

# 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 stakeholders to review Ohio's greatest health strengths and challenges. This group identified tobacco use as a significant concern, noting that compared to other states, Ohio performed in the bottom quartile for the following metrics:

Metric	Ohio's rank
Adult cigarette smoking	44
Secondhand smoke exposure for children	49
Tobacco prevention and control spending	46

Tobacco use is highly relevant to state health policy because it impacts a significant number of Ohioans (approximately 2.2 million youth and adult tobacco users<sup>1</sup>), is a major cause of illness and premature death (see Figure 1), and results in lost productivity and increased healthcare costs.<sup>2</sup>

Tobacco use also contributes to infant mortality and diabetes, two other health issues for which Ohio ranks in the bottom quartile of states on the *Health Value Dashboard*. Researchers estimate that 23% to 34% of cases of Sudden Infant Death Syndrome (SIDS) and 5-8% of preterm-related deaths are attributable to prenatal smoking in the U.S.<sup>3</sup> The risk of developing diabetes is 30% to 40% higher for active smokers than nonsmokers.<sup>4</sup>

Because tobacco use is disproportionately high among Ohioans with lower incomes and with disabilities, it is a significant cost driver for the Medicaid program. An analysis of 2006-2010 medical expenditures in the U.S. found that 15% of Medicaid costs were attributable to cigarette smoking.<sup>5</sup>

To provide policymakers and other stakeholders with information to guide efforts to reduce tobacco use in Ohio, this policy brief has two parts:

- **Environmental scan:** Description of the current status and recent history of tobacco use prevention and control in Ohio.
- **Policy implications:** List of the state-level policy options most likely to decrease the

prevalence of tobacco use given the strengths and challenges of Ohio's current tobacco policies.

In addition, HPIO will soon release an accountability map that describes how various public health and healthcare entities in Ohio are accountable for specific tobacco-related metrics.

### Part 1. Environmental scan

The purpose of this environmental scan is to describe the current status of tobacco use in Ohio, review the state-level policy landscape from the 1998 Master Settlement Agreement to the current session of the General Assembly, and describe the extent to which Ohio is implementing evidence-based strategies proven to reduce tobacco use.

Figure 1. Health consequences of smoking and secondhand smoke

Conditions causally linked to <u>smoking</u>	
<b>Cancers</b> <ul style="list-style-type: none"> <li>• Trachea, bronchus and lung</li> <li>• Larynx</li> <li>• Esophagus</li> <li>• Oropharynx</li> <li>• Acute myeloid leukemia</li> <li>• Stomach</li> <li>• Liver</li> <li>• Pancreas</li> <li>• Cervix</li> <li>• Colorectal</li> <li>• Kidney and ureter</li> <li>• Bladder</li> </ul>	<b>Chronic diseases</b> <ul style="list-style-type: none"> <li>• Diabetes</li> <li>• Stroke</li> <li>• Coronary heart disease</li> <li>• Chronic obstructive pulmonary disease (COPD), asthma and other respiratory diseases</li> <li>• Reproductive effects in women</li> <li>• Congenital defects—maternal smoking: orofacial clefts</li> <li>• Pneumonia</li> <li>• Hip fractures</li> <li>• Male erectile dysfunction</li> <li>• And others</li> </ul>
Conditions causally linked to <u>exposure to secondhand smoke</u>	
<b>For adults</b> <ul style="list-style-type: none"> <li>• Reproductive effects in women: low birth weight</li> <li>• Stroke</li> <li>• Coronary heart disease</li> <li>• Lung cancer</li> </ul>	<b>For children</b> <ul style="list-style-type: none"> <li>• Sudden Infant Death Syndrome</li> <li>• Lower respiratory illness</li> <li>• Respiratory symptoms, impaired lung function</li> <li>• Middle ear disease</li> </ul>

Source: *The health consequences of smoking—50 years of progress. A report of the Surgeon General.* 2014.

## Tobacco use in Ohio

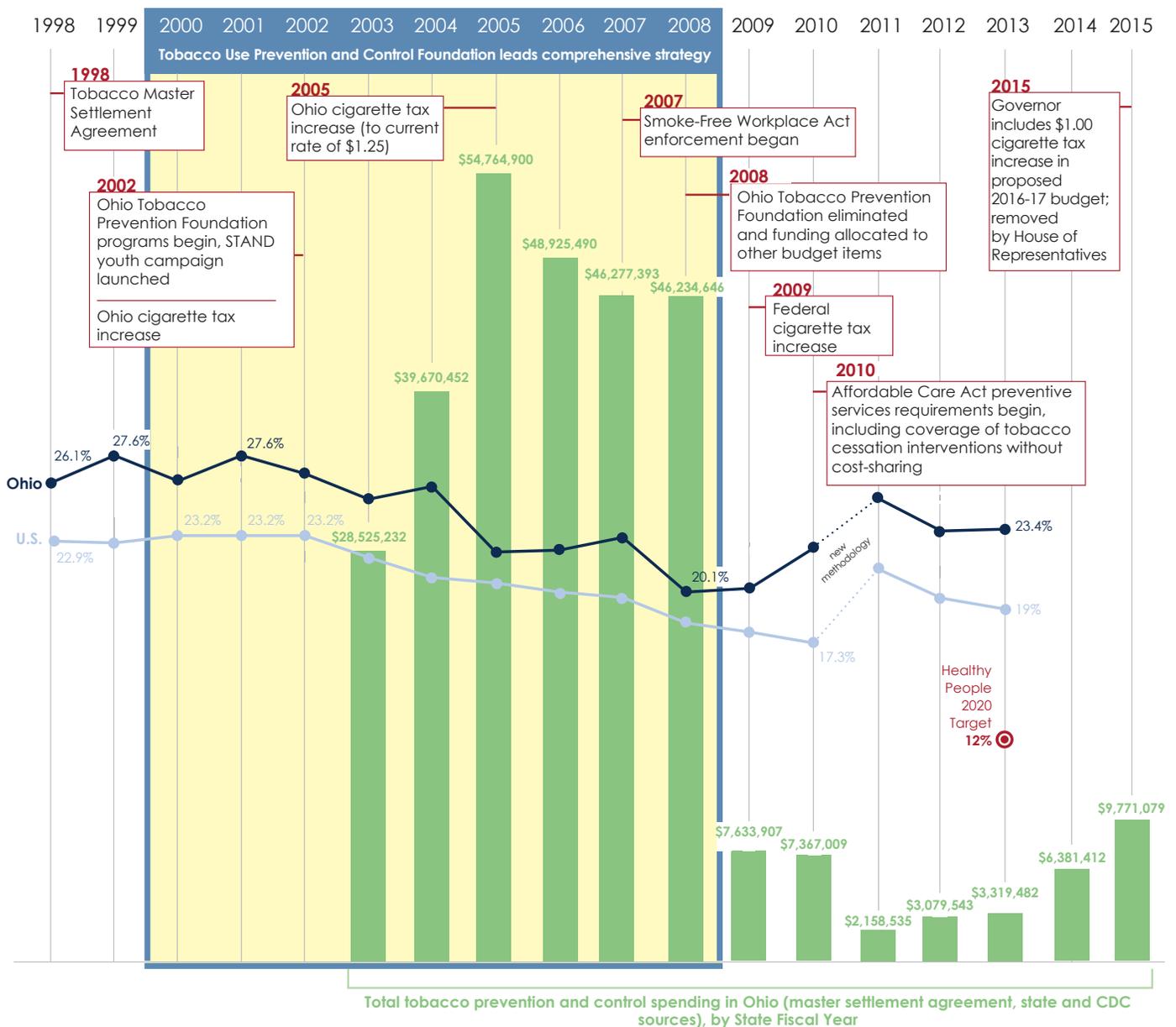
### Adult prevalence and trends

In 2013, 23.4% of Ohio adults smoked cigarettes, while 2.8% reported cigar smoking and 2.3% reported smokeless tobacco use.<sup>6</sup> The cigarette-smoking rate in Ohio is well above the national rate of 19.9% and the Healthy People 2020 goal of 12%.<sup>7</sup> While smoking prevalence has declined in Ohio over the past 15 years, the reduction has been slower in Ohio than in the U.S. overall (see Figure 2). Ohio adult smoking rates declined 13.8% from 1998-2010, compared to a 24.5% decline nationwide.<sup>8</sup>

### Adult disparities and regional differences

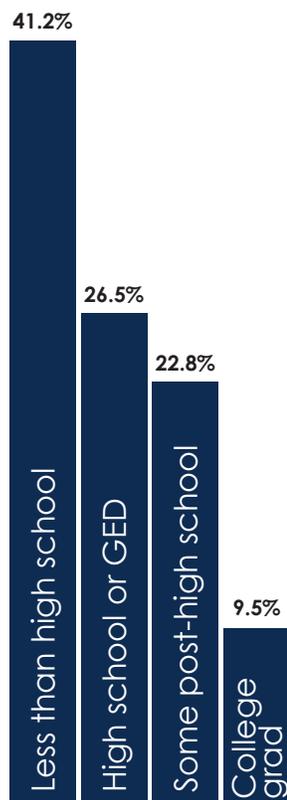
There are large disparities in tobacco use across demographic groups in Ohio. Tobacco use disproportionately impacts Ohioans with lower levels of education (see Figure 3). Ohioans with less than a high school diploma or GED are more than four times as likely to be current cigarette smokers compared to college graduates (41.2% and 9.5%, respectively).<sup>9</sup> Similarly, with a smoking rate of 37.3%, adults with incomes below \$15,000 are nearly two and a half times more likely to smoke as those in the highest income group.<sup>10</sup>

Figure 2. Adult cigarette smoking prevalence, key policy changes and tobacco prevention and control funding in Ohio, 1998-2015



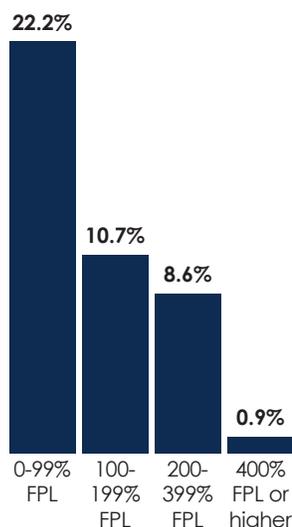
Source for smoking prevalence: Behavioral Risk Factor Surveillance Survey (BRFSS)  
 Source for spending amounts: American Lung Association

Figure 3. Ohio adult cigarette use, by education level (age 20+), 2013



Source: 2013 BRFSS

Figure 4. Ohio children exposed to secondhand smoke, by poverty level, 2011/2012



Source: 2011/2012 National Survey of Children's Health (NSCH)

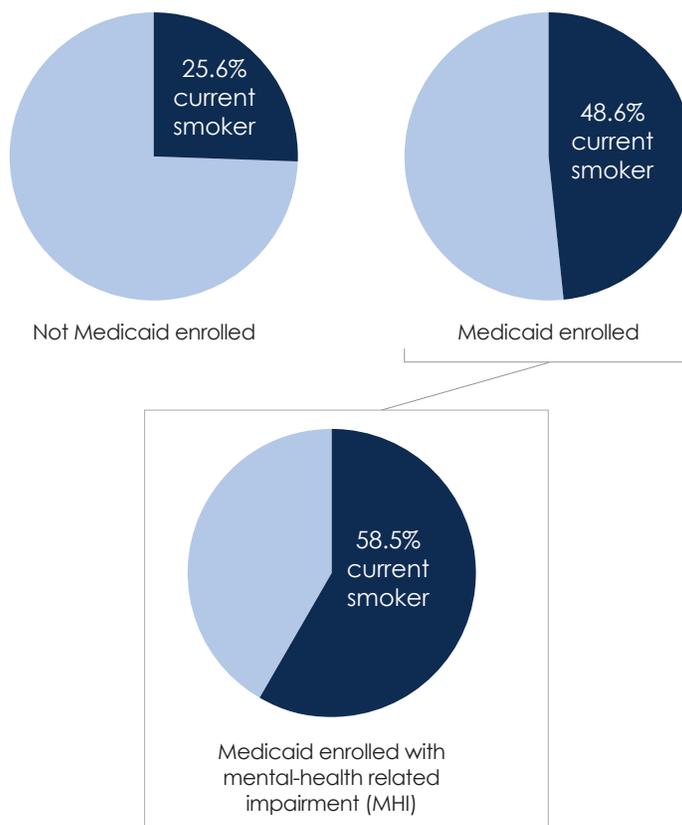
Household income also impacts the rate at which children are exposed to secondhand smoke and tobacco, with the highest rates of exposure for those in households nearer the federal poverty level (FPL) (see Figure 4).<sup>11</sup>

According to the 2012 Ohio Medicaid Assessment Survey (OMAS), working-age adults enrolled in Medicaid were nearly two times more likely to smoke than non-enrollees (48.6% versus 25.6%).<sup>12</sup> Smoking rates for Medicaid enrollees with a mental health-related impairment (MHI) were even higher at 58.5% (see Figure 5).<sup>13</sup>

In the U.S., adults with disabilities are more likely to use cigarettes (30.3%) than those without disabilities (16.7%)—a 13.6 percentage point disparity.<sup>14</sup> In Ohio, that disparity is even more pronounced; 38.7% of Ohioans with disabilities smoked in 2012, compared to 20.8% of those without disabilities—a 17.9 percentage point disparity (see Figure 6).

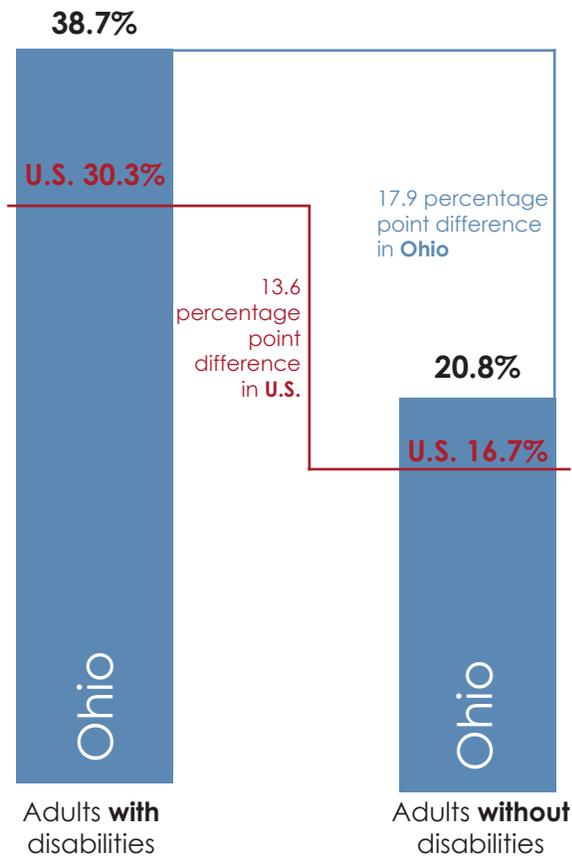
Ohio also has higher smoking rates among pregnant women, compared to the U.S. overall (see Figure 7). In Ohio, 16.5% of women smoked during the last 3 months of pregnancy, compared to 10.7% in the U.S.<sup>15</sup> Ohio also had a 25% higher rate of women who smoked during the 3 months prior to becoming pregnant (31.1%, compared to a national rate of 23.2%). Additionally, only 47.2% of Ohio smokers quit during pregnancy, compared to 54.3% in the U.S.

Figure 5. Current cigarette smoking among Medicaid-enrolled adults (age 19-64) in Ohio, 2012



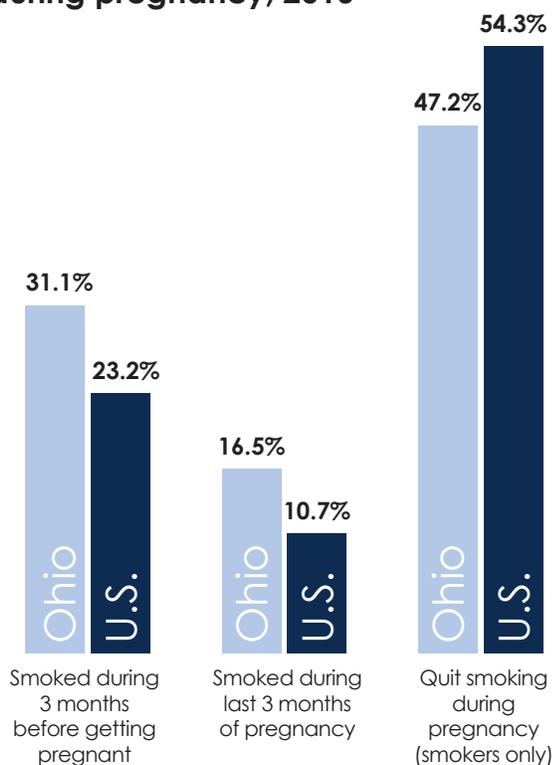
Source: 2012 Ohio Medicaid Assessment Survey (OMAS)

Figure 6. **Adult cigarette use, by disability status, 2012**



Source: 2012 BRFSS

Figure 7. **Cigarette smoking before and during pregnancy, 2010**



Source: 2010 Pregnancy Risk Assessment Monitoring System (PRAMS)

Adult smoking rates vary widely by region and county within Ohio. Smoking prevalence is higher in Appalachian counties, as well as some north central counties (see Figure 8). Meigs County had the highest proportion of adults who smoked (39.7%) from 2006 to 2012, over three times higher than the county with the lowest rate (Delaware, 12.3%).<sup>16</sup> Overall, 70% of Ohio counties had smoking levels higher than the national rate.<sup>17</sup>

There is also a sharp disparity in smoking prevalence between straight and lesbian, gay, bisexual and transgender (LGBT) adults. In Ohio, LGBT adults are nearly twice as likely to smoke, with 43.4% reporting current cigarette smoking compared to 22.6% of straight adults.<sup>18</sup>

Ohio's adult cigarette smoking rates do not vary widely by race, ethnicity or gender.<sup>19</sup> Rates for African-American, Hispanic, and White (non-Hispanic) Ohioans were 25.6%, 24.1% and 22.8%, respectively. Cigarette smoking rates were also similar by gender; 24.1% of males reported smoking and 22.6% of females reported smoking in 2013. Rates for cigar and smokeless tobacco use, however, were notably higher among males.<sup>20</sup>

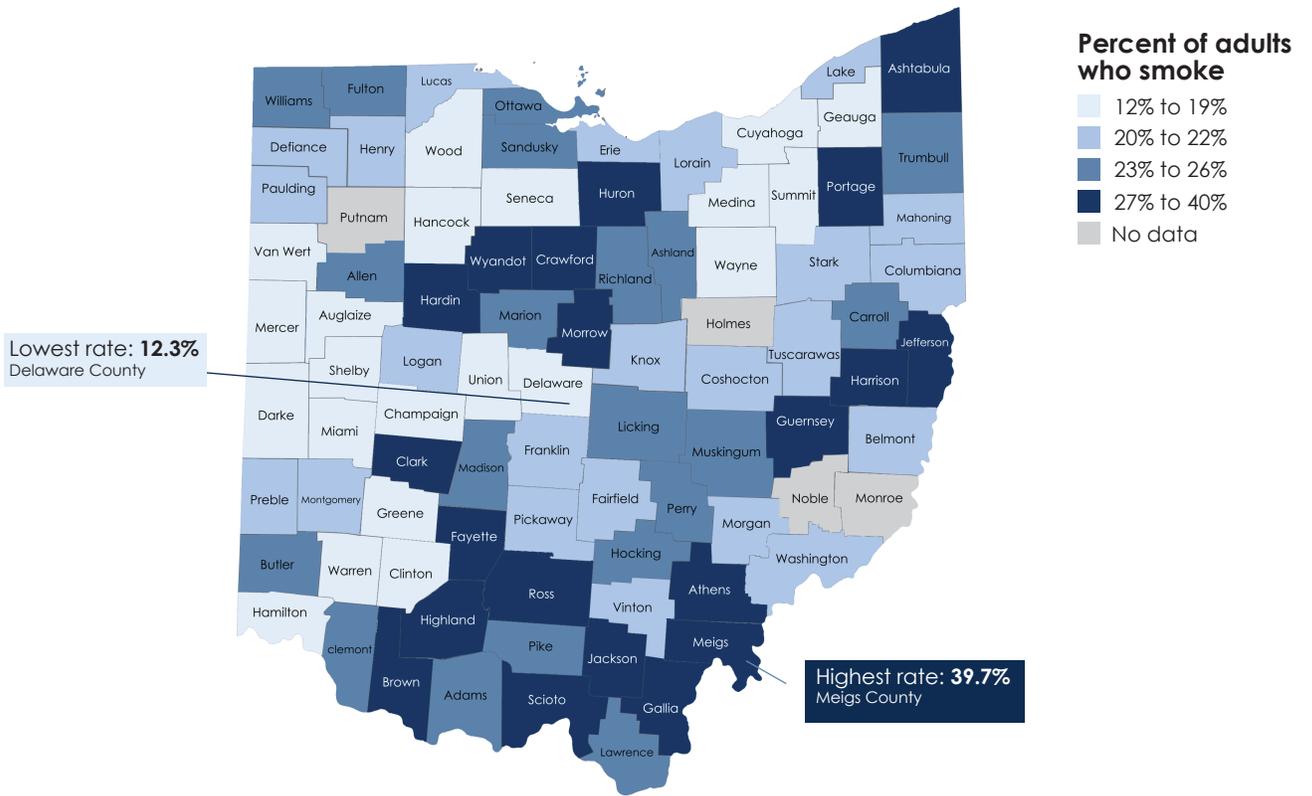
### Youth prevalence and trends

In 2013, 21.7% of Ohio high school students reported that they used tobacco products within the past 30 days, including cigarettes, cigars, and smokeless tobacco.<sup>21</sup> This is below the national rate (22.4%) and near the Healthy People 2020 target of 21.0% (see Figure 9).<sup>22</sup> While consistent trend data on youth use of all types of tobacco products is not available, youth cigarette trend data is available. As shown in Figure 10, cigarette smoking among high school students declined dramatically from 40.3% in 1999 to 22.2% in 2003 and then further decreased to 15.1% by 2013.<sup>23</sup>

### Youth use of types of tobacco products

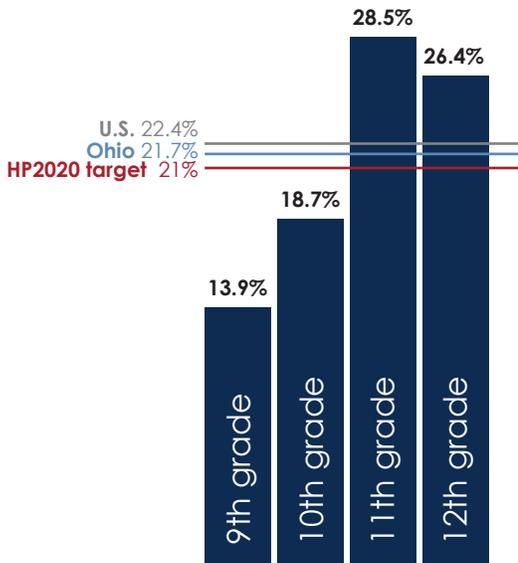
While the majority of adult tobacco users smoke cigarettes, youth tobacco use is spread more evenly between cigarettes, cigars<sup>24</sup> and smokeless tobacco (see Figure 11).<sup>25</sup> Among Ohio high school students, 15.1% reported smoking cigarettes in the last 30 days, 11.5% percent reported cigar smoking, and 8.6% reported smokeless tobacco use.<sup>26</sup> Ohio adults, on the other hand, reported rates of 23.4%, 2.8%<sup>27</sup> and 2.3%<sup>28</sup> respectively. There is also overlap in use, with some youth reporting use of multiple products.

Figure 8. Adult smoking in Ohio, by county, 2006-2012



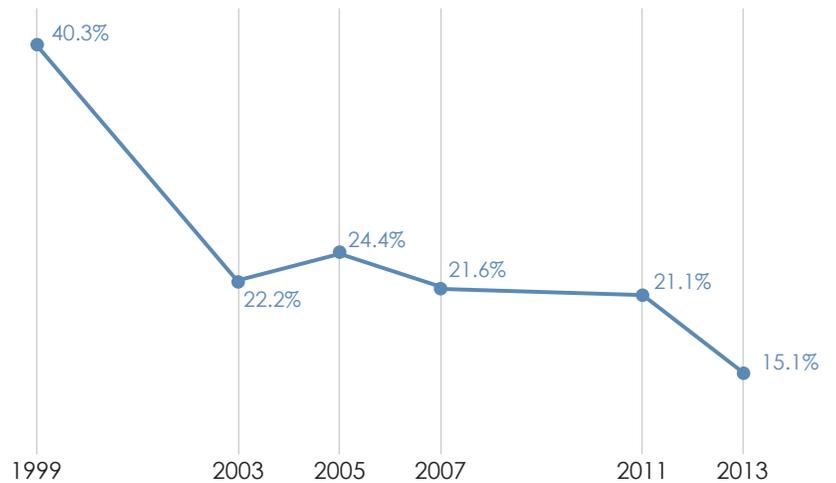
Source: 2015 County Health Rankings, 2006-2012 BRFSS data

Figure 9. Youth all tobacco use in Ohio, by grade, 2013



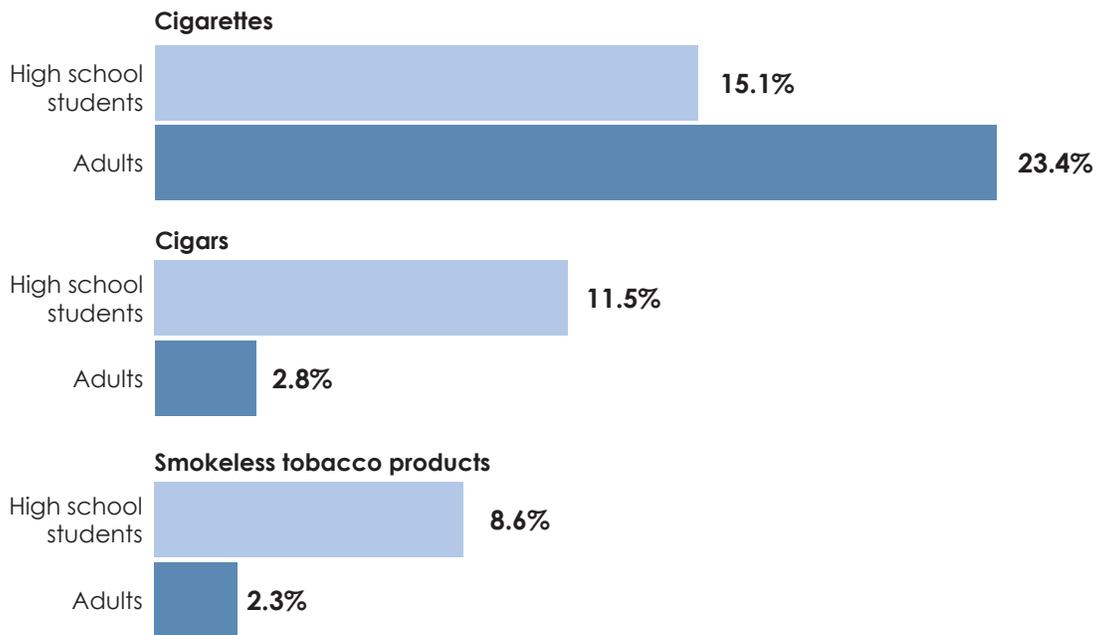
Source: 2013 Youth Risk Behavior Surveillance survey (YRBS)

Figure 10. Youth current cigarette use, Ohio



Source: Youth Risk Behavior Surveillance survey (YRBS)

Figure 11. **Use of types of tobacco products in the past 30 days by Ohio adults and high school students**



**Source:** High school students: 2013 YRBS. Adult cigarettes: 2013 BRFSS. Adult cigars and smokeless tobacco: 2010-2011 TUS-CPS

Young males report similar levels of use of cigarettes (16.7%), cigars (16.3%) and smokeless tobacco products (15.1%). Young females, on the other hand, are most likely to smoke cigarettes (13.4%), followed by cigars (6.6%) and smokeless tobacco (1.9%). Unlike Ohio adults, Ohio youth also have marked differences in overall tobacco use rates by gender: 27.2% of Ohio high school males report current tobacco use, compared to 16.0% of high school females.

In 2013, Hispanic high school students (24.9%) were more likely than non-Hispanic white students (15.9%) or black students (9.8%) to smoke in Ohio. Chewing tobacco was more common among white students (9.1%) than black students (6.1%), and there were no differences by race for use of cigars, cigarillos or little cigars.<sup>29</sup>

### Emerging youth trends: E-cigarette and hookah use

National data show that by 2014, e-cigarettes and hookah are the tobacco products most commonly used by high school students, surpassing traditional cigarettes, cigars and smokeless tobacco. From 2011 to 2014, current

e-cigarette use among high school students jumped from 1.5% to 13.4%, and hookah use rose from 4.1% to 9.4%.<sup>30</sup> At the same time, current cigarette use decreased from 15.8% to 9.2%.<sup>31</sup> This U.S. data showed a similar pattern for middle school students.

It is likely that Ohio is experiencing similar trends. State-level data will be available in 2016 from the 2015 Ohio Youth Risk Behavior Surveillance survey.

The e-cigarette trend is particularly notable because of the increased e-cigarette use among youth who have never used tobacco products. A CDC study released in the journal *Nicotine and Tobacco Research* in 2014 found that more than a quarter million American youth who had never smoked a cigarette used e-cigarettes in 2013.<sup>32</sup> This is starkly different from adult trends. A study by CDC and Georgia State University researchers found no increase from 2010-2013 in e-cigarette use among adults who have never smoked cigarettes.<sup>33</sup>

## Policy landscape

This section provides a brief history of tobacco prevention and control policy in Ohio from 1998 through May 2015.

### Tobacco Master Settlement Agreement

The 1998 Master Settlement Agreement (MSA) between the five largest American tobacco companies and the attorneys general of 46 states, including Ohio, required the tobacco companies to provide participating states with annual pay-outs as compensation for smoking-related Medicaid costs. Ohio's share of the MSA was estimated to be \$10 billion through the year 2025.<sup>34</sup> The MSA ushered in a new era of tobacco prevention, making significant resources available to support comprehensive tobacco control initiatives. The MSA did not stipulate, however, that states had to direct settlement funds toward tobacco prevention activities. The agreement also contained restrictions on advertising, including marketing targeted at youth.

In 2000, Ohio Senate Bill 192 specified how the state would distribute its MSA funds. The bill created the Ohio Tobacco Use Prevention and Control Foundation<sup>35</sup> ("Foundation"), which was charged with seven specific goals:<sup>36</sup>

1. Prevent youth tobacco use initiation
2. Reduce youth tobacco use
3. Reduce tobacco use among diverse and underserved populations, including those disproportionately affected by tobacco
4. Reduce tobacco use among pregnant women
5. Reduce exposure to secondhand tobacco smoke
6. Reduce adult tobacco use
7. Reduce smokeless tobacco use among youth and adults

During the same session, the General Assembly also passed legislation requiring any tobacco product manufacturer selling cigarettes in the state to either participate in the MSA or pay specified amounts into an escrow fund.

From 2002 to 2008, the Foundation implemented a comprehensive statewide cessation program called Ohio Quits. The centerpiece of this program, the Ohio Tobacco Quit Line, helped an estimated 38,000 Ohioans quit tobacco use between

the inception of the Quit Line in 2002 to the time the Foundation was dissolved in 2008.<sup>37</sup> The Foundation also provided cessation and prevention grants to local communities, funded research activities, and implemented counter-marketing media campaigns. From 2002 to 2008, Ohio's adult smoking rate declined 24.4%, placing Ohio in the top quartile of states for the steepest declines during that time period.<sup>38</sup>

The Foundation was designed to receive payments from the MSA for the first six years, creating an endowment to fund tobacco prevention in perpetuity without new tax dollars.<sup>39</sup> Ohio, like many other states, diverted MSA funding to other budget areas following the economic recessions of 2001 and 2007-2009. Beginning in State Fiscal Year (SFY) 2002, the Ohio General Assembly began diverting endowment fund payments to the General Revenue Fund.

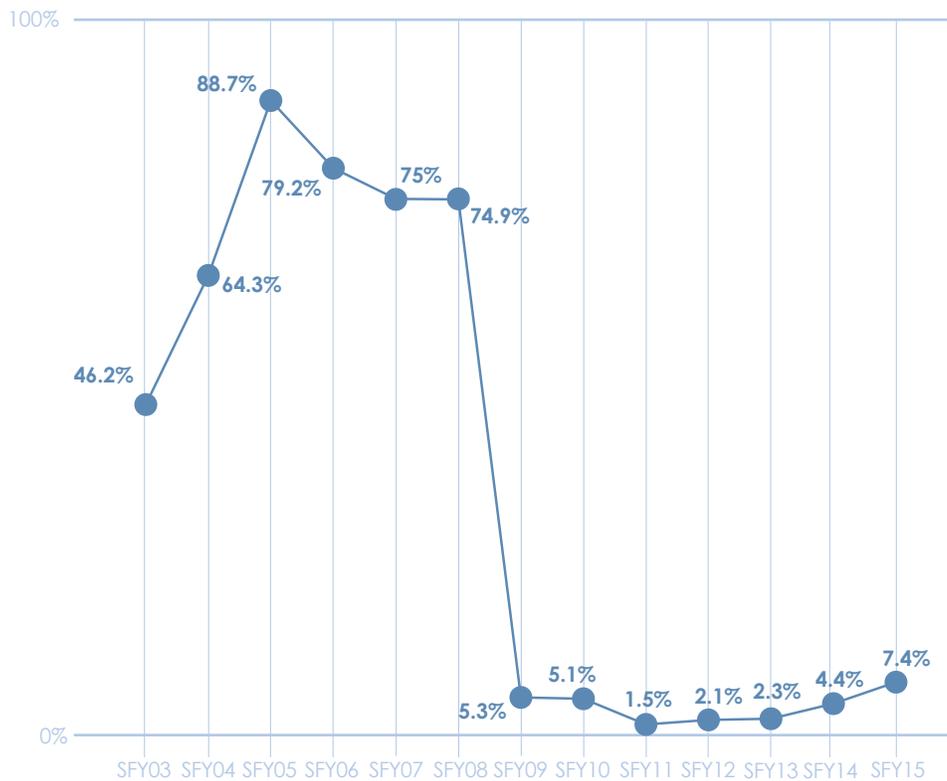
The SFY 2008-9 state budget securitized the MSA and designated that the resulting funds be spent on school and higher education buildings. This action meant that all future MSA payments to Ohio were no longer available for tobacco prevention and control activities.

Ultimately, the Foundation received approximately 32% of the funds that were initially planned through 2008.<sup>40</sup> In 2008, House Bill 544 eliminated the Foundation and gave the Ohio Department of Health (ODH) control of remaining foundation assets, liabilities and on-going activities.<sup>41</sup>

Elimination of the Foundation resulted in major reductions in the number of Ohioans served by the Quit Line and ended the counter-marketing campaign and most state-funded youth tobacco prevention activities.

Ohio's investment in tobacco prevention and control plummeted from a high of \$54.8 million in SFY 2005 to a low of \$2.2 million in SFY 2011 (see Figure 2). Ohio's tobacco prevention and control spending as a percent of the CDC-recommended level of spending dropped from 88.7% in 2005 to 1.5% in 2011 (see Figure 12).<sup>42</sup>

Figure 12. Annual expenditures on tobacco prevention and control as a percent of the CDC-recommended level of funding, Ohio, 2003-2015



**Note:** Includes MSA, state, and CDC funding  
**Source:** American Lung Association

### Other Ohio policy changes

In 2006, Ohio voters approved the Smoke-Free Workplace Act through a ballot initiative. Enforcement began the following year.<sup>43</sup> The act prohibits smoking in any public place or place of employment, including restaurants and bars, with some exceptions.<sup>44</sup>

Other notable changes to Ohio tobacco policy since the MSA include:

- **2002:** Ohio cigarette tax increased by \$0.31 to rate of \$0.55
- **2005:** Ohio cigarette tax increased by \$0.70 to current rate of \$1.25
- **2012:** Ohio Board of Regents voted unanimously to recommend that Ohio colleges and universities ban tobacco use campus-wide
- **2013:** Excise tax rate on “little cigars” increased from 17% to 37%
- **2014:** Legislation banned electronic nicotine delivery systems (ENDS) sales to minors

### The 131st General Assembly

In his proposed budget for fiscal year 2016-2017 (HB 64), Governor Kasich included several tobacco-related policy changes. For example, he proposed a \$1 increase to the cigarette tax, an increase in the tax rate for other tobacco products from 17% to 60% and a tax on the liquid nicotine used in e-cigarette products. The Governor’s Office of Health Transformation released a [white paper](#) in February 2015 that describes numerous other policy proposals included in the budget.

The tax changes were not in the budget bill as passed by the House of Representatives, but the Senate is still deliberating on the budget.

Legislators must approve a final 2016-2017 budget by June 30, 2015. Provisions of the final budget legislation (HB 64) and the text of other tobacco-related legislation, can be found on the [General Assembly website](#).

In addition to the budget, there are three other pieces of tobacco-related legislation

that have been introduced in the 131st General Assembly, to date:

- Senate Bill 89 (sponsor: Sen. Tavares) would prohibit smoking in a motor vehicle in which a child under six years of age is a passenger.
- Senate Bill 54 (sponsor: Sen. Jones) and House Bill 168 (sponsor: Rep. Huffman) would ban sales of e-cigarettes and related products not in child resistant packaging.
- House Bill 221 (sponsors: Rep. Ruhl, Rep. Ashford) would revise the law regarding tobacco use in public schools and at public school-sponsored functions by extending the provisions to all “persons,” rather than just pupils, and to include all tobacco and nicotine products, such as e-cigarettes.

## Agencies and organizations working to reduce tobacco use in Ohio

### State agencies

When the Foundation was abolished in 2008, ODH became the lead state agency responsible for tobacco prevention and control. Although a few other state agencies, such as Ohio Mental Health and Addiction Services, also engage in some tobacco prevention and cessation activities,<sup>47</sup> ODH carries out most state and federally-funded programs designed to reduce tobacco use. ODH currently implements the following:<sup>48</sup>

- Develops a strategic plan to address tobacco use in Ohio (to be released in 2015, in partnership with Tobacco Free Ohio Alliance)
- Provides in-kind support to Tobacco Free Ohio Alliance (“backbone” stakeholder coalition)
- Enforces Smoke-Free Workplace Law
- Manage media campaigns, including CDC’s *Tips from Former Smokers* campaign
- Manages contract for the Ohio Tobacco Quit Line and coordinates Ohio Tobacco Collaborative (Quit Line purchasing group)
- Maintains cessation services database, trains Tobacco Treatment Specialists, and manages other activities to encourage use of effective cessation interventions
- Coordinates prevention activities, such as promotion of tobacco-free schools, campuses and multi-unit housing; and grants to local programs for youth engagement and other prevention activities
- Coordinates programs for specific

### Federal policy changes

The 2009 Family Smoking Prevention and Tobacco Control Act gave the Food and Drug Administration (FDA) authority to regulate the manufacture, distribution, and marketing of tobacco products. The Act also gave states and local governments broader authority to regulate tobacco marketing and promotion.

Last year, the FDA issued a proposed rule that would extend the agency’s tobacco authority to include other products meeting the legal definition of tobacco products, including e-cigarettes, cigars, pipe tobacco, and water pipe or hookah tobacco. This rule has not yet been finalized.<sup>45</sup>

The Affordable Care Act (ACA) contained several provisions related to tobacco use:

- Requires most health insurance plans to cover tobacco cessation as a preventive service without cost sharing
- Requires state Medicaid programs with prescription drug plans to cover prescription and over-the-counter tobacco cessation medications
- Requires all state Medicaid programs to cover comprehensive tobacco cessation services for pregnant women
- Allows health insurance companies to vary premium costs based on tobacco use<sup>46</sup>

For a complete list of tobacco-related provisions of the Affordable Care Act, see this Tobacco Control Legal Consortium [fact sheet](#).

- populations, such as the Tobacco Initiative for People with Disabilities, Innovative Cessation Activities (for pregnant women and people with diabetes), Tobacco-Related Health Disparities and Ohio Partners for Smoke-free Families
- Collects and analyzes tobacco use surveillance data
  - Evaluates effectiveness of the above activities

Given the high rates of tobacco use among Medicaid participants noted on page 3, the Ohio Department of Medicaid plays a significant role in covering tobacco cessation counseling and medications for Ohioans (see page 19 and Figure 20).

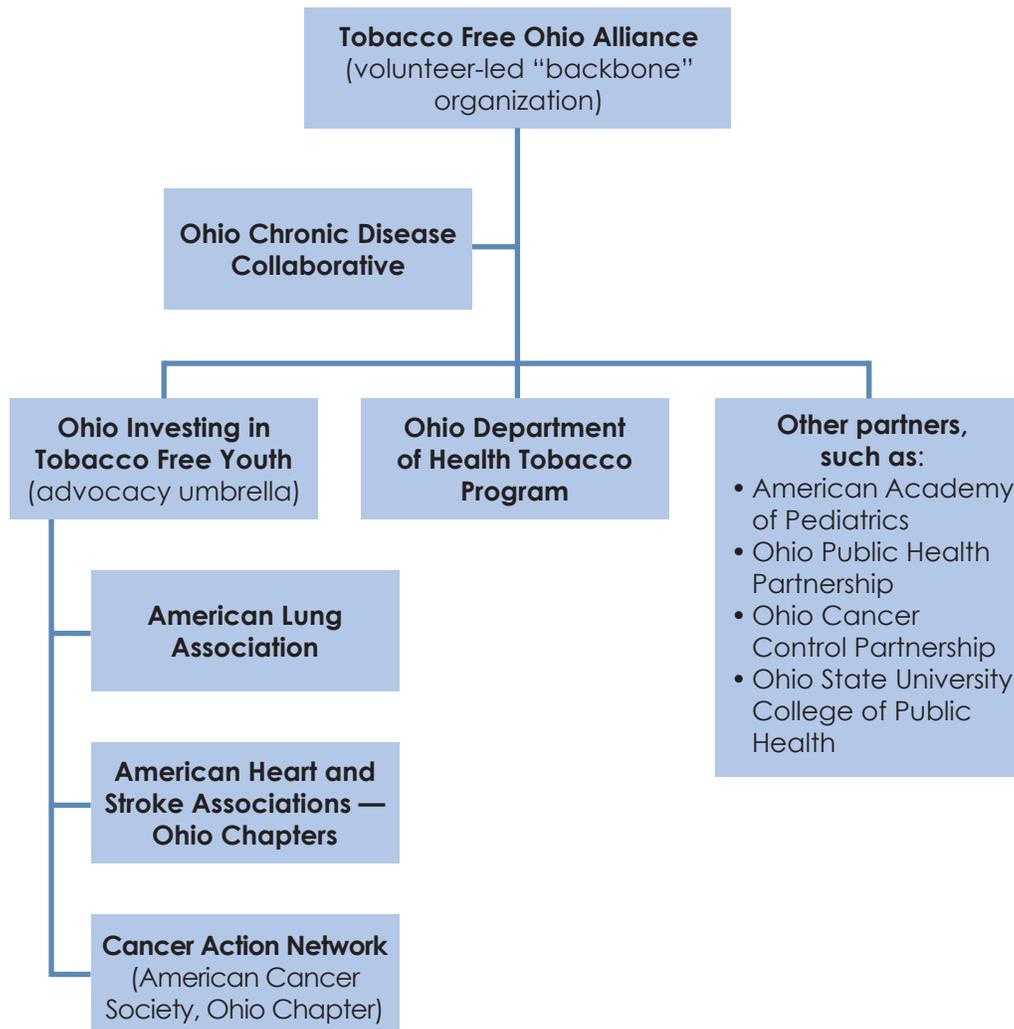
### Statewide organizations and coalitions

ODH conducts many of these activities in partnership with statewide and local organizations and coalitions. As shown in Figure 13, the Tobacco Free Ohio Alliance (TFOA) is considered to be the “backbone” or “umbrella” organization for tobacco prevention and control activities at the statewide level. Because TFOA is volunteer-led and does not have any paid staff, its capacity

to lead an effective tobacco prevention and control strategy is limited.

Ohio Investing in Tobacco Free Youth coordinates advocacy activities by the Ohio chapters of three organizations: American Lung Association, American Heart and Stroke Associations, and the Cancer Action Network (American Cancer Society). Because ODH and local health departments are restricted in their ability to advocate or lobby for policy changes,<sup>49</sup> these three organizations play a critical role in advancing evidence-based tobacco prevention strategies that require legislative action, such as increasing taxes on cigarettes and other tobacco products.

Figure 13. Ohio tobacco prevention and cessation organizations



## Collective impact assessment

In March 2015, HPIO convened a group of representatives from statewide tobacco prevention and cessation organizations to assess the current level of “collective impact” for reducing tobacco use in Ohio. Collective impact refers to long-term initiatives that unite key players around a common agenda. The “conditions of collective success” are characteristics that lead to positive outcomes.

Conditions of collective success <sup>50</sup>	Current status for Ohio tobacco prevention and control	
<b>Backbone support organization</b>	<p>Tobacco Free Ohio Alliance (TFOA) is Ohio's current backbone organization. TFOA is primarily an information-sharing group led by an elected, unpaid coordinator. ODH contributes in-kind resources, such as sending out meeting notices and information and facilitating strategic planning. ODH provides no direct funds to TFOA.</p> <p>Stakeholders indicated that TFOA's capacity is limited because it lacks a paid coordinator staff position. Prior to 2008, the Foundation served as Ohio's backbone organization and employed about 14 staff members.<sup>51</sup></p>	<b>Weak</b>
<b>Common agenda</b>	<p>The TFOA strategic plan, to be released in 2015, will articulate Ohio's common agenda. Ohio's Plan to Prevent and Reduce Chronic Disease, released in 2014, includes several goals related to tobacco, some of which overlap with goals in the draft TFOA strategic plan. The Office of Health Transformation also articulated a tobacco prevention and cessation agenda through the SFY 2016-17 proposed budget.<sup>52</sup></p> <p>Ohio Investing in Tobacco Free Youth has a common advocacy agenda focused on three top priorities: increasing tobacco taxes, promoting smoke-free environments, and funding for prevention and cessation.</p>	<b>Moderate</b>
<b>Shared measurement system</b>	<p>ODH houses the Tobacco Surveillance System, which includes data from surveillance surveys, Medicaid claims, and other sources. This data is used by ODH to monitor prevalence and to guide ODH planning and evaluation. ODH is in the process of developing an online portal for this system. Data are currently available to the public by request.</p>	<b>Moderate</b>
<b>Continuous communication</b>	<p>TFOA meets quarterly and shares information via an email list. They do not have an active website. The American Heart Association, American Lung Association and American Cancer Society Cancer Action Network each have an advocacy email list. The Ohio Chronic Disease Collaborative maintains an email list and meets about twice a year. ODH also regularly shares information with a list of tobacco stakeholder, including via a quarterly newsletter.</p>	<b>Moderate</b>
<b>Mutually-reinforcing activities</b>	<p>There is a clear delineation between programmatic activities, led by ODH, and advocacy activities, led by Ohio Investing in Tobacco Free Youth. There does not appear to be duplication across programs or organizations.</p>	<b>Moderate</b>

## Local coalitions and programs

Starting in 2003, the Foundation began funding local prevention and cessation programs covering nearly all 88 Ohio counties. Local grantees formed local tobacco prevention coalitions, implemented school-based prevention education programs, offered cessation services and coordinated local youth counter-marketing teams. Some local communities have continued to do this work in the absence of Foundation funding after 2008, although the scope and intensity has significantly diminished. ODH currently funds 23 counties to do some tobacco prevention activity through the Creating Healthy Communities chronic disease prevention program.<sup>53</sup> The Ohio Partners for Smoke Free Families program coordinates perinatal smoking cessation and secondhand smoke reduction activities in 44 counties.<sup>54</sup>

According to Public Health Quality Indicators data reported from local health departments (LHDs) to ODH in 2015, 93 of 123 LHDs reported a tobacco prevention or control intervention in their community. This means that 76% of LHDs self-reported that they were either directly providing or partnering with another organization to provide some type of evidence-based prevention and/or cessation activity. ODH is in the process of identifying the number of counties that offer community-based cessation services.

There may be several Ohio counties that do not currently have any local-level tobacco prevention activity. In recent years, some communities have been able to secure grants to fund this work in the context of broader chronic disease prevention initiatives, while others have not regained the level of activity they had when the Foundation was in existence.

Figure 14. **Tobacco prevention and control strategies recommended by the Community Guide (US Centers for Disease Control and Prevention)**

Evidence-based strategy	Description	Outcomes			
		Never start <i>Prevent initiation among youth and young adults</i>	Secondhand smoke <i>Reduce exposure to secondhand smoke</i>	Disparities <i>Reduce tobacco-related disparities</i>	Cessation <i>Promote quitting among adults and youth</i>
<b>Comprehensive tobacco control programs</b>	Coordinated strategy that combines educational, clinical, regulatory, economic, and social approaches (see evidence-based strategies listed below). Includes administrative support, surveillance and evaluation at the state level, with support for local coalitions.	X	X		X
<b>Increase unit price for tobacco products</b>	Increased excise tax rate for cigarettes and other tobacco products. Effects are proportional to the size of the price increase, so the higher the tax increase, the greater the impact on health outcomes.	X		X	X
<b>Smoke-free policies</b>	Policies that prohibit smoking in indoor spaces and designated public areas.	X	X		X
<b>Mass reach health communication interventions</b>	Target large audiences through TV, radio, billboards, etc. with carefully tested messages.	X			X
<b>Community mobilization with additional interventions</b>	Campaigns to focus public attention on reducing youth access to tobacco, supplemented by activities such as education and active enforcement of tobacco retailers.	X			
<b>Reduce out-of-pocket costs for evidence-based cessation treatments</b>	Policies and programs that make recommended medications and counseling more affordable, and raise awareness among tobacco users and healthcare providers about cessation coverage.				X
<b>Quitline interventions</b>	Behavioral counseling delivered by trained cessation specialists by phone. Quitline counseling should be widely accessible, convenient to use, and generally provided at no cost to users.				X
<b>Incentives and competitions to increase smoking cessation among workers, combined with additional interventions</b>	Rewards combined with activities such as cessation services, smoke-free policies and social support networks.				X

## Evidence-based strategies

There is a strong body of evidence on what works to prevent tobacco use, help smokers quit, and reduce exposure to secondhand smoke. The following sources of research-based recommendations are considered to be the “gold standard” of evidence to guide tobacco prevention and control policies and programs:

- **Guide to Community Preventive Services (Community Guide):** Recommendations for community-based strategies based on expert review of research results
- **U.S. Preventive Services Task Force (USPSTF):** Recommendations on clinical preventive services based on expert review of research results
- **Best Practices for Comprehensive Tobacco Control Programs (2014 edition):** Compiles and summarizes evidence from the above and additional sources, and makes recommendations for state-level policies, programs and infrastructure

Recommendations for reaching the overall population with effective strategies that

prevent youth from ever starting to use tobacco (see Figure 14), combined with specific recommendations for how to help current tobacco users to quit (see Figures 14 and 15), provide states with a clear roadmap for reducing tobacco use that is based upon decades of evaluation research.

Comprehensive tobacco control programs provide the backbone support for implementing the recommended strategies listed here. The CDC recommends that states have a comprehensive program that includes surveillance and data management to monitor tobacco use trends, and the administrative infrastructure needed to plan, manage and evaluate evidence-based strategies.

Some of these strategies involve state-level policy changes, such as smoke-free workplace laws and increased excise taxes on tobacco products. Other strategies, such as mass reach communications and quitlines, are programmatic and require dedicated funding. Finally, the cessation recommendations involve

Figure 15. Summary of U.S. Preventive Services Task Force recommendations on tobacco cessation for adults and pregnant women

Population	Adults Age ≥18 Years	Pregnant Women of Any Age
<b>Recommendation</b>	Ask about tobacco use. Provide tobacco cessation interventions to those who use tobacco products.	Ask about tobacco use. Provide augmented pregnancy-tailored counseling for women who smoke.
<b>Recommendation level</b>	Grade: A	Grade: A
<b>Counseling</b>	<p>The “5-A” framework provides a useful counseling strategy:</p> <ol style="list-style-type: none"> <li>1. <b>A</b>sk about tobacco use</li> <li>2. <b>A</b>dvice to quit through clear personalized messages</li> <li>3. <b>A</b>ssess willingness to quit</li> <li>4. <b>A</b>ssist to quit</li> <li>5. <b>A</b>rrange follow-up and support</li> </ol> <p>Intensity of counseling matters: brief one-time counseling works; however, longer sessions or multiple sessions are more effective.</p> <p>Telephone counseling “quit lines” also improve cessation rates.</p>	
<b>Pharmacotherapy</b>	Combination therapy with counseling and medications is more effective than either component alone. FDA-approved pharmacotherapy includes nicotine replacement therapy, sustained-release bupropion, and varenicline.	The USPSTF found inadequate evidence to evaluate the safety or efficacy of pharmacotherapy during pregnancy.
<b>Implementation</b>	<p>Successful implementation strategies for primary care practice include:</p> <ul style="list-style-type: none"> <li>• Instituting a tobacco user identification system</li> <li>• Promoting clinician intervention through education, resources, and feedback</li> <li>• Dedicating staff to provide treatment, and assessing the delivery of treatment in staff performance evaluations</li> </ul>	

Source: U.S. Preventive Services Taskforce. “Tobacco Use — Adults and Pregnant Woman: Counseling and Intervention.” April 2009.

coordination with healthcare providers and changes within the healthcare system.

The ACA requires that most health insurance plans cover without cost sharing all preventive services that receive an “A” or “B” rating from USPSTF.<sup>55</sup> USPSTF issued an “A” rating for the cessation services for adults and pregnant women described in Figure 15, and a “B” rating for similar services for children and adolescents.

The USPTF review of the evidence found that the combination of counseling with medications is more effective than either component alone. Counseling can be conducted with individuals or groups, or through a quitline. The recommended medications include all FDA-approved nicotine replacement therapies (nicotine patch, gum, lozenge, nasal spray and inhaler), as well as Bupropion (an antidepressant, brand names Wellbutrin, Zyban and Aplenzin) and Varenicline (brand name, Chantix, a nicotine receptor partial agonist).<sup>56</sup>

### What cessation services are health insurance plans required to cover?

The ACA expanded tobacco cessation coverage requirements for Medicaid and most private health insurance plans. All of the new coverage requirements shown in Figure 16 were in effect by 2014. There has been some uncertainty among health insurance plans and regulators around how to translate the USPSTF recommendations into specific health plan benefit designs. The U.S. Departments of Health and Human Services, Labor and Treasury issued a Frequently Asked Questions (FAQ) document which provides guidance on the issue in May, 2014 that stated: “The Departments will consider a group health plan or health insurance issuer to be in compliance with the requirement to cover tobacco use

Figure 16. Tobacco cessation coverage required by the ACA

<b>Traditional Medicaid</b> (fee for service and managed care, non-expansion)	For pregnant women: <ul style="list-style-type: none"> <li>• Individual, group and phone counseling</li> <li>• All tobacco cessation medications (prescription and OTC)</li> <li>• No cost-sharing</li> </ul> For all Medicaid enrollees: <ul style="list-style-type: none"> <li>• All tobacco cessation medications (prescription and OTC)</li> <li>• Coverage of counseling varies by state/plan</li> <li>• Cost-sharing varies by state/plan</li> </ul>
<b>Medicaid expansion</b> (Group 8)	<ul style="list-style-type: none"> <li>• Tobacco cessation treatment as a preventive service (see <a href="#">FAQ</a>)</li> </ul>
<b>Individual and small-group insurance plans*</b>	<ul style="list-style-type: none"> <li>• Tobacco cessation treatment as a preventive service (see <a href="#">FAQ</a>)</li> </ul>
<b>Employer-provided plans (large group/self-insured)*</b>	<ul style="list-style-type: none"> <li>• Tobacco cessation treatment as a preventive service (see <a href="#">FAQ</a>)</li> </ul>
<b>Medicare</b>	<ul style="list-style-type: none"> <li>• 4 sessions of individual counseling</li> <li>• 4 prescription cessation medications</li> <li>• Up to 2 quit attempts per year</li> <li>• No cost-sharing</li> <li>• Annual prevention visit</li> </ul>

\*Excluding plans that are “grandfathered” (those that were in operation before March 2010 and have not made significant changes) and do not have to meet ACA requirements.

**Source:** Adapted from “Tobacco Cessation Coverage: What is Required?” American Lung Association fact sheet, 2014.

- counseling and interventions, if, for example, the plan or issuer covers without cost-sharing:
1. Screening for tobacco use; and,
  2. For those who use tobacco products, at least two tobacco cessation attempts per year. For this purpose, covering a cessation attempt includes coverage for:
    - Four tobacco cessation counseling sessions of at least 10 minutes each (including telephone counseling, group counseling and individual counseling) without prior authorization; and
    - All Food and Drug Administration (FDA)-approved tobacco cessation medications (including both prescription and over-the-counter medications) for a 90-day treatment regimen when prescribed by a health care provider without prior authorization.<sup>57</sup>

## State government role for cessation coverage

State government can play a role in ensuring that consumers, providers and health plans are aware of these coverage requirements, and that the requirements are being enforced. *The Best Practices for Comprehensive Tobacco Control Programs* offers the following examples:<sup>58</sup>

- Work with the state Medicaid program to ensure that both fee-for-service and managed-care Medicaid plans provide comprehensive cessation coverage.
- Promote and monitor utilization of the state Medicaid cessation benefit.
- Build and maintain a relationship with private health insurers, the state Medicaid program, the state employee health plan, and large employers and educate them about the definition of comprehensive cessation coverage and about the health and economic benefits of providing such coverage.
- Work with state government to ensure that state employees have comprehensive cessation coverage.
- Implement a state mandate requiring private health insurers to provide comprehensive cessation coverage (requirements more prescriptive than federal requirements designed to eliminate barriers to cessation).
- Monitor implementation and effects of the provisions of the ACA that have the potential to expand cessation coverage, as well as the provision that allows health insurers to charge tobacco users higher premiums.

## Emerging evidence on other strategies

**Tobacco 21.** In March 2015, the Institute of Medicine released a report assessing the health implications of raising the minimum age of legal access to tobacco products. The report concluded that raising the age limit to 21, for example, would likely delay initiation of tobacco use among adolescents and young adults and reduce the overall prevalence of tobacco use in the U.S. population.<sup>59</sup>

The report also concluded that raising the

age limit to 21 would decrease negative birth outcomes associated with maternal tobacco exposure. Notably, nearly one-third of first births in the U.S. occur to women under 20 years old.<sup>60</sup>

In 2005, Needham, Mass., adopted the first municipal “tobacco 21” law. Their high school smoking rate subsequently dropped from 12.9% to 6.7% in 2010, a decline two-and-a-half times larger than that of its neighboring communities.<sup>61</sup>

**E-cigarette regulation.** As e-cigarette use becomes increasingly common, there are four key questions to be addressed by research, namely, what is the impact of e-cigarettes on:

- Health of the e-cigarette user?
- Health of others exposed to secondhand vapor?
- Smoking cessation? (Do e-cigarettes help smokers to successfully quit or reduce consumption of conventional cigarettes?)
- Prevalence of tobacco use among youth? (Does e-cigarette use lead to subsequent use of traditional tobacco products?)

A small number of studies have investigated the health effects of e-cigarettes and secondhand exposure. Some demonstrate potential harm from toxic substances present in the vapor, although more research is needed to determine the long-term effects.<sup>62</sup>

Evidence on the effectiveness of e-cigarettes as a cessation tool is mixed. A 2014 systematic review published in the journal *Circulation* concluded that “e-cigarettes are not associated with successful quitting in general population-based samples of smokers.”<sup>63</sup> A 2014 systematic review from the Cochrane Collaborative, however, found some evidence that e-cigarettes could help smokers to quit or reduce consumption when compared to a placebo.<sup>64</sup> More research is needed to determine the value of e-cigarettes as a “harm reduction” tool, and whether the rapid rise in e-cigarette use among youth will lead to increased initiation of conventional tobacco products.

Figure 17. Ohio's current status in implementing evidence-based strategies

<b>Strategy</b> <i>Evidence-based strategies from the Community Guide (see Figure 14 for description)</i>	<b>Ohio's current status</b>	<b>Strengths</b>	<b>Challenges</b>
<b>Smoke-free policies</b>	<b>Strong</b>	<ul style="list-style-type: none"> <li>Ohio has a comprehensive smoke-free workplace law in place that is strongly supported by the public.</li> <li>The number of complaint reports has decreased over time.</li> </ul>	<ul style="list-style-type: none"> <li>Only 6% of Ohio school districts have comprehensive 100% tobacco-free policies in place.</li> <li>Only 7% of public housing complexes have adopted smoke-free policies.</li> </ul>
<b>Increase unit price for tobacco products</b>	<b>Moderate</b>	<p>The Governor's proposed 2016-2017 state budget included a \$1 increase in the cigarette tax and an increase in the tax on other tobacco products.</p>	<ul style="list-style-type: none"> <li>The House removed the tax increase provisions from the budget.</li> <li>Ohio's cigarette tax has not been increased since 2005 and is ranked 27th among states.</li> </ul>
<b>Reduce out-of-pocket costs for evidence-based cessation treatments</b>	<b>Moderate</b>	<p>Ohio's Medicaid cessation benefits align well with evidence-based recommendations for cessation counseling and medications.</p>	<ul style="list-style-type: none"> <li>Private insurance coverage of barrier-free cessation treatment options could be more comprehensive.</li> <li>More information is needed regarding insurance-plan compliance with requirements and patient utilization of cessation coverage.</li> </ul>
<b>Mass reach health communication interventions</b>	<b>Weak</b>	<p>ODH draws upon evidence-based media content, such as the CDC's <i>Tips from Former Smokers</i> campaign.</p>	<p>Ohio's investment in media campaigns is far below the CDC-recommended level.</p>
<b>Comprehensive tobacco control programs</b>	<b>Weak</b>	<p>ODH's Tobacco Program includes all of the components recommended by CDC.</p>	<ul style="list-style-type: none"> <li>Ohio's investment in tobacco prevention and control is far below the CDC-recommended level.</li> <li>The scope and intensity of Ohio's tobacco prevention and control activities over the past seven years has had a limited impact on adult smoking rates.</li> </ul>
<b>Community mobilization with additional interventions</b>	<b>Weak</b>	<ul style="list-style-type: none"> <li>OhioMHAS funds two programs that assess retailer compliance on refusing to sell tobacco to minors.</li> <li>ODH is redeveloping the "stand" youth-led advocacy program.</li> </ul>	<p>The scope and intensity of community mobilization efforts and the local level appears to be minimal.</p>
<b>Quitline interventions and mobile phone-based cessation interventions</b>	<b>Weak</b>	<ul style="list-style-type: none"> <li>Ohio's Quit Line is highly effective, with quit rates slightly exceeding industry standards.</li> <li>Pregnant women, the uninsured, and most Medicaid recipients have access to the Quit Line.</li> </ul>	<ul style="list-style-type: none"> <li>Eligibility requirements for the Quit Line mean that some smokers who reach out for help are denied services.</li> <li>Utilization of Ohio's Quit Line is much lower than most other states.</li> <li>Ohio's Quit Line invests far less per smoker than the U.S. average.</li> </ul>

## To what extent is Ohio implementing evidence-based strategies?

This section discusses the extent to which Ohio is implementing the evidence-based strategies described in the previous section. Figure 17 summarizes Ohio's strengths and challenges.

### Comprehensive tobacco control program

A comprehensive tobacco control program includes the following overarching components:<sup>65</sup>

1. State and community interventions (including those listed in Figure 14)
2. Mass-reach health communication interventions (see Figure 14)
3. Cessation interventions (see Figures 14 and 15)
4. Surveillance and evaluation
5. Infrastructure, administration and management

From 2002 to 2008, the Foundation was Ohio's comprehensive tobacco control program. After 2008, ODH became the lead agency that implements the five comprehensive tobacco control activities listed above. Although public health stakeholders identify TFOA as the "backbone" organization for tobacco prevention in Ohio, ODH is the entity that manages the vast majority of tobacco-related funding and activities, with the exception of lobbying.

The CDC calculates a recommended annual investment for each state to maintain a comprehensive tobacco control program based on factors such as the prevalence of smoking among adults and the geographic and population size of the state. The extent to which states invest in tobacco control relative to these recommendations serves as a proxy measure for the adequacy of a state's tobacco prevention and control infrastructure and programming. In FY 2015, Ohio spent 7.4% of the recommended amount, indicating that Ohio's investment may not be robust enough to significantly reduce tobacco use (see Figure 18). Ohio ranked 46th in tobacco prevention and control spending as a percent of the CDC recommendation in 2014, meaning that most other states invested more than Ohio.<sup>66</sup>

Figure 18. **CDC-recommended annual investments in comprehensive tobacco control**

	CDC recommended annual investment for Ohio (2014) (in millions)		Actual Ohio expenditures (SFY 2015 budgeted amount, state and federal funds combined)	
	Minimum	Recommended	Amount (in millions)	Percent of recommended amount
<b>State and community interventions</b>	\$34.3	\$42.9	Not available	Not available
<b>Mass-reach health communication interventions</b>	\$10.0	\$14.4	Not available	Not available
<b>Cessation interventions</b>	\$35.7	\$57.7	\$7.6	13.2%
<b>Surveillance and evaluation</b>	\$8.0	\$11.5	Not available	Not available
<b>Infrastructure, administration and management</b>	\$4.0	\$5.7	Not available	Not available
<b>Total</b>	<b>\$92.0</b>	<b>\$132.0</b>	<b>\$9.8</b>	<b>7.4%</b>

**Source:** *Best Practices for Comprehensive Tobacco Control Programs, 2015*. Actual Ohio expenditures provided by ODH.

### Increased unit price for tobacco products

Ohio's cigarette tax was last raised in 2005 and is currently \$1.25 per pack.<sup>67</sup> The state ranks 27th for cigarette taxes, meaning that 26 other states and DC have higher cigarette tax rates. The current tax rate in Ohio is higher than the rates in neighboring Kentucky, West Virginia and Indiana, and lower than the rates in Pennsylvania and Michigan.

The Governor's proposed 2016-17 state budget included a \$1 increase in the cigarette tax and an increase in the other tobacco tax rate from 17% to 60%.<sup>68</sup> The House of Representatives removed those provisions from the budget bill.

Increasing excise taxes on tobacco products is a high priority for many public health stakeholders in Ohio. Ohio's Plan to Prevent and Reduce Chronic Disease, for example, sets a goal to increase the excise tax on Other Tobacco Products (OTP).

## Smoke-free policies

Ohio passed the Smoke-Free Workplace Act in 2006. This law, which is enforced by ODH and local health departments, receives high marks from public health experts<sup>69</sup> because it is very comprehensive, covering workplaces, bars, restaurants and casinos.

Promoting tobacco-free school and college campuses and multi-unit housing is a high priority for Ohio's tobacco prevention organizations. Ohio's Plan to Prevent and Reduce Chronic Disease sets goals to increase the number of schools that adopt 100% tobacco-free policies and multi-unit housing complexes that adopt 100% smoke-free policies. Currently, 6% of Ohio school districts are 100% tobacco free (most have slightly less comprehensive policies), and 7% of public housing complexes have adopted smoke-free policies.<sup>70</sup>

The Governor's proposed 2016-2017 state budget included several provisions to promote tobacco-free environments, including a requirement for all K-12 and college/university settings to adopt more comprehensive tobacco-free campus policies and strengthened enforcement of the Smoke Free Workplace law.<sup>71</sup> Similarly, House Bill 221 would extend the comprehensiveness of tobacco-free school policies.

## Mass reach health communication interventions

ODH manages mass media campaigns delivered via TV, radio, billboards, social media and other methods. The CDC provides ODH with media content, such as the *Tips from Former Smokers* campaign which is designed to motivate tobacco users to call the Quit Line or use other cessation services. The CDC-recommended level of investment in mass-reach communications in 2014 was \$14.4 million.<sup>72</sup> Ohio spent approximately \$1 million on media campaigns in SFY 2014.<sup>73</sup>

## Community mobilization with additional interventions to reduce youth access

ODH funds a small number of counties to implement tobacco prevention and control activities, including some community

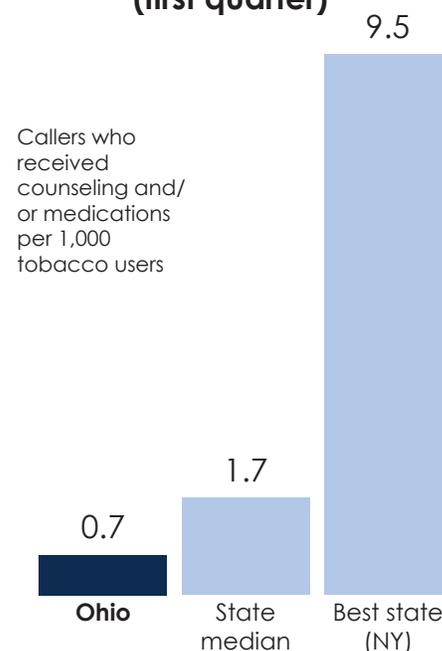
mobilization efforts. In 2014, ODH began to redevelop the "stand" youth-led advocacy program. In 2015, ODH will expand stand to reach additional communities with a focus on counter-marketing and point-of-sale activities. In addition, OhioMHAS funds two programs that assess retailer compliance with FDA tobacco advertising and labeling restrictions, as well as state law prohibiting sales of tobacco to minors.

## Quitline and mobile phone-based cessation services

During the time that the Quit Line was managed and funded by the Foundation, the counseling services were available to all Ohioans free of charge. Currently, ODH manages the contract with the Quit Line vendor, National Jewish Health. With grants from the CDC, ODH funds the Ohio Tobacco Quit Line for Ohioans who are uninsured or are in the Medicaid fee-for-service program, and for pregnant women.

Additional Ohioans, including Medicaid recipients in some managed care plans, are covered for these services through the Ohio Tobacco Collaborative.

Figure 19. Quit line utilization, 2014 (first quarter)



Source: State Tobacco Activities Tracking Evaluation System, state comparison report

Figure 20. Ohio Medicaid program cessation coverage

	Fee for service	Medicaid Managed Care Plan				
		Buckeye Community Health Plan	CareSource	Molina Healthcare of Ohio	Paramount Advantage	United Healthcare Community Plan
<b>Cessation counseling (individual and group)</b>	Covered (no co-pay)	Covered (no co-pay)	Covered (no co-pay)	Covered (no co-pay)	Covered (no co-pay)	Covered (no co-pay)
<b>Covered medications</b>	All FDA Approved	All FDA Approved	All FDA Approved	All FDA Approved	All FDA Approved	All FDA Approved
<b>Restrictions on medications</b>	No prior authorization required for Chantix, Nicotrol inhaler or spray	Prior authorization required for Chantix, Nicotrol inhaler or spray	Prior authorization required for Nicotrol inhaler or spray; step therapy for Chantix	Prior authorization required for Chantix, Nicotrol inhaler or spray	No restrictions	No restrictions
<b>Quit Line access</b>	Unlimited access to Ohio Tobacco Quit Line	Plan pays for access to Ohio Tobacco Quit Line for pregnant women and parents of children with asthma	Warm transfer to CareSource Quit Line for all members who call Ohio Tobacco Quit Line	Plan offers smoking cessation counseling through the Molina Health Education Department	Plan pays for unlimited access to Ohio Tobacco Quit Line	Plan pays for unlimited access to Ohio Tobacco Quit Line

Source: Ohio Department of Health Medicaid plan fact sheet, 2014

The Ohio Tobacco Collaborative is a public-private partnership managed by ODH that provides commercial insurance carriers, employers, and third party administrators with access to the Ohio Tobacco Quit Line at reduced rates. As of July 2013, more than 5.4 million Ohioans had access to the Ohio Tobacco Quit Line because they are a member of a health plan that is part of the Ohio Tobacco Collaborative.<sup>74</sup>

The Quit Line offers up to five calls for “proactive telephone counseling,” nicotine replacement therapy, online support, text messaging and mobile applications.

At six-month follow-up, 32% of all callers to the Ohio Quit Line in 2014 reported that they were abstinent from tobacco,<sup>75</sup> a quit rate that is slightly above the North American Quitline Consortium goal of 30%.<sup>76</sup> Individuals attempting to quit on their own, by comparison, have quit rates around 9-10%.<sup>77</sup>

Utilization of Ohio’s Quit Line is much lower than most other states. In addition to lower overall call volume, a much smaller proportion

of Ohio tobacco users get cessation help through the Quit Line. In the first quarter of 2014, 0.7 callers per 1,000 adult tobacco users received counseling and/or medications in Ohio. By comparison, the state median was 1.7 callers per 1,000 tobacco users, and the best state (New York) achieved a rate of 9.5 callers per 1,000 users receiving help (see Figure 19). Eligibility requirements and reduced funding may contribute to Ohio’s lower Quit Line utilization. The American Lung Association calculated that Ohio’s Quit Line invests \$0.73 per smoker, far below the U.S. average of \$3.65 per smoker.<sup>78</sup>

### Reduced out-of-pocket costs for evidence-based cessation treatments Medicaid

Ohio’s Medicaid benefit structure appears to be in alignment with ACA coverage requirements and recommendations for evidence-based cessation services. Ohio’s fee-for-service Medicaid program covers tobacco cessation counseling (individual, group and Quit Line) and all FDA-approved cessation medications with no prior authorization required for some medications.

All five of Ohio's Medicaid Managed Care plans cover tobacco cessation counseling (individual and group). All five plans also cover all FDA-approved cessation medications, although prior authorization restrictions vary by plan (see Figure 20). Quit Line coverage varies by plan, with two plans covering unlimited access of the Ohio Tobacco Quit Line, one plan covering the Quit Line for certain populations, and two plans providing their own phone counseling.

In general, generic versions of the FDA-approved cessation medications do not require a co-pay. A small co-pay (\$2-\$3) is required for other medications. Prescriptions are required for all medications, including over-the-counter medications.<sup>79</sup>

### **Private insurance**

Due to lack of clarity in federal policy and lack of data, it is difficult to assess the extent to which private health insurance plans are in alignment with ACA coverage requirements and recommendations for evidence-based cessation services. A March 2015 report from the American Lung Association found that only one of 16 issuers in the Health Insurance Marketplace for Ohio covered all FDA-approved cessation medications with no prior authorization or cost sharing.<sup>80</sup> This review of formulary information found that although most marketplace issuers in Ohio covered Bupropion and Varenline, coverage of NRT (nicotine gum, inhaler, etc.) was less common. There is no centrally-collected data for Ohio on the number of private plans outside the Marketplace that cover recommended cessation services without cost sharing or other restrictions.

Some states require private health insurance plans to cover the comprehensive range of cessation treatments recommended by the USPSTF in a way that eliminates barriers, such as prior authorizations, cost sharing and limits on the number of quit attempts.<sup>81</sup> These state requirements are more prescriptive than the federal requirements and are designed to ensure that providers and patients have seamless access to a robust set of cessation tools. Ohio does not have such a state mandate.

Over the past two years, ODH has engaged a consultant to educate health plans on the ACA coverage requirements.

### **State employee health plan coverage**

All health insurance plans for state government employees and retirees offer the Take Charge, Live Well wellness program which covers some (but not all) cessation medications without a co-pay, although some restrictions apply, such as annual limits on quit attempts. State employees also have free access to QuitNet, a phone-based coaching program.

### **E-cigarettes**

Legislation passed in 2014 prohibits the sale of e-cigarettes to minors in Ohio. Legislation that would require child-resistant packaging for e-cigarettes and related products (Senate Bill 54/House Bill 168) is pending. The Governor's inclusion of a tax on liquid nicotine used in e-cigarette products was removed by the House.

### **Tobacco 21**

There are currently 61 US cities across 7 states that have raised the legal age to purchase tobacco to 21 years.<sup>82</sup> None of these communities are in Ohio, although advocates are beginning to work with several Ohio municipalities to consider passing such legislation. Lawmakers have introduced state-level tobacco 21 legislation in at least five states.<sup>83</sup> Ohio is not one of these states.

## **Ohio's strengths: Evidence-based strategies to be maintained**

**Ohio's most significant strength is the smoke-free workplace law passed in 2006.** Ohio's law is comprehensive; it includes restaurants, bars and casinos, as well as public and private workplaces. In addition to being a powerful policy lever to reduce exposure to secondhand smoke and reduce the overall prevalence of tobacco use, comprehensive smoke-free workplace policies have been shown to reduce hospital admissions for cardiovascular events and asthma.<sup>84</sup>

The state should continue to invest in monitoring and enforcement. Additional

efforts to expand tobacco-free policies to other settings, such as multi-unit housing and outdoor spaces on college campuses, may also have a positive impact on tobacco use prevalence.

**Ohio's Medicaid cessation benefits align well with evidence-based recommendations for cessation counseling and medications.**

Furthermore, the extension of Medicaid coverage to additional low-income adults in 2014 provides improved access to cessation treatment. This is particularly important given the high prevalence of tobacco use among Ohioans living at or near the poverty line.

Ohio can build upon this strength by raising awareness of cessation coverage among providers and Medicaid enrollees, monitoring use of cessation services, evaluating cessation outcomes, and assessing impacts on health outcomes and Medicaid costs. In addition, outcomes for Medicaid enrollees may improve if Medicaid managed care plans further reduce barriers to cessation by, for example, eliminating prior authorization requirements.

**Ohio's gaps and challenges: Evidence-based strategies to be implemented or expanded**

Ohio's persistently high adult smoking rate indicates that Ohio is not doing enough to reduce tobacco use. The above analysis of the extent to which Ohio is currently implementing evidence-based strategies reveals the following opportunities for improvement:

- **Tobacco taxes.** Increasing the price of tobacco products is one of the most powerful policy levers for preventing youth initiation, promoting cessation and decreasing disparities in tobacco use. Ohio has not raised its cigarette tax since 2005 and other tobacco products are taxed at an even lower rate than cigarettes.
- **Cessation support.** Counseling and medications are effective in helping many tobacco users to quit, but some

barriers to accessing these services remain, such as annual limits on coverage, prior authorization requirements and co-pays. The number of Ohioans who successfully quit tobacco would likely increase if private health insurance plans offered more comprehensive and barrier-free cessation treatment coverage and actively educated providers and members about this coverage. Inclusion of tobacco cessation outcome metrics in pay-for-performance contracts with providers may also be beneficial. Additional research is needed to understand the extent to which improvements are needed, and to assess the adequacy of current Quit Line eligibility and funding levels.

- **Comprehensive tobacco control infrastructure and investments in youth prevention.** The ODH tobacco program includes each of the components recommended by the CDC in order to support an effective tobacco prevention and control program. The level of funding to support that infrastructure, however, is far below the recommended level; in SFY 2015, Ohio spent 7.4% of the recommended amount, ranking 46th among the states and DC.<sup>85</sup> When the Foundation was dissolved in 2008, the reach and intensity of counter-marketing campaigns and locally-led prevention activities was greatly diminished.
- **Strong backbone for collective impact.** TFOA is Ohio's current backbone organization that coordinates all tobacco-related groups at the state-wide level, including programmatic and advocacy partners. TFOA's capacity is limited because it lacks a paid coordinator staff position. Ohio's tobacco prevention efforts would likely benefit from strong leadership and paid staff to coordinate state and local activities, engage in advocacy, and supplement the ODH tobacco program as needed.

## What can we learn from high-performing states?

The HPIO *Health Value Dashboard* ranked states based on population health outcomes, healthcare costs, and health value. As figures 21, 22 and 23 show, all states in the top quartile for value and population health, and most of the top quartile states for cost, had lower adult smoking rates than Ohio in 2013.

Between 1998 and 2010, Ohio's adult cigarette smoking rate dropped 13.8%, putting it 10 full percentage points behind the national rate of decline.<sup>86</sup> Other states saw declines as high as 43.4% in this time period (see Figure 24).

States that have been most effective in reducing tobacco use rates have implemented various combinations of evidence-based strategies (see Figure 14).

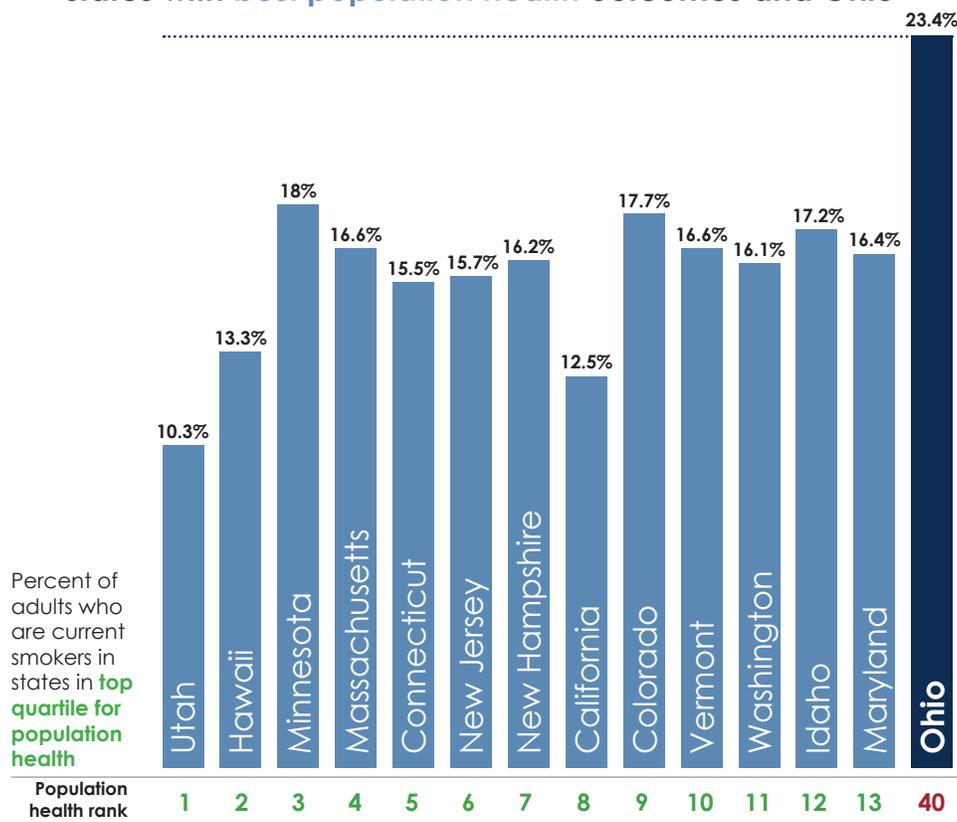
This section examines which of these CDC-recommended strategies were implemented by high-performing states, starting at the time of the MSA in 1998, and the impacts those strategies had on tobacco use in those states.

For the purpose of this review, high-performing states were chosen based on three criteria:

1. Top 10 for largest decline in adult smoking, 1998-2010 (see Figure 24)
2. Top 15 for lowest current adult smoking, 2013 (see Figure 25)
3. Availability of research on the effects of the state's tobacco prevention and control efforts, with a focus on states with large populations.

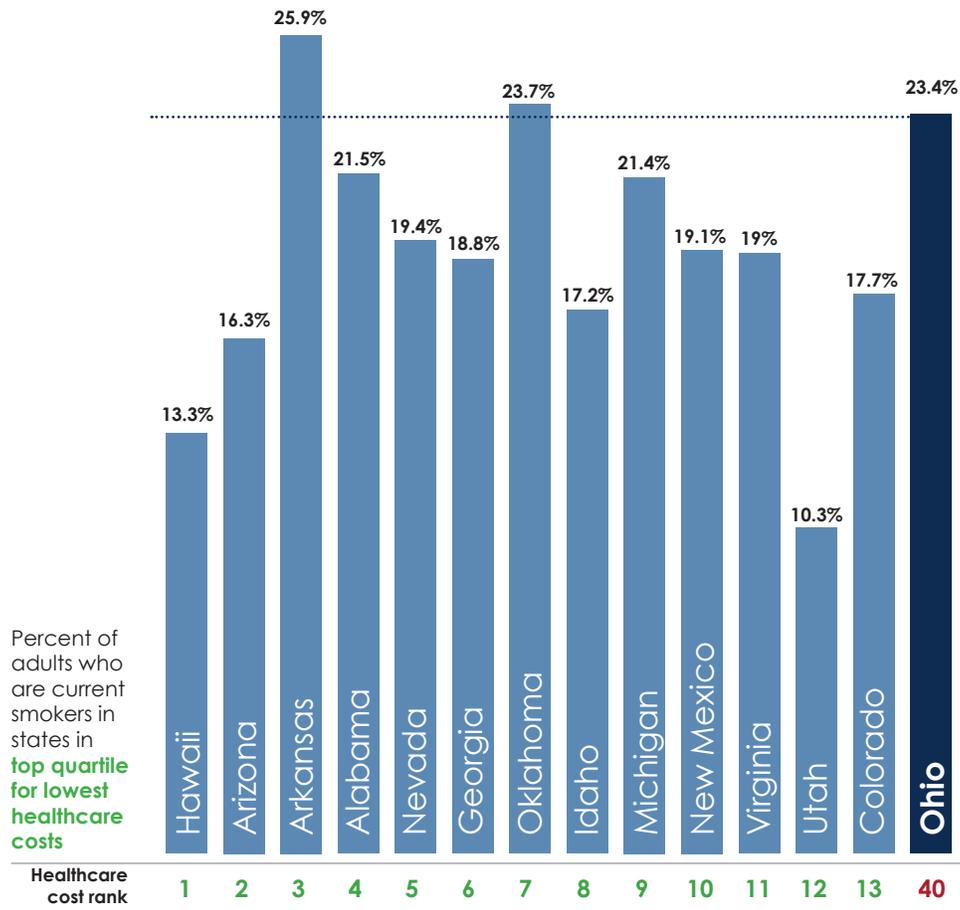
Based on these criteria, the four high-performing states selected were: California, New York, Massachusetts and Arizona.

Figure 21. **Percent of adults who are current smokers: In states with best population health outcomes and Ohio**



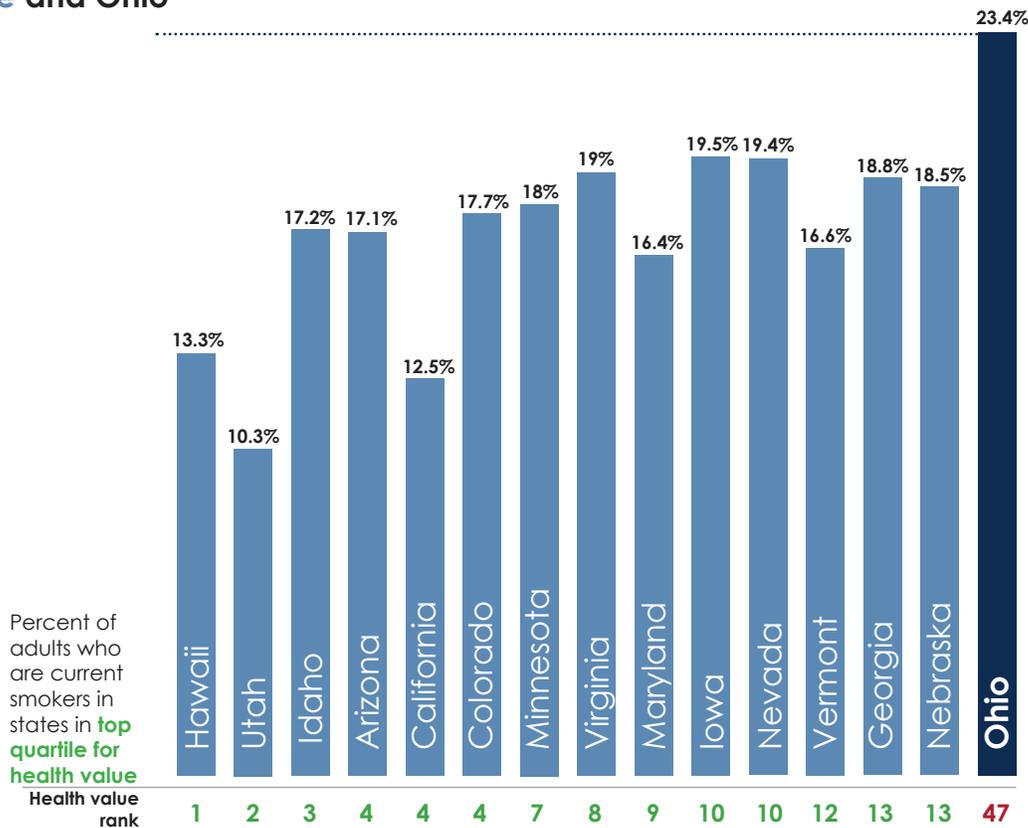
Source: HPIO *Health Value Dashboard*, 2014 and BRFSS, 2013

Figure 22. Percent of adults who are current smokers: In states with lowest healthcare costs and Ohio



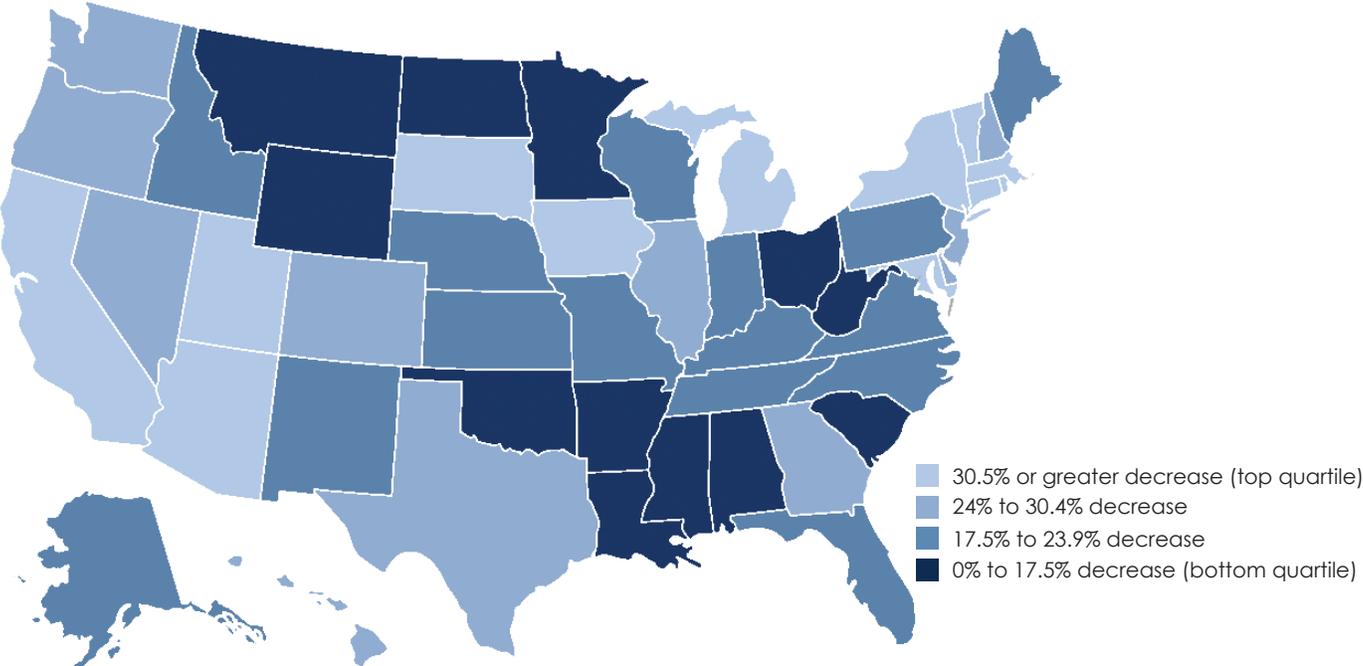
Source: HPIO Health Value Dashboard, 2014 and BRFSS, 2013

Figure 23. Percent of adults who are current smokers: In states with best health value and Ohio



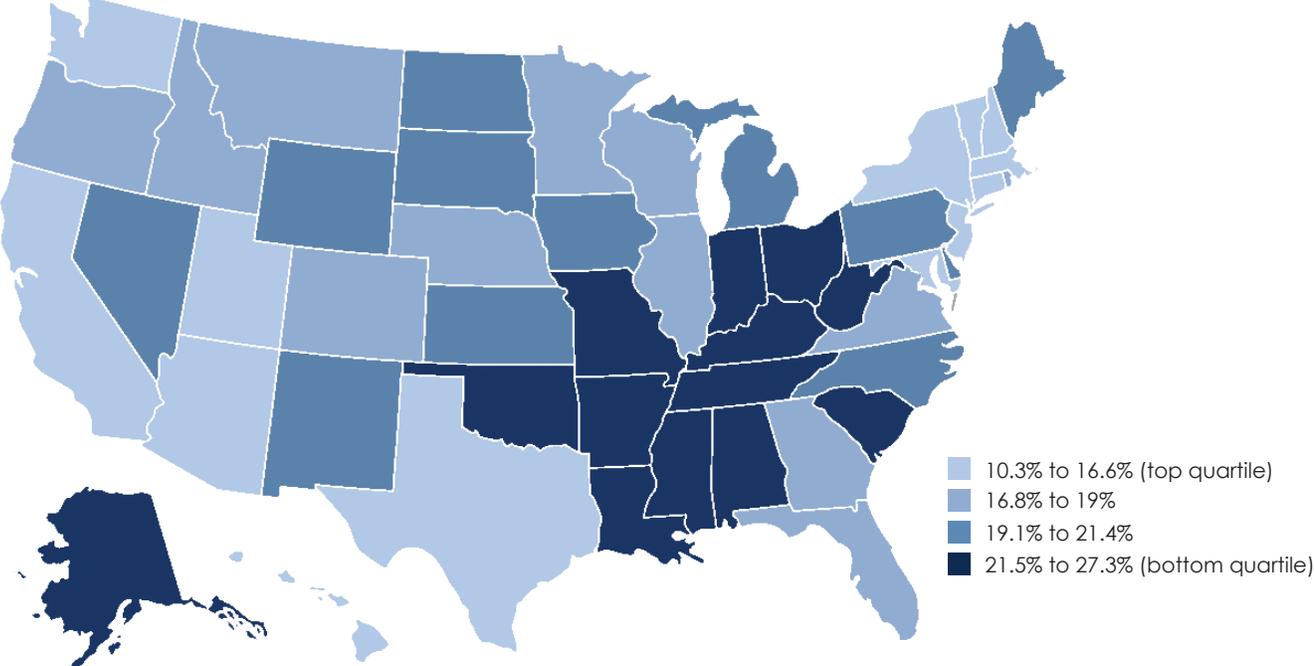
Source: HPIO Health Value Dashboard, 2014 and BRFSS, 2013

Figure 24. **Adult cigarette use percent decline, 1998-2010**



Source: BRFSS

Figure 25. **Adult cigarette use, 2013**



Source: BRFSS

Figure 26. **Tobacco use prevalence and tobacco prevention funding trends**

	Ohio	New York	Massachusetts	Arizona	California
<b>Adult smoking trends<sup>87</sup></b>					
Decline 1998-2010	13.8%	35.7%	32.5%	31.2%	37.0%
Decline 2002-2008	24.4%	24.7%	14.8%	32.1%	14.6%
Decline 2011-2013	6.8%	8.3%	8.8%	15.5%	8.8%
Current prevalence (2013)	23.4%	16.6%	16.6%	16.3%	12.5%
<b>Youth all-tobacco trends<sup>88</sup></b>					
Decline 2003-2013	21.7%	28.1%	32.7	29.9%	NA
Current prevalence (2013)	21.7%	16.4%	17.1	19.5%	NA
<b>Tobacco prevention and control funding, as percent of CDC recommended level<sup>89</sup></b>					
Peak funding (during FY 2003 to FY 2015 time period)	88.7% (FY 2005)	91.4% (FY 2008)	41.0% (FY 2008)	93.5% (FY 2007)	65.5% (FY 2003)
Current funding (FY 2015)	7.4%	20.7%	10.0%	36.2%	19.4%
<b>Cigarette tax rate<sup>90</sup></b>					
2015 (current)	\$1.25	\$4.35	\$3.51	\$2.00	\$0.87
2000	\$0.24	\$1.11	\$0.76	\$0.58	\$0.87
Rate change, 2000-2015	\$1.01	\$3.24	\$2.75	\$1.42	\$0.00 <sup>91</sup>

### New York: By the book

New York has employed a very “by the book” tobacco prevention and control strategy; its tobacco prevention and control program is explicitly modeled after CDC best practices, it has the highest cigarette tax in the country (\$4.35), and has had a comprehensive smoke-free law in place since 2002.

The New York State Tobacco Control Program (TCP) was formed in 2000, and its activities follow the *Best Practices for Comprehensive Tobacco Control* guide: advocating for smoke-free policies and increases in tobacco excise taxes; mass-reach communication campaigns; community mobilization, including campaigns to increase physician engagement in cessation efforts; free and reduced-cost cessation treatments, including nicotine patches and medication; and quitline interventions.<sup>92</sup>

In addition to the state's high overall smoking decline (see Figure 24), a study examining the effects of the program from 2002-2005 found that comprehensive programming targeting low-income smokers was associated with an increase in cessation attempts and cessation product use, and a decrease in smoking frequency and overall consumption.<sup>93</sup>

Healthcare expenditures in the state were an estimated \$4.1 billion lower in 2010 than they would have been if smoking had stayed at 2001 levels.<sup>94</sup>

### Massachusetts: Medicaid success story

Massachusetts' approach to tobacco control has been similar to New York's in that both states have high cigarette taxes and comprehensive smoke-free air laws. Massachusetts stands out for being particularly effective in reducing smoking and smoking-related costs among Medicaid recipients.

Massachusetts was one of only three states, along with California and Arizona, that funded tobacco prevention prior to 1999 and the MSA.<sup>95</sup> The Massachusetts Tobacco Cessation and Prevention Program (MTCP) was formed in 1993 and has been funded largely by tobacco excise tax revenues. The comprehensive program continues to include evidence-based activities, such as mass-reach media campaigns, community-based services, interventions aimed at high-risk groups, health professional training, and quitline services.

In 2006, the state began a program to provide cessation medications and services to Medicaid enrollees. The program reached

37% of beneficiaries who were smokers and is attributed with a 10% reduction in smoking among the Medicaid population.<sup>96</sup> Based on cost of inpatient admissions for cardiovascular conditions alone, the program saved an estimated \$571 per patient for the state Medicaid program, or a \$2.12 return-on-investment for every \$1.00 in program costs.<sup>97</sup>

Overall, Massachusetts' adult cigarette smoking rate dropped by 32.5% from 1998 to 2010, and an additional 8.8% from 2011 to 2013. As of 2013, only 16.6% of Massachusetts adults were current smokers, ranking in the top (best) quartile of states. The state was also in the top quartile for youth tobacco use.

### **Arizona: Long record of prevention investments**

Arizona started early and has sustained relatively high investments in tobacco prevention and control programming. Arizona has the 11th highest cigarette tax in the US (\$2.00), although this rate has not increased in almost a decade.<sup>98</sup>

Arizona's comprehensive tobacco control program, Tobacco Free Arizona, was formed in 1994, nearly five years before the MSA. Arizona passed Proposition 204 in 2000, dedicating the entirety of the state's MSA payments to the Arizona Health Care Cost Containment System, the state Medicaid agency.<sup>99</sup> In 2002, a ballot proposition established the Tobacco Products Tax Fund, which set aside specific portions of tobacco tax revenues for tobacco control and other health activities.<sup>100</sup>

The activities and per capita spending by the Tobacco Free Arizona program were strongly correlated with a reduction in cigarette consumption in the state from 1994-2004.<sup>101</sup> Program spending through 2004 was also associated with healthcare savings amounting to approximately 10 times the cost of the program to that point.<sup>102</sup>

Presently, Arizona spends a relatively high amount on tobacco prevention, compared to other states. With 2015 appropriated spending at 28.9% of CDC's recommended spending levels for the state, Arizona ranks 17th in the U.S.<sup>103</sup>

### **California: Comprehensive approach to changing social norms**

California's strategy has been somewhat different. Compared to other states with large tobacco use declines and very low current tobacco use rates, California's cigarette tax rate is low (\$0.87). Furthermore, the state has taken a different tact with its tobacco control program, focusing efforts on a comprehensive program that aims specifically to "change the social norms around tobacco use."<sup>104</sup>

A 1988 ballot initiative established the California Tobacco Control Program (CTCP), making California the first state in the U.S. with a comprehensive tobacco control program.<sup>105</sup> The CTCP is still active today, funded by a dedicated portion of the state cigarette tax. This makes California one of only 11 states currently dedicating tobacco tax revenue to prevention and cessation expenditures.<sup>106</sup>

Because of its focus on changing social norms, CTCP initiatives center on community mobilization and education efforts, and include programs aimed at sub-populations with higher tobacco use, like those in rural areas and groups with lower socioeconomic status.<sup>107</sup> The CTCP also engages mass-reach communication campaigns not only on the dangers of smoking and secondhand smoke, but also on the tactics and influence of the tobacco industry.<sup>108</sup> California was also one of the first states to conduct public education campaigns on e-cigarettes.

California's adult smoking rates have declined by half since the program's initiation, and lung cancer incidence declined four times faster than in the rest of the country from 1998 to 2007.<sup>109</sup> Heart disease mortality has also declined faster in California than the rest of the U.S. since the program began.<sup>110</sup> Healthcare expenditure savings from the first 10 years of the CTCP is estimated at \$134 billion.<sup>111</sup>

Although California did not choose some of the more common policy solutions, it has been a leader in implementing multiple evidence-based practices, serving high-risk populations, and in longevity of programing (27 years and counting).

## Part 2. Policy implications

After some success in reducing tobacco use rates in the decade following the MSA, Ohio is now lagging behind most other states. Smoking and secondhand smoke exposure are associated with many of Ohio's most pressing health policy challenges, including infant mortality, rising Medicaid costs and high rates of chronic disease, such as diabetes. Reducing tobacco use is a powerful way to improve health and control healthcare costs, with benefits ranging from reductions in hospitalizations for cardiovascular conditions and asthma in the short-term, to reductions in cancer deaths in the longer-term.

With decades of research on what works to reduce tobacco use, policymakers have a menu of several evidence-based strategies from which to choose. Ohio is already employing many of the evidence-based approaches recommended by the CDC. However, the scope and intensity of these activities in recent years appears to be inadequate to produce the desired results. Strategically focusing on several of the following state-level policy options would likely have significant impact on improving health outcomes and controlling healthcare costs.

### Policy options that send a strong message that tobacco use is harmful

- **Increase the cigarette tax and taxes on other tobacco products.** Effects are proportional to the size of the price increase, so the higher the tax increase, the greater the impact on tobacco use. This approach is particularly effective for preventing youth initiation and reducing tobacco use among people with low incomes.
- **Increase scope and intensity of media campaigns,** including campaigns that motivate tobacco users to quit and seek cessation support, as well as youth counter-marketing activities that prevent teens from starting in the first place. Design messages to reach specific populations, such as pregnant women, Appalachian counties, people with disabilities, low-income Ohioans, Hispanic youth, LGBT community, etc.
- **Raise the legal age to purchase tobacco to 21.** Emerging evidence suggests that this approach would likely delay initiation of tobacco use among adolescents and young adults and eventually reduce the overall prevalence of tobacco use. Because this policy affects young adults, it is an important tool for reducing maternal tobacco exposure and improving birth outcomes.

### Policy options that scale up and enhance access to cessation services

- **Increase funding for cessation strategies.** For example:
  - Increase awareness and use of cessation coverage among healthcare providers, Medicaid enrollees, state employees, and Ohioans with private health insurance coverage.
  - Expand Quit Line eligibility and capacity (see below).
  - Train and support additional Tobacco Treatment Specialists to provide cessation services in a variety of clinical and community settings.
  - Implement culturally competent programs designed to reach communities with higher rates of tobacco use and secondhand smoke exposure, and poor birth outcomes.
- **Increase use of the Ohio Quit Line.** For example:
  - Recruit new members to the Ohio Tobacco Collaborative, a public-private partnership that provides commercial insurance carriers, employers, and third party administrators with access to the Ohio Tobacco Quit Line at reduced rates.
  - Change eligibility requirements to allow more Ohioans access to the Quit Line.
  - Increase marketing and targeted outreach to populations with high rates of tobacco use.
  - Integrate Quit Line referrals into Electronic Health Records.
- **Monitor compliance of private health insurance plans with cessation coverage requirements.** Ensure that Ohioans are able to make use of effective counseling services and medications that are required to be covered by health insurance.
- **Improve cessation benefits for state employees.** Reduce barriers, such as co-pays and annual limits on quit attempts.

## Policy options that integrate tobacco cessation into healthcare system reform

Ohio policymakers are currently seeking ways to improve the Medicaid program and behavioral health system. Given the high rates of tobacco use among Medicaid enrollees, pregnant women and Ohioans with mental illness, strategic delivery of evidence-based tobacco services should be integrated into these efforts.

- **Incorporate tobacco cessation into Medicaid modernization.** For example:
  - Include reporting of performance on tobacco cessation metrics in managed care and provider contracts.
  - Increase awareness and use of cessation coverage among providers and enrollees.
  - Provide incentives for enrollees to quit.
  - Remove all barriers to cessation (such as co-pays and prior authorizations).
  - Focus efforts to reduce maternal and youth tobacco use in communities with poor birth outcomes.
- **Incorporate tobacco cessation into behavioral health system redesign.** For example:
  - Include tobacco cessation metrics in future outcome measurement or value-based purchasing systems.
  - Invest in research, evaluation and technical assistance on effective cessation strategies for people with mental illness and addiction.
- **Incorporate tobacco cessation into other payment and delivery design efforts, such as Patient Centered Medical Homes (PCMHs) and Accountable Care Organizations (ACOs).** For example:
  - Include tobacco cessation performance metrics in contracts.
  - Institutionalize cessation interventions as a routine part of primary care.
  - Increase use of reminder systems that prompt providers to deliver or refer to cessation services.

## Policy options that strengthen Ohio's tobacco prevention and control infrastructure

- **Invest in staffing for the Tobacco Free Ohio Alliance.** Strengthen Ohio's "backbone" organization so that it can more effectively lead and coordinate state and local-level partners.
- **Release and promote a strategic plan** that provides a clear vision for how Ohio will implement a comprehensive tobacco prevention and control program based on CDC recommendations.
- **Fund research and evaluation** on cessation for specific populations, tobacco 21, e-cigarettes and other emerging issues.

## Next steps: Tobacco measurement accountability map

In the coming weeks, HPIO will release an accountability map describing how tobacco-related measures are tracked in Ohio and to identify mechanisms in place to increase accountability for improving tobacco-related outcomes. Information for the accountability map was gathered through document review and information requests.

HPIO has reached out to various state agencies, associations, and individuals in Ohio representing:

- Office of Health Transformation
- Ohio Department of Health
- Ohio Medicaid
- Ohio Department of Mental Health and Addiction Services
- Ohio Commission on Minority Health
- Ohio Department of Education
- Ohio Public Employees Retirement System
- Ohio Department of Administrative Services
- Local health departments
- Health insurers (plans)
- Healthcare providers
- Regional health initiatives

Through document review and information requests, HPIO gathered answers to the following questions:

1. Are tobacco-related measures being tracked or reported by this entity?
2. What are the specific tobacco-related measures being tracked and/or reported?
3. Who is reporting on these metrics?
4. To what entity are these metrics being reported?
5. Is reporting required or voluntary?
6. How frequently are the outcomes reported?
7. Is reporting tied to any accountability mechanism? For example, is it required for funding, payment or accreditation?
8. For which populations are the outcomes being reported?
9. Are outcomes reported so that data is available at a sub-population level (e.g. age, race, ethnicity, income level)?
10. Are outcome results available publicly? If so, how can the public access this data?
11. Are there benchmarks or targets related to these tobacco measures that are required to be met by an external organization or a publicly disseminated plan?

# Notes

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7. Percent of adults aged 18 years and older who are current cigarette smokers (age-adjusted). "Tobacco Use Objectives." Healthy People 2020. Office of Disease Prevention and Health Promotion. Accessed May 6, 2015. <http://www.healthypeople.gov/2020/topics-objectives/topic/tobacco-use/objectives>
8. Data from the BRFSS. Note: BRFSS methodology changed between the 2010 and 2011 surveys (cell phone lines were added to the survey sample and statistical method of weighting for demographic characteristics was updated). Survey data from before the methodological change is therefore not directly comparable to data from after.
9. Data from the 2013 BRFSS. See note 6.
10. Data from the 2013 BRFSS. See note 6.
11. Defined as "someone uses tobacco and/or smokes inside the child's home." Data from the 2011/2012 National Survey of Children's Health (NSCH). Accessed through Data Resource Center for Child & Adolescent Health website. Accessed April 10, 2015. <http://www.childhealthdata.org/browse/survey/results?q=2278&r=37>
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19. Among races with adequate sample sizes for reporting. Data from the 2013 BRFSS. See note 6.
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23. Data from the YRBS. Accessed through CDC Youth Online: High School YRBS. Accessed April 15, 2015. <http://nccd.cdc.gov/youthonline/App/Default.aspx>
24. Includes cigars, cigarillos and little cigars
25. Includes chewing tobacco, snuff and dip
26. Data from the 2013 YRBS. See note 23.
27. Data from the 2010-2011 TUS-CPS. See note 20.
28. Data from the 2010-2011 TUS-CPS. See note 20.
29. Ohio Department of Health. "2013 Ohio Youth Risk Behavior Survey: Tobacco." 2013. <https://www.odh.ohio.gov/~media/ODH/ASSETS/Files/chs/adolescent%20health/2013%20Tobacco.aspx>. Note that relatively small sample sizes for Black and Hispanic youth make it difficult precisely measure differences by race/ethnicity. In addition, CDC does not report this YRBS data in Ohio for some groups (such as American Indian/Alaska Native, Asian, and Multiple race) due to small sample sizes.
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