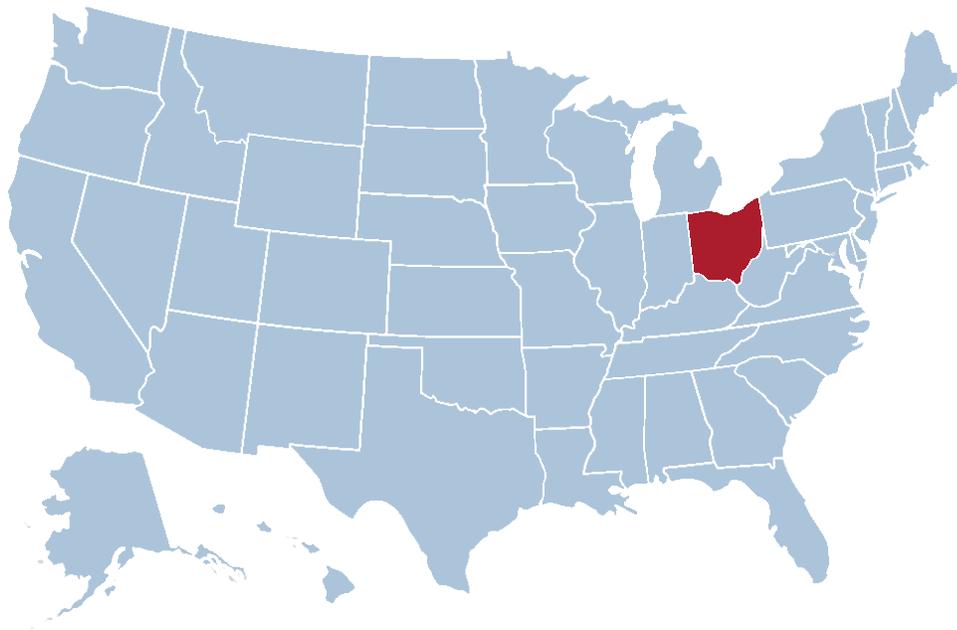




2019

Health Value Dashboard



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Snapshot



What is the *Health Value Dashboard*?

The Health Policy Institute of Ohio's *Health Value Dashboard* is a tool to track Ohio's progress towards health value — a composite measure of Ohio's performance on population health outcomes and healthcare spending. The *Dashboard* examines Ohio's rank and trend performance relative to other states and highlights gaps in outcomes between groups for some of Ohio's most at-risk populations.



Where does Ohio rank?

- **Ohio ranks 46** out of 50 states and the District of Columbia (D.C.) on health value, landing in the bottom quartile. This means that Ohioans are less healthy and spend more on health care than people in most other states.
- **Ohio ranks in the bottom quartile on nearly 30 percent of metrics** and in the top quartile on only 5 percent of metrics, out of 100 metrics ranked in the *Dashboard*.

Key findings

- **Access to care is necessary, but not sufficient.** Ohio performs relatively well on access to care (second quartile) but poorly on the other factors that influence overall health, landing in the bottom half of states for the social and economic environment, physical environment, public health and prevention and healthcare system domains.
- **Tobacco use drives poor health.** Ohio ranks in the bottom quartile for adult smoking and children living in a household with a smoker. All states in the top quartile for health value have lower rates of adult smoking than Ohio.
- **Ohio's per person spending for older Medicaid enrollees (aged category) is 1.4 times more than the U.S. rate;** however, Ohio's overall Medicaid spending per enrollee is relatively similar to other states. This suggests Ohio's healthcare spending needs to be re-aligned to provide greater support for healthy aging and prevention as a way to reduce spending on costly sick care later in life.

Why does Ohio rank poorly?



Too many Ohioans are left behind

Without a strong foundation, not all Ohioans have the same opportunity to be healthy. For example, Ohioans with disabilities or Ohioans who are racial or ethnic minorities, have lower incomes or educational attainment, are sexual or gender minorities and/or who live in rural or Appalachian counties, are more likely to face multiple barriers to health.



Resources are out of balance

Ohio's healthcare spending is mostly on costly downstream care to treat health problems. This is largely because of many missed upstream opportunities to prevent or better manage injury, illness and disability for thousands of Ohioans.



Addiction is holding Ohioans back

Addiction is a complex problem at the root of many of Ohio's greatest health value challenges, including drug overdose deaths, unemployment and incarceration.

View all 2019 *Health Value Dashboard* materials at:

www.hpio.net/2019-health-value-dashboard

Nine strategies that work to improve health value

The prioritized strategies highlighted below have strong evidence of effectiveness¹, address key factors identified by *Dashboard* analysis and are actionable for state policymakers. In addition, research evidence indicates that all these policies and programs are likely to decrease disparities², and most have also been found to be cost effective or cost saving.³



Create opportunities for all Ohio children to thrive

1. **Increase investment in evidence-based home visiting** to ensure Ohio's most at-risk families have access to services, including all families under 200 percent of the federal poverty level.
2. **Expand access to quality early childhood education** by fully implementing Ohio's Step Up to Quality rating system and expanding eligibility for Ohio's child care subsidy from 130 percent to at least 200 percent of the federal poverty level.
3. **Expand access to lead screening and abatement services** by increasing funding to the state's lead poisoning prevention fund, providing tax incentives for lead abatement and expanding the lead abatement workforce to reduce lead exposure for Ohio's most at-risk children, including children living in low-income families.



Invest upstream in employment, housing and transportation

4. **Strengthen the state earned income tax credit** by increasing the rate above 10 percent, lifting the existing cap on the credit and/or making it refundable.
5. **Increase the availability of safe, accessible and affordable housing** for low-income and other at-risk Ohioans by increasing investment in the Ohio Housing Trust Fund.
6. **Increase state investment in public transportation**, prioritizing transit strategies that improve accessibility and better connect low-income workers to jobs and education.



Build and sustain a high-quality addiction prevention, treatment and recovery system

7. **Prioritize tobacco reduction** by increasing use of cessation counseling and medications, expanding prevention media campaigns, increasing the price of tobacco products and restricting youth access to e-cigarettes.
8. **Implement comprehensive evidence-based drug prevention programs and social-emotional learning in schools**, such as LifeSkills, PAX Good Behavior Game and Positive Behavioral Interventions and Supports (PBIS). Sustain effective programs over time through better state agency coordination and establishment of a wellness trust.
9. **Strengthen the behavioral health workforce** through increased reimbursement rates, equal insurance coverage for behavioral health services (parity), student loan repayment programs and continuing to integrate with physical health care.

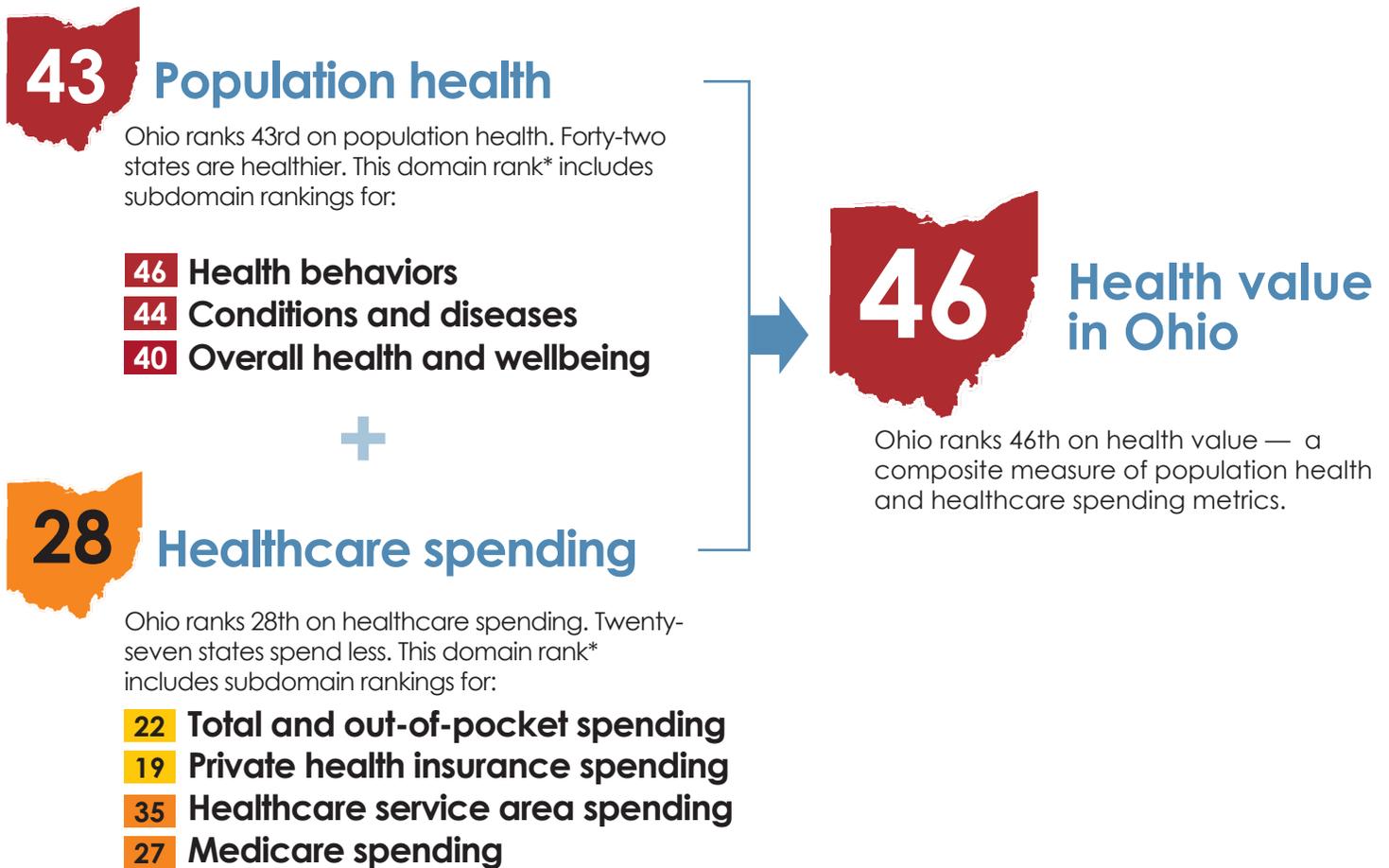
1. All of the strategies prioritized here have been recommended by the [Guide to Community Preventive Services](#) (CG) based on systematic reviews of evidence of effectiveness and/or are included in [What Works for Health](#) (WWFH). WWFH has rated most of these strategies as "scientifically supported," indicating strong evidence of effectiveness. This is not an exhaustive list of effective strategies.

2. WWFH assesses a policy or program's likely effect on various groups in reducing health disparities based on the best available research evidence. CG identifies equity strategies based on findings from systematic reviews of effectiveness and economic evidence issued by the Community Preventive Services Task Force.

3. Five of the strategies listed above are recommended by the [CDC's Health Impact in 5 Years initiative \(HI-5\)](#) which highlights approaches that have evidence of positive health impacts, results within five years and cost effectiveness and/or cost savings over the lifetime of the population or earlier. For benefit-cost information about many of the other strategies listed here, see benefit-cost analyses from the [Washington State Institute for Public Policy](#).

Where does Ohio rank?

Ohioans are less healthy and spend more on health care than people in most other states.

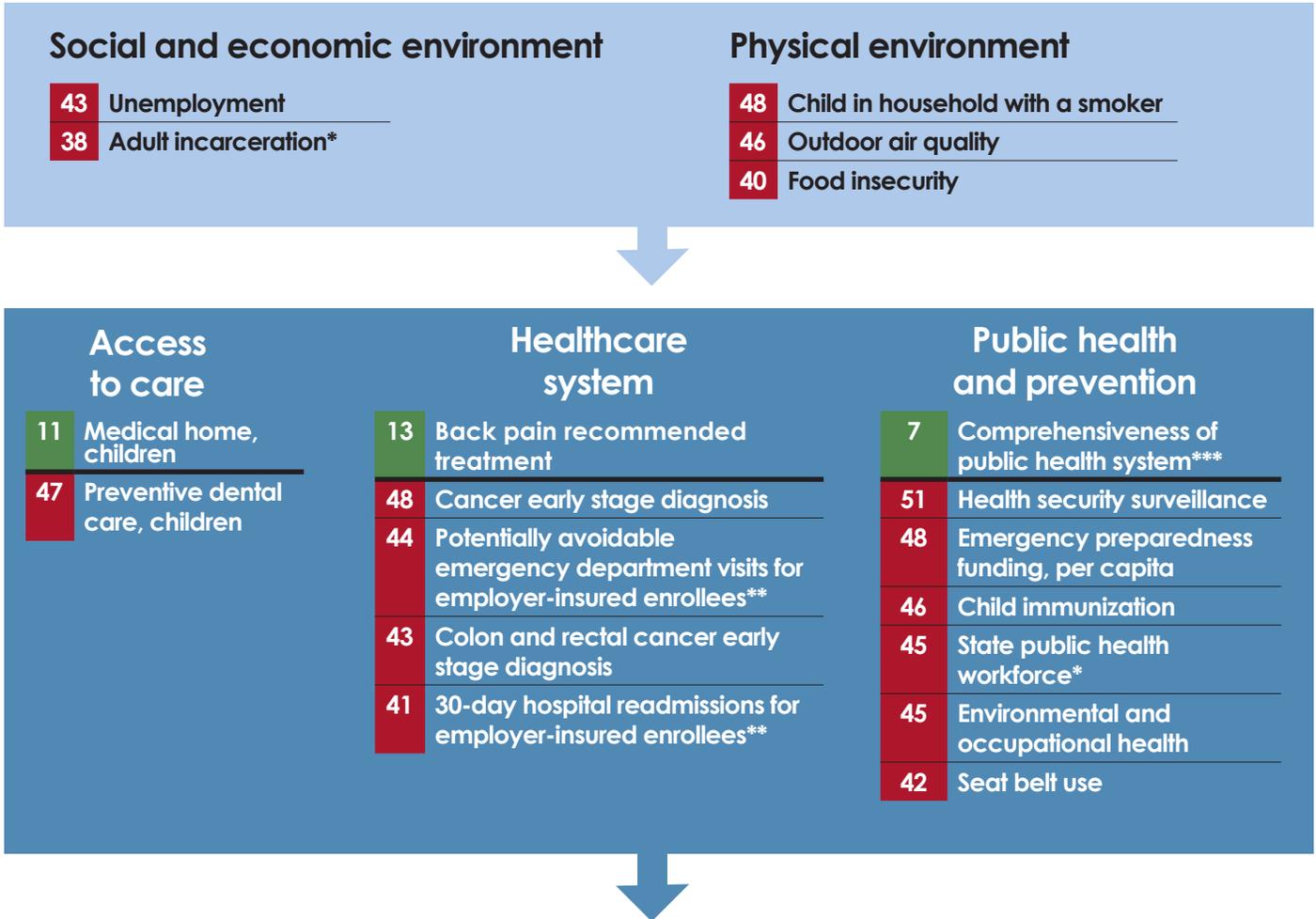


*The domain and subdomain ranks are the composite of individual metric ranks. For example, adult smoking is a metric under the health behaviors subdomain of population health.

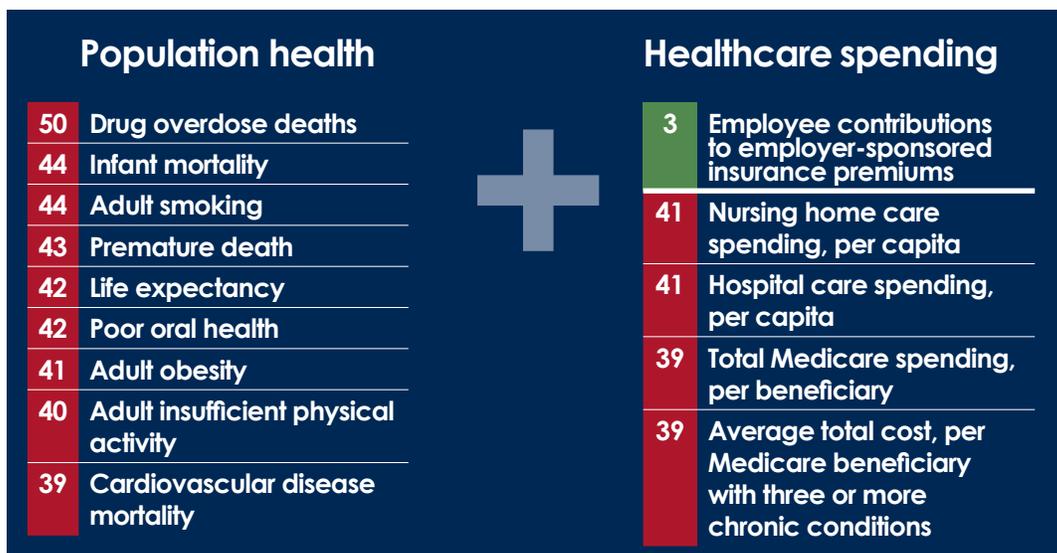
Note: Health value rank equally weights the population health and healthcare spending domains. The rank is not an average of population health and healthcare spending rank. For more details, see the methodology section on the [2019 Health Value Dashboard webpage](#).

Ohio's greatest health value strengths and challenges

Top and **bottom** quartile metrics in the domains that contribute to health value



Top and **bottom** quartile metrics for health value



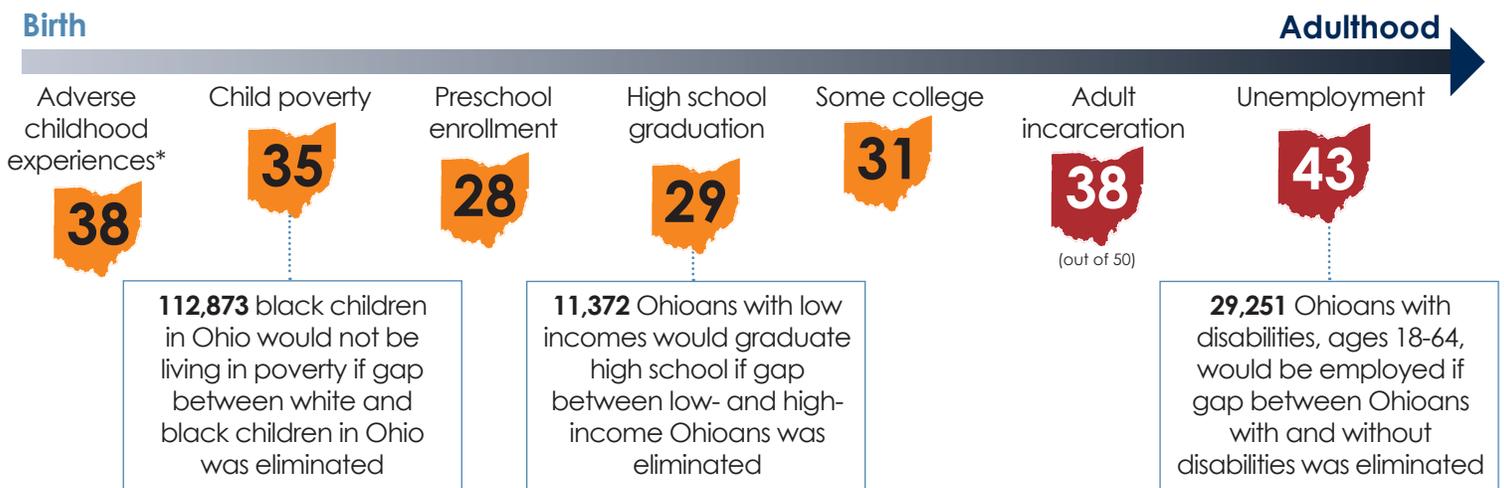
* Ranking out of 50 states
 ** Ranking out of 49 states
 *** Ranking out of 48 states
Note: Metrics in the top quartile that greatly worsened are not included. Ohio has no top quartile metrics for social and economic environment, physical environment and population health.

Why does Ohio rank poorly?

Too many Ohioans are left behind

- **Many Ohioans experience poorer health outcomes** including Ohioans with disabilities or Ohioans who are racial or ethnic minorities, have lower incomes or educational attainment, are sexual or gender minorities and/or who live in rural or Appalachian counties.
- **These groups of Ohioans face barriers to being healthy** due to, for example, unequal access to post-secondary education, a job that pays a self-sufficient income, quality housing and increased exposure to adverse childhood experiences, racism and discrimination.

Without a strong foundation, not all Ohioans have the same opportunity to be healthy



*Adverse childhood experiences include a child's exposure to family dysfunction, addiction in the home, domestic or neighborhood violence and living in a family with financial hardship.

How can we improve?

Create opportunities for all Ohio children to thrive

What works?¹

- **Increase investment in evidence-based home visiting** to ensure Ohio's most at-risk families have access to services, including families under 200 percent of the federal poverty level.
- **Expand access to quality early childhood education** by fully implementing Ohio's Step Up to Quality rating system and expanding eligibility for Ohio's child care subsidy from 130 percent to at least 200 percent of the federal poverty level.
- **Expand access to lead screening and abatement services** by increasing funding to the state's lead poisoning prevention fund, providing tax incentives for lead abatement and expanding the lead abatement workforce to reduce lead exposure for Ohio's most at-risk children and children living in low-income families.

1. All of the strategies prioritized here have been recommended by The Guide to Community Preventive Services and/or are rated by What Works for Health as "scientifically supported," indicating strong evidence of effectiveness.

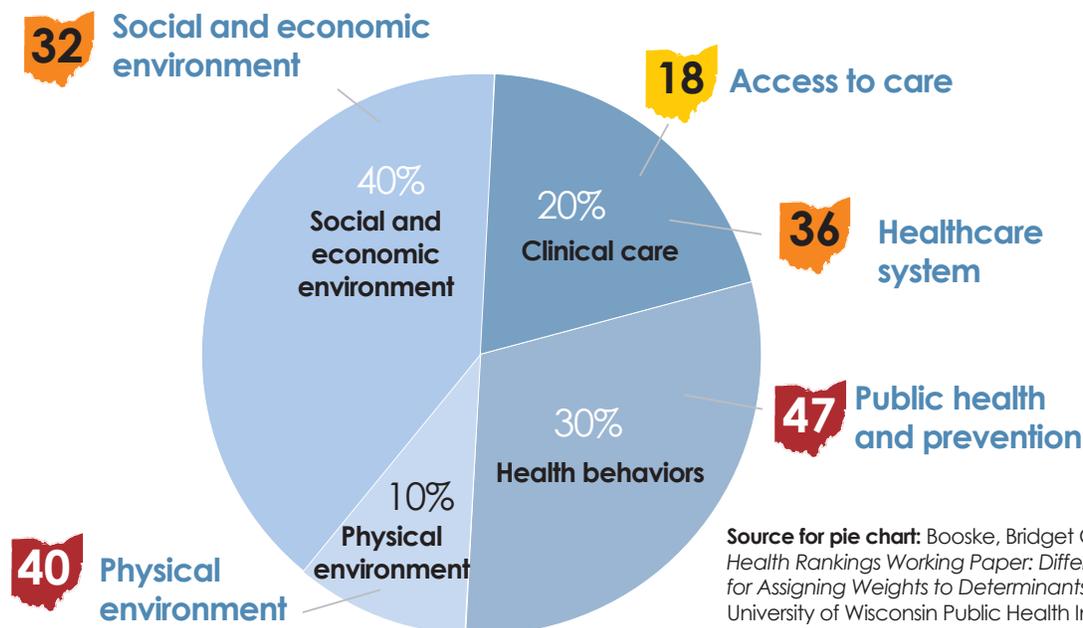
Why does Ohio rank poorly?

Resources are out of balance

- Ohio performs poorly on many of the factors that influence overall health, but relatively well on access to care.
- Ohio's healthcare spending is mostly on costly downstream care to treat health problems. This is largely because of many missed upstream opportunities to prevent or better manage injury, illness and disability for thousands of Ohioans.

Access to quality health care is necessary, but not sufficient, for good health

Researchers estimate that only 20 percent of the modifiable factors that influence health are attributed to clinical care. Eighty percent of overall health is shaped by nonclinical factors in the social, economic and physical environments, such as access to quality education and housing, as well as our behaviors.



How can we improve?

Invest upstream in employment, housing and transportation

What works?¹

- **Strengthen the state earned income tax credit** by increasing the rate above 10 percent, lifting the existing cap on the credit and/or making it refundable.
- **Increase the availability of safe, accessible and affordable housing** for low-income and other at-risk Ohioans by increasing investment in the Ohio Housing Trust Fund.
- **Increase state investment in public transportation**, prioritizing transit strategies that improve accessibility and better connect low-income workers to jobs and education.

1. All of the strategies prioritized here are included in What Works for Health (WWFH). WWFH has rated most of these strategies as "scientifically supported," indicating strong evidence of effectiveness.

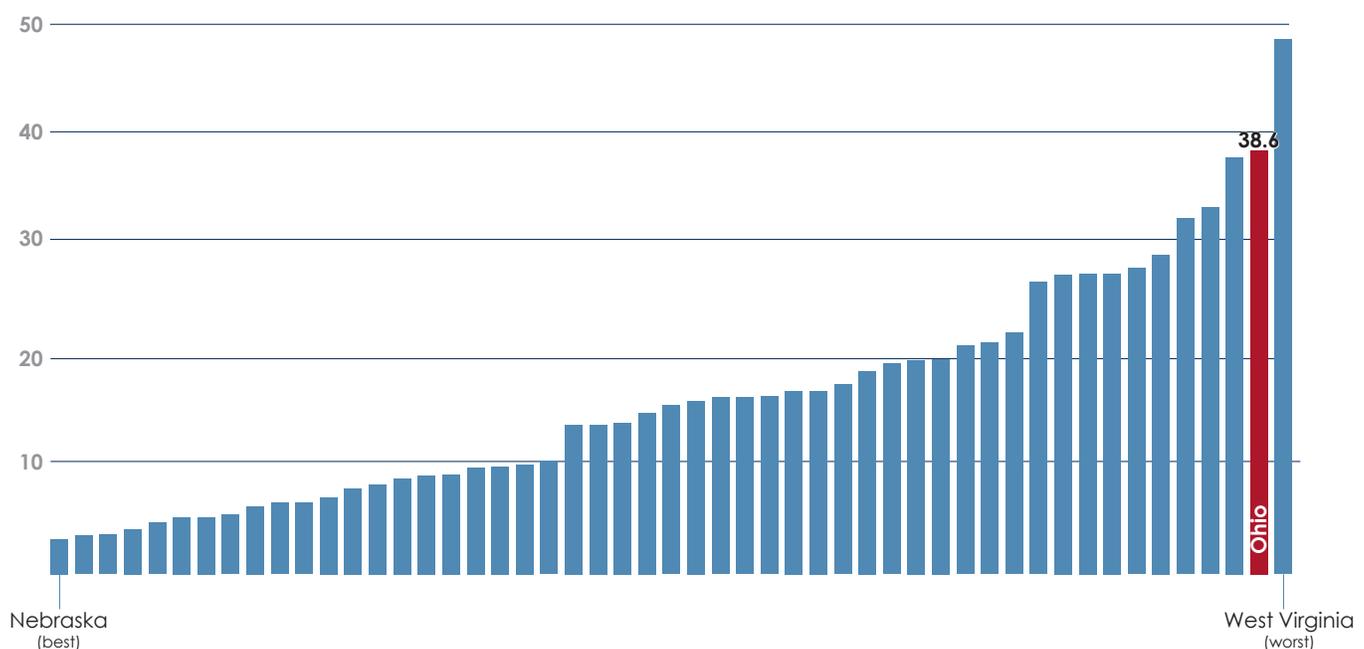
Why does Ohio rank poorly?

Addiction is holding Ohioans back

- **Addiction is a complex problem at the root of many of Ohio's greatest health value challenges**, including drug overdose deaths, unemployment and incarceration.
- **Critical gaps remain in addressing Ohio's addiction crisis**, including a patchwork approach to school and community-based prevention and inadequate provider capacity for medication-assisted treatment, psychosocial treatment and recovery services.

Ohio ranks at the bottom for overdose death rate

Overdose death rate per 100,000 population, 2017



Source: Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (CDC WONDER)

How can we improve?

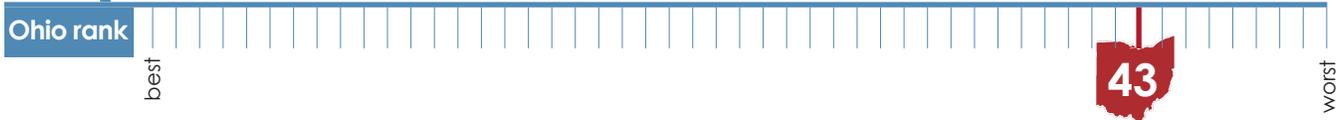
Build and sustain a high-quality addiction prevention, treatment and recovery system

What works?¹

- **Implement comprehensive evidence-based drug prevention programs and social-emotional learning in schools**, such as LifeSkills, PAX Good Behavior Game and Positive Behavioral Interventions and Supports (PBIS).
- **Sustain effective programs over the long term** by establishing one state-level entity to coordinate, evaluate and support school-based prevention and mental health promotion and creating a wellness trust to fund school and community-based prevention in all Ohio communities.
- **Strengthen the behavioral health workforce** through increased reimbursement rates, equal insurance coverage for behavioral health services (parity), student loan repayment programs and continuing to integrate with physical health care.

1. All of the strategies prioritized here have been recommended by The Guide to Community Preventive Services and/or are included in What Works for Health (WWFH). WWFH has rated most of these strategies as "scientifically supported," indicating strong evidence of effectiveness.

Population health



Ohio's rank	Metric	Most recent data	Trend
46	Health behaviors		
37	Excessive drinking. Percent of adults that report either binge drinking, defined as consuming more than four (women) or five (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than one (women) or two (men) drinks per day on average (2017)	20.2%	No change
37	Youth all-tobacco use. Percent of youth, ages 12-17, who used cigarettes, smokeless tobacco, cigars or pipe tobacco during the past 30 days (does not include e-cigarettes) (2016-2017)	6.8%	Moderately improved
40	Adult insufficient physical activity. Percent of adults, ages 18 and older, not meeting physical activity guidelines for muscle strength and aerobic activity (2017)	81.7%	No change
44	Adult smoking. Percent of adults, ages 18 and older, who are current smokers (2017)	21.1%	No change
44	Conditions and diseases		
20 (out of 50)	Suicide deaths. Number of deaths due to suicide, per 100,000 population (2016)	14.2	No change
36	Adult depression. Percent of adults who have ever been told by a health professional that they have depression (2017)	22.6%	Moderately worsened
37	Adult diabetes. Percent of adults who have ever been told by a health professional that they have diabetes (2017)	11.3%	No change
39	Cardiovascular disease mortality. Number of deaths due to all cardiovascular diseases, including heart disease and strokes, per 100,000 population (2016)	276.4	No change
41	Adult obesity. Percent of adults, ages 18 and older, who are obese (body mass index of 30 or higher) (2017)	33.8%	Greatly worsened
42	Poor oral health. Percent of adults, ages 18-64, who have lost six or more teeth because of tooth decay, infection or gum disease (2016)	14%	No change
44	Infant mortality. Number of infant deaths, per 1,000 live births (within one year) (2017*)	7.2*	No change
50	Drug overdose deaths. Number of deaths due to drug overdose, per 100,000 population (2017)	38.6	Greatly worsened
40	Overall health and wellbeing		
34	Overall health status. Percent of adults who report excellent, very good or good health (2017)	81.1%	Moderately worsened
36	Limited activity due to health problems. Average number of days in the previous 30 days when a person reports limited activity due to physical or mental health difficulties, ages 18 and older (2017)	1.8	Moderately worsened
42	Life expectancy. Life expectancy at birth based on current mortality data and population estimates (2016)	77.1	No change
43	Premature death. Average number of years of potential life lost before age 75, per 100,000 population (2017)	8,724	Moderately worsened

Top quartile
 Second quartile
 Third quartile
 Bottom quartile
 NR Not ranked
 N/A Data not available for trend

Of the 50 states and D.C.

Trend note: Worsened or improved compares Ohio's change from baseline to most recent year relative to other states' performance on the metric. For more details, see the methodology section on the [2019 Health Value Dashboard webpage](#).

*2017 data was available for Ohio, but not for other states. 2016 data was used to rank and for all other states.

Deeper dive: Population health

Tobacco use drives poor health

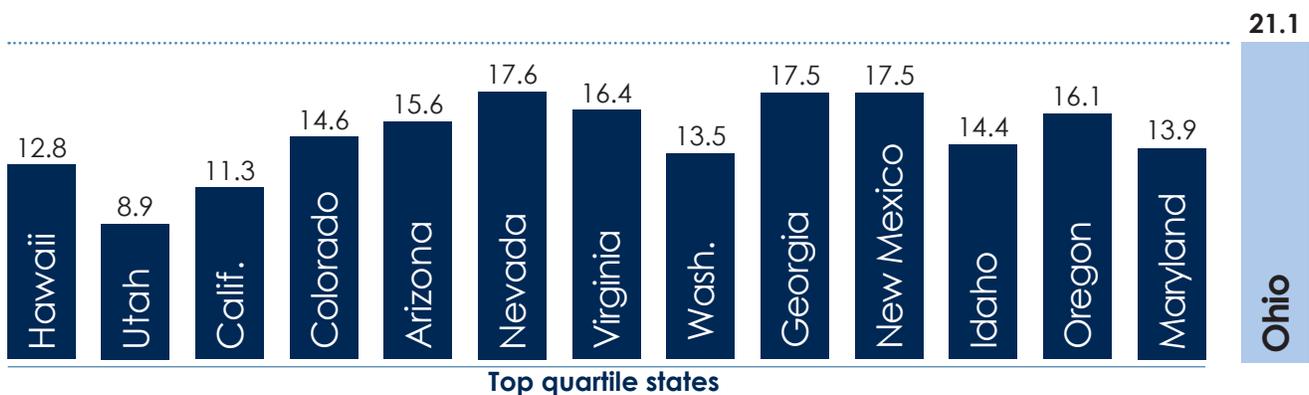
Tobacco use is a key factor contributing to Ohio's poor performance on health:

- **Ohio ranks in the bottom quartile** for adult smoking and children living in a household with a smoker.
- **Tobacco use and secondhand smoke exposure contribute to many of Ohio's greatest health challenges**, including infant mortality, cardiovascular disease, cancer and asthma.
- Researchers estimate that **15 percent of U.S. Medicaid costs are attributable to cigarette smoking**.¹ Forty-six percent of working-age Ohio Medicaid enrollees were current smokers in 2017.²

What works?

- **Increase use of cessation counseling and medications** by promoting greater use of the Ohio Tobacco Quit Line, prioritizing cessation in the Medicaid managed care plan re-procurement process and expanding the Baby and Me Tobacco Free program to reach more pregnant women.
- **Expand media campaigns** designed to motivate cessation and prevent youth use. Ohio only spends 35 percent of the CDC-recommended amount on media campaigns because of limited state funding.³
- **Increase the price of tobacco products** by raising excise taxes on cigarettes, e-cigarettes and other tobacco products or revising Ohio's minimum price law to prohibit use of price discounting tactics.

All states in the top quartile for health value have lower rates of adult smoking than Ohio



Top quartile states

Sources: HPIO 2019 Health Value Dashboard (value rank), 2017 Behavioral Risk Factor Surveillance System (smoking)

Youth e-cigarette use

Rising e-cigarette use threatens to undo progress in youth prevention

- E-cigarette use increased from 11.7% to 20.8% among U.S. high school students from 2017 to 2018.⁴
- After a decline in traditional cigarette use, e-cigarettes have emerged as the most commonly used nicotine product among adolescents.⁵

Recommended state policy response

In 2018, the U.S. Surgeon General issued an advisory on e-cigarettes that called for states to **restrict youth access** to these products.⁶ Specific strategies include:

- Limit sales to adult-only stores
- Prohibit all flavored products
- Apply the other tobacco product tax to e-cigarettes and invest a portion of the proceeds in youth prevention programs
- Implement and enforce a strong tobacco 21 policy that includes e-cigarettes

1. Xu, X., et al. "Annual Healthcare Spending Attributable to Cigarette Smoking: An Update." *American Journal of Preventive Medicine* 48, no.3 (2015): 324-333. doi: 10.1016/j.amepre.2014.10.012.

2. Data provided by the Ohio Colleges of Medicine Government Resource Center. Ohio Medicaid Assessment Survey. Provided March 15, 2019.

3. Source for state spending on tobacco prevention/cessation media (state fiscal year 2018 spending):

Ohio Department of Health, March 2019. Source for spending amount recommended by CDC: U.S. Centers of Disease Control and Prevention. *Best Practices for Comprehensive Tobacco Control Programs*. 2014. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 2014.

4. Centers for Disease Control and Prevention. *Vital Signs. Tobacco use by youth is rising*. Feb. 2019.

5. *Ibid.*

6. Surgeon General's Advisory on E-Cigarette Use Among Youth. Dec. 2018.

Healthcare spending



Ohio's rank	Metric	Most recent data	Trend
22	Total and out-of-pocket spending		
17	Out-of-pocket spending. Percent of individuals who are in families where out-of-pocket spending on health care, including premiums, accounts for more than 10 percent of annual income (2016)	20.5%	Moderately decreased
35	Total healthcare spending, per capita. Spending for all privately and publicly funded personal healthcare services and products, per capita (2014)	\$8,712	Moderately increased
19	Private health insurance spending		
3	Employee contributions to employer-sponsored insurance premiums. Employee contributions to employer-sponsored health insurance premiums as a share of state median income (2016)	5%	No change
24	Private health insurance spending, per enrollee. Private health insurance spending on personal healthcare services and products, per enrollee (2014)	\$4,371	No change
28 <small>(out of 49)</small>	Employer-sponsored plan spending, per enrollee. Total employer-sponsored health insurance plan spending, per enrollee (2015)	\$4,770	No change
36	Average monthly marketplace premium. Average monthly marketplace premium after application of an advanced premium tax credit (2018)	\$220.42	No change
35	Healthcare service area spending		
18	Prescription drug and medical nondurable spending, per capita. Retail sales of prescription and non-prescription drugs and medical products, per capita (2014)	\$1,023	No change
41	Hospital care spending, per capita. Spending for all hospital services provided to patients, per capita (2014)	\$3,809	No change
41	Nursing home care spending, per capita. Spending on nursing and rehabilitative services provided in freestanding nursing home facilities, per capita (2014)	\$605	No change
27	Medicare spending		
22	Average total cost, per Medicare beneficiary without chronic conditions. Average total cost per Medicare beneficiary without chronic conditions (2016)	\$3,946	Greatly increased
24	Average total cost, per Medicare beneficiary with one chronic condition	\$5,539	No change
22	Average total cost, per Medicare beneficiary with two chronic conditions	\$6,554	No change
39	Average total cost, per Medicare beneficiary with three or more chronic conditions	\$14,086	Moderately increased
39	Total Medicare spending, per beneficiary. Total Medicare reimbursements, per Medicare beneficiary (Parts A and B), ages 65-99 (2015)	\$10,025	No change

Top quartile
 Second quartile
 Third quartile
 Bottom quartile
 NR Not ranked
 N/A Data not available for trend

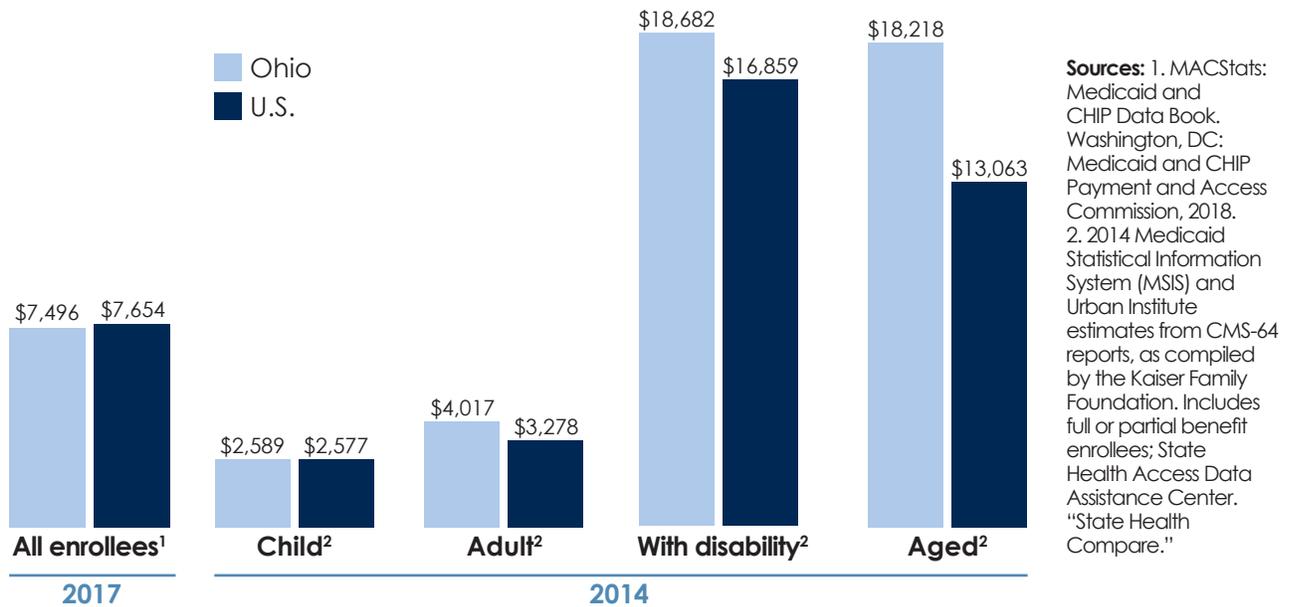
Of the 50 states and D.C.

Trend note: Increased or decreased compares Ohio's change from baseline to most recent year relative to other states' performance on the metric. For more details, see the methodology section on the [2019 Health Value Dashboard webpage](#).

Deeper dive: Healthcare spending

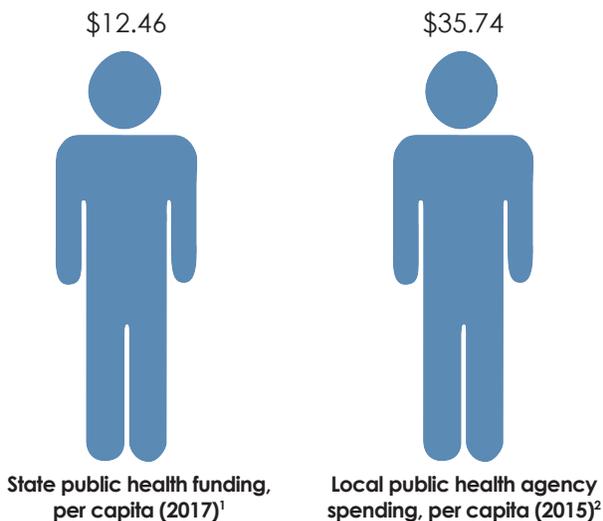
Ohio's spending is largely on costly sick care later in life, not prevention and healthy aging

Medicaid benefit spending, per full year equivalent enrollee, by eligibility group



Ohio's per person spending for older Medicaid enrollees (aged category) is 1.4 times more than the U.S. rate; however, Ohio's overall Medicaid spending per enrollee is relatively similar to other states. This suggests Ohio's healthcare spending needs to be re-aligned to provide greater support for healthy aging and prevention as a way to reduce spending on costly sick care later in life.

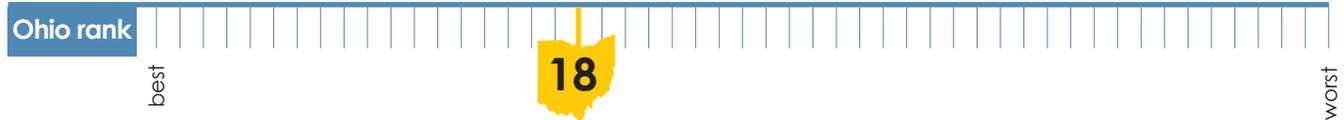
State and local public health funding in Ohio



Sources: 1. State Health Access Data Assistance Center. "State Health Compare." 2. National Association of County and City Health Officials 3. Health Policy Institute of Ohio, *Ohio Prevention Basics: A Closer Look at Prevention Spending*. 2015.

- **State and local public health funding provides critical resources for health behavior, promotion and prevention services in Ohio**, such as tobacco prevention and cessation services, infant mortality reduction, healthy food access, senior fall prevention and infectious disease control.
- **Ohio has a decentralized public health system** with much of the funding for public health sourced at the local level.
- **Fewer state dollars are allocated to prevention.** Medicaid spending includes funding for clinical preventive services; however, Medicaid dollars are primarily allocated to the treatment of health conditions and diseases. State funding for prevention in other health-related agencies is relatively small.³

Access to care



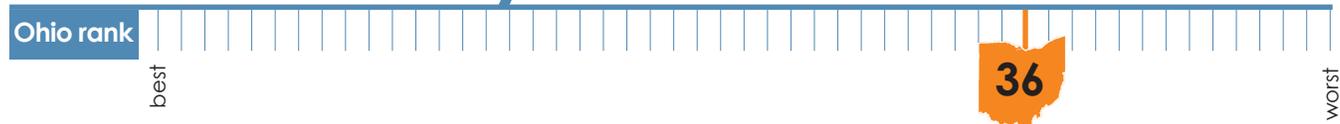
Ohio's rank	Metric	Most recent data	Trend
15	Coverage and affordability		
15	Employer-sponsored health insurance coverage. Percent of all workers who work at a company that offers health insurance to its employees (2017)	85.8%	No change
15	Unable to see doctor due to cost. Percent of adults who went without care because of cost in the past year (2017)	11.3%	No change
16	Uninsured, non-elderly. Percent of population, ages 64 and under, who are uninsured in the state (2017)	7%	No change
11	Primary care access		
11	Medical home, children. Percent of children, ages 0-17, who have a personal doctor or nurse, have a usual source for sick and well care, receive family-centered care, have no problems getting needed referrals and receive effective care coordination when needed (2016-2017)	53.7%	N/A
17	Without a usual source of care. Percent of adults, ages 18 and older, who do not have at least one person they think of as their personal healthcare provider (2017)	18.8%	No change
19	Routine checkup. Percent of adults, ages 50 and older, in fair or poor health, or ever told they have pre-diabetes, acute myocardial infarction, heart disease, stroke or asthma, who did not visit a doctor for a routine checkup in the past two years (2015)	12%	No change
19	Behavioral health		
14 (out of 50)	Youth with depression who did not receive treatment. Percent of youth, ages 12-17, who had a major depressive episode and did not receive treatment for depression in the past year (2011-2015)	56%	Moderately improved
18	Unmet need for mental health treatment. Percent of adults, ages 18 and older, with any mental illness who had a need for mental health treatment or counseling and did not receive it in the past year (2013-2015)	20%	No change
34	Unmet need for illicit drug use treatment. Percent of individuals, ages 12 and older, who needed but did not receive treatment for illicit drug use in the past year (2016-2017)	2.5%	No change
38	Oral health		
20	Received dental care in past year, adults. Percent of adults, ages 18 and older, who have visited the dentist or a dental clinic within the past year (2016)	67.9%	No change
47	Preventive dental care, children. Percent of children, ages 1-17, who have seen a dentist or other oral health care provider for preventive dental care, such as check-ups, dental cleanings, dental sealants or fluoride treatments in the past year (2016-2017)	75.7%	N/A
25	Workforce		
22	Underserved, primary care physicians. Percent of need not met by current supply of primary care physicians in designated primary care health professional shortage areas (2017)	44.8%	Greatly worsened
28	Underserved, dentists. Percent of need not met by current supply of dentists in designated dental care health professional shortage areas (2017)	65.6%	No change
28 (out of 50)	Underserved, psychiatrists. Percent of need not met by current supply of psychiatrists in designated mental health care professional shortage areas (2017)	68%	Greatly worsened

Top quartile
 Second quartile
 Third quartile
 Bottom quartile
 NR Not ranked
 N/A Data not available for trend

Of the 50 states and D.C.

Trend note: Worsened or improved compares Ohio's change from baseline to most recent year relative to other states' performance on the metric. For more details, see the methodology section on the [2019 Health Value Dashboard webpage](#).

Healthcare system



Ohio's rank	Metric	Most recent data	Trend
41	Preventive services		
22	Breastfeeding support in hospitals. Average Maternity Practice in Infant Nutrition and Care (mPINC) score among hospitals and birthing facilities to support breastfeeding (2015)	80	Greatly improved
30	Prenatal care. Percent of women who completed a pregnancy in the last 12 months and who received prenatal care in the first trimester (2017)	74.8%	No change
35	Female breast cancer early stage diagnosis. Percent of female breast cancer cases diagnosed at an early stage (2011-2015)	69.7%	Moderately improved
43	Colon and rectal cancer early stage diagnosis. Percent of colon and rectal cancer cases diagnosed at an early stage (2011-2015)	37.6%	No change
48	Cancer early stage diagnosis. Percent of cervical, colon and rectal, lung and brochial, female breast and prostate cancer cases diagnosed at an early stage (2011-2015)	49.2%	No change
NR	Behavioral health		
NR (Ohio only)	Substance use disorder treatment retention. Percent of individuals, ages 12 and older, with an intake assessment who received one outpatient service within a week and two additional outpatient clinical services within 30 days of intake (state fiscal year [SFY] 2018)	39.3%	N/A
NR (Ohio only)	Mental illness hospitalization follow-up. Percent of Medicaid enrollees, ages 6 and older, who received follow-up after hospitalization for mental illness within 30 days of intake (SFY 2018)	54.2%	N/A
40	Hospital utilization		
7	Heart failure readmissions for Medicare beneficiaries. Number of readmissions within 30 days for any cause for Medicare fee-for-service Part A beneficiaries, ages 18 and older, with a principal diagnosis of heart failure, per 100 cases (2016)	21	Greatly worsened
31	Diabetes with long-term complications. Number of discharges with a principal diagnosis of diabetes with long-term complications for Medicare fee-for-service Part A beneficiaries, ages 18 and older, per 100,000 beneficiaries (2016)	208	Greatly improved
41 (out of 49)	30-day hospital readmissions for employer-insured enrollees. Number of readmissions for people, ages 18-64, within 30 days of an acute hospital stay for any cause, per 1,000 enrollees (2015)	3.4	N/A
44 (out of 49)	Potentially avoidable emergency department visits for employer-insured enrollees. Number of potentially avoidable emergency department visits for people, ages 18-64, with employer-sponsored insurance, per 1,000 enrollees (2015)	177	N/A
22	Timeliness, effectiveness and quality of care		
13	Back pain recommended treatment. Percent of outpatients with low back pain who had an MRI without trying recommended treatments first, such as physical therapy (2016-2017)	37.9%	No change
20	Patient-centered care. Percent of patients who reported hospital staff did not always manage pain well, respond when they needed help to get to the bathroom or pressed a call button, and explain medicines and side effects (2016)	31%	No change
22	Central line-associated bloodstream infections. Standardized infection ratio for central line-associated bloodstream infections in acute care hospitals (2016)	0.84	No change
22	Nursing home pressure ulcers. Percent of long-stay, high-risk nursing home residents with pressure ulcers (2017)	4.9%	Moderately improved
37	Mortality amenable to healthcare. Number of deaths that resulted from causes considered at least partially treatable or preventable with timely and appropriate medical care before age 75, per 100,000 population (2014-2015)	94.5	No change

Top quartile
 Second quartile
 Third quartile
 Bottom quartile
 NR Not ranked
 N/A Data not available for trend

Of the 50 states and D.C.

Trend note: Worsened or improved compares Ohio's change from baseline to most recent year relative to other states' performance on the metric. For more details, see the methodology section on the [2019 Health Value Dashboard webpage](#).

Public health and prevention

Ohio rank

best

47

worst

Ohio's rank	Metric	Most recent data	Trend
26	Public health system and workforce		
7 <small>(out of 48)</small>	Comprehensiveness of public health system. Percent of population served by a comprehensive public health system (2016)	48%	Greatly improved
45 <small>(out of 50)</small>	State public health workforce. Number of state public health agency full-time equivalent (FTE) employees, per 100,000 population (2016)	9.3	No change
NR <small>(Ohio only)</small>	Local public health workforce. Median number of local health department FTE employees, per 100,000 population (2015)	39.1	N/A
48	Communicable disease control and environmental health		
31	Chlamydia. Number of reported cases of chlamydia, per 100,000 population (2017)	528.6	No change
45	Environmental and occupational health. Composite score of the Environmental and Occupational Health domain of the National Health Security Preparedness Index (NHSPI), which measures actions to maintain the security and safety of water and food supplies, to test for hazards and contaminants in the environment and to protect workers and emergency responders from health hazards while on the job (score out of 10 possible points) (2017)	5.5	Greatly improved
46	Child immunization. Percent of children, ages 19-35 months, who received recommended vaccines (2017)	66.4%	No change
32	Health promotion and prevention		
17	Falls among older adults. Percent of adults, ages 65 and older, who have had a fall within the last 12 months (2016)	28.8%	Moderately worsened
21	Motor vehicle crash deaths. Number of deaths due to traffic accidents involving a motor vehicle, per 1,000 population (2010-2016)	10	No change
25	Cigarette tax. State cigarette excise tax rate (2017)	\$1.60	No change
27	Youth marijuana use. Percent of youth, ages 12-17, who used marijuana in the past year (2016-2017)	12.2%	No change
29	Teen birth. Number of births to females, ages 15-19, per 1,000 births (2017)	20.8	No change
31	Low birth weight. Percent of live births where the infant weighed less than 2,500 grams (5.5 pounds) (2017)	8.7%	No change
34	Tobacco prevention spending. Tobacco prevention and control spending as a percent of the Centers for Disease Control and Prevention-recommended level (state fiscal year 2018)	11%	No change
37	Prescription opioid use. Number of dispensed prescriptions for opioids, per 1,000 population (12 months ending June 30, 2016)	828	N/A
42	Seat belt use. Percent of front seat occupants observed using a seat belt (2017)	82.8%	No change
51	Emergency preparedness		
48	Emergency preparedness funding, per capita. Total funding for state and local health departments' emergency preparedness, per capita (federal fiscal year 2017)	\$1.51	No change
51	Health security surveillance. Composite score of the Health Security Surveillance domain of the NHSPI, which measures actions to monitor and detect health threats, and to identify where hazards start and spread so that they can be contained rapidly (score out of 10 possible points) (2017)	6.5	Greatly worsened



Top quartile



Second quartile



Third quartile



Bottom quartile



NR Not ranked

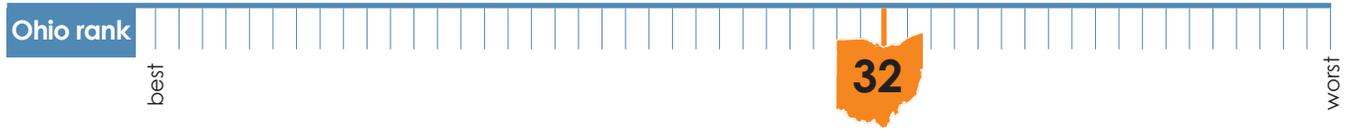


N/A Data not available for trend

Of the 50 states and D.C.

Trend note: Worsened or improved compares Ohio's change from baseline to most recent year relative to other states' performance on the metric. For more details, see the methodology section on the [2019 Health Value Dashboard webpage](#).

Social and economic environment



Ohio's rank	Metric	Most recent data	Trend
27	Education		
14	Fourth-grade reading. Percent of fourth grade public school students proficient in reading by a national assessment (National Assessment of Educational Progress) (2017)	39%	No change
28	Preschool enrollment. Percent of 3- and 4-year-olds enrolled in preschool (2014-2016)	44%	No change
29	High school graduation. Percent of incoming ninth graders who graduate in four years from a public high school with a regular degree (2015/2016 school year)	83.5%	No change
31	Some college. Percent of adults, ages 25-44, with some post-secondary education, such as enrollment in vocational/technical schools, junior colleges, or four-year colleges, including individuals who pursued education following high school but did not receive a degree (2012-2016)	64.5%	No change
36	Employment and poverty		
31	Labor force participation. Percent of people, ages 16 and older, who are in the labor force (2017)	62.9%	No change
31	Adult poverty. Percent of people, ages 18 and older, in households with incomes below the federal poverty level (2017)	12.2%	No change
31	Income inequality. The ratio of household income at the 80th percentile to that at the 20th percentile (2012-2016)	4.8	No change
35	Child poverty. Percent of people, under age 18, in households with incomes below the federal poverty level (2017)	20.1%	No change
43	Unemployment. Percent of people, ages 16 and older, who are jobless, looking for a job and available for work (2017)	5%	No change
29	Family and social support		
21	Low-income working families with children. Percent of families with at least one child under age 18, income below 200 percent of the federal poverty level and at least one parent working year-round during the previous year (2016)	20%	No change
23	Disconnected youth. Percent of youth, ages 16-24, who are not working or in school (2016)	11.1%	Moderately improved
38 (out of 50)	Adult incarceration. Number of people imprisoned under the jurisdiction of state or federal correctional authorities, per 100,000 population (2016)	449	No change
30	Trauma, toxic stress and violence		
18	Violent crime. Number of violent crimes (murder, rape, robbery and aggravated assault), per 100,000 population (2017)	298	No change
26	Child abuse and neglect. Number of child maltreatment victims, per 1,000 children (federal fiscal year 2016)	9	No change
38	Adverse childhood experiences. Percent of children who have experienced two or more adverse experiences (2016-2017)	25.1%	N/A

Top quartile
 Second quartile
 Third quartile
 Bottom quartile
 NR Not ranked
 N/A Data not available for trend

Of the 50 states and D.C.

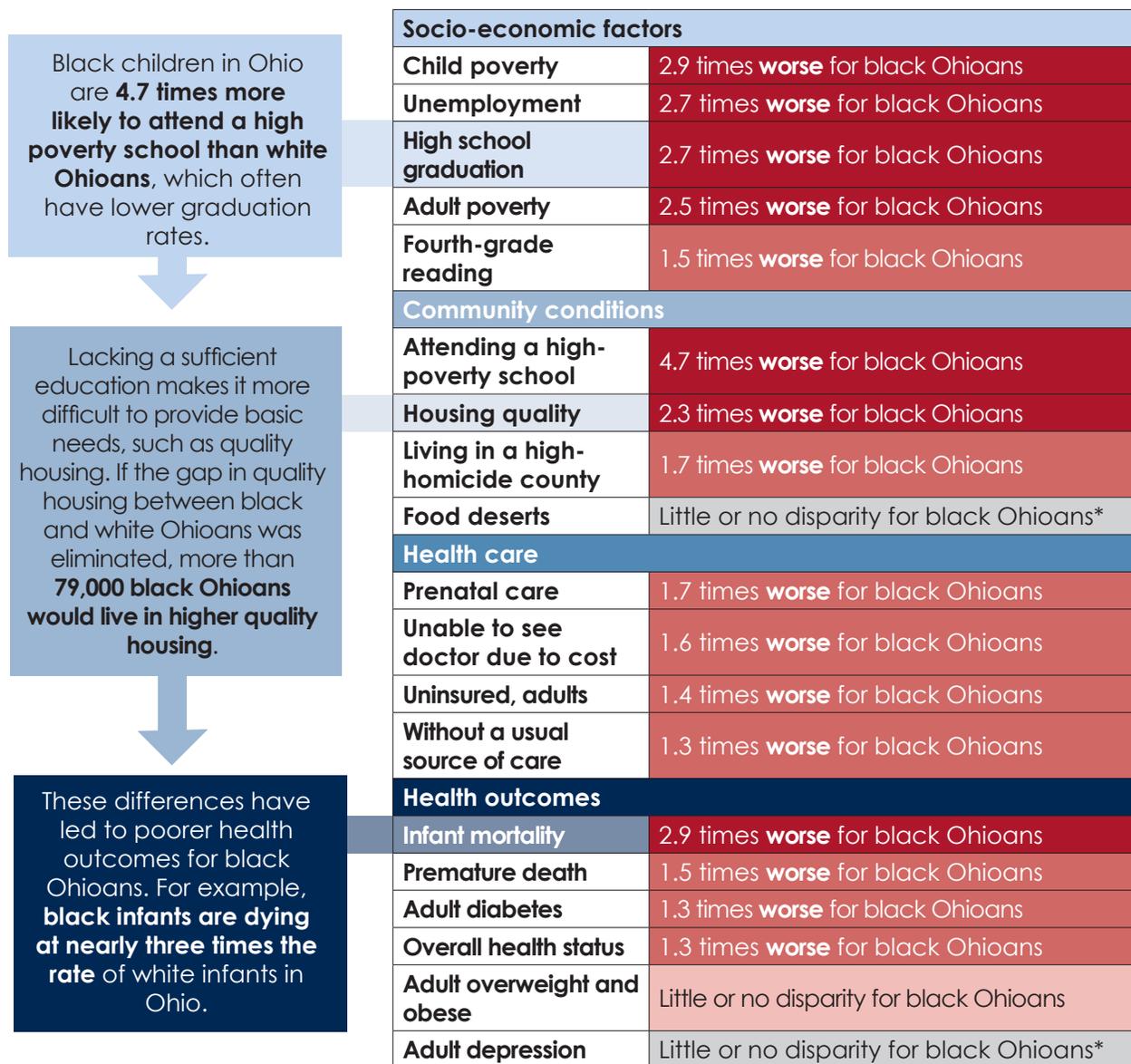
Trend note: Worsened or improved compares Ohio's change from baseline to most recent year relative to other states' performance on the metric. For more details, see the methodology section on the [2019 Health Value Dashboard webpage](#).

Equity profiles

Race/ethnicity: Black Ohioans

- Racist policies such as slavery, Jim Crow laws and redlining were eliminated years ago, but the long-term impact of these policies persists.
- Coupled with continued discrimination and racism, these policies have led to poorer socioeconomic and community conditions for black Ohioans. Because of this, **black Ohioans do not have the same opportunity as white Ohioans to live healthy lives.**

This profile describes the magnitude of difference in outcomes between black Ohioans and white Ohioans.



Note: Darker red indicates larger magnitude of difference. Metric information (description, year, source) is in the *Dashboard* appendix.

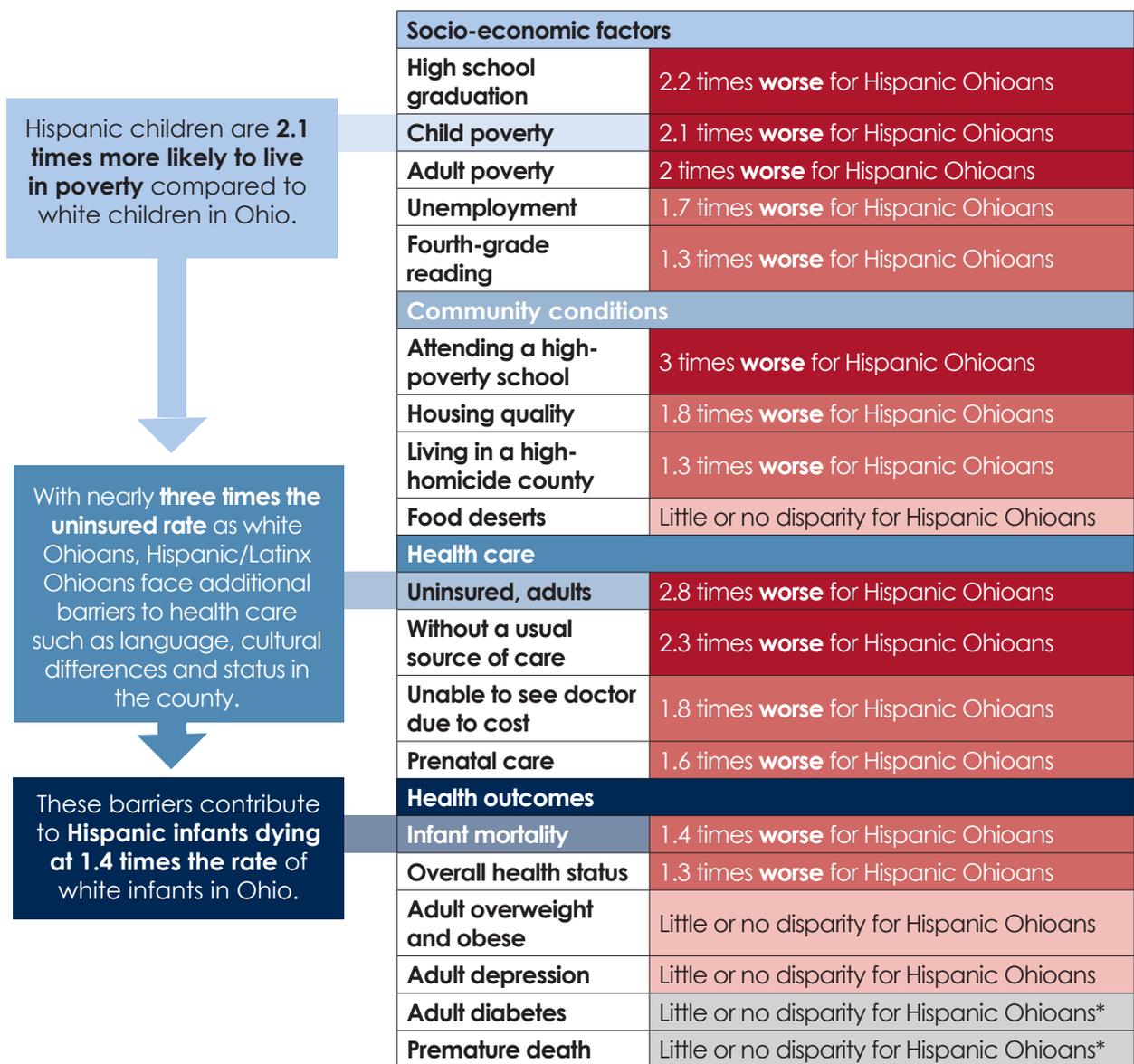
*Disparity ratio is less than 1, indicating that outcomes are better for black Ohioans compared to white Ohioans

Equity profiles

Race/ethnicity: Hispanic/Latinx Ohioans

- Research suggests that Hispanic/Latinx people have better health than non-Hispanic whites at the start of their migration to the U.S. due to stronger social networks and lower smoking rates, among other factors.¹
- However, as longevity in the U.S. increases, the Hispanic/Latinx community faces many of the same barriers as other minority groups such as poorer socioeconomic and community conditions, racism and discrimination. As a result, the health advantage for the Hispanic/Latinx community in the U.S. is shrinking, and **Hispanic/Latinx people face potential for negative trends in health outcomes.**

This profile describes the magnitude of difference in outcomes between Hispanic/Latinx Ohioans and white Ohioans.



Note: Darker red indicates larger magnitude of difference. Metric information (description, year, source) is in the *Dashboard* appendix.

*Disparity ratio is less than 1, indicating that outcomes are better for Hispanic/Latinx Ohioans compared to white Ohioans

1. Scommegna, Paola. "Exploring the Paradox of U.S. Hispanics' Longer Life Expectancy." Population Reference Bureau, July 12, 2013. <https://www.prb.org/us-hispanics-life-expectancy/>

Equity profiles

Education and income

- Post-secondary education lays the foundation for positive employment outcomes and higher earnings over a person's lifetime.
- Having a sufficient income is critical for covering basic needs, such as housing, food, transportation, child care and health care. Because of this, **Ohioans with less than a high school degree do not have the same opportunity to provide for their families or live healthy lives as Ohioans with a college degree.**

This profile describes the magnitude of difference in outcomes between Ohioans with less than a high school education and Ohioans with college degrees. When educational attainment data is not available, the difference in outcomes between low-income and high-income Ohioans is displayed.

Ohioans with less than a high school education are **six times more likely to be unemployed** than Ohioans with college degrees.

Employment provides many benefits, including higher income and access to health insurance coverage. Ohioans with less than a high school education are **6.6 times more likely to be uninsured** compared to those with college degrees.

If the gap in outcomes between Ohioans with less than a high school degree and those with a college degree was eliminated, **more than 320,000 Ohioans** would report having better overall health status.

Socio-economic factors	
Adult poverty	7.2 times worse for people with less than high school education
Unemployment	6 times worse for people with less than high school education
High school graduation	3.5 times worse for people with low incomes
Fourth-grade reading	1.7 times worse for people with low incomes
Community conditions	
Housing quality	3.7 times worse for people with less than high school education
Food deserts	3.1 times worse for people with low incomes
Health care	
Uninsured, adults	6.6 times worse for people with less than high school education
Prenatal care	3.3 times worse for people with less than high school education
Unable to see doctor due to cost	2.2 times worse for people with less than high school education
Without a usual source of care	1.5 times worse for people with less than high school education
Health outcomes	
Overall health status	5 times worse for people with less than high school education
Infant mortality	2.5 times worse for people with less than high school education
Adult diabetes	2 times worse for people with less than high school education
Adult depression	2 times worse for people with less than high school education**
Adult overweight and obese	Little or no disparity for people with less than high school education

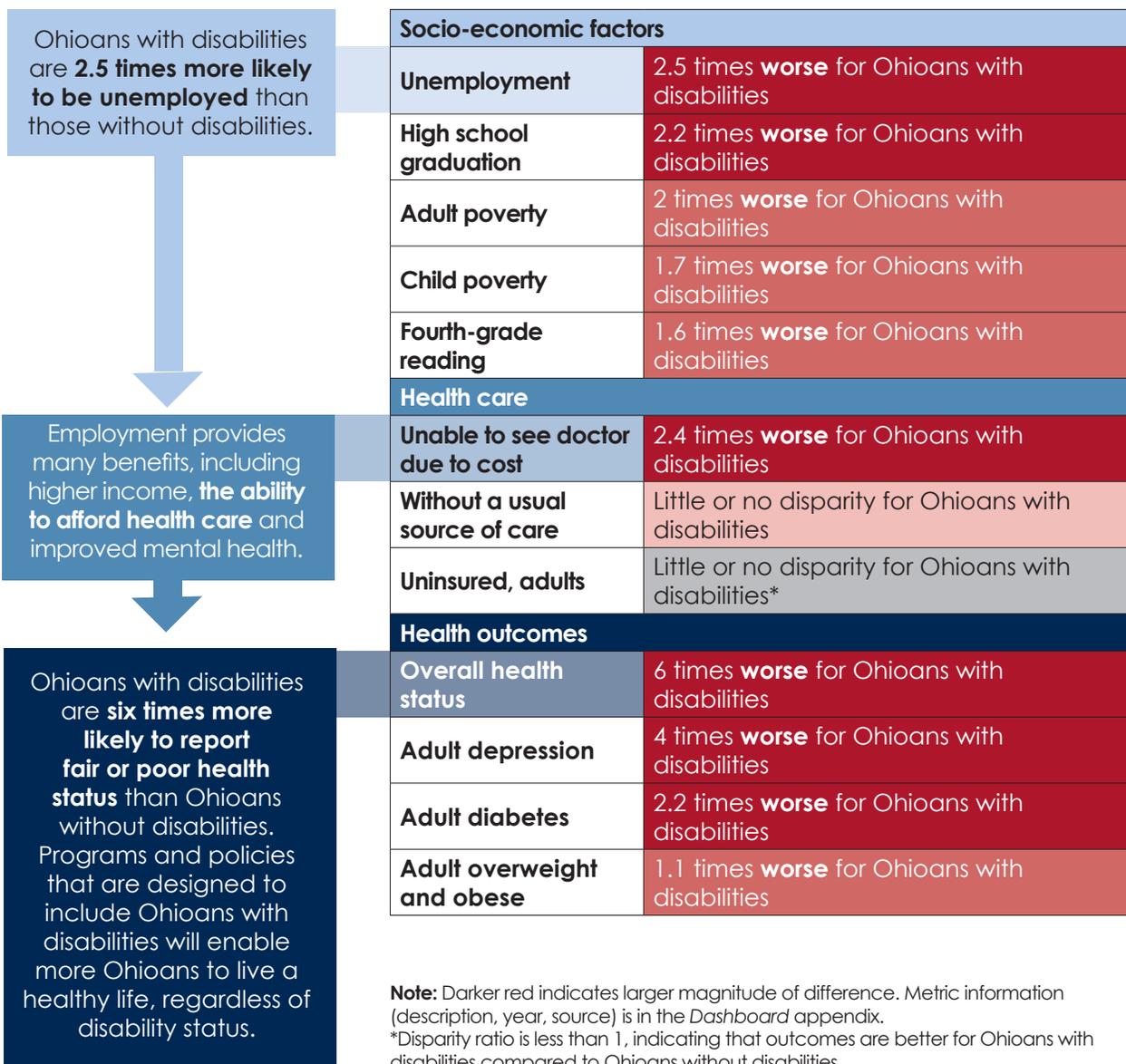
Note: Darker red indicates larger magnitude of difference. Metric information (description, year, source) is in the *Dashboard* appendix.
 ** Shading based on unrounded value

Equity profiles

Disability status

- Ohioans with disabilities face many barriers to health, including lack of adequate employment accomodation and lack of accessible health care, transportation, housing and recreation.
- The misperception that people with disabilities cannot be healthy or productive, coupled with other barriers to health, means that **Ohioans with disabilities do not have the same opportunity to live healthy lives as Ohioans without disabilities.**

This profile describes the magnitude of difference in outcomes between Ohioans with and without disabilities.



Equity profiles

Data challenges and other Ohioans experiencing barriers

Not all Ohioans impacted by health disparities are reflected in existing, publicly-available data:

- Ohioans who are members of more than one group facing poor health outcomes, such as black Ohioans with a disability, often experience even larger gaps in outcomes than depicted by the existing data.
- Data is not consistently collected for all population groups. For example, there is little data on the lesbian, gay, bisexual, transgender, queer or questioning (LGBTQ) community in Ohio, immigrants and refugees or subpopulation groups – such as southeast Asian, Arab/Middle Eastern or sub-Saharan African Ohioans.
- Disaggregated data often is not available at the local level.

Asian Ohioans

Aggregated data can mask health disparities, particularly for subpopulations. Asian Americans, for example, tend to perform well as a whole on many health indicators. However, data on southeast Asians and immigrant or refugee populations from Asia, such as Bhutanese-Nepali refugees, suggest these subpopulations experience poorer health outcomes. For example, a 2014 study found that Bhutanese refugees in Ohio experienced high rates of alcohol and tobacco use, mental health issues and suicide.¹

LGBTQ

Questions regarding sexual orientation and gender identity are not consistently asked on many national and state surveys, making it difficult to assess the health needs of Ohio's LGBTQ community. Further, available data is often limited to information on solely the 'LGBT' population, excluding data on individuals who identify with the 'Q' (queer or questioning). All seven objectives related to LGBTQ health from Healthy People 2020 focus on increasing the number of population-based data systems collecting data on LGBTQ populations.

According to national data, the LGBTQ community experiences many gaps in outcomes linked to their status as sexual and gender minorities. LGBTQ individuals may refuse to engage in health care due to stigma, discrimination or having previously had a bad experience with a provider.² Elderly LGBT individuals face additional barriers due to isolation and lack of culturally-sensitive care among social and medical service providers.³ LGBT individuals also face higher rates of violence and victimization⁴, are five times more likely to attempt suicide during youth⁵ and have higher rates of tobacco, alcohol and other drug use.⁶

Geography

There is a gap of more than 29 years in life expectancy at birth in Ohio depending on where a person lives, ranging from a low of 60 years in a Census tract in the Franklinton neighborhood of Columbus (Franklin County) to a high of 89.2 years in the Stow area (Summit County). Census tracts with the lowest life expectancy in Ohio share similar characteristics, such as a much lower median household income than the state and higher percentages of black Ohioans, people who did not graduate high school and Ohioans with a disability living in the Census tract.⁷ Rural and Appalachian regions of the state also face multiple barriers to health including issues with accessing health care and adequate transportation.⁸

1. Surendra Bir Adhikari et al. *Epidemiology of Mental Health, Suicide and Post-Traumatic Stress Disorders among Bhutanese Refugees in Ohio, 2014*. Columbus, OH: Ohio Department of Mental Health and Addiction Services, Community Refugee and Immigration Services, 2015.

2. *When Health Care Isn't Caring: Lambda Legal's Survey on Discrimination Against LGBT People and People Living with HIV*. New York: Lambda Legal, 2010. https://www.lambdalegal.org/sites/default/files/publications/downloads/whic-report_when-health-care-isnt-caring.pdf

3. Cahill S, K. South and J. Spade. *Outing age: Public policy issues affecting gay, lesbian, bisexual and*

transgender elders. Washington: National Gay and Lesbian Task Force, 2009

4. "Lesbian, Gay, Bisexual, and Transgender Health." *Healthy People 2020*, Office of Disease Prevention and Health Promotion. Accessed March 25, 2019. <https://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health>

5. *Sexual Identity, Sex of Sexual Contacts, and Health-Risk Behaviors Among Students in Grades 9-12*. Youth Risk Behavior Surveillance. Atlanta, GA: Centers for Disease Control and Prevention, 2016

6. "Lesbian, Gay, Bisexual, and Transgender Health." *Healthy People 2020*, Office of Disease Prevention

and Health Promotion. Accessed March 25, 2019. <https://www.healthypeople.gov/2020/topics-objectives/topic/lesbian-gay-bisexual-and-transgender-health>

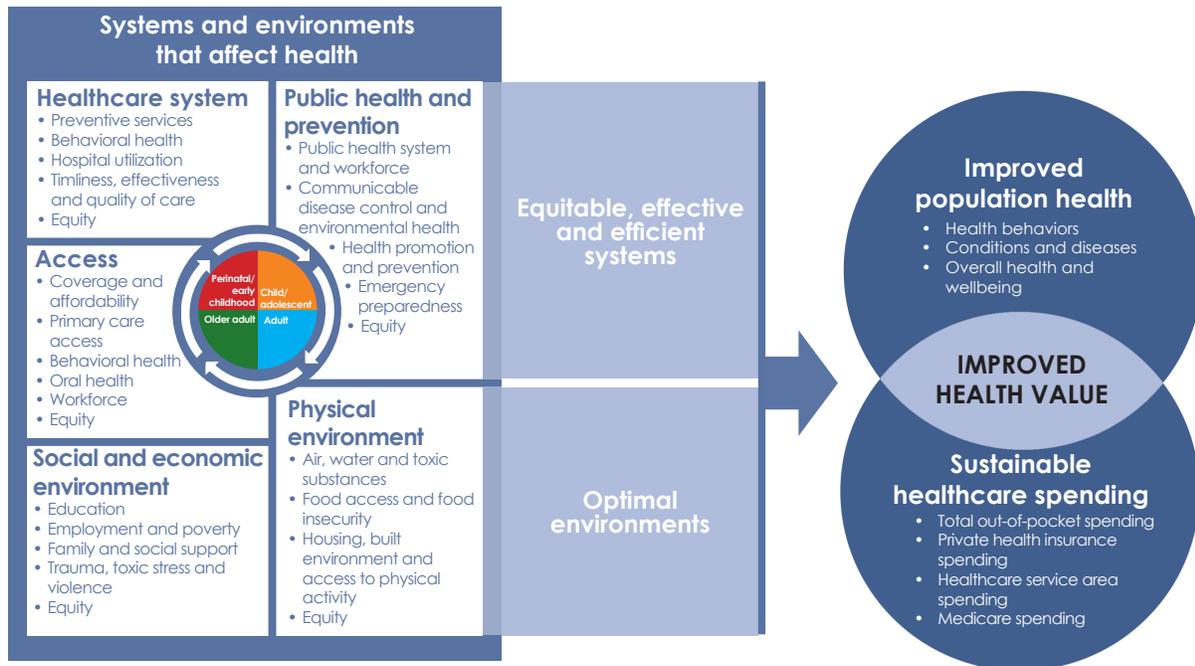
7. Health Policy Institute of Ohio. "Closing Ohio's Health Gaps: Moving Towards Equity," October 2018.

8. Health Policy Institute of Ohio. "2019 State Health Assessment: Regional Forum Findings," December 2018.

Background

The 2019 *Health Value Dashboard* is based on the Pathway to Improved Health Value conceptual framework developed by HPIO's multi-sector [Health Measurement Advisory Group](#).

Pathway to improved health value: A conceptual framework



World Health Organization definition of health: Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

For more information

Visit the [2019 HPIO Health Value Dashboard webpage](#) to access the following materials that provide additional detail about the *Dashboard* methodology and data:

- Process, methodology and metric information
- Frequently Asked Questions (FAQ)
- Excel appendix with metric descriptions, years, sources and Ohio data
- Equity Excel appendix with metric descriptions, years, sources and Ohio data
- Crosswalk to sources that display disaggregated data

Acknowledgments

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HPIO Dashboard advisory groups

Health Measurement Advisory Group (HMAG) members contributed expertise on development of the conceptual framework, selection of metrics, and layout and design of the *Dashboard*. A complete list of HMAG members is posted on the [HMAG web page](#).

HPIO's Equity Advisory Group (EAG) members informed development of the equity profiles. A complete list of EAG members is posted on the [EAG web page](#).



HPIO thanks our core funders, who are helping advance the health of Ohioans through informed policy decisions.

- Interact for Health
- The Mt. Sinai Health Care Foundation
- Saint Luke's Foundation of Cleveland
- The George Gund Foundation
- The Cleveland Foundation
- Sisters of Charity Foundation, Cleveland
- Sisters of Charity Foundation, Canton
- HealthPath Foundation
- Cardinal Health Foundation
- Mercy Health
- CareSource Foundation
- North Canton Medical Foundation

2019

Health Value Dashboard

Process, methodology and metric information

What is the Health Policy Institute of Ohio (HPIO)?

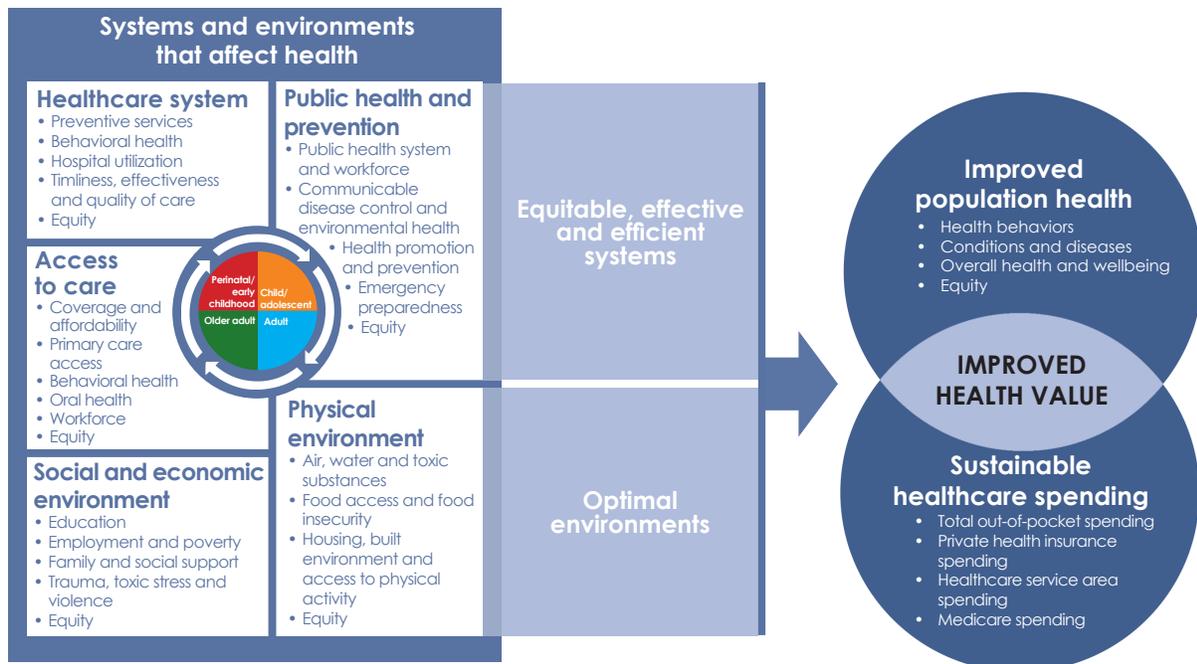
Founded in 2003 by a group of health funders, the Health Policy Institute of Ohio partners with state policymakers and other stakeholders engaged in the policymaking process to provide the independent and nonpartisan analysis needed to create evidence-informed state health policy. The intended outcome of HPIO's work is that state-level public policy decisions lead to improved health value, meaning better health outcomes and sustainable healthcare spending. HPIO produces written and online products, hosts educational forums, facilitates multi-stakeholder discussions and offers technical assistance and consulting services. Foundations contribute most of HPIO's annual operating budget of \$1.3 million.

What is the *Dashboard*?

The *HPIO Health Value Dashboard* is a tool to track Ohio's progress towards health value – a composite measure of Ohio's performance on population health outcomes and healthcare spending. The *Dashboard* examines Ohio's performance relative to other states, tracks change over time, identifies and explores health disparities and inequities in Ohio and highlights evidence-informed strategies that can be implemented to improve Ohio's performance.

The *Dashboard* is based on the Pathway to Improved Health Value conceptual framework. The framework defines health value as the combination of improved population health outcomes and sustainable healthcare spending and outlines the systems and environments that affect health. The *Dashboard* tracks Ohio's performance across all seven domains of the conceptual framework.

Pathway to improved health value: A conceptual framework



World Health Organization definition of health: Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

What makes the HPIO Health Value Dashboard different?

The *Health Value Dashboard* builds upon existing national scorecards and rankings by:

- Focusing on healthcare spending
- Including a comprehensive set of health determinants
- Providing information at-a-glance along with detailed analysis

What is different in the 2019 Health Value Dashboard?

HPIO released the first edition of the *Dashboard* in December 2014. Several improvements were integrated into the 2017 *Dashboard*. HPIO worked to minimize the number of changes in the 2019 *Dashboard*. In some cases, metrics were modified, removed or replaced due to changes in the data description or source or to ensure we are using the most relevant, timely and publicly available source.

HPIO's Health Value Dashboard process

For each edition of the *Dashboard*, HPIO has convened a wide array of Ohio stakeholders as part of HPIO's multi-sector Health Measurement Advisory Group (HMAG) to advise development. Visit the [HMAG web page](#) for a full list of HMAG members. In 2014, HMAG developed the Pathway to Health Value conceptual framework on which the *Dashboard* is based.

In 2019, members of HMAG also provided input to update metrics, improve layout and messaging and to assist with dissemination to state policymakers and other stakeholders.

HPIO again contracted with researchers at the Voinovich School of Leadership and Public Affairs at Ohio University to assist in data compilation, analysis and ranking of the 2019 *Dashboard* metrics.

Metric selection

The first step of the metric selection process for the 2014 edition of the *Dashboard* was to review metrics included in existing scorecards and data initiatives, such as America's Health Rankings, County Health Rankings and the Commonwealth Fund State Scorecard. Drawing upon these existing national tools and their own expertise, HMAG metric workgroup members selected approximately 15 metrics per domain based upon a set of specific criteria, such as availability of state-level data, alignment with state and national initiatives, data quality and relevance. (See the 2014 *Dashboard* for a complete list of criteria.)

Metrics displayed on 2019 Dashboard profiles

Domain	Total metrics	Ranked metrics	Metrics with trend analysis
Population health	16	16 (15 used in health value rank calculation)	16
Healthcare spending	21	14 (13 used in health value rank calculation)	14
Access to care	14	14	12
Healthcare system	16	14	12
Public health and prevention	17	16	15
Social and economic environment	15	15	14
Physical environment	12	11	7
TOTALS	111	100	90

Note: This table includes all metrics listed on pages 12-20 of the 2019 *Dashboard*. It does not include metrics that are only included in the equity profiles.

Number of metrics displayed in 2019 *Dashboard* equity profiles, by group characteristic

Race	Education and/or income	Disability status
19	12 metrics disaggregated by education; 10 metrics disaggregated by income (3 metrics disaggregated by income on equity profile)	12

In preparation for the 2019 edition, HPIO reviewed the list of metrics from the 2017 edition to determine if any changes were needed. The goal was to maintain as much consistency as possible across editions of the *Dashboard*, but to consider changes if better data had emerged or a source was no longer available. The workgroups used three types of criteria to determine whether a metric should be changed: rigor (e.g., changes to data quality), relevance (e.g., alignment with existing initiatives or emerging issues) and reality (e.g., data still available for all or most states, data has been updated since 2017 edition).

A total of 111 metrics, grouped into 7 domains and 24 subdomains, are included on the 2019 *Dashboard* profiles. Nineteen metrics were analyzed as part of the equity component of the *Dashboard*.

Data sources and years

All *Dashboard* data were compiled from publicly available sources, including national population health surveys, vital statistics and administrative data from federal agencies.

The 2019 *Dashboard* includes data from 46 different sources. For this reason, the data years vary by metric. When available, researchers analyzed the three most recently available years of data. At least two years of data were available for 90 metrics for Ohio and other states, allowing for trend analysis. Most baseline year data were from 2013-2016 and most recent-year data were from 2016-2017. See the detailed metric description table starting on page 7 for specific years for each metric.

Data gaps and limitations

The *Dashboard* includes existing data from a variety of publicly available sources, including survey, vital statistics, administrative and claims data. While care was taken to select metrics from credible sources, it is important to keep in mind that each of these sources has its own limitations, such as reliance upon self-reported conditions or behaviors and changes in methodology from year to year. Other data gaps and limitations are outlined below.

Data lag: Data in the *Dashboard* are from publicly-available sources, such as government surveys or birth and death records. There is typically a lag of one to three years between the time this information is collected and when it is released. From a policy perspective, this is important to acknowledge. At times, data may predate effectuation of an important policy change that could impact performance on a metric. Examples of policy changes include new Medicaid eligibility levels, action taken to address a health crisis (such as increased opioid overdose deaths) or delivery and payment system changes.

Data on disparities and inequities: Data on race and ethnicity, education level, income level and disability status are not consistently collected or reported across all population groups. As a result, there is more information on some groups than others (e.g., data may be available for race or ethnicity but not by disability status).

When displaying data on racial and ethnic disparities or other population characteristics, categorizations from the primary source are displayed in the Equity Appendix. For example, one source may use the category African-American/black, while another source may use the category black (non-Hispanic). Similarly, there is variation across metrics in how education level, income level and disability status are described. To the extent possible, comparable groupings across metrics were made.

Change over time: Statistical significance of change over time was not analyzed. Meaningful changes from baseline to most recent year were identified by comparing a state's absolute change for a metric to the standard deviation of the metric's distribution among all states over the years of data being analyzed. (See trend methodology below.)

Ranking methodology

The ranking methodology used in the 2019 *Dashboard* relies on the following descriptive statistics and analyses:

- **Mean** – the sum of all data values in a distribution divided by the number of data values in the distribution. The mean is also referred to as the average.
- **Standard deviation** – a measure that reflects how much variation there is between a distribution's mean and all data values in the distribution. A small standard deviation indicates that values are tightly grouped, and a large standard deviation indicates that values are widely dispersed.
- **z-score** – a measure that reflects the degree of difference between a data value and the distribution's mean. The z-score is the difference between the data value and the distribution's mean divided by the distribution's standard deviation. In other words, the z-score is the number of standard deviations a data value is from the distribution's mean.
- **Percentile ranks** - the proportion of scores in a distribution that a specific score exceeds or to which it is equal.

Metric ranking

To rank states for each metric, researchers followed these steps:

1. Calculate the mean and standard deviation of all state values for the most recent year
2. Convert each state's data value for the most recent year into a z-score
3. Construct a percentile rank for each state (and D.C.)
4. Order percentile ranks in the desired direction for a metric and assign each state a metric rank

Data were not available for all states (and D.C.) for some metrics. For these metrics, states with missing values were not assigned a z-score or ranked. Metrics with more than 10 missing states were not ranked. Some metrics were also not ranked because the data should not be compared across states or desired direction could not be identified.

Subdomain ranking

To calculate subdomain ranks, researchers followed these steps:

1. Convert values for all metrics in the subdomain into z-scores using the procedure outlined above
2. Sum z-scores for all metrics for each state
3. Use the summed z-scores to construct a percentile rank for each state
4. Order percentile ranks and assign each state a rank for the subdomain

Domain ranking

To calculate domain ranks, researchers followed these steps:

1. Convert values for all metrics in the domain into z-scores using the procedure outlined above
2. Sum z-scores for all metrics for each state
3. Use the summed z-scores to construct a percentile rank for each state
4. Order percentile ranks and assign each state a rank for the domain

Health value ranking

To calculate health value rank, researchers followed these steps:

1. Sum z-scores for all metrics with data for all fifty states and D.C. from the population health and healthcare spending domains

Note: To weight domains equally, z-scores for metrics from the population health domain were multiplied by 0.93328627 and z-scores for metrics from the healthcare spending domain were multiplied by 1.07692309 before summing.

2. Use the weighted, summed z-scores to construct a percentile rank for each state
3. Order percentile ranks and assign each state a rank for the domain

Trend methodology

The method to identify meaningful change from baseline to most recent year is consistent with the approach used in the Commonwealth Fund's Scorecard on State Health System Performance.

To calculate trend for each metric, researchers followed these steps:

1. Calculate the standard deviation of the metric's distribution among all states over the years of data being analyzed. For most metrics, the three most recent years of data were analyzed, but trend was calculated when at least two years of data were available
2. Calculate the absolute change between Ohio's value for the most recent year and the baseline year by subtracting the baseline year value from the current year value
3. To analyze trend, compare Ohio's absolute change to the standard deviation using the following 5-point classification scheme:
 - No change: the change is within 0.5 standard deviations
 - Moderately improved: the change is between +0.5 and +1.0 standard deviations
 - Greatly improved: the change is more than +1.0 standard deviations
 - Moderately worsened: the change is between -0.5 and -1.0 standard deviations
 - Greatly worsened: the change is more than -1.0 standard deviations

Equity methodology

Disparities and inequities were examined across a set of 19 metrics by race and ethnicity, education level, income level and disability status through disparity ratios. Metrics and population groups examined were selected with input from the HMAG equity workgroup. Disparity ratios were calculated by dividing the rate of the comparison group — the group that most consistently experiences worse outcomes — to the rate of the reference group — the group that most consistently experiences the best outcomes. For example, the unemployment rate for black Ohioans (comparison group) is 14.2 percent. The rate for white Ohioans (reference group) is 5.3 percent.

$$\text{Disparity ratio} = 14.2/5.3 \text{ or } 2.7$$

Disparity ratio thresholds were assigned based on Healthy People 2020 criteria. Disparity ratios of less than 1.10 were considered to be little to no disparity. Disparity ratios greater than or equal to 1.10 and less than 2 were considered to be moderate. Disparity ratios greater than or equal to 2 were considered to be large.

Data was not always available across population groups (e.g. there were more metrics with data disaggregated by race and ethnicity than any other population group).

Disaggregated metrics were also available for varying levels of group delineations. For example, some metrics were available by both race and ethnicity (non-Hispanic white, non-Hispanic black, and so on) while others were only available for all-encompassing racial groupings (for example, white, black, Hispanic, and so on). Consequently, all groups were simplified to

common levels outlined below and data was compiled when available (for more information see the equity appendix):

- Race = non-Hispanic white/white, non-Hispanic black/black, Hispanic and Asian/Pacific Islander
- Income = Highest income group, lowest income group (thresholds established by data available for the metric)
- Educational attainment = Less than high school, Bachelor's degree or higher
- Disability status = With a disability, without a disability

Measuring estimated impact if disparity eliminated

The *Dashboard* also includes a calculation to answer the question: How many individuals of a specific group would have had a better outcome if their prevalence/exposure rate were that of the group with the best outcome?

The base population sizes for each group were derived from the American Community Survey, 5-year estimates or directly from the source. The number of individuals in the group with the worst outcomes that are currently affected was calculated as follows:

$$\text{number currently affected} = \text{group with worst outcomes rate} \times \text{number of individuals in the group with worst outcomes base population}$$

The number of individuals in the same group who would be affected if the rate of the group with the worst outcome's rate was equal to that of the group with the best outcomes was calculated in a similar fashion:

$$\text{number potentially affected} = \text{group with the best outcomes rate} \times \text{number of individuals in the group with the worst outcome's base population}$$

The number of Ohioans impacted if the disparity were eliminated is then calculated:

$$\text{number currently affected} - \text{number potentially affected}$$

Metric list

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Population health				
Conditions and diseases	Cardiovascular disease mortality. Number of deaths due to all cardiovascular diseases, including heart disease and strokes, per 100,000 population	Number of deaths due to all cardiovascular diseases (ICD-10 codes I10-I99), including heart disease and strokes, per 100,000 population, age-adjusted.	2016, 2015, 2014	Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (CDC WONDER)
Conditions and diseases	Suicide deaths. Number of deaths due to suicide, per 100,000 population	Number of deaths due to suicide, per 100,000 population, age-adjusted.	2016, 2015, 2014	Centers for Disease Control and Prevention, National Center for Health Statistics, Suicide Mortality by State
Conditions and diseases	Adult depression. Percent of adults who have ever been told by a health professional that they have depression	Percent of adults who have ever been told by a doctor, nurse or other health professional they have a form of depression.	2017, 2016, 2015	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey
Conditions and diseases	Adult diabetes. Percent of adults who have ever been told by a health professional that they have diabetes	Percent of adults who have been told by a doctor, nurse or other health professional that they have diabetes.	2017, 2016, 2015	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey
Conditions and diseases	Adult obesity. Percent of adults, ages 18 and older, who are obese (body mass index of 30 or higher)	Percent of population age 18 and older that are obese (body mass index of 30 or higher).	2017, 2016, 2015	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey
Conditions and diseases	Infant mortality. Number of infant deaths, per 1,000 live births (within one year)	Number of infant deaths per 1,000 live births (within 1 year).	2017*, 2016, 2015, 2014	Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (CDC WONDER) and the Ohio Department of Health, "2017 Ohio Infant Mortality Data: General Findings"
Conditions and diseases	Poor oral health. Percent of adults, ages 18-64, who have lost six or more teeth because of tooth decay, infection or gum disease	Percent of adults ages 18-64 who have lost six or more teeth because of tooth decay, infection or gum disease.	2016, 2012	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, as compiled by the Commonwealth Fund Scorecard on State Health System Performance
Conditions and diseases	Drug overdose deaths. Number of deaths due to drug overdose, per 100,000 population	Number of deaths due to drug overdose, including unintentional and intentional overdose deaths, per 100,000 population (age-adjusted).	2017, 2016, 2015	Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (CDC WONDER)
Health behaviors	Adult insufficient physical activity. Percent of adults, ages 18 and older, not meeting physical activity guidelines for muscle strength and aerobic activity	Percent of adults 18 years and older not meeting physical activity guidelines for muscle strength and aerobic activity.	2017, 2015, 2013	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey
Health behaviors	Adult smoking. Percent of adults, ages 18 and older, who are current smokers	Percent of population age 18 and older that are current smokers.	2017, 2016, 2015	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey

* 2017 was available for Ohio, but not for other states. 2016 data was used for rank and all other analysis.

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Population health (cont.)				
Health behaviors	Youth all-tobacco use. Percent of youth, ages 12-17, who used cigarettes, smokeless tobacco, cigars or pipe tobacco during the past 30 days (does not include e-cigarettes)	Percent of youth ages 12-17 who used cigarettes, smokeless tobacco (i.e. snuff, dip, chewing tobacco, or "snus"), cigars, or pipe tobacco during past 30 days	2016/2017, 2015/2016, 2014/2015	Substance Abuse and Mental Health Services Administration, National Survey of Drug Use and Health
Health behaviors	Excessive drinking. Percent of adults that report either binge drinking, defined as consuming more than four (women) or five (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than one (women) or two (men) drinks per day on average	Percent of adults that report either binge drinking, defined as consuming more than 4 (women) or 5 (men) alcoholic beverages on a single occasion in the past 30 days, or heavy drinking, defined as drinking more than one (women) or 2 (men) drinks per day on average.	2017, 2016, 2015	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, as compiled by America's Health Rankings
Overall health and wellbeing	Limited activity due to health problems. Average number of days in the previous 30 days when a person reports limited activity due to physical or mental health difficulties, ages 18 and older	Average number of days in the previous 30 days when a person reports limited activity due to physical or mental health difficulties, ages 18 and older.	2017, 2016, 2015	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, analysis by the State Health Access Data Assistance Center (SHADAC)
Overall health and wellbeing	Overall health status. Percent of adults who report excellent, very good or good health	Percent of adults that report excellent, very good or good health.	2017, 2016, 2015	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey
Overall health and wellbeing	Life expectancy. Life expectancy at birth based on current mortality data and population estimates	Life expectancy at birth based on current mortality data and population estimates.	2016, 2010, 2008	Analysis of data from Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (CDC WONDER) by Measure of America, a project of the Social Science Research Council.
Overall health and wellbeing	Premature death. Average number of years of potential life lost before age 75, per 100,000 population	Average number of years of potential life lost before age 75 per 100,000 population, age-adjusted.	2017, 2016, 2015	Centers for Disease Control and Prevention, Web-based Injury Statistics Query and Reporting System (WISQARS), as compiled by the State Health Access Data Assistance Center (SHADAC)

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Healthcare spending				
Healthcare service area spending	Hospital care spending, per capita. Spending for all hospital services provided to patients, per capita	Per capita spending on hospital services provided to patients including room and board, ancillary charges, services of resident physicians, inpatient pharmacy, hospital-based nursing home and home health care and any other services billed by hospitals, by state of residence.	2014, 2013, 2012	Centers for Medicare and Medicaid Services, National Health Expenditure data set, by State of Residence
Healthcare service area spending	Nursing home care spending, per capita. Spending on nursing and rehabilitative services provided in freestanding nursing home facilities, per capita	Per capita spending on nursing and rehabilitative services provided in freestanding nursing home facilities, by state of residence.	2014, 2013, 2012	Centers for Medicare and Medicaid Services, National Health Expenditure data set, by State of Residence
Healthcare service area spending	Prescription drug and medical nondurable spending, per capita. Retail sales of prescription and non-prescription drugs and medical products, per capita	Per capita retail sales of prescription and non-prescription drugs, and medical products (i.e., surgical and medical instruments and surgical dressings, needles, thermometers), by state of residence.	2014, 2013, 2012	Centers for Medicare and Medicaid Services, National Health Expenditure data set, by State of Residence
Medicaid spending	Medicaid spending per enrollee, all. Average amount Medicaid spends per federal fiscal year per full-year equivalent enrollee, including all full and partial benefit Medicaid enrollees	Average amount Medicaid spends per federal fiscal year per full-year equivalent enrollee, including all full and partial benefit Medicaid enrollees.	FFY 2017, FFY 2016	Medicaid and CHIP Payment and Access Commission, MACSTATS
Medicaid spending	Medicaid spending per enrollee, child. Average amount Medicaid spends per full-year equivalent child enrollee per federal fiscal year. Includes all full or partial benefit enrollees. Spending per enrollee estimates includes both state and federal payments to Medicaid	Average amount Medicaid spends per full-year equivalent child enrollee per federal fiscal year. Includes all full or partial benefit enrollees. Spending per enrollee estimates includes both state and federal payments to Medicaid.	FFY 2014	Analysis of data from the 2014 Medicaid Statistical Information System and Urban Institute estimates from CMS-64 reports by the Henry J Kaiser Family Foundation, as compiled on State Health Facts.
Medicaid spending	Medicaid spending per enrollee, adult. Average amount Medicaid spends per full-year equivalent adult enrollee per federal fiscal year. Includes all full or partial benefit enrollees. Spending per enrollee estimates includes both state and federal payments to Medicaid	Average amount Medicaid spends per full-year equivalent adult enrollee per federal fiscal year. Includes all full or partial benefit enrollees. Spending per enrollee estimates includes both state and federal payments to Medicaid.	FFY 2014	Analysis of data from the 2014 Medicaid Statistical Information System and Urban Institute estimates from CMS-64 reports by the Henry J Kaiser Family Foundation, as compiled on State Health Facts.

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Healthcare spending (cont.)				
Medicaid spending	Medicaid spending per enrollee, with disabilities. Average amount Medicaid spends per full-year equivalent enrollee with disabilities per federal fiscal year. Includes all full or partial benefit enrollees. Spending per enrollee estimates includes both state and federal payments to Medicaid	Average amount Medicaid spends per full-year equivalent enrollee with disabilities per federal fiscal year. Includes all full or partial benefit enrollees. Spending per enrollee estimates includes both state and federal payments to Medicaid.	FFY 2014	Analysis of data from the 2014 Medicaid Statistical Information System and Urban Institute estimates from CMS-64 reports by the Henry J Kaiser Family Foundation, as compiled on State Health Facts.
Medicaid spending	Medicaid spending per enrollee, aged. Average amount Medicaid spends per full-year equivalent aged enrollee per federal fiscal year. Includes all full or partial benefit enrollees. Spending per enrollee estimates includes both state and federal payments to Medicaid	Average amount Medicaid spends per full-year equivalent aged enrollee per federal fiscal year. Includes all full or partial benefit enrollees. Spending per enrollee estimates includes both state and federal payments to Medicaid.	FFY 2014	Analysis of data from the 2014 Medicaid Statistical Information System and Urban Institute estimates from CMS-64 reports by the Henry J Kaiser Family Foundation, as compiled on State Health Facts.
Medicare spending	Average total cost, per Medicare beneficiary without chronic conditions. Average total cost per Medicare beneficiary without chronic conditions	Annual average of all costs, risk adjusted, per Medicare beneficiary without any claims-based chronic conditions.	2016, 2015, 2014	Centers for Medicare and Medicaid Services, Mapping Medicare Disparities
Medicare spending	Average total cost, per Medicare beneficiary with one chronic condition. Average total cost per Medicare beneficiary with one chronic condition	Annual average of all costs, risk adjusted, per Medicare beneficiary with one claims-based chronic condition.	2016, 2015, 2014	Centers for Medicare and Medicaid Services, Mapping Medicare Disparities
Medicare spending	Average total cost, per Medicare beneficiary with two chronic conditions. Average total cost per Medicare beneficiary with two chronic conditions	Annual average of all costs, risk adjusted, per Medicare beneficiary with two claims-based chronic conditions.	2016, 2015, 2014	Centers for Medicare and Medicaid Services, Mapping Medicare Disparities
Medicare spending	Average total cost, per Medicare beneficiary with three or more chronic conditions. Average total cost per Medicare beneficiary with three or more chronic conditions	Annual average of all costs, risk adjusted, per Medicare beneficiary with three or more claims-based chronic conditions.	2016, 2015, 2014	Centers for Medicare and Medicaid Services, Mapping Medicare Disparities
Medicare spending	Total Medicare spending, per beneficiary. Total Medicare reimbursements, per Medicare beneficiary (Parts A and B), ages 65-99	Total Medicare reimbursements (price, age, sex and race-adjusted) per Medicare beneficiaries ages 65-99 enrolled in both Medicare Parts A and B. Patients enrolled in risk-bearing health maintenance organizations (HMOs) are excluded.	2015, 2014, 2013	The Dartmouth Institute for Health Policy and Clinical Practice, Dartmouth Atlas of Health Care
Private health insurance spending	Average monthly marketplace premium. Average monthly marketplace premium after application of an advanced premium tax credit	Average monthly premium for all enrollees in the federal marketplace or for states that use healthcare.gov, after application of an advanced premium tax credit.	2018, 2017	Centers for Medicare and Medicaid Services, Marketplace Open Enrollment Period Public Use Files
Private health insurance spending	Private health insurance spending, per enrollee. Private health insurance spending on personal healthcare services and products, per enrollee	Per enrollee private health insurance spending on personal health services and products (i.e., hospital care, physician services, nursing home care, prescription drugs, etc.), by state of residence.	2014, 2013, 2012	Centers for Medicare and Medicaid Services, National Health Expenditure data set, by State of Residence

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Healthcare spending (cont.)				
Private health insurance spending	Employee contributions to employer-sponsored insurance premiums. Employee contributions to employer-sponsored health insurance premiums as a share of state median income	Employees' average contributions to their employer-sponsored health insurance premiums as a percent of state median household incomes for the under-65 population in each state, using a weighted average of single and family premium contributions compared with single and family median household incomes. Commonwealth Fund 2018 Scorecard on State Health System Performance authors' analysis of 2013 and 2016 MEPS-IC (AHRQ) and 2014 and 2017 CPS ASEC (U.S. Census Bureau).	2016, 2013	Analysis of Medical Expenditure Panel Survey-Insurance Component and Current Population Survey Annual Social and Economic Supplement by D.C. Radley, D. McCarthy and S.L. Hayes, The Commonwealth Fund, Scorecard of State Health System Performance.
Private health insurance spending	Employer-sponsored plan spending, per enrollee. Total employer-sponsored health insurance plan spending, per enrollee	Per enrollee total spending in employer-sponsored health insurance plans. Outpatient prescription drugs and claims for enrollees with capitated plans are excluded. Analysis of the 2015 Truven Marketscan Database by Michael E. Chernew and Andrew Hicks, Harvard Medical School Department of Health Care Policy.	2015, 2013	Analysis of 2015 Truven Marketscan Database by Michael E. Chernew and Andrew Hick, Harvard Medical School Department of Health Policy, as compiled by The Commonwealth Fund, Scorecard of State Health System Performance.
Public health spending	Local public health agency spending, per capita. Median annual local health expenditures, per capita	Median annual local health expenditures, per capita. Local public health department spending and population size served were collected by the National Association of County and City Health Officials 2016 National Profile of Local Health Departments through a questionnaire. In Ohio, 74 percent (90 out of 121) of local health departments responded to the questionnaire.	2015	Analysis of data from the National Association of County and City Health Officials, National Profile of Local Health Departments by Ani Ruhil, The Voinovich School of Leadership & Public Affairs, Ohio University.
Public health spending	State public health funding, per capita. State public health funding during the fiscal year, per capita	State public health funding per capita during the fiscal year. Dollar amounts represent state funding only.	2017, 2016, 2015	Analysis of Shortchanging America's Health, Investing in America's Health from Trust for America's Health by the State Health Access Data Assistance Center, as compiled by State Health Compare.
Total and out-of-pocket spending	Total healthcare spending, per capita. Spending for all privately and publicly funded personal healthcare services and products, per capita	Per capita spending for all privately and publicly funded personal healthcare services and products (i.e., hospital care, physician services, nursing home care, prescription drugs, etc.), by state of residence.	2014, 2013, 2012	Centers for Medicare and Medicaid Services, National Health Expenditure data set, by State of Residence
Total and out of pocket spending	Out-of-pocket spending. Percent of individuals who are in families where out-of-pocket spending on health care, including premiums, accounts for more than 10 percent of annual income	Percent of individuals (for a state's civilian non-institutionalized population) who are in families where out-of-pocket spending on health care, including premiums, accounts for more than 10 percent of annual income.	2016, 2015, 2014	Analysis of Current Population Survey Annual Social and Economic Supplement public use micro data files by the State Health Access Data Assistance Center as compiled by State Health Compare.

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Access to care				
Behavioral health	Unmet need for mental health treatment. Percent of adults, ages 18 and older, with any mental illness who had a need for mental health treatment or counseling and did not receive it in the past year	Percent of adults ages 18 and older with any mental illness who reported a perceived need for mental health treatment or counseling in the past 12 months that was not received. This measure could include adults who reported that they received some type of mental health service in the past 12 months; an unmet need for services after adults had received some services would indicate a perceived need for additional services that they did not receive.	2013-2015, 2009-2011	Substance Abuse and Mental Health Services Administration, National Survey of Drug Use and Health, as compiled by The Commonwealth Fund, Scorecard on State Health System Performance
Behavioral health	Unmet need for illicit drug use treatment. Percent of individuals, ages 12 and older, who needed but did not receive treatment for illicit drug use in the past year	Percent of individuals ages 12 and older needing but not receiving treatment for illicit drug use in the past year. Refers to respondents needing treatment for illicit drugs, but not receiving treatment for an illicit drug problem at a special facility (i.e. drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).	2016-2017, 2015-2016, 2013-2014	Substance Abuse and Mental Health Services Administration, National Survey of Drug Use and Health
Behavioral health	Youth with depression who did not receive treatment. Percent of youth, ages 12-17, who had a major depressive episode and did not receive treatment for depression in the past year	Percent of youth ages 12-17 who had a major depressive episode and did not see or talk to a medical doctor or other professional or use prescription medication for depression in the past year.	2011-2015, 2010-2014, 2008-2012	Substance Abuse and Mental Health Services Administration, National Survey of Drug Use and Health, as compiled by the Health Policy Institute of Ohio
Coverage and affordability	Employer-sponsored health insurance coverage. Percent of all workers who work at a company that offers health insurance to its employees	Percent of all workers that work at a company that offers health insurance to its employees.	2017, 2016, 2015	Analysis of Agency for Healthcare Research and Quality (AHRQ), Center for Financing, Access and Cost Trends (CFACT), Medical Expenditure Panel Survey - Insurance Component (MEPS-IC) by the State Health Access Data Assistance Center.
Coverage and affordability	Unable to see doctor due to cost. Percent of adults who went without care because of cost in the past year	Percent of adults who report going without care because of cost in the past year.	2017, 2016, 2015	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey
Coverage and affordability	Uninsured, non-elderly. Percent of population, ages 64 and under, who are uninsured in the state	Percent of population ages 64 and under who are uninsured in the state.	2017, 2016, 2015	U.S. Census Bureau, American Community Survey 1-year estimates

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Access to care (cont.)				
Oral health	Received dental care in past year, adults. Percent of adults, ages 18 and older, who have visited the dentist or a dental clinic within the past year	Percent of adults ages 18 and older who report having visited the dentist or a dental clinic within the past year for any reason. Percentages are weighted to reflect population characteristics.	2016, 2014, 2012	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey
Oral health	Preventive dental care, children. Percent of children, ages 1-17, who have seen a dentist or other oral health care provider for preventive dental care, such as check-ups, dental cleanings, dental sealants or fluoride treatments in the past year	Percent of children ages 1-17 who have seen a dentist or other oral health care provider for preventive dental care, such as check-ups, dental cleanings, dental sealants or fluoride treatments, in the past year.	2016-2017	Health Resources and Services Administration, National Survey of Children's Health
Primary care access	Without a usual source of care. Percent of adults, ages 18 and older, who do not have at least one person they think of as their personal healthcare provider	Percent of adults ages 18 and older who report that they do not have one (or more) person(s) they think of as their personal healthcare provider.	2017, 2016, 2015	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey
Primary care access	Routine checkup. Percent of adults, ages 50 and older, in fair or poor health, or ever told they have pre-diabetes, acute myocardial infarction, heart disease, stroke or asthma, who did not visit a doctor for a routine checkup in the past two years	Percent of adults ages 50 or older in fair or poor health, or ever told they have pre-diabetes, acute myocardial infarction, heart disease, stroke, or asthma, who did not visit a doctor for a routine checkup in the past two years.	2015, 2014, 2013	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, as compiled by The Commonwealth Fund, Scorecard on State Health System Performance
Primary care access	Medical home, children. Percent of children, ages 0-17, who have a personal doctor or nurse, have a usual source for sick and well care, receive family-centered care, have no problems getting needed referrals and receive effective care coordination when needed	Percent of children ages 0-17 who have a personal doctor or nurse, have a usual source for sick and well care, receive family-centered care, have no problems getting needed referrals and receive effective care coordination when needed.	2016-2017	Health Resources and Services Administration, National Survey of Children's Health
Workforce	Underserved, primary care physicians. Percent of need not met by current supply of primary care physicians in designated primary care health professional shortage areas	Percent of need not met by current supply of primary care physicians in designated primary care health professional shortage areas.	Dec. 31, 2017, Sept. 20, 2016, Nov. 10, 2014	Health Resources and Services Administration, Bureau of Health Workforce. 2014 data compiled by the Henry J Kaiser Family Foundation on State Health Facts.

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Access to care (cont.)				
Workforce	Underserved, dentists. Percent of need not met by current supply of dentists in designated dental care health professional shortage areas	Percent of need not met by current supply of dentists in designated dental care health professional shortage areas.	Dec. 31, 2017, Sept. 20, 2016, Nov. 10, 2014	Health Resources and Services Administration, Bureau of Health Workforce. 2014 data compiled by the Henry J Kaiser Family Foundation on State Health Facts.
Workforce	Underserved, psychiatrists. Percent of need not met by current supply of psychiatrists in designated mental health care professional shortage areas	Percent of need not met by current supply of psychiatrists in designated mental health care professional shortage areas.	Dec. 31, 2017, Sept. 20, 2016, Nov. 10, 2014	Health Resources and Services Administration, Bureau of Health Workforce. 2014 data compiled by the Henry J Kaiser Family Foundation on State Health Facts.

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Healthcare system				
Behavioral health	Substance use disorder treatment retention. Percent of individuals, ages 12 and older, with an intake assessment who received one outpatient service within a week and two additional outpatient clinical services within 30 days of intake	The percent of clients ages 12 or older with an intake assessment who received one outpatient index service within 7 days and 2 additional outpatient index services within 30 days of intake. The numerator was all persons who have at least one clinical service within 7 days of assessment and 2 more clinical services within 30 days of assessment and the denominator was all persons receiving an alcohol or other drug assessment at intake.	SFY 2018, SFY 2017, SFY 2016	Ohio Department of Mental Health and Addiction Services
Behavioral health	Mental illness hospitalization follow-up. Percent of Medicaid enrollees, ages 6 and older, who received follow-up after hospitalization for mental illness within 30 days of intake	The percent of discharges for continuous and non-continuously enrolled Medicaid members 6 years of age and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter or partial hospitalization with a mental health practitioner within 30 days of discharge. The numerator was the number of discharges for psychiatric patients and the denominator was the number of discharges for psychiatric patients to an outpatient provider meeting measure specifications.	SFY 2018, SFY 2017, SFY 2016	Ohio Department of Mental Health and Addiction Services
Hospital utilization	Potentially avoidable emergency department visits for employer-insured enrollees. Number of potentially avoidable emergency department visits for people, ages 18-64, with employer-sponsored insurance, per 1,000 enrollees	Number of emergency department visits for people ages 18-64 with employer-sponsored insurance that, based on diagnoses recorded during the visit and the health care service the patient received, were considered to be either nonemergent (care was not needed within 12 hours), or emergent (care needed within 12 hours) but that could have been treated safely and effectively in a primary care setting, per 1,000 enrollees.	2015	Analysis of 2015 Truven Marketscan Database by Michael E. Chemew and Andrew Hick, Harvard Medical School Department of Health Policy, as compiled by The Commonwealth Fund, Scorecard of State Health System Performance.
Hospital utilization	30-day hospital readmissions for employer-insured enrollees. Number of readmissions for people, ages 18-64, within 30 days of an acute hospital stay for any cause, per 1,000 enrollees	All hospital admissions among patients who were readmitted within 30 days of an acute hospital stay for any cause. In this analysis, a correction was made to account for likely transfers between hospitals.	2015	Analysis of 2015 Truven Marketscan Database by Michael E. Chemew and Andrew Hick, Harvard Medical School Department of Health Policy, as compiled by The Commonwealth Fund, Scorecard of State Health System Performance.

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Healthcare system (cont.)				
Hospital utilization	Diabetes with long-term complications. Number of discharges with a principal diagnosis of diabetes with long-term complications for Medicare fee-for-service Part A beneficiaries, ages 18 and older, per 100,000 beneficiaries	Number of discharges with a principal diagnosis of diabetes with long-term complications for Medicare fee-for-service (FFS) Part A beneficiaries, ages 18 and older, per 100,000 beneficiaries. The analysis population includes 100 percent of Medicare beneficiaries continuously enrolled in Medicare FFS Part A for the entire year, beneficiaries who died during the year and beneficiaries that became eligible during the year. Beneficiaries enrolled in a Medicare Advantage plan during any part of the year were excluded from the analysis. Excludes transfers from other hospitals, long-term care facilities and other health care facilities.	2016, 2015, 2014	Centers for Medicare and Medicaid Services, Mapping Medicare Disparities
Hospital utilization	Heart failure readmissions for Medicare beneficiaries. Number of readmissions within 30 days for any cause for Medicare fee-for-service Part A beneficiaries, ages 18 and older, with a principal diagnosis of heart failure, per 100 cases	Number of readmissions within 30 days for any cause for Medicare fee-for-service Part A beneficiaries with a principal diagnosis of heart failure, per 100 cases. The readmission rate is calculated using CMS's risk-standardized readmission measures methodology.	2016, 2015, 2014	Centers for Medicare and Medicaid Services, Mapping Medicare Disparities
Preventive services	Cancer early stage diagnosis. Percent of cervical, colon and rectal, lung and bronchial, female breast and prostate cancer cases diagnosed at an early stage	Percent of cervical, colon and rectal, lung and bronchial, female breast and prostate cancer cases diagnosed at an early stage. "In situ" and "localized" are considered early stage diagnoses.	2011-2015, 2010-2014, 2009-2013	HPIO analysis of data from the Cancer Incidence in North America monograph, North American Association of Central Cancer Registries.
Preventive services	Female breast cancer early stage diagnosis. Percent of female breast cancer cases diagnosed at an early stage	Percent of female breast cancer cases diagnosed at an early stage. "In situ" and "localized" are considered early stage diagnoses.	2011-2015, 2010-2014, 2009-2013	HPIO analysis of data from the Cancer Incidence in North America monograph, North American Association of Central Cancer Registries.
Preventive services	Colon and rectal cancer early stage diagnosis. Percent of colon and rectal cancer cases diagnosed at an early stage	Percent of colon and rectal cancer cases diagnosed at an early stage. "In situ" and "localized" are considered early stage diagnoses.	2011-2015, 2010-2014, 2009-2013	HPIO analysis of data from the Cancer Incidence in North America monograph, North American Association of Central Cancer Registries.

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Healthcare system (cont.)				
Preventive services	Breastfeeding support in hospitals. Average Maternity Practice in Infant Nutrition and Care (mPINC) score among hospitals and birthing facilities to support breastfeeding	Average Maternity Practice in Infant Nutrition and Care (mPINC) score among hospitals and birthing facilities to support breastfeeding. The score is the average across 7 categories of supports that hospitals and birth centers can provide for breastfeeding. Scores range from 0 to 100. 100 is the highest, best possible score.	2015, 2013, 2011	Centers for Disease Control and Prevention, Maternity Practices in Infant Nutrition and Care (mPINC) Survey
Preventive services	Prenatal care. Percent of women who completed a pregnancy in the last 12 months and who received prenatal care in the first trimester	Percent of women who completed a pregnancy in the last 12 months and who received prenatal care in the first trimester.	2017, 2016, 2015	Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (CDC WONDER)
Timeliness, effectiveness and quality of care	Patient-centered care. Percent of patients who reported hospital staff did not always manage pain well, respond when they needed help to get to the bathroom or pressed a call button, and explain medicines and side effects	Percent of patients who reported hospital staff did not always manage pain well, did not always respond when they needed help to get to the bathroom or pressed a call button, and did not always explain medicines and side effects. These questions were asked on the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), as administered to adults discharged from acute care hospitals.	2016, 2015, 2013	Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), via the Centers for Medicare and Medicaid Services Hospital Compare, as compiled by The Commonwealth Fund, Scorecard of State Health System Performance.
Timeliness, effectiveness and quality of care	Back pain recommended treatment. Percent of outpatients with low back pain who had an MRI without trying recommended treatments first, such as physical therapy	Outpatients with low back pain who had an MRI without trying recommended treatments first, such as physical therapy. Hospitals in states with higher values may be doing too many unnecessary MRIs for low-back pain.	7/1/2016-6/30/2017, 7/1/2015-6/30/2016, 7/1/2014-6/30/2015	Centers for Medicare and Medicaid Services Hospital Compare
Timeliness, effectiveness and quality of care	Central line-associated bloodstream infections. Standardized infection ratio for central line-associated bloodstream infections in acute care hospitals	Standardized infection ratio (SIR) for central line-associated bloodstream infections in acute care hospitals. The SIR is a summary measure used to track healthcare associated infections (HAIs) at the national, state and local-level. In HAI data analysis, the SIR compares the actual number of HAIs reported to the number that would be predicted. SIR greater than 1.0 indicates that more HAIs were observed than predicted; conversely, an SIR less than 1.0 indicates that fewer HAIs were observed than predicted.	2016, 2015	Centers for Disease Control and Prevention, Healthcare Associated Infections Progress Report

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Healthcare system (cont.)				
Timeliness, effectiveness and quality of care	Mortality amenable to healthcare. Number of deaths that resulted from causes considered at least partially treatable or preventable with timely and appropriate medical care before age 75, per 100,000 population	Number of deaths before age 75 per 100,000 population that resulted from causes considered at least partially treatable or preventable with timely and appropriate medical care (see list), as described in E. Nolte and M. McKee, "Measuring the Health of Nations: Analysis of Mortality Amenable to Health Care," <i>British Medical Journal</i> , Nov. 15, 2003, 327 (7424): 1129–32. For more information about the conditions used in the analysis see the Appendix of the 2018 Scorecard on State Health System Performance.	2014-2015, 2012-2013, 2010-2011	Analysis of Centers for Disease Control and Prevention restricted-use Multiple Cause-of-Death file and U.S. Census Bureau population data by D.C. Radley, D. McCarthy and S.L. Hayes, The Commonwealth Fund, Scorecard of State Health System Performance.
Timeliness, effectiveness and quality of care	Nursing home pressure ulcers. Percent of long-stay, high-risk nursing home residents with pressure ulcers	Percent of long-stay, high risk nursing home residents with Stage II-IV pressure ulcers. Residents at high risk for pressure ulcers are those who are impaired in bed mobility or transfer, who are comatose, or who suffer from malnutrition.	Q1 - Q4, 2017; Q1 - Q4, 2016; Q2 - Q4, 2015	Centers for Medicare and Medicaid Services, Nursing Home Compare

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Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Public health and prevention				
Communicable disease control and environmental health	Chlamydia. Number of reported cases of chlamydia, per 100,000 population	Number of reported cases of chlamydia per 100,000 population.	2017, 2016, 2015	Centers for Disease Control and Prevention, Sexually Transmitted Diseases Surveillance
Communicable disease control and environmental health	Child immunization. Percent of children, ages 19-35 months, who received recommended vaccines	Percent of children ages 19-35 months who received the combined seven vaccine series. The combined seven vaccine series includes 4 or more doses of DTaP, 3 or more doses of Polio, 1 or more doses of MMR, Hib full series (3 or 4 doses, depending on product type received), 3 or more doses of HepB, 1 or more doses of Varicella, and 4 or more doses of PCV.	2017, 2016, 2015	Centers for Disease Control and Prevention, Combined 7-vaccine Series coverage among children 19-35 months by State, HHS Region, and the United States, National Immunization Survey-Child
Communicable disease control and environmental health	Environmental and occupational health. Composite score of the Environmental and Occupational Health domain of the National Health Security Preparedness Index (NHSPI), which measures actions to maintain the security and safety of water and food supplies, to test for hazards and contaminants in the environment and to protect workers and emergency responders from health hazards while on the job (score out of 10 possible points)	Composite score of the Environmental and Occupational Health domain of the National Health Security Preparedness Index, which measures actions to maintain the security and safety of water and food supplies, to test for hazards and contaminants in the environment, and to protect workers and emergency responders from health hazards while on the job	2017, 2016, 2015	National Health Security Preparedness Index
Emergency preparedness	Emergency preparedness funding, per capita. Total funding for state and local health departments' emergency preparedness, per capita	Total funding for state and local health departments' emergency preparedness (Public Health Emergency Preparedness). Data normalized to per capita.	FFY 2017, FFY 2016, FFY 2015	Centers for Disease Control and Prevention, Center for Preparedness and Response and U.S. Census Bureau, American Community Survey 1-year estimates
Emergency preparedness	Health security surveillance. Composite score of the Health Security Surveillance domain of the NHSPI, which measures actions to monitor and detect health threats, and to identify where hazards start and spread so that they can be contained rapidly (score out of 10 possible points)	Composite score of the Health Security Surveillance domain of the National Health Security Preparedness Index, which measures actions to monitor and detect health threats, and to identify where hazards start and spread so that they can be contained rapidly	2017, 2016, 2015	National Health Security Preparedness Index

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Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Public health and prevention (cont.)				
Health promotion and prevention	Cigarette tax. State cigarette excise tax rate	State cigarette excise tax rate per pack.	2017, 2016, 2015	Centers for Disease Control and Prevention, State Tobacco Activities Tracking and Evaluation System
Health promotion and prevention	Seat belt use. Percent of front seat occupants observed using a seat belt	Percent of front seat occupants using a seat belt based on an observational survey of drivers and right-front seat passengers.	2017, 2016, 2015	National Highway Traffic Safety Administration, National Center for Statistics and Analysis, "Seat Belt Use in 2017 - Use Rates in the States and Territories"
Health promotion and prevention	Prescription opioid use. Number of dispensed prescriptions for opioids, per 1,000 population	Number of dispensed prescriptions for opioids per 1,000 population. Includes the following payer types: cash, commercial, fee for service Medicaid, Managed Medicaid and Medicare Part D. Year refers to 12 months ending June 30, 2016. Opioid prescription volume from this source include all forms contained within Uniform System of Classification (USC) 02200 for Analgesic Narcotics including oxycodone, hydrocodone, and combination acetaminophen products, among others with the exception of Butrans. Opioid use in this analysis does not include heroin or other illicit opioid forms.	12 months ending June 30, 2016	IMS PayerTrack, IMS National Prescription Audit, as reported by IMS Institute for Healthcare Informatics
Health promotion and prevention	Tobacco prevention spending. Tobacco prevention and control spending as a percent of the Centers for Disease Control and Prevention-recommended level	Tobacco prevention and control spending as a percent to the Centers for Disease Control and Prevention-recommended level.	SFY 2018, SFY 2017, SFY 2016	American Lung Association, The State of Tobacco Control
Health promotion and prevention	Falls among older adults. Percent of adults, ages 65 and older, who have had a fall within the last 12 months	Percent of adults age 65 and older who have had a fall within the last 12 months.	2016, 2014, 2012	Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance Survey, as compiled by America's Health Rankings

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Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Public health and prevention (cont.)				
Health promotion and prevention	Teen birth. Number of births to females, ages 15-19, per 1,000 births	Number of births to females 15-19 years of age, per 1,000 births.	2017, 2016, 2015	Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, as compiled in annual reports on births
Health promotion and prevention	Low birth weight. Percent of live births where the infant weighed less than 2,500 grams (5.5 pounds)	Percent of live births where the infant weighed less than 2,500 grams.	2017, 2016, 2015	Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (CDC WONDER)
Health promotion and prevention	Motor vehicle crash deaths. Number of deaths due to traffic accidents involving a motor vehicle, per 1,000 population	Number of deaths due to traffic accidents involving a motor vehicle, including motorcycles; 3-wheel motor vehicles; cars; vans; trucks; buses; street cars; ATVs; industrial, agricultural, and construction vehicles; and bicyclists or pedestrians when colliding with any of the previously listed motor vehicles, per 1,000 population.	2010-2016, 2009-2015, 2007-2013	Centers for Disease Control and Prevention, Wide-ranging Online Data for Epidemiologic Research (CDC WONDER) , as compiled by County Health Rankings and Roadmaps
Health promotion and prevention	Youth marijuana use. Percent of youth, ages 12-17, who used marijuana in the past year	Percent of youth, ages 12-17, who report using marijuana in the past year.	2016-2017, 2015-2016, 2014-2015	Substance Abuse and Mental Health Services Administration, National Survey of Drug Use and Health
Public health system and workforce	State public health workforce. Number of state public health agency full-time equivalent (FTE) employees, per 100,000 population	Number of state public health agency staff FTEs per 100,000 population. Data normalized per 100,000 population. ASTHO data were used to obtain the numerator and the American Community Survey 1-year estimates for denominator.	2016, 2012, 2010	Association of State and Territorial Health Officials

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Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Public health and prevention (cont.)				
Public health system and workforce	Comprehensiveness of public health system. Percent of population served by a comprehensive public health system	Percent of population served by a comprehensive public health system, defined as those communities in which a broad array of the recommended public health activities are available in the community, AND in which a relatively broad range of organizations contribute to implementing these activities, AND/OR in which the local public health agency contributes a relatively large share of the effort to implement these activities.	2016, 2014, 2012	National Longitudinal Survey of Public Health Systems
Public health system and workforce	Local public health workforce. Median number of local health department FTE employees, per 100,000 population	Median number of local health department full-time equivalent (FTE) employees, per 100,000 population. Number of local public health department FTE employees and population size served were collected by the National Association of County and City Health Officials 2016 National Profile of Local Health Departments through a questionnaire. In Ohio, 74 percent (90 out of 121) of local health departments responded to the questionnaire.	2015	Analysis of data from the National Association of County and City Health Officials, National Profile of Local Health Departments by Ani Ruhil, The Voinovich School of Leadership & Public Affairs, Ohio University.

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Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Social and economic environment				
Education	Fourth-grade reading. Percent of fourth grade public school students proficient in reading by a national assessment (National Assessment of Educational Progress)	Percent of 4th grade public school students measured "at or above proficient" by the National Assessment of Educational Progress (NAEP) reading test. Public schools include charter schools and exclude Bureau of Indian Education schools and Department of Defense Education Activity schools.	2017, 2015, 2013	U.S. Department of Education, National Assessment of Educational Progress, as compiled by the Annie E. Casey Foundation Kids Count Data Center
Education	High school graduation. Percent of incoming ninth graders who graduate in four years from a public high school with a regular degree	Adjusted Cohort Graduation Rate of incoming ninth graders who graduate in 4 years from a public high school with a regular degree.	2015/2016 school year, 2014/2015 school year, 2013/2014 school year	Institute of Education Sciences, National Center for Education Statistics
Education	Preschool enrollment. Percent of 3- and 4-year-olds enrolled in preschool	The percent of children ages 3 and 4 enrolled in school, including nursery school, preschool school or kindergarten, during the previous three months.	2014-2016, 2013-2015, 2012-2014	Analysis of U.S. Census Bureau, American Community Survey 1-year estimates by the Population Reference Bureau, as compiled by the Annie E. Casey Kids Count Data Center
Education	Some college. Percent of adults, ages 25-44, with some post-secondary education, such as enrollment in vocational/technical schools, junior colleges, or four-year colleges, including individuals who pursued education following high school but did not receive a degree	Percent of adults, ages 25-44, with some post-secondary education, such as enrollment in vocational/technical schools, junior colleges, or four-year colleges, including individuals who pursued education following high school but did not receive a degree.	2012-2016, 2011-2015, 2010-2014	U.S. Census Bureau, American Community Survey 5-year estimates, as compiled by County Health Rankings and Roadmaps
Employment and poverty	Child poverty. Percent of people, under age 18, in households with incomes below the federal poverty level	Percent of people, under age 18, in households with incomes below the federal poverty level.	2017, 2016, 2015	U.S. Census Bureau, American Community Survey 1-year estimates

Metrics in this list are organized alphabetically by subdomain. For data values, rank and trend information see the data profiles and appendix.

Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Social and economic environment (cont.)				
Employment and poverty	Adult poverty. Percent of people, ages 18 and older, in households with incomes below the federal poverty level	Percent of people, ages 18 and older, in households with incomes below the federal poverty level.	2017, 2016, 2015	U.S. Census Bureau, American Community Survey 1-year estimates
Employment and poverty	Unemployment. Percent of people, ages 16 and older, who are jobless, looking for a job and available for work	Annual average of the percent of persons in the labor force that are unemployed during the reference week for which the Bureau of Labor Statistics (BLS) surveys. The BLS, Local Area Unemployment Statistics program defines people ages 16 who are not working but are available for work (i.e. willing, able and looking for work) as unemployed.	2017, 2016, 2015	U.S. Department of Labor, Bureau of Labor Statistics
Employment and poverty	Labor force participation. Percent of people, ages 16 and older, who are in the labor force	Annual average of the percent of persons age 16 or older that are employed or unemployed during the reference week for which the Bureau of Labor Statistics (BLS) surveys. People who are not available to work and/or not looking for work are not in the labor force.	2017, 2016, 2015	U.S. Department of Labor, Bureau of Labor Statistics
Employment and poverty	Income inequality. The ratio of household income at the 80th percentile to that at the 20th percentile	The ratio of household income at the 80th percentile to that at the 20th percentile.	2012-2016, 2011-2015, 2010-2014	U.S. Census Bureau, American Community Survey 5-year estimates, as compiled by County Health Rankings and Roadmaps
Family and social support	Disconnected youth. Percent of youth, ages 16-24, who are not working or in school	Percent of youth, ages 16-24, who are not working or in school.	2016, 2015, 2014	Analysis of U.S. Census Bureau, American Community Survey Public Use Microdata Sample by Ani Ruhil, The Voinovich School of Leadership & Public Affairs, Ohio University.
Family and social support	Low-income working families with children. Percent of families with at least one child under age 18, income below 200 percent of the federal poverty level and at least one parent working year-round during the previous year	The percent of families that meet three criteria: 1) family income was less than twice the federal poverty level; 2) at least one parent worked 50 or more weeks during the previous year; 3) there was at least one "Own child" under age 18 in the family.	2016, 2015, 2014	Analysis of data from the U.S. Census Bureau, 2008-2016 American Community Survey by the Population Reference Bureau, as compiled by the Annie E. Casey Foundation Kids Count Data Center.

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Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Social and economic environment (cont.)				
Family and social support	Adult incarceration. Number of people imprisoned under the jurisdiction of state or federal correctional authorities, per 100,000 population	Number of people imprisoned under the jurisdiction of state or federal correctional authorities, per 100,000 population. For most states, only prisoners with sentences of one year or more were included. In Ohio, population counts for prisoners with a maximum sentence of more than one year included an undetermined number of prisoners with a sentence of one year or less.	2016, 2015, 2014	Bureau of Justice Statistics, Imprisonment rate of sentenced prisoners under the jurisdiction of state or federal correctional authorities per 100,000 U.S. residents, December 31, 1978-2016
Trauma, toxic stress and violence	Child abuse and neglect. Number of child maltreatment victims, per 1,000 children	Number of children for whom state child protective services agencies determined at least one maltreatment was substantiated or indicated, per 1,000 children.	FY 2016, FY 2015, FY 2014	Administration for Children and Families
Trauma, toxic stress and violence	Adverse childhood experiences. Percent of children who have experienced two or more adverse experiences	Percent of children who have experienced two or more adverse experiences (ACEs), among nine ACEs defined by the National Survey of Children's Health: "Somewhat often" or "very often" hard to get by on family income; parent or guardian divorced or separated; parent or guardian died; parent or guardian served time in jail; child saw or heard parents or adults slap, hit, kick punch one another in the home; child was a victim of violence or witnessed violence in neighborhood; child lived with anyone who was mentally ill, suicidal, or severely depressed; child lived with anyone who had a problem with alcohol or drugs; and child treated or judged unfairly due to race/ethnicity.	2016/2017	Health Resources and Services Administration, National Survey of Children's Health
Trauma, toxic stress and violence	Violent crime. Number of violent crimes (murder, rape, robbery and aggravated assault), per 100,000 population	Number of violent crimes (murder, rape, robbery and aggravated assault), per 100,000 population	2017, 2016, 2015	U.S. Department of Justice, Federal Bureau of Investigation, as compiled by America's Health Rankings

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Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Physical environment				
Air, water and toxic substances	Toxic pollutants, per capita. Total pounds of toxic chemicals released into the environment, per capita (total on-site disposal or other releases for all industries and all chemicals)	Total pounds of toxic chemicals released into the environment per capita (total on-site disposal or other releases for all industries and all chemicals). The Toxic Release Inventory (TRI) includes information about releases of toxic chemicals from facilities (including air, water, land on-site, and deepwell injection) but does not reveal whether or to what degree the public is exposed to these chemicals. For this dashboard, the total pounds of chemicals released in each state from the TRI database were applied to the total population size of each state to calculate a per capita amount. The numerator is from EPA, reported total onsite disposal or other releases. Denominator from American Community Survey 2016 1-year population estimates.	2016	U.S. Environmental Protection Agency, Toxic Release Inventory and U.S. Census Bureau, American Community Survey 1-year estimates
Air, water and toxic substances	Child in household with a smoker. Percent of children, ages 0-17, who live in households where someone smokes (cigarettes, cigars or pipe tobacco)	Percent of children ages 0-17 who live in households where someone smokes (cigarettes, cigars or pipe tobacco).	2016-2017	Health Resources and Services Administration, National Survey of Children's Health
Air, water and toxic substances	Outdoor air quality. Average exposure of the general public to particulate matter of 2.5 microns or less in size (PM2.5)	Average exposure of the general public to particulate matter of 2.5 microns or less in size (PM2.5) in micrograms per cubic meter.	2015-2017, 2014-2016, 2013-2015	U.S. Environmental Protection Agency, as compiled by America's Health Rankings
Air, water and toxic substances	Lead poisoning. Percent of children, ages 0-5, with elevated blood lead levels (BLL > 5 ug/dL)	Percent of children ages 0 to 5 with elevated blood lead levels (BLL > 5 ug/dL) (confirmed only).	2017, 2016	Ohio Department of Health, Ohio Public Health Data Warehouse
Food access and food insecurity	Healthy food access. Percent of population with limited access to healthy food, defined as the percent of low-income individuals (<200% federal poverty guideline) living more than 10 miles from a grocery store in rural areas and more than one mile in non-rural areas	Percent of population with limited access to healthy food, defined as the percent of low-income individuals (<200% FPG) living more than 10 miles from a grocery store in rural areas and more than 1 mile in non-rural areas.	2015, 2010	U.S. Department of Agriculture, Food Environment Atlas, as compiled by County Health Rankings and Roadmaps
Food access and food insecurity	Food insecurity. Percent of households that are food insecure	Percent of households that are uncertain of having, or unable to acquire, at some time during the year, enough food to meet the needs of all their members because they had insufficient money or other resources for food.	2015-2017, 2013-2015, 2010-2012	U.S. Census Bureau, Current Population Survey, as compiled by U.S. Department of Agriculture Economic Research Service

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Subdomain	Metric	Metric Description	2019 Health Value Dashboard years	Source
Physical environment (cont.)				
Housing, built environment and access to physical activity	Severe housing problems. Percent of households that have one or more of the following problems: 1) housing unit lacks complete kitchen facilities, 2) housing unit lacks complete plumbing facilities, 3) household is severely overcrowded, 4) monthly housing costs, including utilities, exceed 50 percent of monthly income	Percent of households that have one or more of the following problems: 1) housing unit lacks complete kitchen facilities; 2) housing unit lacks complete plumbing facilities, 3) household is severely overcrowded, 4) monthly housing costs, including utilities, that exceed 50% of monthly income. Severe overcrowding is defined as more than 1.5 persons per room.	2011-2015, 2010-2014, 2009-2013	U.S. Department of Housing and Urban Development, Comprehensive Housing Affordability Strategy Data
Housing, built environment and access to physical activity	Access to exercise opportunities. Percent of individuals who live reasonably close to a location for physical activity, defined as parks or recreational facilities	Percent of individuals who live reasonably close to a location for physical activity, defined as parks or recreational facilities.	2010 & 2016, 2010 & 2014, 2010 & 2013	Business Analyst, Delorme map data, ESRI, & U.S. Census Tigerline Files, as compiled by County Health Rankings and Roadmaps
Housing, built environment and access to physical activity	Long commute, driving alone. Percent of commuters, among those who commute to work by car, truck, or van, alone, who drive longer than 30 minutes to work each day	Percent of commuters, among those who commute to work by car, truck, or van, alone, who drive longer than 30 minutes to work each day.	2012-2016, 2011-2015, 2010-2014	U.S. Census Bureau, American Community Survey 5-year estimates
Housing, built environment and access to physical activity	Alternative commute modes. Percent of trips to work via bicycle, walking or mass transit (combined)	Percent of trips to work via bicycle, walking or mass transit (combined) .	2017, 2016, 2015	U.S. Census Bureau, American Community Survey 1-year estimates
Housing, built environment and access to physical activity	Neighborhood safety. Percent of children living in a safe neighborhood	Percent of parents who definitely agree or somewhat agree that their children are living in a safe neighborhood.	2016-2017	Health Resources and Services Administration, National Survey of Children's Health
Housing, built environment and access to physical activity	Neighborhood resources. Percent of children living in a neighborhood that contains each of the following amenities: sidewalks or walking paths; parks or playgrounds; recreation centers, community center, or boys' and girls' club; and libraries or bookmobiles	Percent of children living in a neighborhood that contains each of the following amenities: sidewalks or walking paths; parks or playgrounds; recreation centers, community center, or boys' and girls' club; and libraries or bookmobiles.	2016-2017	Health Resources and Services Administration, National Survey of Children's Health

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