



Hawai'i Asthma Plan 2030



INTRODUCTION

Asthma is a chronic condition that intermittently inflames and narrows the airways in the lungs. Asthma affects people of all ages and often starts during childhood. Symptoms of an asthma attack include shortness of breath, wheezing, and chest tightness. Asthma attacks can be triggered by allergens (such as dust mites, pet dander, and mold), irritants (such as secondhand smoke and vog), and respiratory infections (such as the flu). These exacerbations drive emergency department visits and hospitalizations, and their associated costs to the health care system, as well as negatively impact school and work attendance and quality of life. Although there is no cure for asthma, symptoms can be controlled with proper clinical treatment, appropriate use of medication, self-management education, and limited exposure to environmental triggers.

The Hawai'i Asthma Plan (HAP) 2030 represents a coordinated effort between stakeholders and partners throughout the state who worked together to develop objectives and strategies that utilize data, best practices, and evidence-based science. The resulting HAP 2030 reflects a common vision for managing asthma to help the people of Hawai'i, especially those most at-risk, lead healthy lives.

The HAP 2030 works in coordination with other chronic disease prevention and management efforts in the state, specifically the Healthy Hawai'i Strategic Plan 2030; the Hawai'i Cancer Plan 2030; the Hawai'i Diabetes Plan 2030; the Hawai'i Heart Disease and Stroke Plan 2030; the Hawai'i Physical Activity and Nutrition Plan 2030; and the Hawai'i Tobacco Prevention and Control Plan 2030.





BACKGROUND

Since 1980, asthma prevalence has steadily climbed, making asthma the most common chronic childhood disease both in the United States and in Hawai'i.^{1,2} Approximately 104,400 (9%) adults and 30,000 (10%) children in Hawai'i currently have asthma.³ Among youth, more boys than girls have asthma, but this trend reverses in adulthood, when adult women are twice as likely as their male counterparts to report current asthma.

In the primary care setting, asthma can be diagnosed using spirometry and managed with medication, usually daily, inhaled corticosteroids, and tools such as Asthma Action Plans.⁴ In addition, asthma self-management education taught by a certified asthma educator, and medication therapy management provided by a pharmacist can help patients manage their condition. However, when asthma is not effectively managed, patients often seek treatment in emergency departments, and severe cases can result in hospitalization or even death. The cost burden of these outcomes is significant. In 2016, \$12 million was spent on emergency department visits for adults and children with asthma.⁵ The average cost per patient for asthma hospitalizations was \$18,000.⁵ To reduce health care costs, it is important for people with asthma to have consistent access to primary care and insurance coverage for necessary medications and educational services. Additional data is needed to fully understand the risk of COVID-19 for adults and children with asthma, but they might be at increased risk.⁶

Obesity is also a risk factor for asthma, and secondhand smoke is unhealthy for everyone, but particularly people with asthma.⁷ Asthma triggers vary from person to person, with some people having allergies to mold or pet dander, while others suffer attacks following respiratory infections or exposure to chemicals or air pollution. The presence of triggers is influenced by geography, climate, neighborhood, housing, and occupation. Exposure to some asthma triggers can be mitigated by disseminating educational resources; ensuring access to mattress covers and non-toxic cleaning products; promoting flu vaccination; and facilitating evidence-based interventions in health care. In addition, policies that emphasize prevention and support healthy environments in schools, worksites, homes, and communities are critical for reducing the burden of asthma.

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1 in 11 adults in Hawai'i currently have asthma



1 in 10 children in Hawai'i currently have asthma



**AVERAGE COST PER PATIENT FOR
ASTHMA HOSPITALIZATIONS (2016)**

\$18,000

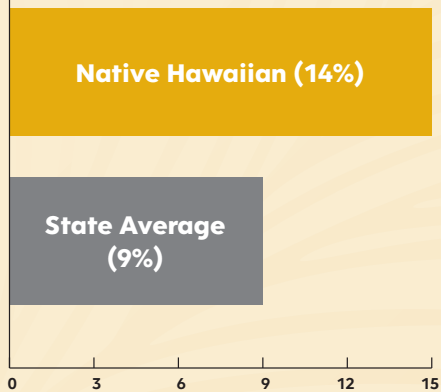


PRIORITY POPULATIONS

Despite ongoing and targeted public health efforts to reduce the burden of asthma in Hawai'i, asthma-related health disparities persist. Compared to the State Average, Native Hawaiian adults are 1.5 times more likely to currently have asthma.³ Native Hawaiian middle school (16%) and high school (17%) students are also most likely to have current asthma compared to other middle and high school students.⁸

People with lower socioeconomic status and those who live in rural regions of Hawai'i are also significantly more likely to have asthma and to have their condition under poor control.^{3,9} In 2018, 40% of adults with current asthma lived in households with an annual income of less than \$15,000. The communities with the highest adult prevalence of current asthma include Moloka'i island (19%) and the Waianae-Nanakuli area of Oahu (18%), where asthma prevalence is double the state average of 9%. In 2018, children under 18 years of age in Hawai'i County had the highest prevalence of current asthma at 13.3%, compared to under 10% for all other counties.³

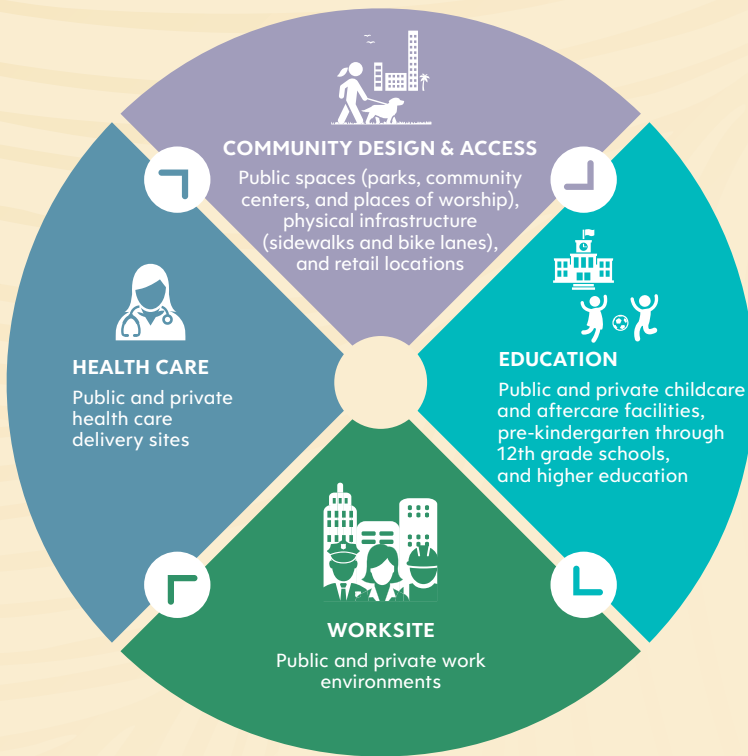
Age-Adjusted Prevalence of Current Asthma, Hawaii 2018



BRFSS, 2018

PLAN FRAMEWORK

The HAP 2030 incorporates principles of the Social Ecological Model and is organized into four sector areas: Community Design and Access, Education, Health Care, and Worksite. The plan prioritizes goals, objectives, and strategies that lead to policy, systems, and environmental change. Objectives were developed using current data, best practices, and evidence-based science, and reflect one or more cross-cutting themes.*



SECTOR AREAS

Places (both physical & virtual) where policy, systems, and environmental change can be established to support the formation and maintenance of healthy behaviors, achieving health equity, and maximizing chronic disease prevention, management, and treatment.

» POLICY, SYSTEMS AND ENVIRONMENTAL CHANGE

Integral to the framework and design of the HAP 2030 is the focus on policy, systems, and environmental change. The plan’s long-term goals, objectives, and strategies were developed to align with national guidelines and recommendations and to reflect or lead to policy, systems, or environmental change.

POLICY

Policies at the legislative or organizational level.

Institutionalizing new rules or procedures as well as passing laws, ordinances, or resolutions are examples of policy changes.

SYSTEMS

Changes made to rules within an organization.

Systems change and policy change often work hand-in-hand. Often systems change focuses on changing infrastructure within a school, park, worksite, or health setting.

ENVIRONMENTAL

Changes that are made to the physical/built environment.

Physical (structural changes or programs or service), social (a positive change in attitudes or behavior about policies that promote health) and economic factors (presence of financial disincentives or incentives to encourage a desired behavior).

*Additional information on the plan framework can be found at the following website: www.HHSP.hawaii.gov



Objectives and Strategies

The HAP 2030 objectives strive to create sustainable change that will transform our communities, schools, health care, and worksites to enhance asthma management efforts and support the health of the people of Hawai'i. Stakeholders developed the HAP 2030 objectives to shape policy, systems and environmental change in the four sector areas: Community Design and Access; Education; Health Care; and Worksite. The objectives are showcased by sector area and include key strategies, baseline, and target measures. The HAP 2030 is meant to be a living document that is reviewed and updated throughout the plan's timeframe. Implementation of the plan will be a collective effort by individuals and organizations across the state.

*Additional background information, including definitions of some terminology used in the objectives and strategies, can be found at the following website: www.HHSP.hawaii.gov



Objectives with this icon are being worked on by multiple program areas.



Community Design and Access Sector Objectives

GOAL >> All of Hawai'i's people will live in communities that have access to tobacco- and nicotine-free settings, healthy food choices, physical activity opportunities, evidence-based chronic disease self-management programs, and minimal exposure to unhealthy options through policy, programs, communications, and environmental supports.

OBJECTIVE

BASELINE: 0 TARGET: 1

ASTHMA-01

Develop and deliver at least one promotional activity to increase awareness of asthma education resources for non-clinical professionals.

STRATEGIES

- Identify stakeholders to establish a communications workgroup
- Convene communications workgroup regularly to develop messages tailored for targeted audience (e.g., coaches and/or caregivers)
- Identify media outlets that will reach targeted audience
- Disseminate messages through promotional activities (e.g., social media messages, posters, brochures, or other printed materials) and evaluate messages

OBJECTIVE

BASELINE: 0 TARGET: 1

ASTHMA-02

Establish and sustain a funded, statewide Asthma Control Program Coordinator position to address the burden of asthma in the State of Hawai'i.

STRATEGIES

- Provide written support and/or meet with the Director of Health to document the need of a State Asthma Control Program
- Provide written support/testimony to legislature to fund the Asthma Control Program Coordinator position



Education Sector Objectives

GOAL >> All of Hawai'i's educational settings will promote tobacco- and nicotine-free lifestyles, healthy eating, daily physical activity, and health management through programs, policies, environmental supports, and professional development opportunities.

OBJECTIVE

BASELINE: 7 TARGET: 8

ASTHMA-03

Increase by 10%, the number of sites implementing CDC-recommended school- and/or community-based Asthma Self-Management Education programs.

STRATEGIES

- Expand the number of Asthma Self-Management Education (ASME) programs by facilitating partnerships with school- and community-based organizations
- Promote ASME programs with the new and existing partners

OBJECTIVE

BASELINE: 13 TARGET: 14

ASTHMA-04

Increase by 10%, the number of facilitators delivering CDC-recommended school- and/or community-based Asthma Self-Management Education.

STRATEGIES

- Expand the number of ASME programs by connecting potential volunteers
- Promote volunteer opportunities with new and existing partners



Health Care Sector Objectives

GOAL >> All of Hawai'i's health care systems will promote health equity and maximize utilization of prevention, early detection, and evidence-based chronic disease self-management services by improving coverage, health information technology, programs, practices, and guidelines.

OBJECTIVE

BASELINE: 1 TARGET: 5

ASTHMA-05

Establish coverage of Asthma Self-Management Education programs by Medicaid.

STRATEGIES

- Identify existing literature/guidance/cost benefit analysis on ASME coverage
- Collaborate with Medicaid and provide guidance on ASME coverage and eligibility

OBJECTIVE

BASELINE: 0 TARGET: 6

ASTHMA-06

DIABETES-03 • HEART DISEASE AND STROKE-06

By 2025, identify six Health Information Technology priorities to enhance population health.

STRATEGIES

- Identify key Health Information Technology (HIT) stakeholders to establish a HIT workgroup
- Convene HIT workgroup regularly to identify the HIT priorities to enhance population health

OBJECTIVE

BASELINE: 0 TARGET: 50%

ASTHMA-07

DIABETES-04 • HEART DISEASE AND STROKE-07

Meet 50% of identified Health Information Technology priority goals.

STRATEGIES

- Implement priorities identified by the HIT workgroup (e.g., implement bidirectional referral systems between health care organizations and self-management education programs or create a GIS map of chronic disease cases to inform targeted health communication and resource utilization)

OBJECTIVE

BASELINE: 0 TARGET: 5

ASTHMA-08



DIABETES-05 • HEART DISEASE AND STROKE-03

By 2025, identify five measurable outcomes indicative of team-based care and monitor over time.

STRATEGIES

- Identify key stakeholders to establish a team-based care workgroup
- Convene team-based care workgroup regularly to identify measurable outcomes indicative of team-based care
- Report identified outcomes at least annually

OBJECTIVE

BASELINE: Pending TARGET: Increase by 5%

ASTHMA-09



DIABETES-06 • HEART DISEASE AND STROKE-04

Improve identified measurable team-based care outcomes by 5%.

STRATEGIES

- Implement priorities identified by the team-based care workgroup (e.g., increase use of pharmacists in medication management to increase physical patient panels, increase use of non-physician telehealth for Asthma Self-Management (ASME), or increase use of Community Health Workers (CHW) in patient care coordination)



Worksite Sector Objectives

GOAL >> All of Hawai'i's worksites will create a culture of wellness through supportive programs and policies that promote tobacco-and nicotine-free workplaces; breastfeeding; healthy food and beverage choices; physical activity and active commuter opportunities; health screenings; and early detection, risk reduction, and self-management of chronic diseases.

OBJECTIVE

BASELINE: 0 TARGET: 1

ASTHMA-10

Establish at least one statewide policy designed to increase access to evidence-based chronic disease prevention and management programs that address asthma at worksites.

STRATEGIES

- In collaboration with Objective Asthma-11, identify stakeholders to establish an advisory group to develop a Hawai'i-specific worksite wellness recognition program
- Convene workgroup regularly to draft a policy

OBJECTIVE

ASTHMA-11

CANCER-13 • DIABETES-07 • HEART DISEASE AND STROKE-09
PHYSICAL ACTIVITY AND NUTRITION-19 • TOBACCO-12

Implement a statewide, comprehensive worksite wellness recognition program that at least 10 very small-, 15 small-, 10 medium-, and 5 large-employers will participate in.

STRATEGIES

- Identify stakeholders and convene an advisory group to develop a Hawai'i-specific, evidence-based worksite wellness recognition program that includes the following areas:
 - Asthma
 - Cancer
 - Diabetes
 - Heart Disease and Stroke
 - Physical Activity and Nutrition
 - Tobacco
- Pilot the recognition program with a group of diverse employers and modify the program based on their feedback.

BASELINE:

very small = 0
small = 0

medium = 0
large = 0

TARGET:

very small = 10
small = 15

medium = 10
large = 5

IMPLEMENTATION

The rapidly increasing prevalence of chronic diseases and their associated risk factors in Hawai'i demands effective coordination of chronic disease prevention and management efforts. Statewide collaboration between stakeholders and partners reduces duplication of efforts and leverages resources to effectively address common risk factors through evidence-based policies, programs, and services. Stakeholders are convened regularly to discuss progress towards achieving the Asthma objectives and strategies in the *Healthy Hawai'i Strategic Plan 2030 (HHSP)* and to monitor and evaluate progress. The stakeholder group will continue to expand membership to include new, community representatives and to assure an inclusive, and community-based participatory approach. For a comprehensive overview of the common plan framework and statewide goals to prevent and manage asthma and other chronic diseases, please refer to the HHSP at www.HHSP.hawaii.gov.

LONG-TERM MEASURES

The long-term measures were identified to summarize and evaluate progress toward achieving the HAP 2030 objectives. The long-term measures will be monitored throughout the decade to demonstrate improvements in asthma prevention and control. Long-term measures will be reviewed and updated periodically as changes are made to the HAP 2030.

LONG-TERM MEASURE	BASELINE	TARGET
Hospitalizations for Asthma	Children under 5 years of age: 17.5 per 100,000 (HHIC, 2015) Persons between 5-64 years of age: 5.2 per 100,000 (HHIC, 2015) Adults 65 years of age and older: 15.5 per 100,000 (HHIC, 2015)	Children under 5 years of age: 14.9 per 100,000 Persons between 5-64 years of age: 4.4 per 100,000 Adults 65 years of age and older: 13.2 per 100,000
ED Visits for Asthma	Children under 5 years of age: 98.9 per 10,000 (HHIC, 2015) Persons between 5-64 years of age: 51.9 per 10,000 (HHIC, 2015) Adults 65 years of age and older: 30.9 per 10,000 (HHIC, 2015)	Children under 5 years of age: 84.1 per 10,000 Persons between 5-64 years of age: 44.1 per 10,000 Adults 65 years of age and older: 26.3 per 10,000
Use of Appropriate Medications for Asthma	82.5% (UDS, 2019)	91.6%



PARTNERS

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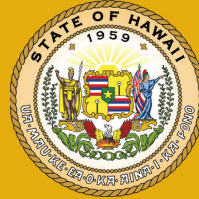
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- ⁸ Hawaii State Department of Health, Hawaii Health Data Warehouse. Youth Risk Behavior Survey. (2017). <http://hhdw.org>. Accessed on June 20, 2022.

The Hawai'i Asthma Plan 2030 works in coordination with other chronic disease prevention and management plans in the state, specifically the following:

- Healthy Hawai'i Strategic Plan 2030
- Hawai'i Cancer Plan 2030
- Hawai'i Diabetes Plan 2030
- Hawai'i Heart Disease and Stroke Plan 2030
- Hawai'i Physical Activity and Nutrition Plan 2030
- Hawai'i Tobacco Prevention and Control Plan 2030





David Ige, *Governor of Hawai'i*
Elizabeth A. Char, M.D., *Director of Health*

For more information contact:

Hawai'i State Department of Health
Chronic Disease Prevention and Health Promotion Division
1250 Punchbowl St. Room 422
Honolulu, Hawai'i 96813
PHONE: (808) 586-4488

The HAP 2030 can be accessed, downloaded, and interacted with
at the following website: www.HHSP.hawaii.gov

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