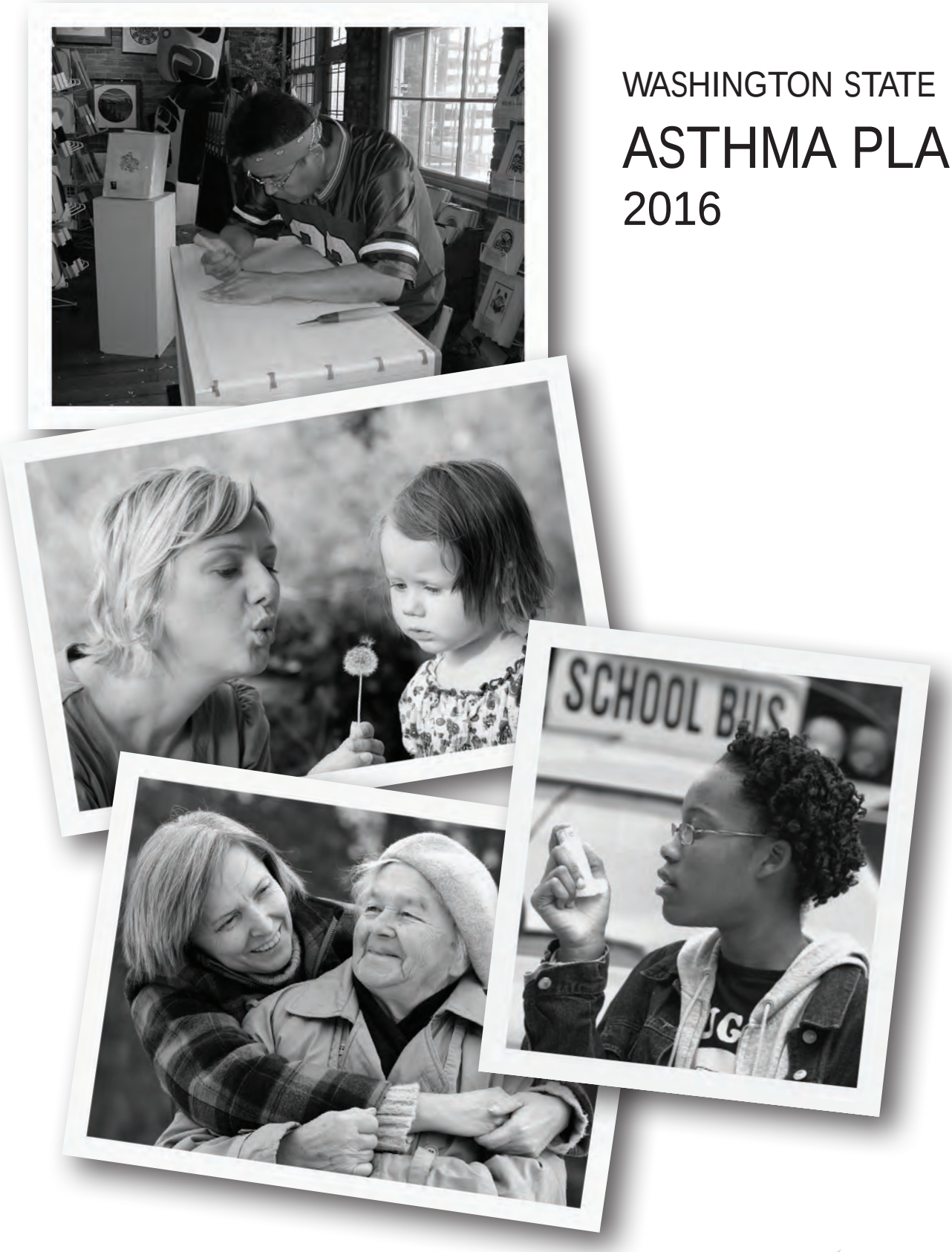

WASHINGTON STATE

ASTHMA PLAN 2016

Washington ASTHMA Initiative

Washington State Department of Health

DOH 345-290 July 2016

2016 Living Document Update Prepared By

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For persons with disabilities, this document is available in other formats, by request.
Please call 1-800-525-0127 (TDD/TTY 1-800-833-6388).

July 18, 2016

Dear Asthma and Healthy Communities Champion:

We are pleased to provide the following updated Washington State Asthma Plan. While this update echoes the vision, goals and objectives expressed in the prior plan, the intention of this document has been updated to reflect the evolving health, health care and public health landscape in Washington State resulting from implementation of the Affordable Care Act.

We recognize that achieving the objectives expressed in this Plan, which includes the reduction and elimination of asthma health disparities and health inequities, will require collaboration amongst a broad array of state, local, public and private strategic partners. By working together we can achieve the vision of reduced asthma-related health disparities and increased quality of life for all.

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State Health Officer
Washington State Department of Health

Gillian Mittelstaedt
Chair
Washington Asthma Initiative

Washington ASTHMA Initiative

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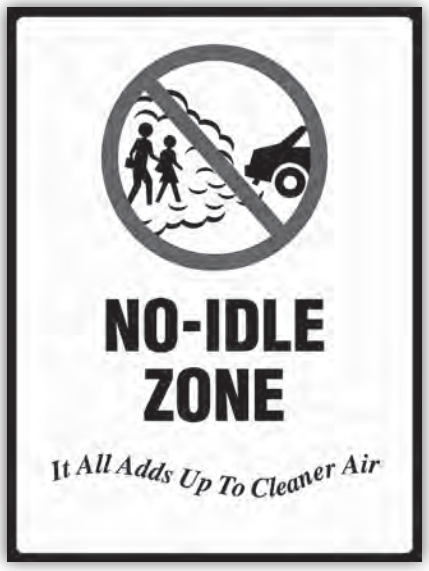


What is Asthma?

Asthma is a lung disease that inflames and narrows the airways. Asthma causes recurring periods of wheezing, chest tightness, shortness of breath, and coughing. Indoor and outdoor air pollutants, stress, changes in temperature, colds and other infections, and exercise can trigger asthma attacks.

- Asthma is one of the most common chronic diseases nationwide.
- There is no known cure for asthma, but it can be controlled.
- More than 780,000 people in Washington have asthma.
- More than 100 people with asthma are hospitalized each week.
- About 75 people die each year of asthma.
- About one in nine households in Washington State have at least one child with current asthma.

SOURCE: The Burden of Asthma in Washington State, 2013

WASHINGTON STATE

ASTHMA PLAN 2016

About the Asthma Plan

This updated version of the Washington State Asthma Plan reflects the current landscape of asthma care and management in Washington. The Washington Asthma Initiative and the Washington State Department of Health support the plan. This plan is an update to the second state asthma plan, released in 2011, and is considered to be a "living document".

This plan will guide the work of asthma prevention, diagnosis, and management in Washington. It especially addresses asthma health inequities. The plan was originally written by statewide workgroups with members representing health care, public health, environmental agencies, public schools, and higher education. We searched peer-reviewed medical and public health publications for the most recent science. We also sought out current evidence-based recommendations from government and professional organizations.

Criteria for the Plan's Priority Recommendations

We developed this plan with these guiding principles:

- We will focus efforts on reducing asthma health inequities.
- We will integrate asthma efforts with other chronic diseases.

Recommendations and strategies in the plan were selected based on:

- Evidence of effectiveness.
- Potential to improve outcomes required by the U.S. Centers for Disease Control and Prevention's National Asthma Control Program:
    - Reduced hospitalization rates.
    - Reduced health disparities.
    - Increased percentage of people with asthma who receive self-management education.
- Feasibility to implement within five years.
- Sustainability.
- Political and economic support.

Our Vision

We will improve the quality of life for people with asthma in Washington.

Healthy People in Healthy Places

Asthma is a complex disease. We need to address it in the clinic, at school, at home, and in the community. Multiple, coordinated strategies to control asthma are much more effective than single interventions.

People with asthma need access to excellent health care, and healthy places to live, learn, work, and play. Then they will be free from asthma symptoms and frequent trips to urgent care.

We can create or change policies, environments, and systems of care to better support people with asthma. Asthma treatment will be more successful when Washington residents live in environments that make it easier to breathe and live healthy, active lives.

Comprehensive and Integrated Approach

Good asthma care must be coordinated across many areas: health care, communities, schools, homes, worksites. People who have asthma often have other chronic diseases. We know that much of what causes and worsens heart disease, stroke, diabetes, and some cancers, also affects asthma. Air pollution affects much more than just people with asthma and other lung diseases. Poor air quality affects people with heart disease and diabetes, and children.

Policy and Environment

Social, environmental, and cultural factors can make it difficult for people to manage asthma effectively. The Institute of Medicine reminds us "health and well being are affected by a dynamic interaction between biology, behavior, and the environment. This is an interaction that unfolds over the life course of individuals, families, and communities."

Our state plan emphasizes developing policies in schools, communities, and health care settings to support good asthma management. Policies guide decision-making to achieve a desired outcome. An example of a school policy is allowing children to carry asthma inhalers with them. In the past, a child who was having an asthma attack would have to get his or her inhaler from the school nurse. This policy changed in 2005.

Focus areas for our work

Healthy Communities

The community plays an important role in supporting people with asthma by creating healthy environments. Healthy communities support clean outdoor air, and healthy worksites, schools, and homes. Quality health care is available to all who need it. We strongly recommend investing in communities most affected by health inequities.

Healthy Schools

When asthma is untreated or under-treated, children have trouble attending and learning in schools. Asthma-friendly schools and early learning programs have support systems for students with asthma. They have clean air indoors and out. They provide asthma education and awareness programs for students and staff. Care is coordinated with the family, health care provider, and community. In asthma-friendly schools, students with asthma receive appropriate school health services. They are able to join in safe, enjoyable physical education and activities. State law requires school districts to adopt policies for asthma rescue procedures and staff training. It also allows students to carry and use asthma medications. We should focus resources on schools serving children most likely to have health inequities. These children also are more likely to have academic struggles.

Healthy Worksites

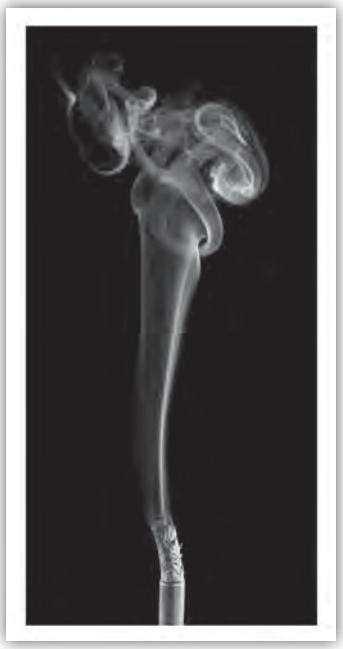
Asthma is the most common work-related lung disease. About 15 percent of adult asthma can be linked to exposures in the workplace. There are many ways that employers can protect and support employees at work. By making healthy changes in the worksite, employee risk factors can improve. Worksite policies that reduce smoke, fragrances, mold, dust, and other pollutants can protect health for employees with asthma, other lung diseases, and allergies. A healthy worksite promotes flu vaccines and is tobacco-free. A healthy worksite offers full coverage for asthma medications and tobacco cessation. We should focus activities on worksites employing low-wage workers.

SOURCE: *The Burden of Asthma in Washington State, 2013*

Asthma and Health Inequity

- Low-income adults are more likely to have asthma and severe asthma symptoms than those who have higher incomes.
- Black youth are about 15 percent more likely to have asthma than white youth.
- Women are more likely than men to have asthma, and are at greater risk of dying from asthma.
- American Indian and Alaska Native adults are more likely to have asthma and are at greater risk of dying from asthma than white adults.
- Obesity is associated with asthma among adults, especially among women.
- Adults who smoke, or are former smokers, are more likely to have asthma than adults who have never smoked.

SOURCE: *The Burden of Asthma in Washington State, 2013*



Asthma Self-Management

Teach and reinforce at *every* opportunity:

Basic facts about asthma.

What is well-controlled asthma and the patient's current level of control.

What medications do.

How to use an inhaler and spacer.

How to control environmental exposures.

Healthy Homes

The home environment has a big impact on people with asthma. Exposure to mold, dust mites, pests, and secondhand smoke can cause asthma symptoms and lead to emergency department visits or hospitalizations. Asthma home visits, and policy and environmental changes – like smoke-free multi-unit housing – reduce asthma symptoms and improve quality of life. Asthma advocates can partner with programs that address other home hazards to build a coordinated healthy homes strategy. A healthy homes approach addresses a variety of environmental health and safety concerns, in addition to asthma, including, lead, carbon monoxide, radon, and injury prevention. Our interventions in homes should focus on low-income, underserved communities.

Health Care

All people with asthma deserve quality care that meets national standards. It takes an average of 17 years for new clinical knowledge to become widespread practice. We believe the 2007 national asthma guidelines should be in practice more quickly than that. Good asthma care is proactive, coordinated, and culturally competent. Good asthma care means prescribing appropriate medications. Patients should be able to afford their medications. Providers should work in partnership with patients to help them understand their asthma and learn skills to manage it. We should assess patients for environmental triggers. People should be able to get help to reduce their exposure at home and elsewhere. We should focus health care improvement on clinics and providers serving low-income and high-risk patients.

Public-Private Partnerships

Together, public and private organizations can make changes to help people where they live, learn, work, and play. We work with regional asthma organizations around the state to support the health of people.

We can be more effective by working within the larger framework of chronic disease prevention and control. We can help control asthma and many chronic diseases by controlling tobacco use, obesity, and air pollution. We can improve health for people by creating *health homes*, also known as medical homes.

We recommend building partnerships in communities with the highest health inequities. These partners could include multicultural health organizations, Washington Tribes, and neighborhood organizations in low-income or underserved areas.

Washington Asthma Initiative

The Washington Asthma Initiative is a public-private coalition of advocates working to improve the quality of life for people with asthma and other chronic conditions. The Washington Asthma Initiative supports the rights of people to:

- Education that supports effective self-care.
- Quality chronic health care.
- Healthy homes, schools, and workplaces.
- Clean air to breathe.

We seek to advance medical, social, and environmental policies and initiatives that improve the health of people with asthma.

Public Health in Washington

Helping communities make changes so people can make healthy choices

Public health works to control what causes and worsens diseases. While health care and medicine focus on individuals, public health focuses on the health of communities. We monitor and track data to understand who has asthma and where they live. Then we work to change policies and environments so that people can be healthy.

National Initiatives That Our Work Supports and Is In Accordance With

- 6/18 Initiative
- Coordinated Federal Action Plan to Reduce Racial and Ethnic Asthma Disparities
- Whole School, Whole Community, Whole Child
- Healthy Homes Initiative

GOALS • OBJECTIVES • ACTIVITIES

Health Care

All people with asthma in Washington will have access to, and receive, affordable, high-quality care according to national guidelines.

The standard of care will include:

- Ongoing, planned assessment and monitoring.
- Appropriate medications.
- Control of environmental triggers.
- Education for a partnership in care.

Asthma Care and Health Equity

People with low income and American Indians/Alaska Natives are at the highest risk of having poorly controlled asthma. Many factors contribute to this inequity. We know that access to care plays an important part in asthma management.

People who have breaks in insurance coverage, or who are unable to pay for asthma medications or care, are significantly more likely to have poorly controlled asthma. We can address health inequities by improving access and coordination of care. To do this, we must focus on systems and providers serving people who are most at risk.

SOURCE: ***Very Poorly Controlled Asthma*** report, *The Burden of Asthma in Washington State, 2013*

Asthma action plan

All people with asthma should have an asthma action plan. Also called a management plan, it is a written plan created by the person with asthma and a health care provider to help control asthma.

The asthma action plan shows daily treatment, such as what kind of medicines to take and when to take them. The plan describes how to handle worsening asthma or attacks.

- Guidelines for the Diagnosis and Management of Asthma, Expert Panel Report 3 (EPR-3), National Heart Lung and Blood Institute, 2007

Objective 1

Continue to build on Apple Health and Children's Health Insurance Program (CHIP) financing opportunities in the Affordable Care Act to implement an asthma management program through health homes and health teams.

Strategy:

Work with primary care and community partners, Accountable Communities of Health, health plans, and the Medicaid Purchasing Administration to finance a model pilot for clinics and their community partners to deliver patient-centered care, together as a team. These teams will work to improve asthma control, and reduce preventable hospitalizations and visits to emergency departments. We will focus, in particular, on low-income and underserved communities.

Asthma care and management will include:

- Assessing and monitoring asthma symptoms regularly.
- Identifying and controlling environmental triggers through home visits and allergen reduction supplies.
- Controlling asthma with appropriate medication, especially inhaled corticosteroids.
- Providing education for patients and their families in clinics, pharmacies, homes, schools, and community settings.

Objective 2

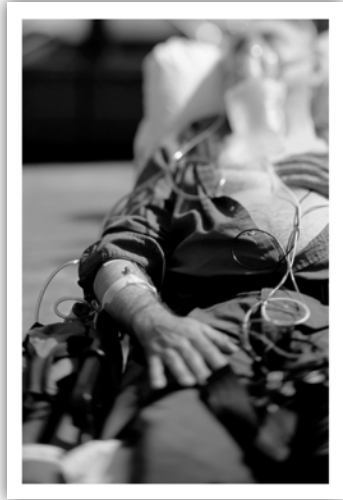
Increase adoption of policies and practices that support improved clinical outcomes, including reduced emergency department visits and hospitalizations, in the care of patients with asthma and other chronic conditions

Strategies:

1. Identify and engage interested hospitals and emergency departments to develop and implement best practices for discharge protocols. These protocols will include self-management education, prescription of inhaled corticosteroids as indicated, a written asthma action plan, and connection with appropriate follow-up care.
2. With health plans and health care systems, assess and improve coordination of care for patients transitioning to primary care from hospitals and emergency care.

Section 2703 of the Affordable Care Act

The State Option to Provide Health Homes for Enrollees with Chronic Conditions (Section 2703) provides enhanced federal funds for states that are planning to expand or implement a health home initiative to serve people with chronic diseases and conditions like asthma, diabetes, and heart disease.



Living Well With Chronic Conditions

Living Well With Chronic Conditions is a six-week workshop offered through Area Agencies on Aging in Washington. The free or low-cost sessions are for people with chronic conditions such as arthritis, asthma, diabetes, and heart disease.

Living Well is based on the successful Chronic Disease Self-Management Program, created and tested at Stanford University. The program is proven to help people to be healthier. More information online: **livingwell.doh.wa.gov**

'Health home' approach to primary care

A health home – also known as "health care home" and "medical home" – is an approach to primary care where providers, families, and patients work in partnership to improve health outcomes and quality of life for people with chronic diseases and disabilities. Rather than focus only on episodes of illness, a health home provides patients with care for overall health.

A health home coordinates the care a patient may need from specialists and behavioral health providers. Health homes provide better ways to integrate clinical care with community and school resources. Patient-centered care in a health home responds to the unique needs, culture, preferences, and values of the patient. The patient is a partner in making health care decisions. We recommend that asthma advocates join with other advocates to improve chronic care overall.

Community Environment

All people with asthma in Washington live in healthy homes and communities that support effective self-management and reduce exposure to asthma triggers.

Health equity in communities

People in low-income communities are often exposed to environmental asthma triggers. Poor quality in housing and proximity to roadways lead to higher exposure to pollutants that can worsen asthma. These pollutants include diesel exhaust, mold, and pests such as rodents and cockroaches. Community-based strategies should focus on changing the environments of those who are most at risk.

Healthy communities are asthma-friendly

The community environment affects everyone. We know that poor outdoor air quality triggers asthma symptoms. Air pollution also worsens health problems for people with heart disease and other lung diseases. Low-income housing often puts people at risk for breathing problems, poisoning, and injuries. Many low-income communities are located near industrial areas or busy highways. We should advocate for environmental justice and work to improve community environments for all people.

Healthy communities offer people access to ways to be physically active. Access includes connected sidewalks, parks, and low-cost recreation. Physical activity helps reduce obesity which improves many chronic diseases, including asthma. When people walk or bicycle to shop or work,

there are fewer cars on the road and better air quality. We should partner with the nine regional Accountable Communities of Health to integrate more asthma-friendly strategies like clean air, healthy homes, and healthy schools.

Objective 1

Increase the number of policies that support attaining national air quality standards in all areas of the state – especially in high-risk neighborhoods.

Strategy:

Provide support, data, and information from a health perspective to partners engaged in advocacy regarding:

- Public transit maintenance and expansion.
- Safe routes to school, work, and shopping.
- Diesel reduction strategies.
- Clean car standards.
- Fuel standard changes to reduce emissions.
- Burn bans and enforcement.
- Wood stove change-out programs.

Objective 2

Continue to increase the number of policies and practices to reduce exposure to asthma triggers in public, rental, and multi-unit housing.

Strategies:

1. Increase adoption of the healthy homes model, including smoke-free housing, by providing training, tools, and technical assistance to:
    - Building owners and managers.
    - Builders, developers, contractors, and architects.
    - City planners.
2. Promote adoption of policies that protect residents in multi-unit housing from secondhand smoke.
3. Offer continuing education to long-term care providers, Head Starts, local health jurisdictions (LHJs), tribes, and other home

Healthy Homes Model

A healthy home is designed, built, and maintained in a way that supports the health of those living there. Growing evidence links housing conditions to health problems like asthma, lead poisoning, and injuries. There are more than 6 million substandard housing units nationwide. Creating healthier homes improves health. A healthy home is dry, clean, pest-free, ventilated, safe, contaminant-free, and maintained.

- National Center for Healthy Housing – www.nchh.org

Environmental Justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income to develop, implement, and enforce environmental policies. Everyone should be protected from environmental and health hazards. Everyone should have access to decision-making for a healthy environment in which to live, learn, and work.

- United States Environmental Protection Agency

The Attack Maintainer
by Seattle Asthma Photovoice Student

Stairs are a form of exercise and help prevent your asthma from flaring up and causing an attack. What I see happening here are the three sets of feet that climb these stairs (my family). It relates to everyone in life keeping their legs strong. It helps my mom with her asthma.

Dr. Robin Evans-Agnew, RN, PHD, WAI member and Assistant Profossor of Nursing and Healthcare Leadership at University of Washington Tacoma, organized the Asthma Photovoice Project in South Seattle. High school students, ages 15-18, photographed their homes, schools, and communities. They met in small groups to discuss what it is like to live with asthma. They presented their work, writings, and views at a public forum in a Seattle community center.

visitors for asthma management and trigger reduction.

4. Promote inspection programs for rental housing.

Schools and Early Learning

All schools and early learning programs in Washington will be asthma-friendly.

Health equity in schools

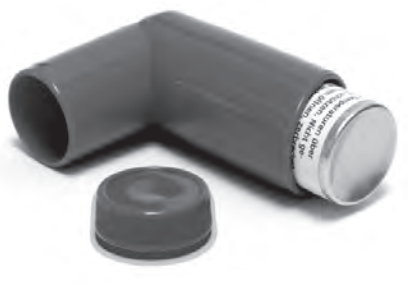
Asthma is a leading cause of students missing school. One in four American Indian/Alaska Native households with children has at least one child affected by asthma compared to one in ten among all children in Washington State. Nationally, African American children are three times more likely to be hospitalized or die from asthma than white children. Children with asthma appear less ready for school, which may lead to a continuing cycle of academic struggle. Linking school health and education outcomes will help close the achievement gap. Activities should focus on schools in underserved communities.

Healthy schools are asthma-friendly

To improve asthma in the schools, we recommend the "Six Strategies for Addressing Asthma within a Coordinated School Health Program." Coordinated School Health addresses a range of activities that can improve student health. If done in a coordinated way, instead of alone, they will have a much greater impact.

CDC's strategies for addressing asthma in schools

1. Establish **management and support systems** for asthma-friendly schools.
2. Provide appropriate school **health and mental health services** for students with asthma.
3. Provide **asthma education** and awareness programs for students and school staff.
4. Provide a safe and **healthy school environment** to reduce asthma triggers.



5. Provide safe, enjoyable **physical education and activity** opportunities for students with asthma.

6. Coordinate **school, family, and community efforts** to better manage asthma symptoms and reduce school absences among students with asthma.

    - United States Centers for Disease Control and Prevention

Objective 1

Strengthen partnerships among public health organizations, Washington State Department of Early Learning, and early learning providers to address asthma issues in young children (age 5 and younger).

Strategies:

1. Educate and train staff and parents about asthma and other chronic diseases in young children.

2. Promote coordination among primary care providers, staff, and parents as they implement individual care plans for young children.

3. Offer STARS (State Training and Registry System) asthma and other chronic disease management training to early learning providers.

4. Promote health recommendations for child care centers in Washington Administrative Codes (WACs).

Objective 2

Increase the number of school districts adopting and fully implementing RCW 28A.210.370 and policies from the CDC's "Six Strategies for Addressing Asthma within a Coordinated School Health Program."

Strategies:

1. Increase understanding of Section 504 of the Rehabilitation Act among school administrators - and the importance of appropriate policies, services, and accommodations - for students with asthma and other chronic diseases.

2. Evaluate the implementation of asthma policies in Washington school districts.

RCW 28A.210.370 - This Washington law requires that school districts adopt policies to protect students with asthma, including allowing students to carry asthma medications with them.

Section 504-1873 Rehabilitation Act – This law guarantees certain rights to people with disabilities: "persons with a physical or mental impairment which substantially limits one or more major life activities."

Appendix

This plan has been updated to be a living document. We consider a living document to be a document that is continuously updated as the asthma healthcare and management landscape evolves. Beginning in 2016, the Department of Health intends to work closely with Washington Asthma Initiative (WAI) to regularly update this plan.

The following document is an example of a recent collaboration by WAI members and other asthma partners to meet the goals set in this plan. In late 2015 and early 2016, partners from across the state came together to build a project proposal for the 1115 Medicaid Transformation Waiver.

(See next page for project proposal)

TRANSFORMATION PROJECT – MEDICAID WAIVER PROJECT APPLICATION

Contact Information	*Contact:* Gillian Mittelstaedt, Chair, Washington Asthma Initiative, (800)717-2118, Ext. 2, gmittelstaedt@thhnw.org *Organizations Participating in Pilot Scoping:* Please see list under "Partners" section.
Project Title	***Leveraging Non-Medicaid Resources to Achieve Quality of Life and Equitable Outcomes for Medicaid's Asthma Population***

Rationale for the Project

Problem statement: Asthma is prevalent among Medicaid beneficiaries of all ages and is the most common pediatric chronic disease[i]. It is the number one reason children are admitted to Seattle Children's and is a recurrent but preventable drain of Medicaid dollars. In 2012, Medicaid spent nearly $60 per member on asthma medications – the highest of any category in traditional trend[ii]

Asthma is a disease that cannot be controlled through reform of care delivery systems alone. The challenge is the phenotype of asthma: it is not only genetic, but environmental and socio-economic factors influence the disease. In Washington State, and nationally, research shows that mitigation of these factors results in a positive ROI for payers. Yet these determinants of health have not been addressed at a statewide or population-level. As a result, Medicaid asthma patients across our state continue to require urgent and acute care. Medicaid funds are thus funneled into symptom treatment. With reform, Medicaid dollars could instead be invested in wellness, disease prevention, and the elimination of disparities.

This reform effort was crafted by organizations that provide a variety of services to our state's Medicaid population. Elements of the pilot are adapted from the Women, Infants and Children (WIC) model, which provides their population with preventive, coordinated, whole-person services. This pilot seeks to ***leverage non-Medicaid resources to mitigate environmental and socio-economic risk factors, enabling Medicaid to invest in preventive, high-quality care that transforms lives.*** The pilot includes:

1. **Linking a Constellation of Untapped Services:** Asthma patients are frequently eligible for but unfamiliar with and therefore unable to access the *existing* medical, educational and environmental services. There is no single service provider that is responsible for helping an asthma patient navigate and utilize these services. This pilot will utilize a Navigator who is assigned to each patient, coordinating delivery of non-Medicaid funded services. These evidence-based services include: school nursing based-care[iii], weatherization-plus health[iv], low-income home repair programs, medical-legal partnerships[v], and tenants-rights advocacy. Complimenting these programs, patients will also receive the guidelines-based care that Community Health Workers[vi] (CHWs) deliver: in-home visits, patient counseling and low-cost supplies to control triggers.

2. **Cohesive, Clustered Delivery of Proven Interventions:** Interventions such as spirometry, patient education, in-home assessments and weatherization are all shown to reduce asthma exacerbations. However, in the current approach, they are provided in a piecemeal and responsive fashion, meaning after a patient has been discharged from ER or when their community receives a temporary grant to provide home repairs. In the WIC model, their high-risk population receives intensive, coordinated services and graduates from the program. Clustering services increases self-efficacy and the WIC model's ROI is evidence of this hallmark public health approach[vii]. This pilot will enroll patients into an 18 to 24 month program in which medical, educational and environmental interventions are delivered in a cohesive, intensive fashion. Enrolling patients into the program (potentially in a statewide registry), Navigators will be able to follow patients who may changes homes (foster children), change providers or change insurance plans.

3. **Applying Preventive Focus in Recruitment:** Medicaid will be an even stronger safety net for those with asthma when there are simply fewer patients who require care. The WIC model serves new mothers, but equally invests in pregnant women, preventing complications and future disease in their newborns. In this pilot, *high-risk* Medicaid patients (uncontrolled asthma/high acute care use) are included, along with *at-risk* Medicaid patients. Pregnant, low-income women with diagnosed atopy or asthma have a higher demonstrated likelihood of having a child that develops asthma, due to both genetic and environmental risk factors[viii]. This pilot will recruit and enroll high-risk and at-risk populations in order to prevent disease onset or delay onset of symptoms in their child. These established preventive actions[ix] can reduce the overall number of Medicaid beneficiaries with an asthma diagnosis and produce long-term cost savings.

4. **Incentivizing Payers**: Payment reform is central to this pilot, tying fiscal incentives to quantifiable, measurable patient outcomes. A bundled approach will enable payers to provide the baseline asthma interventions covered by Medicaid (spirometry, case management, patient education). In this pilot, however, payers will also receive funds for the Navigator,

who will coordinate and ensure delivery of the non-Medicaid interventions.

Relationship to federal objectives for Medicaid: Through leveraging, timing and integration of non-Medicaid services, this pilot seeks to reform systems of care in a way that will control costs and improve care. Through its recruitment of both high-risk and at-risk patients, this pilot will demonstrate ***increased access to and use of preventive services***.

Project Description

Which Medicaid Transformation Goals are supported by this project/intervention?

- ☑ Reduce avoidable use of intensive services
- ☑ Improve population health, focused on prevention
- ☑ Accelerate transition to value-based payment
- ☑ Ensure Medicaid per-capita growth is below national trends

Which Transformation Project Domain(s) are involved?

- ☑ Health Systems Capacity Building
- ☑ Care Delivery Redesign
- ☑ Population Health Improvement – prevention activities

Regions and sub-populations impacted: The pilot will be implemented in multiple geographic regions across the state and could be seated within the Accountable Communities of Health. The target population includes Medicaid asthma patients from specific communities: low-income urban, rural, tribal, and foster-care. The sub-population includes high-risk *and* at-risk asthma patients. ***High-risk*** includes pediatric and adult asthma patients with one or more inpatient hospital stays and/or two or more ED visits in the prior 12 months ***or*** a patient with poorly-controlled symptoms. ***At-risk*** includes low-income pregnant women with atopy or asthma, whose genetic predisposition and socio-economic conditions are associated with an elevated risk of her newborn developing asthma or asthma precursors (Bronchiolitis, Reactive Airway Disease, and Respiratory Syncytial Virus).

Relationship to Washington's Medicaid Transformation goals: This pilot will help lower that proportion of the asthma population whose poorly-controlled symptoms or environmental risk factors result in *costly Medicaid expenses*. Focused on prevention versus symptom treatment, the pilot will improve quality of life for *individual* Medicaid beneficiaries as well as improve our state's *overall population health*. Payment reform will help accelerate the transition to value-based payments and expansion of CHW skills and services supports Washington's goals.

Project goals, interventions and outcomes: Our goal is to pilot a program that ***leverages non-Medicaid resources to address environmental and socio-economic risks, enabling Medicaid to invest in prevention, quality of life and equitable outcomes.***

Interventions: Patients enrolled will meet the high-risk or at-risk criteria. Recruitment may be through chart review, ER discharge or provider referral. Referrals will also be sought from providers who see clients in non-clinical settings: in their homes or apartments, at schools or child-care centers and by those whose work brings them into contact with this population. Once enrolled, Navigators will coordinate delivery of the clustered clinical and community-based interventions. Navigators may be housed in a primary care clinic, hospital, tribal clinic, public health or social service agency. In many settings, a CHW will likely be the best fit[x] to fulfill the Navigator role. Training for Navigators will be developed and may include certification. Through data-sharing agreements and a technology infrastructure, Navigators will be able to use a "dashboard" to view the status, timing and results as their patient receives program interventions. ***Outcomes*** of this approach include:

- A reduction in the total annual Medicaid expenditures for urgent and acute asthma care;
- A reduction in the overall number of Medicaid patients with an asthma diagnosis;
- An increase in the number of Medicaid patients with quality of life improvements from the environmental, socio-economic or legal interventions they receive;
- A reduction in school absenteeism and increase in workplace productivity as measured by a decline in asthma-related hospitalizations;
- Establishment of a data and technology infrastructure that provides innovative service coordination;
- A model for collaboration among organizations that, when scaled up, can produce system-level reform;
- A model for payment that incentivizes and enables payers to provide whole-person, preventive care; and
- A measurable change in key asthma metrics, including the two state performance measures for asthma.

Links to complementary transformation initiatives: Asthma is identified as a condition that has potential for new investment strategies and is one of the top five chronic diseases identified for reform. The care coordination and prevention pieces in this pilot align with Healthier Washington. The CHW role in this pilot aligns with the 2015 CHW Task Force recommendations for Healthier Washington. Outside Medicaid, this pilot compliments a recent state legislature initiative, which funds the WA Dept. of Commerce's "Weatherization plus Health" program and has newly added funds for asthma education. This pilot will enable weatherization agencies to leverage these new investments through coordination with our patients and Navigators.

Potential partners, systems, and organizations*:* The following organizations were involved in a 2015 Task Force to explore Medicaid and asthma care reform. They expressed either general support of asthma reform or direct support as a potential pilot partner. This Task Force will become a statewide partnership, if the pilot is funded, providing advisory, scientific and policy guidance for the duration of the waiver. (Organizations in bold are potential pilot partners)

Seattle-King County Public Health, ***Seattle Children's Hospital – Pediatric Pulmonology***, ***Coordinated Care Health***, Puget Sound Asthma Coalition, ***Children's Hospital– Medical/Legal Partnership***, Children's Alliance, ***Clean Air for Kids/Tacoma-Pierce-County Health Department***, Swedish Medical Group – Pediatric Pulmonary Medicine, ***American Lung Association of Washington***, ***Yakima Valley Farm Workers Clinic***, US EPA, HUD Office of Lead Hazard and Healthy Homes, Indian Health Service, ***Tulalip Tribes***, Swinomish Tribe, Spokane Tribe, Quinault Tribe, Affiliated Tribe of Northwest Indians - Health Subcommittee, Tribal Healthy Homes Network, DHHS Region X Office of Regional Minority Health, ***Washington State Department of Health***, ***Pediatric Pulmonary Center - University of Washington***, Dr***. Greg Ledgerwood, Allergy/Immunology – Rural Clinician (Brewster)***, ***Opportunity Council serving Whatcom County, Island and San Juan County***, Northwest Center for Alternative to Pesticides, Northwest Clean Air Agency

Core Investment Components

Activities (estimated over 5-year waiver period):

- ***Activities (Years 1-5):*** A. Enrollment of organizations who provide non-Medicaid services in multiple regions and ACHs. B. Enrollment of payers who provide coverage to target population (Medicaid high-risk and at-risk). C. Building data-sharing agreement for care and service coordination. D. Building technology platform for Navigator to view dashboard, tracking patient's health care utilization, non-Medicaid service utilization. E. Providing training for Navigators. F. Targeting population for maximum recruitment and enrollment. G. Providing clinical care, non-clinical care, and community-based services. H. Setting up and beginning data collection for monitoring population metrics and individual patient outcomes.
- ***Benchmarks (Years 2-3):*** Have enrolled 10% of Medicaid asthma patients within each of the payer's enrolled membership. Be actively administering clinical and community-based services. Have data-sharing agreement, infrastructure and possible statewide registry operating. Be reporting on early outcomes and key metrics. Have begun policy and program analysis of barriers and opportunities to scale program statewide.
- ***Return on Investment:*** 15% reduction in annual pediatric asthma ED visits for Medicaid/CHIP children (estimated at $433/visit, with an average of 8,531 visits/yr in Washington = $3,696,000[xi]). Results in $554,400 in cost savings for pediatric ED visits alone. (Cost of asthma-related hospitalizations not available in Washington, but national pediatric average is approximately $3,600 and $5,200 for adults[xii]. Cost savings from a 15% reduction in hospitalizations would thus be substantially greater than the cost savings achieved from reduced ED visits.)

Project Metrics

- ***Population Measures:*** Through primary prevention emphasis, a key metric of this pilot is to reduce asthma prevalence at the statewide, population level.
- ***Clinical Setting Measures:*** *#30* – Use of appropriate asthma medications, #42 – Potentially avoidable ED visits
- ***Health Care Cost Measures:*** #51 – Asthma-specific Medicaid spending per enrollee
- ***Other:*** Customized measures for the pilot will be developed using HEDIS (Healthcare Effectiveness Data and Information Set), and CMS measures endorsed by the National Quality Forum.

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[i] Global Initiative For Asthma. Global strategy for asthma management and prevention. NHLBI/WHO Workshop Report. Publication 95-3659.National Institutes of Health, 1995.

[ii] Express Scripts 2012 *Drug Trend Report*.

[iii] Noreen M. Clark, PhD, Christy R. Houle, MPH, and Martyn R. Partridge, MD. Educational Interventions to Improve Asthma Outcomes in Children. JCOM October 2007 Vol. 14

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[v] Sandel M., et. al. Medical-legal partnerships: transforming primary care by addressing the legal needs of vulnerable populations. Health Affairs. September 2010; 29(9): 1697-1705.

[vi] Krieger JW, Takaro TK, Song L, Weaver M. The Seattle-King County Healthy Homes Project: A Randomized, Controlled Trial of a Community Health Worker Intervention To Decrease Exposure to Indoor Asthma Triggers. American Journal of Public Health. 2005;95(4):652-659. doi:10.2105/AJPH.2004.042994.AND Noreen M. Clark, Herman E. Mitchell, Cynthia S. Rand. Effectiveness of Educational and Behavioral Asthma Interventions. Pediatrics. March 2009, VOLUME 123 / ISSUE Supplement 3

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[vii] US Department of Agriculture, Food and Nutrition Service. WIC Combined Federal and State WIC NSA Outlays and In-Kind Reports for Fiscal Year 2013 (FNS-978A).

[viii] The Canadian Childhood Asthma Primary Prevention Study: Outcomes at 7 years of age

[ix] S H Arshad, B Bateman, S M Matthews. Primary prevention of asthma and atopy during childhood by allergen avoidance in infancy: a randomized controlled study. Thorax 2003;58:489–493

[x] Based on CHW recommendations identified in the *Draft Executive Summary for Coordinated Care Collaboration Evaluation Report* - Clean Air for Kids (CAFK) - Tacoma Pierce County Health Department.

[xi] According to NHAMCS-ED data, Medicaid/CHIP enrollees younger than 18 made an estimated 628,759 asthma-related ED visits in 2010. Using the Marketscan Medicaid database, estimated that the average cost per visit was $433. Given these estimates, pediatric asthma-related ED visits cost the Medicaid/CHIP programs a combined $272,453,850 in 2010. http://www.cdc.gov/pcd/issues/2014/14_0139.htm

[xii] Marguerite L. Barrett, M.S., Lauren M. Wier, M.P.H., and Raynard Washington, Ph.D., M.P.H. Trends in Pediatric and Adult Hospital Stays for Asthma, 2000–2010. Agency for Healthcare Research and Quality.

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State	Estimated Asthma Prevalence Among Children, %	Estimated No. of Children Covered by Medicaid/CHIP	Estimated No. of Medicaid/CHIP-Covered Children with Asthma	Estimated No. of Asthma-Related ED Visits Covered by Medicaid/CHIP	Estimated Cost of Medicaid/CHIP Child ED Visits ($)b
WA	5.6	796,010	44,577	8,531	3,696,000

The goals and activities listed on pages 12-17 received the highest ranking by WAI members in 2011. These activities were judged to have the highest evidence of effectiveness. The chosen activities also have potential to improve health outcomes, are feasible and sustainable, and likely to have political or economic support.

The activities that received lower scores are listed below in ranked order. We include them for reference and for potential future implementation.

Health Care Goal

All people with asthma in Washington will have access to and receive affordable, high-quality care according to national guidelines.
The standard of care will include:

- Ongoing, planned assessment and monitoring.
- Appropriate medications.
- Control of environmental triggers.
- Education for a partnership in care.

Strategies

- Work with the Health Care Authority to reduce or eliminate co-pays for asthma controller medications and routine chronic disease management visits.
- Work with Department of Social and Health Services and Health Care Authority to reduce formulary and other administrative barriers to appropriate asthma medications and services.
- Include training on the National Heart Lung and Blood Institute's Expert Panel Report 3 (EPR-3) guidelines in all medical, nursing, and pharmacy school curricula in Washington.
- Develop standard protocols for communication between health plans, hospitals, specialists, and primary care.
- Work with Medicaid to include asthma data in routine state surveillance activities.
- Partner with large organizations that use electronic health records – particularly those serving high-risk populations – to incorporate the EPR-3 guidelines.
- Work with hospitals to implement the Community Benefit and Cost Sharing provisions of the Affordable Care Act by:
    - Partnering with hospitals to use asthma measures in their community needs assessments and implementation strategies.
    - Monitoring community benefit provided by hospitals required to do so and recommend preferred activities to address these, such as asthma home visits.
    - Suggesting opportunities for interventions and community partnerships that would result in cost savings to hospitals, and benefits to people with asthma.
- Pursue legislative and other funding for chronic disease and medical home quality improvement training as recommended in the Affordable Care Act.
- Provide consultation, coaching, and peer mentoring to support providers in putting the EPR-3

guidelines into practice.

- Rebuild the American Lung Association's Asthma Educator Institute, or similar course, including content about case management.
- Make asthma self-management tools available in pharmacies and on the Internet.
- Develop and implement a distribution plan for the EPR-3 tool created by the Washington Asthma Initiative and Department of Health.
- Provide evidence-based education such as Physician/Nurse Asthma Care Education and Spirometry 360 training to health care providers.
- Build asthma education partnerships with existing home visitors and health educators.
- Build partnerships between schools, hospitals, and clinics to reinforce educational messages at every point of care.
- Partner with the Healthy Communities Partnership to educate state policy makers about how guidelines-based asthma care and tobacco prevention activities decrease the burden of asthma.
- Promote asthma educator certification among pharmacists and pharmacy technicians.
- Increase the number of health educators, community health workers, and other health professionals able to take the national asthma educator certification exam, especially among organizations serving high-risk populations.
- Take advantage of opportunities to link best-practice asthma activities to health reform initiatives.
- Partner with pharmacies to increase reporting overuse of rescue inhalers to providers.
- Convene asthma educators and case managers in Washington to coordinate planning and advocacy efforts.
- Provide Web-based information and resources through health plans.
- Encourage providers to write prescriptions for rescue inhalers with no more than one refill.
- Offer quality improvement training, including ongoing support and mentoring.
- Partner with the Puget Sound Health Alliance to include more data measures in the Community Checkup Report, as recommended by the Asthma Clinical Improvement Team.
- Promote reporting medication use to primary care providers in clinics with in-house pharmacies.
- Develop mentoring networks among collaborative "graduates" to support clinics conducting new quality improvement activities.

Community/ Environment/Worksite Goal

All people with asthma in Washington live in healthy homes and communities that support effective self-management and reduce exposure to asthma triggers.

Strategies

- Develop and promote a statewide certification for healthy homes rentals, including training and inspection.

- Provide indoor air quality and health trainings for Section 8 housing managers and building inspectors.
- Promote adopting workplace tobacco-free policies.
- Provide technical assistance to employers to increase asthma-friendly policies and practices, including green cleaning, integrated pest management, and scent-free workplaces.
- Develop an advocacy plan to improve housing codes using the 2009 International Property Maintenance Code and other nationally recognized models.
- Advocate for policies that support changeover of non-certified wood burning devices to cleaner technology, particularly for low-income populations.
- Promote businesses adopting commute trip reduction policies, including flexible schedules, for employees.
- Seek funding and provide training/mentorship to spread the Weatherization + Health model among weatherization agencies.
- Create and spread volunteer-based home visit model among local health jurisdictions and community health centers.
- Support policies that reduce automobile use, such as partnering with Healthy Communities initiatives supporting sidewalk and trail development.
- Promote tobacco cessation benefits and onsite resources.
- Partner with the U.S. Forest Service, state Department of Natural Resources, and fire districts to tighten burning standards and practices.
- Partner with Department of Transportation to display air quality alerts and messages about minimizing driving on electronic highway signs.
- Build state clearinghouse for best practices, networking, and mentoring among home visit programs.
- When city and county comprehensive plans are ready for review, analyze built environment sections for health impacts, and provide health advocacy for the plan revision.
- Provide technical assistance and health information to small businesses in high-risk industries to increase proper use of protective equipment.

Schools and Early Learning Goal

All schools and early learning programs in Washington will be asthma-friendly.

Strategies

- Develop and deliver trainings/best practice models to:
  - Increase school communication with parents and primary care providers.
  - Improve compliance by parents and primary care providers to submit asthma action plans and emergency care plans.
- Support the Quality Education Council's recommendations to increase funding for health services staff.

Appendix

- Build awareness among school districts of policy recommendations in CDC's Six Strategies through newsletters, agency memos jointly sent by Department of Health and the Office of Superintendent of Public Instruction, and trainings sponsored by Coordinated School Health.
- Support existing projects, including collecting, analyzing, and disseminating health and environmental outcomes data.
- Build awareness among school districts of the process recommendations in CDC's Six Strategies and EPA's Tools for Schools through newsletters, agency memos jointly sent by Department of Health and the Office of the Superintendent of Public Instruction, trainings sponsored by Coordinated School Health, and the K20 video conferencing system.
- Obtain public health representation in the Quality Education Council to include state School Environmental Health and Safety rules in their recommendations.
- Create connections between early learning providers and schools to facilitate the transition into school for children with asthma.
- Update the Asthma Management in Educational Settings (AMES) manual to include the CDC's Six Strategies and information from the EPR-3 guidelines.
- Include additional asthma education examples in the Health and Fitness Essential Academic Learning Requirements to demonstrate how asthma education helps students meet the requirements.
- Build expertise among LHJs in the Six Strategies and Tools for Schools.
- Support Quality Education Council recommendations for increasing funding for school maintenance.
- Advocate for funding to support recommendations in the rules, including:
  - Maintenance and building activities.
  - Small repair grants.
- Identify, develop, and deliver training for custodians about indoor air quality, and include in the AMES manual.
- Build school awareness of availability of small repair grants and other funding sources.

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Healthy Communities
Washington
Healthy people in healthy places