

Ohio Strategic Plan for Asthma 2021-2026

RELEASED: 04/04/2023



Mike DeWine, Governor
John Husted, Lt. Governor
Bruce Vanderhoff, MD, MBA, Director, Ohio Department of Health

Dyane Gogan-Turner, Chief, Bureau of Maternal Child Family Health
Allyson VanHorn, Section Chief, Child and Specialty Health Services
Sheronda Whitner, Principal Investigator, Asthma Program

Table of Contents

Letter from the Director..... 3

Acknowledgments 4

About the Ohio Department of Health Asthma Control Program..... 5

Mission to Advance Health Equity 6

About this Document..... 6

Executive Summary 7

Asthma in Ohio 9

Appendix A - Actionable Strategies to Improve Asthma Outcomes for Children in Ohio.....12

Appendix B – Workplan and Metrics14

Appendix C - Data Tables19

Appendix D – ODHAP’s Strategic Partners21

Appendix E – References.....22

[The Ohio Department of Health, Asthma Program](#)
Bureau of Maternal, Child, & Family Health
246 N. High Street
Columbus, Ohio 43215

This plan was supported by Centers for Disease Control and Prevention (CDC) Grant. Cooperative Notice of Award Number: 5 NUE1EH001385-02-00 “A Comprehensive Public Health Approach to Asthma Control through Evidence-Based Interventions” Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

Letter from the Director



Department
of Health

Mike DeWine, Governor
Jon Husted, Lt. Governor

Bruce Vanderhoff, MD, MBA, Director

Dear Fellow Ohioans,

Approximately 1.2 million Ohio adults have been told at some time in their life that they have asthma, including nearly 294,000 children, according to the U.S. Centers for Disease Control and Prevention (CDC). Asthma is a serious and life-long disease that causes swelling in the airways and can cause attacks that may include wheezing, coughing, and shortness of breath.

The federal government has recognized the seriousness of asthma and its impact upon the quality of life of affected persons. For this reason, the U.S. Department of Health and Human Services developed strategic guidelines that help shape CDC asthma program goals and create a framework for state agencies to establish their asthma program infrastructure.

The Ohio Department of Health Asthma Program has developed a five-year, Ohio Strategic Plan for Asthma with the goal of reducing the burden of asthma, raising equity in care for those affected by asthma, and increasing the quality of life for all Ohioans with asthma.

Ohioans can live with controlled asthma. It is my pleasure to support the strategic efforts of the Asthma Program as it seeks to accomplish the goals of this important work.

Please consider how your organization can join us in reducing the burden of asthma and improving the lives of Ohioans with asthma.

Sincerely,

A handwritten signature in black ink, appearing to read "Bruce Vanderhoff MD".

Bruce Vanderhoff, MD, MBA, Director
Ohio Department of Health

Acknowledgments

The Ohio Department of Health (ODH) collaborated with its Asthma Advisory Council to develop this document. The following individuals graciously contributed their time and expertise in providing input on the Ohio Strategic Plan for Asthma.

Asthma Advisory Council Members

- Alice Hoyt, MD, Cleveland Clinic
- Ann Connelly, MSN, RN, LSN, NCSN, ODH School Nursing Program
- Anne Kaup-Fett, RS, Clark County Combined Health District
- Bonnie Hubbard-Nicosia, Ohio Department of Medicaid
- Daniel Evans, MD, Dayton Children's Hospital
- Eileen Murtagh Kurowski, MD, Cincinnati Children's Hospital
- Girish Kaimal, Pharm.D., St. Vincent Charity Medical Center
- Hend Mostafa, MPH, ODH Primary Care Program
- Jordan Thepsourinthone, MS, ProMedica
- Leann Calvelage, ProMedica
- Lilleana Cavanaugh, Ohio Latino Affairs Commission
- Lisa Ulrich, MD, Nationwide Children's Hospital
- Maria Jirousek, MST, CTP, ODH Early Childhood Health Program
- Marilyn Walton, Akron Children's Hospital
- Mary Schatz, Akron Children's Hospital
- Ronna Porterfield, Nationwide Children's Partners for Kids
- Roxana Siles, MD, Cleveland Clinic
- Ruth Ann Norton, Green & Healthy Homes Initiative
- Tiffany Huber, Ohio Department of Health

About the Ohio Department of Health Asthma Control Program

The ODH Asthma Program's (ODHAP) scope of work encompasses activities that support strategic cross-sector partnerships to achieve improved asthma control and quality of life for Ohio children with asthma by expanding Centers for Disease Control and Prevention (CDC) EXHALE Strategies and advancing equity. For a list of ODHAP strategic partners, review Appendix D.

ODHAP works in collaboration with other state agencies and clinical and community partners to increase access to comprehensive, culturally appropriate, guidelines-based care, and social determinants of health to reduce the burden of asthma for children in Ohio. Located within the ODH Bureau of Maternal, Child and Family Health, ODHAP is funded by the CDC.

CDC's National Asthma Control Program

In 2019, the CDC National Asthma Control Program awarded Ohio competitive funding for CDC-RFA-EH19-1902, "A Comprehensive Public Health Approach to Asthma Control through Evidence-Based Interventions." The purpose of the award is to improve the reach, quality, effectiveness, and sustainability of asthma control services and to reduce asthma morbidity, mortality, and disparities by implementing evidence-based strategies across multiple sectors.

CDC's EXHALE Strategies

CDC has determined that [EXHALE strategies](#), based on the best available evidence, can improve asthma control and reduce health care costs. They are intended as a resource to inform decision-making in communities, organizations, and states. ODHAP will strengthen existing organizational infrastructure to expand the reach of services through the six **EXHALE** strategies:

1. **E**ducation on asthma self-management.
2. **X**-tinguishing smoking and exposure to second-hand smoke.
3. **H**ome visits for trigger reduction and asthma self-management education.
4. **A**chievement of guidelines-based medical management.
5. **L**inkages and coordination of care across settings.
6. **E**nvironmental policies or best practices to reduce asthma triggers from indoor, outdoor, or occupational sources.

Mission to Advance Health Equity

Despite ongoing and targeted efforts by ODHAP and strategic partners throughout the state, asthma-related health disparities continue to persist. These disparities are believed to be linked to social factors such as housing, access to healthcare, education and literacy, environment, socioeconomic status, and ZIP code.

It is the mission of ODHAP to engage individuals and entities intentionally and consistently across sectors and disciplines to build capacity and promote health equity to eliminate disparities, improve quality of life, and achieve optimal health outcomes for people with asthma in Ohio.

About This Document

The goals, objectives, and strategies in this strategic plan were developed by ODHAP in collaboration with its Asthma Advisory Council (AAC). The intent in creating the AAC was to establish a diverse, ad-hoc, interdisciplinary group for ODHAP to call upon to gain insight for program activities, reports, and plans from a variety of asthma stakeholders. The first objective for the AAC was to inform the writing and creation of the Ohio Strategic Plan for Asthma. The AAC met virtually to discuss the plan and participated in online surveys prepared by ODHAP between meetings to provide feedback on meeting topics. Feedback provided during the meetings, as well as survey results, were considered during the planning stages of this strategic plan and can be directly seen in the plan's goals and activities.

Additionally, ODHAP conducted two Community Listening Sessions to speak with families who have a child or children with asthma to spark conversation about asthma care and resources. The discussion led ODHAP to create new activities to improve access to asthma education resources for children with asthma and their caregivers.

The Ohio Strategic Plan for Asthma was developed with careful consideration of what goals and activities were most important, feasible, and impactful to reduce disparities and increase the quality of life of children in Ohio with asthma. This plan will outline ODHAP's work for the next five years and highlight how activities will be implemented with key partners.

The Ohio Strategic Plan for Asthma will:

- Identify groups experiencing the highest asthma burden and provide a description of their unique needs and methods for addressing these needs.
- Assess the current availability of asthma control services.
- Describe the roles of the ODH Asthma Program and lead partners.
- Describe the burden of asthma for Ohioans.
- Describe the goals and strategies to implement collaboratively by the recipient and its partners and the expected outcomes and timeline for completion.

Executive Summary

The purpose of this plan is to provide a strategic direction for reducing the burden of asthma for children while reducing asthma disparities for Black children in Ohio. Black children are not only at increased risk of developing asthma, but also are more likely to have severe asthma once the disease develops. Asthma is a complex disease that necessitates a comprehensive, cross-sector approach to mitigate its effects on the lives of children and their caregivers. To that end, multiple and varied evidence-based approaches that address clinical, environmental, and community conditions will be most effective.

Asthma is the most common chronic disease in children and imposes a significant burden on Ohio's healthcare system and the quality of life of children with asthma. Optimal asthma control can lead to improved overall health and wellbeing and reduces emergency room visits, hospitalizations, and avoidable deaths. While there is no cure for asthma and it never entirely goes away, the symptoms can be managed so that people can live normal, active, and healthy lives.

The Ohio Strategic Plan for Asthma outlines a comprehensive approach to address asthma through coordinated efforts focused on primary prevention, such as reducing maternal prenatal smoking to decrease the occurrence of asthma, and tertiary prevention (such as reducing secondhand smoke exposure) to protect those with asthma from complications. ODHAP's role is to coordinate, monitor, and evaluate these comprehensive activities to determine their efficacy in achieving the primary goals of ODHAP, and ensure proper alignment with national and state goals and objectives.

ODH Asthma Program – Primary Goals

As the Ohio Strategic Plan for Asthma was developed, objectives and strategies were crafted around four primary goals for ODHAP that align with the CDC National Asthma Control Program and support a comprehensive model of care that is based in policy and systems change.

1. Leverage partnerships and policies to expand EXHALE strategies to ensure availability, efficiency, effectiveness, and health equity across sectors.
2. Improve and expand current data monitoring systems to support improved comprehensive asthma management efforts, and advance health equity for children with asthma in Ohio.
3. Increase provider capacity to refer to and deliver culturally appropriate, coordinated, guidelines-based asthma care and other integrated, sustainable comprehensive asthma control services through a comprehensive network of diverse professionals.
4. Increase access to social determinants of health and guidelines-based care, and empower patients and caregivers to better manage asthma, and advocate for themselves in clinical and community settings.

Ohio's State Health Improvement Plan

The [State Health Improvement Plan \(SHIP\)](#) is a tool to strengthen state and local efforts to improve health, well-being, and economic vitality in Ohio. The SHIP provides a menu of evidence-informed strategies and an evaluation plan to track and report progress on measurable objectives on a framework of six priorities consisting of three health factors (community conditions, health behaviors, and access to care), and three health outcomes (mental health and addiction, chronic disease, and maternal and infant health). Childhood asthma is included within the Chronic Disease priority.

With the long-term goal of ensuring all Ohioans achieve their full health potential, the SHIP takes a comprehensive approach to achieving equity and addressing the many factors that shape our health, including housing, poverty, education, and trauma. Specific to asthma, the SHIP monitors Emergency department visits for pediatric asthma for children, ages 0-17, per 10,000 population and tracks this metric for all children.

National Institute of Health - National Asthma Education and Prevention Program Guidelines

Guidelines issued by the [National Institute of Health's National Asthma Education and Prevention Program \(NAEPP\)](#) in 2020 specify essential components of asthma management, including patient education, objective monitoring of symptoms, and avoiding asthma triggers.

Centers for Disease Control - Controlling Childhood Asthma Reducing Emergencies

In updating the Ohio Strategic Plan for Asthma, national guidelines, priorities, strategies, and initiatives were used as the underlying framework. ODH Asthma Program goals and activities also align with the Centers for Disease Control (CDC) initiative, [Controlling Childhood Asthma Reducing Emergencies \(CCARE\)](#), which focuses on key measures to improve childhood asthma outcomes with the main goal of reducing childhood hospitalizations for asthma on a national level.

Healthy People 2030 Framework

[Healthy People 2030, which sets data-driven national objectives to improve health and well-being over the next decade](#), prioritizes reducing the rates of disease and death associated with asthma by prevention, detection, and treatment of respiratory diseases, to reduce the following adverse asthma-related outcomes:

- Asthma deaths.
- Asthma attacks.
- Emergency department visits for children and adults with asthma.

This strategic plan has been designed to function as a roadmap for asthma activities and as a call to action for all organizations and individuals who work on issues related to asthma in Ohio. The goal is to highlight opportunities for partnership across multiple sectors, avoid duplication of efforts, and encourage leveraging of resources, to create opportunities to advance health equity and decrease the burden of asthma.

Sections of this plan describe what asthma is, the burden of asthma in Ohio, the purpose and framework of the plan, how the ODHAP will work toward reducing asthma burden and disparities, goals, and objectives, and how the plan will be evaluated. The Ohio Strategic Asthma Plan is intended to be a working document and development and evolution of the plan will occur on an ongoing basis. This plan will be reviewed for progress at the end of funding year three for progress, and to ensure that it continues to reflect priorities and opportunities available to ODHAP.

Asthma in Ohio

What is Asthma?

Asthma is a chronic disease of the lungs that causes swelling, mucous production, and tightening of the airways that can result in repeated episodes of difficulty breathing, chest tightness, wheezing, and coughing that may cause fatigue and difficulty in performing everyday activities. Asthma is the most common chronic disease in children and imposes a significant burden on Ohio's healthcare system and the quality of life of children with asthma.

ODHAP focuses on reducing the burden of the disease by promoting culturally appropriate and guidelines-based clinical management, self-management education, healthy environments, and focusing efforts in high-burden priority counties with high rates of pediatric hospital utilization.

Getting asthma under control with proper asthma management, and mitigating environmental triggers, can lead to improved overall health and wellbeing and reduced emergency room visits, hospitalizations, and avoidable deaths. There is no cure for asthma, but the symptoms can be managed so that people can live normal, active, and healthy lives. This plan seeks to support Ohioans in achieving this goal and to advance efforts around asthma prevention.

Asthma Practices Survey

The Asthma Practices Survey (APS) examines the availability of asthma control services in Ohio. This survey was first conducted in the spring of 2019 and is in development for winter 2022. The survey will identify any trends related to asthma-related organizational practices, utilization of EXHALE strategies, and implementation of NAEPP Guidelines in hospitals and other healthcare settings across the state. This web-based survey is designed to collect details about how various organizations work with individuals with asthma, with the goal of using this information to target strategies to fill current gaps in asthma care, leading to reduced asthma hospitalization rates and improved patient asthma management.

Some key findings from the 2019 APS are listed below and informed development of this strategic plan:

- 67.6% of providers surveyed provide Asthma Action Plans to their patients.
- 70.6% of providers surveyed evaluate tobacco use during home visits.
- 27.8% of providers rated themselves “not knowledgeable at all” of NAEPP Guidelines.
- 59% of providers follow up on referrals to ensure patients accessed care.

Burden of Asthma

[The Burden of Asthma in Ohio](#), published in 2019, is a companion document to this strategic plan. It provides data that highlight the pressing burden of the disease. The surveillance data contained in the report informed the goals, objectives, and targets of this strategic plan.

Asthma continues to be a major burden to the quality of life for children with asthma and to Ohio's healthcare system. In Ohio, 1.2 million adults and 297,000 children reported that they have been told they had asthma at some time in their life.

Although asthma can affect anyone, those most commonly affected in Ohio are:

- Children under five years of age.
- Low-income residents.
- Adult women.
- Black Ohioans.
- Urban residents.

Ohio Priority Counties

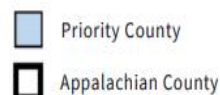
All Ohio counties with a child emergency department (ED)/hospitalization rate for asthma greater than the Ohio rate are designated as priority counties for the 2019-2024 CDC grant period. In 2017-2018, 11 counties had a child ED/hospitalization rate for asthma greater than the state rate of 80.3 visits per 10,000 residents.

Priority counties:

Ashtabula	Franklin	Mahoning
Columbiana	Hamilton	Montgomery
Cuyahoga	Lorain	Summit
Erie	Lucas	

Key Findings from 2019 ODH Asthma Burden Report

- There are more than 1 million Ohioans living with asthma. There are racial, educational, and economic disparities in asthma prevalence.
- Black children in Ohio visit the emergency room and hospital at a rate more than four times greater than that of white children.
- The rate of emergency department visits and hospitalizations is greatest among young children under the age of five, with a rate of 104.0 visits per 10,000 residents.
- In 2018, there were 129 deaths in Ohio due to asthma.



Sources: Ohio Hospital Association; Bridged-Race Population Estimates on CDC WONDE On-line Database, 2017-2018.

Asthma Disparities

According to the CDC, health disparities are defined as “preventable differences in the burden of disease, injury, violence, or opportunities to achieve optimal health that are experienced by socially disadvantaged populations.” Even with continued advances in healthcare and technology, racial and ethnic minorities continue to have higher rates of disease, disability, and premature death than non-minorities.

Race, Income, and Educational Attainment

- The prevalence rate of asthma in Ohio is significantly higher among low-income families; adults without a high school degree; and the Black population, especially children.
- The prevalence rate of asthma among children in low-income households (<\$25,000 per year) is 10.9% compared with 6.4% among children with a household income of \$50,000 or more.
- The prevalence of asthma among Black children is more than two times that of white children (13.9% compared to 5.6%, respectively).
- Asthma prevalence is greatest among adults who did not complete high school (14.6%), compared to college graduates (6.8%).

Emergency Department Visits and Hospitalizations

- The rate of ED visits and hospitalizations is greatest among children under the age of five (104.0 visits per 10,000 residents).
- Black children in Ohio visit the emergency room/hospital at a rate more than four times greater than that of white children (197.6 per 10,000 residents vs. 43.7 per 10,000 residents).
- While Black children account for about 18% of the child population in Ohio, one half (49%) of asthma emergency department visits and hospitalizations for children in Ohio are by Black children.

Addressing Asthma Disparities in Ohio

To address the complexity of asthma care and social determinants of health, ODHAP partnered with the ODH Office of Health Equity to ensure thorough integration of prevention strategies that address the policies and systems that drive inequity.

This statewide plan includes the following approaches to advance equity:

- Target asthma interventions in areas of high disease burden and identify strategic partnerships to support upstream projects focused on making a collective and lasting impact in the reduction of asthma disparities.
- Increase access to high-quality, culturally appropriate disease prevention activities that influence social norms and support healthy behaviors.
- Develop a network of trusted messengers who can empower the community and provide “teachable moments” to children with asthma and their caregivers.
- Provide opportunities for healthcare providers to learn about health equity, cultural competence, implicit bias, and structural racism.
- Use surveillance and evaluation to track disparities and progress toward advancing equity.

Appendix A - Actionable Strategies to Improve Asthma Outcomes for Children in Ohio

This section of the plan outlines priority areas and activities. They reflect the major areas of priority as identified by the Ohio Department of Health Asthma Program (ODHAP) and the Asthma Advisory Council (AAC).

Priority Area 1: Strategic Partnerships

Primary Goal 1: Leverage partnerships and policies to expand EXHALE strategies to ensure availability, efficiency, effectiveness, and health equity across sectors.

- A. Convene the Strategic Evaluation Planning (SEP) Team. The SEP Team is a small group of diverse stakeholders that meet regularly to engage in evaluation capacity building and inform and support strategic and individual evaluation plans.
- B. Convene the Healthcare Payer Work Group (HPWG). The HPWG is composed of managed care organizations, private insurance companies, and accountable care organizations to coordinate care and activities related to asthma and increase access to asthma medication and devices.
- C. Convene the AAC on an ad hoc basis. This small, diverse group of asthma stakeholders supports development of the Ohio Strategic Plan for Asthma and inform development of new asthma projects and strategies.
- D. Collaborate with other ODH programs and stakeholders [e.g., Office of Health Equity; Home Visiting; Maternal and Child Health; Women, Infants & Children (WIC); and the Tobacco Use Prevention and Cessation Program] to increase access to social determinants of health and provide linkages to clinical and community resources.
- E. Collaborate with other ODH programs and stakeholders to increase internal capacity to help address this issue.
- F. Collaborate with other ODH programs and stakeholders to add new data sources and strengthen the sustainability of programs that support children with asthma.
- G. Encourage the adoption of comprehensive asthma management policies in school districts, including a model asthma policy, stock albuterol policy, a tobacco-free schools' policy.

Priority Area 2: Data and Evaluation

Primary Goal 2: Improve and expand current data monitoring systems to support improved comprehensive asthma management efforts and advance health equity for children with asthma in Ohio.

- A. Monitor the prevalence of asthma and trends in asthma-related disparities in various subpopulations by using surveys such as the Behavioral Risk Factor Surveillance System (BRFSS) survey, Ohio Medicaid Assessment Survey (OMAS), and the National Survey of Children's Health (NSCH).
- B. Monitor trends associated with asthma self-management and control such as environmental tobacco smoke, social determinants of health, and health behaviors using various surveys.
- C. Monitor trends in provision of guidelines-based asthma management such as influenza vaccination, self-management education, asthma medication ratio using Asthma Practices Survey data, program performance and evaluation metrics, and Healthcare Effectiveness Data and Information Set (HEDIS) measures.

Priority Area 3: Clinical and Community Capacity

Primary Goal 3: Increase provider capacity to refer to and deliver culturally appropriate, coordinated, guidelines-based asthma care and other integrated, sustainable comprehensive asthma control services among a cadre of diverse professionals.

- A. Collaborate with partners to increase culturally appropriate guidelines-based care, provide organization-wide strategies to address equity, increase access to social determinants of health, provide linkages to clinical and community resources, and strengthen sustainability of programs that support children with asthma and their caregivers.

Priority Area 4: Clinical & Community Linkages

Primary Goal 4: Increase access to the social determinants of health and guidelines-based care and to empower patients and caregivers to better manage asthma and advocate for themselves in clinical and community settings.

- A. Create opportunities to engage community members to listen to authentic, diverse voices and gain insight on how to address health equity and social determinants of health for children with asthma and their caregivers.
- B. Increase access to asthma support services in partnership with the Healthcare Payer Work Group and the Ohio Department of Medicaid.
- C. Explore new ways to share asthma education and resources with people with asthma and their caregivers.

Appendix B – Workplan and Metrics

This work plan will be reviewed and updated annually. The findings will be provided in an annual report that will be distributed to asthma stakeholders and provided on the ODH website.

Activity	Metric	Action Steps/Projects	Data Source	Responsibility
1A. Convene the Strategic Evaluation Planning (SEP) Team.	<ol style="list-style-type: none"> 1. Number of members 2. Sectors represented through members 3. Meeting dates 4. Meeting evaluations (surveys, etc.) 	<ol style="list-style-type: none"> 1. 3-4 meetings per year 2. Monthly emails (providing updates, resources, etc.) 		External Evaluator
1B. Convene the Healthcare Payer Work Group (HPWG).	<ol style="list-style-type: none"> 1. Number of members 2. Meeting dates 3. Meeting evaluations (surveys, etc.) 	<ol style="list-style-type: none"> 1. Two meetings per year 		External Evaluator
1C. Convene the Asthma Advisory Council (AAC) on an ad hoc basis.	<ol style="list-style-type: none"> 1. Number of members 2. Sectors represented through members 3. Meeting dates 4. Meeting evaluations (surveys, etc.) 	<ol style="list-style-type: none"> 1. Annual review of this document 2. Other meetings on an ad hoc basis 		External Evaluator
1D. Collaborate with programs and stakeholders at the Ohio Department of Health to increase access to social determinants of health and provide linkages to clinical and community resources.	<ol style="list-style-type: none"> 1. Number of community members trained in utilizing SAAAMPRO dashboard 2. Number of schools enrolled in Asthma School Support Partnership 3. Number of AHAP participants referred to payer care management programs 4. Downloads and engagement with Patient Flyer 5. Downloads and engagement with Provider Toolkit 6. Asthma Information Survey results 	<ol style="list-style-type: none"> 1. Asthma School Support Partnership 2. AHAP 3. Interagency collaboration 4. Website updates 5. Asthma Information Survey 		ODH Staff

Activity	Metric	Action Steps/Projects	Data Source	Responsibility
1E. Collaborate with programs and stakeholders at the Ohio Department of Health and outside organizations to increase internal capacity.	<ol style="list-style-type: none"> 1. Number of attended NAEPP focused update trainings 2. Number of attended equity trainings 3. Number of attended evaluation trainings 1. How trainings were incorporated into Program 	<ol style="list-style-type: none"> 1. Interagency collaboration 1. Outside organization trainings and educational opportunities 		ODH Staff
1F. Collaborate with programs and stakeholders at the Ohio Department of Health to add new data sources and strengthen the sustainability of programs that support children with asthma.	<ol style="list-style-type: none"> 2. Establish business case analysis for AHAP 3. Number of payers who make organizational changes based on business case analysis findings 1. Reduced costs for AHAP-enrolled children 	<ol style="list-style-type: none"> 2. Asthma School Support Partnership 3. AHAP 4. Interagency collaboration 1. Website updates 		External Evaluator
1G. Expand adoption of comprehensive asthma management policies in school districts, including a model asthma policy, stock albuterol policy, a tobacco-free schools policy.	<ol style="list-style-type: none"> 2. Number of school districts who adopt Model Asthma Policy 3. Number of school districts with Stock Albuterol Policy 1. Number of school districts who adopt Tobacco-Free Schools Policy 	<ol style="list-style-type: none"> 1. Asthma School Support Partnership 		ODH Staff
2A. Monitor the prevalence of asthma and trends in asthma-related disparities in various subpopulations by using various surveys.	<ol style="list-style-type: none"> 2. Number of data reports generated 3. Downloads and engagement on data reports 4. Asthma Information Survey feedback 1. Data included on Asthma Dashboard 	<ol style="list-style-type: none"> 2. Asthma Disparities Report 3. Asthma Burden Report 4. Asthma Practices Survey Report 1. Asthma Callback Survey Report 	<ol style="list-style-type: none"> 1. Behavioral Risk Factor Surveillance System (BRFSS) Survey 2. Ohio Hospital Association (OHA) data 3. Ohio Medicaid Assessment Survey (OMAS) 4. National Survey of Children's Health (NSCH) 5. Other data sources 	External Evaluator, Data Team, ODH Staff

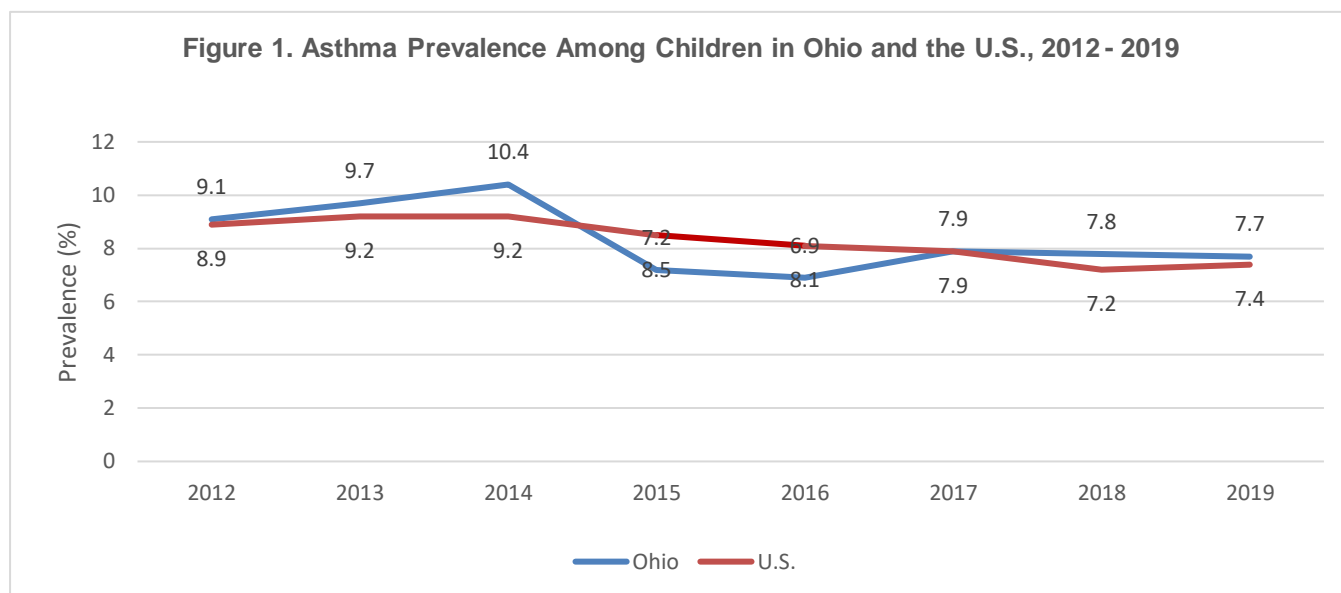
Activity	Metric	Action Steps/Projects	Data Source	Responsibility
2B. Monitor trends associated with asthma self-management and control such as environmental tobacco smoke, social determinants of health, and health behaviors using various surveys.	<ol style="list-style-type: none"> 2. Number of new data sources from internal partners 3. Number of new reports or resources 4. Downloads and engagement on data reports 5. Number of data-driven programmatic changes 6. Number of ODHAP resources provided to internal partners <p>Number of linkages for children with asthma related to internal partnerships</p>	<ul style="list-style-type: none"> • Develop strategic partnerships to gain new data sources 	<ol style="list-style-type: none"> 1. Youth Risk Behavior Survey (YRBS) 2. Youth Tobacco Survey (YTS) 3. Asthma Call Back Survey (ACBS) 4. National Child Health Survey (NCHS) <p>Asthma Control Test scores for enrolled program participants</p>	External Evaluator, Data Team, ODH Staff
2C. Monitor trends in provision of guidelines-based asthma management such as influenza vaccination, self-management education, asthma medication ratio, program performance and evaluation metrics, and Healthcare Effectiveness Data and Information Set (HEDIS) measures.	<ol style="list-style-type: none"> 1. Number of reports or resources generated using core and additional data sets. 2. Number of downloads 3. AIS Feedback 4. Decreased rate of flu for people with asthma 5. Increase of number of community and clinical partners engaging in OAS 6. Increased asthma control for OAS participants 7. Increased AMR HEDIS Measures by Payer Orgs in HPWG 8. Program Performance and Evaluation Metrics 	<ul style="list-style-type: none"> • Strategic Evaluation Plan • Asthma Information Survey • Asthma Practices Survey • Asthma Advisory Council • AHAP • Healthcare Payer Work Group • Ohio Department of Medicaid Claims data • Annual report to stakeholders • Business case analysis 		External Evaluator, Data Team, ODH Staff

Activity	Metric	Action Steps/Projects	Data Source	Responsibility
3A. Collaborate with partners to increase culturally appropriate guidelines-based care, provide organization-wide strategies to address equity, increase access to social determinants of health, provide linkages to clinical and community resources, and strengthen sustainability of programs that support children with asthma and their caregivers.	<p>Number of ACIC meetings</p> <p>Webinar attendee data</p> <p>Number of HPWG meetings</p> <p>Number of website views and downloads for Stakeholder Engagement Summary</p> <p>Number of Ohio registrants for NEEF training</p> <p>1.</p>	<ul style="list-style-type: none"> • ACIC • Webinars • EPA Asthma Home Assessment Training • HPWG • ODH Home Visiting Program Partnership • ODH School Nursing Partnership • Asthma Program Stakeholder Engagement Summary 		External Evaluator, ODH Staff
4A. Create opportunities to engage with members of the community to listen to authentic, diverse voices and gain insight on how to address health equity and social determinants of health for children with asthma and their caregivers.	<p>2. Number of community listening sessions in priority counties for parents of people with asthma</p> <p>3. Number of community listening sessions in high-burden school districts</p> <p>How feedback is incorporated into ODHAP activities/strategies</p>	<p>1. Community Listening Sessions</p> <p>2. Engaging non-traditional partners to provide self-management education</p> <p>3. Develop one-pager to report these findings to providers</p> <p>4. Partnership with Early Childhood Program</p>	Community Listening Sessions, OMHAS data	ODH Staff
4B. Increase access to asthma support services in partnership with Healthcare Payer Work Group and Ohio Department of Medicaid.	<p>1. Number of resources available promoting asthma support services</p> <p>2. Website views and downloads for resources</p>	<p>1. Evaluation using Ohio Department of Medicaid claims data</p> <p>2. IEP for access to medication and devices supporting health and wellness for people with asthma</p>	School Nursing Program data	External Evaluator, Data Team, ODH Staff

Activity	Metric	Action Steps/Projects	Data Source	Responsibility
4C. Explore new ways to share asthma education and resources with people with asthma and their caregivers.	<ol style="list-style-type: none"> 1. Website views and downloads for resources 2. Number of posters sent to schools 3. Partnership with home visiting 4. Number of resources provided to families 	<ol style="list-style-type: none"> 1. Develop tools and resources to meet needs of non-English speaking populations 2. Develop age and culturally appropriate educational materials for children with asthma based on feedback from Community Listening Sessions 3. Develop culturally appropriate educational materials and tools for parents and caregivers of children with asthma 4. Maintain a consistent social media presence focused on increasing access to asthma education and resources in communities of high social vulnerability and asthma burden 		ODH Staff

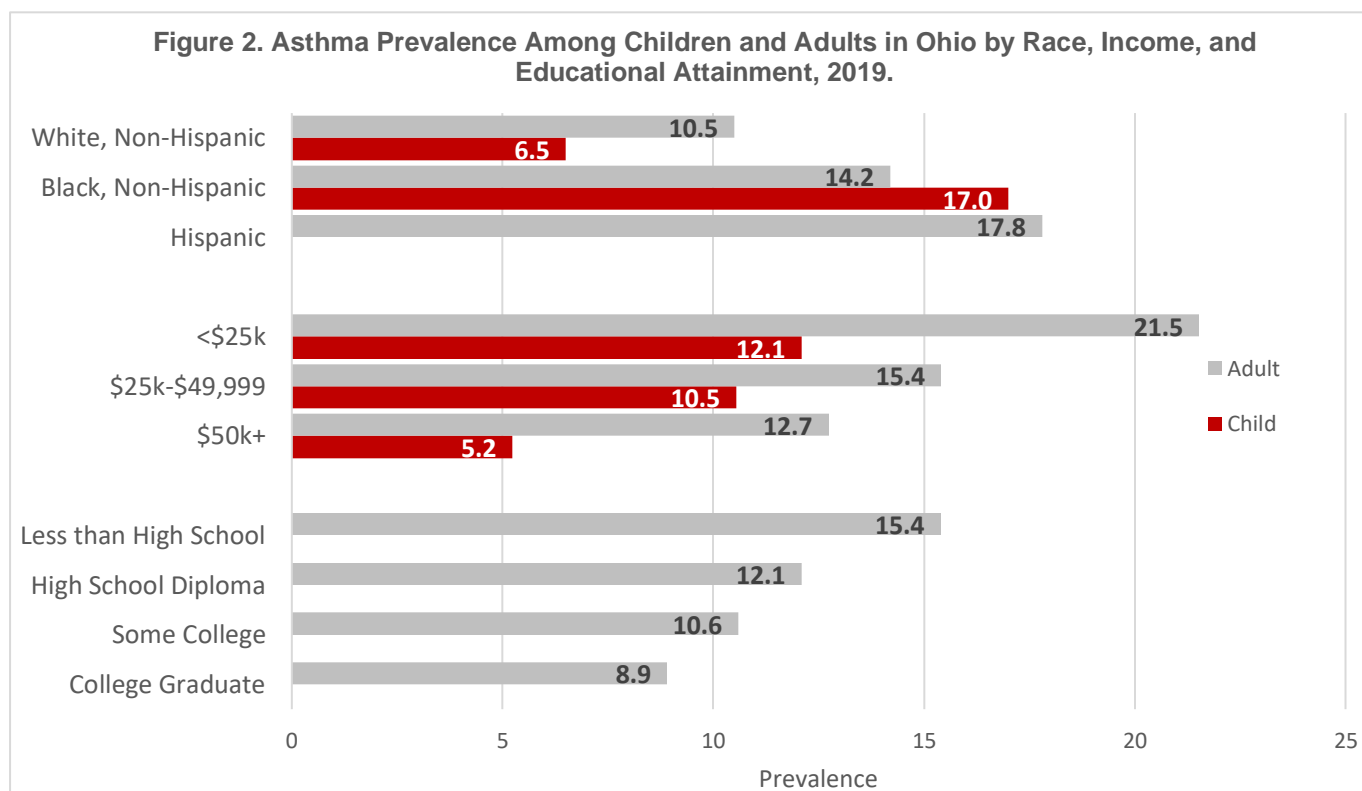
Appendix C - Data Tables

Asthma Prevalence in Ohio and the U.S.



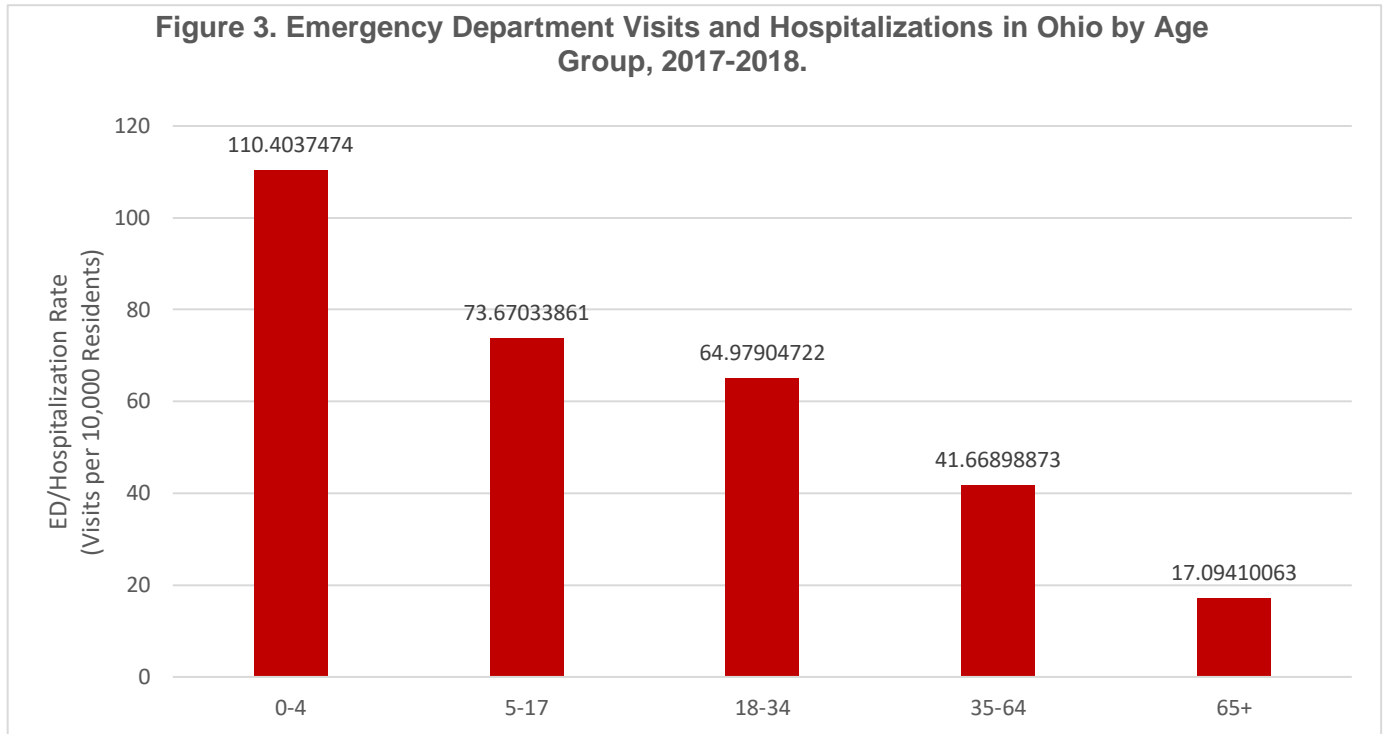
Sources: CDC, Behavioral Risk Factor Surveillance System Survey Data, 2012-2019.

Asthma Prevalence by Race, Income, and Educational Attainment



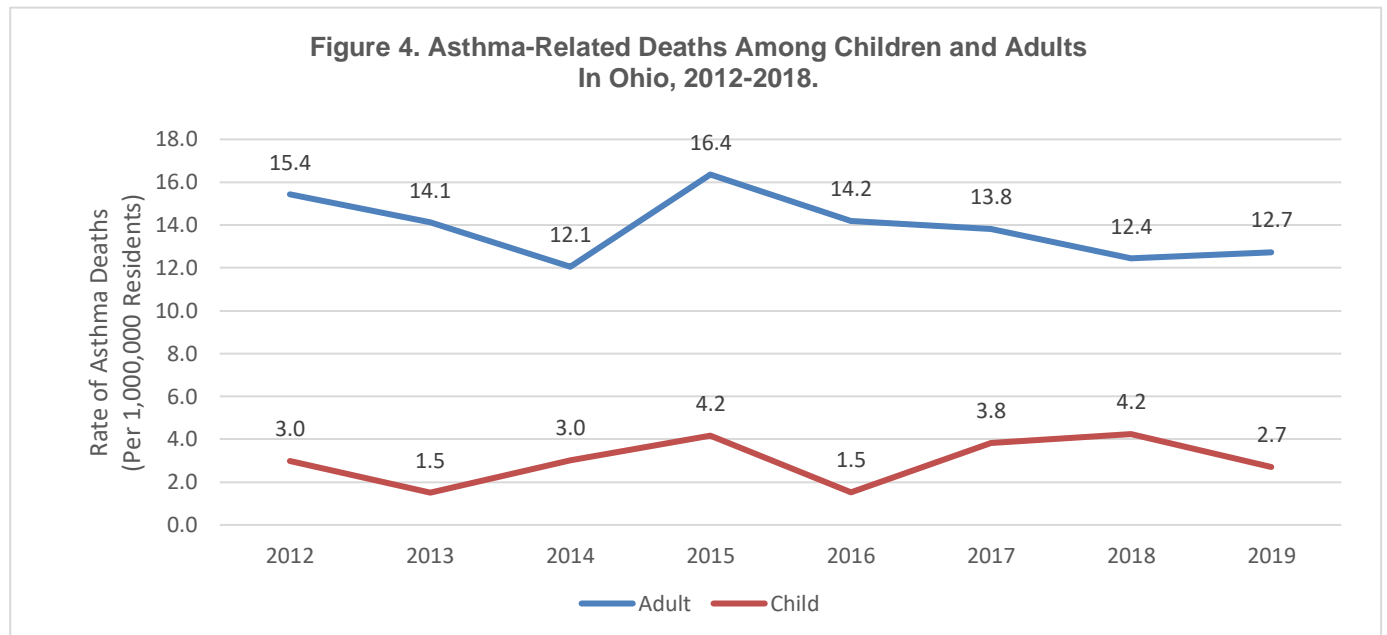
Sources: CDC, Behavioral Risk Factor Surveillance System Survey Data, 2012-2019.

Emergency Department Visits by Age Group



Sources: Ohio Hospital Association; Bridged-Race Population Estimates, on CDC WONDER On-line Database, 2017-2018.

Asthma-Related Deaths



Sources: Ohio Department of Health, Bureau of Vital Statistics, 2012-2018; Bridged-Race Population Estimates on CDC WONDER On-line Database, 2012-2018.

Appendix D – ODHAP's Strategic Partners

- Akron Children's Hospital
- Cincinnati Children's Hospital Medical Center
- Dayton Children's Hospital
- Nationwide Children's Hospital
- Cleveland Clinic Children's
- Wright State University - College of Nursing and Health
- Ohio State University College of Nursing
- Springfield City School District
- Trotwood-Madison City Schools
- Ohio Association of Community Health Centers
- Charitable Healthcare Network
- American Lung Association
- Asthma and Allergy Network
- The National Environmental Education Foundation (NEEF)
- Green and Healthy Homes Initiative (GHHI)
- Nationwide Children's Partners for Kids
- CareSource
- Ohio Department of Medicaid
- ODH Healthy Homes Program
- ODH Maternal, Child, and Family Health Program
- ODH Early Childhood Health Program
- ODH School Nursing Program
- ODH Tobacco Use Prevention and Cessation Program

Appendix E – References

1. Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2012-2018.
2. United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Bridged-Race Population Estimates, on CDC WONDER On-line Database, 2017-2018.
3. Ohio Hospital Association (OHA).
4. Ohio Department of Health, Bureau of Vital Statistics, 2012-2018.