Strategic Plan for Asthma Control in Texas, 2025-2028

Texas Asthma Control Program

TEXAS
Health and Human Services

Texas Department of State
Health Services

Contents

Executive Summary

More than 2.2 million adults and children in Texas have asthma. In 2023, uncontrolled asthma among Texans contributed to more than 109,000 emergency department visits and 8,500 hospitalizations. More than $1.3 billion was charged to public and private payers for these encounters.

The "Strategic Plan for Asthma Control in Texas, 2025-2028," (Strategic Plan) provides a blueprint for a statewide coordinated approach to reduce the impact of asthma in Texas with six priority areas based off the Centers for Disease Control and Prevention's (CDC) EXHALE framework:

1. Expanding access to and delivery of asthma self-management education (AS-ME).
2. Promoting quitting of tobacco product use and reducing exposure to secondhand smoke.
3. Expanding access to and delivery of home visits for asthma trigger education and AS-ME.
4. Strengthening systems to support guidelines-based medical care.
5. Providing clinical, public health, and community linkages and coordination of care across settings.
6. Developing environmental policies or best practices to reduce asthma triggers from indoor, outdoor, and occupational sources.

The Texas Asthma Control Program (TACP) published the Strategic Plan for Asthma Control in Texas, 2021-2024 in the spring of 2021. In the fall of 2024, TACP gathered feedback from members of the Texas Asthma Control Collaborative for updating the Strategic Plan for the next four years. Collaborative members include representation from multiple sectors across the state including local health departments, state agencies, health systems, health professionals, payers, academia, schools, and nonprofits with a shared interest in the health and well-being of Texans. The purpose was to produce a Strategic Plan of achievable strategies at all levels – individual, family, community, and environmental – with a focus on evidence-based public health interventions that address asthma health disparities across Texas and improving sustainability of asthma services and programs.

The Strategic Plan is a living document that can be refined as new evidence and best practices become available. The intended users of the Strategic Plan include, but are not limited to, state and local public health agencies, policy makers, health systems, healthcare professionals, payers, school administration and staff, academia, and nonprofit partners.

Strategies in each priority area will guide the work of TACP and their partners while the Call-to-Action section provides strategic actions for all Texans to reduce the burden of asthma across the state.

The TACP will continue to play a lead role in promoting and carrying out the Strategic Plan, providing implementation guidance to partners, tracking progress towards goals, and convening strategic collaboration between partners to advance asthma control in Texas.

Introduction

More than 2.2 million adults and children in Texas have asthma.[1] It is the most common chronic condition among children and one of the leading causes of absenteeism in schools.[2] In 2023, asthma was responsible for more than 109,000 emergency department visits and 8,500 inpatient hospitalizations across Texas.[3,4] Of these encounters, more than $1.3 billion was charged to public and private payers.

To address the physical and financial burden of asthma, the Texas Department of State Health Services (DSHS) reestablished the TACP in September 2019 with support from the CDC. The mission of the TACP is to help Texans control their asthma, reduce visits to the emergency department, decrease hospitalizations, and improve quality of life.

The program's core functions are to:
- Collect, analyze, and monitor data to determine how many people are affected by asthma;
- Educate the public to keep asthma under control, such as taking medications properly and avoiding asthma triggers;
- Educate the public and leverage partnerships on approaches to make homes, worksites, and communities asthma-friendly;
- Collaborate with partners to implement asthma control-related policy, system, and environmental change efforts;
- Work with healthcare professionals to ensure all people living with asthma receive the national standards of care;
- Connect medical and social services organizations for wrap-around care of those living with asthma; and
- Promote tobacco prevention and cessation best practices to reduce the number of people who smoke or are exposed to secondhand smoke.

The long-term goals of the program are to:
- Enable people with asthma to have better control of the disease and better quality of life;
- Expand and sustain comprehensive asthma control services across the state;
- Reduce disparities in asthma care and management and related health outcomes; and
- Reduce emergency department visits and hospitalizations due to uncontrolled asthma.

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[1] 2022 Texas Behavioral Risk Factor Surveillance System (BRFSS), Center for Health Statistics, Texas Department of State Health Services.
[2] Centers for Disease Control and Prevention (2024, August 13). Managing Asthma in Schools. *Managing Health Conditions in School*. Retrieved from https://www.cdc.gov/school-health-conditions/chronic/asthma.html.
[3] Texas Health Care Information Collection (THCIC), Emergency Department Hospital Discharge Public Use Data File, 2023 Population Data Source: Center for Health Statistics, Texas Department of State Health Services.
[4] THCIC, Inpatient Hospital Discharge Public Use Data File, 2023 Population Data Source: Center for Health Statistics, Texas Department of State Health Services.

This strategic plan will act as a guide to mobilize the TACP and its partners to help Texans control asthma, reduce visits to the emergency department, decrease hospitalizations and improve quality of life. The efforts described throughout the Strategic Plan were informed by the Texas Asthma Control Collaborative, a multidisciplinary consortium of stakeholders from across the state, and is intended to be a dynamic, living document that can be updated as needed to adapt to change in the best available evidence for asthma control interventions. The outlined strategies are complementary and mutually reinforcing. Strategies are most effective with commitment, collaboration, and leadership from multiple sectors, including public health, healthcare, payers, academia, social services, professional associations, and nonprofit organizations.

Background

Impact of Asthma in Texas

More than half a million children in Texas are currently living with asthma.[5] Uncontrolled asthma can take a toll on quality of life, by limiting participation in physical or extracurricular activities and impacting academic performance due to higher rates of absenteeism.[6,7] From 2019-2021, among children with current asthma, 41.6 percent had activity limitations and 42.1 percent missed school days due to their asthma.[8]

The burden of asthma is not isolated to childhood. More than 1.7 million adults in Texas are currently living with asthma[9]. In the United States, adults with asthma miss approximately three days of work each year as a direct result of their condition, and often parents and caregivers miss work when dependents with asthma require care[10]. This places a financial and productivity strain on both employers and employees.

Additionally, there are significant medical costs associated with asthma care. In Texas, Medicaid charges for asthma totaled almost $26 million among adults and more than $95 million for children during state fiscal year 2022.[11] Asthma hospital visits charges were over $373 million in 2023 while asthma emergency department visits charges were over $1 billion in 2023.[12] Almost $600 million or approximately 58.8 percent of the charges were from Medicaid, Medicare, and uninsured patients. Children's emergency department visits accounted for over $375 million in charges. The majority of visits and charges (58.5%) were children on Texas Medicaid.[13]

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[5] 2022 BRFSS, Center for Health Statistics, Texas Department of State Health Services.
[6] Miadich, S. A., Everhart, R. S., Borschuk, A. P., Winter, M. A., & Fiese, B. H. (2015). Quality of life in children with asthma: a developmental perspective. Journal of pediatric psychology, 40(7), 672-679.
[7] American College of Allergy, Asthma, & Immunology. (2019). Academic performance of urban children with asthma worse than peers without asthma. Retrieved from https://acaai.org/news/academic-performance-urban-children-asthma-worse-peers-without-asthma.
[8] Texas Behavioral Risk Factor Surveillance System, Child Asthma Call-Back Survey (ACBS). (2019-2021).
[9] 2022 BRFSS, Center for Health Statistics, Texas Department of State Health Services.
[10] Asthma and Allergy Foundation of America (2025, January). Cost of Asthma on Society. Retrieved from https://aafa.org/advocacy/key-issues/access-to-health-care/cost-of-asthma-on-society.
[11] Texas Medicaid Expenditures for Asthma Including Managed Care Long-Term Services and Supports, Fiscal Year 2022. Prepared by Analytical Data Store (ADS), TMASP Database, Texas Medicaid and Healthcare Partnership (TMHP); 8-Month Medicaid Eligibility Database, Texas Health and Human Services Commission (HHSC).
[12] THCIC, Inpatient Hospital Discharge Public Use Data File, 2023 Population Data Source: Center for Health Statistics, Texas Department of State Health Services
[13] THCIC, Emergency Department Hospital Discharge Public Use Data File, 2023 Population Data Source: Center for Health Statistics, Texas Department of State Health Services

Disparities in Asthma

The impact of asthma is unevenly distributed throughout Texas. Asthma disparities among demographic groups are impacted by conditions where people live, learn, work, and play that affect a wide range of health risks and outcomes.[14] Asthma health disparities vary by racial and ethnic groups, socioeconomic status, and geography.

Racial and Ethnic Groups

Non-Hispanic Black children in Texas have higher asthma prevalence compared to other racial groups and ethnic groups[15] and are approximately three times more likely to visit the emergency department and twice as likely to be admitted to the hospital due to asthma. Children who identify as Hispanic and Non-Hispanic Other are more likely to visit the emergency department or be admitted to the hospital due to asthma than Non-Hispanic White children.[16,17] Asthma mortality rates among Non-Hispanic Black people are significantly higher than other racial and ethnic groups.[18]

Socioeconomic Status

Asthma is more common in adults who are unemployed and are on Medicaid primary health insurance. Asthma is also more prevalent in children of lower socioeconomic status.[19] Children from low-income families have been linked to greater asthma morbidity and mortality due to living in lower quality housing. Lower quality housing is associated with higher levels of asthma triggers in and around the home including allergens, mold, pests, secondhand smoke, particulate matter and car exhaust fumes.[20]

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[14] Grant, T., Croce, E., & Matsui, E. C. (2022). Asthma and the social determinants of health. Annals of allergy, asthma & immunology: official publication of the American College of Allergy, Asthma, & Immunology, 128(1), 5–11. https://doi.org/10.1016/j.anai.2021.10.002

[15] 2022 BRFSS, Center for Health Statistics, Texas Department of State Health Services.

[16] THCIC, Emergency Department Hospital Discharge Public Use Data File, 2023 Population Data Source: Center for Health Statistics, Texas Department of State Health Services

[17] THCIC, Inpatient Hospital Discharge Public Use Data File, 2023 Population Data Source: Center for Health Statistics, Texas Department of State Health Services

[18] Crude and Age-Adjusted Asthma Mortality Rates, by Demographic Characteristics, Public Health Regions, and Counties, Texas, 2019. Prepared by Chronic Disease Epidemiology Branch, Health Promotion and Chronic Disease Prevention Section, Texas Department of State Health Services.

[19] 2022 BRFSS, Center for Health Statistics, Texas Department of State Health Services.

[20] Pacheco CM, Ciaccio CE, Nazir N, Daley CM, DiDonna A, Choi WS, …, & Rosenwasser LJ (2014). Homes of low-income minority families with asthmatic children have increased condition issues. Allergy and Asthma Proceedings, 35, 467–474.

Geography

Urban areas have more sources of air pollution than rural areas.[21] Ozone pollution is a known asthma trigger and can cause issues for people with asthma on high ozone days.[22] People with asthma can experience decreased lung function, increased respiratory symptoms, increased rescue medication usage, increased frequency of asthma attacks and increased use of urgent or emergency care due to poor air quality.[23] In Texas, geographic disparities impact asthma prevalence and hospitalization rates both regionally and at the county level.[24,25] According to the U.S. Environmental Protection Agency, four metropolitan areas in Texas do not meet federal standards for ozone pollution as of December 31, 2024: Dallas-Fort Worth, Houston-Galveston-Brazoria, San Antonio, and El Paso, Texas-Las Cruces, New Mexico.[26] These four areas make up approximately 59 percent of emergency department visits and hospital admissions related to asthma in Texas.[27,28]

[21] Strosnider H, Kennedy C, Monti M, Yip F. Rural and Urban Differences in Air Quality, 2008–2012, and Community Drinking Water Quality, 2010–2015 — United States. MMWR Surveill Summ 2017;66(No. SS-13):1–10.

[22] Asthma and Allergy Foundation of America (2024) Air Pollution and Asthma. Retrieved from www.aafa.org/air-pollution-smog-asthma/.

[23] United States Environmental Protection Agency. (2024). Health Effects of Ozone in Patients with Asthma and Other Chronic Respiratory Disease. Retrieved from www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-patients-asthma-and-other-chronic.

[24] 2022 BRFSS, Center for Health Statistics, Texas Department of State Health Services.

[25] THCIC, Emergency Department Hospital Discharge Public Use Data File, 2023 Population Data Source: Center for Health Statistics, Texas Department of State Health Services

[26] United States Environmental Protection Agency. (2024). 8-Hour Ozone (2015) Designated Area/State Information. Retrieved from www3.epa.gov/airquality/greenbook/jbtc.html.

[27] THCIC, Emergency Department Hospital Discharge Public Use Data File, 2023 Population Data Source: Center for Health Statistics, Texas Department of State Health Services

[28] THCIC, Inpatient Hospital Discharge Public Use Data File, 2023 Population Data Source: Center for Health Statistics, Texas Department of State Health Services

Approach

By August 31, 2028, the TACP aims to achieve the following outcomes:

- Enhanced utilization of surveillance and evaluation data for program improvement;
- Expanded access, referral to, and delivery of coordinated community-based services in highly impacted areas;
- Enhanced capacity to deliver or refer to AS-ME;
- Improved systems to facilitate guidelines-based medical management;
- Enhanced linkages and coordination across public health, community services, and healthcare systems;
- Increased number of people with asthma receiving appropriate medication assessments and essential medications/devices;
- Increased number of people with well-controlled asthma and fewer asthma attacks; and
- Decreased asthma-related absenteeism at worksites and schools;
- Decreased emergency department visits and hospitalizations due to asthma.

To accomplish this, the TACP will facilitate policy, system, and environmental change efforts across the state by collaborating with partners and strengthening strategic partnership across Texas to implement EXHALE strategies. The TACP has also partnered with key organizations to implement EXHALE strategies in populations disproportionately impacted by asthma while improving asthma control infrastructure across the state to improve sustainability of asthma control efforts. During the past five years, the TACP successfully implemented CDC's EXHALE strategies in three targeted communities while simultaneously expanding knowledge of the EXHALE framework to asthma stakeholders across the state. Now the TACP will shift the focus to implementing EXHALE strategies statewide with targeted efforts in areas disproportionally impacted by asthma and in four focus settings:

- Schools
- Homes
- Healthcare
- Communities

This Strategic Plan identifies strategies in six priority areas based on the CDC's EXHALE technical package. The EXHALE technical package is a group of mutually reinforcing strategies based on best available evidence that can improve asthma control and reduce healthcare costs.[29] Table 1 summarizes the strategies of the EXHALE framework, as well as TACP's planned approaches to advance these

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[29] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.

strategies.

Table 1. EXHALE Framework

Component		Approach
E	Education on asthma self-management	Expand access to and delivery of AS-ME: • Support and expand existing programs • Increase AS-ME programs and instructors • Provide training and technical assistance • Increase reimbursement of AS-ME
X	X-tinguishing smoking and secondhand smoke	Reduce tobacco smoking and exposure to secondhand smoke: • Increase referrals to the Texas Tobacco Quitline and other cessation services • Provide trainings to decrease tobacco use • Educate on tobacco and vaping as asthma triggers
H	Home visits for trigger reduction and AS-ME	Expand access to and delivery of home visits for asthma trigger reduction and AS-ME: • Conduct training sessions for healthcare professionals • Work with health plans to cover/offer asthma home visits • Expand asthma home visiting programs
A	Achievement of guidelines-based medical management	Strengthen systems to support guidelines-based medical care: • Improve workflows for asthma management • Disseminate resources on best practices Improve access and adherence to asthma medications and devices: • Conduct/coordinate educational events
L	Linkages and coordination of care across settings	Promote coordinated care for people with asthma: • Address factors that impact asthma control • Connect people to guidelines-based care • Gather information on resources for asthma
E	Environmental policies or best practices to reduce asthma triggers from indoor, outdoor, and occupational sources	Facilitate asthma-friendly policy, system, and environmental changes: • Promote smokefree and tobacco free policies and education • Promote anti-idling policies and education Eliminate and reduce exposure to asthma triggers: • Provide education and trainings on asthma trigger reduction • Connect people to home weatherization services

Addressing Health Disparities

The TACP will work with program epidemiologists and other strategic partners to identify areas disproportionately affected by asthma across Texas. The TACP will implement both statewide interventions and those targeted to areas of greatest need including addressing racial and ethnic, socioeconomic, and geographic disparities. Activities and interventions will be tailored to each specific audience.

Further, the TACP will produce an annual Impact of Asthma in Texas Report that will analyze available asthma data, monitor trends, and identify areas and groups most impacted by asthma. The report will be shared with partners across Texas.

Addressing Sustainability

Strategies outlined in this Strategic Plan aim to improve sustainability of asthma efforts and resources across the state through a variety of methods, including:

- Improving the workforce of asthma control professionals through education and training;
- Developing funding and reimbursement policies and procedures for asthma-related services; and
- Working with partners in school, home, healthcare, and community settings to implement policy, system, and environmental changes to address asthma education, medical management, and trigger reduction.

Measuring Impact

The Chronic Disease Epidemiology Branch at DSHS will conduct regular surveillance of available data to monitor the collective impact of the TACP and its partners on the state of asthma control in Texas. Supplemental reports will be produced annually through August 31, 2028. These reports will include progress towards priority area strategies and updated statewide metrics identified in Table 2. The TACP will also evaluate the program's impact on asthma control using the performance measures outlined in Table 3. Progress will be reported annually to the CDC and the Texas Asthma Control Collaborative.

Table 2. Statewide Metrics

Metric	2025-2028 Strategic Plan Baseline Measure	2021-2024 Strategic Plan Baseline Measure	% Change	Progress
Years of Potential Life Lost due to Asthma - Children[*] Source: Vital Statistics	1,054 person-years (2021)	818.5 person-years (2017)	28.8% increase	No
Years of Potential Life Lost due to Asthma - Adults[*] Source: Vital Statistics	2,685 person-years (2021)	2,287 person-years (2017)	17.4% increase	No
Child and Adolescent Asthma Emergency Department Visit Rates (per 10,000) Source: Texas Health Care Information Collection (THCIC)	63.6 per 10,000 (2023)	68.3 per 10,000 (2019)	6.9% decrease	Yes
Non-Hispanic Black Child and Adolescent Asthma Emergency Department Visit Rates (per 10,000) Source: THCIC	153.9 per 10,000 (2023)	192.7 per 10,000 (2019)	20.1% decrease	Yes
Hispanic Child and Adolescent Asthma Emergency Department Visit Rates (per 10,000) Source: THCIC	54.8 per 10,000 (2023)	52.6 per 10,000 (2019)	4.2% increase	No
Non-Hispanic White Child and Adolescent Asthma Emergency Department Visit Rates (per 10,000) Source: THCIC	43.9 per 10,000 (2023)	49.8 per 10,000 (2019)	11.8% decrease	Yes
Non-Hispanic Other Child and Adolescent Asthma Emergency Department Visit Rates (per 10,000) Source: THCIC	51.4 per 10,000 (2023)	53.9 per 10,000 (2019)	4.6% decrease	Yes

Metric	2025-2028 Strategic Plan Baseline Measure	2021-2024 Strategic Plan Baseline Measure	% Change	Progress
Adult Asthma Emergency Department Visit Rates (per 10,000) Source: THCIC	28.2 per 10,000 (2023)	30.3 per 10,000 (2019)	6.9% decrease	Yes
Child and Adolescent Asthma Inpatient Discharge Rates (per 10,000) Source: THCIC	5.6 per 10,000 (2023)	6.6 per 10,000 (2019)	15.2% decrease	Yes
Adult Asthma Inpatient Discharge Rates (per 10,000) Source: THCIC	2.0 per 10,000 (2023)	3.2 per 10,000 (2019)	37.5% decrease	Yes
Percent of Texas Medicaid Child Clients with Repeat Visits Source: Texas Medicaid and CHIP Services	50.0% (2022)	51.0% (2019)	2.0% decrease	Yes
Percent of Texas Medicaid Adult Clients with Repeat Visits Source: Texas Medicaid and CHIP Services	49.2% (2022)	52.3% (2019)	5.9% decrease	Yes
Current Cigarette Use Among Adults with Asthma Source: Behavioral Risk Factor Surveillance System (BRFSS)	17.5% (2022)	18.5% (2019)	5.4% decrease	Yes
Percent of the Texas Municipal Population Covered by Smokefree Ordinances that Include Worksites, Restaurants, Bars in Restaurants, and Bars Not in Restaurants Source: Texas Smoke-Free Ordinance Database	60% (2024)	44% (2020)	36.4% increase	Yes

Years of potential life lost is a measure of premature mortality. Premature death is defined as death occurring before the age of 65. Years of potential life lost is the sum of years of life lost.[30]

Table 3. Performance Measures

Priority Area	Performance Measure	Source
1: Education on asthma self-management	• Number of healthcare professionals trained on AS-ME	• TACP, contractor and partner training records

[30] Texas Department of State Health Services. (2024). Texas Death Certificate Data. Austin, Texas: Center for Health Statistics.

Priority Area	Performance Measure	Source
	• Number of health insurance payers covering AS-ME • Number of health insurance payers adopting policies to cover AS-ME services	• Health insurance payer policies
2: X-tinguishing smoking and secondhand smoke	• Percent of 6th-12th grade students who smoke cigarettes • Percent of 6th-12th grade students who use e-cigarettes • Percent of young adults who smoke cigarettes • Percent of young adults who use e-cigarettes • Percent of adults who currently smoke cigarettes • Percent of adults who currently use e-cigarettes • Number of Texas Tobacco Quitline participants who report having asthma • Number of healthcare professional referrals to the Texas Tobacco Quitline for people who report having asthma • Percent of 6th-12th grade students who currently smoke and report to have asthma • Percent of adults who currently smoke cigarettes and report to have asthma • Percent of the municipal population covered by smokefree ordinances that include worksites, restaurants, bars in restaurants, and bars not in restaurants • Number of Texas municipalities with smokefree ordinances that include worksites, restaurants, bars in restaurants, and bars not in restaurants • Number of Texas municipalities with 100 percent comprehensive smokefree ordinances	• Texas Youth Tobacco Survey • BRFSS • Texas Tobacco Quitline • Texas Smokefree Ordinance Database • DSHS Texas Tobacco Prevention and Control Program records
3: Home visits for trigger reduction and AS-ME	• Number of continuing education trainings developed • Number of healthcare professionals trained • Number of health insurance payers covering asthma home visits	• TACP, contractor and partner training records • Health insurance payer policies
4: Achievement of guidelines-based medical management	• Number of healthcare professionals trained on evidence-based asthma guidelines • Number of trainings held on evidence-based asthma guidelines	• TACP, contractor and partner training records • DSHS School Health Program reports

Priority Area	Performance Measure	Source
	• Percent of students who have asthma action plans at school	
5: Linkages and coordination of care across settings	• Number of health insurance payers covering costs that specifically address factors that impact asthma control • Number of school districts adopting unassigned medications for respiratory distress in school policies • Number of school districts implementing unassigned medications for respiratory distress in school policies • Number of people who complete training on unassigned medications for respiratory distress in school policies	• Health insurance payer policies • DSHS School Health Program reports • Texas Education Agency survey • TACP, contractor and partner training records
6: Environmental policies or best practices to reduce asthma triggers from indoor, outdoor, and occupational sources	• Number of Texas municipalities adopting smokefree ordinances, including coverage in worksites, restaurants, bars in restaurants, and bars not in restaurants • Number of Texas municipalities adopting new or enhanced 100 percent comprehensive smokefree ordinances • Number of health insurance payers adopting policies to cover asthma home visits • Number of trainings conducted on the awareness of and best practices to reduce environmental asthma triggers from indoor, outdoor, and occupational sources • Number of people trained on the awareness of and best practices to reduce environmental asthma triggers from indoor, outdoor, and occupational sources	• Texas Smokefree Ordinance Database • DSHS Texas Tobacco Prevention and Control Program records • Health insurance payer policies • TACP, contractor and partner training records

Priority Area 1: Education on Asthma Self-Management

Rationale

AS-ME provides people living with asthma and the people who care for them with basic facts about asthma, the roles of medication and how to use them correctly, what to do when asthma symptoms worsen, and how to reduce exposures to asthma triggers. AS-ME is versatile and can be facilitated individually or in groups in multiple settings, including clinics, schools, pharmacies, and community-based organizations.

AS-ME has been shown to improve asthma control and reduce healthcare costs. In a 2016 study of Texas Medicaid beneficiaries with asthma or chronic obstructive pulmonary disorder (COPD), educating patients on the proper use of asthma medications resulted in cost-savings of $589-$765 per person and a 10 percent reduction in emergency department visits.[31] One-on-one asthma education programs that include environmental assessments have the potential to save $26,720 per 100 patients in healthcare costs.[32]

Goal

Increase AS-ME offerings through expanded referral systems, reimbursement from health insurance payers, and workforce development.

Strategies

Successful implementation of the following strategies will require the cooperation of several sectors and disciplines, including but not limited to state and local public health agencies, Community Health Workers (CHWs) and CHW training programs, healthcare providers, managed care organizations and other payers, employers, academia, schools, community-based organizations, and non-profit organizations.

Strategy 1.1: Facilitate healthcare provider referrals to AS-ME.
Strategy 1.2: Increase the number of organizations providing AS-ME.
Strategy 1.3: Increase the number of healthcare professionals providing AS-ME.
Strategy 1.4: Increase the number of payers covering AS-ME.

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[31] Nduaguba, S., Barner, J. C., Makhinova, T., & Roberson, K. (2022). Medication Therapy Management for Texas MediCAID Patients With Asthma and Chronic Obstructive Pulmonary Disease-A Pilot Study. Journal of pharmacy practice, 35(4), 528–535. https://doi.org/10.1177/0897190021997032

[32] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.

Priority Area 2: X-tinguishing Smoking and Secondhand Smoke

Rationale

Tobacco smoke is a known asthma trigger, both through direct use of tobacco products and indirect, secondhand exposure.[33] People with asthma who smoke are at greater risk of experiencing reduced lung function,[34] increased frequency and severity of asthma attacks, and development of resistance to corticosteroids,[35] making it more difficult to manage asthma symptoms. In 2022, approximately 17.5 percent of Texas adults living with asthma also smoked compared to 11.4 percent of people without asthma.[36]

Maternal smoking and secondhand smoke exposure before birth are risk factors for childhood asthma.[37] Women insured through Texas Medicaid are more than five times as likely to report allowance of smoking in the home during pregnancy and three and half times as likely to report smoking during the third trimester than those with private insurance.[38] Children with asthma who are exposed to secondhand smoke are twice as likely to be hospitalized for asthma than those who are not exposed.[39] In 2023, 20.9 percent of middle school and high school students reported being in a room with, and 15 percent reported being in a car with, someone who smoked cigarettes in the past seven days.[40]

Evidence-based tobacco prevention and cessation programs can decrease smoking rates and subsequently decrease risk of exposure to secondhand smoke. Tobacco cessation can improve asthma

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[33] National Heart, Blood, and Lung Institute. (2020). 2020 Focused Updates to the Asthma Management Guidelines: A Report from the National Asthma Education and Prevention Program Coordinating Committee Expert Panel Working Group. Retrieved from https://www.nhlbi.nih.gov/health-topics/all-publications-and-resources/2020-focused-updates-asthma-management-guidelines

[34] Jaakkola, J. et al., (2019). Smoking and lung function among adults with newly onset asthma. BMJ Open Respiratory Research. 6(1), e000377.

[35] Thomson, N., Chaudhuri, R., Livingston, E. (2004). Asthma and cigarette smoking. European Respiratory Journal, 24(5) 822-833

[36] Prevalence of Cigarette Smoking Among Adults, by Demographic Characteristics, Risk Factors / Comorbid Conditions, Place of Residence, and Self-Reported Health Status, Texas, 2022. Prepared by Chronic Disease Epidemiology Branch, Health Promotion and Chronic Disease Prevention Section, Texas Department of State Health Services

[37] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.

[38] Texas Department of State Health Services. (2019). Pregnancy Risk Assessment Monitoring System (PRAMS) Survey: 2019 Data Book: Summary Tables. https://healthdata.dshs.texas.gov/dashboard/surveys-and-profiles/pregnancy-risk-assessment-monitoring-system

[39] Frederico MJ et al. The Impact of Social Determinants Health on Children with Asthma. J Allergy Clin Immunol Pract 2020; 8(6) 1808-1814.

[40] Texas Department of State Health Services. (2023). Texas Youth Tobacco Survey 2023. https://www.dshs.texas.gov/sites/default/files/tobacco/YTS%202023%20State%20Report.pdf

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control and lung function while decreasing reliance on rescue medications or visits to the emergency department or urgent care center. Lung function can improve in as little as 24 hours after quitting smoking.[41] Efforts should be comprehensive and promote tobacco prevention and cessation at both individual and environmental levels. This section will focus on individual health behavior. Additional information on environmental change can be found under Priority Area 6: Environmental Policies or Best Practices to Reduce Asthma Triggers from Indoor, Outdoor, and Occupational Sources.

Goal

Reduce smoking, e-cigarette use, and secondhand smoke exposure.

Strategies

Successful implementation of the following strategies will require the cooperation of several sectors and disciplines, including but not limited to state and local public health agencies, academia, school staff, CHWs and CHW training programs, healthcare systems and professionals, and community-based and nonprofit organizations.

Strategy 2.1: Prevent youth, ages 11-17 from starting use of tobacco and e-cigarette products.
Strategy 2.2: Prevent young adults, ages 18-24 from starting use of tobacco and e-cigarette products.
Strategy 2.3: Connect people who use tobacco products to evidence-based tobacco cessation support.
Strategy 2.4: Facilitate healthcare professional referrals for parents/caregivers of children with asthma to cessation services.

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[41] Fennerty AG, Banks J, Ebden P, Bevan C. The effect of cigarette withdrawal on asthmatics who smoke. Eur J Respir Dis. 1987;71(5):395-399.

Priority Area 3: Home Visits for Trigger Reduction and Asthma Self-Management Education

Rationale

People are indoors 90 percent of the time, much of which is spent in the home.[42] Home visits provide insight into a patient's barriers to improved asthma control. Home visits offer a window into the conditions that may be impacting the patient's adherence to medication therapy, such as social stressors, housing conditions, or work or family obligations that may interfere with asthma management. Home visits allow trained professionals to work with patients to identify asthma triggers in the home and provide personalized education for patients and the patient's family on methods to decrease exposure. A variety of healthcare professionals can effectively conduct home visits for asthma including nurses, respiratory therapists, certified asthma educators, health educators, and trained CHWs. Home visits have been shown to improve asthma control and medication adherence, reduce emergency department visits and hospitalizations, and reduce absences from work and school.[43]

Goals

Increase asthma home visits and improve the asthma home environment through expanded referral systems, reimbursement from health insurance payers, and workforce development.

Strategies

Successful implementation of the following strategies will require the cooperation of several sectors and disciplines, including but not limited to state and local public health agencies, clinicians, CHWs and CHW training programs, and payers.

Strategy 3.1: Increase the number of healthcare professionals trained to conduct home visits.
Strategy 3.2: Create and publish an asthma home visit training guide.
Strategy 3.3: Address sustainability of home visits for asthma trigger reduction and AS-ME.

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[42] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.
[43] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.

Priority Area 4: Achievement of Guidelines-Based Medical Management

Rationale

Interventions that provide clinical support or feedback to healthcare providers based on national guidelines, including the [2020 update of "Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma" (EPR-3)](#), have been shown to reduce emergency department visits, hospitalizations, and school absenteeism and improve adherence to controller medication as prescribed.[44] Health systems using claims data can reduce emergency department visits and hospitalizations by approximately 55 percent and provide a return on investment of $2 to $4 for every $1 spent.[45] Additionally, written asthma action plans have shown effectiveness in increasing patients' knowledge about their condition, improving quality of life, and increasing confidence about controlling their asthma.[46]

Goals

Improved clinical management of asthma through workforce education, policy improvement, and health insurance payer coverage.

Strategies

Successful implementation of the following strategies will require the cooperation of several sectors and disciplines, including but not limited to state and local public health agencies, clinicians, pharmacists, CHWs and CHW training programs, and payers.

Strategy 4.1: Increase knowledge and implementation of evidence-based asthma guidelines that are consistent with National Asthma Education and Prevention Program, EPR-3 guidelines.
Strategy 4.2: Incorporate asthma action plans into clinical workflows.

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[44] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.
[45] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.
[46] Goronfolah, L., Abulaban, A., Barnawi, A. I., Jawi, M., Alhadhrami, W., & Baatiah, N. Y. (2019). The Effectiveness of Written Asthma Action Plan at the National Guard Health Affairs' Asthma Clinic. Cureus, 11(11), e6247.

Priority Area 5: Linkages and Coordination of Care Across Settings

Rationale

While guidelines-based medical management of asthma is critical, asthma control also requires patients to be actively engaged and able to self-monitor symptoms, understand and use an individualized asthma action plan, reduce exposure to environmental asthma triggers, and adhere to an individualized medication regimen. Healthcare providers have limited time to address these issues with patients. This is why referrals and patient navigation to community resources for support, such as AS-ME, tobacco cessation, asthma home visits, home weatherization, pest management and other resources are crucial to successful asthma control. A referral system such as bidirectional communication between schools and primary care providers have been shown to improve asthma control and reduce emergency department and urgent care visits and school absenteeism.[47]

Goals

Increase connections to resources in the community to address factors that impact asthma control.

Strategies

Successful implementation of the following strategies will require the cooperation of several sectors and disciplines, including but not limited to state and local public health agencies, clinicians, school staff, pharmacists, community-based and nonprofit organizations, and payers.

Strategy 5.1: Incorporate referrals to address factors that impact asthma control and coverage of such factors and associated services by health programs.
Strategy 5.2: Connect people living with asthma to guidelines-based care.
Strategy 5.3: Increase number of school districts adopting and implementing unassigned medication for respiratory distress in school policies.

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[47] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.

Priority Area 6: Environmental Policies or Best Practices to Reduce Asthma Triggers from Indoor, Outdoor and Occupational Sources

Rationale

Efforts to change individual health behavior will have limited success without supportive policies, systems, and environments.[48] Interventions that target policies, systems, and environments can have broad, sweeping impacts that benefit not only the target population, but the community at large. For example, in addition to supporting smoking cessation, smokefree policies have been shown not only to improve asthma control, but also decrease hospitalizations for heart attacks and reduce health care costs by protecting everyone from secondhand smoke exposure.[49] Policy, system, and environmental change efforts can vary widely in breadth and reach – from the actions of a single worksite switching to asthma-friendly cleaning supplies to a municipality adopting an anti-idling ordinance – all of which target potential sources of asthma triggers.

Home weatherization programs have been shown as a best practice in reducing indoor asthma triggers. State Medicaid programs observed an average cost savings of $785 per person per year in asthma-related costs among clients participating in weatherization assistance programs.[50] The cost of one asthma hospitalization could cover the cost of weatherizing an entire house.[51]

Goals

Reduce exposure to asthma triggers through policy, system, and environmental change efforts.

Strategies

Successful implementation of the following strategies will require the cooperation of several sectors and disciplines, including but not limited to state and local public health agencies, local government,

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[48] Honeycutt S, Leeman J, McCarthy WJ, Bastani R, Carter-Edwards L, Clark H, et al. Evaluating Policy, Systems, and Environmental Change Interventions: Lessons Learned from CDC's Prevention Research Centers. Prev Chronic Dis 2015;12:150281.

[49] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.

[50] Rose, Erin M., Hawkins, Beth A., & Tonn, Bruce Edward (2015). Exploring Potential Impacts of Weatherization and Healthy Homes Interventions on Asthma-related Medicaid Claims and Costs in a Small Cohort in Washington State. https://doi.org/10.2172/1354644

[51] Hsu J, Sircar K, Herman E, Garbe P. (2018). EXHALE: A Technical Package to Control Asthma. Atlanta, GA: National Center for Environmental Health, Centers for Disease Control and Prevention.

school and worksite transportation departments, payers, and community-based and nonprofit organizations.

Strategy 6.1: Reduce exposure to secondhand smoke and e-cigarette aerosols.

Strategy 6.2: Educate and engage decision makers on the benefits of smokefree policies including municipalities, multi-unit housing and college campuses.

Strategy 6.3: Educate and engage decision makers on the benefits of asthma-friendly policies.

Strategy 6.4: Remove barriers to home weatherization.

Call-to-Action

No single entity can improve the health and well-being of all Texans alone. Asthma stakeholders are urged to use the Strategic Plan for Asthma Control in Texas, 2025-2028, to determine their role in a unified, coordinated effort alongside DSHS to help Texans control their asthma, reduce visits to the emergency department, decrease hospitalizations, and improve quality of life.

This Strategic Plan includes a list of targeted strategic actions that everyone, including individuals, organizations, and communities can do to improve the impacts of asthma across Texas.

Resources to achieve strategic actions are available on the Texas Asthma Control Program website at dshs.texas.gov/asthma.

Individuals/General Public

- Quit using tobacco and do not smoke or use e-cigarettes around others;
- Avoid idling vehicles when possible;
- For those with asthma
  - Avoid asthma triggers when possible;
  - Take medications as prescribed; and
  - Follow your asthma action plan.

Healthcare Providers/Health Systems

- Ensure every individual has an asthma action plan and knows how to use it;
- Incorporate asthma self-medication education into clinical workflows;
- Incorporate tobacco cessation referrals for patients and patient's family members into clinical workflows; and
- Incorporate updated asthma guidelines such as the 2020 update of "Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma" (EPR-3) and Single Maintenance and Reliever Therapy (SMART) into clinical workflows.

Schools and School Districts

- Implement asthma friendly policies including removing and limiting asthma triggers;
- Adopt and implement unassigned medications for respiratory distress policies;
- Offer asthma-self management education classes;
- Connect students and the student's families to resources to address factors that impact asthma control; and
- Educate youth on tobacco prevention and connect youth to tobacco cessation resources.

Managed Care Organizations/Payers

- Provide reimbursement of asthma self-management education and asthma home visits;
- Provide coverage of medication guidance recommended in updated asthma guidelines;
- Address and provide coverage for factors that impact asthma control; and
- Provide full coverage of tobacco cessation treatments.

Communities/Municipalities

- Adopt and implement comprehensive smokefree and tobacco free policies;
- Increase number of multi-unit housing complexes that are smokefree and tobacco free; and
- Implement policies and ordinances to improve air quality.

Public Health

- Connect people with asthma to resources in the community to address factors that impact asthma control;
- Provide education on reducing and avoiding asthma triggers from indoor, outdoor, and occupational sources; and
- Provide education on improving air quality and air quality alert days.

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Texas Asthma Control Program

Dshs.texas.gov/asthma