

2011 | 2016

HAWAI'I ASTHMA PLAN



HAWAII STATE
DEPARTMENT
OF HEALTH



Hawaii Asthma Initiative

Promoting Lifelong Health and Wellness

www.hawaii.gov/health

FOREWORD: HAWAI‘I ASTHMA INITIATIVE

Asthma is a complex disease that requires long-term and multifaceted solutions. These include educating, treating, providing ongoing medical care, and monitoring for people with the disease; changing behaviors that may lead to asthma or make it worse; and eliminating or avoiding triggers. The state's public health response to asthma has several key components that include surveillance, education, coalition building, advocacy, interventions, and evaluation. To affect change at a statewide level requires a coordinated and multifaceted response from many organizations. Thus, the Hawai'i Asthma Initiative was established.

The Hawai'i Asthma Initiative is a broad-based, multi-organizational, statewide community collaborative whose goal is to bring the public and private sectors together in an effort to increase the quality and years of healthy life for people impacted by asthma, and to eliminate health disparities in Hawai'i. This initiative is supported by the Hawai'i State Department of Health's Asthma Control Program and the Centers for Disease Control and Prevention.

The Hawai'i Asthma Initiative's mission is to reduce the burden of asthma in Hawai'i. To fulfill its mission, Initiative stakeholders work toward increasing community readiness to mobilize and improve Hawai'i's existing asthma system of care. The Hawai'i Asthma Initiative utilizes three main strategies: (1) increase understanding of the burden of asthma, paying particular attention to the identification of health disparities; (2) engage community partners to identify gaps in the delivery of asthma related programs and services; and (3) meet the needs of all island communities. This culminates in the Hawai'i Asthma Plan: 2011-2016, which provides a clear and unified roadmap for communities to collaborate and mobilize to reduce the burden of asthma in our state.

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Hamakua Health Center
Hawaii Chronic Obstructive Pulmonary Disease (COPD) Coalition
Hawaii Department of Education
Hawaii Department of Health – Communicable Disease Division
Public Health Nursing Branch
Hawaii Department of Health – Environmental Health Administration

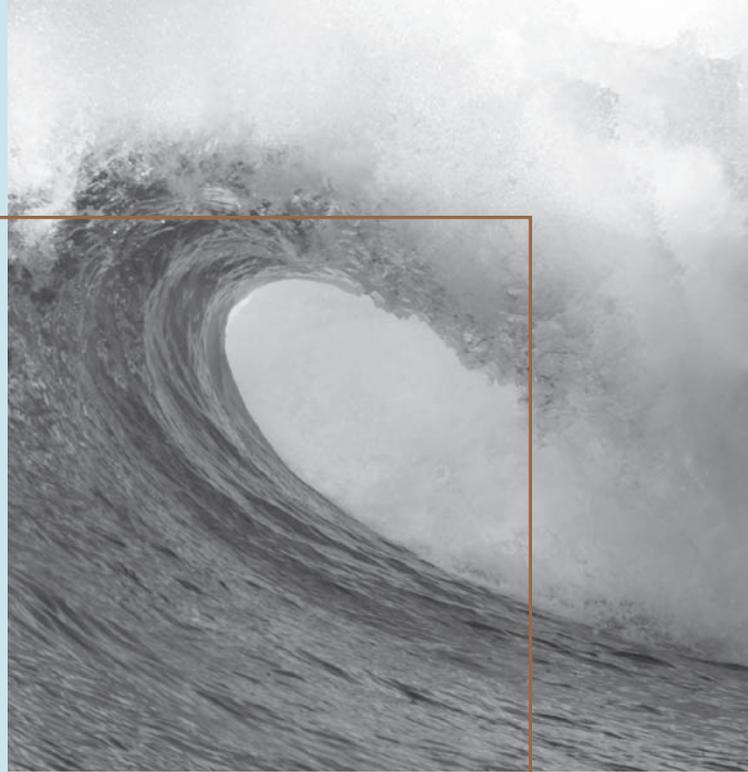
- Environmental Planning Office
- Hazard Evaluation and Emergency Response Office

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Maternal and Child Health Branch
Children with Special Health Needs Branch
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Hawaii Department of Health – Kauai District Health Office
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- Behavioral Risk Factor Surveillance System
- Chronic Disease Management and Control Branch
 - Bilingual Health Program
 - Breast and Cervical Cancer Control Program
 - Comprehensive Cancer Control Program
 - Diabetes Prevention and Control Program
 - Healthy Communities
 - Heart Disease and Stroke Program
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LETTER FROM THE DIRECTOR

Aloha,

I am pleased to introduce the Hawai'i Asthma Plan: 2011-2016. This document is the result of a collaborative effort and represents the unified vision of individuals and organizations across the entire State of Hawai'i.

The Hawai'i Asthma Plan serves as a roadmap to improve the quality of care for people with asthma, while focusing on health disparities. This plan is based on the current needs of Hawai'i's communities and identifies a congruent set of goals, objectives, and strategies set forth by the Hawai'i Asthma Initiative.



The Hawai'i Asthma Plan is a call to action to eliminate asthma disparities, improve Hawai'i's asthma surveillance, support partnerships to raise asthma awareness, develop a more effective health system, empower individuals with asthma to self-manage, and improve our environment. While the challenge of asthma is evident, it is through the coordination and mobilization of dedicated partners that we will achieve success in the fight against asthma.

In Hawai'i, over 125,000 people have asthma. Asthma is a serious, common, and costly disease, but through a collaborative effort, we can create a healthier Hawai'i. On behalf of the Hawai'i State Department of Health, I would like to thank you for your time and effort. I encourage everyone to work together to improve the quality and years of healthy life for individuals, families, and communities affected by asthma.

Sincerely,

A handwritten signature in black ink, which reads "Loretta J. Fuddy". The signature is written in a cursive, flowing style.

Loretta J. Fuddy, A.C.S.W., M.P.H.
Director of Health

*Promoting Lifelong
Health and Wellness*



INTRODUCTION

Asthma is a major public health problem in the United States, affecting an estimated 7.1 million children under 18 years; 4.1 million of those suffered from an asthma attack or episode in 2009. Approximately 34.1 million Americans have been diagnosed with asthma by a health professional during their lifetime. People with asthma experience a total of well over 100 million days of restricted activity each year, and the total annual costs of the disease are estimated at \$11.3 billion.

The Hawai'i Asthma Plan: 2011-2016 provides a framework for asthma stakeholders to align, collaborate and mobilize toward common goals aimed at improving high priority areas of need. The priority areas identified are: (1) to eliminate asthma disparities in Hawai'i; (2) to understand Hawai'i's asthma burden; (3) to support partnerships and raise asthma awareness in Hawai'i; (4) to improve Hawai'i's health care system to achieve optimal asthma care; (5) to promote self-management among Hawai'i's patients with asthma; and (6) to provide healthy environments for people with asthma in Hawai'i.

The Hawai'i Asthma Initiative (HAI) is guided by the following principles:

Community-based	Cutting edge
Evidence-based	Equal access
Turning data into action	Alignment with other State plans
Health disparities	Congruency with national objectives
Cultural competence/appropriateness	Reduce redundancies
Patient centered	Evaluation
Collaboration	Sustainability

HEALTH DISPARITIES

Despite ongoing and targeted public health efforts by the Hawai'i State Asthma Control Program (HSACP), asthma-related health disparities continue to persist. These disparities are believed to be linked to variables such as housing, access to healthcare, education and literacy, environment, insurance coverage and socioeconomic status. To begin addressing these complex social determinants of health issues, the HSACP has become an active partner in the Hawai'i State Department of Health's coordinated chronic disease initiative. This initiative fosters a collaborative approach through the building of a shared vision, strategies, partnerships and resources. Collectively, these programs work to promote health and reduce the burden of chronic disease by empowering the community, influencing social norms and supporting healthy lifestyle choices.

In Hawai'i, chronic diseases - such as asthma, cancer, diabetes, heart disease and stroke - are among the most prevalent, costly, and preventable of all health problems. Leading a healthy lifestyle (avoiding tobacco use, being physically active, and eating well) greatly reduces a person's risk for developing chronic disease. Access to high-quality and affordable chronic disease prevention measures are essential steps in saving lives, reducing disability and lowering costs for medical care.

With this understanding, the Chronic Disease Management and Control Branch (CDMCB) has identified key strategies to guide it through its coordinated chronic disease initiative process.

Some of these strategies include the establishment of a coordinated Chronic Disease Advisory Group and development of a Coordinated Chronic Disease Burden Report and a Prevention and Health Promotion Strategic Plan. In addition, the CDMCB will invest future resources to: (1) implement workforce development trainings to increase program capacity; (2) enhance existing surveillance and epidemiology capacity; (3) develop comprehensive and coordinated evaluation; and (4) strengthen administrative operations. The CDMCB will also continue to convene chronic disease stakeholders at statewide summits to ensure that future efforts are culturally and community tailored, minimize duplication of effort, and assure a community participatory approach.

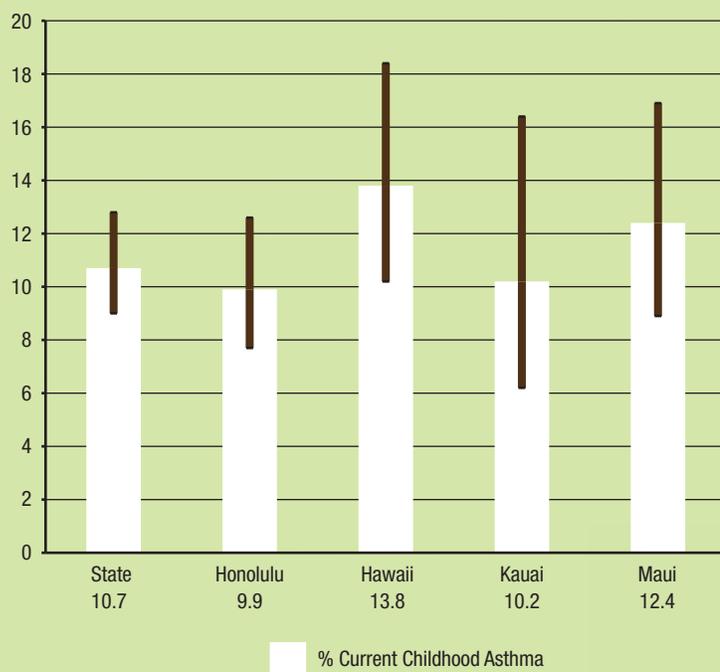
With this new direction, the CDMCB will have the ability to enhance its organizational structure to ensure the best possible alignment with future federal, state, county, and community initiatives to address heart disease, stroke, diabetes, arthritis, asthma, cancer, obesity and their associated risk factors and social determinants for the people of Hawai'i.



HAWAI‘I’S CURRENT ASTHMA BURDEN

In Hawai‘i, asthma is one of the most common chronic diseases among children. According to the 2010 Hawai‘i Behavioral Risk Factor Surveillance System (BRFSS), approximately 10.7%, or 31,000 of Hawai‘i’s children have been diagnosed with asthma by a health professional and still have asthma (current asthma prevalence). Furthermore, approximately 9.4%, or 94,000 of Hawai‘i’s adults have also been diagnosed with asthma by a health professional and still have asthma (current asthma prevalence).

Figure 1. Percent of children with current asthma by county, BRFSS, 2010

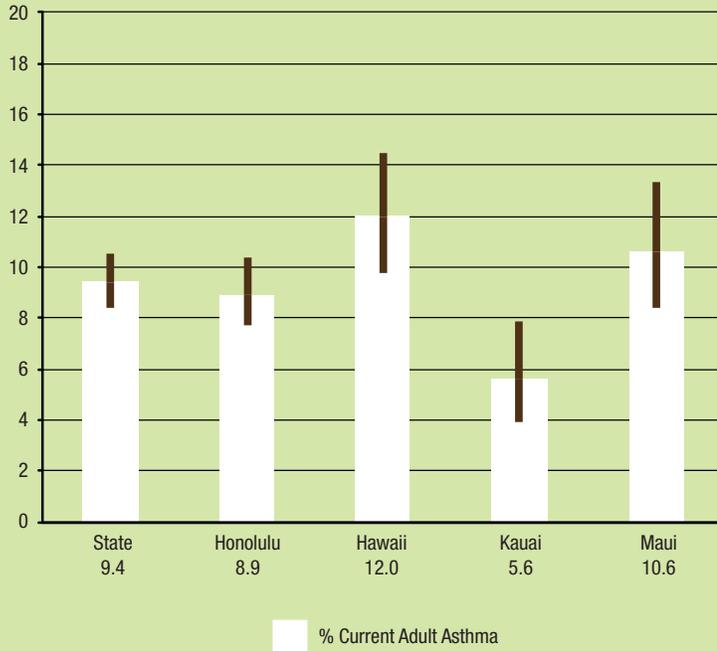


Finding: Hawai‘i County has a higher prevalence of current childhood asthma when compared with the other counties and the state average. This difference is not statistically significant.

Data Source: Behavioral Risk Factor Surveillance System (BRFSS).



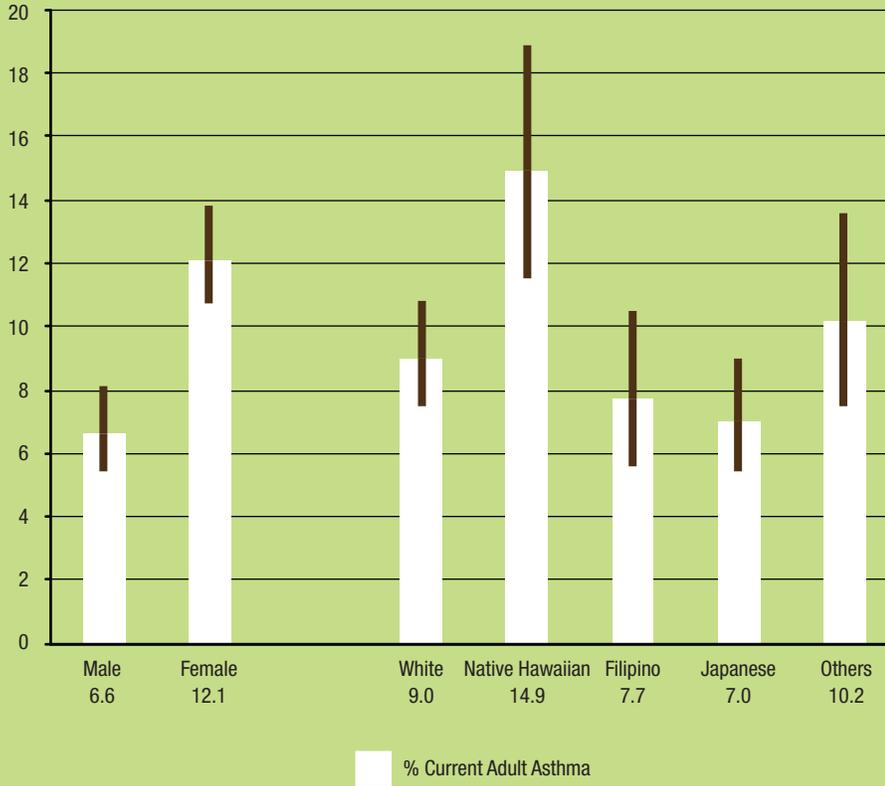
Figure 2. Percent of adults with current asthma by county, BRFSS, 2010



Finding: Kauai County has a lower prevalence of current asthma when compared with Hawai'i and Maui counties and the state average.
Data Source: Behavioral Risk Factor Surveillance System (BRFSS).



Figure 3. Percent of adults with current asthma by sex and ethnicity, BRFSS, 2010



Finding: Adult females have a higher prevalence of current asthma when compared with adult males (12.1% vs. 6.6%). In terms of ethnicity, Native Hawaiians adults have a higher prevalence of current asthma (14.9%) when compared with Whites (9.0%), Filipinos (7.7%) and Japanese (7.0%).

Data Source: Behavioral Risk Factor Surveillance System (BRFSS).

Figure 4. Hawai'i asthma hospitalizations per 1,000 population, by age group, HHIC, 1996 – 2010

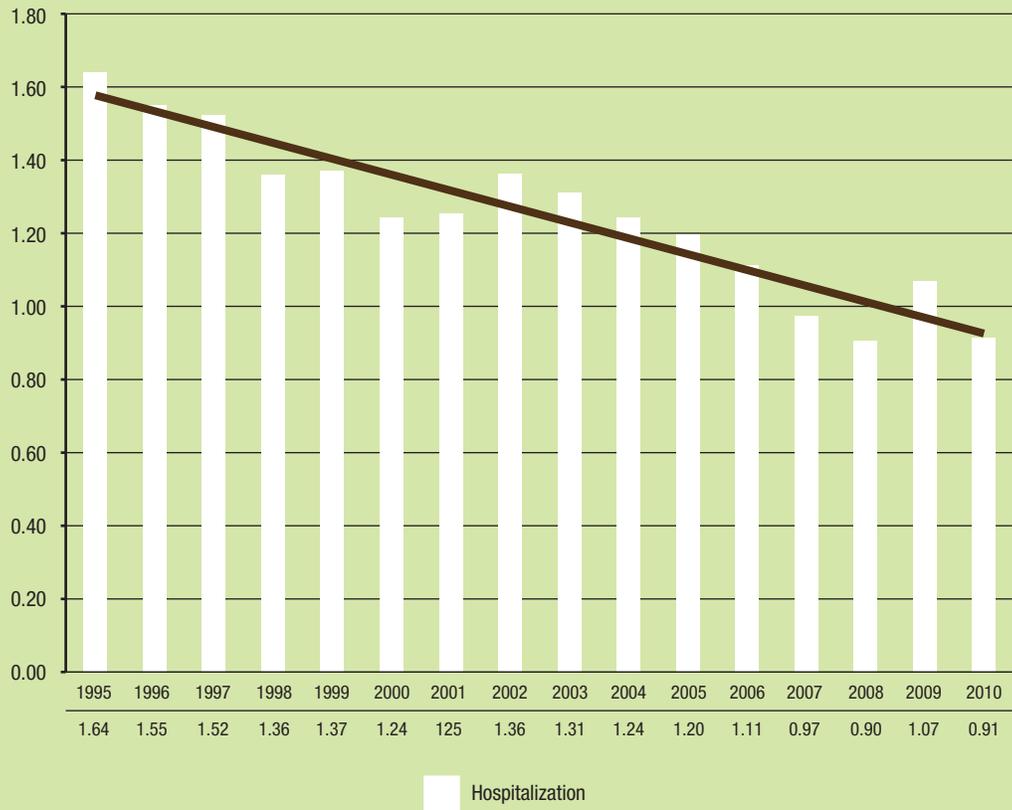


Finding: The majority of hospitalizations per 1,000 population occur in children under the age of five. In 2010, asthma hospitalizations for children under five (3.6/1,000) did not meet the Healthy People 2020 goal of 1.8/1,000. Hospitalizations also increase among adults age 65 and older.

Data Source: Hawai'i Health Information Corporation (HHIC).



Figure 5. Hawai'i asthma hospitalizations per 1,000 population, by year, HHIC, 1995 – 2010



Finding: There has been a 56% reduction in asthma hospitalizations between 1995 and 2010.

Data Source: Hawai'i Health Information Corporation (HHIC).

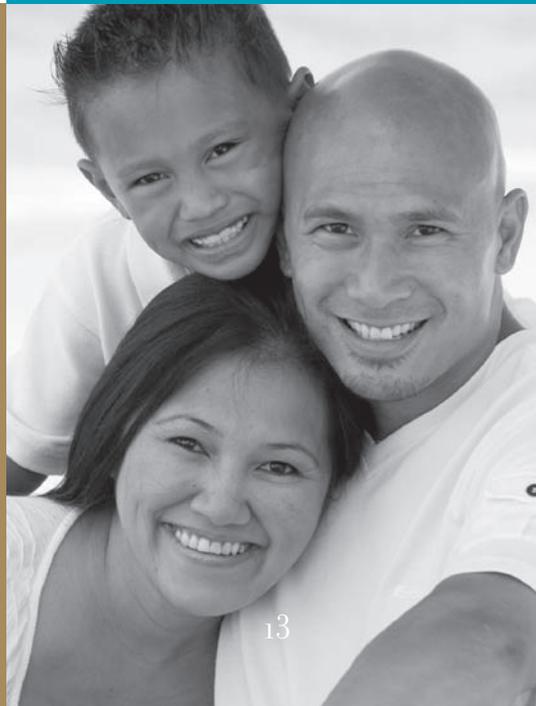
HIGHLIGHTS OF HAWAI'I'S CURRENT ASTHMA BURDEN

In 2009, the cost of asthma-related emergency department visits was **\$10.4** million; asthma-related hospitalizations cost **\$24.4** million (HHIC, 2009).



57%

of adults with current asthma reported some activity limitation (ACBS, 2008).



31%

of adults with current asthma missed work or their usual activity due to their condition (ACBS, 2008).



44%

of adults with current asthma have had a routine physician check-up in the past year (ACBS, 2008).



13%

of adults with current asthma took an asthma management course (ACBS, 2008).



31%

of adults with current asthma received a written asthma management plan (ACBS, 2008).



58%

of public high school students and 45% of public middle school students were exposed to secondhand smoke in a room or car during the previous week (YTS, 2009).

Data Sources: Hawai'i Health Information Corporation (HHIC), Asthma Call-Back Survey (ACBS), Youth Tobacco Survey (YTS).

REVISION OF THE HAWAI‘I ASTHMA PLAN

The Hawai‘i State Asthma Control Program and its partners began the revision of the Hawai‘i Asthma Plan in early 2011. The first step was an internal review of the existing strategic plan to identify areas where the coalition has achieved success, as well as those where the coalition still needs to work. Next, suggestions were solicited from the coalition through interviews and strategic planning meetings.



To assess current practices and future asthma needs, key informant interviews were conducted in May and June 2011. These included telephone discussions and face-to-face meetings with individuals and groups representing the diversity of the coalition. Interviewees were asked to speak to four questions:

- 1) What asthma issues should be addressed in the next 5 years?
- 2) How should the Hawai‘i Asthma Initiative go about addressing those issues?
- 3) What resources are needed?
- 4) What should be the priorities in addressing asthma?

Ideas and suggestions emerging from the interviews were summarized and shared at the subsequent strategic planning meetings.

Two town hall meetings were held in June 2011 in Hilo and Honolulu. The meetings were structured to generate maximum interaction among the participants and to stimulate the exchange of varying perspectives and concerns. Participants responded to the ideas gleaned from the key informant interviews, provided additional comments and prioritized the proposed activities.

All of this information formed the foundation for the updated goals, objectives and strategies presented in this version of the Hawai‘i Asthma Plan. Stakeholders were also invited to provide feedback to the draft of the plan before publication.

PURPOSE OF THE HAWAI‘I ASTHMA PLAN

The Hawai‘i Asthma Plan: 2011-2016 (HAP) has been updated to provide a roadmap for the mobilization of the Hawai‘i Asthma Initiative (HAI) to work together to reduce the burden of asthma for the next five years (2011- 2016). The previous HAP was originally developed in 2006 based on the needs of the community. The HAP identifies a congruent set of strategies that are aimed at accomplishing the goals and objectives set forth by the HAI.

The HAP provides a framework to: (1) establish leadership by allowing organizations to identify their areas of strength, their roles and responsibilities and their contribution to the asthma health system; (2) reach consensus on a congruent set of goals across the State through the coalition meeting process; and (3) minimize redundancies through the sharing of information and identification of lead agencies.

Interventions identified in the HAP will eventually become institutionalized and sustained beyond Centers for Disease Control and Prevention (CDC) funding through the continuous convening of stakeholders and partners on a regular and consistent basis (e.g., coalition, workgroup, and task force meetings, trainings, presentations, conferences, and summits).

Continued collaboration fostered through the HAP will provide the strategic direction, structure, and process necessary to identify solutions to common barriers while building a support system necessary to achieve common goals.

The HAP document will guide Hawai‘i’s asthma stakeholders in a unified quest to decrease the burden of asthma in their communities and ultimately throughout the entire state of Hawai‘i.



DISPARITIES

Although data collected over the past five years have helped to identify some asthma-related disparities, surveillance information is still lacking for some groups, including smaller populations from Micronesia. In addition, while available surveillance data can be used to identify disparities, they provide little information on factors that might provide insight on ways to address them. One of the Hawai'i Asthma Initiative's priorities over the next five years is to ensure that coalition activities effectively reach all populations impacted by asthma and close the gap on asthma disparities.

Goal 1: Eliminate asthma disparities in Hawai'i.

Long-term Outcomes (Healthy People 2020):

- Reduce asthma deaths.
- Increase the proportion of persons who have a specific source of ongoing care.
- Reduce the proportion of individuals who are unable to obtain or delay in obtaining necessary medical care, dental care or prescription medicines.
- Improve the health literacy of the population.

Objective 1.1: Identify disparities in asthma burden.

Strategy:

- Conduct and disseminate surveillance of asthma burden by age, sex, ethnicity, income, education, insurance status, geographic residence, occupation, primary language and literacy level.

Performance Measure:

- Number of surveillance products (e.g., burden reports, fact sheets and presentations) on asthma disparities disseminated.



Objective 1.2: Increase understanding about asthma disparities.

Strategies:

- Conduct community assessments and outreach to understand facilitators and barriers to asthma management.
- Assess political will.
- Develop and disseminate core messages.

Performance Measures:

- Document of recommendations to address asthma disparities.
- Number of core messages on asthma disparities disseminated.

Objective 1.3: Ensure coalition activities address populations disparately impacted by asthma.

Strategies:

- Raise community awareness of disparity issues.
- Increase access to culturally-tailored information.
- Build capacity of health professionals and the public health workforce to address disparities.
- Create policy agenda.

Performance Measures:

- Number of culturally-tailored educational materials disseminated.
- Number of workforce trainings on asthma disparities.
- Policy agenda that addresses asthma disparities.

DATA AND SURVEILLANCE

Since its inception, Hawai'i's asthma surveillance system has described the state's burden of asthma. In the coming years, the Hawai'i Asthma Initiative will continue to assess the prevalence, severity, management, and cost of asthma. In particular, it will broaden surveillance data to more accurately describe the burden of asthma among subgroups of different cultural and linguistic backgrounds. Improved information of these populations will strengthen efforts to direct and measure program activities that successfully impact asthma.

Goal 2: Understand Hawai'i's asthma burden.

Long-term Outcome (Healthy People 2020):

Increase the numbers of states, territories, and the District of Columbia with a comprehensive asthma surveillance system for tracking asthma cases, illness, and disability at the state level.

Objective 2.1: Assess asthma prevalence.

Strategy:

- Conduct and disseminate surveillance of asthma prevalence.

Performance Measure:

- Number of surveillance products (e.g., burden reports, fact sheets and presentations) on asthma prevalence disseminated.

Objective 2.2: Assess asthma severity.

Strategy:

- Conduct and disseminate surveillance of asthma morbidity and mortality.

Performance Measure:

- Number of surveillance products (e.g., burden reports, fact sheets and presentations) on asthma severity disseminated.

Objective 2.3: Assess asthma management.

Strategy:

- Conduct and disseminate surveillance on activity limitation, school and work days missed due to asthma, appropriate asthma care and access to formal patient education.

Performance Measure:

- Number of surveillance products (e.g., burden reports, fact sheets and presentations) on asthma management disseminated.

Objective 2.4: Assess asthma cost.

Strategy:

- Conduct and disseminate surveillance and evaluation of the direct and indirect costs of asthma.

Performance Measure:

- Number of surveillance products (e.g., burden reports, fact sheets and presentations) on asthma cost disseminated.

PARTNERSHIPS

A range of stakeholders have important roles to play in reducing the burden of asthma in Hawai'i. Communication channels that connect multiple audiences to information, expertise, and other resources of common interest are essential. The Hawai'i Asthma Initiative strives to expand coalition membership, especially with other chronic disease coalitions and non-traditional organizations. With a shared vision and core messages, partners can raise a greater awareness of asthma in Hawai'i.

Goal 3: Support partnerships and raise asthma awareness in Hawai'i.

Long-term Outcomes (Healthy People 2020 and State Asthma Program Evaluation Guide, CDC):

- Increase the number of community-based organizations (including local health departments, tribal health services, nongovernmental organizations and state agencies) providing population-based primary prevention services.
- Increase coordination of asthma-related efforts across the state.
- Improve infrastructure to support asthma efforts statewide.
- Increase funding to support asthma activities.
- Improve use of available resources to sustain asthma efforts statewide.

Objective 3.1: Facilitate communication between asthma stakeholders.

Strategies:

- Use a variety of communication channels (e.g., email, websites, newsletters and social media).
- Conduct meetings and conferences.
- Establish community-level groups to share resources.

Performance Measures:

- Communication plan.
- Number of individuals and organizations utilizing various communication channels.
- Meeting and conference agenda and evaluations.

Objective 3.2: Foster collaborative relationships to improve asthma management.

Strategies:

- Mobilize existing coalition, work groups and task forces.
- Expand coalition membership by engaging non-traditional partners (e.g., employer groups, unions, businesses, faith-based groups and other health coalitions).

Performance Measures:

- Work group and task force work plans and meeting notes.
- Number of new partners joining coalition; documentation of shared vision, strategies and resources.

Objective 3.3: Increase public awareness of asthma and efforts to reduce its burden.

Strategy:

- Develop core messages and disseminate through new and traditional media.
- Increase understanding of the link between asthma and the social determinants of health (i.e., housing, access to health care, education and literacy, environment, insurance coverage and socioeconomic status).
- Increase understanding of the link between asthma and other respiratory diseases (e.g. Chronic Obstructive Pulmonary Disease) and risk factors such as obesity and tobacco use.

Performance Measure:

- Number of core messages that highlight the impact of social determinants of health on asthma disseminated.



HEALTH SYSTEM

Many factors in Hawai'i's health care system continue to hinder the delivery of optimal asthma care. Inconsistencies in quality of care and discontinuity among the different parts of the system remain despite targeted efforts for improvement. Also, the *National Heart, Lung and Blood Institute Guidelines for the Diagnosis and Treatment of Asthma* are not implemented universally. The Hawai'i Asthma Initiative will work towards improving the quality and consistency of asthma care, ensuring appropriate usage of medication and integrating service across care providers.

Goal 4: Improve Hawai'i's health care system to achieve optimal asthma care.

Long-term Outcomes (Healthy People 2020):

- Increase the proportion of persons with current asthma who receive appropriate asthma care according to National Asthma Education and Prevention Program guidelines.
- Increase the proportion of persons with current asthma who receive written asthma management plans from their health care provider.
- Increase the proportion of persons with current asthma who do not use more than one canister of short-acting inhaled beta agonist per month.
- Reduce hospitalizations for asthma.
- Reduce hospital emergency department visits for asthma.

Objective 4.1: Improve primary care to effectively manage asthma.

Strategies:

- Promote adoption of guidelines for appropriate asthma diagnosis and management among physicians.
- Train physician assistants, nurses, pharmacists, respiratory therapists, medical assistants, outreach staff and students to provide asthma education.
- Expand use of health information technology; support use of patient-centered health care homes.

Performance Measures:

- Number of tools, curricula and trainings provided to health care providers on appropriate asthma management.
- New electronic health record templates for asthma.
- Number of community health centers who measure asthma as part of the patient-centered health care home initiative.

Objective 4.2: Improve acute care to effectively manage asthma.

Strategies:

- Link hospital and emergency department patients with primary care providers
- Provide hospital-based asthma education.

Performance Measures:

- Number of asthma-related emergency department visits and hospitalizations.
- Number of emergency departments that refer patients to primary care providers.
- Number of hospitals providing inpatient asthma education.

Objective 4.3: Promote payment and reimbursement mechanisms to encourage delivery of comprehensive asthma care.

Strategies:

- Partner with insurers and the state Medicaid program to identify model payment and reimbursement mechanisms.
- Develop sustainable funding for comprehensive asthma education and care; ensure affordability, accessibility and awareness of asthma medications, diagnostic tests, equipment and standards of care.

Performance Measures:

- Number of insurers/health plans reimbursing for asthma education and/or case management.
- Number of asthma patients with access to appropriate medications and standards of care.

SELF-MANAGEMENT

Patients and their caregivers often receive limited education on asthma self-management during physician visits. However, self-management education is readily available through community-based settings, such as schools and churches. The Hawai'i Asthma Initiative will actively promote the Chronic Disease Self-Management Program and other lay education curricula to empower patients, caregivers and communities to help those with asthma become more effective at self-managing their condition.

Goal 5: Promote self-management among Hawai'i's patients with asthma.

Long-term Outcomes (Healthy People 2020):

- Increase the proportion of the nation's elementary, middle and high schools that have official school policies and engage in practices that promote a healthy and safe physical school environment.
- Increase the proportion of persons with current asthma who receive formal patient education.
- Reduce the proportion of persons with asthma who miss school or work days.
- Reduce activity limitations among persons with current asthma.
- Increase the proportion of persons with current asthma who receive education about appropriate response to an asthma episode, including recognizing early signs and symptoms or monitoring peak flow results.
- Increase the proportion of persons with current asthma with prescribed inhalers who receive instruction on their use.
- Increase smoking cessation during pregnancy.



Objective 5.1: Support development and implementation of asthma-friendly schools.

Strategies:

- Train school staff.
- Offer school-based asthma education for students and families.
- Enhance electronic student and health records.
- Enforce Act 19 and smoke-free campus policies.
- Improve communication between schools and families of children with asthma.

Performance Measures:

- Number of school staff (e.g., health aides, teachers, administrators and maintenance staff) and students trained.
- Number of parents and children provided asthma education in schools.
- Electronic student and health records enhanced to include asthma.
- Number of schools compliant with asthma-friendly school policies.
- Communication plan and/or policy.

Objective 5.2: Provide patients with tools, training and information to improve their asthma.

Strategies:

- Promote Chronic Disease Self-Management Program, lay educator training and group education.
- Provide tobacco cessation services.
- Enhance social networks and social connectedness.
- Engage and empower patients, caregivers and communities to plan and implement prevention policies and programs.
- Improve employment and education opportunities.

Performance Measures:

- Number of Chronic Disease Self-Management Program workshop participants with asthma.
- Number of asthma patients referred to and participating in self-management classes.
- Number of organizations providing tobacco cessation services.
- Number of people with asthma and/or caregivers trained as lay educators or advocates.
- Number of community organizations (e.g., faith-based groups) that champion asthma.

ENVIRONMENT

More than any other chronic disease, asthma is directly influenced by the environment. Allergens and irritants both indoors and outdoors can trigger an asthma attack. Policy and system changes that improve the spaces in which Hawai'i's people with asthma live, learn, work and play can have a powerful effect on improving their quality of life. The Hawai'i Asthma Initiative is committed to partnering with diverse stakeholders to advance healthy housing and environments.

Goal 6: Provide healthy environments for people with asthma in Hawai'i.

Long-term Outcomes (Healthy People 2020):

- Reduce air toxic emissions to decrease the risk of adverse health effects caused by airborne toxics.
- Increase the proportion of persons with current asthma who have been advised by a health professional to change things in their home, school, and work environments to reduce exposure to irritants or allergens to which they are sensitive.
- Increase the proportion of persons with current asthma who have discussed with a doctor or other health professional whether their asthma was work-related.
- Reduce proportion of nonsmokers exposure to secondhand smoke.
- Increase the proportion of smoke-free homes.
- Reduce indoor cockroach allergen levels.

Objective 6.1: Improve outdoor air quality.

Strategies:

- Assess and increase the number of initiatives or policies to decrease bus and automobile emissions.
- Reduce exposure to small particulate matter (less than 2.5 micrometers), sulfur dioxide and other air pollutants.

Performance Measure:

- Number of initiatives or policies that limit exposure to outdoor air pollution.

Objective 6.2: Improve indoor air quality.

Strategies:

- Promote evidence-based strategies that reduce secondhand smoke exposure.
- Increase the capacity of patients, caregivers, schools, employers, unions and OSHA safety and health officers to identify, avoid, and reduce exposure to indoor environmental asthma allergens and irritants.
- Support integrated pest management.
- Provide work-related asthma resources to groups that are attempting to improve occupational air standards.

Performance Measures:

- Number of initiatives or policies that limit exposure to indoor air pollution.
- Number of people trained to identify, avoid, and reduce exposure to indoor environmental asthma allergens and irritants.
- Number of initiatives or policies that address work-related asthma.

Objective 6.3: Promote affordable, accessible, safe and healthy housing.

Strategies:

- Increase voluntary smoke-free policies.
- Collaborate with existing partners to develop shared agenda for healthy housing.
- Promote environmentally-friendly technology in building design and construction.

Performance Measures:

- Number of public and affordable housing sites that adopt healthy housing policies and practices.
- Number of partners collaborating on healthy housing.
- Number of trainings or conferences that address healthy housing.

NEXT STEPS

The revised Hawai'i Asthma Plan: 2011-2016 builds on lessons learned from almost a decade of addressing asthma in the state. The goals, objectives and strategies for the next five years provide a comprehensive map for continuing to improve the quality of life for Hawai'i's people with asthma.

Beyond those goals, however, other issues deserve attention. One issue is the need to understand and communicate recent successes in reducing asthma hospitalizations. It is necessary to share local data and community-based promising practices that can reduce the burden of asthma. This information can educate, as well as make a business case for asthma to potential funding sources.

A second issue is the focus on health and wellness as opposed to disease. Given the new national focus on prevention, the HAI should align its activities and direct its resources in that direction. This will require increased coordination and collaboration with community partners and other chronic disease coalitions to identify shared goals to promote healthy lifestyles for all.

Finally, the sustainability of the coalition is a critical issue. The HAI must strengthen its membership with committed members from the chronic disease prevention community. For a group to grow and function successfully as a team, renewed interest and innovative strategies are essential to leverage existing resources.

The Hawai'i Asthma Initiative strives to engage the public and private sectors to increase the quality and years of healthy life for people impacted by asthma. This ultimate goal will be accomplished with continued information sharing, an integrated focus on health and wellness and a unified coalition.

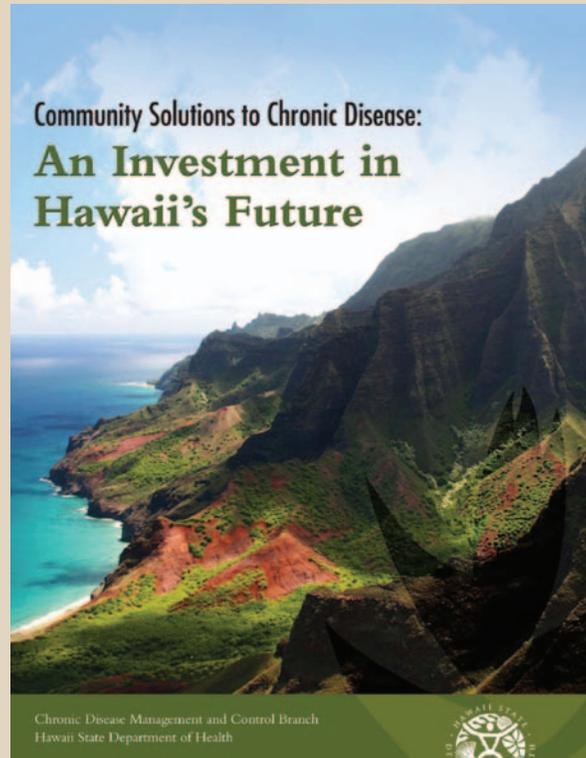
IT TAKES A TEAM

Good health takes a team effort. It requires a robust mixture of community efforts and individual responsibility, access to medical care and supportive environments that make it easy for people to make healthy choices and embark on healthy lifestyles. And when it comes to chronic disease, the ingredients are no different.

Chronic diseases such as asthma, cancer, cardiovascular disease and diabetes are among the most common, preventable and costly diseases affecting Hawai'i communities. In response, the programs of the Chronic Disease Management and Control Branch

work together to address the interrelated forces that impact such diseases, with a special focus on communities that suffer a disproportionate burden of chronic disease. The programs within the branch strive to produce positive health outcomes using a variety of proven tactics, such as policy changes, education and awareness, and strategic partnerships. The branch is a unifying voice for the value of prevention.

Many challenges remain in the prevention and management of chronic diseases and it will require support from all sectors of society to sustain the accomplishments we've made together and continue moving forward. Support prevention and community health! It's a wise investment in Hawai'i's future.



APPENDIX 1: ABOUT THE DATA

Data Sources

The information presented in this report is based on the following data sources: (1) Hawai'i Behavioral Risk Factor Surveillance System (BRFSS), (2) BRFSS Asthma Call-Back Survey (3) Hawai'i Health Information Corporation, and (4) Hawai'i Youth Tobacco Survey.

The **Behavioral Risk Factor Surveillance System** (BRFSS) is the largest continuously conducted telephone health survey in the world. Conducted by the Hawai'i Department of Health in collaboration with the CDC, the BRFSS enables the CDC, state health departments, and other health and education agencies to monitor risk behaviors related to chronic diseases, injuries and death. State health departments use BRFSS data to create annual and periodic reports, fact sheets, press releases, or other publications, which are used to educate the public, the professional health community, and policymakers about the prevalence of modifiable behavioral risk factors and of preventive health screening practices. Data collected through the BRFSS is currently restricted to adults 18 years and older with landline telephones. It is routinely used to capture health information on demographically defined subgroups (ethnicity, gender, age, educational level, income level, and geographic location). See <http://www.hawaiihealthmatters.org/> and <http://www.hhdw.org/>.

The BRFSS **Asthma-Call Back Survey** (ACBS) is conducted approximately two weeks after the BRFSS among BRFSS respondents who report an asthma diagnosis. Hawai'i includes children in the BRFSS, so if the randomly selected child has ever been diagnosed with asthma, then the child is eligible for the asthma call-back. If both the selected child and the BRFSS adult in a household have asthma, then only one or the other is eligible for the ACBS. The ACBS addresses critical questions surrounding the health and experiences of persons with asthma and provides data at the state and local level.

The **Hawai'i Health Information Corporation** (HHIC) is a private, not-for-profit corporation established in 1994. HHIC maintains one of Hawai'i's largest healthcare databases, which contains nearly 1,000,000 inpatient discharge records collected from Hawai'i's 22 acute care hospitals for each year since 1993. Through HHIC's comprehensive database and expert analytical capabilities, organizations are provided with information essential to health care quality management, community assessment, planning and policy analysis, and research.

The **Youth Tobacco Survey** (YTS) collects data from young people in middle and high school (grades 6 through 12). The YTS provides information on many key intermediate and long-term tobacco-related indicators (such as smoking prevalence, tobacco knowledge and attitudes, exposure to secondhand smoke and tobacco advertising, and tobacco access), allowing states to measure progress toward state and national goals and objectives.

DATA DEFINITIONS

Prevalence is the number of cases of a disease, infected persons, or persons with some other attribute present during a particular interval of time.

Adult Lifetime Asthma Prevalence is defined by the Hawai'i Behavioral Risk Factor Surveillance System (BRFSS) as those who responded yes to the question, "Have you ever been told by a doctor, nurse, or other health professional that you had asthma?"

Adult Current Asthma Prevalence is defined by the Hawai'i BRFSS as those who responded yes to the Adult Lifetime Asthma Prevalence question, and who responded yes to the question. "Do you still have asthma?"

Child Lifetime Asthma Prevalence is defined by the Hawai'i BRFSS by asking this question to adult respondents with children in the home: "Earlier you said there were [] children 17 or younger living in your household. How many of these children have ever been diagnosed with asthma?"

Child Current Asthma Prevalence is defined by the Hawai'i BRFSS by asking adult respondents who reported having children in the household that have been diagnosed as "ever" having asthma the following question: "Does this child/how many of these children still have asthma?"

Race/Ethnicity is collected from respondents who are asked to choose from a list to answer the question: "What is your race?" The list includes White, Hawai'ian, Chinese, Filipino, Japanese, Korean, Samoan, Black, American Indian/Alaska Native/Eskimo/Inuit, Vietnamese, Asian Indian, Portuguese, Guamanian/Chamorro, Puerto Rican, Mexican, Tongan, Laotian, Cambodian, Malaysian, Fijian, Micronesian, and other Asian. In addition, a respondent can specify their own ethnicity if it is not listed. For simplicity, this document re-categorizes ethnicity into White (includes Portuguese), Hawai'ian, Filipino, Japanese, and "Other" (includes Chinese).

Hospitalization is defined as a hospitalization with a primary diagnosis of 493.xx (ICD.9). The definition excludes non-residents, newborns, pregnancy-related admissions and patients admitted through a transfer from another facility.





HAWAII STATE
DEPARTMENT
OF HEALTH

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