



SHA

# State Health Assessment

Ohio 2019

Summary report

Released Sept. 9, 2019



Department  
of Health

## Acknowledgments

The Ohio Department of Health (ODH) contracted with the Health Policy Institute of Ohio (HPIO) to complete this State Health Assessment (SHA) summary report by compiling data from the Online SHA, an online survey conducted by HPIO and from information gathered at five regional forums.

ODH and HPIO are grateful to the hundreds of Ohioans who attended a regional forum or completed the online survey as part of this project.

HPIO also thanks the Hospital Council of Northwest Ohio for their assistance facilitating two regional forums.

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## What is the State Health Assessment (SHA)?

The 2019 SHA is a comprehensive and actionable picture of health and wellbeing in Ohio. The SHA has two main components:

- **Summary report prepared by the Health Policy Institute of Ohio (HPIO)**
- **Online, interactive data website prepared by the Ohio Department of Health (ODH)**

## Key findings

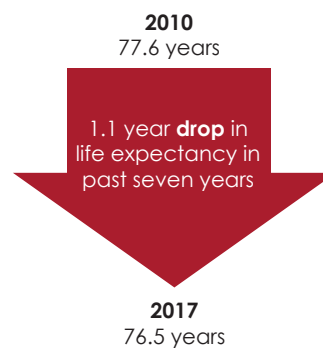
**Overall wellbeing for Ohioans has declined.** Trends in premature death, life expectancy and overall health status indicate that the health of Ohioans has worsened. Unintentional injuries (including drug overdose), cancer and heart disease were the leading causes of premature death in 2017.

**Many Ohioans lack opportunities to reach their full health potential.** SHA data identifies several groups that experience much worse outcomes than the state overall, including Ohioans who are black/African American, have lower incomes, have disabilities or live in Appalachian counties.

**Underlying drivers of health must be addressed.** Data and regional forum findings support the need to address the following cross-cutting factors: physical activity, tobacco use, access to dental and mental health care, income and unemployment, adverse childhood experiences, transportation, lead poisoning risk and racism.

**Mental health and addiction, chronic disease, and maternal and infant health continue to be significant challenges in Ohio.** Ohio's performance on these priorities has worsened or remained unchanged in recent years.

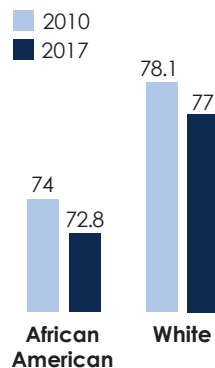
**New concerns emerge in the wake of Ohio's addiction crisis.** Drug use has contributed to troubling increases in hepatitis C and children in foster care.



### Life expectancy drop serves as call to action

After decades of improvement, Ohioans' life expectancy at birth declined from 2010 to 2017 by about one year.

Life expectancy in Ohio

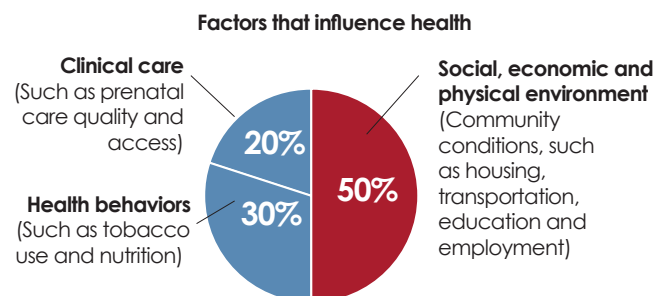


### Impact of racism and discrimination persists

Historical and contemporary injustices compound over a lifetime, leading to higher rates of infant deaths, blood pressure, late-stage cancer diagnoses and shorter lives for some groups, particularly black/African-American Ohioans.

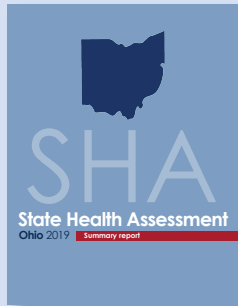
### Multi-sector collaboration to improve health is critical

An estimated 80 percent of the modifiable factors that impact overall health are attributed to community conditions and the opportunity to make healthy choices.



**Underlying drivers of inequity:** Poverty, racism, discrimination, trauma, violence and toxic stress

## How to access the SHA



### Summary report

prepared by HPIO

[www.hpio.net/](http://www.hpio.net/)

[2019-state-health-assessment-summary-report](#)



### Online, interactive data website

prepared by ODH

<https://odh.ohio.gov/wps/portal/gov/odh/explore-data-and-stats/interactive-applications/2019-Online-State-Health-Assessment>

## The road to improvement

SHA findings emphasize that improvement must build upon:

- A comprehensive framework with clear priorities and measurable objectives
- Shared priorities across rural, urban and Appalachian regions of the state
- Cross-sector partnerships to address the many factors that shape our health
- State and local efforts to achieve health equity

### Next steps

A collaborative of stakeholders from across Ohio are developing the 2020-2022 State Health Improvement Plan (SHIP), to be released later in 2019. This plan will provide a roadmap to address the challenges highlighted in the SHA.

The 2020-2022 SHIP will include a strategic menu of priorities, outcome objectives and evidence-based strategies to be implemented by state agencies, local health departments, hospitals and other community partners, including sectors beyond health.

## How was the SHA developed?

Led by ODH, the SHA was developed with input from hundreds of Ohioans through:

- Five regional forums held in October 2018 with 521 participants
- Online survey completed by 308 stakeholders
- Advisory Committee with 101 participants (as of April 2019)
- Steering Committee made up of representatives from 13 state agencies, including sectors beyond health

The Online SHA includes data on a wide range of topics, including:

- Health outcomes and behaviors
- Healthcare spending, access and quality
- Public health and prevention
- Social, economic and physical environment factors, such as education, employment, poverty, housing, violence and transportation
- Disparities, trends and comparisons between Ohio and the U.S. overall

## Regional forum insights

While each community is unique, results from SHA regional forums and an online survey found that there were many shared strengths, challenges and priorities across the state. Top priorities overall included:

### Health outcomes

- Mental health and addiction
- Chronic disease
- Maternal and infant health

### Cross-cutting factors

- Poverty
- Transportation
- Physical activity and nutrition
- Access to care

Funded by ODH, the SHA and SHIP provide information and guidance for many state agencies. The 2020-2022 SHIP will align state agency priorities toward a shared vision of improved health and economic vitality.

# 1 Purpose and overview

## Background

### 2016 State Health Assessment (SHA) and 2017-2019 State Health Improvement Plan (SHIP)

The 2016 SHA, released August 2016, described Ohio's health status and overall wellbeing and highlighted the state's many opportunities to improve health outcomes, reduce disparities and control healthcare spending. The 2016 SHA presented information from the following sources:

- **Data profiles:** Secondary data on over 140 metrics on a comprehensive range of topics, including the social, economic and physical environment. Included data reported by race, ethnicity, disability, geography, education level and income for some metrics.
- **Regional forums:** Small group conversations at five forums around the state attended by 372 participants, plus an online survey completed by 32 additional stakeholders.
- **Local health department and hospital assessments and plans:** Document review of 211 local health department community health assessments/plans and hospital community health needs assessments/implementation strategies.

- **Key informant interviews:** Qualitative information on causes of health inequities and disparities gathered through interviews with 37 representatives of community-based organizations.

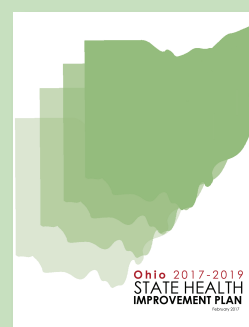
The key findings of the SHA informed selection of priorities in the 2017-2019 SHIP. The 2017-2019 SHIP, released in February 2017, provides state agencies, local health departments, hospitals and other partners with a strategic menu of priorities, measurable objectives and evidence-based strategies.

As shown in figure 2.2 on page 9, the 2017-2019 SHIP identified three priority topics (mental health and addiction, chronic disease and maternal and infant health) and 10 specific priority outcomes. The framework also included four cross-cutting factors that are the underlying drivers of health outcomes. To identify steps Ohio can take to achieve health equity, the SHIP identified priority populations for selected objectives and highlighted strategies likely to decrease disparities (see figure 2.3).



#### 2016 State Health Assessment

- Focused on data
- Described current status
- Comprehensive

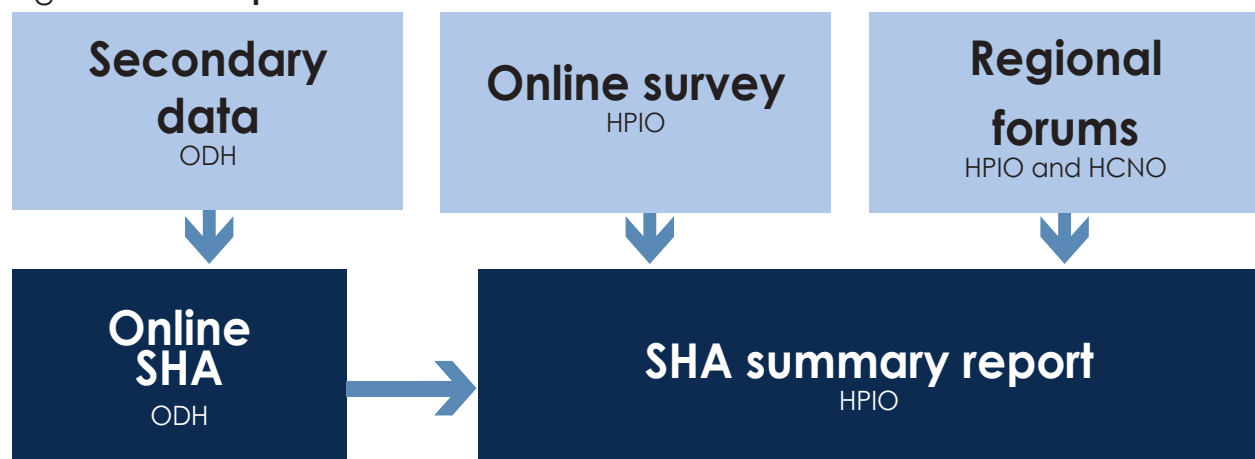


#### 2017-2019 State Health Improvement Plan

- Focused on outcomes and strategies
- Action-oriented plan for the future
- Prioritized

**Note:** Bold blue font in body text and graphics indicates clickable hyperlink.

Figure 1.2. **Components of the 2019 SHA**



### Purpose of the 2019 SHA

The 2019 SHA provides an update to the findings of the 2016 SHA. The purpose of the 2019 SHA is to inform priorities and strategies in the 2020-2022 SHIP. Throughout the spring and summer of 2019, Health Policy Institute of Ohio (HPIO) and Ohio Department of Health (ODH) will work with the SHA/SHIP Steering and Advisory Committees to review the SHA findings and reaffirm or revise the framework used for the 2017-2019 SHIP (figure 2.2).

### Components of the 2019 SHA

Figure 1.2 outlines the components of the 2019 SHA, which includes qualitative and quantitative data and meets all relevant Public Health Accreditation Board (PHAB) standards (see the appendix for PHAB alignment and description of how the 2019 SHA builds upon the 2016 SHA). HPIO provided overall project management, facilitated the regional forums and prepared this report. The Hospital Council of Northwest Ohio (HCNO) assisted with forum facilitation. ODH compiled the secondary data and created the online SHA. Parts three to five of this report describe the methods for each component.

### Stakeholder engagement

Input from a wide range of stakeholders from around the state is critical to the SHA and SHIP. In addition to the regional forums and online survey conducted in October 2018, the SHA and SHIP will incorporate guidance from:

#### What makes this SHA different?

The 2019 SHA builds upon the 2016 SHA, with the following improvements:

- Online, interactive data website that includes county-level data for many metrics
- Data on new metrics, including transportation, housing and child welfare
- Increased number of regional forum/online survey participants (404 in 2016 vs. 622 in 2018)
- Coordination and alignment with the state's Maternal and Child Health (MCH) block grant and Maternal, Infant and Early Childhood Home Visiting (MIECHV) needs assessments

- **SHA/SHIP Steering Committee:** Directors (or their designees) from 13 state agencies
- **SHA/SHIP Advisory Committee:** 101 members (as of April 2019) representing a wide variety of sectors, including local health departments, hospitals, other health-related organizations and sectors beyond health

[Click here](#) to view information about the Steering and Advisory Committee meetings. Member organizations are listed in the appendix.

## 2017-2019 SHIP progress report

Released Sept. 9, 2019

**Highlights****Is Ohio on the right track to meet the priority outcome objectives specified in the 2017-2019 SHIP?**

Based on a review of the most recently-available data, the initial progress report in this section finds that there is much more work to be done to achieve SHIP goals:

- Ohio's performance got worse or had little or no detectable change for all SHIP priority outcomes in 2016-2017, compared to SHIP baseline (2013-2015).
- Disparities persisted and all available outcomes for priority populations worsened or had little or no detectable change.

This progress report sets the foundation for future evaluation and planning, and provides important context for development of the next SHIP.

**An early look at progress**

It is important to keep in mind that this is an early look at progress toward State Health Improvement Plan (SHIP) objectives. The data presented in this section assesses whether Ohio is headed in the right direction to meet SHIP targets, not whether the SHIP has been effective at improving statewide health outcomes.

As shown in figure 2.1, the 2017-2019 SHIP was released in February 2017 and set targets for 2019 and 2022. The data available in October 2018 for performance on SHIP objectives is from 2016-2017 (varies by source). Because of this timing, it is too soon to definitively assess the state's performance. Instead, this report sets the foundation for future evaluation and planning.

**Performance measurement overview**

Figure 2.2 displays the framework used in the 2017-2019 SHIP. This framework includes two overall health outcomes (health status and premature death), as well as ten priority outcomes related to the priority topics (mental health and addiction, chronic disease and maternal and infant health).

The 2017-2019 SHIP included Specific, Measurable, Achievable, Realistic and Time-bound (SMART) objectives for the desired outcomes listed on the top half of figure 2.2 so that progress can be monitored over time. As shown on [pages 9-13 of the 2017-2019 SHIP](#), each outcome objective includes:

- Specific indicator and source
- Baseline data (from 2012-2015, depending on the source)
- Target data value (for 2019 and/or 2022)
- Priority populations, when available (groups with the worst outcomes, based on available data at baseline; see figure 2.3)

The 2017-2019 SHIP did not include specific objectives with targets for the cross-cutting factors listed on the bottom half of the SHIP framework (figure 2.2). The SHIP [Community Strategy and Indicator Toolkits](#), however, do identify several specific indicators and data sources local communities can use to assess progress on factors such as educational attainment, employment, tobacco use and access to health care.

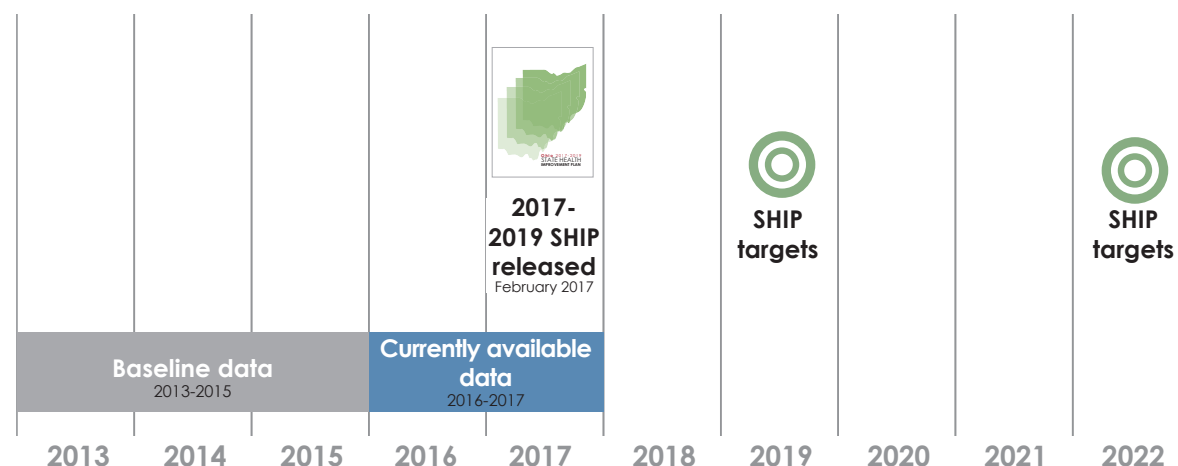
Figure 2.1. **SHIP outcome timeline**



Figure 2.2. **2017-2019 SHIP framework**

# 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
- Asthma

- Preterm births
- Low birth weight
- Infant mortality

**Equity:** Priority populations for each outcome above

## Cross-cutting outcomes and strategies

The SHIP addresses the 10 priority outcomes through cross-cutting factors that impact all 3 priority topics

### Cross-cutting factors

Social determinants of health

Public health system, prevention and health behaviors

Healthcare system and access

Equity

### Outcome examples

-  Student success
-  Economic vitality
-  Housing affordability and quality
-  Violence-free communities
-  Tobacco prevention and cessation
-  Active living
-  Healthy eating
-  Population health infrastructure
-  Access to quality health care
-  Comprehensive primary care

-  Strategies likely to decrease disparities for priority populations

The SHIP includes outcome indicators and evidence-based strategies for each cross-cutting factor.

## Priority populations

Figure 2.3 describes population groups that have worse outcomes than the overall Ohio population and should therefore be prioritized in SHIP strategy implementation.

Figure 2.3. **Priority populations in the 2017-2019 SHIP, by desired outcomes**




Desired outcome	Race/ethnicity	Age/gender	Income	Education	Disability status	Geography
Improve overall health status			Less than \$15,000 annual household income			
Reduce premature death	African Americans					
Reduce suicide deaths	<ul style="list-style-type: none"> <li>• Males ages 10-24</li> <li>• Males age 25-44</li> <li>• White (non-Hispanic) males ages 45-64</li> <li>• White (non-Hispanic) males ages 65+</li> </ul>					
Reduce unintentional drug overdose deaths	<ul style="list-style-type: none"> <li>• White (non-Hispanic) males ages 25-44</li> <li>• White (non-Hispanic) males ages 45-64</li> <li>• White (non-Hispanic) females ages 25-54</li> <li>• Black (non-Hispanic) males ages 25-54</li> <li>• Black (non-Hispanic) males ages 55-64</li> </ul>					
Reduce hypertension	Black (non-Hispanic)	Older adults (65 years and older)	Less than \$15,000 annual household income	Less than high school diploma OR no high school diploma	Ohioans with disabilities	Appalachian counties
Reduce diabetes	Black (non-Hispanic)	Older adults (65 years and older)	Less than \$15,000 annual household income	Less than high school diploma OR no high school diploma	Ohioans with disabilities	Appalachian counties
Reduce child asthma morbidity	African Americans					Appalachian counties
Reduce preterm births	Black (non-Hispanic)	Children (Younger than 18 years)		Less than high school diploma OR no high school diploma		
Reduce low birth-weight births	Black (non-Hispanic)	Children (Younger than 18 years)		Less than high school diploma OR no high school diploma		
Reduce infant mortality	Black (non-Hispanic)					

## Performance reporting process

At the SHA regional forums in October 2018, the Health Policy Institute of Ohio (HPIO) presented the first report on Ohio's progress toward the 2017-2019 SHIP outcome objectives. The presentations from these forums, including regional data (when available), are posted on the [HPIO SHA/SHIP web page](#).

Data for these presentations, and for figures 2.4-2.9 in this report, was compiled by the Ohio Department of Health (ODH).

### Key for figures 2.4-2.8

	<b>Improving</b> Change was in the right direction (toward target) and was 10% or more from baseline to most-recent year		<b>Little or no detectable change</b> Change was less than 10% from baseline to most-recent year (toward or away from target)		<b>Getting worse</b> Change was in the wrong direction (away from target) and was 10% or more from baseline to most-recent year
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## Are we on the right track to meet SHIP targets?

Figures 2.4-2.9 display Ohio's performance on 2017-2019 SHIP objectives using the Healthy People 2020 progress update methodology described in the key to the right.

### Overall health

Overall, Ohio's performance got worse or had little or no detectable change for all SHIP priority outcomes in 2016 or 2017, compared to SHIP baseline (2013-2015). In addition, disparities persisted and all available outcomes for priority populations worsened or had little change.

As shown in figure 2.4, Ohio's performance worsened from 2015 to 2017 for the two overall health outcomes: Overall health status and premature death. Outcomes for priority populations worsened considerably from 2015 to 2017:

- More adults with low incomes reported that their health was fair or poor
- African Americans experienced more years of life lost before age 75

Figure 2.4. **Progress on 2017-2019 SHIP outcomes: Overall health**

Desired outcome	Indicator (source)	Baseline (2015)	Current Year (2017)
<b>Improve overall health status</b>	Percent of adults with fair or poor health (BRFSS)	16.5%	18.9%
	<b>Priority population:</b> Low-income adults (less than \$15,000 annual household income)	38.6%	45.1%
<b>Reduce premature death*</b>	Years of potential life lost before age 75, per 100,000 population (age-adjusted) (Vital Statistics)	7,876.1	8,774.5
	<b>Priority population:</b> Black (non-Hispanic)	10,850.5	12,599

\* There may be slight differences between data presented in this document and previously published reports (including 2017-2019 SHIP baseline values) due to updates to population estimates obtained from the U.S. Census Bureau.

**Note:** Priority populations listed here are the groups with the worst outcomes based on available data at baseline.

**Source:** Data compiled by ODH (as of October 2018)

## Mental health and addiction

Figure 2.5 describes progress toward SHIP objectives within the mental health and addiction priority topic. Outcomes got worse or had little or no detectable change from the baseline (2013-2015) to the most-recent year (2015-2017) for these objectives.

Figure 2.5. **Progress on 2017-2019 SHIP outcomes: Mental health and addiction**

Desired outcome	Indicator (source)	Baseline (2013-2014)	Current Year (2015-2016)
Reduce depression	Percent of persons ages 12-17 who experienced a major depressive episode within the past year (NSDUH)	10.33%	13.98%
	Percent of persons ages 18+ who experienced a major depressive episode within the past year (NSDUH)	7.33%	7.85%
Reduce drug dependence or abuse*	Percent of persons age 12+ with past-year illicit drug dependence or abuse (NSDUH)	2.76%	2.61%
Desired outcome	Indicator (source)	Baseline (2015)	Current Year (2017)
Reduce suicide deaths**	Number of deaths due to suicide per 100,000 population (Vital Statistics)	13.9	14.8
	Priority populations		
	Males ages 10-24	15.9	18.5
	Males ages 25-44	28.5	33.6
	White (non-Hispanic) males ages 45-64	34	32.1
	White (non-Hispanic) males ages 65+	32.2	33
Reduce unintentional drug overdose deaths**	Number of deaths due to unintentional drug overdoses per 100,000 population (Vital Statistics)	27.7	44.1
	Priority populations		
	White (non-Hispanic) males ages 25-44	87.1	136.7
	White (non-Hispanic) males ages 45-64	43.5	72.4
	White (non-Hispanic) females ages 25-54	39.7	59.9
	Black (non-Hispanic) males ages 25-54	50.9	99
	Black (non-Hispanic) males ages 55-64	74.7	137.8

\* Change in National Survey on Drug Use and Health (NSDUH) methodology: "illicit drug use and dependence" changed to "Illicit drug use disorder"

\*\* There may be slight differences between data presented in this document and previously published reports (including 2017-2019 SHIP baseline values) due to updates to population estimates obtained from the U.S. Census Bureau.

**Note:** Priority populations listed here are the groups with the worst outcomes based on available data at baseline.

**Source:** Data compiled by ODH (as of October 2018)

## Chronic disease

Figure 2.6 describes progress toward SHIP objectives within the chronic disease priority topic. Outcomes got worse or had little or no detectable change from the baseline (2015) to the most-recent year (2017) for these objectives.

Figure 2.6. **Progress on 2017-2019 SHIP outcomes: Chronic disease**

Desired outcome	Indicator (source)	Baseline (2015)	Current Year (2017)
Reduce heart disease	Percent of adults ever diagnosed with coronary heart disease (BRFSS)	4.2%	4.7%
	Percent of adults ever diagnosed with heart attack (BRFSS)	4.9%	5.5%
Reduce hypertension	Percent of adults ever diagnosed with hypertension (BRFSS)	34.3%	34.7%
	Priority populations		
	Black (non-Hispanic)	40.3%	40%
	People with a disability	53.1%	N/A
	Low educational attainment (less than high school diploma)	40.7%	48.9%
	Low-income (less than \$15,000 annual household income)	35.7%	46.6%
	Older adults (older than 65 years)	62.2%	60%
	Appalachian counties	39.7%	N/A
Reduce diabetes	Percent of adults who have been told by a health professional that they have diabetes (BRFSS)	11%	11.3%
	Priority populations		
	Black (non-Hispanic)	14.1%	14.2%
	People with a disability	21.8%	N/A
	Low educational attainment (less than high school diploma)	13.6%	15.8%
	Low-income (less than \$15,000 annual household income)	13.7%	19.4%
	Older adults (older than 65 years)	23.4%	22.8%
	Appalachian counties	12.3%	N/A
Monitor prediabetes	Percent of adults who have been told by a health professional that they have prediabetes (BRFSS)	7.5%	8.8%*
Desired outcome	Indicator (source)	Baseline (2012)	Current Year (2016)
Reduce child asthma morbidity	Emergency department visits for pediatric asthma, per 10,000 children, ages 0-17 (excludes patients with cystic fibrosis or abnormalities of the respiratory system, and transfers from other institutions) (OHA Clinical-Financial Data Set)	86.9	72.3**
	Priority populations		
	African American	245.6	175.9**
	Appalachian counties	78.2	N/A

\* Progress level not determined. The interim target for prediabetes in the 2017-2019 SHIP anticipated an initial increase in diagnoses for the 2019 target followed by a reduction for the 2022 target. The prevalence of prediabetes is measured by asking Behavioral Risk Factor Surveillance System (BRFSS) respondents if they have been told by a health professional that they have prediabetes. Many people with prediabetes are not aware that they have it so there are currently efforts to increase awareness, which may increase reported prevalence.

\*\* Methodology change. Progress level not determined. The transition from ICD-9 to ICD-10 impacted reporting for emergency department visits for pediatric asthma, and age range changed from 2015 to 2017.

**Note:** Priority populations listed here are the groups with the worst outcomes based on available data at baseline. For some metrics, updated priority population data was not available, denoted by N/A.

**Source:** Data compiled by ODH (as of October 2018)

## Maternal and infant health

Figure 2.7 describes progress toward SHIP objectives within the maternal and infant health priority topic. Outcomes had little or no detectable change from the baseline (2012-2015) to the most-recent year (2016-2017) for these objectives.

Figure 2.7. **Progress on 2017-2019 SHIP outcomes: Maternal and infant health**

Desired outcome	Indicator (source)	Baseline (2015)	Current Year (2017)
<b>Reduce preterm births*</b>	Percent of live births that are preterm: Less than 37 weeks (ODH Bureau of Vital Statistics)	10.3%	10.4%
	<b>Priority populations</b>		
	Black (non-Hispanic)	14.1%	14.5%
	Low educational attainment (no high school diploma)	11.5%	11.7%
	Less than 18 years old	10.7%	10.7%
<b>Reduce very preterm births*</b>	Percent of live births that are very preterm: Less than 32 weeks (Vital Statistics)	1.7%	1.8%
<b>Reduce low birth-weight births*</b>	Percent of births in which the newborn weighed less than 2,500 grams (Vital Statistics)	8.5%	8.7%
	<b>Priority populations</b>		
	Black (non-Hispanic)	13.9%	14.3%
	Low educational attainment (no high school diploma)	10.8%	11.3%
	Less than 18 years old	10.2%	10.8%
<b>Reduce infant mortality*</b>	Rate of infant deaths per 1,000 live births (Vital Statistics)	7.2	7.2
	<b>Priority populations</b>		
	Black (non-Hispanic)	15.2	15.8
<b>Reduce neonatal infant deaths*</b>	Rate of neonatal infant deaths per 1,000 live births (Vital Statistics)	4.8	5
<b>Reduce post-neonatal infant deaths*</b>	Rate of post-neonatal infant deaths per 1,000 live births (Vital Statistics)	2.4	2.2

\* There may be slight differences between data presented in this document and previously published reports (including 2017-2019 SHIP baseline values). Previously published reports used the best available data and methods at the time of publication.

**Note:** Priority populations listed here are the groups with the worst outcomes based on available data at baseline.

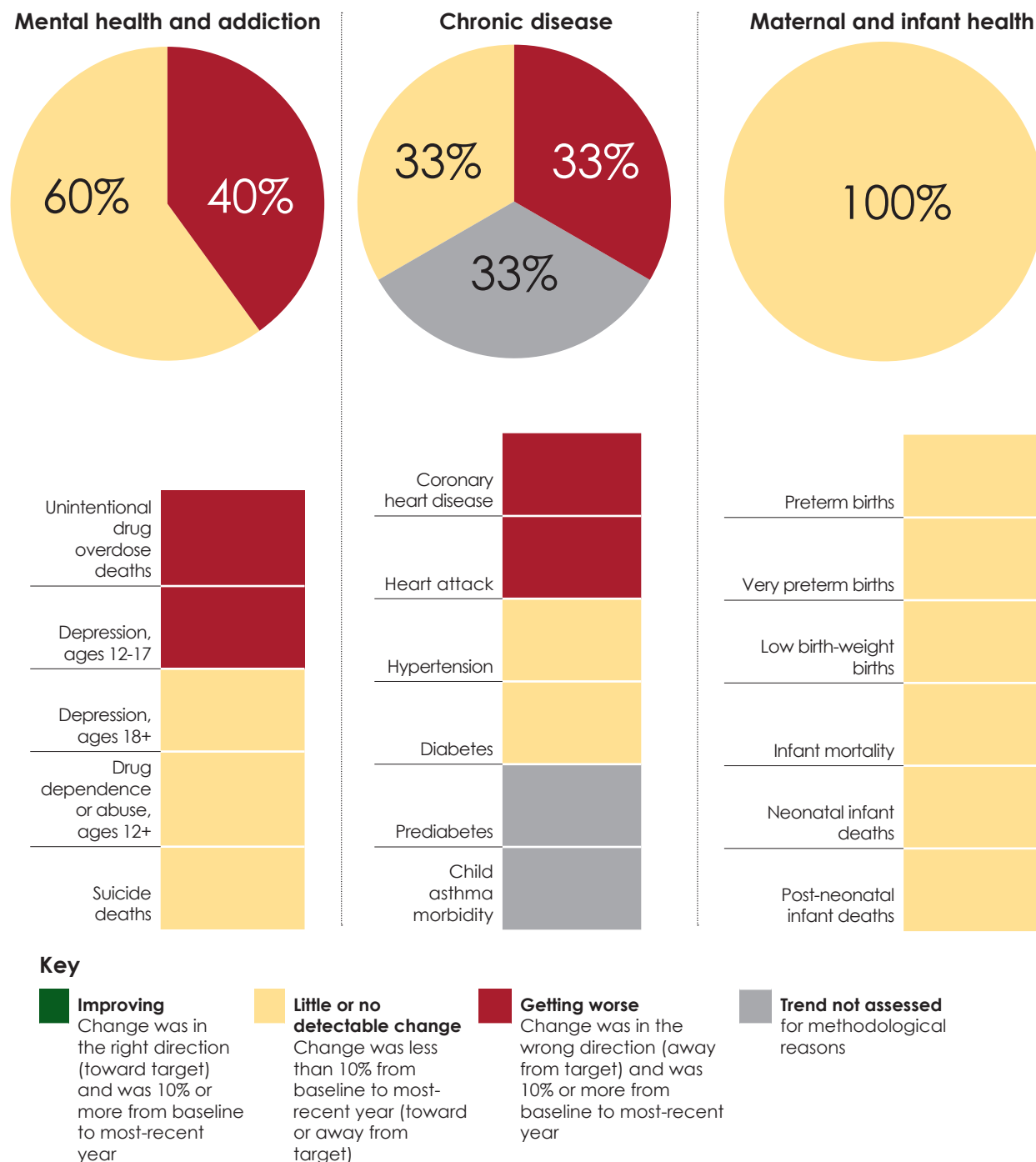
**Source:** Data compiled by ODH (as of October 2018)

## Overall performance

Figure 2.8 summarizes Ohio's performance on the objectives in the three priority areas (i.e., summaries of the data presented in figures 2.4-2.7). There were no objectives with demonstrated improvement of 10% or more. Mental health and addiction had the worst performance overall with outcomes for two out of five objectives (40%) moving in the wrong direction.

It is important to note that this is an early look at Ohio's progress toward SHIP objectives. The data assesses whether Ohio is headed in the right direction to meet SHIP targets, not whether the SHIP has been effective at improving statewide health outcomes (see figure 2.1). This progress reports sets the foundation for future evaluation and planning, and provides important context for development of the next SHIP.

Figure 2.8. **Percent of outcomes that improved, did not change or got worse**



**Note:** Ohio had no objectives with demonstrated improvement of 10% or more.

**Source:** Data compiled by ODH (as of October 2018)

## Regional differences

Figure 2.9 displays the SHIP outcome objective data available at the regional level (2017 BRFSS and Vital Statistics data) for the five regions defined by the Association of Ohio Health Commissioners (see appendix for map of regions). Red shading indicates that a region's performance was worse than Ohio's overall performance by 10% or more in 2017. The following regional differences were notable:

- The southeast region stands out for having outcomes worse than the state overall for several objectives, particularly related to chronic disease.
- The southwest region had the highest unintentional drug overdose death rate in 2017, which likely drove a similarly high premature death rate.
- Overall, the central region fared best in this analysis, although a very high suicide death rate stands out as a challenge for this region.

For additional regional data, see the October 2018 SHA regional forum presentations and handouts posted on the [HPIO SHA/SHIP web page](#).



Figure 2.9. Progress on 2017-2019 SHIP outcomes, as of 2017, by region

Desired outcome	Indicator (source)	Ohio	Southwest region	Southeast region	Central region	Northwest region	Northeast region
Improve overall health status	Percent of adults with fair or poor health (BRFSS)	18.9%	20.4%	25.1%	17.9%	17.1%	17.8%
Reduce premature death*	Years of potential life lost before age 75, per 100,000 population (age-adjusted) (Vital Statistics)	8,774.5	9,685.4	9,454.0	7,983.5	8,230.8	8,674.0
Reduce suicide deaths*	Number of deaths due to suicide per 100,000 population (Vital Statistics)	14.8	14	17.4	21.8	16	15.6
Reduce unintentional drug overdose deaths*	Number of deaths due to unintentional drug overdoses per 100,000 population (Vital Statistics)	44.1	65.3	36	31	32.4	42.8
Reduce heart disease	Percent of adults ever diagnosed with coronary heart disease (BRFSS)	4.7%	5.1%	7.2%	3.2%	5.6%	4.3%
Reduce hypertension	Percent of adults ever diagnosed with heart attack (BRFSS)	5.5%	5.8%	8.3%	4.1%	6.4%	5.1%
Reduce diabetes	Percent of adults ever diagnosed with hypertension (BRFSS)	34.7%	33.3%	41.0%	32.8%	36.4%	34.9%
Reduce diabetes	Percent of adults who have been told by a health professional that they have diabetes (BRFSS)	11.3%	10.9%	15.7%	9.3%	11.6%	11.7%
Reduce preterm births**	Percent of adults who have been told by a health professional that they have prediabetes (BRFSS)	8.8%	9.8%	11.1%	10.1%	7.9%	7.3%
Reduce preterm births**	Total preterm: Percent of live births that are preterm: Less than 37 weeks (Vital Statistics)	10.4%	10.42%	10.39%	10.2%	10.8%	10.32%
Reduce preterm births**	Very preterm: Percent of live births that are very preterm: Less than 32 weeks (Vital Statistics)	1.8%	1.74%	1.51%	1.9%	1.6%	2%
Reduce low birth-weight births**	Percent of births in which the newborn weighed less than 2,500 grams (Vital Statistics)	8.7%	8.55%	8.31%	8.6%	8.6%	9%
Reduce infant mortality**	Rate of infant deaths per 1,000 live births (Vital Statistics)	7.2	7.22	5.73	7.5	6.7	7.4
Reduce infant mortality**	Rate of neonatal infant deaths per 1,000 live births (Vital Statistics)	5	5.09	3.44	5.7	4.2	5.1
Reduce infant mortality**	Rate of post-neonatal infant deaths per 1,000 live births (Vital Statistics)	2.2	2.13	2.29	1.8	2.5	2.3

Region performance was worse than Ohio performance by 10% or more

No notable difference from Ohio performance

Region performance was better than Ohio performance by 10% or more

Progress level not determined. The interim target for prediabetes in the 2017-2019 SHIP anticipated an initial increase in diagnoses for the 2019 target, followed by a reduction for the 2022 target.

\* There may be slight differences between data presented in this document and previously published reports (including 2017-2019 SHIP baseline values) due to updates to population estimates obtained from the U.S. Census Bureau.

\*\* There may be slight differences between data presented in this document and previously published reports (including 2017-2019 SHIP baseline values). Previously published reports used the best available data and methods at the time of publication.

**Note:** For a list of counties by region see appendix.

**Sources:** Data compiled by ODH (as of October 2018)

### 3 Summary of SHA regional forum findings

This is a summary of the SHA regional forum findings report. To view the full report, visit [www.hpio.net/sha-ship](http://www.hpio.net/sha-ship)

#### Purpose and process

As part of the State Health Assessment (SHA) process, the Health Policy Institute of Ohio (HPIO) facilitated a series of five regional forums in October 2018 and administered an online survey to gather input from a wide variety of community stakeholders across the state.

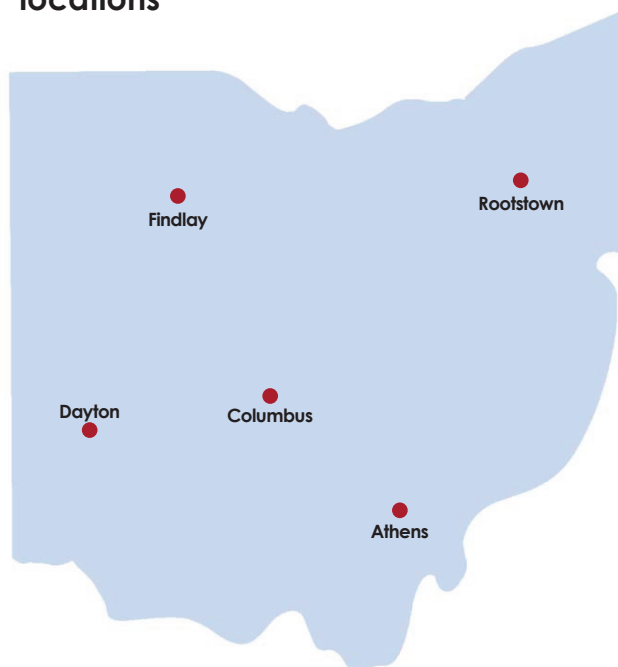
The purposes of the forums and the survey were to gather information across regions and for urban, suburban, Appalachian and non-Appalachian rural counties on:

- **Strengths and challenges:** Identify community strengths and challenges
- **Equity:** Identify priority populations (groups experiencing the worst health outcomes) and key disparities and inequities
- **Priorities:** Gather input on the three priority topics, 10 priority outcomes and cross-cutting factors in the 2017-2019 SHIP
- **SHA/SHIP improvements:** Gather feedback to guide improvements to the next SHA and State Health Improvement Plan (SHIP) documents, supplemental materials and related Ohio Department of Health (ODH) guidance and technical assistance

A total of 622 Ohioans participated in a regional forum and/or completed the survey, with representation from all 88 Ohio counties. 521 participants attended the regional forums and 308 respondents completed the online survey. (Some participated in both.)

Local health departments and hospitals are the organizations charged with leading SHIP implementation at the local level. Both types of organizations were well represented in both the forums and the survey. In addition, representatives from many other sectors participated, including behavioral health, education, disability and job training/workforce development.

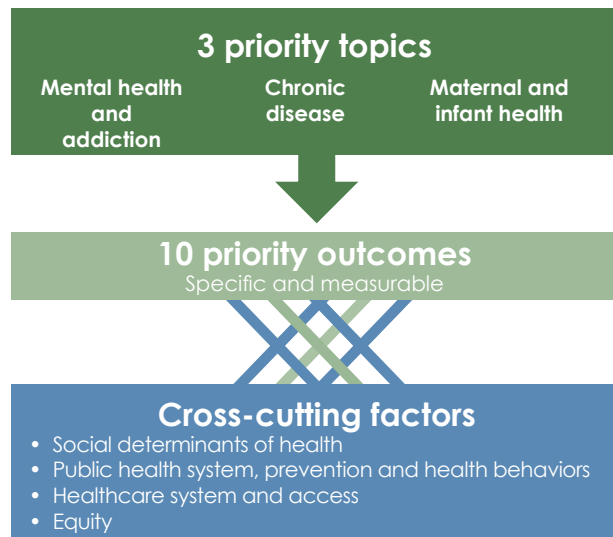
Figure 3.1. 2018 SHA regional forum locations



**Key finding 1. The 2017-2019 SHIP health outcome priorities continue to be consistent with local community priorities. Several cross-cutting factors also rise to the top as important to emphasize in the next SHIP, including poverty, transportation, physical activity, nutrition and access to care.**

Survey respondents were asked to provide feedback on the SHIP's three broad priority topics (mental health and addiction, chronic disease, maternal and infant health) and four cross-cutting factors (equity, social determinants of health, public health system/prevention/health behaviors, and healthcare system and access) (See figure 3.2).

Figure 3.2. **Main components of 2017-2019 SHIP framework**



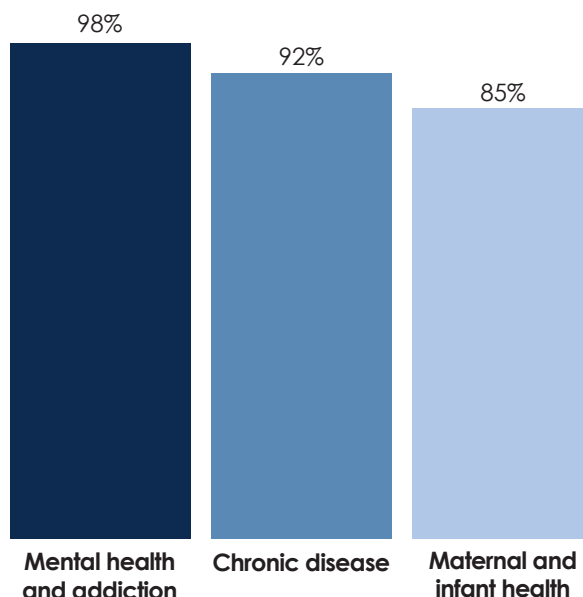
**Note:** See figure 2.2 for details

Respondents reported that the three broad priority topics in the 2017-2019 SHIP were still highly consistent with the priorities they identified in their own communities. Figure 3.3 displays the percent of respondents who indicated these priorities were a “high” or “moderate” priority in their county(ies).

In addition, respondents reported that the SHIP cross-cutting factors are also “high” or “moderate” priorities in their community (see figure 3.4).

Finally, respondents prioritized barriers to equity, which provide more specific insight on the social drivers that should be carefully considered during development of the next SHA and SHIP. The top-five “most important” barriers to address in order to improve health outcomes for groups with the worst health outcomes (priority populations) are listed in figure 3.5.

Figure 3.3. **2017-2019 SHIP priority alignment with current local priorities**  
*“Based on results of community assessments and plans in your community, to what extent are the three broad priority topics from the 2017-2019 SHIP a HIGH or MODERATE priority for your county(ies)?” (n=306-308)*



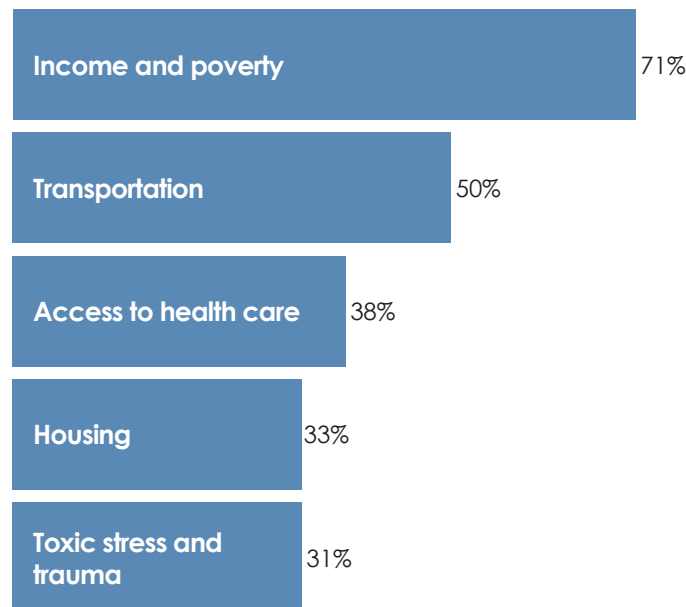
**Source:** 2018 SHA regional forum online survey

Figure 3.4. **Top-five cross-cutting factors**  
*“Based on results of community assessments and plans in your community, to what extent are the cross-cutting factors from the 2017-2019 SHIP a HIGH or MODERATE priority in your county(ies)?” (n=282-305)*



**Source:** 2018 SHA regional forum online survey

**Figure 3.5. Top-five barriers to equity**  
 “Which of the following barriers do you think are most important to address in order to improve [health outcomes for priority populations in your county(ies)]?” (n=302)



**Source:** 2018 SHA regional forum online survey

## **Key finding 2. While each Ohio community is unique, there are many shared strengths, challenges and priorities across the state.**

During the regional forum small group discussions, participants described many strengths and challenges that were unique to their community or area of the state. For example:

- Urban and suburban participants cited ample resources, availability of specific healthcare services and economic vitality as unique strengths, while Appalachian and rural non-Appalachian participants highlighted positive cultural attitudes in their communities, such as having friendly people and a focus on “taking care of our own.”
- The southwest region, which has been particularly hard-hit by the opioid crisis, identified adverse childhood experiences (ACEs), grandparents raising grandchildren and strain on the foster care system as major challenges.
- Transportation is a priority everywhere, but the specific nature of transportation challenges varies by area. In the southeast

region, for example, long distances to jobs, grocery stores and health care and limited infrastructure present unique obstacles to wellbeing.

An over-riding theme from the forums and survey results is that there are several major trends, challenges and priorities that are shared by communities of all kinds across the state. For example:

- Increased focus on prevention and the social determinants of health was cited as a top-10 positive trend in small group discussions for all regions and all county types.
- Transportation was identified as a top-10 challenge for all five regions and all county types.
- Mental health and addiction was the top health outcome priority rated by survey respondents from all regions and all county types.
- Access to health care, physical activity and nutrition are high-priority cross-cutting factors in all regions and across county types.

### Key finding 3. There are many opportunities to improve the next SHA and SHIP to ensure they are useful for local partners.

Most survey respondents reported that the SHA (72%) and SHIP (71%) were “very” or “somewhat” effective at contributing to improvements in health assessments and plans developed by local health departments and hospitals in 2017 and 2018. Most respondents agreed that the SHA, SHIP and related ODH guidance led to increased:

- Alignment between local health departments and state SHIP priorities
- Identification of useful indicators/metrics and development of measurable outcome objectives
- Partnerships with sectors beyond health (education, housing, transportation, etc.)
- Collaboration between local health departments and hospitals on community health improvement activities

Many forum attendees reported confusion about how to use the SHA, SHIP and guidance documents and offered actionable suggestions for increasing awareness and ease of use. For example:

- Make the SHA and SHIP more concise and user-friendly
- Expand dissemination and have a higher-visibility roll-out
- Increase outreach to all partners, including sectors beyond health

See figure 3.6 for additional recommendations.

### Figure 3.6. Most frequent recommendations to improve the SHA and SHIP

Top-10 recommendations from forum participants and survey respondents (n=42 small group discussions and 153 survey respondents)

<b>Dissemination and outreach</b> <ul style="list-style-type: none"> <li>• Concise and user-friendly</li> <li>• Expand dissemination/Higher-visibility roll-out (general)</li> <li>• Increase outreach and awareness to sectors beyond health</li> <li>• Increase outreach and awareness to health-related organizations</li> <li>• Increase outreach to partners and awareness (general, unspecified)</li> <li>• Tailor for different audiences (talking points or user guides for different types of organizations and sectors)</li> </ul>	<b>ODH guidance, technical assistance and implementation infrastructure</b> <ul style="list-style-type: none"> <li>• Provide technical assistance (general)</li> <li>• Fund SHIP strategies at state and local level</li> <li>• More efficient data process for locals (state should provide locals with data for their assessments and/or coordinate use of the same surveys and other data sources to avoid duplication of effort and to allow for comparisons between local and state-level data)</li> <li>• Peer-to-peer sharing (facilitate opportunities for local communities to learn from each other about assessments and SHIP strategy selection, implementation and evaluation)</li> </ul>
<b>SHA format and content</b> <ul style="list-style-type: none"> <li>• Local or regional data in SHA</li> <li>• Additional disaggregated data (by disability status, race/ethnicity, etc.) in SHA</li> <li>• Additional specific metrics/topics related to social determinants of health</li> </ul>	<b>SHIP format and content</b> <ul style="list-style-type: none"> <li>• Include success stories (provide examples of communities that have implemented SHIP strategies and achieved positive outcomes)</li> <li>• Flexible options for different types of counties for SHIP implementation</li> <li>• Regular reporting of progress on SHIP outcomes/SHIP dashboard</li> </ul>

**Source:** 2018 SHA regional forum online survey and 2018 SHA regional forum small group discussions

## 4 Online SHA overview

### Click here to access the online SHA:

<https://odh.ohio.gov/wps/portal/gov/odh/explore-data-and-stats/interactive-applications/2019-Online-State-Health-Assessment>

The online State Health Assessment (SHA) is an interactive website that displays quantitative data on the following topics:

- Demographic characteristics
- Leading causes of death and premature death
- Population health (including outcomes related to mental health and addiction, chronic disease and maternal and infant health)
- Healthcare spending
- Healthcare system
- Access to health care
- Public health and prevention
- Social and economic environment
- Physical environment

The Ohio Department of Health (ODH) compiled data for over 140 metrics to include in the online SHA. Data sources included health surveys (such as the Behavioral Risk Factor Surveillance System), Vital Statistics (birth and death records), healthcare system utilization data, U.S. Census data and information from sectors beyond health (e.g. housing, transportation, education).

ODH developed the online SHA platform to present this data in an interactive format. The website puts data into context by visually displaying the following data elements for metrics as available:

- Local-level data (county or metropolitan area)
- Differences by race, ethnicity, age, sex, income, education level, disability status or lesbian, gay, bi-sexual or transgender (LGBT) status
- Trend over time (three or more years of data, when available)
- Comparison between Ohio and U.S.
- Healthy People 2020 targets

*The online SHA is continuously being refreshed. See the online SHA for most current data available for selected metrics.*



# 5 Summary of key findings from online SHA

## Highlights

The following themes emerged from analysis of online State Health Assessment (SHA) data:

**Key finding 1. Overall wellbeing for Ohioans has declined.** Trends in premature death, life expectancy and overall health status indicate that the health of Ohioans has worsened. Unintentional injuries (including drug overdose), cancer and heart disease were the leading causes of premature death in 2017.

**Key finding 2. Many Ohioans lack opportunities to reach their full health potential.** Online SHA data identifies several groups that experience much worse outcomes than the state overall, including Ohioans who are black/ African American, have lower incomes, have disabilities or live in Appalachian counties.

**Key finding 3. Priority topics in the 2017-2019 SHIP remain relevant.** Mental health and addiction, chronic disease and maternal and infant health continue to be significant challenges in Ohio.

**Key finding 4. Underlying drivers of health must be addressed.** Online SHA data and regional forum findings support the need to address the following cross-cutting factors: physical activity, tobacco use, access to dental and mental health care, income and unemployment, adverse childhood experiences, transportation, lead poisoning risk and racism.

**Key finding 5. New concerns emerge in the wake of Ohio's addiction crisis.** Drug use has contributed to troubling increases in hepatitis C and the number of children in foster care.

## Purpose and process

This section presents key findings from the Health Policy Institute of Ohio's (HPIO) review of the online SHA (as of May 2019). The purpose of these key findings is to inform prioritization of topics and objectives for the 2020-2022 State Health Improvement Plan (SHIP).

This analysis was designed to answer the following questions at the state-level:

1. How has Ohio's overall health changed since the 2016 SHA?
2. To what extent does the data support continued focus on the three priority topics in the 2017-2019 SHIP?
3. To what extent does the data support a focus on cross-cutting factors?
4. What additional issues emerge from the data that should be considered during the 2020-2022 SHIP prioritization process?

In response to the questions above, notable health disparities and inequities that emerge in the data are also highlighted.

Strengths	Challenges
<ul style="list-style-type: none"><li>• Ohio's performance was better than the U.S. by 10% or more</li><li>• Ohio's trend improved by 10% or more<sup>2</sup>, or other notable long-term trend in a positive direction</li></ul>	<ul style="list-style-type: none"><li>• Ohio's performance was worse than the U.S. by 10% or more</li><li>• Ohio's trend worsened by 10% or more<sup>3</sup>, or other notable long-term trend in a negative direction</li><li>• Ohioans experienced large disparities by race, ethnicity, income, disability status, geography, etc.</li></ul>

HPIO reviewed the online SHA and identified notable findings based on one or more of these reasons:

All data values and sources for the metrics discussed in this section are cited in the online SHA and/or in part two of this report.<sup>1</sup> Local partners can replicate this analysis by selecting their own county in the online SHA, which allows for comparisons between a specific county and Ohio overall when data is available.

## Question No. 1.

# How has Ohio's overall health changed since the 2016 SHA?

## Overall wellbeing for Ohioans has declined.

Three key indicators of overall wellbeing suggest that the health of Ohioans has worsened in recent years:

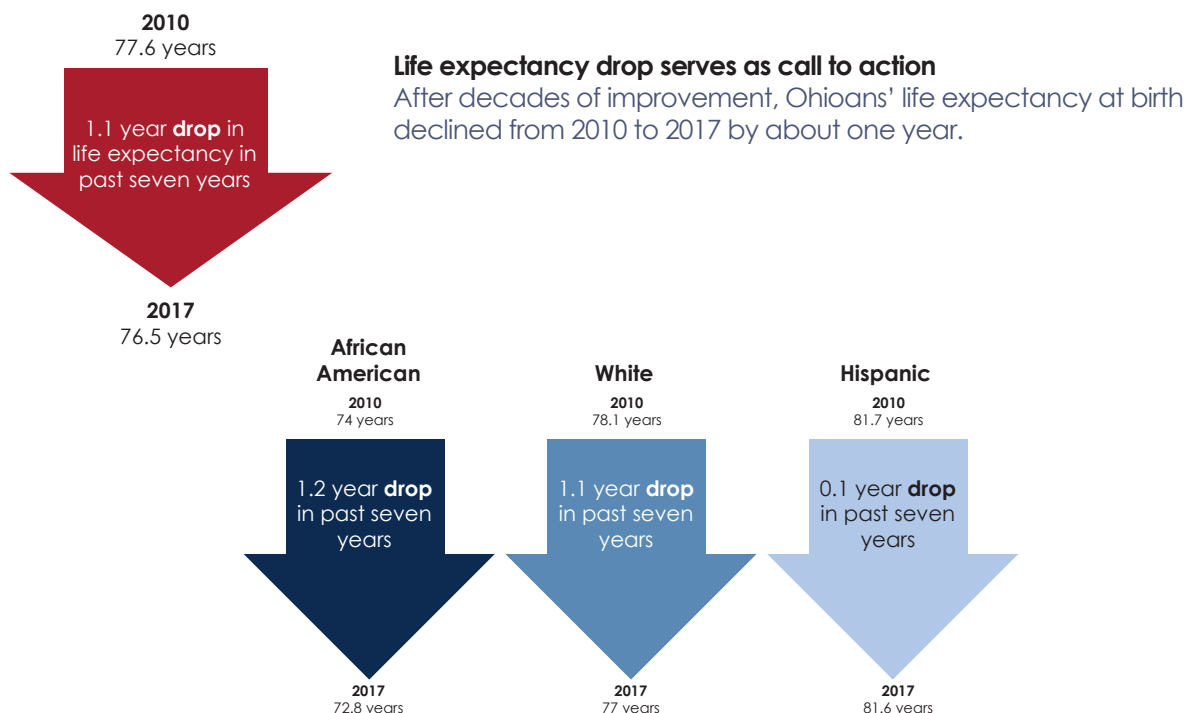
- **Premature death.** Unintentional injuries (including drug overdose), cancer [see box on next page] and heart disease were the leading causes of premature death in 2017. Ohio's premature death rate (years of potential life lost before age 75) has been steadily rising for several years, driven by drug overdose deaths (included in the unintentional injuries category in figure 5.2).
- **Life expectancy.** After decades of improvement, Ohioans' life expectancy at birth declined by about one year, from 77.6 years in 2010 to 76.5 years in 2017 (see figure 5.1).
- **Health status.** The percent of Ohio adults reporting fair or poor health increased from 16.5% in 2015 to 18.9% in 2017.

Online SHA data identifies several groups that experience much worse outcomes than the state overall, including Ohioans who are black/African American, have lower incomes, have disabilities or live in Appalachian counties. It is important to note that racism, discrimination and inequities in the social, economic and physical environment, such as unequal access to stable housing, a job that pays a self-sufficient income or the ability to buy healthy foods, drive the poor health outcomes experienced by these groups.

Notable disparities and inequities are highlighted throughout this summary analysis. It is important to note, however, that the magnitude of health disparities and inequities may not be fully captured in existing data. For example, Ohioans who are members of more than one group facing poor health outcomes, such as Ohioans of color who also have a disability, may experience larger gaps in outcomes than the data demonstrates.

**Notable disparities.** There are sharp disparities in life expectancy and premature death by race and ethnicity, with black/African-American Ohioans bearing the greatest burden of shortened life spans. In addition, Ohioans with low incomes are more likely than Ohioans with higher incomes to report fair or poor health.

Figure 5.1. Life expectancy trends in Ohio



Source: Ohio Department of Health, as reported in the online SHA



## Question No. 2.

### To what extent does the data support continued focus on the three priority topics in the 2017-2019 SHIP?

#### Priority topics in the 2017-2019 SHIP remain relevant.

Data in the online SHA indicate that mental health and addiction, chronic disease and maternal and infant health continue to be significant challenges in Ohio. More specifically, trend and disparity data indicate that adolescent depression, suicide deaths, drug overdose deaths, heart disease, diabetes and infant mortality are major threats to the health of Ohioans.

#### Mental health and addiction

Ohioans continue to struggle with mental health and addiction. Ohio's performance did not improve for the five mental health and addiction priority outcomes from the 2017-2019 SHIP:

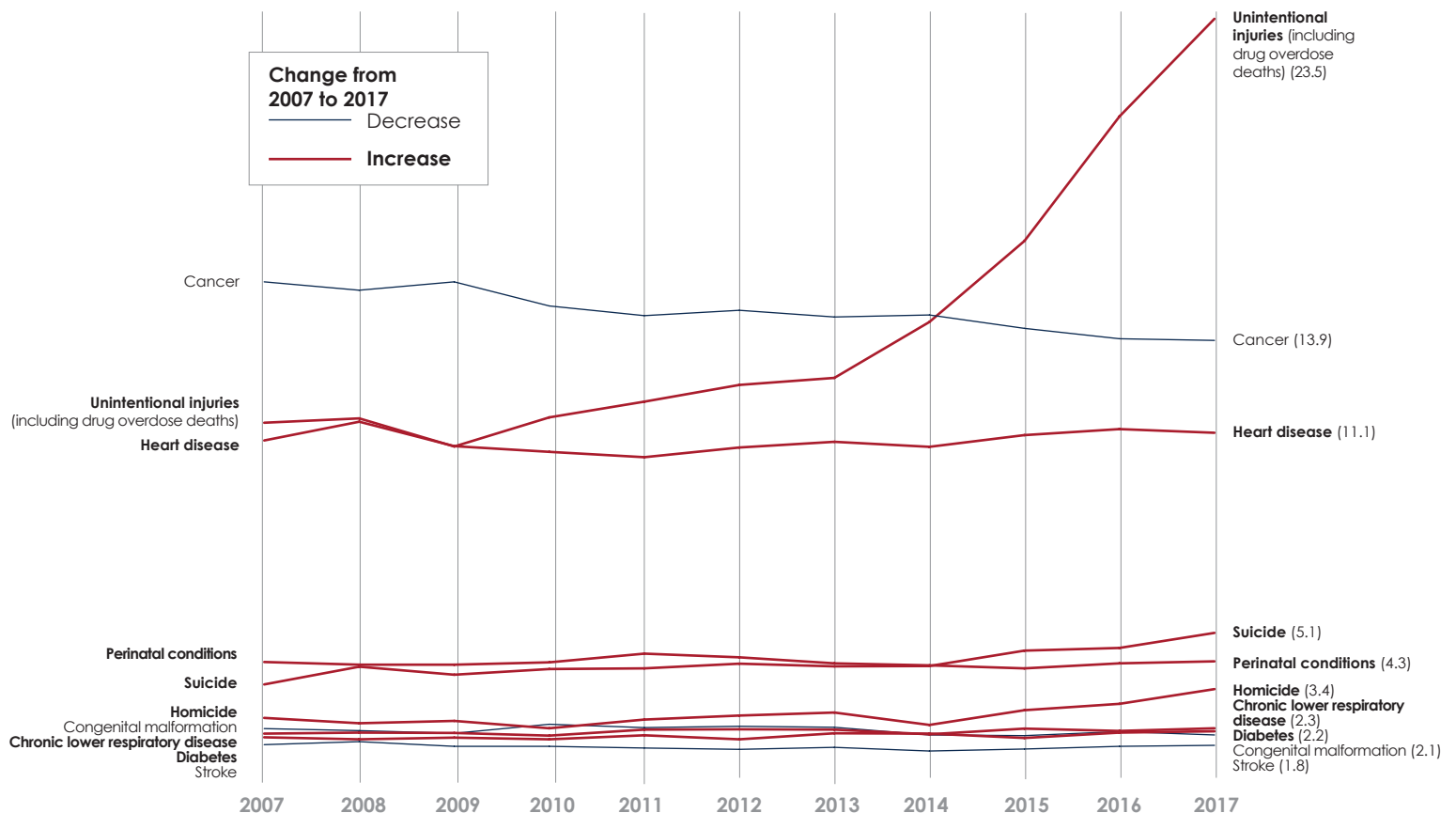
- Outcomes worsened for adolescent depression (from 10.33% in 2013-2014 to 13.98% in 2015-2016) and drug overdose deaths (from 27.7 deaths per 100,000 population in 2015 to 44.1 in 2017)
- Increases in the suicide death rate from 2015 to 2017 were most notable for two priority populations—males age 10-24 (from 15.9 deaths per 100,000 population in 2015 to 18.5 in 2017) and males age 25-44 (from 28.5 in 2015 to 33.6 in 2017), See figure 5.3 for more information.
- There was little or no detectable change for the prevalence of drug dependence or abuse and adult depression (from 2013-2014 to 2015-2016)

Ohio performs worse than or similar to the U.S. for all indicators in the online SHA related to mental health and addiction outcomes.

**Notable long-term trends.** Drug overdose deaths continued to rise sharply, with an increase of 59% from 2015-2017. In addition, Ohio has experienced a gradual increase in suicide deaths from 2007 to 2017, with more pronounced increases for some age groups (see figure 5.3).

Figure 5.2. **Years of potential life lost before age 75**

Ten leading causes of premature death, Ohio 2007-2017 per 1,000 population (age-adjusted rates)



Source: Ohio Department of Health

**Notable disparities.** Overdose death rates vary considerably by geography, sex and age. In 2017, the following groups had the highest rates:

- Residents of southwest Ohio counties (Montgomery and Fayette counties had the highest rates)
- Black (non-Hispanic) males age 55-64
- White (non-Hispanic) males age 25-44

Adult depression prevalence has a strong relationship with household income; 41.2% of Ohioans with annual income of less than \$15,000 reported having ever been diagnosed with depression, compared to 15.6% of Ohioans with incomes of \$50,000 or more. In addition, depression is more common among Ohioans with disabilities (45.4%) than among Ohioans without disabilities (13.2%).

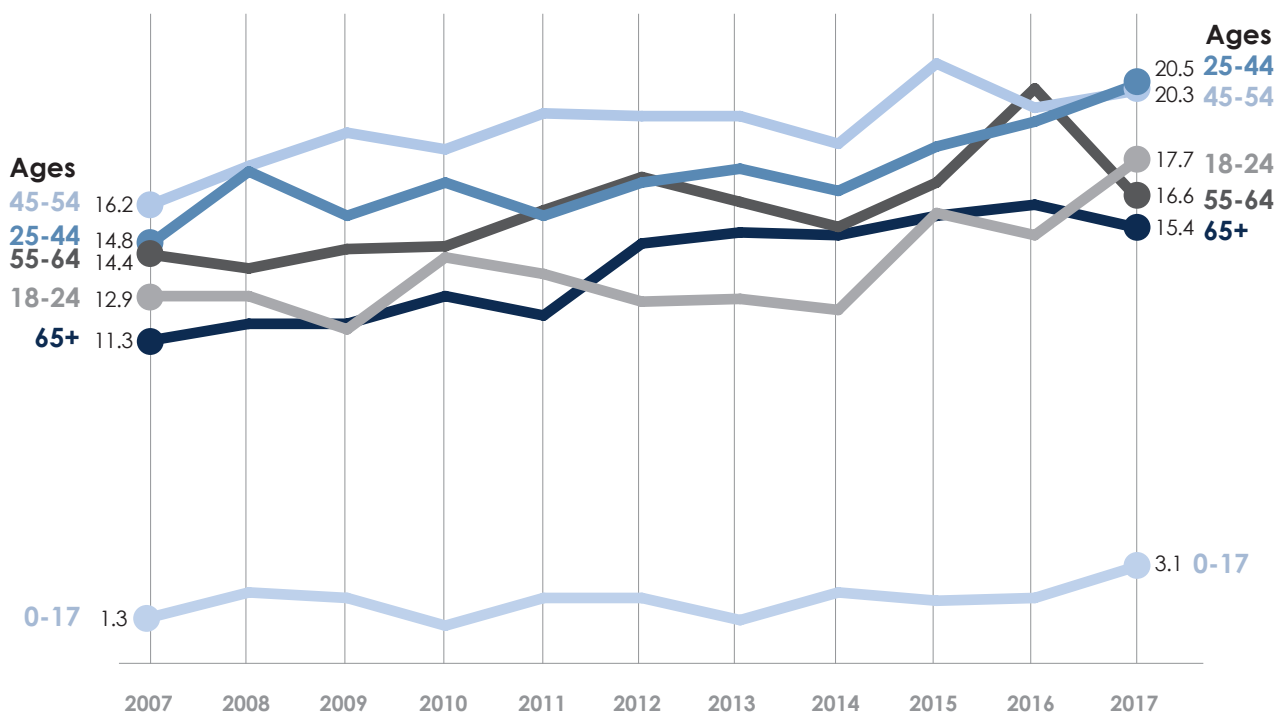
In addition, Ohioans who identify as gay, lesbian, bisexual or transgender (LGBT) were more than twice as likely to report that their mental health was not good on 14 or more days in the last month.

## Additional information on mental health and addiction

The following recent reports provide more detail on overdose and suicide death trends and disparities by race, ethnicity, geography, sex and age:

- [RecoveryOhio Advisory Council Initial Report](#)
- [2017 Ohio Drug Overdose Data: Demographic Summary](#)
- [2017 Ohio Drug Overdose Report](#)
- [A Longitudinal Analysis of Ohio Suicide Deaths](#)
- [2008 - 2017 Assessment of Child Health and Health Care in Ohio](#)

Figure 5.3. **Suicide deaths per 100,000 population, by age group, Ohio, 2007-2017**



Source: Ohio Department of Health, Ohio Public Health Data Warehouse. Accessed by HPIO on April 9, 2019.

## Chronic disease

Ohio's performance did not improve for the chronic disease priority outcomes in the 2017-2019 SHIP: Heart disease, diabetes and child asthma.<sup>4</sup> Online SHA data on these issues highlights the ongoing challenge heart disease and diabetes, in particular, present to the health of Ohioans.

Heart disease is a significant problem in Ohio. In 2017:

- Heart disease was the leading cause of death and the third leading cause of premature death
- About one-third of Ohio adults (34.7%) had been diagnosed with hypertension
- Ohio's heart disease prevalence was higher than the U.S. prevalence
- The percent of Ohioans ever diagnosed with heart disease or heart attack has increased since 2015

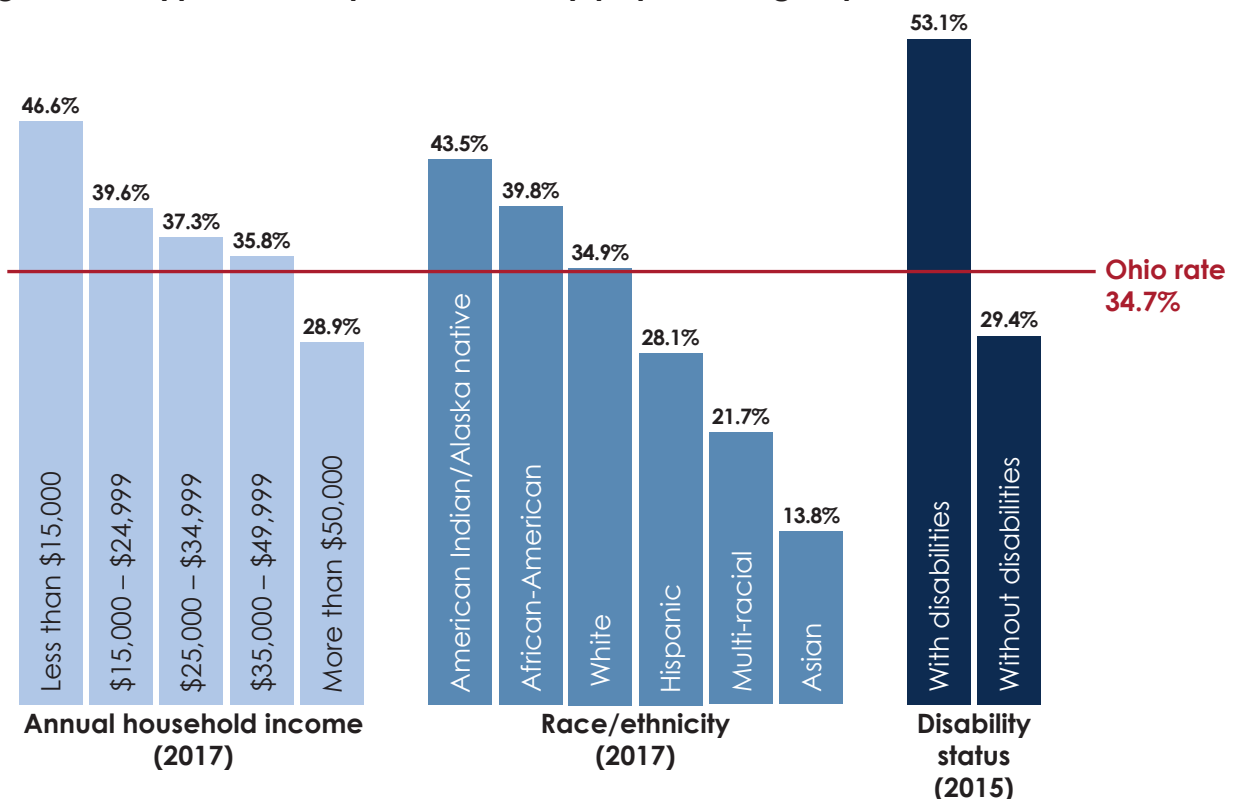
Ohio's adult diabetes prevalence (11.3%) was slightly higher than the U.S. (10.5%) in 2017.<sup>5</sup> Ohio's rate of long-term complications due to diabetes gradually declined from 2012 to 2016, although large disparities by race persisted.

## Chronic disease: Cancer

Cancer was the second leading cause of death and premature death in Ohio in 2017. Ohio's performance on cancer-related metrics in the online SHA was mixed:

- **Cancer incidence.** In 2015, the incidence of the most common types of cancer was 182 per 100,000 population in Ohio, compared to 166 for the U.S. (includes breast, cervical, lung and colorectal cancers). This is less than a 10% difference and there was little change.
- **Cancer mortality.** In 2016, Ohio's cancer mortality rate was 173.1 per 100,000 population, compared to 155.8 for the U.S. (all cancers combined). This was more than 10% higher than the U.S. and the trend was relatively flat.
- **Cancer early stage diagnosis:** Early stage diagnosis of cancer for the most common types of cancer ranged from a low of 24.4% for lung and bronchus cancer to a high of 71.3% for female breast cancer in 2016. These rates improved or had little change from 2013 to 2016 (specific trends varied by population group).

Figure 5.4. Hypertension prevalence, by population group, Ohio



Source: Behavioral Risk Factor Surveillance Survey, as reported in the online SHA (as of April 2019).

### **Chronic disease: Oral health**

Oral health is part of overall physical and emotional wellbeing. There is growing recognition of the relationship between gum disease and type 2 diabetes, cardiovascular disease and poor birth outcomes. Research finds, for example, that periodontal treatment may improve health outcomes related to these conditions.<sup>6</sup>

Nutrition, daily oral hygiene, health insurance that covers dental care and access to dental providers are needed to prevent oral health problems and maintain good health.

In 2016, 14% of Ohio adults reported that they had lost six or more teeth due to decay, infection or disease—higher than the U.S. rate of 10%. Tooth loss is a downstream consequence of poor oral health.

Ohio's overall child asthma prevalence was lower than the U.S. and the Ohio rate improved from 9.7% in 2013 to 6.9% in 2016. As shown in part two, the change in child asthma morbidity from 2012 to 2016—as measured by emergency department visits for pediatric asthma—could not be assessed due to a change in the reporting methodology.

**Notable disparities.** African Americans and Ohioans with disabilities or lower incomes experience particularly high rates of hypertension and diabetes (see figure 5.4). Rates of diabetes with long-term complications are highest for American Indian/Alaska Native, Hispanic and African-American Ohioans, and asthma morbidity (as measured by emergency department visits) is almost three times higher for African-American children than for Ohio

## Maternal and infant health

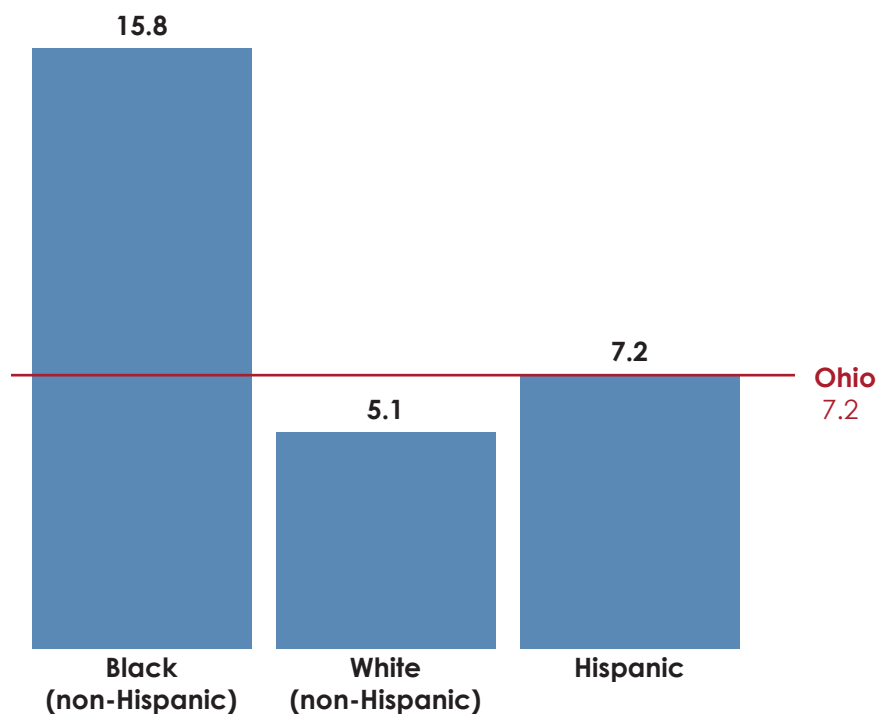
Ohio's performance did not improve for the maternal and infant health priority outcomes in the 2017-2019 SHIP: Preterm birth, low birth weight and infant mortality.

However, positive trends were notable in two areas:

- **Teen births.** The teen birth rate declined from 25.1 births per 1,000 female population (age 15-19) in 2014 to 20.8 in 2017 (slightly higher than the U.S. rate of 18.8).
- **Breastfeeding.** Breastfeeding at six months rose from 42.4% in 2009 to 53.1% in 2015 (below the U.S. rate of 57.6%).

**Notable disparities.** In 2017, African-American women were less likely than all other racial and ethnic groups to receive prenatal care in the first trimester (62.7% vs. 78.6% for white women). There were similar disparities for birth outcomes; non-Hispanic black women had the highest rates of preterm birth and low birthweight births in 2017. Finally, Ohio's non-Hispanic black infant mortality rate in 2017 (15.8) was nearly three times as high as the non-Hispanic white rate (see figure 5.5).

Figure 5.5. **Infant mortality (rate of infant deaths per 1,000 live births), by race and ethnicity, Ohio, 2017**



Source: Ohio Department of Health

### Question No. 3.

## To what extent does the data support a focus on specific cross-cutting factors?

### Underlying drivers of health must be addressed.

Cross-cutting factors are underlying drivers of health outcomes. The 2017-2019 SHIP framework (see figure 2.2) included four general categories of cross-cutting factors: Social determinants of health (also referred to as "community conditions"); public health, prevention and health behaviors; healthcare system and access; and equity.

These factors are important to address because access to health care is necessary, but not sufficient, for good health. An estimated 80 percent of the modifiable factors that impact overall health are attributed to community conditions and the opportunity to make healthy choices (see figure 5.6).

During the SHA regional forums, participants discussed these cross-cutting factors and emphasized the importance of addressing the following issues:

- Physical activity, nutrition and weight status (obesity)
- Tobacco use
- Access to health care
- Community conditions, particularly income and poverty, violence and toxic stress/trauma, transportation, housing and food access

This section presents highlights from the online SHA related to these topics. Overall, the online SHA data most strongly support stakeholder concerns related to:

- Physical activity
- Tobacco use
- Access to dental care
- Access to mental health care
- Income and unemployment
- Adverse childhood experiences
- Transportation
- Housing (specifically lead poisoning risk)

### Physical activity, nutrition and weight status (obesity)

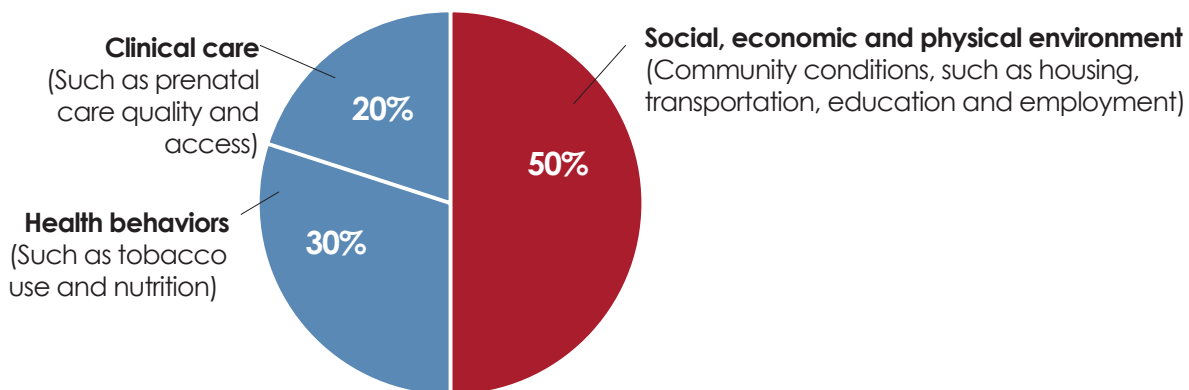
Ohio performs similarly to the U.S. (less than 10% difference) on several metrics related to weight status:

- Fruit consumption
- Vegetable consumption
- Access to exercise opportunities
- Adult obesity
- Youth obesity

Ohio's performance on physical inactivity, however, stands out:

- In 2017, 29.6% of Ohio adults reported doing no physical activity or exercise other than their regular job in the past 30 days, compared to 25.6% of U.S. adults.
- The percent of Ohio adults reporting no physical activity increased from 25.2% in 2012 to 29.6% in 2017.

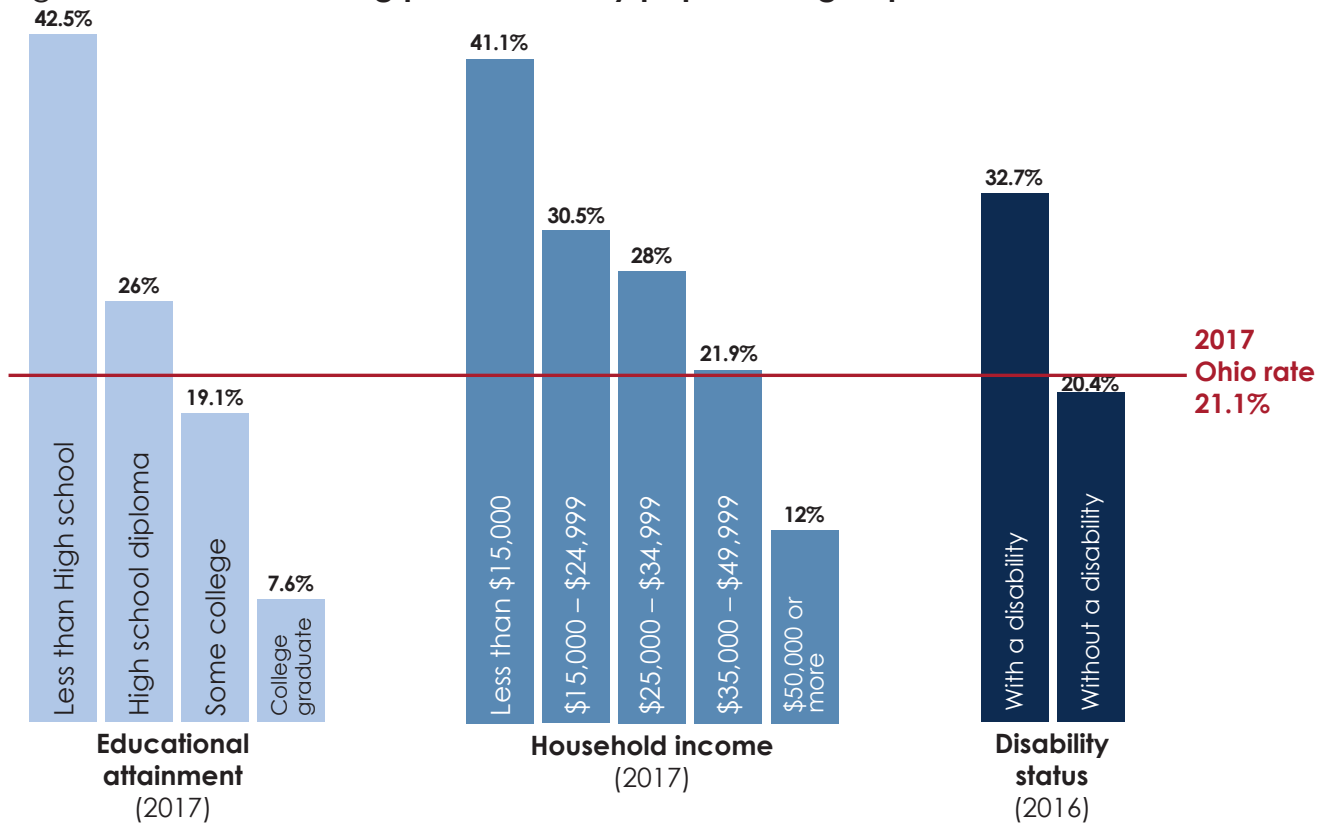
Figure 5.6. **Factors that influence health**



**Underlying drivers of inequity:** Poverty, racism, discrimination, trauma, violence and toxic stress

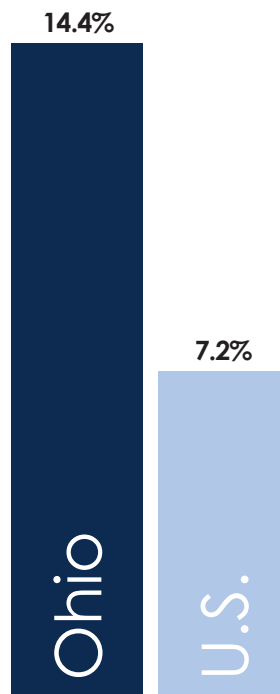
**Source:** Booske, Bridget C. et. Al. *County Health Rankings Working Paper: Different Perspectives for Assigning Weights to Determinants of Health*. University of Wisconsin Public Health Institute, 2010.

Figure 5.7. **Adult smoking prevalence by population group, Ohio**



**Source:** Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System (BRFSS) (educational attainment and household income) and Ohio Department of Health, BRFSS, as reported in the online SHA (as of April 2019) (disability status)

Figure 5.8. **Percent of mothers who smoked during pregnancy, Ohio and U.S., 2016**



**Source:** Centers for Disease Control and Prevention, as reported in the online SHA (as of April 2019)

**Notable disparities.** In 2017, the groups of Ohio adults with the highest rates of obesity were:

- Age 45-54
- Low income (less than \$15,000 annual household income)
- African American
- Hispanic

## Tobacco use

Tobacco use is a key factor contributing to Ohio's poor health outcomes, including cancer, heart disease, chronic lower respiratory disease and infant mortality.<sup>7</sup> Ohio performed worse than the U.S. on several tobacco-related metrics:

- **Adult smoking.** About one fifth (21.1%) of Ohio adults were current smokers in 2017, compared to 17.1% for the U.S.
- **Children exposed to secondhand smoke.** In 2016, 7.8% of Ohio children lived in a home where someone smoked inside the home, compared to 2.7% of U.S. children.
- **Smoking during pregnancy.** Fourteen percent of Ohio mothers smoked during pregnancy in 2016, almost double the rate of the U.S. overall (7.2%) (see figure 5.8).

E-cigarette use increased from 11.7% to 20.8% among U.S. high school students from 2017 to 2018. After a decline in traditional cigarette use, e-cigarettes have emerged as the most commonly used nicotine product among U.S. adolescents.<sup>8</sup> (Recent e-cigarette use data for Ohio adolescents is not currently available.)

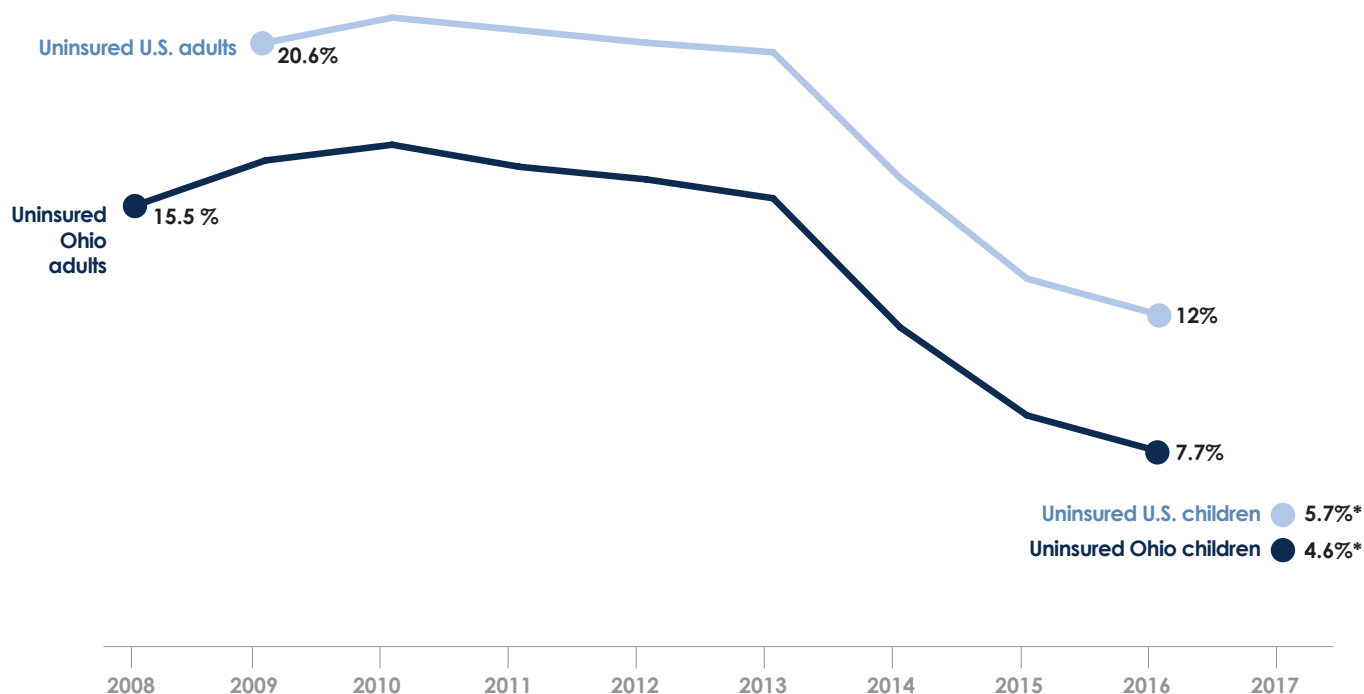
**Notable disparities.** Ohio adults with less educational attainment, lower incomes and disabilities have particularly high smoking rates (see figure 5.5). Ohioans with less than a high school diploma smoke at more than six times the rate of Ohioans who have graduated from college. Similarly, low-income Ohioans and Ohioans with disabilities smoke at higher rates than Ohioans with high incomes or no disabilities (see figure 5.7). In addition, Ohioans who identify as LGBT are more likely to smoke than non-LGBT Ohioans.

## Access to health care

Ohio performs better than the U.S. (more than 10% difference) for the following healthcare access metrics:

- Unable to see a doctor due to cost
- Uninsured adults (ages 18-64)
- Uninsured children (ages 0-18)

Figure 5.9. **Uninsured adults (ages 18-64) and children (ages 0-18), Ohio and U.S., 2008-2017**

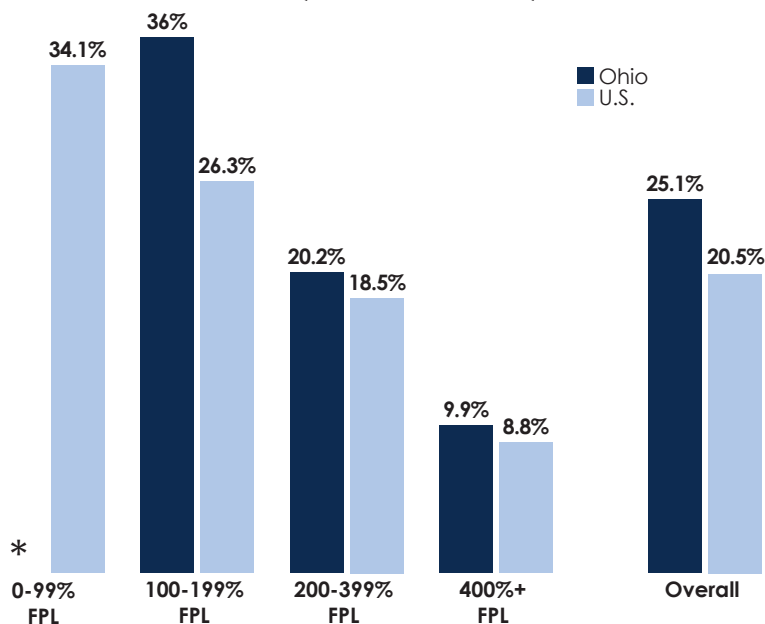


\*Estimate for pooled years 2013-2017

**Source:** Adult data is from the U.S. Census Bureau, American Community Survey (ACS) 1-year estimates and child data is from the U.S. Census Bureau, ACS 5-year estimates as reported in the online SHA (as of July 2019)



Figure 5.10. **Percent of children with two or more adverse childhood experiences, by household income, Ohio and U.S., 2016-2017**



- Youth with depression who did not receive mental health services. Although Ohio performed better than the U.S., it is important to note that 51.6% of Ohio youth with a major depressive episode did not receive mental health services in 2014-2016.

The uninsured rate for children decreased from 5% for 2011-2015 to 4.6% for 2013-2017. (Data for 2011-2015 is for children ages 0-17. Data for 2013-2017 is for children ages 0-18.)

Ohio performs worse than the U.S. (more than 10% difference) for two specific access metrics:

- Dental (ratio of population to dentists)
- Mental health (ratio of population to mental health providers including psychiatrists, psychologists, licensed clinical social workers, counselors, marriage and family therapists and advanced practice nurses specializing in mental health care)

**Notable long-term trends.** The most pronounced access trend in the online SHA is the decline in the percent of working-age Ohio adults without health insurance from a high of 17.4% in 2010 to a low of 7.7% in 2016 (see figure 5.9).

**Notable inequities.** Pediatric unmet dental care needs were most common for Appalachian (6.5%) and African-American (8.1%) children in 2017. Inability to see a doctor due to cost was most common among Ohioans with disabilities (15.5%) and those who are multi-racial (19.2%) or African American (13%).

## Community conditions: Income, employment and poverty

Ohio performs worse than the U.S. (more than 10% difference) for:

- Median household income (\$54,021 in Ohio in 2017, compared to \$60,336 in the U.S.)
- Unemployment (5% in Ohio in 2017, compared to 4.4% in the U.S.)

One reason for low median income in Ohio is low wages. In 2017, eight out of 10 of the jobs in Ohio with the most open positions paid median wages that would not support self-sufficiency for most single-income households.<sup>9</sup>

Ohio, however, did experience some positive trends in recent years (more than 10% change), including:

- Child poverty decreased from 22.7% in 2013 to 20.4% in 2016
- Unemployment decreased from a peak of 10.3% in 2009 and 2010 to 5.0% in 2017

**Notable inequities.** In 2016, African-American children were more than three times as likely to live in poverty than white children in Ohio.

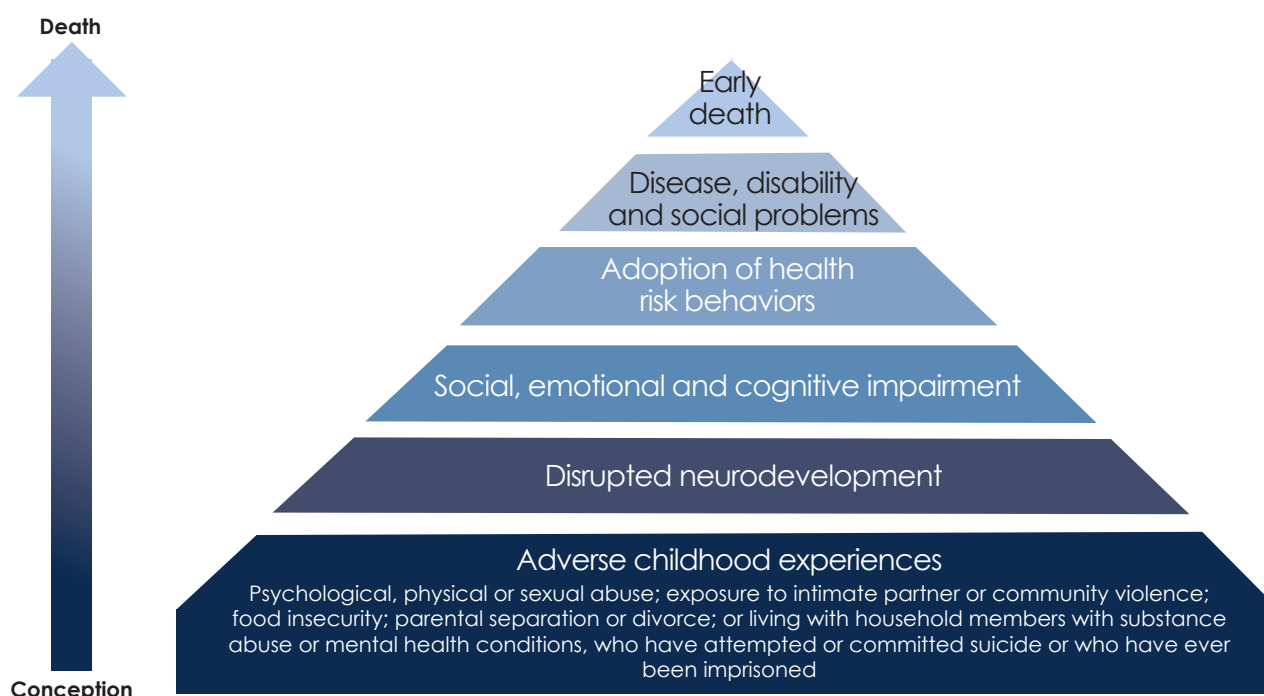
## Community conditions: Education

Education is an important driver of income, employment and poverty. Ohio performs similar to the U.S. for:

- Fourth-grade reading proficiency
- High school graduation rate

Kindergarten readiness data is available for Ohio, but not for the U.S. In 2018, 41.5% of Ohio children

Figure 5.11. **Influence of adverse childhood experiences (ACEs)**



**Source:** Graphic adapted from Felitti, Vincent J. et al. "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study." *American Journal of Preventive Medicine* 14, no. 4 (1988): 245-258. List of ACEs at the base of the pyramid includes categories from the National Survey of Children's Health.

entering kindergarten were identified as "band 3" in the Kindergarten Readiness Assessment-Literacy, indicating that they "should do well with reading instruction and may need to be assessed for enrichment programs." In the same year, 22.4% of children were identified as "band 1," indicating that they "need immediate interventions in language and literacy skills, and may need to be assessed for intense instruction."

**Notable inequities.** In 2017, Ohio fourth-graders from low-income families (eligible for free/reduced lunch) (24%) were less likely than children from moderate to high-income families (55%) to be proficient in reading. In addition, African-American (15%) and Hispanic (26%) students were less likely than white students (44%) to be proficient in reading.

## Community Conditions: Violence and toxic stress/trauma

Exposure to chronic stress at a young age and adverse childhood experiences (ACEs), such as those listed in Figure 5.11, can be damaging to health across the life course, impacting academic success, health behaviors and health outcomes.

Compared to the U.S., Ohio's performance on violence and trauma-related metrics is mixed:

- Ohio performs worse than the U.S. (more than 10% difference) for ACEs; 25.1% of Ohio children had two or more ACEs compared to 20.5% of U.S. children in 2016-2017
- Ohio performs similar to the U.S. (less than 10% difference) for child abuse and neglect, incarceration and intimate partner violence.
- Ohio performs better than the U.S. (more than 10% difference) for violent crime; Ohio had 290 violent crimes per 100,000 population in 2012-2014, compared to 380 in the U.S.

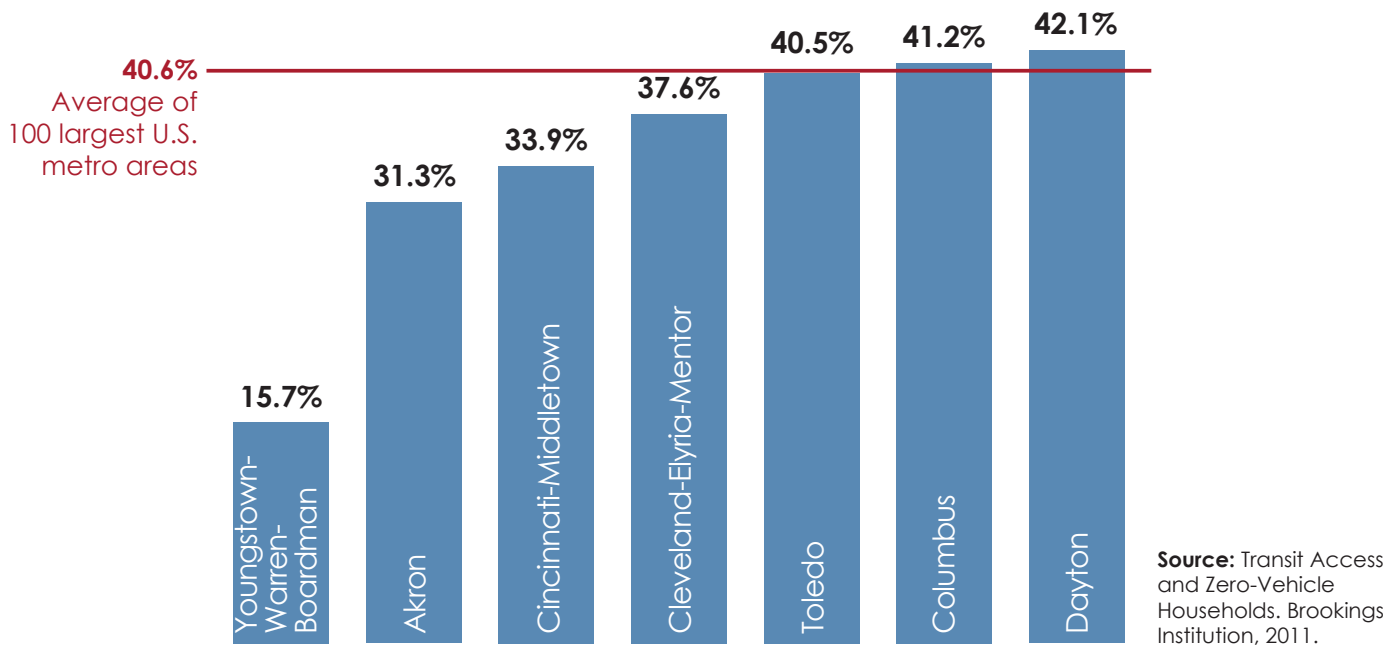
**Notable inequities.** ACEs include a child's exposure to family dysfunction, addiction in the home, domestic or neighborhood violence and living in a family with financial hardship (see figure 5.11).<sup>10</sup> In 2016-2017 in Ohio, there were large gaps in the prevalence of ACEs between children of different income levels (see figure 5.10).<sup>11</sup> In addition, premature death due to homicide was much higher for African-American Ohioans than for any other racial/ethnic group in 2014-2017.

## Community Conditions: Transportation

Ohio's performance on transportation metrics is similar to or worse than the U.S.:

- **Households without a vehicle.** In 2011-2015, 8.4% of Ohio households did not have a vehicle, similar to 9.1% of U.S. households.

Figure 5.12. **Percent of jobs accessible in at least 90 minutes via transit for zero-vehicle houses, Ohio's largest metro areas, 2010**



- **Alternative commute modes.** 4.1% of trips to work were via bicycle, walking or mass transit in Ohio in 2013-2017, worse than the U.S. rate (8.4%).
- **Job access via transit.** The percent of jobs accessible in at least 90 minutes via transit for zero-vehicle houses in the Cleveland, Columbus, Dayton and Toledo metropolitan areas was similar to the U.S. rate. In Akron, Cincinnati and Youngstown, however, job access via transit was worse than the U.S. rate (see figure 5.12).

**Notable inequities.** In Ohio in 2017, black households (22.1%) were far more likely than white households (6.2%) to lack a vehicle.

### Community conditions: Housing (including lead poisoning risk)

Compared to other parts of the country, Ohio has fewer problems with housing affordability and homelessness. Ohio performs better than the U.S. on access to housing assistance and the number of people experiencing homelessness per 10,000 population, and similar to the U.S. on the percent of renters spending 30% or more of their income on rent only. It is important to note that stable, affordable housing is foundational for good health. Regardless of U.S. comparison data, housing is a serious concern in Ohio.

Lead poisoning risk is a long-standing housing safety problem in many parts of Ohio. Although the percent of children in Ohio who have been identified as having elevated blood lead levels<sup>12</sup> is below the U.S. rate, lead exposure risk in many Ohio cities is extremely high. Risk is based on information about the age of housing stock

and the percent of people who live in poverty—major predictors of lead exposure. As shown in figure 5.13, all of Ohio's largest cities had lead exposure risk well above the average U.S. rate in 2012-2016.

**Notable inequities.** Housing that is stable, affordable and in a safe neighborhood that provides opportunities for quality education, employment and recreation is associated with better health.<sup>13</sup> In Ohio, people with less than high school education and black and Hispanic populations are more likely to live in housing with severe problems (see figure 5.14).<sup>14</sup>

### Community conditions: Food access

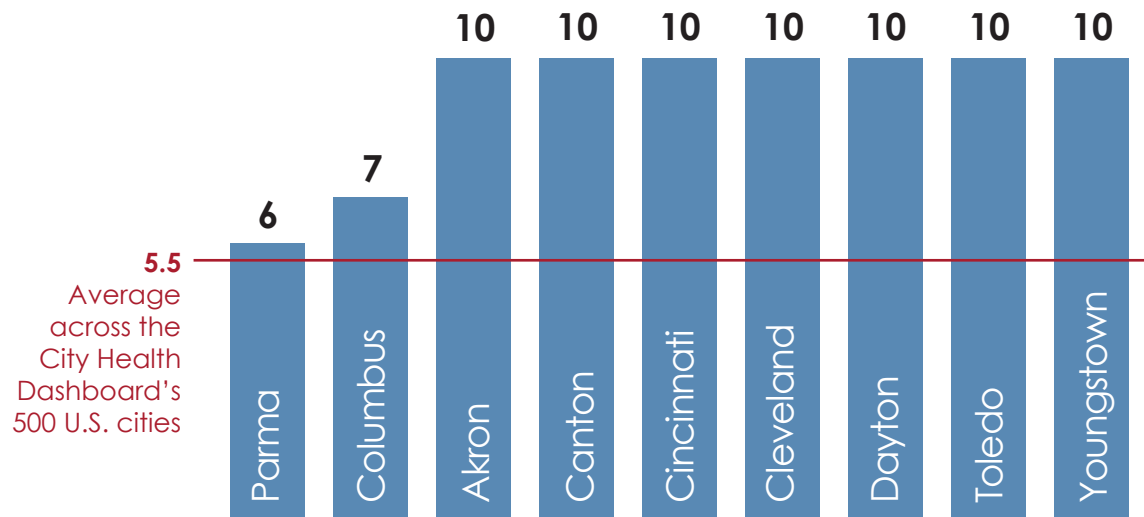
In 2015, 7% of Ohioans had limited access to healthy food, defined as the percent of low-income individuals (less than 200% of the federal poverty guideline) living more than 10 miles from a grocery store in rural areas or one mile in non-rural areas.

Ohio (15.1%) had a higher rate of food insecurity than the U.S. (12.9%) in 2016, although both the Ohio and U.S. rates declined from 2014 to 2016. Food insecurity refers to the percent of households that are uncertain of having, or unable to acquire, at some time during the year, enough food to meet the needs of all their members because they had insufficient money or other resources for food.

**Notable inequities.** Limited access to healthy food varied widely by county, from a low of 0% in Morrow and Preble Counties to a high of 24% in Vinton County, in 2015. Food insecurity also differed markedly by county, from a low of 8% in Delaware County to a high of 20% in Athens County, in 2016.<sup>15</sup>

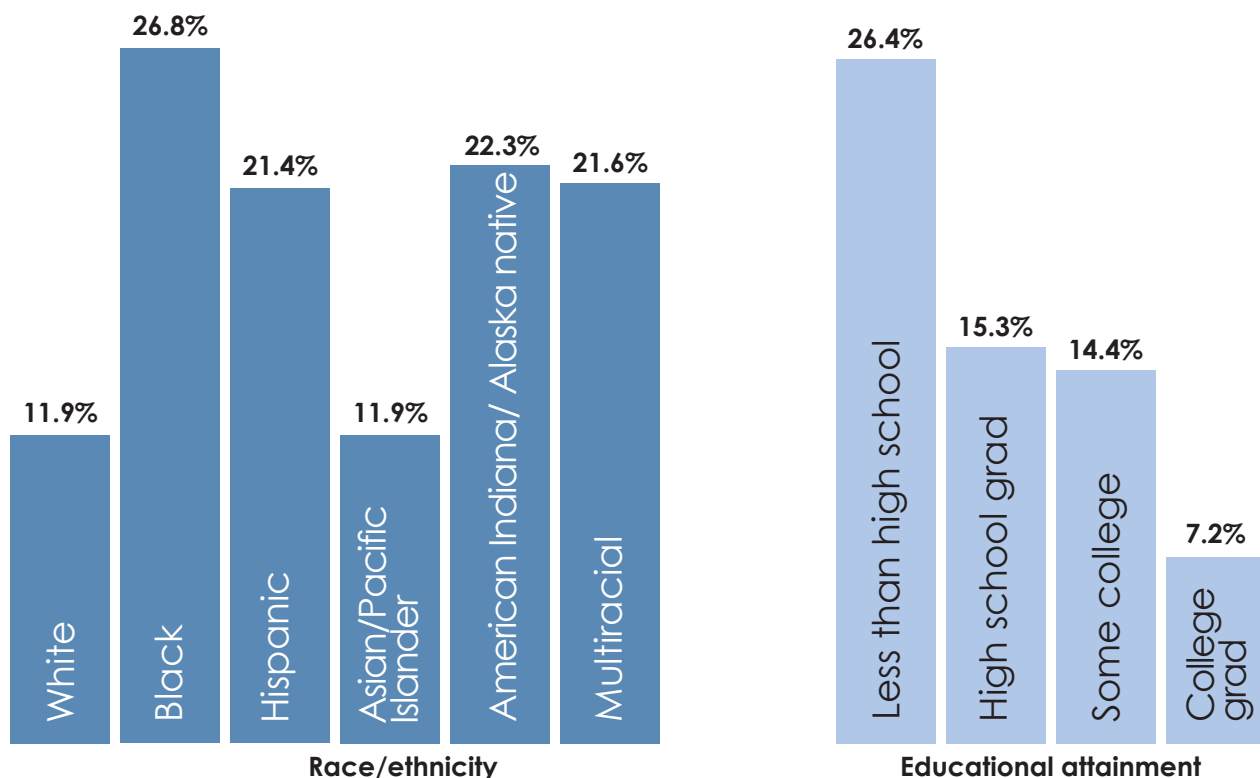
Figure 5.13. **Lead exposure risk index for Ohio's largest cities, 2012-2016**

Index scores range from 0-10 based on age of housing stock and percent of population in poverty. A score of 10 indicates the highest level of risk.



Source: U.S. Census Bureau, American Community Survey 5-year estimates, as compiled by City Health Dashboard, 2017

Figure 5.14. **Percent of households living in housing with severe problems\*, by race/ethnicity and educational attainment, 2010-2014**



\*Severe housing problems include incomplete kitchen and/or plumbing facilities, overcrowding and severe cost-burden (spending more than 50% of household income on housing costs).

Source: U.S. Census Bureau, American Community Survey 5-year estimates, as compiled by the National Collaborative for Health Equity, The HOPE Initiative

#### Question No. 4.

### What additional issues emerge from the data that should be considered during the 2020-2022 SHIP prioritization process?

#### New concerns emerge in the wake of Ohio's addiction crisis.

Several issues have emerged as a result of the addiction crisis in Ohio. As the drug overdose death rate has increased, so have the rates of other physical and social harms related to addiction. Troubling trends emerged in the data for two issues in particular:

- **Hepatitis C.** An infectious liver disease that can be spread through the use of shared needles, hepatitis C has increased as a result of injection drug use. Hepatitis C contributes to chronic liver disease, one of the top 10 leading causes of premature death in Ohio in 2017. The number of new hepatitis C cases increased by 49% from 2014 to 2016. A total of 21,882 new hepatitis C cases were documented in Ohio in 2017.
- **Children in foster care.** Children are entering foster care at unprecedented rates. From 2013 to 2018, there was a 28% increase in the number of children entering foster care in Ohio. Half of the children taken into custody in 2015 were removed from their homes due to parental drug use.

## Notes

1. For 2017-2019 SHIP priority outcomes, trend was assessed from baseline (2012-2015) to current year (2015-2017) (years vary by source). For other metrics, trend was generally assessed for the four most-recently available years, although fewer years were available for some metrics.
2. For 2017-2019 SHIP priority outcomes, trend was assessed from baseline (2012-2015) to current year (2015-2017) (years vary by source). For other metrics, trend was generally assessed for the four most-recently available years, although fewer years were available for some metrics.
3. To view sources for specific metrics in the online SHA, scroll over the data value and a box with detailed information will appear.
4. There were six priority outcome objectives in the SHIP for chronic disease, although progress for two of them (prediabetes and child asthma morbidity) was not assessed for methodological reasons.
5. The data source is the Behavioral Risk Factor Surveillance System, which does not distinguish between type 1 and type 2 diabetes. This prevalence rate therefore includes both types of diabetes among adults ages 18 and older.
6. Jeffcoat, Marjorie K., Robert L. Jeffcoat, Patricia A. Gladowski, James B. Bramson, and Jerome J. Blum. "Impact of periodontal therapy on general health: evidence from insurance data for five

systemic conditions." *American journal of preventive medicine* 47, no. 2 (2014): 166-174.

7. The health consequences of smoking—50 years of progress. A report of the Surgeon General. 2014.
8. Centers for Disease Control and Prevention. Vital Signs. Tobacco use by youth is rising. Feb. 2019.
9. Health Policy Institute of Ohio. "What Works to Increase Self-Sufficient Employment," September 2018.
10. The definition of the ACEs metric from the National Survey of Children's Health is: Percent of children who have experienced two or more adverse experiences (ACEs), among nine ACEs defined by the National Survey of Children's Health: "Somewhat often" or "very often" hard to get by on family income; parent or guardian divorced or separated; parent or guardian died; parent or guardian served time in jail; child saw or heard parents or adults slap, hit, kick punch one another in the home; child was a victim of violence or witnessed violence in neighborhood; child lived with anyone who was mentally ill, suicidal, or severely depressed; child lived with anyone who had a problem with alcohol or drugs; and child treated or judged unfairly due to race/ethnicity.
11. Data are unreliable for break-outs by race/ethnicity.
12. It is important to note that this lead poisoning prevalence data is based on children who have

been screened for elevated blood lead levels. Many Ohio children, including those at higher risk for lead poisoning, have not been screened as recommended. For example, a recent study by researchers at Case Western Reserve University found that only 50% of children on Medicaid in Cuyahoga County were tested at age 1 and only 34% were tested at age two (as mandated by Medicaid rules). Source: Center on Urban Poverty and Community Development, Case Western Reserve University. *Early Childhood Lead Exposure in Cuyahoga County and the Impact on Kindergarten Readiness*. Invest in Children Issue Briefing. January 2019.

13. Taylor, Lauren. "Housing And Health: An Overview Of The Literature." Health Affairs Health Policy Brief, June 7, 2018. DOI: 10.1377/hpb20180313.396577
14. Severe housing problems include incomplete kitchen and/or plumbing facilities, overcrowding and severe cost-burden (spending more than 50% of household income on housing costs).
15. Data from Feeding America, as compiled by County Health Rankings and Roadmaps. Accessed May 1, 2019. <http://www.countyhealthrankings.org/app/ohio/2019/measure/factors/139/data?sort=sc-3>

## 6 Conclusions and next steps

The 2020-2022 State Health Improvement Plan (SHIP) will include a strategic menu of priorities, outcome objectives and evidence-based strategies to be implemented by state agencies, local health departments, hospitals and other community partners, including housing, transportation, economic development, education, violence prevention and other community organizations.

Through the summer and fall of 2019, the Health Policy Institute of Ohio (HPIO) and Ohio Department of Health (ODH) will work with the State Health Assessment (SHA)/SHIP Steering and Advisory Committees to review SHA findings and prioritize topics, objectives and strategies for the 2020-2022 SHIP. These groups will also work with the Maternal

and Child Health (MCH)/Maternal, Infant and Early Childhood Home Visiting (MIECHV) Steering Committee to identify SHIP priorities and strategies.

There are three sources of information that will be used to identify the priority topics, outcome objectives and priority populations in the next SHIP. This SHA summary report encompasses two of these sources:

- SHA regional forum findings
- Online SHA analysis

The third source, feedback from the Steering and Advisory Committees, will supplement the key findings highlighted in this report.

### Regional forum key findings

The SHA regional forum online survey analysis answers the following questions:

Question	Key finding
1. What are local community priorities, and do they support continued focus on the 2017-2019 SHIP priorities?	<b>The 2017- 2019 SHIP health outcome priorities continue to be consistent with local community priorities (mental health and addiction, chronic disease, and maternal and infant health).</b> In addition, several cross-cutting factors also rise to the top as important to emphasize in the next SHIP, including: <ul style="list-style-type: none"> <li>• Poverty</li> <li>• Transportation</li> <li>• Physical activity and nutrition</li> <li>• Access to care</li> </ul>
2. What are the strengths and challenges for each region and county type (urban, suburban, Appalachian, non-rural Appalachian)?	<b>While each Ohio community is unique, there are many shared strengths, challenges and priorities across the state.</b> This indicates that the SHIP can provide a menu of priorities that are relevant to urban, suburban, rural and Appalachian communities throughout the state, while also adapting to community needs by providing local partners with the flexibility to select evidence-informed strategies that match their community's strengths and challenges.
3. How can the next SHA and SHIP be improved?	<b>There are many opportunities to improve the next SHA and SHIP to ensure they are useful for local partners.</b> Concise and user-friendly materials widely disseminated to a broad range of partners will be key to the success of the 2019 SHA and 2020-2022 SHIP.



## Online SHA key findings

The online SHA analysis answers the following questions:

Question	Key finding
1. How has Ohio's overall health changed since the 2016 SHA?	<p><b>Overall wellbeing for Ohioans has declined.</b> Trends in premature death, life expectancy and overall health status indicate that the health of Ohioans has worsened. Unintentional injuries (including drug overdose), cancer and heart disease were the leading causes of premature death in 2017.</p> <p><b>Many Ohioans lack opportunities to reach their full health potential.</b> SHA data identifies several groups that experience much worse outcomes than the state overall, including Ohioans who are black/African American, have lower incomes, have disabilities or live in Appalachian counties.</p>
2. To what extent does the data support continued focus on the three priority topics in the 2017-2019 SHIP?	<p><b>Priority topics in the 2017-2019 SHIP remain relevant.</b> Mental health and addiction, chronic disease, and maternal and infant health continue to be significant challenges in Ohio.</p>
3. To what extent does the data support a focus on specific cross-cutting factors?	<p><b>Underlying drivers of health must be addressed.</b> Data and regional forum findings support the need to address the following cross-cutting factors:</p> <ul style="list-style-type: none"> <li>• Physical activity</li> <li>• Tobacco use</li> <li>• Access to dental and mental health care</li> <li>• Income and unemployment</li> <li>• Adverse childhood experiences</li> <li>• Transportation</li> <li>• Lead poisoning risk</li> <li>• Racism, discrimination and disparities</li> </ul>
4. What additional issues emerge from the data that should be considered during the 2020-2022 SHIP prioritization process?	<p><b>New concerns emerge in the wake of Ohio's addiction crisis.</b> Drug use has contributed to troubling increases in hepatitis C and children in foster care.</p>

## The road to improvement

SHA findings emphasize that improvement must build upon:

- The comprehensive framework of the 2017-2019 SHIP, including clear state-level priorities that are consistent with local priorities
- Shared priorities across rural, urban and Appalachian regions of the state
- An understanding that access to care is necessary, but not sufficient, for good health
- Cross-sector partnerships to address the many factors that shape our health
- State and local efforts to achieve health equity for all ages of Ohioans

## Appendix

See [https://www.healthpolicyohio.org/wp-content/uploads/2019/06/2019SHA\\_SummaryReport\\_Appendix-1.pdf](https://www.healthpolicyohio.org/wp-content/uploads/2019/06/2019SHA_SummaryReport_Appendix-1.pdf) to access the appendix (separate document)



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of Health