State Grantee Recommendations and Lessons Learned An Addendum to the Voluntary Guidelines for States: Development and Implementation of a School Environmental Health Program

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#### About the Addendum

In October 2012, the U.S. Environmental Protection Agency (EPA) published *Voluntary Guidelines for States: Development and Implementation of a School Environmental Health Program.* These voluntary guidelines were developed to provide states with a framework for establishing, implementing, and sustaining programs that address a wide range of environmental health issues found in K-12 school settings.

To build state capacity to establish school environmental health programs, EPA awarded grants to five states to assist in developing and implementing the basic elements of a state school environmental health program, including standards and guidance, a steering committee, measures to assess progress, communication and outreach, and resources. In addition, states needed to demonstrate how the activities funded by the grants would build capacity to ensure that the school environmental health programs were sustained beyond the grant period. Grantees were asked to use EPA's *Voluntary Guidelines for States* to implement their state programs.

The purpose of this addendum is to share the best practices and lessons learned by the five state grantees with other states and school decision-makers to encourage their adoption of school environmental health programs, and to lend guidance for maintaining existing programs for years to come. This addendum walks through each of the six steps for establishing a school environmental health program and offers tips, strategies, and real-world examples based on the experiences of the five state grantees.

#### Background on the State Grantee Contributors

The following are brief overviews of the five state grantees who contributed their expertise to the writing of this addendum.

#### **Connecticut Department of Public Health**

The Connecticut Department of Public Health has led the Connecticut School Indoor Environment Resource Team (CSIERT), a multi-agency consortium of 24 agencies and organizations, since 1999. The Connecticut Department of Public Health and CSIERT developed their statewide school environmental health program based on EPA's Indoor Air Quality (IAQ) Tools for Schools Program. Connecticut's school environmental health work is wide-ranging and includes laboratory cleanout programs, energy conservation, environmental health literacy, support for integrated pest management, radon law compliance, a green cleaning program, and vehicle idling prevention.

The Connecticut Department of Public Health and CSIERT have been recognized by the EPA as a national leader in successfully assisting Connecticut's school districts with implementing and sustaining IAQ Tools for Schools Programs in more than 940 schools across the state. Key components of their success include ongoing outreach to all public school districts; a requirement that school districts recruit school-based building teams; comprehensive, ongoing training programs; and adopting a holistic approach to addressing school environmental health programs.

Under the EPA grant, Connecticut's goals were to:

- Continue work toward implementing IAQ Tools for Schools in all 170 of Connecticut's public school districts.
- Continue to expand the state's comprehensive sustaining program for existing IAQ Tools for Schools district programs, including:
  - Providing refresher and other training;
  - Maintaining and expanding the CSIERT website; and
  - Providing ongoing staff support for CSIERT.
- Provide tools and resources to other states and tribes looking to develop and sustain multiagency school environmental health programs.

Highlights from Connecticut's grant-funded work:

- Made strides in bringing IAQ Tools for Schools to urban school districts. Under the grant, Connecticut completed IAQ Tools for Schools training for the Stamford School District and made substantial progress in implementing the program in the Bridgeport School District.
- Implemented the IAQ Tools for Schools Program in five additional small- to medium-sized school districts, serving 48 schools.
- Provided refresher training for 14 school districts, serving 54 schools.
- Launched a revitalized CSIERT website with information, resources, and links from the old website, as well as new content.
- Collaborated with other state-level agencies and organizations to initiate the Connecticut Green Leaf Program, the state's version of the U.S. Department of Education's Green Ribbon Schools (ED-GRS) Program.
- Organized a comprehensive compendium of Connecticut's Indoor Environmental Quality/IAQ Tools for Schools fact sheets, brochures, training manuals, and workshop presentations for

other states to use as a resource for building and sustaining their own school environmental health programs.

#### Minnesota Department of Health

The state of Minnesota has been addressing environmental health in schools since 1997. That year, a change was made to Minnesota Statute 123B.57 requiring all schools applying for health and safety funding to develop a health and safety program that includes an indoor air quality management plan. The Minnesota Department of Health recommended that schools use EPA's IAQ Tools for Schools Program as a basis for developing their indoor air quality plans. The 2011 Legislative Session amended Minnesota Statute 123B.57 to require school boards to adopt a health and safety policy that includes provisions for implementing a health and safety program that complies with health, safety, and environmental regulations and best practices, including indoor air quality management.

From 2000 to 2006, the Minnesota Department of Health received a grant from EPA Region 5 to fund education and evaluation efforts. Each year, the agency completed a yearly survey of every school district in the state, asking specifically about each school's indoor air quality program and its progress. The Minnesota Department of Health used the data to track how many schools were engaging in various indoor air quality projects. In addition to the survey, a variety of guidance documents, training programs, and individual technical consultations were completed.

Under the EPA grant, the Minnesota Department of Health partnered with state agencies and nongovernmental organizations to form the Minnesota School Environmental Health Program to help the state's schools create healthier environments. Minnesota's goals for the grant were to:

- Compile school environmental health resources and share them through a single state web portal.
- Promote and educate school officials about the school environmental health guidelines.
- Identify schools that have implemented a comprehensive school environmental health program.

Highlights from Minnesota's grant-funded work:

- Organized a steering committee of 17 different representatives (state and non-governmental) who compiled state-level guidance, resources, and trainings.
- Using the EPA's Voluntary Guidelines for States as a guiding framework, the steering committee developed a State Plan to Advance School Environmental Health in Minnesota.
- Created a new web portal organized around 22 different environmental topics: www.health.state.mn.us/schoolenvironments.
- Promoted environmental health in a variety of ways, including a new newsletter, email listerv, advertising in journals and on websites, and direct mailings.
- Wrote or made major revisions to 12 environmental health guidance best practice documents.
- Educated school officials through 25 trainings (731 attendees), 8 outreach events, 12 on-site consultations, and 44 off-site consultations.
- Surveyed all 498 Minnesota public school districts and found that 178 of the respondents (77%) had a written environmental health and safety program.
- Created a state school environmental health recognition program and awarded three schools with School Environmental Health Excellence Awards.

#### New York State Department of Health

The New York State Department of Health is undertaking the state's first comprehensive effort to adopt a state school environmental health program. Prior to receiving the EPA grant, much of New York's school environmental health work was fragmented, and the state had never conducted an assessment of regulations, policies, and practices to identify those related to school environmental health.

Under the EPA grant, the New York State Department of Health's primary goal was to create and build capacity for implementing a sustainable state school environmental health program that would ensure all New York students have access to safe and healthy learning environments. Short- and medium-term outcomes were focused on increasing awareness and utilization of the program among school stakeholders and other potential users. Beyond the grant period, medium- and long-term outcomes include measuring the effectiveness of the program in improving the school environment and enhancing students' health and performance. These outcomes will be measured by reductions in asthma hospitalizations and school absenteeism, and improved academic performance, among others.

Highlights from New York's grant-funded work:

- Established a steering committee of more than 50 active members.
- Increased awareness about environmental health risks among steering committee members.
- Increased awareness of the state school environmental health program among regional and national state health agencies, organizations, and schools.
- Developed a strategic plan and a draft comprehensive program plan that outlines the framework of New York's state school environmental health program.

#### **Ohio Department of Health**

The state of Ohio has had a school environmental health program since 1995. Early school environmental health efforts were driven by the Ohio Department of Health providing technical assistance to schools in need. The Ohio Department of Health was an early adopter of EPA's IAQ Tools for Schools Program, and provided training and technical assistance for IAQ Tools for Schools Program implementation to public health and school officials.

In 2002, the Ohio Department of Health undertook an effort to revise Ohio's school inspection manual to meet the need for a more comprehensive, up-to-date manual for use when conducting school building and environment inspections. The new school inspection guidance was completed in 2005, the same year that Jarrod's Law was passed by the Ohio legislature. Jarrod's Law included wide-ranging school environmental health rules, as well as requirements for more inclusive school inspections. The law went into full effect in 2007, but was repealed in 2009 after its regulations proved too costly for school districts to implement. The statutory language governing school inspections reverted back to the language used prior to Jarrod's Law (that is, a general mandate for local health districts to conduct sanitary school inspections twice annually). There are no rules or standards that school inspections should follow and no requirement for school inspectors to use the Ohio Department of Health's updated guidance manual.

Despite this setback, the Ohio Department of Health remained committed to ensuring healthy school environments. The release of EPA's state school environmental health program guidelines was viewed by the Ohio Department of Health as a chance to reengage in school environmental health.

Under the EPA grant, Ohio's goals were to:

- Establish a statewide School Environmental Health Advisory Panel (SEHAP) to serve as a steering committee for current and future project activities, as well as to help develop and implement Ohio's new school environmental health guidelines.
- Establish the Ohio Schools' Healthy Environment Network (OSHEN), a communication network for school personnel and public health and environmental officials that would assist in distributing information about training, enhance collaboration, and encourage mentoring and sharing of information related to school environmental health.
- Increase the state's capacity to implement the new school environmental health guidelines.
- Reduce environmental health and safety risks affecting children through increased efforts to improve school environmental health.

Highlights from Ohio's grant-funded work:

- SEHAP was established and met to develop school-centered guidelines for improving school environmental health.
- Completed *Creating Healthy School Environments: Voluntary Guidelines for Ohio Schools*. A digital, interactive copy of the guidelines is available on the Ohio Department of Health School Environmental Health and Safety Program website: www.odh.ohio.gov/odhprograms/eh/schooleh/sehmain.aspx.
- OSHEN was established and currently has 520 members, including school and local health department personnel.
- A statewide School Environmental Health Baseline Assessment is in progress.
- Held five regional trainings in December 2014, with 181 attendees. Presentations from the trainings are available on the following website: www.odh.ohio.gov/odhprograms/eh/schooleh/CHSEPPT.aspx.
- Recorded eight school environmental health webinars prior to end of December 2014. These and future webinars will be broadcast throughout 2015 and archived on the Ohio Department of Health School Environmental Health and Safety Program website, and will be available for use through OSHEN.

#### Wisconsin Department of Public Instruction

In 2002, the Wisconsin Department of Natural Resources adopted a model that integrated many of its existing school environmental health and safety programs as a way to streamline its work with schools. The Wisconsin Department of Natural Resources launched its Green Schools program in 2003, and in 2004 teamed up with the Wisconsin Department of Public Instruction to create the Wisconsin Green and Healthy Schools (GHS) Program. The result was a voluntary, web-based certification program designed to directly support all Wisconsin K-12 schools striving for healthy, safe, and environmentally friendly learning environments.

To achieve GHS recognition, schools complete a lengthy application documenting achievements in nine focus areas. Questions span the topics of facilities, practices, staff training, and curricula. After reviewing the application, schools are recognized at one of four GHS achievement levels. Schools can continue to add to their online application to achieve higher recognition levels. The top-achieving schools are eligible for nomination to the ED-GRS program. Prior to receiving the EPA grant, the Wisconsin GHS Program had a low completion rate (20%) due to its prescriptive nature. With the grant funding, the Wisconsin Department of Public Instruction and program partners leveraged the existing GHS Program to reinvigorate a school environmental health and environmental education initiative across the state.

Under the EPA grant, Wisconsin's goals were to:

- Redesign the current GHS Program to align with EPA's *Voluntary Guidelines for States* and ED-GRS standards, among other identified programs. This included:
  - Publishing a Wisconsin Green, Healthy, and Sustainable Schools guide.
  - Creating a Wisconsin Green, Healthy, and Sustainable Schools website.
- Establish a statewide infrastructure to support the GHS Program beyond the grant period. This included:
  - Establishing a statewide steering committee.
  - $\circ$   $\;$  Establishing a provider network and a statewide mentor network.
  - Training school district teams to complete the redesigned program.
  - o Hosting a professional development summer institute around the new GHS Program.

Highlights from Wisconsin's grant-funded work:

- Redesigned the GHS Program to align with EPA's Voluntary Guidelines for States, ED-GRS standards, and Project Learning Tree's GreenSchools! Program.
- Established a statewide Green and Healthy Schools Advisory Network.
- Provided outreach and presentations at more than 20 venues on a variety of topics.
- Hosted 12 regional workshops and enrolled 220 schools in the program.
- Hosted 3 topic-specific, curriculum-focused workshops for classroom integration.
- Hosted a professional development summer institute for nearly 200 participants.

# Stepping through the Guidelines: Recommendations and Lessons Learned from the State Grantees

*Voluntary Guidelines for States: Development and Implementation of a School Environmental Health Program* provides a roadmap for establishing a state school environmental health program. This roadmap consists of six steps:

- 1. Assess Existing Resources and Infrastructure
- 2. Determine Capacity
- 3. Develop a Plan
- 4. Implement the Program
- 5. Evaluate the Program
- 6. Sustain the Program

This section walks the reader through each of the six steps and offers:

- Recommendations and best practices for what worked at each step in the process, and
- Challenges encountered during each step and how they were overcome.

Real-world examples will be given throughout to illustrate specific actions that the five state grantees took to develop and implement their state school environmental health programs.

#### Step 1: Assess Existing Resources and Infrastructure

Step 1 Overview: Identify a lead office within a state agency that can work with other agencies and assess existing state initiatives and any existing laws, policies, or regulations that address healthy school environments.

#### What Worked: Recommendations and Best Practices from the State Grantees

#### Conduct an inventory of existing state resources

As described in *Voluntary Guidelines for States*, identifying a state's existing laws, policies, and initiatives that concern school environmental health is an important step in laying the foundation for a successful state program. Conducting this inventory allows the state to answer several questions:

- Are there established school environmental health initiatives in the state and, if so, what topics do they address?
- Are there any gaps or topics that should be addressed in a state school environmental health program?
- Can one or more of these initiatives be the basis for a more comprehensive state school environmental health program?
- What laws, policies, and regulations exist that address school environmental health issues, and how are they being implemented and enforced?
- Are any of the laws, policies, or regulations outdated or in need of revision? Are there any gaps to be filled?

Together, the inventory of existing resources and the answers to these questions act as a baseline and will guide a state's school environmental health programming efforts.

*EXAMPLE:* The Wisconsin Department of Public Instruction conducted an inventory of the state's existing policies and standards to serve as a baseline for the reinvigorated GHS Program. Through this exercise, the Wisconsin Department of Public Instruction was able to define a set of environmental health prerequisites and state requirements for schools to meet to be eligible for recognition under the new GHS Program.

#### Establish a statewide, multi-agency steering committee

All five state grantees agreed that establishing a statewide, multi-agency steering committee was crucial for setting the direction, scope, and priorities of a state school environmental health program. Most important is identifying the right stakeholders to serve on the steering committee. Here are some tips for assembling a winning state school environmental health steering committee:

- Research who is actively involved in school environmental health in the state and what they do. For example, are they engaged in outreach activities (and, if so, what kind) or do they oversee school environmental health laws and regulations?
- Do not confine your search to state agencies. Consider including non-governmental entities, such as non-governmental organizations, trade associations and professional groups, and private businesses (e.g., consulting firms) to ensure that the steering committee represents a wide range of school environmental health expertise. Another important group to consider is decision-makers and others involved in K-12 education.
- Leverage existing relationships and partnerships to pull invested stakeholders together. Their commitment to school environmental health will lend immediate support and strength to the steering committee.

• Identify knowledge gaps on the steering committee and seek out stakeholders who can fill them.

*EXAMPLE:* The Minnesota Department of Health surveyed its steering committee members to assess what resources they brought to the table and to identify any gaps in resources or knowledge that needed to be filled.

*EXAMPLE:* To fill their knowledge gap around school building construction and maintenance, the Wisconsin Department of Public Instruction reached out to the Wisconsin Green Building Alliance and the Wisconsin Association of School Business Officials to join the state steering committee. Both organizations accepted the invitation and provided guidance and technical assistance to the steering committee regarding school building matters.

#### Adopt strategies to ensure successful steering committee meetings

The New York State Department of Health shared some useful tips for conducting successful steering committee meetings:

- When possible, conduct steering committee meetings in-person. Bringing members together for periodic, day-long facilitated discussions helped New York's steering committee keep their efforts moving forward.
- Split up into small breakout groups during steering committee meetings. For New York, these breakout groups were successful at generating new ideas, sharing knowledge, and building capacity.
- Form subcommittees within the steering committee around key program areas. New York's steering committee found that forming subcommittees was essential for making progress on program development, including plan development, resource compilation, and buy-in presentations.

The Wisconsin Department of Public Instruction advised that it is not always efficient or feasible to bring all steering committee members together for a face-to-face meeting (e.g., due to the size of the state). In these cases, provide steering committee members with a call-in number so that everyone has the opportunity to participate in the meetings.

#### Challenges and Solutions: How the State Grantees Overcame Hurdles for this Step

#### Maintaining steering committee participation

Maintaining steering committee enthusiasm and participation can be difficult. Most members are essentially volunteering their time on the subcommittee and have their own work and obligations to attend to. State grantees offered the following suggestions for ensuring adequate participation and interest in the steering committee:

- Develop a steering committee charter that explains the committee's goals; how the committee functions; and the roles, responsibilities, and level of involvement expected of each committee member. Having a charter formalizes the steering committee process and holds committee members accountable for the roles and responsibilities they commit to. A copy of Minnesota's steering committee charter can be found in Appendix A.
- Establish regular communication with steering committee members. Hold conference calls between larger steering committee meetings or conduct surveys of committee members on

specific topics. These tactics not only encourage more active participation, but also knowledge sharing among committee members.

 Give regular presentations at steering committee meetings on topics of interest, current activities, and program successes to sustain interest and involvement. Consistently highlighting achievements and progress at meetings can drive committee members' enthusiasm and support.

#### Rekindling and strengthening past relationships

Making an effort to rekindle, repair, or strengthen past and current relationships with key stakeholders is very important for building support and obtaining the resources needed to implement a state school environmental health program. The Wisconsin Department of Public Instruction recommended scheduling one-on-one conversations with each stakeholder as a way to build trust, identify common ground, and discuss ways to move forward together. These conversations can take time; however, the effort to reengage with key stakeholders builds goodwill and may result in additional funding, support, and resources for the state's school environmental health program.

#### **Step 2: Determine Capacity**

*Step 2 Overview: Determine the capacity of each state agency to contribute to an effective state environmental health program for schools.* 

#### What Worked: Recommendations and Best Practices from the State Grantees

#### Conduct a survey

Surveying stakeholders, both steering committee members and non-members, provides an opportunity to learn more about their organizations, what they do, and what their priorities are. For the steering committee, this information is particularly helpful in identifying any knowledge or resource gaps. Surveys also can help determine whether state and local agencies have the capacity to carry out activities under the state school environmental health program.

*EXAMPLE:* The Minnesota Department of Health conducted a survey of steering committee members to identify existing laws, rules, regulations, and statutes that address school environmental health; determine the types of outreach and education being conducted around school environmental health in the state; and identify any relevant websites and online resources.

*EXAMPLE:* The Ohio Department of Health used a survey tool to assess the local health departments' capacity for conducting school inspections.

#### **Pool resources**

Implementing a state school environmental health program is a big project and requires substantial resources. Steering committee members and other program participants need to identify upfront the types of support they can provide (e.g., funding, staff, training expertise, expert knowledge) so that realistic program goals and priorities can be set, and additional resource needs can be identified and met.

#### Seek mandatory buy-in

Management support, whether at the state or school district level, is crucial for implementing and sustaining a successful state school environmental health program. High-level buy-in should be sought early in the planning process to ensure that the state program has the support and resources necessary to get off the ground and remain active over the long term. When conducting buy-in presentations, tailor the presentation's key points to address the audience's needs and concerns, and highlight the program benefits most relevant to them (e.g., cost savings, improved student health, fewer absences).

*EXAMPLE:* In Wisconsin, the Department of Public Instruction's direct involvement in the state school environmental health program was important for facilitating school and school district communication and buy-in. Wisconsin also found that including a state department of education's logo on program materials can positively influence school decision-makers.

*EXAMPLE:* In Connecticut, before CSIERT will agree to assist school districts with implementing the IAQ Tools for Schools Program, a mandatory buy-in presentation is delivered to all school district administrators, including principals. This strategy has been effective in securing the support and involvement of key school administrators in CSIERT's efforts. A copy of CSIERT's buy-in presentation can be found in Appendix B.

#### Have capacity to provide ongoing service

Take the time to determine what types of services each participating agency and organization can contribute to schools and school districts over the long-term. Providing ongoing services such as refresher training, technical assistance, and outreach builds trust with schools and school districts, and can make sustaining a state school environmental health program easier.

*EXAMPLE:* The Connecticut Department of Public Health and CSIERT offer school districts the following ongoing services: refresher training and access to webinars, regular outreach, a listserv, and email reminders and tips.

*EXAMPLE:* The Ohio Department of Health recommended connecting with local health departments to help provide technical assistance to program partners and schools. In Ohio, the local health departments helped coordinate the statewide baseline assessment of schools.

#### Encourage steering committee outreach

One of the benefits of having a diverse steering committee membership is the wide range of stakeholders that can be reached with messaging around school environmental health and the state program. Steering committee members should be encouraged to talk with their organization's membership about the program, the benefits of healthy school environments, and the ways that they can get involved. These conversations may help identify and secure additional resources, funding, and support for the state program.

#### Challenges and Solutions: How the State Grantees Overcame Hurdles for this Step

#### Program staffing and turnover

Frequent staff turnover can inhibit a state school environmental health program from getting started. Some tips for addressing this issue include:

- Ensure that there are at least one or two people assigned or committed to launching and sustaining the program.
- Document program details for future staff. This step will help the program stay consistent and continue on after current staff have left or moved on to different projects. Record information such as important program contacts, the program's structure, and details on the program's components and processes (e.g., how training or evaluations are conducted and the types of outreach used).

#### Low survey response rates

Here are a couple of suggestions from state grantees to address low survey response rates among steering committee members:

- The New York State Department of Health recommended adding a discussion of survey results to the steering committee meeting agenda. This gives committee members who were unable to complete the survey an opportunity to provide comments.
- The Minnesota Department of Health recommended using a variety of communication methods to follow up with committee members. Some members may respond better to email reminders while others may prefer the one-on-one discussions afforded by a phone call.

#### Defining school environmental health

A formal definition for school environmental health does not exist. The term "Healthy School Environments" has been adopted by many organizations and agencies to refer to social and behavioral

elements, such as bullying, healthy eating, walking to school, physical activity, and various other wellness programs.

To avoid confusion and misunderstanding among stakeholders, schools, and school districts, the steering committee needs to reach a consensus on their definition of what school environmental health is, including the topics it does and does not cover. There may be differences of opinion on specific elements that should be included beyond those addressed in *Voluntary Guidelines for States*, such as food safety, hearing protection, and injury prevention. However, working toward an agreed-upon definition for school environmental health will make program implementation and data collection for program evaluation much easier.

#### Lack of data on schools and environmental health

School environmental health is a relatively new focus area and there is a lack of research and data to support healthy school environments. To address this issue in Ohio, the Ohio Department of Health partnered with local public health officials to conduct a baseline assessment of school environmental health. Although the baseline is only a sampling of schools across the state, the assessment gives the Ohio Department of Health a benchmark for measuring progress over the long term. The agency intends to conduct another assessment toward the end of their grant period to determine where progress has been made, and whether school environmental health has improved over the project period.

#### Step 3: Develop a Plan

Step 3 Overview: Develop an initial plan to establish a new, or enhance an existing, state environmental health program for schools based on available resources.

#### What Worked: Recommendations and Best Practices from the State Grantees

#### Identify the program's goals and priorities

To ensure success, states need to identify priorities and set clear and measurable goals in the early planning stages of the state program. Goal-setting provides a roadmap for the program and a basis for measuring progress. States are encouraged to set short-term, intermediate, and long-term goals so they can demonstrate successes and show improvements along the way.

#### Use IAQ Tools for Schools as a foundation for plan development

The Connecticut Department of Public Health recommends using EPA's IAQ Tools for Schools Program as a foundation for plan development, implementation, and sustaining indoor environmental quality activities. IAQ Tools for Schools is an established and successful program for addressing environmental health issues in school buildings, and has been an effective base for CSIERT to build on and sustain other school environmental health programs, such as anti-idling, integrated pest management, and green cleaning initiatives.

#### Choose a focus: schools or school districts

Before developing the program plan, determine whether the state program will be implemented at the school or school district level. Understanding the number and size of schools and school districts in the state, as well as the school system decision-making structure, will help determine whether the focus should be on individual schools or on school districts.

There are benefits to focusing programming efforts at each level. Working with school districts rather than individual schools can be more efficient and effective: there are fewer points of contact, it simplifies outreach and communication efforts with schools, and allows the state program to build a solid relationship with school decision-makers. On the other hand, decision-making at individual schools is often more nimble and implementation can occur more quickly. At the school level, it can be easier to rally support and maintain energy and motivation for a school environmental health program.

#### Adopt a team-based plan

CSIERT encourages schools to establish 5 or 6 person building teams as part of their school environmental health program. These teams are typically made up of administrators, teachers, maintenance staff, school nurses, and parents, and are responsible for addressing environmental health issues in and around the school building. In Connecticut, building teams have made great improvements in indoor environmental quality at schools because they are able to provide ongoing assessment and response.<sup>1</sup>

#### Use a tiered approach

State grantees have found that adopting a tiered approach to addressing school environmental health issues, similar to the three tiers illustrated in the model program in *Voluntary Guidelines for States*, is a great way to get schools and school districts involved in the state program. No two schools are alike and

<sup>&</sup>lt;sup>1</sup> Foscue, Kenneth and Harvey, Margaret. A statewide multiagency intervention model for empowering schools to improve indoor environmental quality. *Journal of Environmental Health*. September 2011; 74(2): 8-15.

a tiered approach with measurable, specific actions allows schools and school districts to address environmental health issues at their own pace regardless of their experience level. This flexibility can instill confidence in school participants and make implementation appear easier and more feasible.

*EXAMPLE:* Ohio's school environmental health guidelines use an apple icon to designate actions that are "low-hanging fruit"—easy, low- to no-cost solutions that schools can immediately adopt.

#### Ensure stakeholder involvement

Ensure that all relevant stakeholders are involved in some way during the program planning process. Their input is essential for developing a comprehensive plan. By involving them early and often, stakeholders are aware of what is occurring at every step and can better participate in planning and implementation.

*EXAMPLE:* The Minnesota Department of Health administered a survey to steering committee members and stakeholders to gather information for their state program plan. They included non-governmental entities in the data-gathering effort to ensure that a wide range of perspectives was represented in the final survey results.

*EXAMPLE:* The steering committee members and stakeholders in Wisconsin identified areas where they could integrate and cross promote related programs to create a win-win situation. For example, the Wisconsin Green Building Alliance promoted participation in the Green Apple Day of Service. Schools participating in the state school environmental health program were encouraged to participate and act as leaders for this event.

#### Obtain feedback on plan development

Seek feedback on the program plan from the steering committee and other relevant stakeholders throughout plan development. Their ideas and recommendations are important for addressing gaps and making improvements so that the plan is concise, realistic, and actionable.

*EXAMPLE:* New York's steering committee put together a team in which each member was responsible for drafting a portion of the program plan. The team came together to review the plan to ensure that it was cohesive and easy to understand. At a later date, the full steering committee assembled to review a final draft of the plan and reach consensus.

#### Be flexible

Be flexible and aware that the state program will evolve as it is implemented and matures. The program does not need to be perfect from the start and should be considered a "work in progress." Make changes as needed and leave room for the program to grow.

#### Challenges and Solutions: How the State Grantees Overcame Hurdles for this Step

#### Reaching consensus on a program plan

Developing a program plan that everyone can buy into can be difficult when diverse stakeholders are involved in the effort. State grantees agreed that working together and building consensus can go a long way toward drafting a final plan that all steering committee members can agree on.

*EXAMPLE:* For the New York State Department of Health, reaching consensus among a group of 50 stakeholders was a challenge. When discussing the plan as a steering committee, the members

reviewed drafts that incorporated as much feedback as possible from a variety of sources, including a needs assessment and prior meeting notes. Facilitators were also employed to guide the process and help members stay on topic.

#### Step 4: Implement the Program

Step 4 Overview: Work with the lead office or steering committee to ensure the state program is implemented efficiently.

#### What Worked: Recommendations and Best Practices from the State Grantees

#### Make program implementation flexible

Every school is unique and will have different environmental health concerns. State programs need to recognize this and build flexibility into program implementation to ensure that every school can benefit from taking action. One way to promote program flexibility is to allow schools to use a range of tools to meet their environmental health needs. This added level of flexibility makes the program more attractive to facility management and staff, and will make these key stakeholders more willing to buy into and support the program.

In addition to EPA's IAQ Tools for Schools Program, other popular tools for use in program implementation include, but are not limited to, ENERGY STAR® Portfolio Manager, the U.S. Green Building Council's Leadership in Energy and Environmental Design certification program, and the Collaborative for High Performance Schools Best Practices Manual and Core Criteria.

#### Conduct effective program outreach and marketing

Having a comprehensive marketing plan for program implementation is crucial for building interest around the state program and encouraging schools and school districts to buy into the program and participate. The state grantees used a variety of methods to promote their state school environmental health programs. Recommendations for outreach include:

- Give presentations and staff booths at conferences, meetings, and public events.
- Initiate a direct mailing campaign.
- Provide information in newsletters and on listservs.
- Create a state program-specific web portal.
- Develop new guidance materials to help schools and school districts implement the state program.
- Place advertisements in school publications that reach administrators, board members, and facility managers.

*EXAMPLE:* The Ohio Department of Health enlisted the help of their regional Pediatric Environmental Health Specialty Unit (PEHSU) to spread the word about the state program. Regional PEHSU staff hosted a webinar and provided technical assistance to school stakeholders in Ohio's OSHEN network, including nurses, facility managers, public health officials, and school administrators.

#### Offer training and workshops

Interactive and hands-on training programs and workshops are great ways to provide the expertise, tools, and resources that schools and school districts need to effectively implement environmental health programs. Training and workshops can be presented in a variety of ways. Here are some examples from the state grantees:

• The Ohio Department of Health's training program featured an overview of the state's new guidelines for healthy school environments, with experts speaking on topics such as chemical safety, mold and moisture, and ventilation.

- The Minnesota Department of Health offered one-on-one consultations with schools, both onsite and off-site, to provide specific technical assistance for environmental health issues.
- The Wisconsin Department of Public Instruction offered free workshops to school staff that included both working sessions and lectures. Wisconsin encouraged schools to send a team of at least one facility person, teacher, administrator, and community member to each workshop. At the workshop, these teams worked together to better understand the unique challenges they face, build trust, and identify how best they can collaborate to address school environmental health. Stipends were offered to assist schools with travel or funding substitute teachers.

#### Identify a local program champion

Both the Connecticut Department of Public Health and the Ohio Department of Health recommend identifying a local program champion or school leader who can rally support around the state school environmental health program. This person is essentially the face of the state program and is responsible for going into the community and the schools to talk about the program and its benefits. As a respected member of the community, he or she can build trust and support for the state program among school and community members.

#### Maintain regular communication and engagement with stakeholders

State program stakeholders can be a great asset during program implementation, so it is crucial that they remain up-to-date on state program activities. To facilitate communication and engagement, the lead state agency should keep up-to-date mailing and email lists of all relevant contacts.

During program implementation, stakeholders can be a great vehicle for disseminating information and receiving feedback. For the New York State Department of Health, regularly communicating with several school environmental health organizations helped them see the challenges around implementing a program in the state and allowed them to develop a plan to better address those challenges. In Connecticut, a benefit of having an active steering committee has been the school-based organization members' outreach to local constituents encouraging them to support and get involved with the IAQ Tools for Schools Program. And in Ohio, the state's parent-teacher association was very helpful in urging schools to support and implement the state program.

Engaging with stakeholders can take other forms as well. The Minnesota Department of Health participated on the Minnesota Green Ribbon Schools Award committee as a way to give back to the school community and promote school environmental health as a component of the Green Ribbon Schools Award. In Wisconsin, steering committee members and stakeholders were invited to regularly contribute relevant information from their organizations and programs for a monthly electronic newsletter.

#### **Recognize and promote achievements**

Recognition for addressing school environmental health can be a great driver to encourage schools and school districts to participate in the state program. Here are three examples of recognition programs initiated by state grantees:

• The Minnesota Department of Health implemented a recognition program to (1) educate schools about environmental health, (2) recognize school districts that had demonstrated a high level of achievement in their environmental health plans, and (3) encourage participation in the ED-GRS Program. The recognition program was designed to be a stepping stone for schools seeking to apply to the ED-GRS Program and included questions specific to Minnesota's state

program. An award announcement for Minnesota's School Environmental Health Excellence Award can be found in Appendix C.

- The Connecticut Department of Public Health worked with the state's Departments of Education, Energy and Environmental Protection, and Administrative Services; Eastern Connecticut State University's Institute for Sustainable Energy; and other agencies and organizations to implement the Connecticut Green LEAF Program. The Connecticut Green LEAF Program is the state's version of the ED-GRS Program. It recognizes schools for working to meet three goals: (1) providing effective environmental and sustainability education, (2) improving the health and wellness of students and staff, and (3) reducing environmental impact and cost. The program encourages all schools to participate and has three levels of recognition: Planting Seeds (beginners), Growing Green (schools who have made some progress in meeting the three goals), and Connecticut Green LEAF Schools (schools who have made significant progress in meeting all three goals). The Connecticut Department of Public Health and other CSIERT members worked to ensure that healthy school building environments is a key part of the application and recognition program.
- Wisconsin's GHS Program offers four levels of recognition for participating schools: Sprout, Seedling, Sapling, and Sugar Maple. Once a school reaches the Sugar Maple certification level, it is eligible for nomination for ED-GRS Program recognition. One way Wisconsin's program is unique is that it is aligned with the Project Learning Tree (PLT) GreenSchools! Program. Participating schools can be eligible for PLT grants or certification as a PLT GreenSchool, depending on the level of achievement reached.

Promoting a school's environmental health accomplishments should be encouraged. Local and regional publicity generates positive attention for the school and its environmental health efforts. For schools receiving recognition, offer to hold a ceremony, send out a press release, or submit a story to the local paper. Positive publicity builds goodwill toward the school's program and may help maintain, even enhance, support and buy-in from school administrators and other school decision-makers.

#### Challenges and Solutions: How the State Grantees Overcame Hurdles for this Step

#### Time investment for program marketing and outreach

Planning for and implementing activities around program implementation takes time. Be sure to allot time for program marketing when developing the implementation timeline. Getting the message out early and often before the program officially starts will result in greater interest and participation by schools and school districts. After the program is up and running, continue to market the program consistently to keep the momentum going.

#### Communicating with schools and overcoming school environmental health misconceptions

Working and communicating with schools and school districts can be challenging for state agencies. Many schools and school districts are wary of state inspections and required regulatory actions, and do not want to receive negative publicity. Here's how two state grantees addressed this problem:

 The Minnesota Department of Health explained to schools that the focus of the program is on low- to no-cost solutions for environmental health problems, and offered schools free on-site technical assistance such as walk-throughs (e.g., general IAQ Tools for Schools walk-throughs and mercury assessments using portable analyzers) and equipment loans (e.g. radon devices). Minnesota tried to find 'niche' services rather than duplicate services available through private consulting firms. When conducting surveys and collecting award information, Minnesota explained the purpose of the data collection to schools, how the data would be used, and that

the data would not be publicized but is considered public information if requested. With voluntary surveys, it is necessary to anticipate concerns that may lead to low participation.

• The Ohio Department of Health emphasized the voluntary nature of their state school environmental health guidelines, and used apple icons throughout to identify "low-hanging fruit" – easy steps schools that can take to address environmental health in their settings. Ohio also offered a three tiered incentive program to recognize schools no matter where they are in addressing their environmental health needs. These actions have helped Ohio to overcome misconceptions that schools have regarding environmental health and built trust in the state's efforts.

#### Implementing the state program in large, urban school districts

A significant challenge for the Connecticut Department of Public Health was implementing their state program in large, urban school districts. Urban school districts tend to have the least capacity to implement a school environmental health program (e.g., limited budgets, inconsistent leadership) while having the greatest need for environmental health solutions. Some recommendations to address this issue include:

- Offer stipends for travel and the cost of substitute teachers so that teachers, nurses, facility staff, and other school employees involved in environmental health efforts can attend training and workshops.
- Work with schools and school districts to establish a full- or part-time position to coordinate the school environmental health program. This person would be responsible for ensuring that program steps are implemented and that action is taken to follow up on environmental health concerns and recommended remedies.

#### Transitioning schools into a new state program

One challenge that affected the Wisconsin Department of Public Instruction's state program re-launch was the need for schools participating in the old program to transition to the new one. A total of 120 schools had participated to some degree in Wisconsin's previous GHS Program and many were frustrated that their hard work would be for naught. To address the schools' concerns, the Wisconsin Department of Public Instruction offered to accommodate schools that chose to make the transition to the new program. The Department provided assistance in transferring a school's information from the old program into the new program's application, and even worked to grandfather some schools in.

#### Available resources and staffing

Program implementation is a tremendous effort and requires dedicated staff time, funding, and resources. Look for ways to efficiently use available funding and resources, and enlist permanent agency staff, when possible, to focus their efforts on specific school environmental health topics (such as indoor air quality) to build in-house expertise.

A unique challenge that arose in Wisconsin had to do with the state's geography. The Wisconsin Department of Public Instruction found that the state's large size affected its ability to provide face-toface training and workshops because staff did not have the capacity or ability to travel far or often. To address this issue, the Department is developing online training options to offer to program participants. Online modules and webinars can reach a larger and more diverse audience without program staff being physically present at a training site. In addition, online training options can be archived on a state's program website and viewed by program participants as their schedules allow.

#### Step 5: Evaluate the Program

Step 5 Overview: Evaluate the state program's goals, activities, and milestones to determine whether they need to be revised or expanded to improve the program.

#### What Worked: Recommendations and Best Practices from the State Grantees

#### Survey schools on their school environmental health efforts

One of the best ways to evaluate the state program is by surveying the participating schools and school districts on their environmental health efforts. Survey processes and questions will vary from state to state; however, the desired outcomes from the survey effort are the same: where is progress being made (or not); what challenges to implementation are being encountered; is there a need to revisit the program's priorities; and what are the best practices that are creating success?

*EXAMPLE:* The Minnesota Department of Health sent a survey to all 495 public school districts in the state to gather data on the schools' development of environmental health plans and policies. The Department used EPA's *Voluntary Guidelines for States* as a guide for developing the survey instrument, and added state-specific questions to gather more information on whether specific programs had been implemented (e.g., radon testing and mold policies). A copy of Minnesota's 2014 School District Environmental Health Plan Survey can be found in Appendix D.

A great way to measure state program progress and success is to build a baseline assessment into the program evaluation. The Ohio Department of Health conducted a baseline assessment of the state's schools to get a better understanding of school environmental health prior to program implementation. Ohio's baseline results can serve as a benchmark for future program evaluation efforts, and be used to measure where progress is being made and what issues need to be addressed further. A copy of Ohio's Baseline School Environmental Health Assessment Form can be found in Appendix E.

#### Evaluate training classes and workshops

Another way to evaluate the state program is to build in evaluation opportunities during training classes and workshops. These opportunities can include:

- Evaluation forms for participants to complete at the end of the class or workshop.
- Pre- and post-class knowledge tests to determine what the participants have learned over the course of the class.

#### Collect data through recognition programs

Recognition programs present a great opportunity for school data collection, and to learn what is and is not working for the schools and school districts participating in the state program. For example:

- Minnesota's recognition program allowed the Department of Health to collect more in-depth environmental health information from participating schools through site visits and review of pertinent records. In addition, the award application solicited detailed information on measurable outcomes such health, learning, attendance, and other pertinent environmental results.
- In Connecticut, school districts that applied for the EPA IAQ Tools for Schools Excellence Award needed to provide health outcome data during the application process to demonstrate progress under the program.

In both cases, data collection was limited to those schools and school districts that chose to seek recognition for their environmental health program efforts.

#### Challenges and Solutions: How the State Grantees Overcame Hurdles for this Step

#### Data collection challenges and low survey response rates

Obtaining good and consistent data for program evaluation was a challenge for state grantees. There is no easy way to compare schools accurately and often times collection efforts result in large volumes of data to analyze. Some tips from the Wisconsin Department of Public Instruction to help address this issue include:

- Build a level of standardization into data collection to facilitate data comparison and analysis.
- Ensure that data collection includes gathering both quantitative and qualitative data. This will allow states to obtain a well-rounded picture of the status of school environmental health and the state program's impact.

Another challenge that state grantees encountered during this step was low survey response rates. The Minnesota Department of Health offered some suggestions to address this issue:

- Use official letterhead and mail paper copies of the survey to participants instead of using an online survey instrument.
- Promote the survey through a variety of media outlets (e.g., newsletters, direct mail, listservs, social media, email blasts), and by making announcements at meetings, workshops, and conferences.
- Allow extensions for completing surveys, if possible.
- Keep the survey brief and simple enough so that the intended audience (e.g., the health and safety coordinator) can complete it without doing extensive research.

#### Available resources and staffing

Program evaluation takes time and resources to obtain the types of information necessary for measuring program progress and success. Drafting an evaluation plan during the early stages of program planning is critical to ensure that the evaluation process is carried out correctly.

It is also important to seek help from external program partners (e.g., facilities managers and health officials) who have experience in data analysis, especially when the program staff's background is limited in that area of expertise. Have them look at the data and survey questions and provide feedback on what the state is collecting, what the state is getting in response, and whether the data is useful and relevant. External partners can also offer a fresh perspective and suggest improvements for moving the program forward that might not be obvious to the program staff.

#### Measurable Health Outcomes of a State School Environmental Health Program: Connecticut Case Study

Quantifying the benefits of a state school environmental health program is important for demonstrating program progress and maintaining long-term support. As of March 2015, very little data are available to quantify the measurable benefits of a state program.

In 2005 and 2006, the Connecticut Department of Public Health collected health outcome data from school nurses in six school districts, representing approximately 50 schools. The purpose of this data collection effort was to evaluate the implementation of EPA's IAQ Tools for Schools Program and its impact on student health. The following results were reported in a September 2011 *Journal of Environmental Health* article, "A Statewide Multiagency Intervention Model for Empowering Schools to Improve Indoor Environmental Quality."

#### Absenteeism

- Absenteeism was cut by more than 50% (from 484 days to 203 days) over the course of the school year in the Hamden School District after the IAQ Tools for Schools Program was implemented in one elementary school.
- A school in the Chester School District reported that sickness-related absences decreased by 860 in one year after IAQ Tools for Schools Program recommendations were implemented.

#### • Asthma-related office visits

- A school in the Chester School District reported that the number of asthma-related health office visits decreased over a four-year period from 463 to 82 after major IAQ Tools for Schools Program recommendations were implemented.
- Three schools in the Amity Region 5 School District reported asthma-related school nurse visits decreased from 234 to 30 over the period from 2002-2003 to 2005-2006.

#### • Decrease in reported respiratory-related illnesses

• Six schools in the North Haven School District collectively reported a 48% decrease in reported cases of respiratory-related illnesses.

#### • Number of asthma incidents

• The number of asthma incidents in 30 schools in the Hartford School District declined 21%, from 11,334 to 8,929, in one year after the IAQ Tools for Schools Program was implemented in most schools.

#### • Number of indoor environmental quality health complaints

- The number of indoor environmental quality complaints decreased 74% (from 152 to 40) in one elementary school in the Waterford School District after the IAQ Tools for Schools Program was implemented.
- The number of indoor environmental quality complaints was reduced from 18 in 2002-2003 to 2 in 2005-2006 across three schools in the Amity Region 5 School District.

#### • Reduction in clinic visits

• Six schools in the North Haven School District reported that the number of clinic visits had decreased by 11% two years after the IAQ Tools for Schools Program was implemented.

Source: Foscue, Kenneth and Harvey, Margaret. A statewide multiagency intervention model for empowering schools to improve indoor environmental quality. *Journal of Environmental Health*. September 2011; 74(2): 8-15.

#### Step 6: Sustain the Program

*Step 6 Overview: Utilize the results of state program evaluations to determine the return on investment, make adjustments to the program where needed, and communicate successes.* 

#### What Worked: Recommendations and Best Practices from the State Grantees

#### Identify and focus on core program components

Review the state program priorities to help determine which components are needed most by schools and school districts, as well as which components the program can realistically continue to support. At the most basic level, the state program should focus on activities that help schools and school districts comply with laws, policies, and regulations. This includes providing education and outreach to schools and school districts to help them better understand and remember what they are legally held accountable for.

#### Leverage partners and related programs to maintain momentum and support

Identify ways program partners can expand their participation in the state program, as well as ways to collaborate with related state school health and environmental health programs. A novel suggestion from the Wisconsin Department of Public Instruction is to reframe the program as a statewide movement for healthy school environments and encourage organizations to buy-in and promote the brand. This approach has several benefits:

- Generating greater buy-in throughout the state will make the program more sustainable into the future.
- Broadening the program partnership ensures that the state program can live outside of one or two state agencies. This is especially important if funding or resources are cut or reassigned to other programs.

To formalize this approach, consider establishing a Memorandum of Understanding among the program partners to obtain their commitment to preserving and supporting the state program into the future.

#### Maintain steering committee engagement and buy-in

The state steering committee is one of the best resources available for sustaining a state school environmental health program. Their connections and support can be especially helpful if funding for the program is reduced or cut at the lead state agency. Here are a couple of ways the state grantees have leveraged their steering committees for program sustainability:

- The New York State Department of Health is working with its steering committee to integrate components of its state program into the committee members' respective organizations' infrastructures.
- In Connecticut, CSIERT has been convening to address school environmental health for more than 15 years. The group is a respected resource and vehicle for disseminating information on school environmental health, and maintains an up-to-date listserv of school district program coordinators to facilitate outreach and communication.

#### Create stakeholder networks for support and communication

Create networking opportunities for program stakeholders that enable them to contribute toward program sustainability. For example:

• The Wisconsin Department of Public Instruction is developing a network of business stakeholders to provide the long-term management and funding support needed to ensure the financial sustainability of the Wisconsin GHS Program.

• The Ohio Department of Health designed OSHEN, the state's communication network for school personnel and public health and environmental officials, as a "sustainability tool" for school environmental health. The network provides up-to-date information to schools and school districts, holds monthly webinars, and serves as a forum where stakeholders can share their experiences and answer questions.

#### Provide ongoing training opportunities

Professional development and training are critical for sustaining a state school environmental health program. Consider these ideas for incorporating ongoing training into the state program:

- Expand training options beyond those offered for program implementation to include refresher and advanced training courses. For example, Connecticut offers advanced IAQ Tools for Schools Program training for facility staff and custodians, and Wisconsin is offering training for school teams based on their new Green and Healthy Schools guide.
- Offer online professional development opportunities. Online training is less expensive and makes it easier for busy schools, school districts, and other program partners and stakeholders to stay informed of the latest school environmental health information and recommendations. For example, the Wisconsin Department of Public Instruction is transforming their six-hour workshop into a series of training modules that can be completed online.

#### Maintain an up-to-date website

The state program website is the most visible marketing tool for the program and can be a powerful mentoring tool for schools and school districts, facility staff, and custodians. It is important to maintain an up-to-date website that is user-friendly, easy to navigate, and presents information in a way that is clear and approachable for a wide range of audiences. At the very least, the website should cover the basic elements of the state school environmental health program and identify tools and resources that schools and school districts can use to implement their own programs. Other useful website content could include training modules, archived webinars, school environmental health news and current events, and best practices and success stories.

#### Develop a comprehensive strategy to assist schools and school districts with sustaining their programs

Make a plan for sustainability early in program development so that it is integrated throughout the program's structure. The Connecticut Department of Public Health and CSIERT developed a comprehensive strategy to assist school districts with sustaining their IAQ Tools for Schools Programs for the long-term. Their strategy includes:

- Conducting regular outreach to school district IAQ Tools for Schools contacts.
- Offering refresher workshops and an advanced IAQ Tools for Schools workshop for custodial and facility maintenance staff.
- Holding periodic regional information-sharing meetings for school district IAQ Tools for Schools building team members and coordinators.
- Maintaining a CSIERT website to share information on indoor environmental quality in schools<sup>2</sup>.

Above all, Connecticut has found that it is important to develop and communicate strategies that will encourage schools and school districts to maintain their own environmental health programs. For example, sustaining IAQ Tools for Schools school building teams year after year is more likely to lead to

<sup>&</sup>lt;sup>2</sup> Foscue, Kenneth and Harvey, Margaret. A statewide multiagency intervention model for empowering schools to improve indoor environmental quality. *Journal of Environmental Health*. September 2011; 74(2): 8-15.

successes because the teams maintain long-term documentation of environmental health problems and educate school staff.

#### Market the IAQ Tools for Schools Program as an academic component

If the state program includes EPA's IAQ Tools for Schools Program as a key component, consider marketing the IAQ Tools for Schools Program to schools and school districts as part of their academic program. For example:

- Encourage school district curriculum directors and individual teachers to incorporate indoor environmental quality topics into the curriculum.
- Suggest ways for students to get involved in addressing their school's indoor environmental quality issues (e.g., volunteering with the building team or designing a class project).

Try to tie the IAQ Tools for Schools curriculum to existing curriculum standards, such as Common Core and the Next Generation Science Standards, to increase the probability of adoption.

# Use the IAQ Tools for Schools Program as a platform to expand a school environmental health program

Although the EPA IAQ Tools for Schools Program is designed to address indoor air quality, it provides the perfect platform for schools and school districts to expand the scope of their environmental health programs. Connecticut's state program, initially based on the IAQ Tools for Schools Program, has evolved over time to include laboratory cleanout programs, energy conservation, environmental health literacy, support for integrated pest management, radon law compliance, a green cleaning program, and vehicle idling prevention.

#### Challenges and Solutions: How the State Grantees Overcame Hurdles for this Step

#### Maintaining management buy-in

Maintaining high-level interest and support for a state school environmental health program can be very difficult. Competing priorities, limited budgets, and smaller staffs are all issues that management must attend to on a daily basis.

One of the best ways to secure long-term management interest and buy-in is demonstrating program success on a consistent basis. Share school and school district success stories, program evaluation results, and health outcome data. Find ways to show that the return on investment of the state program is positive for the schools, school districts, and the state itself. No accomplishment is too small.

### **Additional Resources**

The following resources are recommended by the state grantees for developing and implementing a state school environmental health program.

- Center for High Performance Schools Resources (including Best Practices Manual and Core Criteria): <u>http://chps.net/dev/Drupal/node/27</u>
- Connecticut Compendium: Available on the CSIERT website (see below) in early summer 2015.
- Connecticut Department of Public Health website: www.ct.gov/dph/cwp/view.asp?a=3140&q=387420&dphNav=|&dphNav\_GID=1828
- Connecticut Green LEAF Schools: <u>www.ctgreenschools.org/ctgreenleaf.htm</u>
- CSIERT website: <u>www.csiert.org</u>
- Creating Healthy School Environments: Voluntary Guidelines for Ohio Schools: <u>www.odh.ohio.gov/~/media/ODH/ASSETS/Files/eh/school%20environmental%20health/CHSE-StepByStep\_VolGuidelines.ashx</u>
- ENERGY STAR<sup>®</sup>Portfolio Manager website: <u>www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager</u>
- EPA's IAQ Tools for Schools Resources: <u>www.epa.gov/iaq/schools</u>
- EPA's Voluntary Guidelines for States: Development and Implementation of a School Environmental Health Program: <u>www.epa.gov/schools/guidelinestools/ehguide</u>
- Guide to Green and Healthy Schools in Wisconsin: Will be available to download on Wisconsin's Green and Healthy Schools website (see below) by fall 2015. This guide will be comprehensive, including information from EPA's *Voluntary Guidelines for States* as well as other topics of interest that are unique to Wisconsin's program (such as recycling).
- Minnesota Department of Health's School Environmental Health website: <u>www.health.state.mn.us/topics/schooleh/index.html</u>
- Ohio Department of Health's School Environmental Health and Safety Program website: <u>www.odh.ohio.gov/odhprograms/eh/schooleh/sehmain.aspx</u>
- Ohio School Environmental Health Inspection Guidance document: <u>www.odh.ohio.gov/~/media/ODH/ASSETS/Files/eh/school%20environmental%20health/odhsch</u> <u>oolinspectionguidance.ashx</u>
- PEHSU regional contacts: http://www.pehsu.net/serviceareas.html
- U.S. Green Building Council's Leadership in Energy and Environmental Design website: <u>www.usgbc.org/leed</u>
- Wisconsin's Green and Healthy Schools website: <u>www.ghswisconsin.org</u>

### Appendices: Tools for Developing and Implementing a State School Environmental Health Program

### Appendix A: Minnesota Healthy School Environments Steering Committee Charter

#### Grant-Specific Purpose of the Steering Committee

"The Minnesota Department of Health (MDH), other state agencies, and partners will collaborate together to assist and recognize Minnesota schools' implementation of comprehensive school environmental health programs."

- Assessment of existing laws and guidance.
- Determination of existing capabilities of state agencies, including the technical assistance services, funding, and training activities.
- Development of a plan that sets goals, roles, and an assessment method of schools' implementation of environmental health programs.

#### **General Role of the Steering Committee**

- Managing scope. The Steering Committee will assist MDH in ensuring that the project's scope aligns with the agreed requirements of the grant.
- Coordinating with related projects and programs.
- Ensuring that the project's scope aligns with the needs of the stakeholder groups, and represents stakeholder interests in project deliberations.
- Obtaining support/agreement from stakeholders. The Steering Committee is responsible for obtaining the support and cooperation of all stakeholders.
- Resolving obstacles. Both the Steering Committee and project manager are responsible for resolving obstacles as they arise.
- Communicating to represented stakeholders.
- Assisting in the evaluation of project risks.
- Reporting on project progress to those responsible at a high level, such as agency executive management groups.

#### Member Roles

Individual Steering Committee members are not directly responsible for managing project activities, but provide support and guidance for those who do.

In general, Steering Committee members should:

- Understand the strategic implications and outcomes of initiatives being pursued through project outputs.
- Appreciate the significance of the project for some or all major stakeholders and represent their interests.
- Be genuinely interested in the initiative and the outcomes being pursued in the project.

• Be an advocate for the project's outcomes by being committed to and actively involved in pursuing the project's outcomes.

In practice, this means that they:

- Ensure that the project's outputs meet the requirements of the grant and key stakeholders.
- Help balance conflicting priorities and resources.
- Provide guidance to the project team and users of the project's outputs.
- Consider ideas and issues raised.
- Foster positive communication outside of the Committee regarding the project's progress and outcomes.
- Review the progress of the project.

Appendix B: Connecticut School Indoor Environment Resource Team's Buy-in Presentation for School District Administrators

Place holder for Connecticut Presentation (currently in PDF/PowerPoint forms)

### Appendix C: Award Announcement for Minnesota's School Environmental Health Excellence Award

#### School Environmental Health Excellence Award 2014 Presented to Mankato Area Schools

An award presentation will be held at 10 am on Tuesday October 28<sup>th</sup>, at the Intergovernmental Center, 10 Civic Center Plaza, Mankato.

#### Mankato Area Public Schools Recognized for Healthy Environments

The Minnesota Department of Health has awarded the Mankato Area Public Schools a '2014 School Environmental Health Excellence Award'. The district has demonstrated a comprehensive school environmental health program that meets and exceeds state and federal requirements and guidelines for a healthy environment. Some of the key features of their environmental health program are:

- indoor air quality plan
- asbestos management plans
- maintenance schedules for ventilation equipment
- integrated pest management policies
- district chemical hygiene plan
- radon testing
- lead in water testing
- and employee health and safety training records

The district staff have accomplished much to protect and promote a healthy environment and effective learning conditions. We congratulate their accomplishments and thank the district staff, administration, and school board for serving as a leader for all districts in the state.

#### Award Process

All public schools in MN were invited to complete a survey in the spring of 2014 about their environmental health programs. About half the state's districts completed the survey. Of these, 62 districts indicated completion of most of the criteria for a comprehensive school environmental health program. MDH invited these districts to apply for an award and five districts applied.

MDH reviewed the written award applications in June 2014, including the application from Mankato Area Public Schools. The application was submitted by Joe Meixl, the district Environmental Health Coordinator. The detailed application consisted of 22 questions, spanning a broad spectrum of environmental health areas. These areas are described further at the MDH website: www.health.state.mn.us/schoolenvironments.

The Mankato Area Public Schools' application demonstrated completion of most of the criteria, and was selected as one of three finalists. To further evaluate their program, MDH staff met with Joe Meixl in early September. MDH reviewed his written plans and policies, and toured parts of the school building. The site visit confirmed that the school district's plan met the criteria for excellence in environmental health, and Mankato Area Public Schools was given the award.

#### About the Award

Three schools are being presented with MDH School Environmental Health Excellence Awards in the Fall of 2014. They are Walker-Hackensack-Akeley Schools, Hopkins Public Schools, and Mankato Area Schools.

The MDH School Environmental Health Excellence Award is the capstone event of a 2-year project: 'Advancing School Environmental Health in Minnesota'. This project was funded through a 2-year grant from the U.S. Environmental Protection Agency. MDH developed a state plan, conducted extensive training, researched and wrote new guidance and articles, created a new website, conducted marketing, surveyed schools, and ultimately, selected schools for the award.

The MDH award is based on the U.S. Department of Education's Green Ribbon Award. The Green Ribbon Award covers three pillars: sustainability, health, and education. The MDH award focuses on the health pillar. We encourage schools that have applied for the MDH Award to take the next step and apply for the Green Ribbon Award.

### Appendix D: Minnesota's 2014 School District Environmental Health Plan Survey

#### School Environmental Health Plan – District Survey 2014

#### **District Information**

District	Name:	Number:
Street A	Address:	
City:		State: MN Zip:
	e:	
Health	and Safety Coordinator's Nam	ne:
Health	and Safety Coordinator's Ema	il Address:
Health	and Safety Coordinator's Pho	ne Number:
Name a	nd Title of person Completing	g Survey (if different):
Email o	f Person Completing Survey: _	
Phone I	Number of Person Completing	g Survey:
Numbe	r of buildings <sup>3</sup> :	
How wo	ould you describe your distric	t?
	□Urban □Suburban □	Rural
Total Er	nrolled:	
Percent	age of students receiving Fre	e or Reduced Priced Lunch:
1.	Does your District have staff	with dedicated environmental health & safety responsibilities?
	□Yes □No	
2.	Has your District established	an environmental health & safety team or committee?
	□Yes □No	
3.	Has your District identified e	nvironmental health priorities and goals?

<sup>&</sup>lt;sup>3</sup>For the purposes of this survey, a building is defined as an occupied facility that has a unique address, including administrative buildings. A building could be a single structure or a complex of structures. For reference, all district owned buildings entered on the Minnesota Department of Education "Facilities Age and Square Footage Report" may be utilized.

	□Yes □	No		
4.	Has your District d	rafted a written com	orehensive enviro	onmental health & safety plan?
	□Yes	No		
5.	lf you answered ye your school's plan:		ase check the box	for those topics that are addressed in
	<ul> <li>Asbestos</li> <li>Drinking Water</li> <li>Indoor Air Quality</li> <li>Mold</li> <li>Pests</li> <li>UV Protection</li> </ul>	☐ Bloodborne ☐ Food Safety ☐ Lead Paint ☐ Noise ☐ PCBs ☐ Vehicle Idlir		<ul> <li>Chemical Safety</li> <li>Green Cleaning</li> <li>Mercury</li> <li>Outdoor Air Quality</li> <li>Radon</li> <li>Ventilation</li> </ul>
6.	If you answered ye	es to question # 4, do	es your School EH	l Plan identify:
	□Program roles &	responsibilities	□ Methods of in	nplementation
	□Available impler	mentation resources	□Implementati	on timeframe
	□ Performance me	easures for evaluating	g success	
7.	Has your School EH	H Plan been communi	icated to all staff	and parents?
	□Yes □	No		
8.	Does your District	provide training to de	esignated staff ex	plaining:
	□School EH plan p	ourpose	□ Program com	ponents
	□ Applicable regul	ation compliance	□ Program bene	efits
	□ Program policies	s & procedures		
9.	Does your District	encourage student in	volvement in the	environmental health program?
	□Yes □	No		
10.	Has your District p	ublicly promoted env	ironmental healt	h successes?
	□Yes □	No		

### Appendix E: Ohio Department of Health Baseline School Environmental Health Assessment Form

Name of School		Name of School Contact					
School Phone	Contact Title	act Title					
Address		Contact Phone					
City	Zip	Contact Email					
County Name of Inspector							
Grades of Instruction		Year Constructed					
School District		Year(s) Renovated					
Type of School (Check all that apply)		HVAC System (Check all that apply)	HEATING	COOLING			
□Preschool □ Interme	ediate	Central Forced Air Systems	D				
□Kindergarten □ High		Unit Ventilators					
ElementaryCareerMiddleOther_		Steam/Hot Water Radiators		n/a			
		Electric Heating Units		n/a			
		Geothermal					
		Other					
Siting Data							
Proximity to major roadways							
Proximity to agricultural fields							
Proximity to industrial comple	xes						

1. Outdoor Grounds and Air Quality	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
1.1. Engine idling time policies are developed and implemented in accordance with OAC 3301-83-20.				
1.2. Grounds adjacent to buildings are free of standing water that may contribute to mosquito breeding, and building exterior is free of evidence of water damage or of conditions that may contribute to water intrusion into the building.				
1.3. Gutters and drainage systems are in good repair and well maintained.				
1.4. Windows and walls are free of signs of damage.				

1.5. There is adequate drainage away from building foundation.		
1.6. Outside air intake screens should be intact & unobstructed. There should be no contaminant sources near outside air intakes and air intakes should be protected by screens, louvers or other filtering devices.		

2. Playgrounds		No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
2.1. All playground equipment is in g	ood repair.				
2.2. Staff supervises use of the playgr during school hours.	ound by students				
2.3. Equipment components are free separations that could cause the enta or portions of the body, clothing, jew may result in the strangulation or dis user.	anglement of a portion elry, or other items that				
2.4. Loose-fill surfacing is maintained inches in fall zones (at least 6 inches rubber). This depth is adequate for t heights:	for shredded/recycled				
Shredded/Recycled Rubber	10 feet				
Sand	4 feet				
Pea Gravel	5 feet				
Wood Mulch	7 feet				
Wood Chips	10 feet				
2.5. Documentation is on file to show used, other than those listed above ( fill), provides protection commensur standard F1292.	unitary or other loose-				
2.6. Guardrails or protective barriers appropriate.	are installed where				

3. General Indoor Areas	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
3.1. Indoor environments are sanitary with no sign of				
moisture, water damage or suspected mold on any interior				

surface (OSHA 29 CFR 1910.22(a)(1)).		
3.2. Chemicals and cleaning products used in the classrooms are inaccessible to all students with the exception of chemicals used during classroom instruction.		
3.3. Indoor areas are free of evidence of pests or obvious food sources for pests (OSHA 29 CFR 1910.141(a)(4)(i)) (OSHA 29 CFR 1910.141(a)(5)).		
3.4. Walls have paint and plaster intact with no visible bowing or evidence of cracks or damage (OSHA 29 CFR 1910.22(a)(1)).		
3.5. Floors are sanitary and dry with no tripping hazards (OSHA 29 CFR 1910.141(a)(3)(iii)).		
3.6. Ceilings are present, intact and sanitary with no water damage, stains, suspected mold or chipping or peeling paint (OSHA 29 CFR 1910.22(a)(1)).		
3.7. All plumbing fixtures are in good repair.		

4. Restrooms	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
4.1. Hand washing sinks are provided with hand cleaning liquid, powder, or bar soap and individual, disposable towels, continuous towel system that supplies the user with a clean towel or a heated-air hand drying device.				
4.2. Hot and cold, or tempered water is available at all sinks.				

5. Indoor Athletic Facilities	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
5.1. All gym equipment and associated loose furnishings are safe, sanitary and in good repair.				
5.2. Appropriate protective matting is provided.				

6. HVAC	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
6.1. HVAC Systems are free of any suspected mold or other debris on any system component.				
6.2. HVAC systems provide adequate ventilation to prevent reasonable health complaints and to remove or dilute contaminants within the capacity of the system.				

6.3. HVAC systems have unobstructed air supply grilles or		
outlets and air return grilles or inlets which are free of rigged		
baffles, deflectors or affixed barriers.		

7. Specialty Classrooms	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
7.1. All doors to the specialty classrooms are locked when the classroom is not occupied.				
7.2. Staff is present while the room is occupied.				
7.3. All containers of chemicals used in the classroom are properly labeled, with the exception of containers used during an immediate classroom period (OSHA 29 CFR 1910.1200(f)(6)).				
7.4. Safety Data Sheets (SDS) are accessible to staff for all classroom chemicals (OSHA 29 CFR 1910.1200(g)(8)).				
7.5. A current comprehensive chemical inventory list and disposal log are present and immediately accessible to staff (OSHA 29 CFR 1910.1200(e)(1)(i)).				
7.6. Shelves or shelving units for chemical storage are in good repair, adequately supported, and secured to the wall or floor.				
7.7. Emergency showers and eyewash stations are operational, unobstructed and located within ten seconds of all workstations. Eyewash stations have at least fifteen minutes of continuous water flow with adequate pressure and are capable of flushing both eyes simultaneously (OSHA 29 CFR 1910.151(c)).				
7.8. Safety equipment is in general good repair (1910.242(b)(2)(iii)).				
7.9. All electrical cords, including extension cords, are in good condition and are free of damage or fraying (OSHA 29 CFR 1910.303(b)(1)(iv)).				
7.10. Use of ungrounded extension cords or use of extension cords for permanent equipment is prohibited (OSHA 29 CFR 1910.305(g)(1)(iv)).				
7.11. Electrical switches and electrical outlets are in good repair (OSHA 29 CFR 1910.303(b)(1)).				

8. Custodial Areas	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
8.1. All doors to the custodial closet are locked.				
8.2. All sinks are equipped with backflow prevention devices or air gaps.				
8.3. All containers of chemicals are properly labeled (OSHA 29 CFR 1910.1200(F)(6)).				
8.4. SDSs are readily accessible to staff for all hazardous chemicals used or stored in the custodial closet (OSHA 29 CFR 1910.1200(g)(8)).				

9. Mechanical Rooms	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
9.1. All doors to the mechanical room are locked.				
9.2. Floors are free of slip, trip and fall hazards (1910.22).				

10. Health Care Areas	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
10.1. A toilet and sink, not used by the general student population, are adjacent to the area.				
10.2. A cot is available that can be cleaned between student uses and is located in an area with direct staff supervision.				
10.3. Locked storage for medications is provided (ORC 3313.713), except when other law allows for the carrying and self-administration of medication by the student.				
10.4. First aid supplies, equipment, including eyewash bottles and blood pressure monitors, and a current first aid reference document are available.				
10.5. A sharps container is present and used when sharps disposal is necessary (i.e., needles, broken glass, etc.) (OSHA 29 CFR 1910.1030(d)(4)(iii)(A)).				
10.6. AED and AED alarm cabinet are located in a common area of the building.				

11. Drinking Water	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
11.1. Drinking water taps are maintained by routinely cleaning				
faucet aerators and disinfecting drinking water outlets and				

water fountains.		
11.2. Drinking fountains identified on EPA's list of known lead- containing models have been replaced with fountains that do not contain lead.		

**Minimal Issue –** issue observed in only 1 or two areas and has not caused a significant problem (i.e., a couple of stained ceiling tiles in an isolated area with no mold growth)

**Moderate Issue –** issue observed in 2-3 areas, but has not caused significant problem or has occurred in one area, but has caused a significant problem (i.e., a leaky faucet that has resulted in mold growth) **Significant Issue –** issue observed in multiple areas throughout the building (i.e., many wet or moldy ceiling tiles throughout the building)