BUILDING AND MAINTAINING STATE HEALTH AGENCY CAPACITY TO DEVELOP EVIDENCE-BASED INITIATIVES TO REDUCE ASTHMA

2011 Asthma Report

Introduction

Asthma is a chronic respiratory disease that is described as episodes of difficulty breathing\(^1\). Although the cause of asthma is unknown, there are many known triggers in the indoor and outdoor environments that instigate a potentially life-threatening asthma attack. An asthma episode may include inflammation and swelling of the airway lining, clogging of the airways by mucus buildup, or tightening of airway muscles\(^2\). Nevertheless, asthma and asthma attacks can be controlled or prevented with the proper diagnosis; medication; and school-, home-, and community-based education and interventions\(^3\).

Asthma is twice as common among children as adults, accordingly children and youth are especially vulnerable\(^4\). Among minority groups, African Americans have the highest death rate due to asthma\(^5\). Women and those living below the federal poverty level are also disproportionately affected by asthma\(^6\) (see figure1).

The number of people affected by asthma increases every year in the U.S. The cost of asthma medication rose drastically from 2002 to 2007, to $3,300 per person in medical expenses. During the same time period, 40 percent of uninsured and 11 percent of insured persons with asthma could not afford their medications. There are also costs associated with days lost at school and work: on average, students missed more than four days of school and adults missed five days of work because of asthma\(^7\).

The development and implementation of health policy at the local, state and federal levels of government

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help maintain, reduce, or eliminate asthma. School-, home-, work-, and community-based interventions and programs, including asthma education, are the types of interventions supported by strong policies that persons with asthma need to live healthier lives. ASTHO, supported by the National Center for Environmental Health at the Center for Disease Control and Prevention (CDC), administered an electronic assessment on asthma policy, programs, and initiatives to key players—the state environmental health directors and chronic disease directors—in state health agencies. The survey was first piloted among three state environmental health directors and three chronic disease directors to gain feedback before the questions were finalized.

The purpose of the assessment was to gain a better understanding of policy barriers that state and territorial health agencies face with regard to implementing their asthma programs.

The questions in the assessment were categorized by health agency make up, political and legislative make up, legislation and policy, asthma education and awareness, asthma care, and surveillance.

The final assessment was sent to the full state environmental health directors and chronic disease directors groups with the help of the National Association of Chronic Disease Directors. The final assessment yielded an 80 percent (40 state health agencies) response rate. The state health agencies represented in this report are the assessment participants.

Results

State Health Agency Make Up

To better understand the policy barriers that state and territorial health agencies face, the first section of the asthma assessment focused on the composition of state health agencies. Not every health agency has an asthma program. Although 82 percent of respondents (33 health agencies) have an asthma program, 18 percent (7 health agencies) do not have an asthma program to enforce, implement, or provide asthma services to the public. Each state health agency prioritizes their asthma program differently. Among the health agencies that have an asthma program, 18 percent reported that asthma was a high priority, 50 percent reported it as a medium priority, and 25 percent reported it as a low priority.
funding and resources was the top reason why those health agencies indicated asthma was a low priority. Other reasons for asthma being a low priority in state health agencies were asthma activities do not align with priorities of the health agency, it is not a top concern of their communities, it does not align with the Governor’s health agenda, and there are little or no personnel to staff an asthma program (see figure 2).

Like all other programs within health agencies, asthma competes for funding and staff with other chronic disease programs such as smoking and tobacco use and obesity prevention. Some health agencies do not have the resources to determine how serious asthma is in their states.

State health agencies receive funding for asthma programs from a variety of sources. Many asthma programs receive funding from several sources. Among survey respondents CDC’s National Asthma Control Program funds 91 percent of the state asthma programs. CDC’s other programs, the Behavioral Risk Factor Surveillance System and the National Environmental Public Health Tracking Program fund 27 percent and 18 percent of asthma activities, respectively. The Environmental Protection Agency’s (EPA) asthma program funds 6 percent of state health agency asthma programs. Other federal sources, including the National Institute for Occupational Safety and Health (part of CDC), congressional earmarks, and Health and the Prevention Block Grant, fund 12 percent of state asthma programs. State funding and tobacco taxes also support 12 percent of asthma programs across the country (see figure 3.)
Within state health agencies asthma programs are housed within various departments. Fifty-eight percent of health agencies house their asthma program within the Chronic Disease departments, 20 percent house their asthma program within their Environmental Health departments, 8 percent house the asthma program in both their Chronic Disease and Environmental Health departments, and 17 percent house the asthma program in another departments altogether (see figure 4).

Although the asthma program may reside in a particular department, asthma activities take place within multiple departments. Eighty-three percent of all health agencies with an asthma program indicated that asthma activities take place in the Chronic Disease department, 63 percent of asthma activities take place in the Environmental Health department, and 50 percent in the Family and Community Health department. Thirty-eight percent of their asthma activities take place in other departments such as Office of Health Insurance Programs, Surveillance and Evaluation, Healthy Homes, Occupational Health, Public Health Nursing, Health Promotion and Wellness, and Access-to-Care departments.

Also, 75 percent of responding health agencies work across state sectors on asthma programs. The top five groups with which state health agencies collaborate are the Department of Education, state American Lung Association chapters, other nonprofit organizations, state Medicaid programs, and Departments of Environmental Quality. Other state sectors the health agencies collaborate with include hospital administration, pharmaceutical companies, health centers, asthma educator groups, Children’s Health Insurance Programs, private insurance providers, health care professionals, and Federally Qualified Health Centers. The health agencies that do not work across state sectors do so because asthma is not a priority, there is lack of or limited funding, and not enough personnel. Nevertheless, nearly every health agency is working with a regional, state or local asthma coalition to provide education to patients and caregivers, offer training for medical professionals and educators, share resources and information to all, and more.

Political/Legislative Make Up
This section of the assessment examined the political and legislative make up of participating states to gain a better understanding of external influences on the health agency’s ability to develop and implement a successful asthma plan. Among the health agencies that participated in this survey, 80 percent have a State Asthma Plan. Generally, Governor’s offices and local boards of health do not play a major role in influencing asthma programs and activities within the state, while some state boards of health play a role in effecting state asthma initiatives. A majority of respondents indicated that the Governor’s office has little to no influence on asthma programs and activities within the state. Although 60 percent of
respondents have local boards of health, they too do not influence the State Asthma Plan. In addition, 68 percent of respondents noted that local jurisdictions do not have precedence over asthma legislation in the state (i.e., home rule). About half of the respondents indicated they have a state board of health that this is either not involved or not heavily involved in planning asthma programs and activities within the state.

**Legislation and Policy**

This section of the asthma assessment investigated types of state legislation that were passed or introduced to enhance or support asthma efforts in the health agencies. Many states have passed and/or introduced various types legislation in support of asthma. Several respondents have indicated that there have been multiple attempts to pass a type of legislation, and introduced legislation is either pending or did not pass. The assessment questions primarily focused on school-, daycare- and youth-based asthma interventions, activities or programs.

Figure 5 illustrates that 82 percent of states have passed and 49 percent of states have introduced (meaning not yet passed or failed to pass) smoke-free bans. In addition, 64 percent of states have passed and 26 percent of states have introduced right-to-carry legislation, meaning that a student who has been clinically diagnosed with asthma, and the school has been notified, is allowed to carry medicine on his or her person and administer it as soon as asthma symptoms start. A school nurse does not have to be present or administer the medication in such an instance. Since 36 percent of states have not passed right-to-carry legislation in their states, students in these states do not have the ability to self-carry and self-administer their asthma medications.

Thirty-six percent of states have passed and 26 percent of states have introduced indoor air quality legislation in support of asthma.

![Figure 5](image-url)
interventions. The types of legislation frequently passed or introduced in the states include anti-school bus idling programs and asthma-friendly learning environments (see figure 5).

Of the 82 percent of states that passed or 49 percent of states that introduced legislation in support of smoke-free bars, a majority of the state legislation focused on smoke-free bars and restaurants and smoke- and tobacco-free schools. Legislation on smoke-free workplace bans have passed in every state that has introduced such legislation. Smoke-free multiunit housing bans are not a strong focus of state legislation. Smoke- and tobacco-free daycare legislation has not picked up as much momentum as the smoke-free bans in schools. This pattern is duplicated in the enforcement of a measurable distance from the entrance of schools and day cares at which smokers can stand (see figure 6).

Of the 36 percent of states that passed and 26 percent of states that introduced right-to-carry legislation, the majority of them removed state barriers to students carrying his or her asthma medication and devices. Where local regulations also pose no barrier, this legislation acts in lieu of school nurses holding onto and administering asthma medications.

Asthma Education and Awareness

Health agencies participate in a variety of programs and activities to promote education intervention strategies for asthma. This section of the survey focuses on the types of programs and activities in which health agencies are engaged.

Seventy-two percent of respondents indicated that their health departments participate in medical provider education, while only 41 percent of respondents indicated their health department participates in pharmacy-based education, and 44 percent of respondents indicated their health department participates in emergency department- and hospitalization-based interventions. Health agencies also participate in chronic disease self-management education (see appendix A).

Much of the educational focus for asthma is home-based, as indicated in figure 8. School-based education activities are the least frequently provided of the three types of education programs sponsored by health agencies. For identifying asthma triggers and performing reduction techniques, 96 percent of health agencies provided home-based education, while 81 percent of health agencies provide community-based and 69 percent of health agencies provide school-based education. For self-education and management education, 91 percent of health agencies provide home-based

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Types of Smoke-free Ban Legislation Introduced and Passed

- Smoke- and tobacco-free schools: 68% Introduced, 81% Passed
- Smoke-free bars and restaurants: 74% Introduced, 91% Passed
- Smoke- and tobacco-free daycares: 37% Introduced, 59% Passed
- Enforcement of a measurable distance from entrance of daycare at which smokers can stand: 16% Introduced, 31% Passed
- Enforcement of a measurable distance from entrance of school at which smokers can stand: 32% Introduced, 53% Passed

Figure 6.

Types of Indoor-air Quality Legislation Introduced and Passed

- Green cleaning: 30% Introduced, 14% Passed
- Smoke-free workplace: 20% Introduced, 71% Passed
- Smoke-free multi-unit housing: 20% Introduced, 14% Passed
- Other smoking bans: 80% Introduced, 79% Passed

Figure 4.
education, while 69 percent of health agencies provide community-based education and 80 percent of health agencies provide school-based education. Education for inhaler use follows the same pattern as the previous two types of education tools, with 65 percent of health agencies providing home-based inhaler use education, 54 percent providing community-based, and 67 percent providing school-based education (see figure 8).

Forty-four percent of health agencies participate in emergency department- and hospitalization-based interventions; there is no legislation in their state that requires Emergency Departments to offer brief and focused asthma education training and to provide patients with an emergency department asthma discharge plan. Also, Emergency Departments are not required to provide patients at discharge with names of local primary care physicians who can administer follow-up care. These activities are recommended for emergency departments in the National Asthma Education and Prevention Program guidelines. The survey results suggest gaps in providing patients with asthma education and awareness as suggested in national guidelines.

Asthma Care

According to the American Lung Association, challenges in standard asthma care include insurance coverage, access to specialists and case-management services.

Figure 8.

Types of School-, Home-, and Community-based Education Offered

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Over 50 percent of respondents indicated their health agency provides assistance to health care organizations to identify or develop policies around asthma diagnosis and management aimed to reduce these challenges.

Respondents were asked to identify top health care issues for patients with asthma. The top issues included adherence to quality of care protocols and practice and continuation of proper self-management practices. Other health care issues included insurance coverage and copayments, limited or lack of consultation time, lack of knowledge about the seriousness of asthma, understanding environmental triggers in various settings, availability of self-management education, and lack of adequate statewide smoke-free policies.

Almost half of health agencies organize outreach efforts to public and private insurers to discuss coverage of asthma care. These health agencies engaged with insurance companies through advisory boards, local or state asthma coalitions, and state health commissioners (see appendix B).

About 70 percent of Medicaid, Medicare, and State Children’s Health Insurance Program (SCHIP) programs are not housed within health agencies but are separate entities within the state. Seventy-five percent of state health agencies collaborate with Medicaid, Medicare and SCHIP on asthma-related programs. Some of the remaining 25 percent of health agencies that are not currently engaged with Medicaid, Medicare and SCHIP plan to do so in the near future. Others rely on other health sectors within the state, such as hospital and emergency departments, to collaborate with insurers to share data and to provide self-management education.

**Surveillance**

Asthma surveillance is essential to providing evidence of asthma prevalence within a state or region and demonstrating the success of interventions. Asthma surveillance data can include information on asthma prevalence, days of work or school lost, asthma self-management education, doctor and emergency department...
visits, and hospitalizations or deaths due to asthma\textsuperscript{11}.

Two-thirds of the respondents indicated that their state health agency currently receives funding to perform asthma surveillance activities. A majority of health agencies receive funding for asthma surveillance activities from CDC. Other sources of funding include the Environmental Protection Agency (EPA) and state legislatures or appropriations (see figure 9).

Several states indicated that hospitals are not required to report asthma-related hospitalizations and emergency department visits. This presents a challenge to state health agencies trying to collect asthma-related data.

The Youth Risk Behavior Survey is a school-based monitoring mechanism designed to assess priority health-risk behaviors and the prevalence of obesity and asthma of students in grades six through twelve. Currently, 38 percent of states have passed and 8 percent of states have introduced legislation in support of conducting biennial Youth Risk Behavior Surveys (see figure 5). An overwhelming majority of state or local education agencies and state health agencies are funded through CDC’s Adolescent and School Health Program to conduct Youth Risk Behavior Surveys\textsuperscript{12}.

**Conclusion**

With the help of state and federal legislation and adequate federal funding, state health agencies will continue to provide the public with adequate asthma care and education. In states that lack sufficient asthma legislation or funding, there are a few lessons health agencies can adopt to supplement or kick-start their asthma programs and activities.

**Recommendations**

Based on lessons learned in this assessment, ASTHO recommends that state health agencies take the following steps for to better respond to the needs of persons with asthma in their states:

1. Review [CDC’s Guide for State Health Agencies in the Development of Asthma Programs](http://www.cdc.gov/asthma/asthmadata.htm) and the [National Institutes of Health’s National Asthma Education and Prevention Program](http://www.cdc.gov/healthyyouth/partners/funded/yrbs.htm) guidelines for suggestions on how to improve or kick-start asthma planning.

2. Regardless of where the asthma program is housed, work across departments – chronic disease, environmental health, family and community health, and others – to augment staff and resources for asthma programs and activities.

3. Work with education agencies to identify the level of asthma prevalence in students, for example implementing a Youth Risk Behavior Survey.

4. Build relationships with asthma coalitions at the state, regional and local levels.

5. Enhance surveillance activities to better understand and demonstrate asthma prevalence.

6. Engage both public and private insurers, pharmacies, and hospitals to ensure patients have access to care and treatment, as well as self-management and inhaler use education.

7. Advocate for smoke-free multiunit housing bans.

8. Increase school-based asthma education activities by working with the state


9. Encourage all school and school districts to have environmental management plans that include purchasing and use of green cleaning products.

Although asthma is a disease suffered by the individual, public health interventions—with the help of adequate legislation and funding—can help control or reduce the symptoms of asthma across all populations.
Appendix A: Asthma Programs and Activities Performed by Health Agencies

- **School-based education**: 77%
- **Medical provider education**: 72%
- **Community-based strategies**: 67%
- **Home-based education**: 59%
- **ED- and Hospitalization-based intervention**: 44%
- **Pharmacy-based education**: 41%
- **Workplace-based interventions**: 41%
- **Other**: 15%
Appendix B: Health Agencies Engaging Insurers

- Promoting coverage of asthma self-management education by a certified asthma educator
- Sharing data and increasing understanding of priority population who are repeat utilizers
- Promoting the importance role of the certified asthma educator
- Working with the Health Plan Association to identify and fill gaps in benefits and coverage
- Highlighting the need for reimbursement for their use by medical professionals
- Collaborating with members of the asthma advisory committee and local asthma coalitions
- Discussing provider engagement, member engagement, data systems sharing, and access to care
- Engaging with public and private insurers regarding best practices and health outcomes measures

Health agencies engage insurers through: