	83.6	61.0	63.2
2019	223.8	22.4	95.6	66.9	6.6	81.1	51.3	89.6	48.5	102.4	110.2
2020	262.6	97.0	73.8	90.0	26.6	122.5	43.9	13.8	27.7	58.1	73.4
2021*	**	49.6	49.2	98.9	27.6	145.6	7.5	36.2	49.6	59.3	78.6
Hepatitis A	A Infection										
2017	0.4							6.8			
2018	15.7	3.0		7.7			7.3	6.8	20.9	8.3	66.5
2019	13.9	10.4	10.9		13.3	53.6	7.3	6.9	62.4	58.1	15.0
2020*	**	18.2	19.2	41.3	66.6	6.2	7.4	28.0	20.9	8.3	21.8
2021*	**	3.0	8.2	7.8	6.9	3.1		21.7		2.8	16.7

<sup>\*</sup>County-level statistics created utilizing data from the Ohio Disease Reporting System and U.S. Census Bureau. Data is preliminary and subject to change.

Sources: 2017 Annual Summary of Infectious Diseases; 2018 Annual Summary of Infectious Diseases; Annual Summary of Infectious Diseases Ohio 2019; 2016-2020 Ohio Infectious Disease Status Report: Chlamydia; 2016-2020 Ohio Infectious Disease Status Report: Gonorrhea

<sup>\*\*</sup> Data not yet available

Table 16 Continued: Reportable Conditions (Rate per 100,000 persons)

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Hepatitis 1	B Infection	(excluding ca	ses diagnosed in	correctional f	acilities)						
2017	24.3	5.9	16.4	64.0	19.7	39.2	14.3		34.7	36.1	44.7
2018	22.9	8.8	13.7	17.9	13.1	24.1	14.3	13.6	20.8	33.3	29.8
2019	22.2	4.5	5.5	12.9	19.9	24.5	7.3		20.8	24.9	20.0
2020	16.2	10.6	13.7	2.6	6.7	24.6	22.1	14.0	7.0	16.6	3.4
2021*	**	25.0	13.7	23.4	41.4	46.0	7.5	21.7	34.1	33.9	30.1
Hepatitis (	C Infection	(excluding ca	ses diagnosed in	correctional f	acilities)						
2017	186.0	169.0	125.9	217.4	138.0	239.6	93.2	190.4	201.3	238.7	195.3
2018	157.5	173.5	109.5	186.7	98.6	200.4	100.4	170.0	118.0	161.0	163.9
2019	135.6	152.2	82.0	149.2	73.1	166.9	102.5	220.6	117.9	141.1	163.6
2020	111.0	138.8	62.8	136.3	86.4	145.4	65.9	131.0	76.3	91.3	130.2
2021*	**	127.9	60.1	150.9	48.3	111.9	74.7	123.2	76.8	81.9	140.5
Influenza	Assoc. Hos	pitalization									
2017	101.4	29.4	35.6	120.2	98.6	220.0	57.4	61.2	97.2	52.7	167.2
2018	123.5	93.3	51.9	79.4	33.0	176.4	87.0	95.9	76.6	66.6	133.0
2019	93.1	43.3	73.8	90.0	106.4	73.5	51.3	103.4	20.8	132.8	85.1
2020*	**	53.1	98.8	64.5	73.3	70.8	73.6	76.9	41.8	85.6	102.3
2021*	**		8.2	7.8		4.6		21.7	7.1	8.5	6.7
Lyme Disc	ease (Confi	rmed or Prob	able cases only)								
2017	2.3	33.8	16.4	17.9	190.6	21.1	7.2		6.9	5.6	
2018	2.5	31.1	16.4	33.3	59.3	36.5					3.3
2019	3.9	41.8	46.4	61.7	139.6	52.0			20.8	2.8	3.3
2020	3.5	33.4	22.0	41.3	93.3	50.8				5.5	
2021	4.6	63.2	57.4	7.8	158.8	49.0	22.4	14.5	70.9	2.8	

<sup>\*</sup>County-level statistics created utilizing data from the Ohio Disease Reporting System and U.S. Census Bureau. Data is preliminary and subject to change.

Sources: 2017 Annual Summary of Infectious Diseases; 2018 Annual Summary of Infectious Diseases; Annual Summary of Infectious Diseases Ohio 2019;

Hepatitis B: Five year Status Report (2016-2020); ODH Hepatitis C: Five Year Status Report (2016-2020);

Ohio Vector-borne Disease Surveillance Update (2020 Tickborne Diseases, 2021 Tickborne Diseases)

<sup>\*\*</sup> Data not yet available

#### **Substance Abuse**

Drug overdose has been identified as a "Diseases of Despair" by the Appalachia Regional Commission<sup>9</sup>. Categories in Table 17 are not mutually exclusive; decedents may be represented within several different categories based upon toxicology screening results at time of death. The following drug overdose data discussed is for the year 2021, which has not yet been finalized by the Ohio Department of Health. Total overdose deaths were the highest in Perry County with a rate of 63.75 per 100,000 persons as compared to 48.20 per 100,000 persons for the state of Ohio. Perry County overdose death rate for fentanyl and analogues was 49.89 per 100,000 persons as compared to 29.24 per 100,000 persons for the state of Ohio. The death rate as a result of prescription opiates in Perry County was 49.89 per 100,000 as compared to the state rate of 29.83 per 100,000. The opiate overdose death rate in Perry Count was 52.67 per 100,000 as compared to the state of Ohio at 30.04 per 100,000. Cocaine deaths were higher in Jefferson County for 2020 with a rate of 28.81 per 100,000 versus the state rate of 11.22 per 100,000. Deaths due to alcohol were the highest in Jefferson County with a rate of 22.75 per 100,000 as compared to the state of Ohio's rate of 10.29 per 100,000. Deaths due to benzodiazepines were higher in Harrison County with a rate of 13.22 per 100,000 versus the state rate of 3.14 per 100,000. It has been noted that incidence of overdose death, while on the rise prior to 2020, may have accelerated during the COVID-19 pandemic<sup>10</sup>.

**Table 17:** Drug Overdose Deaths (Rate per 100,000 persons)

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Total Overdose Deaths											
2016	39.69	34.11	10.94	41.03	13.22	24.26	7.23	20.61	20.82	13.86	46.50
2017	46.61	29.66	16.41	20.51	52.87	45.49	14.46	13.74	13.88	19.40	23.25
2018	36.36	34.11	21.88	25.64	26.43	39.43	28.93	27.48	34.70	33.26	28.23
2019	39.26	26.70	16.41	30.77		36.40	7.23	13.74	6.94	30.49	23.25
2020*	47.56	45.98	46.50	43.59	26.43	47.01	21.70	54.96	13.88	41.58	34.87
2021*	48.20	32.63	30.09	53.69	33.04	54.59	21.70	13.74	20.82	63.75	33.21

Source: Ohio Department of Health Data Warehouse Drug Overdose Deaths 2016-2021

Years with \* are considered partial and maybe incomplete.

<sup>--</sup> Indicates data that have been suppressed

**Table 17 Continued:** Drug Overdose Deaths (Rate per 100,000 persons)

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Alcohol											
2016	7.34	4.45		7.69	6.61	1.52	7.23	0.00	6.94	2.77	11.62
2017	7.98	0.00	2.74		6.61	3.03		13.74			1.66
2018	6.28	5.93	2.74	2.56	6.61					2.77	6.64
2019	7.86	2.97				4.55	7.23	6.87	6.94	5.54	3.32
2020	8.73	5.93	8.21	5.13	6.61	3.03	0.00	6.87	0.00		6.64
2021*	7.18	1.48	5.47	7.69	13.22	6.07	0.00	6.87	0.00	2.77	1.66
2021*	10.29	1.48	2.74	5.13		22.75			6.94		1.66
Benzodiazepines											
2016	5.48	2.97	2.74	10.26		4.55		6.87	13.88	0.00	11.62
2017	4.96			5.13	19.83	18.20		6.87		2.77	3.32
2018	3.90	1.48	2.74	5.13		13.65	7.23				8.30
2019	3.63	4.45	5.47	5.13		12.13					4.98
2020*	4.00	8.90	8.21	2.56	13.22	10.62	14.46			8.32	3.32
2021*	3.14	2.97	0.00		13.22	9.10	7.23		6.94	2.77	1.66
Cocaine											
2016	10.23		5.47	10.26		10.62			0.00		4.98
2017	13.94	11.87	5.47	2.56	13.22	16.68			6.94		1.66
2018	10.09	5.93	5.47		6.61	16.68			6.94	2.77	4.98
2019	11.12	11.87		2.56	0.00	15.16			0.00	2.77	4.98
2020*	11.22	8.90	5.47	2.56	6.61	28.81			0.00		1.66

Source: Ohio Department of Health Data Warehouse Drug Overdose Deaths 2016-2021 Years with \* are considered partial and maybe incomplete.
-- Indicates small numbers data that have been suppressed.

**Table 17 Continued:** Drug Overdose Deaths (Rate per 100,000 persons)

	Ohio	Belmont	Coshocton	Guernsey	Harrison	Jefferson	Monroe	Morgan	Noble	Perry	Washington
Fentanyl & Analogues											
2016	20.91	7.42		7.69		1.52					11.62
2017	30.60	8.90	2.74	12.82		1.52				5.54	13.29
2018	24.36	10.38	8.21	12.82	13.22	6.07		13.74	13.88	13.86	14.95
2019	27.32	13.35	8.21	15.39	0.00	7.58		6.87	6.94	19.40	9.96
2020*	35.90	25.21	32.82	20.51	6.61	9.10	7.23	13.74	13.88	27.72	24.91
2021*	29.24	13.35	24.62	20.51	6.61	18.20	0.00	6.87	6.94	49.89	24.91
Opiates											
2016	31.58	17.80	5.47	30.77		15.16		13.74	13.88	11.09	24.91
2017	37.47	14.83	8.21	17.95	26.43	36.40			6.94	13.86	16.61
2018	28.39	16.31	13.68	12.82	19.83	22.75	7.23	20.61	27.76	24.95	21.59
2019	30.40	23.73	8.21	17.95		25.78	7.23	6.87	0.00	24.95	14.95
2020*	38.43	38.56	35.56	30.77	19.83	28.81	14.46	20.61	6.94	36.04	26.57
2021*	30.04	16.31	21.88	23.08	13.22	30.33	7.23	6.87	6.94	52.67	26.57
Rx Opiates											
2016	26.28	13.35		28.21		13.65		6.87	13.88	5.54	21.59
2017	35.43	14.83	8.21	17.95	26.43	36.40			6.94	13.86	14.95
2018	27.26	16.31	8.21	12.82	19.83	21.23	7.23	20.61	20.82	16.63	21.59
2019	29.72	23.73	8.21	15.39		24.26	7.23	6.87		22.18	14.95
2020*	38.05	37.08	35.56	30.77	19.83	27.30	14.46	13.74	6.94	30.49	26.57
2021*	29.83	16.31	21.88	23.08	13.22	30.33	7.23	6.87	6.94	49.89	26.57

Source: Ohio Department of Health Data Warehouse Drug Overdose Deaths 2016-2021

Years with \* are considered partial and maybe incomplete.

<sup>--</sup> Indicates small numbers data that have been suppressed.

## **Data Selection**

Demographic data were selected from the American Community Survey 2020 estimates, retrieved from U.S. Census Bureau Census Reporter. Socioeconomic data were retrieved from the 2020 Census, the 2021 County Health Rankings release, the 2019 Ohio Behavioral Risk Factors Survey, and the Ohio Department of Medicaid. Death data were retrieved from the Ohio Public Health Information Warehouse Mortality Dataset. Chronic health data were retrieved from the 2019 Ohio Behavioral Risk Factors Survey. Cancer data were retrieved from the Ohio Cancer Incidence Surveillance System (OCISS) 2016 – 2018 via the Ohio Department of Health Data Warehouse. Data on reportable conditions were compiled from the 2017, 2018, and 2019 Ohio Department of Health Annual Infectious Disease reports as well as condition-specific data sources. Reportable condition 2021 incidence rates were calculated from Ohio Disease Reporting System Data Extract reports utilizing the United States Census Bureau 2020 population estimates. The Maternal and Child Health data were compiled both from the 2021 County Health Rankings data and the Ohio Department of Health Data Ware Gestational Age Distribution Among Ohio Resident Live Births report. Rates of Teen Pregnancy, Live Births Married, Live Births Unmarried, Live Births Very Pre-Term, Live Births Pre-Term, and Live Births Term, were calculated as a percent of reported live births. Ohio Department of Health Data Warehouse and United States Census Bureau 2020 population estimates data were utilized to calculate county overdose death rates per 100,000 persons among decedents with addresses in the state of Ohio.

#### **Text References**

- 1. United States Census Bureau. American Community Survey 2020 Population Estimates. Published 2020. Accessed 2022. Retrieved from: <u>Census Reporter</u>
- 1. Health Disparities in Appalachia (2017), Prepared by the Appalachia Regional Commission, et.al. Pages 123, 135, 151. Published 2017. Accessed 2021 Retrieved from: Health Disparities in Appalachia Appalachian Regional Commission
- 2. Ohio Behavior Risk Factor Surveillance System (2019) Annual Report. Published 2019. Accessed 2021. Retrieved from: BRFSS 2019 Annual Report (ohio.gov)
- 3. Ohio Department of Medicaid. Claim Types Cost, Patients, and Visits. Published June 2021. Accessed 2021. Retrieved from: Workbook: Medicaid Demographic and Expenditure (ohio.gov)
- **4.** Ohio Department of Medicaid. Enrolled Population for Month of December 2021. Accessed 2021. Retrieved from: Workbook: Medicaid Demographic and Expenditure (ohio.gov)
- 5. National Center for Health Statistics. National Vital Statistics System. Data for 2015—2019 are final. Data for 2020 are provisional. Accessed 2021. Retrieved from: Number of deaths for leading causes of death United States, 2015-2020 (cdc.gov)
- 6. County Health Rankings 2021 V1. Published 2021. Accessed 2021 Retrieved from: 2021 County Health Rankings Data v1
- 7. Ohio Public Data Warehouse, 2016-2021. Gestational Age Distribution Among Ohio Resident Live Births. Accessed 2021. Retrieved from: Ohio Public Health Information Warehouse Birth Resident
- **8.** The Appalachia Regional Commission. Diseases of Despair. Published 2020. Accessed 2021. Retrieved from: Appalachian Diseases of Despair, October 2020 (arc.gov)
- 9. Overdose Deaths Accelerating During COVID-10. Centers for Disease Control. Published 2020. Accessed 2021. Retrieved from: Overdose Deaths Accelerating During COVID-19 | CDC Online Newsroom | CDC

## **Table References**

#### **Table 1:** County-Level Demographics

2. United States Census Bureau. American Community Survey 2020 Population Estimates. Published 2020. Accessed 2022. Retrieved from: Census Reporter

## Table 2: Population Movement

1. United States Census Bureau. American Community Survey 2020 Population Estimates. Published 2020. Accessed 2022. Retrieved from: Census Reporter

#### Table 3: Social Determinants of Health, Community Composition

- 1. United States Census Bureau. American Community Survey 2020 Population Estimates. Published 2020. Accessed 2022. Retrieved from: Census Reporter
- 2. County Health Rankings 2021 V1. Published 2021. Accessed 2021. Retrieved from: 2021 County Health Rankings Data v1

### Table 4: Social Determinants of Health, Community Health Markers

- 1. United States Census Bureau. American Community Survey 2020 Population Estimates. Published 2020. Accessed 2022. Retrieved from: Census Reporter
- 3. County Health Rankings 2021 V1. Published 2021. Accessed 2021. Retrieved from: 2021 County Health Rankings Data v1

## Table 5: Social Determinants of Health by County, Community Composition

1. United States Census Bureau. American Community Survey 2020 Population Estimates. Published 2020. Accessed 2022. Retrieved from: <a href="Census Reporter">Census Reporter</a>

#### Table 6: Social Determinants of Health, Community Health Markers

1. County Health Rankings 2021 V1. Published 2021. Accessed 2021. Retrieved from: 2021 County Health Rankings Data - v1

#### Table 7: Behavioral Risk Factors by County

4. County Health Rankings 2021 V1. Published 2021. Accessed 2021. Retrieved from: 2021 County Health Rankings Data - v1

Table 8: Prevalence of Insufficient Fruit and Vegetable Consumption by Adults by Ohio BRFS Region

**2.** Ohio Behavior Risk Factor Surveillance System, 2019 Annual Report. Published 2019. Accessed 2021. Retrieved from: BRFSS 2019 Annual Report (ohio.gov)

## Table 9: Utilization of Health Services by BRFS Region

1. Ohio Behavior Risk Factor Surveillance System, 2019 Annual Report. Published 2019. Accessed 2021. Retrieved from: BRFSS 2019 Annual Report (ohio.gov)

#### Table 10: Medicaid Coverage

2. Ohio Department of Medicaid (June 2021) Claim Types – Cost, Patients, and Visits. Published 2021. Accessed 2021. Retrieved from: Workbook: Medicaid Demographic and Expenditure (ohio.gov)

### **Table 11:** Medicaid Coverage by Gender

**3.** Ohio Department of Medicaid (December 2021) Enrolled Population for Month of December 2021. Published 2021. Accessed 2021. Retrieved from: Workbook: Medicaid Demographic and Expenditure (ohio.gov)

#### **Table 12:** Top 10 Causes of Death (Age-Adjusted Rates)

**4.** Ohio Public Health Information Warehouse Mortality Dataset 2018-2021, Number of Resident Deaths by Year, Ohio Counties. Accessed 2021. Retrieved from: Ohio Public Health Information Warehouse - Mortality

#### Table 13: Cancer

**5.** Ohio Public Data Warehouse utilizing the Ohio Cancer Incidence Surveillance System (OCISS) 1996-2018. Accessed 2021. Retrieved from: Ohio Public Health Information Warehouse - Cancer Incidence Data (1996-2018)

## **Table 14:** Chronic Conditions by BRFS Regions 2019

**6.** Ohio Behavior Risk Factor Surveillance System, 2019 Annual Report. Published 2019. Accessed 2021. Retrieved from: BRFSS 2019 Annual Report (ohio.gov)

#### Table 15: Maternal & Child Health

7. Ohio Public Data Warehouse, 2016-2021. Gestational Age Distribution Among Ohio Resident Live Births. Accessed 2021. Retrieved from: Ohio Public Health Information Warehouse - Birth Resident

**Table 16:** Reportable Conditions

- **8.** Ohio Department of Health. 2017 Annual Summary of Infectious Diseases. Published 2018. Accessed 2022. Retrieved from: Ohio Department of Health: 2017 Annual Summary of Infectious Disease
- **9.** Ohio Department of Health. 2018 Annual Summary of Infectious Diseases. Published 2019. Accessed 2022. Retrieved from: Ohio Department of Health: 2018 Annual Summary of Infectious Disease
- **10.** Ohio Department of Health. Annual Summary of Infectious Diseases Ohio 2019. Published 2020. Accessed 2022. Retrieved from: Ohio Department of Health: Annual Summary of Infectious Disease Ohio 2019
- 11. Ohio Department of Health. 2016-2020 Ohio Infectious Disease Status Report: Chlamydia. Published 2021. Accessed 2022. Retrieved from: Ohio Department of Health: 2016-2020 Ohio Infectious Disease Report: Chlamydia
- **12.** Ohio Department of Health. 2016-2020 Ohio Infectious Disease Status Report: Gonorrhea. Published 2021. Accessed 2022. Retrieved from: Ohio Department of Health: 2016-2020 Ohio Infectious Disease Report: Gonorrhea
- **13.** Ohio Department of Health. Hepatitis B: Five-year Status Report (2016-2020). Published 2021. Accessed 2022. Retrieved from: Ohio Department of Health: Hepatitis C: Five-year Status Report (2016-2020)
- **14.** Ohio Department of Health. Hepatitis C: Five Year Status Report (2016-2020). Published 2021. Accessed 2022. Retrieved from: Ohio Department of Health: Hepatitis C: Five Year Status Report (2016-2020)
- **15.** Ohio Department of Health. Ohio Vectorborne Disease Surveillance Update. Published December 7<sup>th</sup>, 2021. Accessed 2022. Retrieved from: Ohio Department of Health: Ohio Vectorborne Disease Surveillance Update

**Table 17:** Drug Overdose Deaths (Rate/100,000 people)

**16.** Ohio Department of Health Data Warehouse Drug Overdose Deaths 2016-2021. Unintentional Overdose of Ohio Residents Involving Specific Drug(s) by Years (2016-2021). Accessed 2022. Retrieved from: Ohio Public Health Information Warehouse - Mortality