Ohio’s strengths and challenges

### Ohio’s greatest health value strengths

<table>
<thead>
<tr>
<th>Domain</th>
<th>Metric</th>
<th>Rank</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public health</td>
<td>Birthweight distribution in states, which shows the distribution of birthweights in the state.</td>
<td>11</td>
<td>No change</td>
</tr>
<tr>
<td>Physical environment</td>
<td>Healthcare facilities, which shows the availability and accessibility of healthcare facilities in the state.</td>
<td>18</td>
<td>Greatly improved</td>
</tr>
<tr>
<td>Income</td>
<td>Income distribution, which shows the distribution of income in the state.</td>
<td>24</td>
<td>Moderately improved</td>
</tr>
<tr>
<td>Social and economic</td>
<td>Social and economic environment, which shows the social and economic conditions in the state.</td>
<td>41</td>
<td>No change</td>
</tr>
</tbody>
</table>

### Ohio’s greatest health value challenges

<table>
<thead>
<tr>
<th>Domain</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Public health</td>
<td>Health expenditure, which shows the expenditure on health services in the state.</td>
<td>39</td>
<td>Moderately decreased</td>
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<tr>
<td>Social and economic</td>
<td>Social and economic environment, which shows the social and economic conditions in the state.</td>
<td>43</td>
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<tr>
<td>Other metrics that</td>
<td>Sudden infant death, which shows the number of sudden infant deaths in the state.</td>
<td>24</td>
<td>Greatly improved</td>
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### Bottom quartile metrics

<table>
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<tr>
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<td>Moderately improved</td>
</tr>
</tbody>
</table>

Trend note: Improved or worsened refers to changes that exceed one-half standard deviation in the metric's value from the recent year. Changes that do not meet this threshold are marked "no change."
<table>
<thead>
<tr>
<th>Metric</th>
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<tbody>
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<td>Adult smoking</td>
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<td>Drug overdose deaths</td>
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### Ohio’s greatest health value challenges

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<th>Trend</th>
</tr>
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<tbody>
<tr>
<td>Population health</td>
<td>Initial mortality, Number of infant deaths per 1,000 live births within 1 year (rates 2014, trend 2013)</td>
<td>39</td>
<td>Moderately worsened</td>
</tr>
<tr>
<td></td>
<td>Cardiometabolic disease mortality, Number of deaths due to cardiovascular diseases, including heart disease and stroke, per 100,000 population (age-adjusted 2013)</td>
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<td>No change</td>
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<tr>
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<td>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) (2014)</td>
<td>41</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Adult smoking, Percent of population age 18 and older that are current smokers (2013)</td>
<td>42</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Drug overdose deaths, Number of deaths due to drug overdoses per 100,000 population (age-adjusted) (2013)</td>
<td>43</td>
<td>Greatly worsened</td>
</tr>
<tr>
<td>Healthcare spending</td>
<td>Average monthly marketplace premiums, after advanced premium tax credit, Average monthly premium for all enrollees in the federal marketplace after application of an advanced premium tax credit  (2016)</td>
<td>44</td>
<td>Greatly increased</td>
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<tr>
<td></td>
<td>Total Medicare spending (parts A and B), per Medicare enrollee, Price, age, sex and race-adjusted Medicare remuneration per Medicare enrollee (parts A and B) (2013)</td>
<td>45</td>
<td>No change</td>
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<tr>
<td>Healthcare system</td>
<td>Hospital admissions for asthma per 100,000 population, ages 0-17. Admissions for asthma per 100,000 population, ages 0-17 (2013)</td>
<td>31</td>
<td>No change</td>
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<td></td>
<td>Mortality avoidable to healthcare, Number of deaths before age 75 per 100,000 population that resulted from causes considered to be partially treatable or preventable with timely and appropriate medical care (2010-2013)</td>
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<td>No change</td>
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<td>Cancer early stage diagnosis, female breast cancer cases, Percent of female breast cancer cases diagnosed at early stage (2000-2013)</td>
<td>40</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Diabetes with long-term complications, Admissions for Medicare beneficiaries with a principal diagnosis of diabetes with long-term complications per 100,000 beneficiaries, ages 19 years and older (2014)</td>
<td>41</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Cancer early stage diagnosis, colon and rectal cancer cases, Percent of colon and rectal cancer cases diagnosed at an early stage (2009-2013)</td>
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</tr>
<tr>
<td></td>
<td>Available emergency department visits for Medicare beneficiaries, Potentially avoidable emergency department visits among Medicare beneficiaries, per 1,000 beneficiaries (2013)</td>
<td>43</td>
<td>No change</td>
</tr>
<tr>
<td>Public health and prevention</td>
<td>State public health workforce, Number of state public health agency staff FTEs per 100,000 population (2012)</td>
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<td>No change</td>
</tr>
<tr>
<td></td>
<td>Emergency preparedness funding, Total per capita funding for state and local health departments’ emergency preparedness (2014)</td>
<td>45</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Child immunizations, Percent of children ages 19 to 35 months who received all recommended vaccines (2013)</td>
<td>46</td>
<td>Greatly worsened</td>
</tr>
<tr>
<td>Physical environment</td>
<td>Foodborne illness monitoring, Proportion of foodborne illness outbreaks for which an etiologic agent is known (2016)</td>
<td>47</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Outdoors or quality, Average exposure of the general public to particulate matter of 2.5 microns or less in size (PM2.5) (2012-2014)</td>
<td>48</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Food insecurity, Percent of households with limited or uncertain access to adequate food (2013-2016)</td>
<td>49</td>
<td>Greatly improved</td>
</tr>
<tr>
<td></td>
<td>Children exposed to secondhand smoke, Percent of children who live in a home where someone uses tobacco or smokes inside their home (2011-2013)</td>
<td>50</td>
<td>No change</td>
</tr>
</tbody>
</table>
Pathway to improved health value: A conceptual framework

- Systems and environments that affect health
  - Healthcare system
  - Public health and prevention
  - Access
  - Social and economic environment
  - Physical environment

- Equitable, effective and efficient systems
- Optimal environments

- Improved population health
- Improved health value
- Sustainable healthcare spending

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.
## Data in context

<table>
<thead>
<tr>
<th>Rankings</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><img src="image" alt="Ohio Map" /> 46</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Progress and trends</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Greatly improved" /> Most improved state(s) TN, NV, LA</td>
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</table>

<table>
<thead>
<tr>
<th>Highlighting other states</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Little to no disparity" /> Medium disparity Large disparity</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Disparities and inequities</th>
</tr>
</thead>
</table>

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How does Ohio do?
Where does Ohio rank?

Population health: 43
Healthcare spending: 31
Health value in Ohio: 46

Health + Spending = Value
Why does Ohio rank so poorly?
Ohio performs poorly on many of the factors that impact health value.

- **Social and economic environment**: 29
- **Access to care**: 17
- **Healthcare system**: 37
- **Physical environment**: 35
- **Public health and prevention**: 50
- **Clinical care**: 20%
- **Health behaviors**: 30%
- **Social and economic environment**: 40%
Dashboard material

http://www.hpio.net/2017-health-value-dashboard/

- Full Dashboard
- 2-page executive summary
- 8-page snapshot
- Methodology
- Local-level data crosswalk
- FAQ
- Excel with metric descriptions

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</tbody>
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### Ohio’s greatest health value challenges

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</tr>
</thead>
<tbody>
<tr>
<td>Population health</td>
<td>Initial mortality. Number of infant deaths per 1,000 live births (within 1 year) (rate 2014, trend 2013)</td>
<td>49</td>
<td>Moderately worsened</td>
</tr>
<tr>
<td></td>
<td>Cardiovascular disease mortality. Number of deaths due to cardiovascular diseases, including heart disease and stroke, per 100,000 population (age-adjusted) (2017)</td>
<td>40</td>
<td>No change</td>
</tr>
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<td>Greatly worsened</td>
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<tr>
<td>Healthcare spending</td>
<td>Average monthly marketplace premiums, after advanced premium tax credit. Average monthly premium for all enrollees in the federal marketplace after application of an advanced premium tax credit (2014)</td>
<td>38</td>
<td>Greatly improved</td>
</tr>
<tr>
<td></td>
<td>Total Medicare spending (Parts A &amp; B), per Medicare enrollee. Price, age, sex and race-adjusted Medicare enrollment per Medicare enrollee (Parts A &amp; B) (2012)</td>
<td>40</td>
<td>No change</td>
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<td>Healthcare system</td>
<td>Hospital admissions for asthma per 100,000 population, ages 2-17. Admissions for asthma per 100,000 population, ages 2-17 (2015)</td>
<td>31</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Mortality amenable to healthcare. Number of deaths before age 75 per 100,000 population that resulted from causes considered to be partially preventable with timely and appropriate medical care (2010-2013)</td>
<td>29</td>
<td>No change</td>
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<tr>
<td></td>
<td>Cancer early stage diagnosis, female breast cancer cases. Percent of female breast cancer cases diagnosed at an early stage (2006-2013)</td>
<td>40</td>
<td>No change</td>
</tr>
<tr>
<td></td>
<td>Diabetes with long-term complications. Admissions for Medicare beneficiaries with a principal diagnosis of diabetes with long-term complications per 100,000 beneficiaries, ages 19 years and older (2014)</td>
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<td>No change</td>
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<td></td>
<td>Cancer early stage diagnosis, colon and rectal cancer cases. Percent of colon and rectal cancer cases diagnosed at an early stage (2009-2013)</td>
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<td>No change</td>
</tr>
<tr>
<td></td>
<td>Avoidable emergency department visits for Medicare beneficiaries. Potentially avoidable emergency department visits among Medicare beneficiaries, per 1,000 beneficiaries (2013)</td>
<td>45</td>
<td>No change</td>
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<tr>
<td></td>
<td>Cancer early stage diagnosis. All. Percent of all cancer cases diagnosed at an early stage (2009-2013)</td>
<td>49</td>
<td>No change</td>
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<tr>
<td>Public health and preventions</td>
<td>State public health workforce. Number of state public health agency staff FTEs per 100,000 population (2012)</td>
<td>49</td>
<td>No change</td>
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<td>Emergency preparedness funding. Total per capita funding for state and local health departments’ emergency preparedness (2014)</td>
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<td>N/A</td>
</tr>
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<td>Childhood immunizations. Percent of children ages 19 to 35 months who received all recommended vaccines (2013)</td>
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<td>Greatly worsened</td>
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<td>Foodborne illness monitoring. Proportion of foodborne illness outbreaks for which an etiologic agent is identified (2010)</td>
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<td>No change</td>
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<td>41</td>
<td>Greatly improved</td>
</tr>
</tbody>
</table>
States with the highest adult smoking rate
Percent of population age 18 and older that are current smokers (2015)

Source: BRFSS as reported in the 2017 Health Value Dashboard

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States with the highest drug overdose death rate

Number of deaths due to drug overdoses per 100,000 population (age-adjusted) (2015)

Source: BRFSS as reported in the 2017 Health Value Dashboard

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## Ohio’s rank

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<tr>
<td>Cardiovascular disease mortality</td>
<td>40</td>
</tr>
<tr>
<td>Cancer early stage diagnosis, all (out of 50)</td>
<td>46</td>
</tr>
<tr>
<td>Children exposed to secondhand smoke</td>
<td>49</td>
</tr>
<tr>
<td>Hospital admissions for asthma (children)</td>
<td>31 (out of 41)</td>
</tr>
<tr>
<td>Infant mortality</td>
<td>39</td>
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<td>Drug overdose deaths</td>
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### Ohio’s greatest health value challenges

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<tbody>
<tr>
<td>Health and health care spending</td>
<td>Infant mortality: Number of infant deaths per 1,000 live births (under 1 year) rank (2014, trend 2013)</td>
<td>39</td>
</tr>
<tr>
<td></td>
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<td>Drug overdose deaths: Number of deaths due to drug overdoses per 100,000 population (age-adjusted) (2014)</td>
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</tr>
<tr>
<td>Health care access</td>
<td>Average monthly marketplace premiums, after advanced premium tax credit: Average monthly premium for marketplace plans offered to small businesses in the marketplace exchange per 1,000 population (age-adjusted) (2014)</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>Total Medicare spending (Part A and B) per Medicare enrollee: Net, age-, sex-, and race-adjusted Medicare spending, per enrollee, per month (in 2014)</td>
<td>46</td>
</tr>
<tr>
<td>Healthcare quality</td>
<td>Hospital admissions for orthopedic surgeries per 10,000 population, ages 0-17 (2013)</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>Mortality among infants, number of deaths before age 1, per 100,000 population that resulted from injuries, infections, and congenital anomalies and that were preventable with timely and appropriate medical care (2012)</td>
<td>39</td>
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<tr>
<td></td>
<td>Cancer early stage diagnosis: female breast cancer cases: Percent of female breast cancer cases diagnosed at an early stage (2013)</td>
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<td></td>
<td>Diabetes with long-term complications: Admissions for Medicare beneficiaries with a primary diagnosis of diabetes with long-term complications per 1,000 beneficiaries, ages 65 or older (2014)</td>
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<td>Cancer early stage diagnosis, colorectal cancer cases: Percent of colon and rectal cancer cases diagnosed at an early stage (2014)</td>
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</tr>
<tr>
<td></td>
<td>Available emergency department visits with no admission: Potentially avoidable emergency department visits among children and adolescents per 1,000 emergency department visits (2013)</td>
<td>42</td>
</tr>
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<td></td>
<td>Cancer early stage diagnosis, all: Percent of all cancer cases diagnosed at an early stage (2009-2013)</td>
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<td>Public health and prevention</td>
<td>State public health workforce: Number of state public health agency staff FB (per 100,000 population) (2013)</td>
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<td>Emergency preparedness funding: Total per capita funding for state and local health departments’ emergency preparedness activities (2014)</td>
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<td></td>
<td>Child immunization: Percent of children ages 19 to 35 months who received all recommended vaccines (2013)</td>
<td>46</td>
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<td>Foodborne illness reporting: Proportion of foodborne illness outbreaks for which an etiologic agent is identified (2014)</td>
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<tr>
<td>Physical environment</td>
<td>Obesity rate: Average percentage of the general public per 25% overweight or obese (ages 18 and older) (2014)</td>
<td>45</td>
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<tr>
<td></td>
<td>Toddlers with limited caregiver access to adequate food (ages 1-3) (2014)</td>
<td>45</td>
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<tr>
<td></td>
<td>Children exposed to secondhand smoke: Percent of children who live in a home where someone smokes tobacco in their home (2012-2013)</td>
<td>49</td>
</tr>
</tbody>
</table>

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Premature death, by cause, Ohio
YPLL before age 75, age adjusted rate per 1,000 pop.

Source: Ohio Department of Health, Bureau of Vital Statistics
Years of potential life lost among all cancers, Ohio, 2016

YPLL before age 75, age adjusted

- Lung, bronchus, trachea: 26.3%
- Breast: 8.4%
- Pancreas: 6%
- Brain: 4.7%
- All other cancer: 54.5%

Source: Ohio Department of Health, Bureau of Vital Statistics

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Ohio’s greatest health challenges

Cancer, heart disease, asthma, infant mortality, overdose deaths

Addiction to tobacco, opiates, alcohol, other drugs
Tobacco and opiates

• Prevalence and trends
• Groups most at risk (disparities)
• Impact on healthcare spending
• Life course
• Evidence-based strategies
Tobacco
The state of tobacco use prevention and cessation in Ohio
Environmental scan and policy implications

After releasing the Health Value Dashboard in December 2014, HPIO convened a group of healthcare and public health entities to review Ohio’s current health status and recommend strategies to improve Ohio’s health value. This policy implementation brief, released May 2015, examined the health status and policy implications of Ohio’s current tobacco use, including tobacco use and cessation, and secondhand smoke exposure in children.

Policy options Fact Sheet
State policy options to reduce tobacco use and secondhand smoke exposure

Tobacco use and secondhand smoke exposure

Health outcomes
- Ohio has higher tobacco use rates than most other states, ranking 29th for adult smoke rates, 49th for cigarette use, and 24th for secondhand smoke exposure for children.7
- Smoking use and secondhand smoke exposure contribute to infant mortality, heart disease, cancer, diabetes, and many other health problems.

Healthcare costs
- 42 percent of working-age Ohio Medicaid enrollees were current smokers, and 49 percent for secondhand smoke exposure for children.
- Researchers estimate that 15 percent of U.S. Medicare costs are attributable to cigarette smoking.8
- It costs employers an estimated $5.816 more per year to employ a smoker than a non-smoker, including healthcare and other costs.9

Evidence-based prevention strategies relevant to state policy

Increase unit price for tobacco products
- Ohio status: Excise tax on traditional cigarettes as of 2013 is now $1.40 per pack, similar to the national average of $1.61 per pack.7
- Excise tax rates for other tobacco products and e-cigarettes: Alabama: 37 percent of wholesale price, Other tobacco products: 17 percent of wholesale price (unchanged since 1999).10

Policy options
- Increase excise taxes on all or some of the above products and/or local municipalities to do so. Impacts on tobacco use are proportional to the size of the price increase.
- Ban Ohio’s minimum price law to prohibit the use of price discounting tactics.

Media campaigns (mass-reach health communication interventions)
- Ohio status: The Ohio Department of Health (ODH) manages mass media campaigns delivered via TV, radio, social media, etc., and the Centers for Disease Control and Prevention (CDC) funds and implements the national “Tips from Former Smokers” campaign in Ohio.
- Ohio spent approximately $1.9 million on media campaigns in FY 2016.11 The CDC-recommended level of Investment for Ohio is $14.4 million.12

Policy options
- Increase investment in mass media campaigns aimed at adults and/or youth. Evidence suggests that adult-focused cessation campaigns have the greatest impact on smoking prevalence and medical costs.13

What works to reduce tobacco use?
- The 2017 Health Value Dashboard found that Ohio ranks 6 out of 53 states and the District of Columbia on health value, a composite measure of population health outcomes and healthcare spending. This means that Ohioans are living less healthy lives and spending more on healthcare than people in most other states.

- Tobacco use is one of the key factors contributing to Ohio’s poor performance. Ohio ranks in the bottom quartile for both adult smoking and secondhand smoke exposure for children. Analysis of Dashboard data found a strong correlation between a state’s adult smoking rate and its health value rank. As shown in Figure 1 and 2, states with a lower adult smoking rate are more likely to have a better health value rate—meaning better population health outcomes and lower healthcare spending.

Figure 1. Correlation between smoking rate and health value rank
- 2015 adult smoking rate and 2017 health value rank: R=70

Smoking rate
- Health value rank
Trend highlights

• Adult cigarette smoking: Gradual decline
• Youth cigarette smoking: Big decline from 2000 to 2014
• Youth e-cigarette use: Increased from 2010 to 2014
Adult cigarette smoking prevalence in Ohio, 1998-2015

Source: BRFSS

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Percent of Ohio high school students who have ever tried tobacco products, 2000 to 2014

*2014 should be interpreted with caution due to low response rates.

Source: Ohio Youth Tobacco Survey, Ohio Department of Health Tobacco Program
Ohioans most at risk

Adults with...

• Behavioral health conditions
• Disabilities
• Low incomes
• Low levels of education
• Medicaid
• Rural counties
Adult current cigarette smoking prevalence: High-risk groups

Source: Ohio Department of Health
Adult smoking, by income
Percent of population age 18 and older that are current smokers (2014)

- <$15,000: 40.6%
- $15,000-$24,999: 31.1%
- $25,000-$34,999: 22.9%
- $35,000-$49,999: 22.2%
- $50,000+: 12.2%

U.S.: 18.1%
Ohio: 21%

Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System (2014)
Adult smoking by county, 2015

Source: 2017 County Health Rankings & Roadmaps

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Current cigarette smoking among Medicaid-enrolled adults (ages 19-64) in Ohio, 2015

- Medicaid:
  - Not currently smoking: 58.3%
  - Currently smoking: 41.7%

- All other:
  - Not currently smoking: 79.2%
  - Currently smoking: 20.8%

Source: Ohio Medicaid Assessment Survey

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Impact on healthcare spending

• 15% of U.S. Medicaid costs attributable to smoking (*Xu*, 2015)

• Indiana Medicaid study: PMPM Medicaid expenditures 51% higher for smokers than non-smokers (*SVC*, 2017)

• Higher healthcare costs for employers (*Berman*, 2014)
Percent of Medicaid managed care enrollees age 18+ who received tobacco cessation counseling or medication

<table>
<thead>
<tr>
<th>Year</th>
<th>Counseling</th>
<th>Medication</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY2014</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>FY2015</td>
<td>2%</td>
<td>5%</td>
</tr>
<tr>
<td>FY2016</td>
<td>2%</td>
<td>5%</td>
</tr>
</tbody>
</table>

n = 940,675 enrollees  n = 1,292,911 enrollees  n = 1,399,055 enrollees

Percent of Medicaid enrollees age 19-64 who smoke

- 2015: 42%

Source: Ohio Department of Medicaid, 2016
Note: Counseling refers to cessation counseling of various durations (procedures). Medication refers to smoking deterrents and nicotine receptor partial agonists (DM therapeutic class)

Source: Ohio Medicaid Assessment Survey, Adult Dashboard, accessed 3/3/17

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Smoking rate and health value rank

2015 adult smoking rate and 2017 health value rank ($r = .70$)

Source: HPIO 2017
Health Value Dashboard (value), 2015 BRFSS (smoking)
Percent of adults who are current smokers:
In states with best health value and Ohio

<table>
<thead>
<tr>
<th>Health value rank</th>
<th>Hawaii</th>
<th>California</th>
<th>Utah</th>
<th>Virginia</th>
<th>Arizona</th>
<th>Maryland</th>
<th>Colorado</th>
<th>Nevada</th>
<th>New Jersey</th>
<th>Florida</th>
<th>Georgia</th>
<th>Texas</th>
<th>D.C.</th>
<th>Ohio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>14.1%</td>
<td>11.7%</td>
<td>9.1%</td>
<td>16.5%</td>
<td>14%</td>
<td>15.1%</td>
<td>15.7%</td>
<td>17.6%</td>
<td>13.5%</td>
<td>15.8%</td>
<td>17.7%</td>
<td>15.2%</td>
<td>16%</td>
<td>21.6%</td>
</tr>
</tbody>
</table>

Source: HPIO 2017 Health Value Dashboard (value), 2015 BRFSS (smoking)
Opiate addiction
Fentanyl and Related Drugs Like Carfentanil as well as Cocaine Drive Increase in Overdose Deaths

Ohio's opioid epidemic continued to evolve in 2016 to stronger drugs, driving an increase in unintentional overdose deaths. The data shows a significant increase in overdose deaths involving the opioid fentanyl, the emergence of more powerful fentanyl-related drugs like carfentanil, and indications that cocaine was used with fentanyl and other opiates. The data also shows some promising progress—the fewest unintentional overdose deaths involving prescription opioids since 2009 (excluding deaths involving fentanyl and related drugs).

Illegally produced fentanyl can be hundreds of times stronger than heroin, and carfentanil and other related drugs can be stronger than fentanyl.

In 2016, unintentional drug overdoses caused the deaths of 4,050 Ohio residents, a 32.8 percent increase compared with 2015 when there were 3,050 overdose deaths.

Fentanyl and related drugs were involved in 58.2 percent (2,357) of all unintentional drug overdose deaths in 2016. By comparison, fentanyl was involved in 37.8 percent (1,333) in 2015, 19.9 percent (503) in 2014, 4.0 percent (84) in 2013, and 3.9 percent (75) in 2012 (see Figures 1 and 2). With the emergence of carfentanil in 2016, the fentanyl-related drug was involved in 340 overdose deaths, most of them during the second half of the year. For males and females respectively, the largest number of fentanyl and related drug overdose deaths were among the 25-34 age group. (See Figure 3). The increase in fentanyl and carfentanil overdose deaths in 2016 corresponded with an increase in drug seizure reports by law enforcement (see Figure 4).

The number of cocaine-related overdose deaths rose significantly from 685 in 2015 to 1,109 in 2016—a 61.9 percent increase (see Table 1). Of cocaine-related overdose deaths in 2016, 80.2 percent also involved an opioid, and 55.8 percent involved fentanyl-related and related opiates in particular.

The number of overdose deaths involving heroin remained relatively flat with 1,444 overdose deaths in 2016 compared to 1,424 in 2015 (see Table 1).

![Figure 1. Number of Fentanyl and Related Drug Deaths and Percentage of Unintentional Overdose Deaths, by Year, Ohio, 2012-2016](image-url)

Source: Ohio Department of Health, Bureau of Vital Statistics, analysis conducted by Ohio University Injury Prevention Program. Include this sentence who died due to unintentional drug overdose by Table of deaths AL-30 index (84-88).
Drug overdose deaths

Number of deaths and annual age-adjusted death rate* per 100,000 population from unintentional drug overdose by year, Ohio residents, 2000-2016


*The death rate is presented as age-adjusted which allows a comparison of death rates between populations (e.g. counties and states). The rates are adjusted to the U.S. 2000 standard population to allow a comparison of the overall risk of dying between different populations.
Overdose death, by drug type

Number of unintentional drug overdose deaths involving selected drugs, by year, Ohio, 2000-2016

Source: “2016 Ohio Drug Overdose Data: General Findings,” Ohio Department of Health. Data is from Ohio Department of Health, Bureau of Vital Statistics; analysis conducted by ODH Violence and Injury Prevention Program. Multiple drugs are usually involved in overdose deaths. Individual deaths may be reported in more than one category. Includes Ohio residents who died due to unintentional drug poisoning (underlying cause of death ICD-10 codes X40-X44).

* Excludes deaths involving fentanyl and related drugs.
Opioid doses dispenses

Opioid solid doses dispensed to Ohio patients, by year, 2011-2016

Americans consume more opioids than any other country

Standard daily opioid dose for every 1 million people

- United States
- Canada
- Germany
- Denmark
- Belgium
- Austria
- Switzerland
- Australia
- Holland
- Spain
- Luxembourg
- Norway
- Great Britain
- Ireland
- New Zealand
- Sweden
- Iceland
- Israel
- France
- Slovenia
- Portugal
- Finland
- Italy
- Mauritius
- Greece

Source: United Nations International Narcotics Control Board
Credit: Sarah Frostenson
Ohioans most at risk

2017-19 State Health Improvement Plan overdose death priority populations:

• White males age 25-64
• Black males age 25-64
• White females age 25-54
Overdose deaths, by county

Average age-adjusted unintentional drug overdose death rate per 100,000 population, by county, 2011-2016


Montgomery County has the highest rate of overdose deaths in Ohio and Ashland County has the lowest.
Medicaid Spending on Buprenorphine, Naltrexone, and Naloxone Prescriptions for OUD in Expansion States in 2016 with the Five Highest Drug Overdose Mortality Rates in the Previous Year

- West Virginia
- Kentucky
- Ohio
- Rhode Island
- Massachusetts


Notes: Rhode Island 2013–15 data are suppressed because of data quality concerns. New Hampshire, which has the second-highest death rate of all states, is not displayed because it is a late-expansion state.
Addiction across the life course

- Perinatal/early childhood
- Child/adolescent
- Older adult
- Adult
Secondhand smoke exposure and child health

- Asthma
- Ear infections (middle ear disease)
- Sudden Infant Death Syndrome

(Source: Surgeon General, 2014)
States with the highest rate of secondhand smoke exposure for children

Percent of children who live in a home where someone uses tobacco and smokes inside the home (2011/2012)

Source: BRFSS as reported in the 2017 Health Value Dashboard
Largest disparities and inequities across 29 metrics reviewed in 2017 Health Value Dashboard

<table>
<thead>
<tr>
<th>Metric</th>
<th>Group with worst outcomes</th>
<th>Estimated impact if disparity eliminated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children exposed to second-hand smoke</td>
<td>Low-income</td>
<td>126,776 Ohio children</td>
</tr>
<tr>
<td>Adverse childhood experiences</td>
<td>Low-income</td>
<td>207,722 Ohio children</td>
</tr>
<tr>
<td>Child poverty</td>
<td>Black</td>
<td>134,142 Ohio children</td>
</tr>
<tr>
<td>Adult depression</td>
<td>People with a disability</td>
<td>440,990 Ohio adults</td>
</tr>
</tbody>
</table>

**Estimated impact**: This calculation estimates the impact on Ohioans if the group with the worst outcomes on a metric had the same level of performance as the group with the best outcomes.
Ohio children exposed to secondhand smoke, by family income level

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-99% FPL</td>
<td>22.2%</td>
</tr>
<tr>
<td>100%-199% FPL</td>
<td>10.7%</td>
</tr>
<tr>
<td>200%-399% FPL</td>
<td>8.6%</td>
</tr>
<tr>
<td>400%+ FPL</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

**Estimated impact of eliminating disparity:**
Nearly 127,000 Ohio children would not be exposed to second-hand smoke if the disparity between Ohioans with low incomes and higher incomes was eliminated.

Source: National Survey of Children’s Health
States with highest prevalence of maternal smoking any time during pregnancy, 2014


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Smoking and coping

I have three little boys...it’s like, you know, ‘I’m hungry, mommy--I need this washed, mommy--I need this,’ and it’s like I can’t do everything at once...I mean, I don’t mind doing it, but it’s just like sometimes it’s just like ‘Oh my God just leave me alone,’ you know. It’s so stressful that I just like smoke two or three cigarettes within five minutes. –Athens

Source: Dr. Carol Carstens, OMHAS, 2017
Quitting is hard

...All of the [cessation] counseling in the world is not going to help unless your life is where you need it to be and it has to be. Because if you have your problems and your kids, it’s just going to pile up and you’re just going to be like “why quit smoking? Why am I going to counseling when it isn’t working?” --Athens

Source: Dr. Carol Carstens, OMHAS, 2017
Neonatal abstinence syndrome
Inpatient discharges in Ohio, 2006-2015

Source:
Neonatal Abstinence Syndrome (NAS) In Ohio 2006-2015 Report, Table 1A. Ohio Department of Health, Office of Health Improvement and Wellness, Bureau of Health Services Violence and Injury Prevention Program

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Impact of Opioid Epidemic on Children

PCSAO surveyed county PCSAs to determine the impact of opiates on children in custody (out-of-home care). 74 PCSAs responded and revealed:

- 28% of children taken into custody in 2015 had parents who were using opiates, including heroin, at time of removal

Source: PCSAO Opiate Survey, April 2016
Adverse childhood experiences

- Psychological, physical or sexual abuse
- Witnessing violence against the mother
- Living with household members...
  - With substance abuse or mental health conditions
  - Who have attempted or committed suicide
  - Who have ever been imprisoned

Source: Adapted from Felitti, Vincent J. et al. (1988)
Where do we go from here?
HPIO Addiction Evidence Project
• Evidence resource page
• Policy inventory
• Policy scorecard

Coming Soon
Key elements of a comprehensive response to addiction

- Surveillance and evaluation
- Prevention
- Treatment
- Criminal justice reform
- Recovery
- Law enforcement
- Harm reduction
- Children services
- Overdose reversal

Health, well-being and economic vitality

Community
Family
Individuals

Perinatal | Children | Adolescents | Young adults | Adults | Older adults
---|---|---|---|---|---

Across the life course, including caregiving and family support

Health Policy Institute of Ohio adapted from Addiction Policy Forum (2017)
Ohio 2017-2019 state health improvement plan (SHIP)

Overall health outcomes

- Health status
- Premature death

3 priority topics

<table>
<thead>
<tr>
<th>Mental health and addiction</th>
<th>Chronic disease</th>
<th>Maternal and infant health</th>
</tr>
</thead>
</table>

10 priority outcomes

- Depression
- Suicide
- Drug dependency/abuse
- Drug overdose deaths
- Heart disease
- Diabetes
- Child asthma
- Preterm births
- Low birth weight
- Infant mortality

Equity: Priority populations for each outcome above
**Ohio 2017-2019 state health improvement plan (SHIP)**

### Overall health outcomes
- ↑ Health status
- ↓ Premature death

### 3 priority topics
- **Mental health and addiction**
- **Chronic disease**
- **Maternal and infant health**

#### 10 priority outcomes
- ↓ Depression
- ↓ Suicide
- ↓ Drug dependency/abuse
- ↓ Drug overdose deaths
- ↓ Heart disease
- ↓ Diabetes
- ↓ Child asthma
- ↓ Preterm births
- ↓ Low birth weight
- ↓ Infant mortality

---

**Equity:** Priority populations for each outcome above
SHIP drug abuse prevention strategy examples:

- **School-based social and emotional instruction**
- **School-based violence, alcohol and other drug prevention programs**
- **Screening, brief intervention and referral to treatment (SBIRT)**
SHIP drug abuse treatment strategy examples:

- Monitor parity law implementation
- Medicaid expansion
- Medication-Assisted Treatment
- Behavioral health workforce (higher education financial incentives, pipeline programs, cultural competence, etc.)
### Ohio 2017-2019 State Health Improvement Plan (SHIP)

#### Overall health outcomes
- ↑ Health status
- ↓ Premature death

#### 3 priority topics
<table>
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#### 10 priority outcomes
- ↓ Depression
- ↓ Suicide
- ↓ Drug dependency/abuse
- ↓ Drug overdose deaths
- ↓ Heart disease
- ↓ Diabetes
- ↓ Child asthma
- ↓ Preterm births
- ↓ Low birth weight
- ↓ Infant mortality

**Equity:** Further population for each outcome above

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SHIP tobacco prevention and cessation strategy examples:

- Increase price of tobacco products
- Decrease availability for youth (including Tobacco 21)
- Media campaigns
- Tobacco QuitLine
Contact

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