

Controlling Asthma in Schools

Success of CDC's National Asthma Control Program

Asthma is a leading chronic illness among children and adolescents in the United States. It is also one of the leading causes of school absenteeism. On average, in a classroom of 30 children, about 3 are likely to have asthma. Nearly 1 in 2 children with asthma miss at least 1 day of school each year because of their asthma. Each year asthma causes more than 10 million missed days of school.

CDC's National Asthma Control Program (NACP) plays a pivotal role in promoting asthma-friendly schools. Asthma-friendly schools are those that make the effort to create safe and supportive learning environments for students with asthma. They have policies and procedures that allow students to manage their asthma. Throughout the 2000's, NACP worked with CDC's Division of Adolescent and School Health (DASH) to fund various asthma control strategies across several urban school districts, and created tools to assist them with program planning and monitoring. CDC developed several tools to help schools and districts become more asthma-friendly, including the "Creating an Asthma-Friendly School" video and "Strategies for Addressing Asthma Within a Coordinated School Health Program," a web-based guidance document that offers suggestions for schools seeking to improve the health and attendance of students with asthma.

While DASH no longer includes a focus on asthma, the 36 state and territorial state asthma programs funded by the NACP are actively involved in asthma activities with students and schools. NACP's major school-based activities include school-based asthma management, self-management education for students, indoor air quality and asthma trigger reduction, educational training for school personnel, and administering asthma medication self-carry laws. State asthma programs utilize the data from their CDC-funded asthma surveillance systems to focus activities in areas with the most hospitalizations and emergency department visits for asthma. They work with their state asthma partnerships to identify areas with high health risk students and to identify evidence-based interventions they can implement state-wide.

Examples of currently-funded NACP school-based activities include:

School-based Asthma Management

State asthma programs work closely with other state agencies and school districts to ensure that states' self-carry laws for asthma medication are implemented appropriately. Several states have shared health records for each student. As students move from one school to another, the health record is accessible to the new school. This allows the school system to help provide appropriate care for the child.

A number of state programs have developed standardized asthma action plans for school nurses. Several states also make available to schools Certified Asthma Educators to aid in implementing asthma management in schools.

Asthma Self-Management Training for Students

State asthma programs provide support for implementing validated curricula, such as the American Lung Association's Open Airways for Schools program or the Breathe to Achieve program. Both programs educate and empower students with asthma to manage their condition.

Indoor Air Quality and Asthma Trigger Reduction

State asthma programs support trainings and implementation of the Environmental Protection Agency's Indoor Air Quality, Tools for Schools program and state-specific programs to assist schools in reducing indoor asthma triggers and improving indoor air quality.

State asthma programs also work with schools to institute school bus and automobile anti-idling policies to reduce student exposure to vehicle emissions in pick-up and drop-off areas of schools. Some schools have systems to provide students and teachers with notification of poor outdoor air quality days so that children with asthma can take appropriate actions to reduce exposure to outdoor air.

A number of state asthma programs promote improving school indoor air quality through use of “green” cleaning products or use the EPA School flags program to educate students and school staff on outdoor activity modifications on days with poor air quality.

Training for School Personnel

State asthma programs and their partners work together to create professional development and training opportunities for school district staff, board members, administrators, and teachers to learn about asthma and indoor air quality and to integrate environmental and health education into academic curriculum when feasible and appropriate, providing asthma education for the school community (parents, teachers, nurses, administrators, coaches, and all other staff) to promote consistent messages on strategies and policies for addressing asthma.

One important message includes recognizing and responding to severe asthma symptoms that require immediate action. One state asthma program, working in collaboration with school nurse consultants and the state asthma coalition produced the Asthma Education Curriculum for Elementary and Middle School Professionals in collaboration with the North Carolina Asthma Alliance (Education Committee) and North Carolina School Nurse Consultants.

Other state asthma programs and their partners worked together to produce the Coaches’ Asthma Clipboard, a training tool for athletic and physical education staff on recognizing asthma symptoms among student athletes and effective responses for coaches and physical education.

Another program, “Asthma 101,” focuses on school faculty and staff as critical link in the effort to maintain a network of support for students with asthma.

Self-Carry Laws

States have passed laws that permit schools to implement policy allowing students to carry and self-administer asthma medications. State asthma programs work to help implement these laws.

Some Success Stories

Research and case studies that have looked at ways to best manage asthma in schools found that successful school-based asthma programs:

- Establish strong links with asthma care clinicians to ensure appropriate and ongoing medical care
- Target students who are the most affected by asthma at school to identify and intervene with those in greatest need
- Get administrative buy-in and build a team of enthusiastic people, including a full-time school nurse, to support the program
- Use a coordinated, multi-component and collaborative approach that includes school nursing services, asthma education for students and professional development for school staff
- Support evaluation of school-based programs and use adequate and appropriate outcome measures

The NACP recently evaluated three of its funded school efforts, in Indiana, Louisiana, and Utah. These programs share common goals of reducing children’s exposure to asthma and training school nurses to manage asthma and asthma attacks appropriately, along with individual goals specific to each state.

CDC’s evaluation of these three states’ efforts revealed some common reasons for success. The extent of effort by the programs’ change agents was an important key factor, whether it be committed local asthma coalitions, project coordinator enthusiasm and ability, or the presence of asthma champions in the state and school systems. Efforts to control cost were also important predictors of success. The use of low-cost student interns and of available and established resources was linked to having a successful program in all states.