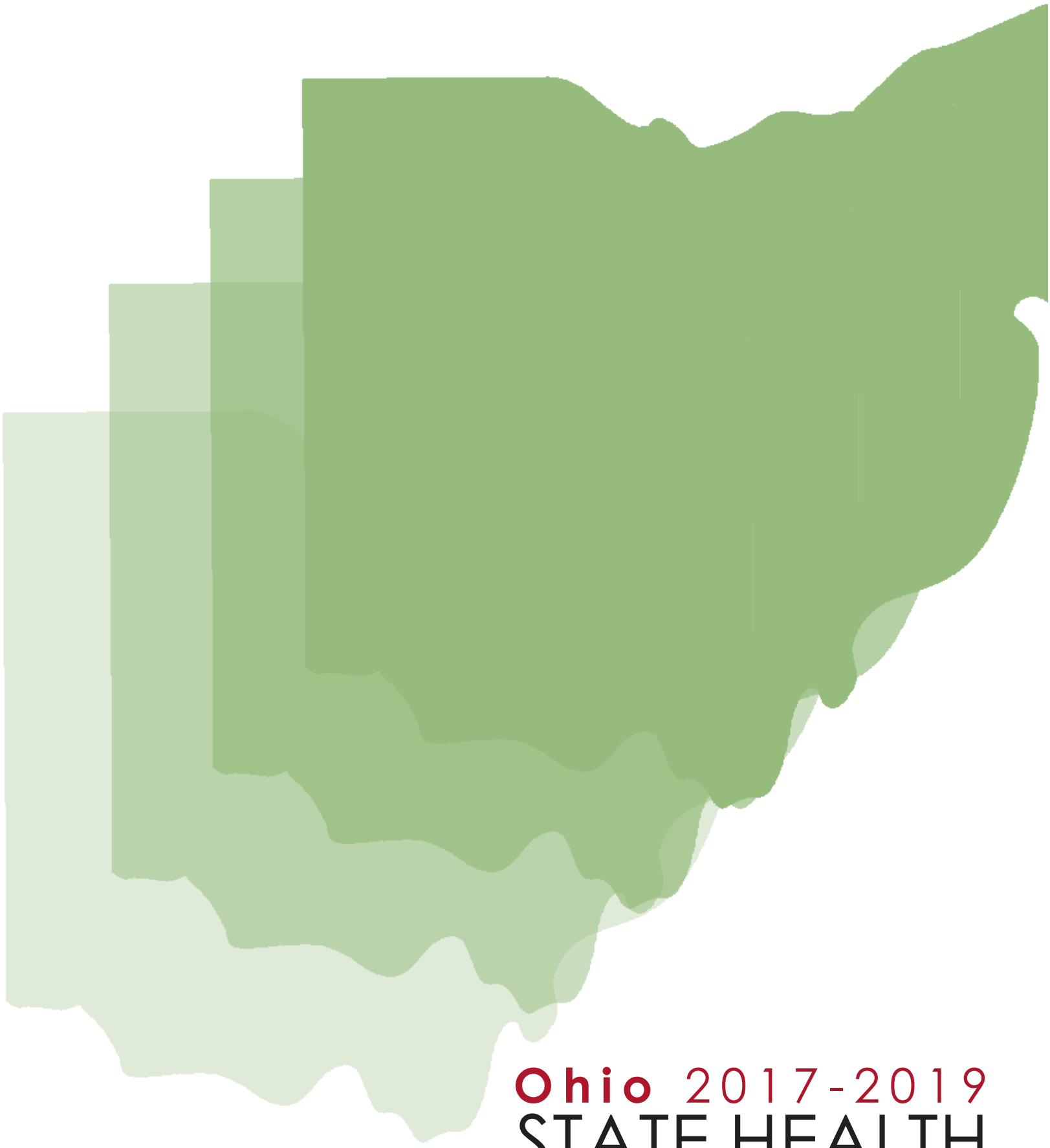

Ohio 2017-2019 STATE HEALTH IMPROVEMENT PLAN

February 2017

Acknowledgments

The Ohio Department of Health contracted with the Health Policy Institute of Ohio (HPIO) to conduct the 2016 state health assessment and prepare the 2017-2019 state health improvement plan. The Governor's Office of Health Transformation also played a key role in convening stakeholder meetings and facilitating coordination with other health-related state agencies.

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A number of state agencies are referenced in this report. Below are a list of acronyms for these agencies:

DODD — Ohio Department of Developmental Disabilities
ODA — Ohio Department of Aging
OFCF — Ohio Family and Children First
OHT — Governor's Office of Health Transformation
ODH — Ohio Department of Health
ODJFS — Ohio Department of Job and Family Services
ODM — Ohio Department of Medicaid
OMHAS — Ohio Department of Mental Health and Addiction Services
ODVS — Ohio Department of Veterans Services

Glossary

Evidence-based strategy — A policy, program or service that has been evaluated and demonstrated to be effective based on the best-available research evidence, rather than personal belief or anecdotal information.

Health disparities — Differences in health status among distinct segments of the population, including differences that occur by gender, race, ethnicity, education, income, disability or living in various geographic localities.

Health equity — Attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and healthcare disparities.

Health inequity — A subset of health disparities that are a result of systemic, avoidable and unjust social and economic policies and practices that create barriers to opportunity.

Indicator — A specific metric or measure used to quantify an outcome, typically expressed as a number, percent or rate. Example: Number of deaths due to suicide per 100,000 population.

Life course perspective — A multidisciplinary approach to understanding the mental, physical and social health of individuals, which incorporates both life span and life stage concepts that determine the health trajectory.

Objective — A statement describing the specific outcome to be achieved. SMART objectives are specific, measurable, achievable, realistic and time-bound. Example: Reduce the number of deaths due to suicide per 100,000 population in Ohio from 13.9 in 2015 to 12.51 in 2019.

Outcome — A desired result. Example: Reduced suicide deaths.

Population health — The distribution of health outcomes across a geographically-defined group that results from the interaction between individual biology and behaviors; the social, familial, cultural, economic and physical environments that support or hinder wellbeing; and the effectiveness of the public health and healthcare systems (as defined by HPIO's Population Health Definition Workgroup and published in the HPIO publication **"What is 'Population Health?'"**)

Prevalence — Prevalence is a measure of how commonly a disease or condition occurs in a population at a particular point in time, typically expressed as a percent of a population or a rate per 1,000 or 100,000 population. This differs from incidence, which is a measure of new cases of a disease or condition.

Priority population — A population subgroup that has worse outcomes than the overall Ohio population and should therefore be prioritized in SHIP strategy implementation. Examples include racial/ethnic, age or income groups; people with disabilities; and residents of Appalachian counties.

Target — A specific number that quantifies the desired outcome. Example: 12.51 suicide deaths per 100,000 population in 2019.

Acronyms

State assessments and plans

SHA — State health assessment
SHIP — State health improvement plan

Hospital assessments and plans

CHNA — Community health needs assessment
IS — Implementation strategy

Local health department (LHD) assessments and plans

CHA — Community health assessment
CHIP — Community health improvement plan

Organizations

HCNO — Hospital Council of Northwest Ohio
HPIO — Health Policy Institute of Ohio
PHAB — Public Health Accreditation Board

Miscellaneous

BRFSS — Behavioral Risk Factor Surveillance System
CHR — County Health Rankings
MHPEA — Mental Health Parity and Addiction Equity Act
NSDUH — National Survey on Drug Use and Health
PCMH — Patient-Centered Medical Home
YRBSS — Youth Risk Behavior Surveillance System

Contents

Companion documents

- **Governor's Office of Health Transformation white papers (2018-2019 budget proposals)**
- **State action plans**
- **Community strategy and indicator toolkits**
  - **Mental health and addiction**
  - **Chronic disease**
  - **Maternal and infant health**
- **Master list of SHIP indicators**

Note: Throughout the publication, hyperlinks in the pdf version are highlighted in **bold, blue text**

1 Purpose and overview

The 2016 **state health assessment (SHA)**, released in August 2016, described the current status of health and wellbeing in Ohio and highlighted the state's many opportunities to improve health outcomes, reduce disparities and control healthcare spending. This 2017-2019 state health improvement plan (SHIP) seizes upon those opportunities by laying out specific steps to achieve measurable improvements on key priorities.

Developed with input from many state and local-level stakeholders, the 2017-2019 SHIP serves as a strategic menu of priorities, objectives and evidence-based strategies to be implemented by:

- State agencies (see state response listed in parts three through six of this plan)
- Local health departments, hospitals and other community partners engaged in community health improvement planning (see community strategy and indicator toolkits)
- Sectors beyond health, including education, housing, employers/ business, regional planning/transportation and criminal justice

A comprehensive framework to improve health and economic vitality

As outlined in Figure 1.1 on page 6, the SHIP takes a comprehensive approach to improving Ohio's greatest health challenges by identifying cross-cutting factors that impact multiple outcomes. Rather than focus only on disease-specific programs, the SHIP highlights powerful underlying drivers of wellbeing, such as student success, housing affordability and tobacco prevention.

This approach is built upon the understanding that access to quality health care is necessary, but not sufficient, for good health. The SHIP is designed to prompt state and local stakeholders to implement strategies that address the social determinants of health and health behaviors, as well as approaches that strengthen connections between the clinical healthcare system, public health, community-based organizations and sectors beyond health.

Vision	**Mission**
Ohio is a model of health and economic vitality.	Improve the health of Ohioans by implementing a strategic set of evidence-based population health activities at the scale needed to measurably improve population health outcomes and achieve health equity.

What makes this SHIP different?

The 2017-2019 SHIP builds upon the **2012-2014 SHIP** and the **2015-2016 SHIP Addendum**, adding several new components:

- Leadership from the Governor's Office of Health Transformation in partnership with the Ohio Department of Health and strong participation from other health-related state agencies
- Comprehensive review of community priorities informed the selection of SHIP priorities
- Specific and measurable outcome objectives for the state and an evaluation plan to monitor progress on an annual basis
- Toolkits that provide a menu of SHIP-aligned outcome indicators and evidence-based strategies for local partners to include in their community-level plans
- Stronger focus on health equity and the social determinants of health

Figure 1.1.

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

Mental health and addiction	Chronic disease	Maternal and infant health
⬇ Depression	⬇ Heart disease	⬇ Preterm births
⬇ Suicide	⬇ Diabetes	⬇ Low birth weight
⬇ Drug dependency/ abuse	⬇ Child asthma	⬇ Infant mortality
⬇ Drug overdose deaths		

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	Strategies to promote:
Social determinants of health	Student success Economic vitality Housing affordability and quality
Public health system, prevention and health behaviors	Tobacco prevention and cessation Active living Healthy eating Violence-free communities Population health infrastructure
Healthcare system and access	Access to quality health care Comprehensive primary care
Equity	Strategies likely to decrease disparities for priority populations

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

Orientation to this plan

The next section of this document describes the key components of the SHIP and the outcomes the SHIP is designed to achieve, including targets to track progress for:

- Overall health outcomes (health status and premature death)
- Outcomes specific to the SHIP's three priority topics (mental health and addiction, chronic disease and maternal and infant health)

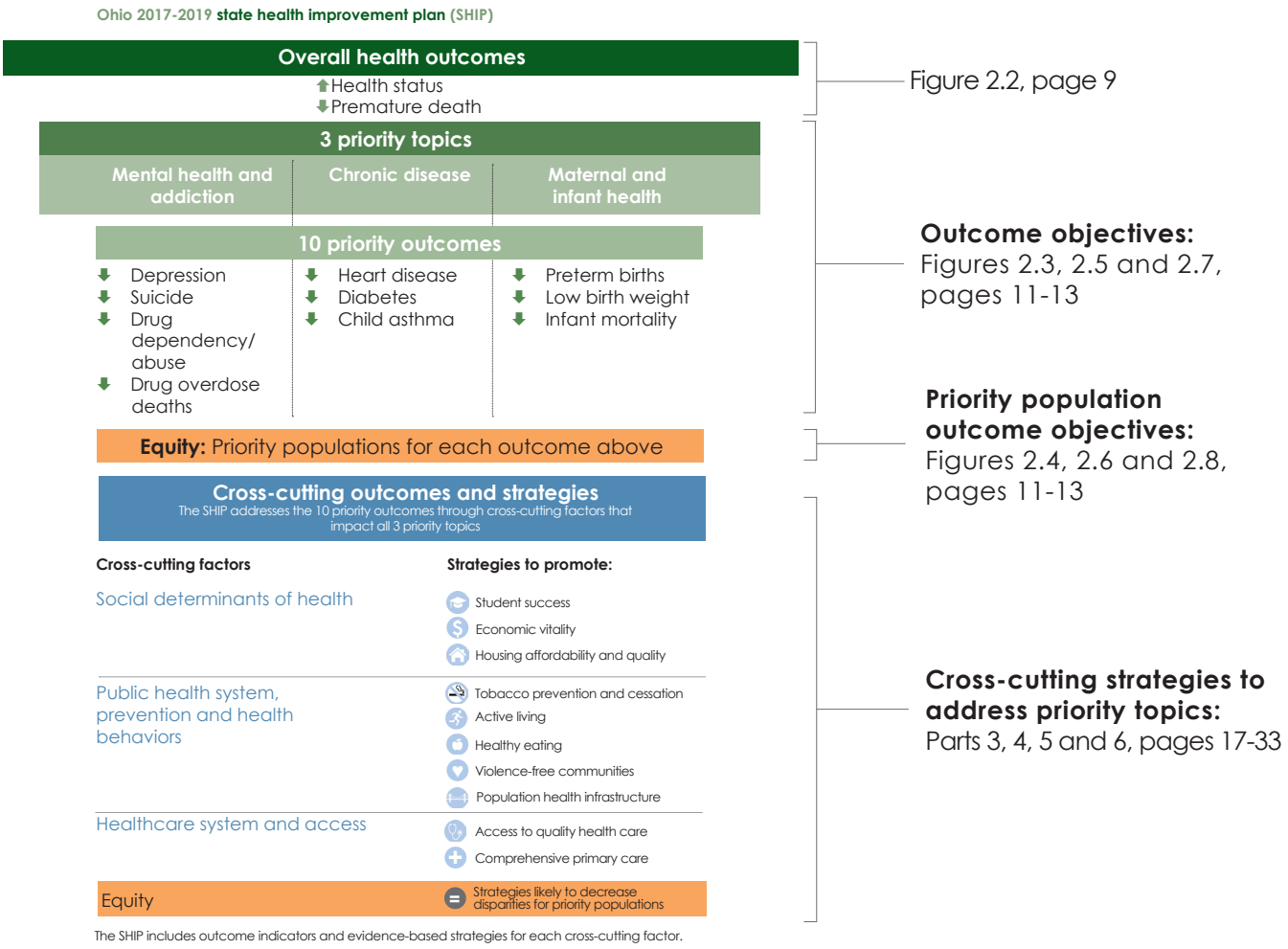
Parts three through six identify a set of evidence-based strategies to deploy at both the state and community levels to drive measurable improvements in the health of Ohioans. Strategies identified in the SHIP focus on the SHIP's priority topics (maternal and infant health, chronic disease and mental health and addiction) and are organized to address each of the cross-cutting factors that can impact these health outcomes (social determinants of health; public health system, prevention and behaviors; healthcare system and access).

Parts seven and eight lay out an evaluation plan for measuring progress on SHIP outcome and process objectives. Background on the SHIP process and alignment with national priorities are included in the appendices.

The following companion documents list more specific information about how SHIP strategies will be implemented and monitored:

- **Governor's Office of Health Transformation white papers (2018-2019 budget proposals)**
- **State action plans**
- **Community strategy and indicator toolkits**
- **Master list of SHIP indicators**

Where to find topics in the 2017-2019 SHIP



2 Priorities and outcome objectives

Overall health outcome objectives

The SHIP includes a strategic set of measurable outcomes that the state will monitor on an annual basis. Given that the overall goal of the SHIP is to improve health and wellbeing, the state will track the following overall health indicators:

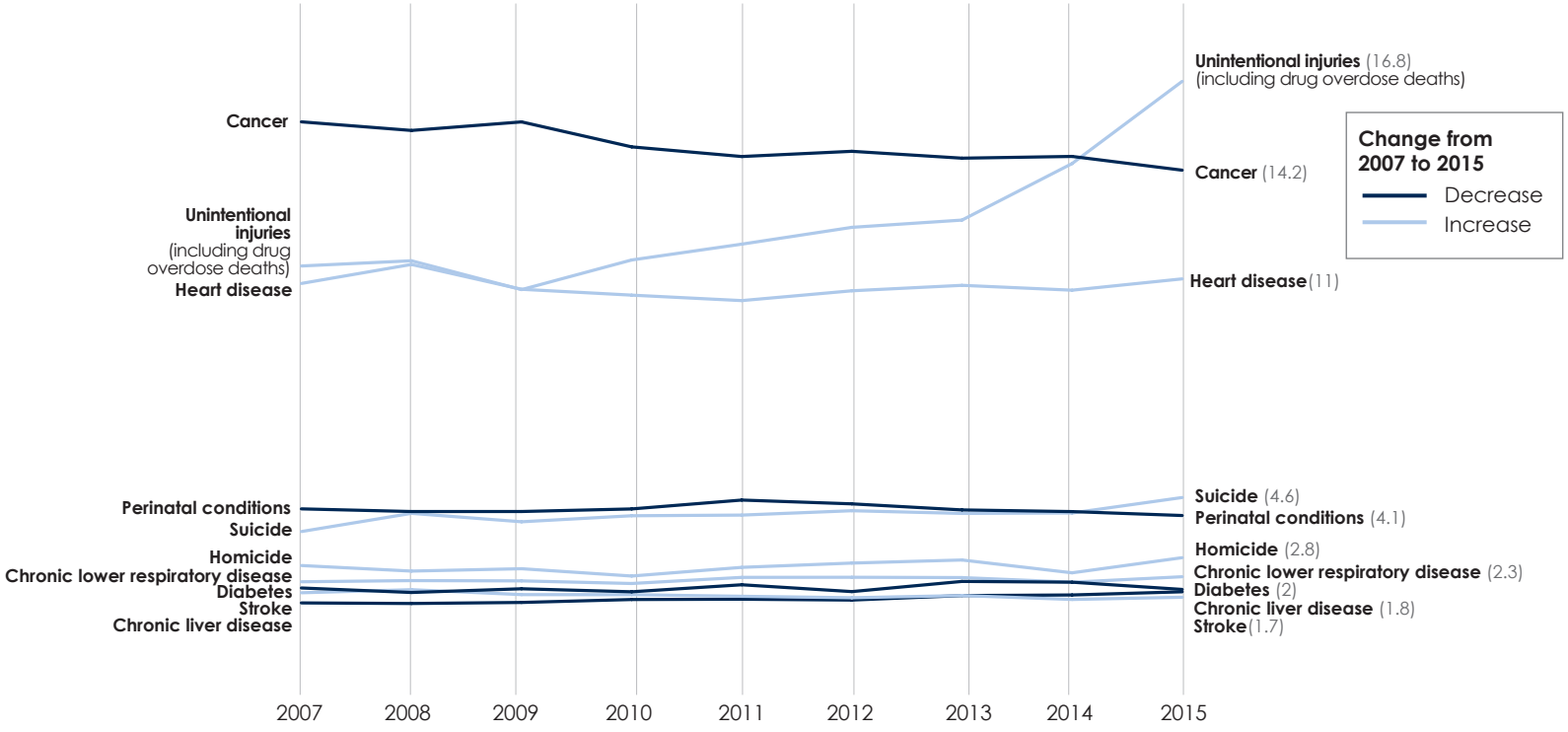
- **Self-reported health status** (reduce the percent of Ohio adults who report fair or poor health)
- **Premature death** (reduce the rate of deaths before age 75)

Self-reported health status is a widely-used measure of health-related quality of life. Low-income Ohioans are more likely than any other group to report fair or poor health.[1] For this reason, the state will monitor this outcome by income level, and the SHIP includes a target for reducing fair/poor health status among low-income Ohioans (see Figure 2.2).

Premature death refers to years of potential life lost before age 75, reflecting the burden of deaths that potentially could have been prevented. When calculating years of potential life lost, every death occurring before age 75 contributes to the total number of years of life lost. For example, a person dying at age 25 contributes 50 years of life lost, whereas a person who dies at age 65 contributes 10 years of life lost.

Ohio's premature death rate due to unintentional injuries began to rise in 2010 and increased sharply in 2014, largely driven by drug overdose deaths (see Figure 2.1).[2] The SHIP objective is to reduce this rate by 2022 (see Figure 2.2).

Figure 2.1. **Ten leading causes of premature death, Ohio, 2007 to 2015**
Years of potential life lost before age 75 per 1,000 population (age-adjusted rates)



Source: Ohio Department of Health, Bureau of Vital Statistics

Figure 2.2. **Overall health outcome objectives**

Desired outcome	Indicator (source)	Baseline (2015)	2019 target	2022 target
Improve overall health status	Percent of adults with fair or poor health (BRFSS)	16.5%	16.2%	15.7%
	Priority population: Percent of low-income* adults with fair or poor health (BRFSS)	38.6%	37.8%	36.7%
Reduce premature death	Years of potential life lost before age 75, per 100,000 population (age-adjusted) (ODH Bureau of Vital Statistics)	7,860	7,860	7,781
	Priority population: Years of potential life lost before age 75 for African Americans, per 100,000 population (age-adjusted) (ODH Bureau of Vital Statistics)	10,970	10,970	10,860

* <$15,000 annual household income
Note: Priority populations (low-income and African American) were selected because they are the groups with the worst outcomes for these indicators based on available data.
Source: Ohio Department of Health

In 2015, the leading causes of premature death were unintentional injuries (including drug overdose deaths), cancer, heart disease, suicide, perinatal conditions (a cause of infant mortality), homicide, chronic lower respiratory disease and diabetes.

African Americans have much higher rates of premature death than any other group.[3] For this reason, the state will monitor this outcome by race and ethnicity and includes a target for reducing the African American premature death rate by 2022 (see Figure 2.2).

Priority topics

In addition to tracking progress on overall health outcomes, the SHIP drives more efficient and effective allocation of resources toward measurable improvements on a manageable number of health outcomes by focusing on three priority topics:

- **Mental health and addiction:** Includes emotional wellbeing, mental illness conditions and substance abuse disorders. Also referred to as "behavioral health."
- **Chronic disease:** Includes conditions such as heart disease, diabetes and asthma, and related clinical risk factors—obesity, hypertension and high cholesterol, as well as behaviors closely associated with these conditions and risk factors—nutrition, physical activity and tobacco use. Cancer and stroke are also chronic diseases but are not directly addressed in the SHIP.
- **Maternal and infant health:** Includes infant and maternal mortality, birth outcomes and related risk and protective factors impacting preconception, pregnancy and infancy, including family and community contexts.

See parts four through six of this plan for more detailed descriptions of each of these priority topics.

The SHA/SHIP Advisory Committee (see Appendix A) identified these priorities based upon the 2016 SHA and other considerations such as priorities from local health department and hospital assessments and plans. See Appendix A for the complete list of prioritization criteria and a description of the prioritization process.

The SHIP's three priority topics are key drivers of premature death, poor health status and unsustainable healthcare spending. SHA findings indicate that mental health, addiction and chronic disease are serious concerns across all areas of the state and in urban, suburban and rural communities. Maternal and infant health is also a widespread concern throughout the state, although it may be a higher priority in urban communities with large racial disparities in infant mortality.

Priority outcome objectives

SHA/SHIP Work Teams (subject matter experts from state agencies and private organizations) identified a small number of desired outcomes within each priority topic on which to focus. These ten priority outcomes are to reduce:

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

The Work Teams selected these 10 outcomes because they:

- Are highly relevant to Ohio's health and economic vitality
- Can be improved within the next three to six years with better deployment of evidence-based strategies
- Align well with other state-led initiatives

The 10 priority outcomes directly and indirectly address key drivers of illness, disability, death, disparities and unsustainable healthcare spending. Although cancer, a leading cause of premature death in Ohio, is not included as a priority outcome, the major risk factors for many types of cancer (tobacco use, physical inactivity, poor nutrition) are addressed in this SHIP. Cancer was not prioritized by the Work Teams because of concerns about complexity (several different types of cancer that require different strategies) and ability to impact incidence rates (some causes are unknown or non-modifiable).

Once the priority outcomes were identified, state agency staff developed more specific outcome *objectives* with baseline data and future targets (see Figures 2.3-2.8). Based upon recent trends, the future targets are aspirational and take into consideration the estimated length of time it will take to see positive change.

The priority outcome objectives are used in the following ways:

- To monitor specific and measurable objectives for each outcome on at least an annual basis
- To encourage local health departments, hospitals and other community partners to select at least two of the priority outcome objectives to improve and track at the county level as part of their community health planning efforts (see community strategy and indicator toolkits)
- To identify priority populations for each outcome objective and set targets to eliminate health disparities (see figures 2.4, 2.6 and 2.8 for targets and parts three through six of the SHIP for strategies likely to reduce disparities)
- To guide strategy selection (strategies were prioritized based upon evidence of positive impact on the priority outcome objectives)

The purpose of this set of priority outcome objectives is to drive more coordinated and strategic action to "move the needle" on measurable, high-priority outcomes that Ohio can improve through more widespread implementation of evidence-based strategies. It is important to note that these priority outcome objectives are not the only health challenges facing Ohio. State and local partners will continue their work to improve other outcomes beyond the scope of the SHIP.

Figure 2.3. **Mental health and addiction outcome objectives**

Desired outcome	Indicator (source)	Baseline (year)	2019 target
Reduce depression	Percent of persons ages 12-17 who experienced a major depressive episode within the past year (NSDUH)	10.33% (2013-14)	8.03% (2018-19)
	Percent of persons ages 18+ who experienced a major depressive episode within the past year (NSDUH)	7.33% (2013-2014)	6.18% (2018-19)
Reduce suicide deaths	Number of deaths due to suicide per 100,000 population (ODH Bureau of Vital Statistics)	13.9 (2015)	12.51
Reduce drug dependence or abuse	Percent of persons age 12+ with past-year illicit drug dependence or abuse (NSDUH)	2.76% (2013-2014)	2.70% (2018-19)
Reduce unintentional drug overdose deaths	Number of deaths due to unintentional drug overdoses per 100,000 population (ODH Bureau of Vital Statistics)	27.7 (2015)	26.9

Source: Ohio Department of Health and Ohio Department of Mental Health and Addiction Services

Figure 2.4. **Mental health and addiction outcome objectives for priority populations***

Indicator (source)	Population group	Baseline (2015)	2019 target
Number of deaths due to suicide per 100,000 population (ODH Bureau of Vital Statistics)	Males aged 10-24	16.0	14.4
	Males aged 25-44	28.4	25.6
	White (non-Hispanic) males aged 45-64	33.9	30.5
	White (non-Hispanic) males aged 65+	32.3	29.1
Number of deaths due to unintentional drug overdoses per 100,000 population (ODH Bureau of Vital Statistics)	White (non-Hispanic) males aged 25-44	86.7	84.1
	White (non-Hispanic) males aged 45-64	43.4	42.1
	White (non-Hispanic) females aged 25-54	39.5	38.3
	Black (non-Hispanic) males aged 25-54	48.6	47.1
	Black (non-Hispanic) males aged 55-64	74.3	72.1

*Priority populations listed here are the groups with the worst outcomes based on available data. Priority population baseline data for depression and drug dependence/abuse are not available due to NSDUH data limitations.
Note: Priority population targets for the NSDUH indicators are not available due to data limitations.
Source: Ohio Department of Health

Figure 2.5. **Chronic disease outcome objectives**

Desired outcome	Indicator (source)	Baseline (year)	2019 target	2022 target
Reduce heart disease	Percent of adults ever diagnosed with coronary heart disease (BRFSS)	4.2% (2015)	N/A (2022 target only)	4.0%
	Percent of adults ever diagnosed with heart attack (BRFSS)	4.9% (2015)	4.7%	4.4%
	Percent of adults ever diagnosed with hypertension (BRFSS)	34.3% (2015)	34.3%	32.6%
Reduce diabetes	Percent of adults who have been told by a health professional that they have diabetes (BRFSS)	11% (2015)	N/A (2022 target only)	10.4%
	Percent of adults who have been told by a health professional that they have pre-diabetes (BRFSS)	7.5% (2015)	7.9%	7.5%
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) (Ohio Hospital Association Clinical-Financial Data Set)	86.9 (2012)	82.5	78.1

Source: Ohio Department of Health

Figure 2.6. **Chronic disease outcome objectives for priority populations***

Indicator (source)	Population group	Baseline (2015)	2022 target
Percent of adults ever diagnosed with hypertension (BRFSS)	Black (non-Hispanic)	40.3%	38.3%
	People with a disability	53.1%	50.5%
	Low educational attainment (< high school diploma)	40.7%	38.7%
	Low-income (<$15,000 annual household income)	35.7%	33.9%
	Older adults (>65 years)	62.2%	59.1%
	Appalachian counties**	39.7%	37.7%
Percent of adults who have been told by a health professional that they have diabetes (BRFSS)	Black (non-Hispanic)	14.1%	13.4%
	People with a disability	21.8%	20.7%
	Low educational attainment (< high school diploma)	13.6%	12.9%
	Low-income (<$15,000 annual household income)	13.7%	13.0%
	Older adults (>65 years)	23.4%	22.2%
	Appalachian counties**	12.3%	11.7%
Indicator (source)	**Population group**	**Baseline (2012)**	**2019 target**
Emergency department visits for pediatric asthma, per 10,000 children, ages 0-17 (Ohio Hospital Association Clinical-Financial Data Set)	African American	245.6	221.04
	Appalachian counties**	78.2	70.38

*Priority populations listed here are the groups with the worst outcomes based on available data.
**See page 124 of 2016 state health assessment for list of Appalachian counties.
Note: These priority population objectives focus on hypertension and diabetes because those conditions are more prevalent than coronary heart disease, heart attack and diagnosed prediabetes.
Data limitation: The hypertension and diabetes baseline data are estimates based on survey results (BRFSS). Confidence intervals vary by population group, meaning that there are limitations for estimating prevalence for smaller sub-groups. It is important to note that the 2022 targets are within the confidence intervals for the 2015 baseline for groups displayed in this figure.
Source: Ohio Department of Health

Figure 2.7. **Maternal and infant health outcome objectives**

Desired outcome	Indicator (source)	Baseline (2015)	2019 target	2022 target
Reduce preterm births	Total preterm: Percent of live births that are preterm: <37 weeks (ODH Bureau of Vital Statistics)	10.3%	10.1%	9.9%
	Very preterm: Percent of live births that are very preterm: <32 weeks (Vital Statistics)	1.7%	1.6%	1.5%
Reduce low birth-weight births	Percent of births in which the newborn weighed <2,500 grams (Vital Statistics)	8.5%	8.3%	8.1%
Reduce infant mortality	Rate of infant deaths per 1,000 live births (Vital Statistics)	7.2	6.8	6.4
	Rate of neonatal infant deaths per 1,000 live births (Vital Statistics)	4.8	4.5	4.3
	Rate of post-neonatal infant deaths per 1,000 live births (Vital Statistics)	2.4	2.2	2

Source: Ohio Department of Health

Figure 2.8. **Maternal and infant health outcome objectives for priority populations***

Indicator (source)	Population group	Baseline (2015)	2019 target	2022 target
Percent of live births that are preterm: <37 weeks (Vital Statistics)	Black (non-Hispanic)	13.93%	12.9%	12%
	Low educational attainment (no high school diploma)	11.5%	11.3%	11.2%
	Less than 18 years old	10.7%	10.1%	9.6%
Percent of births in which the newborn weighed <2,500 grams (Vital Statistics)	Black (non-Hispanic)	14%	13.2%	12.6%
	Low educational attainment (no high school diploma)	10.9%	10.7%	10.5%
	Less than 18 years old	10.2%	9.7%	9.4%
Rate of infant deaths per 1,000 live births (Vital Statistics birth and mortality files)	Black (non-Hispanic)	14.97	13.4	12.6

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

Source: Ohio Department of Health

Cross-cutting factors

The SHA/SHIP conceptual framework (see Appendix A) acknowledges the many factors that shape wellbeing and drive unsustainable healthcare spending. SHIP planners drew upon this framework to ensure that the SHIP includes outcomes and strategies that address the following cross-cutting factors:

- **Health equity:** Attainment of the highest level of health for all people. Achieving health equity requires valuing everyone equally with focused and ongoing societal efforts to address avoidable inequalities, historical and contemporary injustices, and the elimination of health and healthcare disparities.[4]

- **Social determinants of health:** Conditions in the social, economic and physical environments that affect health and quality of life.

- **Public health system, prevention and health behaviors:**
  - The public health system is comprised of government agencies at the federal, state, and local levels, as well as nongovernmental organizations, which are working to promote health and prevent disease and injury within entire communities or population groups.
  - Prevention addresses health problems before they occur, rather than after people have shown signs of disease, injury or disability.
  - Health behaviors are actions that people take to keep themselves healthy (such as eating nutritious food and being physically active) or actions people take that harm their health or the health of others (such as smoking). These behaviors are often influenced by family, community and the broader social, economic and physical environment.

- **Healthcare system and access:** Health care refers to the system that pays for and delivers clinical health care services to meet the needs of patients. Access to health care means having timely use of comprehensive, integrated and appropriate health services to achieve the best health outcomes.

Cross-cutting outcomes

Using the framework shown in Figure 2.9, the SHIP includes specific cross-cutting outcomes for state and local partners. Within the chronic disease priority, for example, the SHIP includes the following cross-cutting outcomes that are related to reducing diabetes prevalence:

Cross-cutting factor	Outcomes (selected examples related to reducing diabetes prevalence)
Social determinants of health	Increase percent of Ohioans who live reasonably close to a location for physical activity, including parks or recreational facilities
Public health system, prevention and health behaviors	• Decrease percent of adults with low consumption of fruits and vegetables • Decrease the percent of adults not meeting physical activity guidelines
Healthcare system and access	• Increase percent of adults with a usual source of health care • Increase percent of at-risk adults who have been screened for prediabetes
Equity	Reduce the prevalence of diabetes among adults with low income

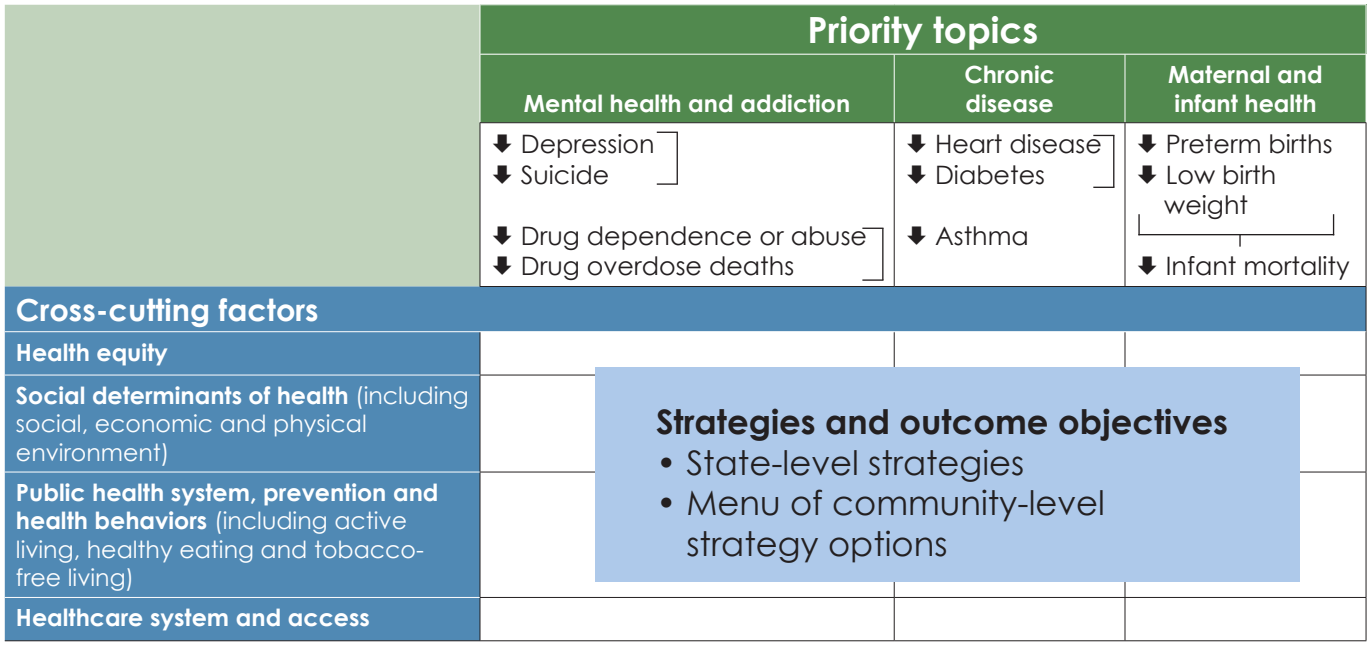
See parts three through six and the **master list of SHIP indicators** for a complete list of the cross-cutting outcomes and indicators.

Health equity

The 2017-2019 SHIP takes a comprehensive approach to decreasing health disparities and inequities, and achieving equity by:

- Including strategies to combat the underlying causes of health inequities by addressing the social determinants of health (education, housing, employment, etc.)
- Highlighting and prioritizing strategies most likely to reduce health disparities
- Identifying priority populations (groups experiencing the worst disparities) for each priority outcome
- Setting objective targets for specific priority populations
- Recommending that strategies be designed to reach priority populations and adapted to fit cultural contexts as needed
- Making recommendations to invest in data infrastructure and linkages that can improve the collection and availability of data across population groups

Figure 2.9. **Framework for identifying outcome objectives and strategies for the SHIP**



Tobacco

Among the cross-cutting outcomes, tobacco use stands out because it negatively affects all of the chronic disease and maternal and infant health outcomes:

- Smoking is a risk factor for diabetes, heart disease, preterm birth and low birth weight.[5]
- Secondhand smoke exposure exacerbates asthma and heart disease, and is a risk factor for infant mortality.[6]

Tobacco use is also highly relevant to the mental health and addiction priority:

- People with behavioral health conditions have disproportionately high rates of tobacco use, a major cause of shorter life expectancy for this population.[7]
- Adolescent exposure to tobacco products increases the likelihood of addiction to nicotine and other substances in adulthood.[8]

For these reasons and in response to the high rates of tobacco use and secondhand smoke exposure in Ohio documented in the 2016 SHA, the SHIP includes tobacco prevention and cessation strategies for all three priorities.

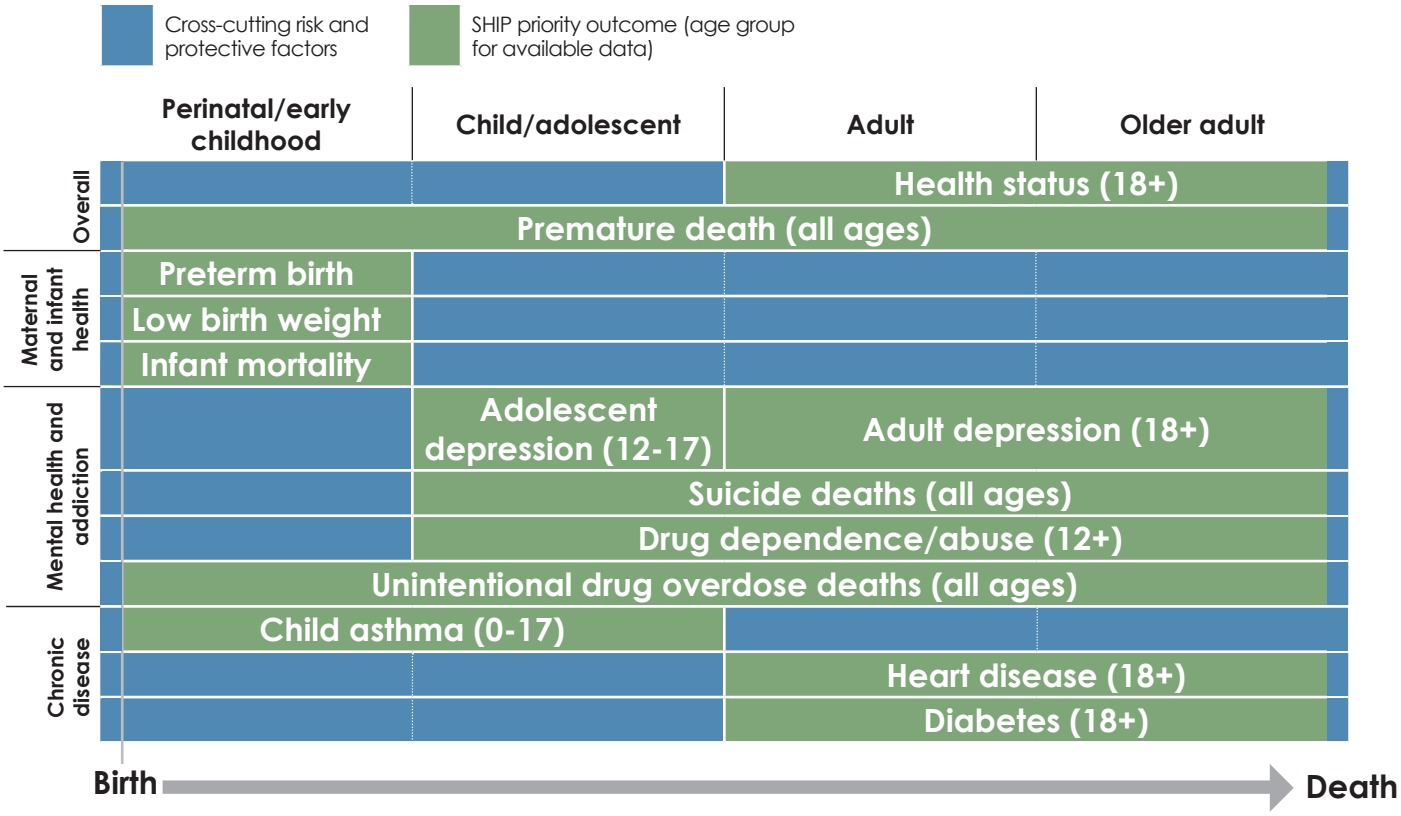
Life-course perspective

The 10 SHIP priority outcomes span the life course; some are specific to children, while others are specific to adults (see Figure 2.10). It is important to note that the adult outcomes related to chronic disease, addiction and depression are often rooted in early childhood experiences, including poverty and trauma (and other adverse childhood experiences), and subsequent development of unhealthy behaviors. Therefore, while it is critical to address serious problems that often emerge in adulthood, such as drug overdose deaths, the wide range of cross-cutting strategies in the SHIP also acknowledges the importance of creating nurturing environments for children in order to prevent serious health problems later in life.

The long time horizon for development of chronic disease, in particular, is a challenge for SHIP planners and implementers. Measurable progress is needed in the short term, although it may take decades to see results of the most effective strategies (such as home visiting, early childhood education and school-based physical activity). The SHIP outcomes and strategies attempt to balance these competing needs.

It is also important to note that some of the SHIP strategies have been proven effective in directly impacting the priority outcomes, while others address relevant risk and protective factors. The SHIP highlights strategies that address risk and protective factors that directly or indirectly affect all three priority topics—such as tobacco use, stable housing and active living—in order to provide a comprehensive set of approaches to achieve multiple long-term outcomes.

Figure 2.10. **SHIP priority outcomes across the life course**



Priorities and outcome objectives notes

1. Data provided by Ohio Department of Health, November 2016.
2. Data provided by Ohio Department of Health, November 2016.
3. 2016 State Health Assessment
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3 Strategies that address all SHIP priorities

Health outcome objectives

As outlined in part 2, the SHIP includes specific and measurable objectives the state will use to assess performance on the following desired outcomes:

- **Improve overall health status and reduce premature death**
- **Reduce depression, suicide deaths, drug dependence or abuse, and unintentional drug overdose deaths**
- **Reduce heart disease, diabetes and child asthma**
- **Reduce preterm births, low birth weight and infant mortality**

This part of the SHIP outlines strategies that can be implemented at the state and community levels to achieve multiple SHIP health outcome objectives. Rather than focusing on single-disease-specific programs or services, these strategies have the potential to move the needle on several of Ohio's greatest health challenges with efficient allocation of resources.

Strategies

Figure 3.1 provides a complete list of strategies that address all three SHIP priority areas. Strategies were selected based upon a review of the best-available research evidence on approaches proven effective in achieving the SHIP's priority outcome objectives and related cross-cutting outcomes, as well as a review of existing state programs and activities. See Appendix B for a full description of the strategy selection process and a list of the systematic reviews and evidence registries consulted.

Community response

Most of the strategies listed in Figure 3.1 can be implemented at the community level and some are already in place in Ohio communities with leadership from local health departments, hospitals and other partners. More widespread reach is needed, however, to move the needle on SHIP outcomes. The **community strategy and indicator toolkits** provide additional information to help community health improvement planners select the strategies that best fit the needs in their county.

State response from the Governor's Office of Health Transformation

The surest way to improve the health of Ohio's population is to improve the overall social and economic environment. Governor John Kasich's first priority throughout his Administration has been to **improve Ohio's economy through job creation**. Every state budget over the past six years has included significant reforms in the state's tax code, regulatory infrastructure, and health and human services to make Ohio the greatest state to live and work. Job creation and incomes are up, and unemployment and poverty are down. Ohio's poverty rate, the economic measure most directly correlated to poor health outcomes, has decreased four years in a row and the actual number of Ohioans in poverty went down 171,385 from 2011 to 2015.

The Kasich Administration has also made significant direct investments to improve population health. In January 2017, Governor Kasich introduced a state fiscal year 2018-2019 budget that continues these investments and aligns state resources to support the priorities identified in the 2017-2019 SHIP. It directs funding toward Ohio's greatest health challenges – maternal and infant health, mental health and addiction, and chronic disease – and also invests in the underlying, cross-cutting drivers of wellbeing. The Governor's budget:

- **Maintains access to Medicaid coverage.** Ohio's most significant recent investment in improving population health occurred in 2013 when Governor Kasich extended Medicaid coverage to very low-income childless adults. As a result, more than 700,000 Ohioans who became eligible for coverage through the expansion now report their health status has improved, it is easier to keep or find work, and it is easier to afford food and rent.

- **Increases access to comprehensive primary care.** In January 2017, Ohio Medicaid and the state's four largest health insurance plans adopted a comprehensive primary care (CPC) payment model to financially reward practices that do more to keep patients well and achieve quality targets. The quality measures are aligned with 2017-2019 SHIP priorities, including maternal and infant health, mental health and addiction, and chronic disease.

All SHIP priorities

- **Reports performance on high-cost episodes of care.** In 2013, Ohio launched a nation-leading episode-based reimbursement model that reduces the incentive to overuse unnecessary services and financially rewards providers that achieve better health outcomes. Currently, Ohio Medicaid is reporting performance on more than 3,000 providers across 13 episodes of care, and design work is on track to add another 34 episodes in 2017. Many of these episodes directly relate to SHIP priorities, including maternal and infant health, mental health and addiction, and chronic disease.

- **Strengthens public health infrastructure.** The capacity of Ohio's public health infrastructure varies dramatically across the state. Every local health jurisdiction is required to be accredited by 2020, a process that is causing some to realize they will need to partner or merge with other jurisdictions to ensure every resident they serve has access to accredited public health services. The Governor's budget supports this process, doubling the state subsidy for accredited local health districts, and providing other financial and technical support to assist with accreditation.

- **Improves academic achievement through better student health.** Better health increases the likelihood of student success, and more education correlates to better health. The budget supports partnerships between school districts and primary care providers that improve student health as a strategy to improve academic achievement. In addition, the budget creates an incentive to support school district/primary care partnerships by linking Medicaid health plan performance payments to achieving improved academic performance among their enrollees in low performing schools.

- **Reduces tobacco use.** Tobacco use is the single most preventable cause of death and disease. Decreasing the prevalence of smoking is critical to preventing and reducing infant mortality and the burden of chronic disease in Ohio. The Governor's budget increases the cigarette tax 65 cents from $1.60 to $2.25 per pack. It also increases the tax rate on other tobacco products (OTP) from 17 percent to 69 percent of the wholesale price, equivalent to the new $2.25 per pack tax.

Figure 3.1. **Strategies[1] to address all SHIP priority outcomes**

(=) Likely to reduce disparities[2]

Social determinants of health strategies
School-based health
School-based health centers (=)
Early childhood supports
Early childhood education (=) (including center-based early childhood education (=), preschool education programs (=) and universal pre-kindergarten (=))
Child care subsidies (=)
Early childhood home visiting programs (=) (including early childhood home visitation to prevent child maltreatment (=) and specific evidence-based home visiting models supported by the Ohio Department of Health (=))
Affordable, quality housing
State housing subsidy/voucher (operating or rental) (=)
Low-income housing tax credits (=)
Home improvement loans and grants (see also: housing rehabilitation loan and grant programs (=))
Service-enriched housing (=)
Employment and income
Earned income tax credits (=) (including outreach to increase uptake, remove cap and/or make credit refundable)
Employment programs, such as vocational training for adults (=) and transitional jobs (=)
Local/regional built environment changes to support active living and social connectedness
Community-scale urban design land use policies/Streetscape design (Complete Streets)
Bike and pedestrian master plans
Green spaces and parks (=)
Public building siting considerations (such as location of school buildings)
Smoke-free environments
Smoke-free policies (including maintenance of smoke-free workplace law and increased policy adoption for multi-unit housing, schools and other settings) (See also: smoke-free policies for indoor areas, smoke-free policies for outdoor areas and smoke-free policies for multi-unit housing (=))
Public health system, prevention and health behaviors strategies
School-based prevention programs and policies
Universal prevention programs linked to school-based health centers (=) (See Figures 4.1, 4.2, 5.1, 5.2 and 6.1 for topic-specific prevention programs)
Community-based active living and healthy eating support
Community healthy food access: Community gardens; Healthy food initiatives in food banks (=); Farmers' markets/stands; Healthy food in convenience stores (=); Competitive pricing—fruit and vegetable incentive programs; WIC and senior farmers' market nutrition programs (=); SNAP infrastructure at farmers' markets/ EBT payment at farmers' markets (=)
Community physical activity programs: Shared use (joint use agreements) (=); Activity programs for older adults; Community fitness programs; Individually-adapted health behavior change programs; Social support interventions in community settings; Community-wide physical activity campaigns

Figure 3.1. **Strategies to address <u>all SHIP priority outcomes</u>** (cont.)

Tobacco prevention and cessation
Increasing the price of tobacco products (cigarette and/or other tobacco products tax =) (see also: **Tobacco pricing**)
Policies to decrease availability of tobacco products (see also: **Tobacco access restrictions for minors** and **Minimum tobacco age laws**)
Mass-reach communications
Links to cessation support (see Healthcare system and access)
Healthcare system and access strategies
Medicaid modernization and access to coverage
Maintain current Medicaid extension eligibility levels
Health insurance enrollment and outreach =
Paying for value
Improve access to comprehensive primary care (**Patient Centered Medical Homes**) =
Other Governor's Office of Health Transformation initiatives, such as episode-based payments, managed care and quality measurement (see payer leverage matrix in Appendix C)
Care coordination
Community health workers = (including workers in community-based settings to address social determinants of health)
Pathways Community HUB model (including community-based settings to address social determinants of health)
Standardized screening and evidence-based treatment services
See Figures 4.1, 4.2, 5.1, 5.2 and 6.1 for topic-specific screening and evidence-based treatment services
Healthcare workforce to increase access to services
Higher education financial incentives for health professionals serving underserved areas = (such as tuition reimbursement and loan repayment programs)
Cultural competence training for healthcare professionals =
Health career recruitment for minority students = (can also include rural/Appalachian regions of the state and other underrepresented population groups)
Infrastructure to collect accurate data about access, outcomes and disparities
Complete the Health Professionals Data Warehouse using the minimum dataset (project coordinated by GRC, with DAS and state licensure boards)
Integrate public health data and healthcare system clinical data (e.g. link Vital Statistics data with other data systems)
Tobacco cessation
Expand access to evidence-based tobacco cessation treatments including individual, group and phone counseling (including Quitline =) and cessation medications
Remove barriers that impede access to covered cessation treatments, such as cost sharing and prior authorization
Promote increased utilization of covered treatment benefits by tobacco users

1. The strategies listed in this table were prioritized by Work Team and Advisory Committee members after a careful review of available research (see Appendix A for a description of the strategy selection process). Most of the strategies listed are evidence based; they were reviewed and found to be effective by the evidence registries and systematic review sources listed in Appendix B. The **links in the table** connect to external sources that provide a brief description of the strategy, and in most cases, an evidence review from one of the sources listed in Appendix B. Some types of strategies, such as infrastructure and systems changes, have not been reviewed by the sources listed in Appendix B, but were included based upon the subject matter expertise of Work Team members.
2. Programs and policies likely to reduce disparities based on review by What Works for Health and the Community Guide (as of September 2016).

Cross-cutting outcomes

In addition to tracking progress on the 10 SHIP priority outcome objectives, the state will evaluate the impact of strategies implemented by also measuring progress on a set of cross-cutting outcome objectives. Examples of cross-cutting outcomes are listed below. See the **master list of SHIP indicators** for the complete list of the SHIP cross-cutting outcome indicators and the **community toolkits** for a recommended set of aligned community indicators to track progress related to each SHIP strategy.

Social determinants of health: Examples of cross-cutting outcomes that address all SHIP priorities

- Improve third grade reading proficiency
- Reduce chronic absenteeism in school
- Reduce high housing cost burden
- Reduce secondhand smoke exposure for children

Prevention, public health system and health behaviors: Examples of cross-cutting outcomes that address all SHIP priorities

- Increase adult vegetable consumption
- Reduce adult physical inactivity
- Reduce adult smoking
- Reduce youth all-tobacco use

Healthcare system and access: Examples of cross-cutting outcomes that address all SHIP priorities

- Reduce percent of adults who are uninsured
- Reduce percent of adults unable to see a doctor due to cost
- Reduce primary care health professional shortage areas

Specific, measurable objectives for selected cross-cutting outcomes will be included in the **state action plans**.

4 Strategies that address mental health and addiction

Overall goal: Promote mental wellbeing and prevent alcohol and other drug dependence and abuse for all Ohioans.

Definition

Mental health and addiction, also referred to as "behavioral health," includes:

- Emotional well-being
- Mental illness conditions, such as depression, anxiety, post-traumatic stress disorder, bipolar disorder, schizophrenia, etc.
- Mental, emotional and behavioral disorders in children (including attention deficit hyperactivity disorder, conduct disorder, depression, etc.)
- Substance use disorders (including use/abuse of alcohol, marijuana, opioids [prescription drug misuse, heroin, fentanyl, etc.], cocaine, methamphetamine, etc.)

Priority outcome objectives

As outlined in part 2, the SHIP includes specific and measurable objectives the state will use to assess performance on the following desired outcomes:

- **Reduce depression**
- **Reduce suicide deaths**
- **Reduce drug dependence or abuse**
- **Reduce unintentional drug overdose deaths**

Strategies

Figure 4.1 lists strategies found to reduce depression and suicide, and Figure 4.2 lists strategies found to reduce drug dependence/abuse and overdose deaths. Strategies were selected based upon a review of the best-available research evidence on approaches proven effective in achieving the SHIP priority outcome objectives and related cross-cutting outcomes, as well as a review of existing state programs and activities. See Appendix B for a full description of the strategy selection process and a list of the systematic reviews and evidence registries consulted.

Community response

Most of the strategies listed in figures 4.1 and 4.2 can be implemented at the community level and some are already in place in Ohio communities with leadership from local health departments, hospitals and other partners. More widespread reach is needed, however, to move the needle on SHIP outcomes. The **community strategy and indicator toolkits** provide additional information to help community health improvement planners select the strategies that best fit the needs in their county.

State response from the Governor's Office of Health Transformation

Over the past six years, Governor Kasich initiated comprehensive reforms to expand access to mental health and addiction treatment services in Ohio. The goal is to integrate physical and behavioral health care services to support recovery for individuals with substance use disorder or mental illness. These activities have put Ohio in a stronger position to:

- **Reduce depression and suicide.** The Governor's budget makes significant additional investments in the community behavioral health system. It sustains the recent Medicaid expansion, which increased access treatment services for mental health and substance use disorders by 80 percent from 2012 to 2017. The budget supports modernizing the Medicaid behavioral health benefit and integrating physical and behavioral health care services. It also invests in prevention services and non-Medicaid supports that help a person sustain recovery, such as housing, employment and peer services.

- **Reduce drug abuse and overdose deaths.** The Governor's budget invests nearly $1 billion each year to strengthen Ohio's fight against drug abuse and provide additional tools to those on the frontlines fighting addiction. As a result of this unprecedented investment – more than any other state – Ohio communities have access to significant resources to help them reduce drug abuse and overdose deaths.

Figure 4.1. **Strategies[1] to reduce depression and suicide**

(=) Likely to reduce disparities[2]

Social determinants of health strategies
School-based health (see Figure 3.1)
Early childhood supports (see Figure 3.1)
Affordable, quality housing (see Figure 3.1 and topic-specific strategy below)
Service-enriched housing (=) for people with behavioral health conditions
Employment and income (see Figure 3.1)
Local/regional built environment changes to support active living and social connectedness (see Figure 3.1)
Smoke-free environments (see Figure 3.1)
Public health system, prevention and health behaviors strategies
School-based prevention programs and policies (see Figure 3.1 and topic-specific strategies below)
School-based health centers (=) with behavioral health services and **Multi-tiered Systems of Support (MTSS)** that include universal prevention programs to promote mental wellbeing (listed below)
Positive Behavioral Interventions and Supports (PBIS Tier 1) (=)
School-based social and emotional instruction
School-based violence prevention programs
Specific suicide prevention strategies
Universal school-based suicide awareness and education programs, such as **SOS Signs of Suicide Middle School and High School Prevention Programs**
Suicide crisis hotlines and **cell phone-based support programs** (including text "4hope")
Additional strategies from Ohio's 2016-17 Suicide Prevention Plan(OMHAS), such as: **Local suicide prevention coalitions to support implementation of evidence-based strategies (Ohio Suicide Prevention Foundation)**, Campaigns to increase awareness of suicide warning signs and **Higher-education-based suicide prevention programs**
Community-based active living and healthy eating support (see Figure 3.1 and topic-specific strategy below)
Strategies to increase social connectedness (addressed by active living and healthy eating strategies, such as built environment changes, community gardens, fitness programs and walking school buses; See Figure 3.1)
Tobacco prevention and cessation (see Figure 3.1 and topic-specific strategy below)
Links to cessation support, including focus on helping people with behavioral health conditions to quit (see Healthcare system and access)

Figure 4.1. **Strategies to reduce depression and suicide** (cont.)

Healthcare system and access strategies
Medicaid modernization and access to coverage (see Figure 3.1 and topic-specific strategy below)
Monitor implementation of behavioral health parity legislation (While federal law, MHPAEA, mandated parity, consumer awareness of the law and question/complaint processes should be strengthened)
Paying for value (see Figure 3.1 and topic-specific strategies below)
Redesign Medicaid behavioral health services and increase access to specialty behavioral health services
Include process and/or outcome measures related to depression/suicide in managed care contracts
Care coordination (see Figure 3.1 and topic-specific strategy below)
Behavioral health primary care integration, including incentives to "maturing" and "transformed" comprehensive primary care (CPC) practices to integrate primary care and behavioral health services
Standardized screening and evidence-based treatment services
Screening for clinical depression for all patients 12 or older using a standardized tool and, if screened positive, provision of or referral to appropriate follow-up care
Screening for suicide for patients 12 or older using a standardized tool (such as C-SSRS) when indicated and, if screened positive, provision of, or referral to, appropriate follow-up care
Integrate information about depression and suicide screening and treatment in primary care curriculum
Provider education to primary care and behavioral health providers regarding depression/suicide screening tools and **evidence-based treatments** for depression (such as cognitive behavioral therapy), especially focusing on providers of services to those most at risk
Zero Suicide Academies™ that train primary care and behavioral health providers on risk assessment, care management and evidence-based care
Onsite provision of **evidence-based treatment** in PCMH and/or specialty behavioral health settings using a model such as COMPASS (Care Of Mental, Physical And Substance-use Syndromes)
Trauma-informed health care
Healthcare workforce to increase access to services (see Figure 3.1 and topic-specific strategies below)
Higher education financial incentives for health professionals serving underserved areas, including tuition reimbursement or loan forgiveness programs for behavioral health professions (i.e. social work, counseling, psychology, psychiatry) and loan forgiveness
Behavioral health workforce pipeline programs
Health career recruitment for minority students (can also include rural/Appalachian regions of the state and other underrepresented population groups), including focus on behavioral health professions
Cultural competence training for healthcare professionals, with a focus on behavioral health professions
Infrastructure to collect accurate data about access, outcomes and disparities (see Figure 3.1)
Tobacco cessation (see Figure 3.1 and topic-specific strategies below)
Intensive tobacco cessation services for people with behavioral health conditions (see recommendations from 2015 OMHAS Tobacco Summit), including **Tobacco cessation** by behavioral health providers

1. The strategies listed in this table were prioritized by Work Team and Advisory Committee members after a careful review of available research (see Appendix A for a description of the strategy selection process). Most of the strategies listed are evidence based; they were reviewed and found to be effective by the evidence registries and systematic review sources listed in Appendix B. The **links in the table** connect to external sources that provide a brief description of the strategy, and in most cases, an evidence review from one of the sources listed in Appendix B. Some types of strategies, such as infrastructure and systems changes, have not been reviewed by the sources listed in Appendix B, but were included based upon the subject matter expertise of Work Team members.
2. Programs and policies likely to reduce disparities based on review by What Works for Health and the Community Guide (as of September 2016).

Figure 4.2. **Strategies[1] to reduce drug dependence/abuse and overdose deaths**

(=) Likely to reduce disparities[2]

Social determinants of health
School-based health (see Figure 3.1)
Early childhood supports (see Figure 3.1)
Affordable, quality housing (see Figure 3.1 and topic-specific strategy below)
Service-enriched housing (=) for people with behavioral health conditions
Employment and income (see Figure 3.1)
Local/regional built environment changes to support active living and social connectedness (see Figure 3.1)
Smoke-free environments (see Figure 3.1)
Public health system, prevention and health behaviors
School-based health prevention programs and policies (see Figure 3.1 and topic-specific strategies below)
School-based health centers (=) with behavioral health services and **Multi-tiered Systems of Support (MTSS)** that include universal prevention programs to promote mental wellbeing and addiction prevention (listed below)
Positive Behavioral Interventions and Supports (PBIS Tier 1) (=)
School-based social and emotional instruction
School-based violence prevention programs
School-based alcohol/other drug prevention programs including **youth-led prevention** and specific universal prevention curricula or programs reviewed and found to be effective by credible sources such as the **National Registry of Evidence-Based Programs and Practices**, **Office of Juvenile Justice and Delinquency Prevention Model Programs Guide**, **Washington State Institute for Public Policy**, or the **U.S. Surgeon General** (**evidence-based addiction prevention programs and policies**)
Community-based active living and healthy eating support (see Figure 3.1 and topic-specific strategy below)
Strategies to increase social connectedness (addressed by active living and healthy eating strategies, such as built environment changes, community gardens, fitness programs and walking school busses; See Figure 3.1)
Tobacco prevention and cessation (see Figure 3.1)
Links to cessation support, including focus on helping people with behavioral health conditions to quit (see Healthcare system and access)
Healthcare system and access
Medicaid modernization and access to coverage (see Figure 3.1 and topic-specific strategy below)
Monitor implementation of behavioral health parity legislation (=) (While federal law, MHPAEA, mandated parity, consumer awareness of the law and question/complaint processes should be strengthened)
Paying for value (see Figure 3.1 and topic-specific strategies below)
Redesign Medicaid behavioral health services and increase access to specialty behavioral health services
Include process and/or outcome measures related to drug dependence/abuse in managed care contracts
Care coordination (see Figure 3.1 and topic-specific strategy below)
Behavioral health primary care integration (=), including incentives to "maturing" and "transformed" comprehensive primary care (CPC) practices to integrate primary care and behavioral health services

Figure 4.2. **Drug dependence/abuse and overdose deaths** (cont.)

Standardized screening and evidence-based treatment services
Screening, brief intervention and referral to treatment (See also: **Alcohol screening and brief intervention**)
Integrate information about drug use and dependence screening and treatment in primary care curriculum
Increased use of **Medication-Assisted Treatment (MAT)** and continuing education for primary care and substance use disorder providers regarding drug use/dependence screening tools, MAT and other **evidence-based treatments** for drug dependence
Onsite provision of **evidence-based treatment** in PCMH and/or specialty behavioral health settings using a model such as COMPASS (Care Of Mental, Physical And Substance-use Syndromes)
Trauma-informed health care
Specific drug overdose strategies
Naloxone access, including training on identification of overdose and use of Naloxone to all appropriately licensed first responders and community providers, including libraries, transit, emergency shelter and food providers, etc.
Provider training on opioid prescribing guidelines and use of **OARRS (Prescription Drug Monitoring Programs)**
Healthcare workforce to increase access to services (see Figure 3.1 and topic-specific strategies below)
Higher education financial incentives for health professionals serving underserved areas =, including tuition reimbursement or loan forgiveness programs for behavioral health professions (i.e. social work, counseling, psychology, psychiatry) and loan forgiveness
Behavioral health workforce pipeline programs
Health career recruitment for minority students = (can also include rural/Appalachian regions of the state and other underrepresented population groups), including focus on behavioral health professions
Cultural competence training for healthcare professionals, with a focus on behavioral health professions =
Infrastructure to collect accurate data about access, outcomes and disparities (see Figure 3.1)
Tobacco cessation services (see Figure 3.1 and topic-specific strategies below)
Intensive **tobacco cessation** services for people with behavioral health conditions (see recommendations from 2015 OMHAS Tobacco Summit), including **Tobacco cessation** by behavioral health providers

1. The strategies listed in this table were prioritized by Work Team and Advisory Committee members after a careful review of available research (see Appendix A for a description of the strategy selection process). Most of the strategies listed are evidence based; they were reviewed and found to be effective by the evidence registries and systematic review sources listed in Appendix B. The **links in the table** connect to external sources that provide a brief description of the strategy, and in most cases, an evidence review from one of the sources listed in Appendix B. Some types of strategies, such as infrastructure and systems changes, have not been reviewed by the sources listed in Appendix B, but were included based upon the subject matter expertise of Work Team members.
2. Programs and policies likely to reduce disparities based on review by What Works for Health and the Community Guide (as of September 2016).

Cross-cutting outcomes

In addition to tracking progress on the four mental health and addiction priority outcome objectives listed in Figures 4.1 and 4.2, the state will evaluate the impact of strategies by also measuring progress on a set of cross-cutting outcome objectives. Examples of cross-cutting outcomes are listed below. See the **master list of SHIP indicators** for the complete list of the SHIP cross-cutting outcome indicators and the **community toolkits** for a recommended set of aligned community indicators to track progress related to each SHIP strategy.

Social determinants of health: Examples of cross-cutting outcomes that address mental health and addiction

- Reduce child abuse and neglect
- Reduce severe housing problems
- Increase social capital and cohesion

Prevention, public health system and health behaviors: Examples of cross-cutting outcomes that address mental health and addiction

- Reduce bullying at school
- Reduce physical dating violence
- Reduce youth marijuana use
- Reduce adult suicide ideation

Healthcare system and access: Examples of cross-cutting outcomes that address mental health and addiction

- Reduce unmet need for mental health treatment
- Reduce unmet need for illicit drug use treatment
- Increase naloxone pharmacy distribution sites

Specific, measurable objectives for selected cross-cutting outcomes will be included in the **state action plans**.

5 Strategies that address chronic disease

Overall goal: Prevent and reduce the burden of chronic disease for all Ohioans.

Definition

Chronic disease includes heart disease, stroke, diabetes, cancer, chronic obstructive pulmonary disease/chronic lower respiratory disease, asthma, and arthritis. It also includes related clinical risk factors (obesity, hypertension and high cholesterol), as well as behaviors closely associated with these conditions and risk factors (nutrition, physical activity and tobacco use).

Priority outcome objectives

As outlined in part 2, the SHIP includes specific and measurable objectives the state will use to assess performance on the following desired outcomes:

- **Reduce heart disease**
- **Reduce diabetes**
- **Reduce child asthma**

Strategies

Figure 5.1 lists strategies found to reduce diabetes and heart disease prevalence, and Figure 5.2 lists strategies found to reduce asthma morbidity for children. These strategies were selected based upon a review of the best-available research evidence on approaches proven effective in achieving the SHIP priority outcome objectives and related cross-cutting outcomes, as well as a review of existing state programs and activities. See Appendix B for a full description of the strategy selection process and a list of the systematic reviews and evidence registries consulted.

Community response

Most of the strategies listed in Figures 5.1 and 5.2 can be implemented at the community level, and some are already in place in Ohio communities with leadership from local health departments, hospitals and other partners. More widespread reach is needed, however, to move the needle on SHIP outcomes. The **local strategy and indicator toolkits** provide additional information to help community health improvement planners select the strategies that best fit the needs in their county.

State response from the Governor's Office of Health Transformation

Over the past six years, Governor Kasich initiated comprehensive reforms to reduce the burden of chronic disease. These reforms include better forms of care coordination to avoid chronic disease when possible and, when chronic disease does occur, managing it in the most effective setting possible, including options for Ohioans to stay in their own home instead of a nursing facility. Building on these reforms, the Governor's budget:

- **Prioritizes home and community based services.** The Executive Budget invests an additional $183 million over two years in home and community based services that enable Ohioans who need long term services and support to remain in their own home or another community-based setting instead of a nursing facility.

- **Extends the benefits of care coordination to manage chronic disease.** Ohio's Medicaid managed care program is recognized as one of the best in the nation. Ironically, the Medicaid enrollees with the most complex, chronic needs and who could benefit most from care coordination are excluded from managed care. The Governor's budget requires Ohio Medicaid to enroll these remaining populations in managed care.

- **Reports performance on high-cost episodes of care.** In 2013, OHT designed a nation-leading episode-based reimbursement model that reduces the incentive to overuse unnecessary services and financially rewards providers that achieve better health outcomes. Currently, Ohio Medicaid is reporting performance on more than 3,000 providers across 13 episodes of care, and design work is on track to add another 34 episodes in 2017. Many of these episodes directly relate to SHIP priorities for chronic disease, including heart disease, diabetes, and childhood asthma.

Figure 5.1. **Strategies[1] to reduce diabetes and heart disease prevalence**

(=) Likely to reduce disparities[2]

Social determinants of health strategies
School-based health (see Figure 3.1)
Early childhood supports (see Figure 3.1)
Affordable, quality housing (see Figure 3.1)
Employment and income (see Figure 3.1)
Local/regional built environment changes to support active living and social connectedness (see Figure 3.1)
Smoke-free environments (see Figure 3.1)
Public health system, prevention and health behaviors strategies
School-based prevention programs (see Figure 3.1 and topic-specific strategies below)
School-based physical activity programs and policies, including **Safe Routes to School**, **active recess** and policy adoption for minimum amounts of recess, **physically active classrooms**, **school-based physical education**, **enhanced school-based physical education** and **extracurricular activities for physical activity**
School-based nutrition programs and policies: **School breakfast programs** (=), **competitive pricing for healthy food**, **school-based nutrition education programs**, **school fruit and vegetable gardens** and **farm-to-school programs**
Nutrition and physical activity interventions in preschool/childcare
Community-based active living and healthy eating support (see Figure 3.1 and topic-specific strategy below)
Diabetes Prevention Program (DPP)
Tobacco prevention and cessation (see Figure 3.1)
Healthcare system and access strategies
Medicaid modernization and access to coverage (see Figure 3.1)
Paying for value (see Figure 3.1)
Care coordination (see Figure 3.1)
Standardized screening and evidence-based treatment services
Prediabetes screening and referral (see also **USPSTF recommendation)**
Provider training and education to raise awareness of prediabetes screening, identification and referral through dissemination of the **Prediabetes Risk Assessment** and **Prevent Diabetes STAT Toolkit**
Hypertension screening and follow up, including electronic health record utilization to identify undiagnosed hypertension
Provider training and education to raise awareness among providers of **hypertension screening and management**
Improved access and adherence to antihypertensive medications, including Medication Therapy Management by pharmacists
Team-based approach to controlling hypertension (may include Community Health Workers (=)**)**
Referral and follow up to increase patient use of community-based nutrition and physical activity resources: **Prescriptions for physical activity**; **Nutrition prescriptions**; **Food insecurity screening and referral**
Healthcare workforce to increase access to services (see Figure 3.1)
Infrastructure to collect accurate data about access, outcomes and disparities (see Figure 3.1)
Tobacco cessation services (see Figure 3.1)

1. The strategies listed in this table were prioritized by Work Team and Advisory Committee members after a careful review of available research (see Appendix A for a description of the strategy selection process). Most of the strategies listed are evidence based; they were reviewed and found to be effective by the evidence registries and systematic review sources listed in Appendix B. The **links in the table** connect to external sources that provide a brief description of the strategy, and in most cases, an evidence review from one of the sources listed in Appendix B. Some types of strategies, such as infrastructure and systems changes, have not been reviewed by the sources listed in Appendix B, but were included based upon the subject matter expertise of Work Team members.
2. Programs and policies likely to reduce disparities based on review by What Works for Health and the Community Guide (as of September 2016).

Figure 5.2. **Strategies[1] to reduce asthma morbidity for children**

(=) Likely to reduce disparities[2]

Social determinants of health strategies
School-based health (see Figure 3.1 and topic-specific strategy below)
Removal of asthma triggers in school buildings
Early childhood supports (see Figure 3.1 and topic-specific strategy below)
Healthy home environment assessments (=) for asthma triggers (as part of **Early childhood home visiting** (=))
Affordable, quality housing (see Figure 3.1 and topic-specific strategies below)
Removal of asthma triggers (as part of **Home improvement loans**)
Additional local strategies to reduce asthma triggers in rental housing (such as advocacy, legal aid, rental registry, etc.)
Service-enriched housing (=) focusing on tobacco cessation and smoke-free policies
Employment and income (see Figure 3.1)
Local/regional built environment changes to support active living and social connectedness (see Figure 3.1)
Smoke-free environments (see Figure 3.1)
Public health system, prevention and health behaviors strategies
School-based prevention programs and policies (see Figure 3.1 and topic-specific strategies below)
Evidence-based asthma management services (including screening, education and medication administration) (linked to School-based health centers) (=)
Home visits to improve self-management education and reduce home asthma triggers (linked to School-based health centers) (=)
Tobacco prevention and cessation (see Figure 3.1 and topic-specific strategy below)
Links to cessation support, including focus on helping parents of children with asthma to quit (see Healthcare system and access)
Healthcare system and access strategies
Medicaid modernization and access to coverage (see Figure 3.1)
Paying for value (see Figure 3.1)
Care coordination (see Figure 3.1)
Standardized screening and evidence-based treatment services
Home visits to improve self-management education and reduce home asthma triggers
Healthcare workforce to increase access to services (see Figure 3.1)
Infrastructure to collect accurate data about access, outcomes and disparities (see Figure 3.1)
Tobacco cessation services (see Figure 3.1 and topic-specific strategy below)
Cessation services for parents of children with asthma to quit

1. The strategies listed in this table were prioritized by Work Team and Advisory Committee members after a careful review of available research (see Appendix A for a description of the strategy selection process). Most of the strategies listed are evidence based; they were reviewed and found to be effective by the evidence registries and systematic review sources listed in Appendix B. The **links in the table** connect to external sources that provide a brief description of the strategy, and in most cases, an evidence review from one of the sources listed in Appendix B. Some types of strategies, such as infrastructure and systems changes, have not been reviewed by the sources listed in Appendix B, but were included based upon the subject matter expertise of Work Team members.
2. Programs and policies likely to reduce disparities based on review by What Works for Health and the Community Guide (as of September 2016).

Cross-cutting outcomes

In addition to tracking progress on the three chronic disease priority outcome objectives listed in Figures 5.1 and 5.2, the state will evaluate the impact of the above strategies implemented by also measuring progress on a set of cross-cutting outcome objectives. Examples of cross-cutting outcomes are listed below. See the **master list of SHIP indicators** for the complete list of the SHIP cross-cutting outcome indicators and the **community toolkits** for a recommended set of aligned community indicators to track progress related to each SHIP strategy.

Social determinants of health: Examples of cross-cutting outcomes that address chronic disease

- Reduce adult poverty
- Increase access to exercise opportunities
- Reduce exposure to secondhand smoke (home, car, public spaces, etc.)

Prevention, public health system and health behaviors: Examples of cross-cutting outcomes that address chronic disease

- Increase adult vegetable consumption
- Increase percent of youth with healthy weight
- Reduce adult smoking

Healthcare system and access: Examples of cross-cutting outcomes that address chronic disease

- Increase hypertension management
- Increase percent of at-risk adults with routine checkup

Specific, measurable objectives for selected cross-cutting outcomes will be included in the **state action plans**.

6 STRATEGIES THAT ADDRESS MATERNAL AND INFANT HEALTH

Overall goal: All Ohio babies are born healthy, live in healthy families and thrive in their first year of life.

Definition

Maternal and infant health includes infant and maternal mortality, birth outcomes and related risk factors impacting preconception, pregnancy and infancy such as teen pregnancy, unintended births, women's physical and mental health, and reproductive and sexual health – as well as paternal health and involvement and related family and community contexts.

Priority outcome objectives

As outlined in part 2, the SHIP includes specific and measurable objectives the state will use to assess performance on the following desired outcomes:

- **Reduce preterm births**
- **Reduce low birth weight**
- **Reduce infant mortality**

Strategies

Figure 6.1 lists strategies found to reduce preterm birth, low birth weight and infant mortality. These strategies were selected based upon a review of the best-available research evidence on approaches proven effective in achieving the SHIP priority outcome objectives and related cross-cutting outcomes, as well as a review of existing state programs and activities. See Appendix B for a full description of the strategy selection process and a list of the systematic reviews and evidence registries consulted.

Community response

Most of the strategies listed in Figure 6.1 can be implemented at the community level, and some are already in place in Ohio communities with leadership from local health departments, hospitals and other partners. More widespread reach is needed, however, to move the needle on SHIP outcomes. The **local strategy and indicator toolkits** provide additional information to help community health improvement planners select the strategies that best fit the needs in their county.

State response from the Governor's Office of Health Transformation

Over the past six years, Governor Kasich initiated an unprecedented package of reforms to improve overall health system performance for pregnant women and infants. The Governor's Budget includes $41 million over two years in **targeted initiatives to improve birth outcomes and reduce racial and ethnic disparities in infant mortality**. These initiatives, which include increased home visiting in at-risk neighborhoods, transportation services for pregnant mothers, and safe-sleep awareness programs, among others, are aligned with the 2017-2019 SHIP priorities to reduce preterm births, reduce low birth weight, and reduce infant mortality.

In addition, the Governor's budget makes **significant investments in the underlying, cross-cutting drivers of wellbeing**, including access to health care coverage for low-income women of childbearing age, better access to comprehensive primary care, support for local community health improvement efforts, and an increase in the tobacco tax to reduce smoking (smoking accounts for 20-30 percent of low birth weight babies and about 10 percent of infant deaths).

Figure 6.1. **Strategies[1] to reduce preterm birth, low birth weight and infant mortality**

= Likely to reduce disparities[2]

Social determinants of health strategies
School-based health (see Figure 3.1)
Early childhood supports (see Figure 3.1)
Affordable, quality housing (see Figure 3.1 and topic-specific strategy below)
Service-enriched housing = focusing on family health and tobacco cessation
Employment and income (see Figure 3.1)
Local/regional built environment changes to support active living and social connectedness (see Figure 3.1)
Smoke-free environments (see Figure 3.1)
Public health system, prevention and health behaviors strategies
Breastfeeding
Breastfeeding promotion programs =
Services to support healthy birth spacing
Preconception health interventions that provide information about the risks and benefits of behaviors that affect a woman's health before, during and after pregnancy (presented by medical providers, public health professionals, lay people or others with relevant education and training)
Increase awareness of the **full-range of efficacy-based contraceptive options including LARC**
School-based prevention programs and policies (see Figure 3.1 and topic-specific strategies below)
School-based physical activity programs and policies, including **Safe Routes to School, active recess** and policy adoption for minimum amounts of recess, **physically active classrooms**, **school-based physical education**, **enhanced school-based physical education** and **extracurricular activities for physical activity**
School-based nutrition programs and policies: **School breakfast programs** =, **competitive pricing for healthy food**, **school-based nutrition education programs**, **school fruit and vegetable gardens** and **farm-to-school programs**
Community-based active living and healthy eating support (see Figure 3.1)
Tobacco prevention and cessation (see Figure 3.1 and topic-specific strategy below)
Links to cessation support, including focus on helping pregnant women and people of childbearing age to quit (see healthcare system and access)

Figure 6.1. **Strategies to reduce preterm birth, low birth weight and infant mortality** (cont.)

Healthcare system and access strategies
Medicaid modernization and access to coverage (see Figure 3.1)
Paying for value (see Figure 3.1)
Care coordination (see Figure 3.1)
Standardized screening and evidence-based treatment services
Progesterone treatment (including screening for high-risk women)
Provider counseling with patients about **preconception health** and **reproductive life plans**
Comprehensive contraceptive options (includes provider reimbursement, removing administrative and logistical barriers, unbundling payments to allow for immediate post-partum insertion of LARC)
Increase breastfeeding support at birth facilities
Home visiting (programs that begin prenatally)
Healthcare workforce to increase access to services (see Figure 3.1 and topic-specific strategies below)
Incorporate **community health workers** into **health career recruitment for minority students** and **higher education financial incentives for health professionals serving in underserved areas** (including healthcare professions pipeline programs)
Educate providers on the value of integrating **community health workers** into a healthcare practice setting
Train primary care and women's health care providers to provide patient counseling on the full range of efficacy-based **contraceptive options**
Infrastructure to collect accurate data about access, outcomes and disparities (see Figure 3.1)
Tobacco cessation services (see Figure 3.1 and topic-specific strategy below)
Cessation services for pregnant women and people of childbearing age

1. The strategies listed in this table were prioritized by Work Team and Advisory Committee members after a careful review of available research (see Appendix A for a description of the strategy selection process). Most of the strategies listed are evidence based; they were reviewed and found to be effective by the evidence registries and systematic review sources listed in Appendix B. The **links in the table** connect to external sources that provide a brief description of the strategy, and in most cases, an evidence review from one of the sources listed in Appendix B. Some types of strategies, such as infrastructure and systems changes, have not been reviewed by the sources listed in Appendix B, but were included based upon the subject matter expertise of Work Team members.
2. Programs and policies likely to reduce disparities based on review by What Works for Health and the Community Guide (as of September 2016).

Cross-cutting outcomes

In addition to tracking progress on the three maternal and infant health priority outcome objectives listed in Figure 6.1, the state will evaluate the impact of the above strategies implemented by also measuring progress on a set of cross-cutting outcome objectives. Examples of cross-cutting outcome indicators are listed below. See the **master list of SHIP indicators** for the complete list of the SHIP cross-cutting outcome indicators and the **community toolkits** for a recommended set of aligned community indicators to track related to each SHIP strategy.

Social determinants of health: Examples of cross-cutting outcomes that address maternal and infant health

- Increase household income
- Increase access to housing assistance

Prevention, public health system and health behaviors: Examples of cross-cutting outcomes that address maternal and infant health

- Increase breastfeeding at six months
- Increase preconception planning on health improvement
- Reduce smoking during pregnancy

Healthcare system and access: Examples of cross-cutting outcomes that address maternal and infant health

- Increase prenatal care
- Increase percent of women with healthy inter-pregnancy intervals (birth spacing)

Specific, measureable objectives for select cross-cutting outcomes will be included in the **state action plans**.

7 Evaluation plan

The 2017-2019 SHIP evaluation will:

- Assess progress on outcome objectives (referred to as "outcome evaluation")
- Track implementation of SHIP strategies at the state and local levels (referred to as "process evaluation") and guide continuous quality improvement
- Communicate progress and demonstrate accountability to key SHIP stakeholders and the public
- Ensure that ODH meets Public Health Accreditation Board (PHAB) standards
- Inform development of the 2019 SHA, 2020-2022 SHIP and ongoing improvements to the population health planning infrastructure

State-level outcome evaluation

ODH will internally monitor progress on the SHIP priority and cross-cutting outcome objectives as frequently as possible given data availability (ranging from quarterly to every other year). ODH will share progress on SHIP objectives with the public through an annual report or online dashboard. Annual SHIP reporting will include state-level data, including break-outs by priority population for some objectives.

State-level process evaluation

In early 2017, ODH and partner agencies will develop specific process objectives to track implementation of the state activities, similar to the "measurable outcomes to monitor progress" in the **2015-2016 SHIP Addendum**. ODH will report progress on these process objectives on at least an annual basis to SHIP stakeholders. The process objectives will be adjusted as needed over the next three years to reflect changes in the policy landscape, new opportunities or other unanticipated factors.

OHT will bring relevant state agencies together on a semi-annual basis to review outcome and process evaluation findings, develop continuous quality improvement steps and make any needed mid-course corrections. In addition, ODH and OHT will convene the SHIP Advisory Committee on an annual basis to review progress on outcome objectives.

Local-level outcome evaluation

The community toolkits provide local health departments, hospitals and other community partners with a list of outcome indicators and data sources to include in their own plans (see **community strategy and indicator toolkit** and **master list of SHIP indicators**). The recently-released **ODH guidance** encourages community planners to include at least two priority outcome indicators in their own evaluation plans.

The guidance encourages local communities to track data on selected outcome indicators at the county level when possible, although some larger counties may be able to track data at the sub-county level as well. In some cases, data for SHIP objectives is not currently available at the county level. Counties with limited resources may benefit from selecting indicators that are easily accessible through County Health Rankings, while other communities may decide to collect their own survey data to replicate items from the BRFSS, YRBSS, NSDUH or other surveys. See Part 8 for recommendations to improve data availability.

Local-level process evaluation

Starting in 2017, local health departments and tax-exempt hospitals are required to submit their existing community health improvement plans (CHIPs) and community health needs assessments (CHNAs) to ODH. As part of this submission process, ODH will ask these organizations to identify which SHIP priorities, indicators and strategies (if any) are included in their current plans. ODH plans to integrate this information into the existing Ohio Profile and Performance database (OPPD) for local health departments, and to administer a brief online survey to gather the information from hospitals.

Information collected during 2017 (along with Part 3 of the 2016 SHA) will serve as a baseline because most plans submitted during this first year will have been completed prior to release of the 2017-2019 SHIP. Going forward, ODH will develop a system for tracking and reporting implementation of SHIP strategies by local communities.

Usefulness of SHA/SHIP documents and recommendations for improving Ohio's population health infrastructure

The **2016 SHA**, 2017-2019 SHIP and **ODH guidance documents** represent a new approach to improving population health in Ohio. Over the next three years, it will be important to assess the extent to which these documents are useful in helping the state progress toward the following population health infrastructure outcomes:

1. Stronger alignment between local assessments (CHAs and CHNAs) and the SHA
2. Stronger alignment between local plans (CHIPs and ISs) and the SHIP
3. Increased collaboration between local health departments and hospitals on assessments and plans (in communities where this collaboration was not already happening or was happening in a minimal way)
4. Increased use of collective impact initiatives that bring sectors together to achieve shared goals. Potential partners include local health departments; hospitals; alcohol, drug and mental health (ADAMH) boards/behavioral health organizations; patient-centered medical homes; United Way organizations; school districts; employers/business; criminal justice; regional planning; and other sectors beyond health
5. More efficient and effective resource allocation toward SHIP-aligned priorities and strategies at the state level
6. Increased transparency of hospital community benefit spending and voluntary community benefit investment in IS-aligned strategies, including evidence-based strategies that address equity, social determinants of health and prevention
7. More widespread implementation of SHIP-aligned evidence-based strategies at the state and local levels, including policy and systems changes
8. Increased implementation of strategies in priority population communities, including programs and services delivered by culturally-competent providers and adapted to fit cultural context
9. Stronger coordination between state agencies, including agencies in sectors beyond health
10. Increased participation of sectors beyond health in local community health improvement planning
11. Improved data collection and reporting, including better access to county-level and sub-group data (by race, ethnicity, disability status, etc.) for SHIP priority and cross-cutting outcome indicators

ODH will use the OPPD database and online survey mentioned above to gather information needed to monitor progress on these outcomes. OHT, ODH and other state agency partners will then use the findings to make any needed improvements to the 2019 SHA and 2020-2022 SHIP.

8 Data improvement recommendations

The SHIP provides a comprehensive set of indicators that can be used to evaluate the impact of SHIP-aligned strategies at both the state and local levels (see **master list of SHIP indicators** for a complete list). Indicators were selected to measure progress across SHIP priority topics (maternal and infant health, mental health and addiction and chronic disease) and cross-cutting factors, including health equity.

The SHIP indicators rely on four types of data sources:

- **Vital Statistics** data from birth and death records, compiled and reported by the Ohio Department of Health. Examples of SHIP indicators from this type of source include infant mortality rate, percent low birth weight and suicide death rate.
- **Population-level surveys** administered by state and/or federal agencies, such as BRFSS, YRBSS, NSDUH and U.S. Census surveys. See SHA appendix B (page 154) for a description of health surveys. Examples of SHIP indicators from this type of source include percent of adults with fair or poor health, percent of adults who smoke cigarettes and percent of children living in poverty.
- **Clinical or administrative data from the healthcare system**, compiled and reported by state or federal agencies, the Ohio Hospital Association or other sources. Examples of SHIP indicators from this type of source include rate of emergency department visits for pediatric asthma and heart failure readmissions rate.
- **Other administrative data** compiled and reported by state and federal agencies. Examples of SHIP indictors from this type of source include percent of students who are chronically absent from school and violent crime rate.

There are many challenges for SHIP evaluation related to data sources. Resolution of these challenges is important to ensure that both state and community partners are able to effectively monitor progress on SHIP outcome objectives. This section briefly describes the most critical data gaps and limitations and provides initial data improvement recommendations.

Data gaps and limitations

Data lag and infrequent data reporting. The SHIP and other local health improvement plans require timely analysis of data to ensure that progress on identified outcome objectives are met within a designated timeframe. However, there is typically a lag of one to three years between the time data is collected and when it is finalized and released by federal and state agencies. Slow turn-around on data reporting is particularly problematic for some population-level surveys and clinical or administrative data from the healthcare system. Furthermore, while some data (such as Vital Statistics or BRFSS) is reported on an annual basis, other sources are collected and reported less frequently (such as NSDUH and the Ohio Medicaid Assessment Survey).

Lack of local-level data. Some population-level surveys, such as the BRFSS, YRBSS and NSDUH, do not provide county-level data because the sample size is not adequate to do so.

Lack of sub-population data. There is no standard set of population characteristics for which data is collected or reported on. As a result, data is not always consistently collected across population groups by race/ethnicity, age, gender, education level, sexual orientation, disability status or socio-economic status. Consequently, there is more information on some groups as compared to others and the magnitude of health disparities across population groups can be difficult or nearly impossible to identify. Data collection instruments may also have different categorizations of population groups making comparisons across populations difficult. For example, one instrument may use the category African-American/black while another may use black (non-Hispanic).

Lack of survey data on child and adolescent health. While the BRFSS provides annual, state-level data on the health of adults, similar surveys of child health in Ohio face limitations:

- YRBSS: National school-based survey administered every other year. The 2015 sample size was not adequate to report state-level data for Ohio. County-level data not available.
- Ohio Healthy Youth Environments Survey (OHYES!) and other school-based surveys, such as PRIDE: Optional surveys administered by local school districts. State-level data not available.
- Ohio Medicaid Assessment Survey (OMAS) for

children: Administered approximately every three years. Some county-level data available.
- National Survey of Drug Use and Health (NSDUH): Administered annually, but reported in pooled years with significant lag. County-level data not available.
- National Survey of Children's Health: Administered every four years. County-level data not available.

Currently, there are several different school-based adolescent health surveys being administered in Ohio schools, which may have led to a low response rate for the 2015 YRBSS. The end result is an absence of state-level or consistent county-level survey data on adolescent health.

Lack of U.S. or other state comparison for some survey and administrative data. Some data sources are unique to Ohio, such as the OHYES!, the newly developed Ohio Pregnancy Assessment Survey (OPAS), OMAS and OMHAS administrative data on mental illness hospitalization follow-up. These sources may lack comparable national data which can make it difficult to evaluate Ohio's performance in a national context and relative to other states.

Lack of data accessibility. Some datasets housed by the state are subject to onerous data access request processes or presented in a format that is not user-friendly, making data access and analysis difficult.

Lack of healthcare spending and clinical care data. Population-level healthcare spending and clinical care data, such as health plan claims data or patient data from electronic medical records, can be very difficult to obtain at both the state and local level. There are several factors that contribute to this issue including the lack of data sharing infrastructures among healthcare organizations, as well as between the healthcare system and other public health and community partners. Proprietary data concerns and restrictions, as well as challenges related to health information privacy laws (particularly for data disaggregated at a county or sub-county level) also contribute to this issue.

Lack of data integration. Collection of state-level data can often occur in silos. Data from state agencies may not be integrated. At the same time, public health data is rarely integrated with healthcare spending and clinical care data or data related to an individual's social, economic and physical environment.

Recommendations to improve data collection and reporting

State agencies should work collaboratively to address the gaps and limitations described above in order to develop a robust system for tracking progress on SHIP outcome objectives at the state and local levels. Initial recommendations for improving data collection and reporting are outlined below:

- Prioritize efforts to improve data collection, management, timeliness and reporting for SHIP-aligned indicators.
- Improve coordination of school-based surveys to ensure that data can be reported at least at the state and county levels.
- Assess current resource allocation by state agencies for population-level household surveys. Identify the most efficient and effective way to collect SHIP-aligned survey data that can be reported at least at the state and county level.
- Identify a standard set of population characteristics for which data is always collected and reported on including race/ethnicity, age, gender, education level, sexual orientation, disability status and socio-economic status.
- Oversample priority populations when possible.
- When feasible, utilize or align with national surveys to ensure that Ohio's performance can be evaluated in a national context and relative to other states.
- Provide a health data warehouse that can be easily accessed by both state and local public and private stakeholders for the purposes of compiling and analyzing data at the state and local level, ensuring that the data can be downloaded in a user friendly format.
- Develop more efficient processes for the collection, analysis and reporting of data that reduces data lag and allows for the reporting of data on an annual or biannual basis.

The integration of public health or population health data with healthcare spending and clinical care data is a challenge that is vigorously discussed in Ohio and at a national level. Continued facilitation and support of discussions among state and local stakeholders on processes that can lead to greater integration of health data is critical to overcoming data integration challenges. In addition, state and local stakeholders should continue to develop data sharing infrastructures that can lead to greater communication between data systems and an increased ability to integrate public health and clinical care data within communities.

APPENDIX A

SHIP PROCESS AND STAKEHOLDER ENGAGEMENT

Mission, vision and conceptual framework

During initial planning for the 2016 SHA, the SHA/SHIP Advisory Group affirmed the vision, mission and values (see Figure A.1); conceptual framework (see Figure A.2); and logic model (see Figure A.3) for the overall SHA and SHIP process.

Figure A.1. **SHA and SHIP vision, mission and values**

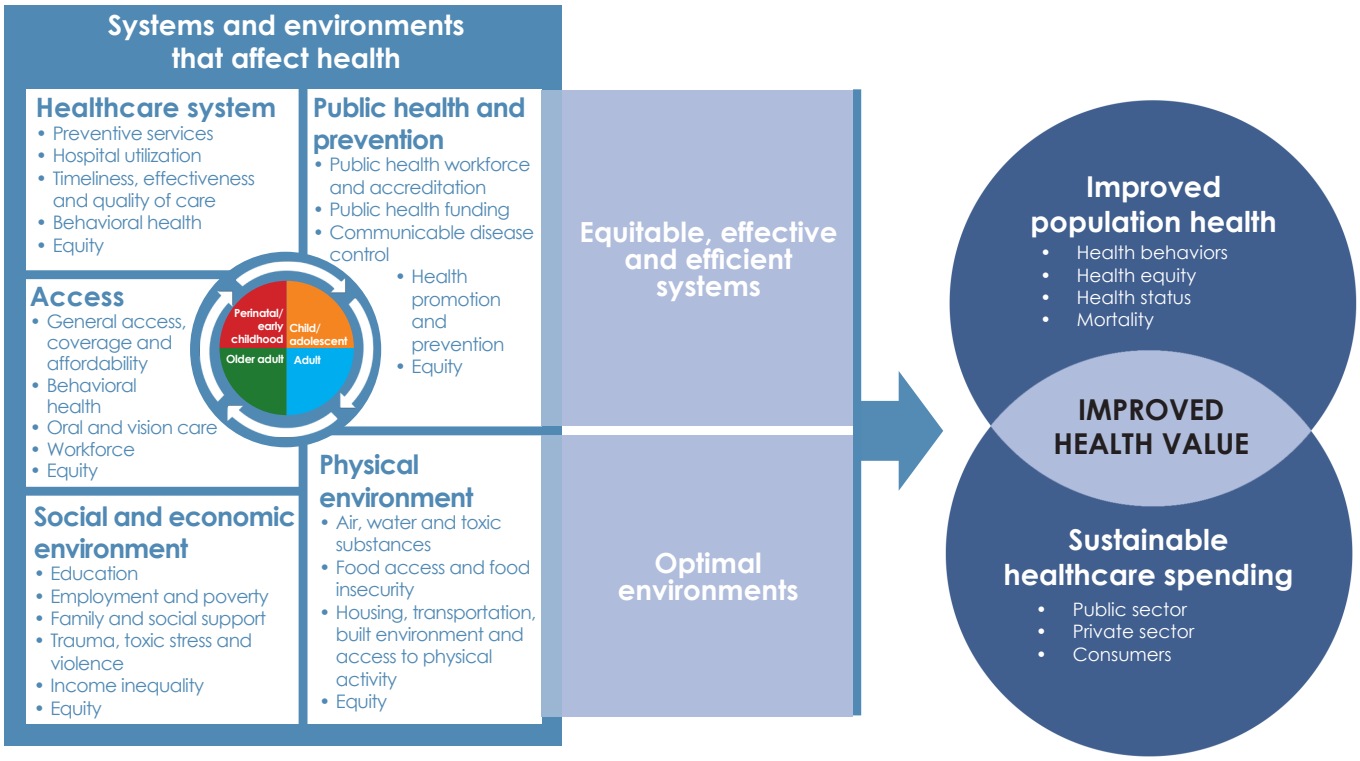
Vision
Ohio is a model of health and economic vitality.

Mission
Improve the health of Ohioans by implementing a strategic set of evidence-based population health activities at the scale needed to measurably improve population health outcomes and achieve health equity.

Values
We value an approach to population health improvement that:

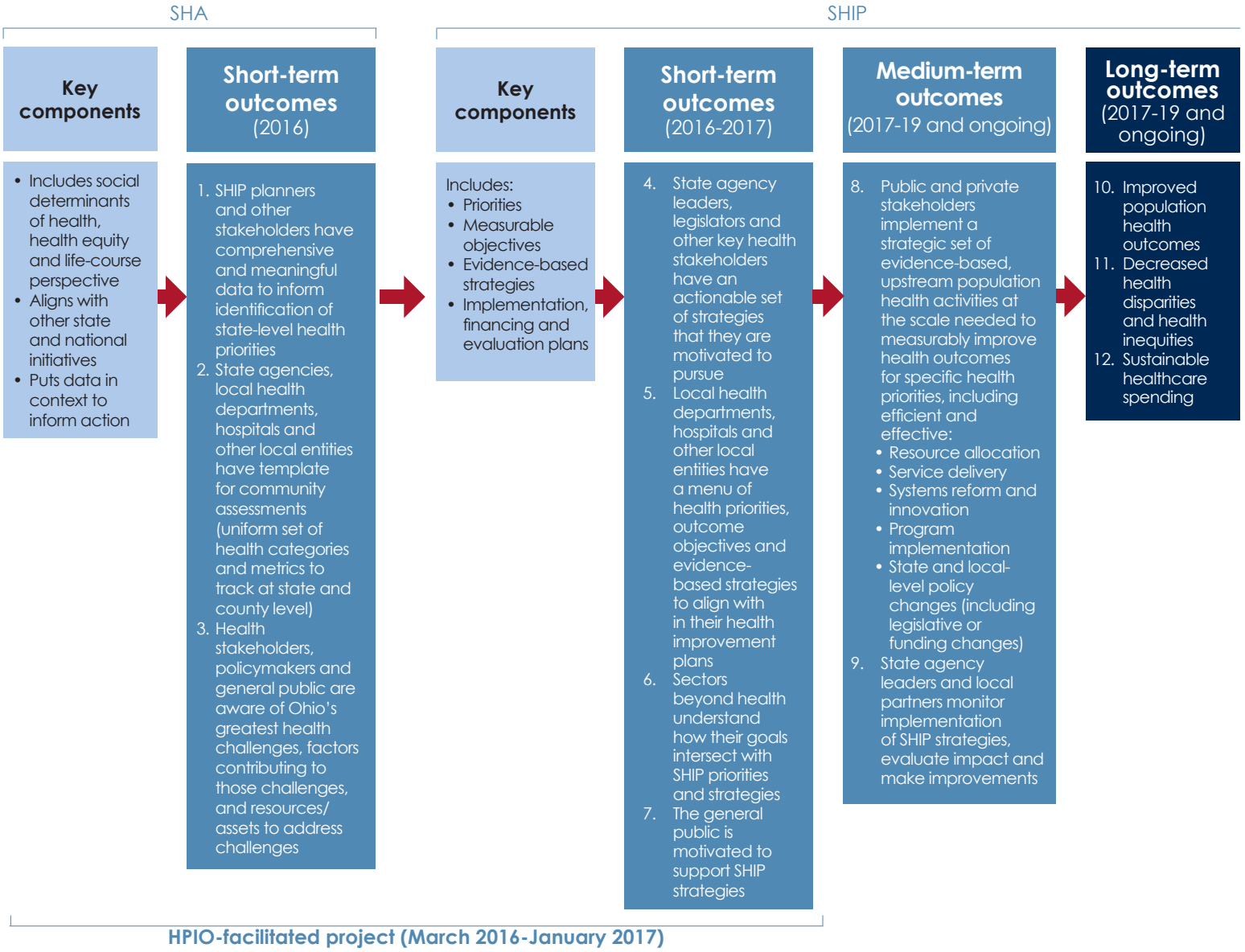
- Addresses prevention, the social determinants of health, all stages of the life course and builds upon evidence-based strategies
- Balances local needs and innovation with statewide alignment and coordination
- Fosters meaningful stakeholder engagement, collaboration across sectors and stronger connections between clinical and community-based organizations
- Promotes a culture of health that builds upon Ohio's strengths and assets
- Results in actionable recommendations, measurable outcomes and more efficient and effective allocation of state and local-level public and private resources

Figure A.2. **State health assessment and state health improvement plan conceptual framework: Pathway to health value**



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

Figure A.3. **SHA and SHIP implementation logic model**



SHA and SHIP as guiding documents for population health infrastructure changes

In September 2015, the Ohio Department of Medicaid (ODM) and Ohio Department of Health (ODH) contracted with the Health Policy Institute of Ohio (HPIO) to facilitate stakeholder engagement and provide guidance on improving population health planning. The Governor's Office of Health Transformation released the resulting report in January 2016, **Improving Population Health Planning in Ohio**.

The report offered guidance that informed development of the SHA and SHIP, as well as recommendations regarding the following aspects of community health improvement planning led by local health departments and hospitals:

- State and local alignment
- Hospital and local health department alignment and collaboration
- Funding
- Transparency and accessibility

HB 390 (ORC 3701.981) was enacted in July 2016 to implement the recommendations, including requirements for local health departments and hospitals to submit assessments and plans to the state and to align on a three-year planning cycle. The timeline in Figure A.4 lists these requirements and outlines the transition to a fully-aligned approach to population health improvement as of 2020. **Guidance for aligning state and community efforts** issued by ODH in 2017 provides additional details.

Figure A.5 illustrates how the local guidance aligns with the SHIP.

Figure A.4. **Population health planning infrastructure timeline**

Population health planning activity	2016	2017	2018	2019	2020	2021	2022	2023
State and local public health accreditation	Public Health Accreditation Board (PHAB) accredits Ohio Department of Health (2015)		Local health departments (LHDs) required to apply for PHAB accreditation		LHDs required to be PHAB accredited			
State health assessment (SHA) and state health improvement plan (SHIP)	Release of SHA (Aug. 2016)	Release of SHIP (early 2017)		Release of SHA and SHIP			Release of SHA and SHIP	
		SHIP (2017-2019)			SHIP (2020-2022)			SHIP (2023-2025) →
Local health department and tax-exempt hospital assessments and plans		July 1, 2017: Existing tax-exempt hospital and LHD assessments and plans submitted to state			Jan. 1, 2020: Aligned 3-year cycle begins Oct. 1, 2020: Tax-exempt hospital and LHD assessments and plans submitted to state			Oct. 1, 2023: Tax-exempt hospital and LHD assessments and plans submitted to state
					Tax-exempt hospital and LHD plans (2020-2022)			Tax-exempt hospital and LHD plans (2023-2025) →
		Starting July 1, 2017: Tax-exempt hospital Schedule H information annual reporting						
Evaluation at state and local levels		• Process and outcome evaluation • Annual outcome reporting						

Assessment = Tax-exempt hospital community health needs assessment; local health department community health assessment
Plan = Tax-exempt hospital implementation strategy; local health department community health improvement plan
Tax-exempt hospitals = As defined in ORC 3701.981

Figure A.5. **State-local SHIP alignment**

State health improvement plan (SHIP) overview

Overall health outcomes

⬆ Health status
⬇ Premature death

3 priority topics

Mental health and addiction	Chronic disease	Maternal and infant health

10 priority outcomes

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

Equity: Priority populations for each outcome

4 cross-cutting factors

- Social determinants of health
- Public health system, prevention and health behaviors
- Healthcare system and access
- Equity

Overview of guidance for local alignment with the SHIP

See ***ODH guidance for aligning state and local efforts*** for details

Select at least 2 priority topics (based on best alignment with findings of CHA/CHNA)

Select at least 1 priority outcome indicator within each selected priority topic (see master list of SHIP indicators)

Identify priority populations for each priority outcome indicator (based on findings from CHA/CHNA) and develop targets to reduce or eliminate disparities

- **Select at least 1 cross-cutting strategy** relevant to each selected priority outcome (see community strategy and indicator toolkits) **AND**
- **Select at least 1 cross-cutting outcome indicator** relevant to each selected strategy (see community strategy and indicator toolkits)

For a stronger plan (optional), select 1 strategy and 1 indicator for <u>each</u> of the 4 cross-cutting factors.

- Prioritize selection of strategies likely to decrease disparities (see community strategy and indicator toolkits)
- Ensure that delivery of selected strategies is designed to reach priority populations and high-need geographic areas

Definitions
CHA — Community health assessment led by a local health department
CHNA — Community health needs assessment led by a hospital
Indicator — A specific metric or measure used to quantify an outcome, typically expressed as a number, percent or rate. Example: Number of deaths due to suicide per 100,000 population.
Outcome — A desired result. Example: Reduced suicide deaths.

Priority population — A population subgroup that has worse outcomes than the overall Ohio population and should therefore be prioritized in SHIP strategy implementation. Examples include racial/ethnic, age or income groups; people with disabilities; and residents of rural or low-income geographic areas.
Target — A specific number that quantifies the desired outcome. Example: 12.51 suicide deaths per 100,000 population in 2019.

SHIP development process and PHAB standards

This SHIP was developed through a collaborative process that meets all PHAB accreditation standards, including:

- Participation by a wide range of community partners representing various sectors of the community (see "Stakeholder engagement" section below and 2016 SHA Appendix A)
- Consideration of data and information from the state health assessment (see "SHIP prioritization process" section below)
- Stakeholder identification of issues and themes (see "SHIP prioritization process" section on pages 45-46 and 2016 SHA part six)
- Assets and resources (see 2016 SHA Appendix F)
- Description of prioritization process (see "SHIP prioritization process" section on pages 45-46)
- Statewide health priorities, measurable objectives, improvement strategies with time-bound targets, policy changes and designation of organizations that have accepted responsibility to implement SHIP strategies (see SHIP Parts one through six)
- Consideration of local health department priorities (see "SHIP prioritization process" section on pages 45-46 and 2016 SHA Part three)
- Consideration of national priorities (see SHIP Appendix B)
- Tracking and reporting process (see SHIP Part seven)

Stakeholder engagement

In addition to leadership from ODH and OHT, and project management from HPIO, several stakeholder groups guided development of the SHIP:

- Internal Population Health Infrastructure Team: Internal state steering committee with representatives from health-related state agencies, including the Ohio Department of Mental Health and Addiction Services and the Ohio Department of Medicaid
- SHA/SHIP Advisory Committee: Broad range of partners, including local health departments, hospitals and other healthcare providers, health insurance plans, advocacy and consumer organizations and sectors beyond health (See Figure A.6 for a list of organizations represented)
- SHIP Priority Topic Work Teams (Mental health and addiction work team, Chronic disease work team and Maternal and infant health work team): Includes representatives from the Advisory Committee, plus additional subject matter experts (See Figure A.7 for a list of organizations represented)

These groups provided input on the selection of SHIP priority topics, priority outcomes and strategies through in-person meetings, conference calls and online surveys.

See the 2016 SHA for additional information about stakeholder engagement that informed development of the SHIP, including regional forums held in April-May 2016 and key informant interviews with community-based organizations.

Figure A.6. **SHA and SHIP Advisory Committee stakeholder list**

Organizations invited to join the Advisory Committee	
AARP Ohio	Ohio Association of County Boards of Developmental Disabilities
Aetna Better Health of Ohio	Ohio Association of Foodbanks
Akron Children's Hospital	Ohio Association of Health Plans
Akron Regional Hospital Association	Ohio Business Roundtable
Alcohol and Drug Abuse Prevention Association of Ohio	Ohio Chamber of Commerce
American Cancer Society Cancer Action Network	Ohio Children's Hospital Association
Association of Ohio Health Commissioners	Ohio Children's Trust Fund
Canton City Health District	Ohio Commission on Minority Health
Cardinal Health	Ohio Council of Behavioral Health and Family Services Providers
CareSource	Ohio Department of Developmental Disabilities
CareStar	Ohio Department of Education
Case Western Reserve University School of Medicine	Ohio Department of Health
Central Ohio Hospital Council	Ohio Department of Health-Office of Health Equity
Children's Defense Fund	Ohio Department of Job and Family Services-Office of Families & Children
Children's Hunger Alliance	Ohio Department of Medicaid
Cincinnati Children's Hospital Medical Center	Ohio Department of Transportation
Columbus Public Health	Ohio Disability and Health Program
Community Legal Aid Services	Ohio Domestic Violence Network
Cuyahoga County Board of Health	Ohio Environmental Council
Drug Free Action Alliance	Ohio Family and Children First
Educational Service Center of Central Ohio	Ohio Hospital Association
Employers Health	Ohio Housing Finance Agency
Equitas Health	Ohio Justice and Policy Center
Greater Dayton Area Hospital Association	Ohio Olmstead Task Force
Greene County Public Health	Ohio Osteopathic Association
Governor's Office of Health Transformation	Ohio Provider Resource Association
Hamilton County Public Health	Ohio Public Employees Retirement System
Health Action Council	Ohio State Medical Association
Health Improvement Partnership-Cuyahoga	Ohio State University Center for Public Health Practice
Health Policy Institute of Ohio	Ohio State University College of Public Health
Henry County Health Department	Ohio State University Nisonger Center
Hospital Council of Northwest Ohio	Ohio Statewide Independent Living Council
Interact for Health	OnPointe Strategic Insights
Kirwan Institute for the Study of Race and Ethnicity	Pike County General Health District
Lorain County Board of Mental Health	ProMedica Health System
Medical Mutual of Ohio	Safe Routes to School National Partnership
Medina County Combined General Health District	Scripps Gerontology Center, Miami University
Mercy Health	Senders Pediatrics
MetroHealth	The Arc of Ohio
Mid East Ohio Regional Council	The Center for Community Solutions
MOBILE Center for Independent Living	The Center for Health Affairs
NAMI Ohio	The Health Collaborative
Nationwide Children's Hospital	Tobacco Free Ohio Alliance
Ohio Academy of Family Physicians	UHCAN Ohio
Ohio Advisory Council for Aging	Union County Health Department
Ohio Alliance of YMCAs	United Way of Central Ohio
Ohio Association of Area Agencies on Aging	University Hospitals
Ohio Association of Community Health Centers	Voices for Ohio's Children
Ohio Association of County Behavioral Health Authorities	Zanesville-Muskingum County Health Department

Figure A.7. **SHIP Work Team stakeholder list**

Chronic disease
American Cancer Society- Cancer Action Network
Case Western Reserve University
Center for Closing the Health Gap
Governor's Office of Health Transformation
Health Action Council
Health Policy Institute of Ohio
Hospital Council of Northwest Ohio
LeadingAge Ohio
Medina County Combined General Health District
Miami Valley Regional Planning Commission
Mid-Ohio Foodbank
Molina Healthcare
Nationwide Children's Hospital
Ohio Alliance of YMCAs
Ohio Association of Area Agencies on Aging
Ohio Children's Hospital Association
Ohio Commission on Minority Health
Ohio Department of Aging
Ohio Department of Developental Disabilities
Ohio Department of Education
Ohio Department of Health
Ohio Department of Job and Family Services
Ohio Department of Medicaid
Ohio Department of Mental Health and Addiction Services
Ohio Department of Transportation
Ohio Domestic Violence Network
Ohio Hospital Association
Ohio Housing Finance Agency
Ohio Public Employees Retirement System
Ohio State Nisonger Center
OSU College of Public Health
Safe Routes to School National Partnership- Ohio
The Center for Health Affairs
UHCAN Ohio
Union County Health Department
UnitedHealthcare Community Plan of Ohio
Wright State University and Ohio Association for Health, Physical Education, Recreation and Dance (OAHPHERD)
Zanesville-Muskingum County Health Department

Maternal and infant health
Buckeye Hills and Hocking Valley Regional Development District
Canton City Health District
Cincinnati Children's Hospital
Columbus Metropolitan Housing Authority
Franklin County Board of Developmental Disabilities
Franklin County Family and Children First Council
Governor's Office of Health Transformation
Greene County Public Health
Health Action Council
Health Policy Institute of Ohio
Hospital Council of Northwest Ohio
Joint Medicaid Oversight Committee
Molina Healthcare of Ohio
Nationwide Children's Hospital
Ohio Capital Corporation for Housing
Ohio Children's Hospital Association
Ohio Children's Trust Fund
Ohio Collaborative to Prevent Infant Mortality
Ohio Commission on Minority Health
Ohio Department of Aging
Ohio Department of Developental Disabilities
Ohio Department of Education
Ohio Department of Health
Ohio Department of Job and Family Services
Ohio Department of Medicaid
Ohio Department of Mental Health and Addiction Services
Ohio Domestic Violence Network
Ohio Hospital Association
Ohio Housing Finance Agency
Ohio Perinatal Quality Collaborative
OSU College of Public Health
The Center for Community Solutions
The Center for Health Affairs
UC Medical Center
UH-Rainbow Babies and Children
Voices for Ohio's Children
Zanesville-Muskingum County Health Department

Mental health and addiction
Aetna
Central Ohio Area Agency on Aging
Columbus City Schools
Columbus Metropolitan Housing Authority
Community Legal Aid Services
Drug Free Action Alliance
Equitas Health
Franklin County Family and Children First Council
Future Ready Columbus
Governor's Office of Health Transformation
Health Action Council
Health Policy Institute of Ohio
Henry County Health Department
Hospital Council of Northwest Ohio
Lucas County Mental Health & Recovery Service Board
Mental Health & Addiction Advocacy Coalition
Mental Health & Recovery Board of Union County
Mental Health Services for Clark & Madison County
NAMI Ohio
Nationwide Children's Hospital
Ohio Association of Area Agencies on Aging
Ohio Association of County Behavioral Health Authorities (OACBHA)
Ohio Children's Hospital Association
Ohio Council of Behavioral Health Providers
Ohio Department of Aging
Ohio Department of Developental Disabilities
Ohio Department of Education
Ohio Department of Job and Family Services
Ohio Department of Job and Family Services- Office of Families and Children
Ohio Department of Medicaid
Ohio Department of Mental Health and Addiction Services
Ohio Domestic Violence Network
Ohio Family and Children First
Ohio Hospital Association
Ohio Housing Finance Agency
Ohio Olmstead Task Force
OSU College of Education and Human Ecology
OSU Nisonger Center
The Center for Health Affairs
Williams County Health Department
Wright State University

SHIP topic prioritization process

Figure A.8 outlines the process used to identify the three SHIP priority topics (mental health and addiction, chronic disease and maternal and infant health). The first two steps of this "bottom up" approach to identifying priorities are described in the 2016 SHA, including a review of local priorities included in local health department and hospital community health assessments and plans.

Step three was a careful review of the 2016 SHA findings, including the "Discussion and conclusions" section which summarizes key issues and themes, including health disparities and factors that contribute to health inequities. HPIO sent the Advisory Committee the link to the final SHA in August and asked them to review it carefully before the prioritization discussion at the August 18, 2016 Advisory Committee meeting.

Step four was to identify prioritization decision criteria. HPIO presented draft prioritization criteria to the Advisory Committee at their June meeting and then incorporated their feedback into the final set of criteria used at the August meeting, listed in Figure A.9.

Step five was to frame the priorities—how the topics were defined and categorized (see Figure A.10). The agreed-upon typology of priorities was informed by HPIO's review of local health department and hospital priorities (see 2016 SHA Part three), the SHA/SHIP conceptual framework (Figure A.2) and the County Health Rankings and Roadmaps population health framework.

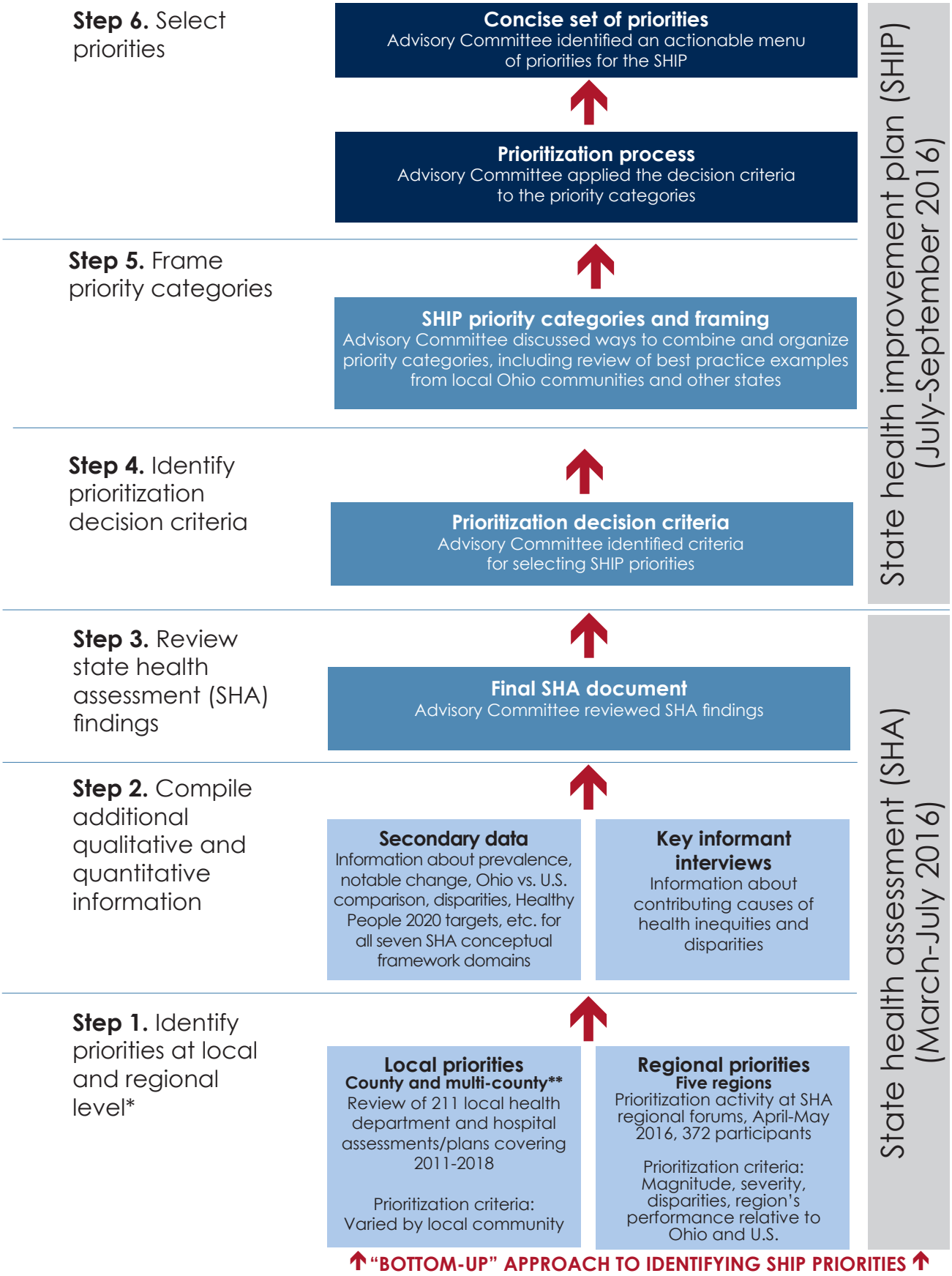
Step six was to apply the prioritization criteria (Figure A.9) to the list of priorities (Figure A.10). HPIO used a prioritization matrix process to score each priority category based on the prioritization criteria (i.e., 4=high priority, 3=moderate priority, 2=lower priority, 1=not a priority). Among the topics/conditions listed in Figure A.10, chronic disease, mental health and addiction and maternal and infant health received the highest prioritization score. Among the cross-cutting factors, health behaviors received the highest prioritization score.

At the August Advisory Committee meeting, the stakeholders discussed and affirmed the three SHIP priority topics:

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

The group also affirmed the inclusion of cross-cutting factors described in Figure 1.1. The complete prioritization results are included in the **presentation slides for the August 18 Advisory Committee meeting**.

Figure A.8. **Process for identifying 2017-2019 state health improvement plan priorities**



*Using categories informed by local health department and hospital assessments and plans and SHA conceptual framework
**Reviewed documents cover 94% of Ohio counties

Figure A.9. **SHIP prioritization criteria for selecting priority topics**

Criteria*	Description	Relevant State Health Assessment (SHA) sections or other information sources
Nature of the problem		
1. Magnitude of the problem**	Number or percent of Ohioans affected	SHA: Data profiles (Part 2)
2. Severity of the health problem**	Risk of morbidity and mortality associated with the problem	• SHA: Leading causes of premature death (Part 2) • Stakeholder expertise
3. Magnitude of disparities and impact on vulnerable populations**	• Size of gap between racial/ethnic and income groups • Impact on children, families living in poverty, people with disabilities, etc.	• SHA: Data profiles (Part 2) and Discussion and conclusions (Part 6) • SHA: Key informant interview findings (Part 5) • Stakeholder expertise
4. Ohio's performance relative to benchmarks	Extent to which Ohio is doing much worse than national benchmarks and/or the U.S. overall	SHA: Data profiles (Healthy People 2020 targets and U.S. comparison in Part 2)
5. Change over time	Extent to which the problem has been getting worse in recent years	• SHA: Data profiles (notable changes and long-term trend graphics in Part 2) • SHA: Regional forum "forces of change" findings (Part 4) • Stakeholder expertise
Alignment		
6. Alignment with local and regional priorities**	Extent to which the issue has been prioritized at the local and regional level in Ohio	• SHA: Review of local health department and hospital assessments/plans (Part 3) • SHA: Regional forum priority findings (Part 4)
7. Alignment with Ohio's SIM PCMH model	Relevance to PCMH clinical quality measures	PCMH clinical quality measures (SHA Appendix A)
Potential for impact		
8. Availability, feasibility and cost of evidence-based strategies	• Existence of population health strategies, including some that are no or low cost • Strength of evidence for available strategies • Existence of strategies that are feasible to implement in Ohio at local and/or state level given current conditions	• CDC Community Guide, What Works for Health and other systematic reviews and evidence registries (see Population Health report Appendix 3F) • Stakeholder expertise
9. Potential strategies are cross-cutting or have co-benefits	Existing evidence-based strategies to address this health problem would also address other health problems (e.g., healthy eating and active living strategies impact obesity, diabetes, heart disease, mental health, etc.)	• Analysis of upstream determinants, including community conditions and the broader social, economic and physical environment • Stakeholder expertise
10. Ability to track progress at the state and county level	Progress on the issue can be tracked using existing (or new) population-level indicators with data available at the state and county level	• SHA: Appendix B • Stakeholder expertise

Additional considerations for prioritization and strategy selection, based upon stakeholder expertise

11. **Opportunity to add value.** There is a need for increased activity and/or alignment on the issue at the state level.
12. **Potential impact on healthcare spending.** Extent to which addressing the problem may reduce healthcare spending and have a positive return on investment (ROI).
13. **Potential impact on employment and productivity.** Extent to which addressing the problem may increase employment and the productivity of Ohio's workforce.

* The SHA/SHIP Advisory Committee reviewed and revised this list of criteria at the 6/22/16 Advisory Committee meeting. Sources for criteria include Catholic Health Association of the United States, the Association of State and Territorial Health Officials and SHIPs from other states.
**Most important criteria, as identified by Advisory Committee

Figure A.10. **SHIP topic priority categories**

Category	Includes	Conceptual framework domain
Topics/conditions		
Mental health and addiction	• Mental health (such as depression, PTSD, bipolar disorder, schizophrenia and other mental health conditions; stress, emotional well-being and coping skills; suicide; mental, emotional and behavioral disorders in children, etc.) • Drug and alcohol abuse (such as addiction, abuse, misuse or dependence on alcohol, marijuana, prescription drugs, opioids, heroin, etc.) • Note: Also referred to as "behavioral health"	Population health (health status topic/ condition)
Chronic disease	• Cardiovascular disease (heart disease, hypertension, coronary artery disease, congestive heart disease, heart failure, heart attack (MI), stroke, high cholesterol) • Diabetes (pre-diabetes, diabetes mellitus 1, diabetes mellitus 2, etc.) • Chronic respiratory disease (asthma, chronic obstructive pulmonary disease (COPD), lung disease) • Cancer (all types) • Obesity (overweight, obesity, morbid obesity, healthy weight, weight reduction, etc.)	Population health (health status topic/ condition)
Maternal and infant health	Infant mortality, birth outcomes, including low birth weight and pre-term birth, and other health issues affecting the prenatal period through the first year of life	Population health (health status topic/ condition)
Infectious disease	Sexually transmitted infections, influenza, hospital-acquired, novel virus, HIV, Hepatitis C, immunization rates, access to and completion of recommended immunizations, etc.	Population health (health status topic/ condition)
Oral health	Dental care/treatment, cavities, extractions, etc.	Population health (health status topic/ condition)
Sexual and reproductive health	Sexual activity, condom use, unplanned pregnancy, teen pregnancy, use of contraception, sexually transmitted infections, etc.	Population health (health status topic/ condition)
Violence	Physical and emotional violence, such as relationship or intimate partner violence, domestic violence, child abuse, elder abuse, sexual violence, street violence, bullying	Population health (health status topic/ condition)
Injury	Such as motor vehicle or motorcycle crashes, bicycle, occupational safety, gun-related injuries or deaths, falls	Population health (health status topic/ condition)
Cross-cutting factors		
Health equity and disparities	Health equity and disparities by race, ethnicity, income or education level, age, gender, disability status, sexual orientation, geography or other characteristics	Population health
Social determinants of health	Social and economic environment • Education • Employment and poverty • Family and social support • Trauma, toxic stress and violence Physical environment • Air, water and toxic substances • Food access and food insecurity • Housing, built environment, transportation and access to physical activity	• Social and economic environment • Physical environment
Public health and prevention	• Public health workforce and accreditation • Public health funding • Communicable disease control • Health promotion and prevention	Public health and prevention
Health behaviors	• Tobacco use* (including use of cigarettes, cigars, hookah, e-cigarettes, chew/dip, etc.) • Nutrition/healthy eating • Physical activity/active living (fitness, exercise, sedentary lifestyle, etc.)	Population health
Healthcare system	• Preventive services • Hospital utilization • Timeliness, effectiveness and quality of care • Behavioral health	Healthcare system
Access	• General access, coverage and affordability • Behavioral health • Oral and vision care • Workforce	Access

*Note that tobacco use is discussed as a health behavior in the SHA, but could be included in mental health and addiction category.

Priority outcome selection process

The three priority topics represent very broad categories. In order to identify a manageable set of measurable objectives and strategies, SHIP planners identified three to four priority outcomes within each priority topic (see Figure 1.1).

HPIO developed an initial list of potential priority outcomes based on a review of metrics included in the SHA, outcomes being tracked in existing state plans and initiatives (see 2016 SHA Appendix A) and national sources such as Healthy People 2020. To be considered, outcomes had to be measurable with population-level data available for the state. This initial list was then narrowed down by the state agency team, prioritizing the outcomes that were most powerful for improving population health.

Each Work Team was then asked to further narrow the list of outcomes via an online survey using the following criteria:

- **Importance of the problem:** How important is it to address this problem in order to improve Ohio's overall health and economic vitality?
  - Considerations: Magnitude and severity of the problem; magnitude of disparities and impact on vulnerable populations; potential impact on wellbeing, healthcare spending, employment and productivity
- **Ability to impact:** How likely is it that we can improve the outcome within 3-6 years?
  - Considerations: Availability of evidence-based strategies (included links to CDC's Hi-5 and 6/18 initiatives); feasibility and cost of available evidence-based strategies; extent to which the outcome is preventable and it is realistic to think we can "move the needle" within 3-6 years
- **Alignment and connections:** Will including this outcome in the SHIP help us to build upon related activities in Ohio in a way that will result in greater impact and better connections across topics and sectors?
  - Considerations: Alignment with PCMH, episode-based payment, behavioral health redesign, Creating Healthy Communities, state-wide collaboratives and plans, local/regional health initiatives, etc.; potential strategies are cross-cutting or have co-benefits (strategies to address this outcome also impact potential outcomes in the other SHIP priority topic areas)

The specific outcome indicators and data sources are listed in figures 2.3 through 2.8. The Work Team surveys and additional information about the priority outcome selection process are documented in the **September Work Team conference calls meeting materials and presentations**.

Development of priority outcome objectives

Once the priority outcomes were identified, state agency staff developed more specific outcome objectives with baseline data and future targets (see Figures 2.3-2.8). Based on recent trends, the future targets are aspirational and take into consideration the estimated length of time it will take to see positive change. The most recently-available year for baseline data also varies by indicator. For these reasons, the state agencies set 2019 and 2022 targets for some objectives and 2019 or 2022 targets only for others.

The objective terminology used in the SHIP is described in Figure A.11. The terms "outcome," "indicator" and "target" are commonly used by organizations such as United Ways, and existing evaluation frameworks, such as Getting to Outcomes. Within the Results-Based Accountability model, a "result" for population accountability is equivalent to an "outcome" in the SHIP.

Figure A.11. **Definition of evaluation terms in SHIP**

	Outcome +	Indicator +	Target =	Outcome objective
Definition	**A desired result**	**A specific metric or measure used to quantify an outcome, typically expressed as a number, percent or rate**	**A specific number that quantifies the desired outcome**	**A statement describing the specific outcome to be achieved (including baseline data, a specific timeframe and a data source)**
Example	Reduced suicide deaths	Number of deaths due to suicide per 100,000 population	12.51 suicide deaths per 100,000 population in 2019	Reduce the number of deaths due to suicide per 100,000 population in Ohio from 13.9 to 12.51 in 2019

Strategy selection process

As outlined in Figure 1.1 in Part 1, the SHIP includes state and local-level strategies that address the cross-cutting factors:
- Equity (policies and programs likely to decrease disparities)
- Social determinants of health
- Public health, prevention and health behaviors
- Healthcare system and access

The stakeholder engagement and evidence review process used to select the SHIP strategies is described below.

Cross-cutting factors workshops

HPIO hosted a series of three in-person workshops to identify strategies to address cross-cutting factors in the SHIP:
- Maternal and infant health: Oct. 3, 2016
- Mental health and addiction: Oct. 4, 2016
- Chronic disease: Oct. 5, 2016

Within each workshop, participants worked in small groups to address the SHIP's four cross-cutting factors:
- Equity
- Social determinants of health
- Public health, prevention and health behaviors
- Healthcare system and access

Prior to and during the meetings, participants reviewed information about existing plans and evidence inventories that included relevant strategies with strong evidence of effectiveness based upon reviews from sources such as:
- Hi-5: Health Impact in 5 Years (U.S. Centers for Disease Control and Prevention)
- 6/18: Accelerating Evidence into Action (U.S. Centers for Disease Control and Prevention)
- The Guide to Community Preventive Services (Community Guide) (U.S. Centers for Disease Control and Prevention)
- What Works for Health (County Health Rankings and Roadmaps)
- U.S. Preventive Services Task Force Recommendations (Agency for Healthcare Research and Quality)
- Additional topic-specific sources

Using Nominal Group Technique, participants then identified strategies they recommended for inclusion in the SHIP, shared these recommendations during small group discussions and voted to identify high-priority strategies based on the following criteria:
- Evidence of effectiveness
- Potential size of impact
- Opportunities given the current status

Facilitators identified the top five strategies within each small group. The top-five strategy lists were required to include a balance of approaches across the life course, and at least one:

- Policy or systems change (vs. program or service)
- Strategy to reduce disparities or achieve equity
- Strategy to reduce tobacco use (in Public health, prevention and health behaviors and Healthcare system and access groups)
- Strategy to address each priority outcome (e.g., heart disease, diabetes and asthma)
- Strategy to address inter-pregnancy intervals (maternal and infant health)
- Strategy to address opioid prescribing (in mental health and addiction)
- Strategy to address hypertension, physical activity and nutrition (in chronic disease)

The workshop materials and results of the workshop strategy selection process are posted **here**.

Advisory Committee, Work Team and State Agency Team review of strategies

In October, Advisory Committee members met in three small groups (Chronic disease, Maternal and infant health and Mental health and addiction) to identify key connections across priority topics and ways to strengthen the set of strategies identified in the cross-cutting factors workshops. In a second round of discussions (grouped by cross-cutting factors), participants began to identify specific policies, system changes, programs, services or technical assistance/capacity building activities to consider for the SHIP for each strategy, including state and local-level options. A summary of the results of these discussions is posted **here**.

HPIO then built upon the information gathered during these discussions by reaching out to Work Team members with subject matter expertise specific to each strategy. The resulting "glide path" documents (lists of outcomes and strategies organized by the three cross-cutting categories) were then shared with the Work Teams and discussed during Work Team conference calls in November (materials posted **here**). The menu of strategies included in the community strategy and indicator toolkit is the final product of these discussions.

The final step in the strategy selection process was for the internal state agency team to identify a smaller sub-set of strategies as state commitments. These commitments are included in the Governor's biennial budget proposal and the state agency action plans.

APPENDIX B

APPROACH TO REVIEWING EVIDENCE AND ALIGNING WITH NATIONAL PRIORITIES

Sources of evidence

Throughout the SHIP development process, SHIP planners looked to credible sources of the best-available research evidence to identify strategies that have been proven effective in achieving the priority outcomes. Rather than rely on individual studies or anecdotal information, Work Team members consulted the systematic reviews and evidence registries listed in Figure B.1.

These sources either recommend strategies based on a comprehensive review of available research evidence, or rate the strength of the evidence of effectiveness for specific policies and programs. What Works for Health, for example, rates strategies on a six-point scale (scientifically supported, some evidence, expert opinion, insufficient evidence, mixed evidence and evidence of ineffectiveness). In most cases, SHIP planners only considered strategies that were found to have the strongest levels of effectiveness (see right column of Figure B.1). For SHIP outcomes where the evidence base is less well-developed (e.g., suicide, social connectedness, local housing policy to reduce asthma triggers), Work Team members also suggested additional strategies and sources of evidence.

Strategies recommended by CDC's Hi-5 and 6/18 initiatives (see Figure B.2) were particularly useful to the SHIP planning process because they are relevant to several SHIP priority outcomes and have been proven to both improve health outcomes and help to control healthcare costs.

Figure B.1. **Sources of evidence consulted to select SHIP strategies**

Systematic review or evidence registry	Recommendation level(s) included in SHIP evidence inventories reviewed by Work Teams
Comprehensive sources	
Hi-5 (Health Impact in 5 Years): U.S. Centers for Disease Control and Prevention (CDC) recommendations for non-clinical interventions that have evidence reporting: 1) positive health impacts, 2) results within five years, and 3) cost effectiveness and/or cost savings over the lifetime of the population or earlier	Recommended
6/18 (Accelerating Evidence into Action): CDC recommendations for traditional and innovative clinical interventions proven to improve health outcomes and control healthcare costs	Recommended
The Guide to Community Preventive Services (Community Guide, CG): Systematic reviews from the CDC	Recommended
What Works for Health (WWFH): Evidence registry from County Health Rankings and Roadmaps, a project of the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation	• Scientifically supported • Some evidence*
U.S. Preventive Services Task Force Recommendations (USPSTF): Systematic reviews from the Agency for Healthcare Research and Quality	• Grade A (recommended; high certainty of benefit) • Grade B (recommended; moderate certainty of benefit)
Additional topic-specific evidence registries	
National Registry of Evidence-Based Programs and Practices (NREPP): Evidence registry from SAMHSA	Reviewed programs
Office of Juvenile Justice and Delinquency Prevention Model Programs Guide (OJJDP): Evidence registry	Effective programs
The Nutrition Evidence Library: Systematic reviews on specific nutrition topics from the U.S. Department of Agriculture (USDA)	• Grade 1: Strong • Grade 2: Moderate
Agency on Healthcare Research and Quality (AHRQ) Innovations Exchange: Evidence registry (reviewed for selected interventions recommended by work team members)	• Strong • Moderate
Washington State Institute for Public Policy: Literature reviews and benefit-cost analyses on wide range of health and human services programs	• Positive outcomes and benifit-to-cost ratio

*What Works for Health (WWFH) has six rating levels (scientifically supported, some evidence, expert opinion, insufficient evidence, mixed evidence and evidence of ineffectiveness). With the exception of six strategies rated "expert opinion," all strategies included in the SHIP that were reviewed by WWFH were rated "scientifically supported" or "some evidence" as of September 2016. Six "expert opinion" strategies were included in the SHIP due to feedback from Work Team members: EBT payment at farmers' markets, minimum age tobacco laws, smoke-free policies for multi-unit housing, nutrition prescriptions, progesterone treatment and trauma-informed health care.

Limitations

It is important to note that the evidence base for effective population health strategies is continually evolving. Many of the sources listed in Figure B.1 update their recommendations and ratings on a regular basis. SHIP strategies are based on the best-available evidence as of September 2016. Local community health improvement planners are encouraged to periodically consult these websites for updates on what is most likely to work to achieve SHIP-aligned objectives. See HPIO's **Guide to evidence-based prevention** for additional guidance on navigating sources of evidence.

Furthermore, some types of strategies, such as infrastructure and systems changes, have not been reviewed by the sources listed in Figure B.1. Evidence reviews typically focus on programs and services, which made it challenging to assess the evidence of effectiveness for some strategies recommended by SHIP Work Team members.

Figure B.2. **SHIP strategy alignment with CDC's Hi-5 and 6/18 initiatives**

Recommended strategies	Mental Health and Addiction	Chronic Disease	Maternal and Infant Health
Hi-5: Health Impact in 5 years			
Early childhood education	✓	✓	✓
Home improvement loans and grants	✓	✓	✓
Earned income tax credits (EITC)	✓	✓	✓
School-based violence prevention	✓		
School-based programs to increase physical activity		✓	✓
Safe Routes to School (SRTS)		✓	✓
Tobacco control interventions (mass-reach communications campaigns, increasing the price of tobacco products, comprehensive smoke-free policies)	✓	✓	✓
6/18: Accelerating Evidence into Action			
Control and prevent diabetes (prediabetes screening and Diabetes Prevention Program)		✓	
Control high blood pressure (hypertension screening, follow-up and management)		✓	
Control asthma (asthma management and home visiting)		✓	
Prevent unintended pregnancy (support healthy birth spacing)			✓
Reduce tobacco use (tobacco cessation)	✓	✓	✓

National priorities and frameworks

In addition to the evidence reviews mentioned above, HPIO turned to the following national sources to guide development of the SHIP:

- The Institute for Healthcare Improvement's Triple Aim, County Health Rankings and Roadmaps' approach to population health and the National Prevention Strategy informed development of the SHA/SHIP conceptual framework and health topic typology.
- Healthy People 2020 informed identification of measurable objectives. The master list of SHIP indicators includes Healthy People 2020 objective identifiers when applicable.
- The County Health Rankings and Roadmaps list of measures informed selection of SHIP indicators. The Master list of SHIP indicators notes which indicators are available at the county level via County Health Rankings and Roadmaps.
- PHAB Standards and Measures Version 1.5 informed inclusion of critical components of the SHIP.
- The Association of State and Territorial Health Officials' *Developing a State Health Improvement Plan: Guidance and Resources* and the National Association of County and City Health Officials' Mobilizing for Action through Planning and Partnerships (MAPP) model informed the SHIP process, particularly related to prioritization.
- Review of SHIPs from other states, with a focus on PHAB-accredited states.

APPENDIX C

ASSETS, RESOURCES AND ALIGNMENT WITH OTHER STATE INITIATIVES

Figures C.1 lists existing state programs that support SHIP-aligned strategies, organized by stages of the life course. This human services asset and resource inventory was updated and released by the Governor's Office of Health Transformation in January 2017.

Figure C.2 on page 60 lists existing state-level assessments and plans, as well as corresponding assessment and planning documents at the local level.

Figure C.3 on page 62 describes the extent to which Ohio's current Comprehensive Primary Care (CPC) and episode-based care models align with SHIP Healthcare system and access strategies.

Figure C.1. **State asset and resource inventory**

Aspirational Goals	Lead State Agencies	Existing Programs and Resources (state and federally funded)
Infants are born healthy	• Developmental Disabilities • Health • Job and Family Services • Medicaid • Mental Health and Addiction Services	• ABCs of Infant Sleep • Child Fatality Review • Fetal Alcohol Spectrum Disorder Prevention • Genetic Services Program • Gestational Diabetes Collaborative • Help Me Grow prenatal to age three system of supports • Maternal Child Health Program • Maternal Depression Resources • Medicaid Programs for Children, Families, and Pregnant Women • Ohio Collaborative to Prevent Infant Mortality • Ohio Infant Mortality Reduction Initiative • Ohio Partners for Smoke Free Families (OPSFF) • Safe Havens for Newborns • Shaken Baby Education Program • Sudden Infant Death Syndrome Program • Women, Infants and Children Nutrition Program
Children are ready to learn	• Education • Health • Job and Family Services • Medicaid • Mental Health and Addiction Services	• Adoption Assistance • Child care regulation and subsidy programs • Child protective services to prevent abuse and neglect • Children's Hearing and Vision Program • Early and Periodic Screening, Diagnosis and Treatment (EPSDT) • Early childhood mental health services • Early learning and childhood education • Early Learning and Development Standards • Early Learning Challenge Grant • Foster care temporary placements with foster families • Immunization Program • Investments in Ohio Youth-Led Prevention Programs • Kinship care temporary placement with relatives • Ohio Hearing Aid Assistance Program • Ohio Interagency Work Group on Autism • Ohio's Kindergarten Readiness Assessment • Preschool and child care licensing • Step up to Quality early learning quality rating system

Figure C.1. **State asset and resource inventory** (cont.)

Children succeed in school	• Education • Facilities Construction Commission • Mental Health and Addiction Services	• Career Connections • Career-Technical Education • Disability-specific education resources • Dyslexia Resources for educations • Early Childhood Mental Health Initiative • Educational Choice (EdChoice) Scholarship Program • Educational Service Centers • Educator evaluations • Gifted education programs • Medicaid in Schools program • Ohio School Report cards • Ohio's K-12 Learning Standards • Positive Behavior Intervention and Support • Post-Secondary Enrollment Option (dual credit) • Project AWARE for early diagnosis of mental health concerns • Safe Schools/Healthy Students • Safer Schools Ohio • School Age Youth mental health and addiction services • School Facility Construction Programs • School food and nutrition programs • School transportation programs • Special education programs • Straight A Fund grants to improve education • Strong Families Safe Communities crisis intervention • Targeted Prevention Grants to fight substance abuse and addition • Third Grade Reading Guarantee Interventions • Traditional K-12 public school funding
Youth successfully transition to adulthood	• Adjutant General • Developmental Disabilities • Education • Health • Job and Family Services • Mental Health and Addiction Services • Opportunities for Ohioans with Disabilities • Tuition Trust Authority • Youth Services	• Abstinence education • Adult Basic and Literacy Education (ABLE) • Alternative Placements for Male and Female Offenders • Behavioral health and juvenile justice projects • Bridges to Transition employment for youth with disabilities • Buckeye United School District for youth in juvenile correctional facilities • Career Advising Policy and Student Success Plan requirements • Career Connections Framework • Career-Tech • Carl Perkins Act Career and Technical Education programs • Choose Ohio First STEMM program • College Advantage 529 Savings Program • College Credit Plus • Community Corrections Facilities • Comprehensive Case Management and Employment Program • Connecting the Dots for youth aging out of foster care • Dropout Prevention Program • Employment First for persons with developmental disabilities • Foster Youth Rights Handbook • High School Equivalency Test • Independent living and transitional assistance for youth • Internships and cooperative education (co-op)programs • Mental health services for transition-age youth • Nurse Education Assistance Loan Program • Ohio Adolescent Health Partnership • Ohio College Opportunity Grant • Ohio National Guard Scholarship Program • Ohio Safety Officers Memorial Fund • Ohio Transition Support Partnership for students with disabilities • Ohio War Orphans Scholarship • OhioLINK Academic Library Consortium • Parole Services • Pediatric Psychiatry Network • RECLAIM community alternatives to juvenile incarceration • Reducing childhood obesity • Reproductive Health and Wellness Program • State-run juvenile correctional facilities • Project AWARE for early diagnosis of mental health concerns • Safe Schools/Healthy Students • Safer Schools Ohio • School Age Youth mental health and addiction services • School Facility Construction Programs • School Food and Nutrition Programs • School Transportation • Special Education Programs • Straight A Fund grants to improve education • Strong Families Safe Communities crisis intervention • Targeted Prevention Grants to fight substance abuse and addiction • Third Grade Reading Guarantee Interventions • Traditional K-12 public school funding

Figure C.1. **State asset and resource inventory** (cont.)

Job seekers find meaningful work	• Adjutant General • Administrative Services • Aging • Development Services • Developmental Disabilities • Education • Higher Education • Job and Family Services • Mental Health and Addiction Services • Opportunities for Ohioans with Disabilities • Rehabilitation and Corrections • Transportation • Veterans Services	• Apprenticeship programs • Business Grants, Loans and Tax Credits • Business Site Selection and Certification • Certificate of Qualification for Employment for ex-offender reentry • Education job match to school district vacancies • Educator preparation metrics • Employment and Benefit Planning • Employment First for persons with developmental disabilities • English for Speakers of Other Languages(ESOL) • Federal Bonding Program • GI Promise for in-state tuition for any veteran • High School Equivalency Test • Higher education programs and resources for job creators • Higher education technology transfer and commercialization • InvestOhio income tax credit for business investment • Minority Business Enterprise and EDGE (Encouraging Diversity) Programs • National Dislocated Worker Grants • Offender Network for Employment to STOP Recidivism Project • Offender reentry workforce development programs • Ohio Business Gateway • Ohio Energy Pathways for jobseekers • Ohio Learn to Earn • Ohio Means Accessibility toolkit for persons with disabilities • OhioMeansJobs Centers • OhioMeansJobs connects businesses and jobseekers • OhioMeansJobs opportunities for veterans • Ohio National Guard Employer Outreach • Ohio Works Incentive Program • On-the-Job Training • Peer Services in a recovery-oriented system of care • Personal Care Assistance to seek a job • Rehabilitation and Correction Enterprise Development • Senior Community Service Employment Program • State of Ohio Career Opportunities • State Procurement Opportunities • Supported employment for people with mental illness • Third Frontier funding for technology-based companies • Transportation construction projects • Veterans education and employment benefits • Vocational Rehabilitation for persons with disabilities • Work Opportunity Tax Credit to hire hard-to-place workers • Workforce Development Equipment and Facility Program • Workforce Innovation and Opportunity Act (WIOA)programs • Specialized Recovery Services program for Medicaid enrollees
Workers support their families	• Adjutant General • Aging • Commerce • Development Services • Health • Higher Education • Job and Family Services • Medicaid • Opportunities for Ohioans with Disabilities • Taxation • Workers' Compensation	• Child care subsidy programs • Child care subsidy programs • Child support enforcement • Education opportunities for veterans and service members • Family Readiness and Warrior Support Program • Individual, business, and government tax administration • Medicaid Buy-In for Workers with Disabilities • Minority Business Services • National Family Caregiver Support Program • Ohio Works First time-limited cash assistance • On-the-Job Training programs • Personal Care Assistance to keep a job • Private-sector health plan coverage for low-income Ohioans • Rapid Response for layoff aversion and reemployment • Small Business Development Centers • Supplemental Nutrition Assistance Program(SNAP) • Temporary Assistance for Needy Families(TANF) • Unclaimed Funds • Unemployment compensation • Women, Infants and Children Nutrition Program • Workers' compensation workplace injury claims • Workforce Investment Act (WIA) • Workplace safety grants • Workplace wellness grants

Figure C.1. **State asset and resource inventory** (cont.)

Families thrive in strong communities	• Administrative Services • Agriculture • Commerce • Development Services • Environmental Protection Agency • Health • Insurance • Job and Family Services • Mental Health and Addiction Services • Natural Resources • Public Safety • Rehabilitation and Corrections • Transportation • Youth Services	• Addiction Treatment Program • Advanced Energy Efficiency Programs • Affordable Housing Programs • Bureau of Motor Vehicles • CLOSE to Home Free Transportation • Community Action Agencies • Community Economic Development Programs • Community Grants, Loans, Bonds, and Tax Credits • Community Innovations to link behavioral health and criminal justice • Community Linkage upon release from incarceration • Community Transition programs for behavioral health support • Cultural and Linguistic Competence • Division of Wildlife • Drug-Free Safety Program • Emergency Management Agency • Emergency Medical Services regulation and registries • Family and Community Health Services • Farmland preservation • First Episode Psychosis Project • Food assistance programs • Governor's Cabinet Opioid Action Team • Governor's Office of Appalachia • Health Messages in American Sign Language and Audio formats • Health Resource Toolkit for Addressing Opioid Abuse • Homeland Security • Juvenile Detention Alternatives Initiative • Land management programs • Liquor Control • MARCS statewide communication for public safety • Network of county mental health and addiction providers • Offender reentry programs • Office of Victim Services • Ohio for Responsible Gambling • Ohio Healthy Youth Environments Survey • Ohio Stepping Up initiative to reduce incarceration • Opioid Prescribing Guidelines • Prisoner community service programs • Project DAWN (Deaths Avoided with Naloxone) • Promote disease prevention, wellness, and healthy lifestyles • Psychological First Aid • Recovery Housing • Regulate air and water quality and other environmental laws • Regulate aircraft and airports • Regulate health care facilities • Regulate insurance products • Regulate mining • Regulate oil and gas resources • Regulate rail and railroad crossings • Rehabilitation and Correction Facilities • Report vital statistics and public health outcomes • Respond to public health emergencies • Specialized court docket programs • State Fire Marshal • State Highway Patrol • State Parks • Strategic Prevention Framework to build capacity and resources • Supplemental Nutrition Assistance Program(SNAP) • Synar Program for Tobacco Compliance • Temporary Assistance for Needy Families(TANF) • Therapeutic Communities in Prisons • Tourism Ohio marketing news and information • Trauma-Informed Care initiative • Urban Minority Alcoholism and Drug Abuse Outreach Programs • Veteran, service member and family support • Youth Offender Reentry Programming

Figure C.1. **State asset and resource inventory** (cont.)

Ohioans' special needs are met	• Development Services • Development Disabilities (includes local funds in addition to state and federal) • Health • Medicaid • Mental Health and Addiction Services • Opportunities for Ohioans with Disabilities • Veterans Services	• Access to Recovery Program • Adult Care Facilities and Adult Foster Homes • Adult day services and transportation for individuals with disabilities • Balancing Incentives Program for home and community-based services • Community Centers for the Deaf • Disability determination for Social Security disability benefits • Gambling addiction programs • Help Me Grow prenatal to age three system of supports • Home and Community-Based Services • HOME Choice to help move out of facility-based care • Homeless and Supportive Housing Programs • Independent Living Centers for persons with disabilities • Intermediate Care Facilities for Individuals with Disabilities • Medicaid Long-Term Care Services • Mental Health and Addiction Help Line • Nursing Facility Community Transition Resources • Projects for Assistance in Transitioning from Homelessness • Protect the health and safety of Ohioans with disabilities • Recovery Housing • Recovery Requires a Community • Regulate mental health care facilities • Residential subsidies for individuals with disabilities • Services for the visually impaired • State-run institutions for individuals with disabilities • State-run psychiatric hospitals • State-run veterans homes • Supported Living to remain in the community • Veteran crisis hotline
Retirees are safe and secure	• Aging • Insurance • Job and Family Services • Medicaid • Mental Health and Addiction Services • Opportunities for Ohioans with Disabilities	• Adult protective services • Connecting Older Adults to Volunteer Opportunities • Food assistance programs • Golden Buckeye Program • Grants for nursing home quality improvement projects • Healthy Aging Lifestyle Programs • Home and Community-Based Long-Term Services and Supports • Independent Living Older Blind Program • Long-Term Care Consumer Guide • Long-Term Care Ombudsman Programs • Medicaid health coverage for low-income seniors • Medicare premium assistance for low-income seniors • Medicare prescription assistance for low-income seniors • Mental health services for seniors • MyCare Ohio integrated Medicare-Medicaid benefits • Nursing Home Quality Initiatives • Ohio Senior Health Insurance Information Program • PASSPORT Home Care • Senior Farmers Market Nutrition Program • SteadyU Program to prevent falls

Figure C.2. **State- and local-level assessments and plans**

	Assessments		Plans	
Agency	State-level	Local-level	State-level	Local-level
Ohio Department of Health (and related collaboratives)	• **The Impact of Chronic Disease in Ohio: 2015** • **2015 Ohio Maternal and Child Health Needs Assessment Comprehensive Community Forum Report** • **Ohio Department of Health Maternal and Child Health Needs Assessment Stakeholder Survey Results** • **Title V Maternal and Child Health Five-Year Needs Assessment** • **Ohio Statewide Primary Care Needs Assessment: 2015-2016**	Local health departments are required to complete a Community Health Assessment within the past five years as a prerequisite for accreditation.	• **Ohio 2015-2016 State Health Improvement Plan Addendum** • **Ohio's Plan to Prevent and Reduce Chronic Disease: 2014-2018** • **The Ohio Comprehensive Cancer Control Plan 2015-2020** • **Ohio Infant Mortality Reduction Plan 2015-2020** • **Ohio Adolescent Health Strategic Plan** • **Ohio Injury Prevention Partnership, Child Injury Action Group Strategic Plan 2011-2016** • **Ohio Older Adult Falls Prevention Coalition Plan 2014-2016** • **Ohio Sexual and Intimate Partner Violence Prevention Consortium Strategic Plan** • Ohio FY 2015 Preventive Health and Health Services Block Grant • Ohio Strategic Plan for Tobacco: 2017-2019 [link not yet available]	Local health departments are required to complete a Community Health Improvement Plan within the past five years as a prerequisite for accreditation.
Ohio Department of Mental Health and Addiction Services (OMHAS)	**FY 2016/2017 State Behavioral Health Assessment and Plan** (Substance Abuse Prevention and Treatment and Community Mental Health Services Block Grant)	Alcohol, Drug and Mental Health (ADAMH) boards are required to submit a Community Plan to OMHAS every two years. Plan template includes assessment of need and identification of gaps and disparities. OMHAS summarized 2014 assessments/ plans in Community Plan Synthesis 2014 document.	**FY 2016/2017 State Behavioral Health Assessment and Plan** (Substance Abuse Prevention and Treatment and Community Mental Health Services Block Grant)	ADAMH boards are required to submit a Community Plan to OMHAS every two years. Plan template includes priorities, strategies and measurement. OMHAS summarized 2014 assessments/ plans in Community Plan Synthesis 2014 document.
Ohio Department of Aging (ODA)	N/A	N/A	**State Plan on Aging for FFY 2015-2018** (submitted to the U.S. Agency for Community Living (ACL) every four years)	Strategic Area Plans for Programs on Aging (submitted to ODA every four years by the 12 AAAs – with a required annual update for select sections of the plan, starting SFY 2019)

Figure C.2. **State- and local-level assessments and plans** (cont.)

	Assessments		Plans	
Agency	State-level	Local-level	State-level	Local-level
Ohio Department of Job and Family Services	**Ohio Statewide Needs Assessments**	Regional annual assessments/plans regarding child abuse and prevention (due in 2017)	• Community-Based Grants for the Prevention of Child Abuse and Neglect (CBCAP), annual • **Child and Family Services Plan (CFSP): 2015-2019** • **Ohio's Unified State Plan: Workforce Transformation**	Regional annual assessments/ plans regarding child abuse and prevention (due in 2017)
Ohio Department of Developmental Disabilities	• **National Core Indicators Consumer Survey report, annual** • **National Core Indicators Staff Stability survey** (addresses workforce issues)	N/A	• **Strategic Planning Leadership Group Final Report** • **State Systemic Improvement Plan for Part C Early Intervention** • **CMS Transition Plan** • **Ohio Autism Recommendations**	County Boards of Developmental Disabilities are required to develop and adopt strategic plans and report on progress annually. (no common template)
Ohio Department of Medicaid	N/A	N/A	N/A	N/A
Ohio Department of Veterans' Services	N/A	N/A	N/A	N/A
Ohio Family and Children First (OFCF)	N/A	N/A	The OFCF Cabinet Council will begin developing a strategic plan in late 2016.	The local Family and Children First Councils (FCFCs) are required to create a multi-year Shared Plan that identifies shared priorities in each community and how those priorities will be addressed through the local FCFCs.
Ohio Commission on Minority Health	N/A	N/A	• **Strategic Plan: 2016-2020 Update** • **Achieving equity and eliminating infant mortality disparities within racial and ethnic populations: From data to action**	N/A

Figure C.3. **Payer leverage matrix**

SHIP strategy	Alignment with state payment innovation activity	
	Comprehensive Primary Care (CPC)	Episode-based payment
Mental health and addiction		
Screening for alcohol and drug use for all patients 12+ using a standardized tool and, if screened positive, provision of or referral to appropriate follow-up care	Direct alignment	Direct alignment
Screening for clinical depression for all patients 12+ using a standardized tool and, if screened positive, provision of or referral to appropriate follow-up care	Not directly addressed	Not directly addressed
Screening for suicide for patients 12 or older using a standardized tool when indicated and, if screened positive, provision of or referral to appropriate follow-up care	Not directly addressed	Not directly addressed
Chronic disease		
Prediabetes screening and referral (see also USPSTF recommendation, American Diabetes Association Prediabetes Risk Assessment, and American Medical Association PSTAT toolkit)	Not directly addressed	Not directly addressed
Promote strategies that improve access and adherence to antihypertensive and lipid-lowering medications	Direct alignment	Direct alignment
Promote a team-based approach to controlling hypertension (e.g., physician, pharmacist, community health worker, and patient teams). Provide access to devices for self-measured blood pressure monitoring (SMBP) for home use and create individual, provider, and health-system incentives for compliance and meeting goals	Activity requirement; health condition not specifically mentioned	Not directly addressed
Promote evidence-based medical management following the 2007 National Asthma Education and Prevention Program guidelines (NAEPP Guidelines)	Direct alignment	Direct alignment
Promote strategies that improve access and adherence to asthma medications and devices	Not directly addressed	Direct alignment
Expand access to intensive self-management education for individuals whose asthma is not well-controlled with the 2007 National Asthma Education and Prevention Program (NAEPP Guidelines) based medical management alone	Activity requirement; health condition not specifically mentioned	Direct alignment
Expand access to home visits by licensed professionals or qualified lay health workers to improve self-management education and reduce home asthma triggers for individuals whose asthma is not well-controlled with the 2007 National Asthma Education and Prevention Program (NAEPP Guidelines) based medical management and intensive self-management education	Activity requirement; health condition not specifically mentioned	Direct alignment
Maternal and infant health		
Progesterone treatment (including screening for high-risk women)	Not directly addressed	Not directly addressed
Provider counseling with patients about preconception health and reproductive life plans	Not directly addressed	Not directly addressed
Comprehensive contraceptive options	Not directly addressed	Not directly addressed
Tobacco cessation		
Expand access to evidence-based tobacco cessation treatments including individual, group, and telephone counseling and all Food and Drug Administration (FDA)-approved cessation medications (in accordance with the 2008 Public Health Service Clinical Practice Guidelines)	Direct alignment	Direct alignment
Remove barriers that impede access to covered cessation treatments, such as cost sharing and prior authorization	Not directly addressed	Not directly addressed

Source: Governor's Office of Health Transformation, November 2016

For more information about the **2016 state health assessment** and **2017-2019 state health improvement plan**, visit

http://www.odh.ohio.gov/sha-ship