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The Role of School Nurses in Integrated Pest Management

Protecting Children From Pests and Pesticides

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Most children are in a school setting for a big part of their day including their before- or after-school activities. A student's ability to learn in school is directly related to his or her health status. Chronic conditions, such as asthma, may impact the student's ability to stay in school and actively learn. The school nurse plays a vital role in our children's school environments and is a key member of the team that can lead health advancements. School nurses are every school's environmental health expert and provide advice on medical risk and assessment. They also contribute to the school's action plans for reduction of pests of public health importance. School nurses also continually collaborate with students, school staff members, parents, and community members to keep students safe and to promote healthy habits conducive to learning. As part of their critical role, they should be engaged in the communications and decision-making loop regarding pest issues and any pesticides applied on school grounds.

As a part of this collaborative effort, the school nurse can play a critical role in

helping to prevent the triggers for chronic ailments that may affect learning. These triggers include pests and the consequences of their presence. By providing for the safety and care of students and staff, the school nurse can advocate for the adoption of **Integrated Pest Management (IPM)** as the preferred approach that schools can use to solve its pest problems.

What Is Integrated Pest Management?

IPM is an environmentally sensitive and effective approach to pest management that relies on a combination of common-sense practices. IPM uses site assessment, monitoring, and pest prevention in combination with a variety of pest management tactics to keep pests within acceptable limits. IPM programs use information about pest biology, in combination with prevention and control methods, to manage pests economically and with the least possible hazard to people, property, and the environment. IPM is not a single pest control method but, rather, a four-tiered approach that includes (1) setting action thresholds; (2) monitoring and identifying pests; (3) taking prevention steps; and (4) implementing controls consisting of sanitation, maintenance, exclusion, and



the use of pesticides (Environmental Protection Agency, 2013a, 2013b).

Why Is IPM Important in Schools?

Everyone prefers schools that are free of pests that are unsightly, that may transmit infectious diseases, and that produce allergic triggers. Children of all ages, from a 4-year-old in an early childhood program to a 16-year-old playing on a soccer field, are more sensitive to pesticide exposure than adults. Pound for pound, children eat and drink more and breathe more air in proportion to their body weight than adults and therefore are more sensitive to pest and pesticide exposure. Children are 20% of our population but 100% of our future! By protecting our children, we protect everyone. The Environmental Protection Agency (2012) recommends that schools use IPM to reduce both pests and pesticide risk to children. In many states, school IPM is the law.

For more information about the role of school nurses in managing asthma triggers in schools, visit the NASN Online Learning Center for the Managing Asthma Triggers in Schools program at https://live.blueskybroadcast.com/bsb/client/CL_DEFAULT.asp?Client=74.

School IPM Steps

As a first line of pest control, IPM programs aim to prevent pests from ever becoming a threat in the school environment. All creatures, including humans and pests, require food, water, and shelter to survive. Pests search out buildings where these needs are met and take up residence. Block pests from entering and remove their sources of food, water, and shelter and you have taken the most important IPM step.

Next, have regular or quarterly inspections that focus on identifying pest issues, monitoring for signs of pest activity, and keeping a log book of sightings and activities, all led by the school safety committee, environmental committee, or IPM committee. When pest population thresholds are exceeded or they present health threats, pesticide applications targeted for the specific pest may be required. Usually, a baited trap works well as it presents little to no exposure when used according to the label directions.

It might not sound very appealing, but thinking like an insect or rodent may help you solve pest problems. Pests have different ideas of acceptable food and hiding places than humans do. Pests will eat garbage, garden waste, and even the glue in cardboard boxes. Pests will live in false ceilings, in dumpsters, under stoves, and behind refrigerators. Because of their size, they can enter a building through small cracks and openings, such as those under a door or in a window screen. Even larger pests like rats can squeeze through an opening as small as a dime. Viewing your school from this perspective will help you identify potential and ongoing pest problems.

The Benefits of School IPM

IPM addresses the root cause of pest problems. By removing what attracts pests to the building and prohibiting easy access, fewer pests will enter the school. IPM is **safer** as it reduces pesticide risk from pests and pesticides. **IPM has cost benefits.** Many people report spending less money on pest control using IPM. IPM may cost more money up front (sealing cracks and installing door sweeps), but over time, your school will need to rely less on pesticide applications and can focus on pest prevention.

In conclusion, the essential ingredients for a school IPM program are twofold:

1. Each school should have an IPM policy and plan that details its commitment to IPM, provides guidelines to be followed, and includes information about monitoring, inspections, pest thresholds, who can apply pesticides, how pest problems should be reported, who should be educated about the program, and how parents/guardians and staff should be notified prior to a pesticide application. The IPM policy should be sent home to all students and parents at the beginning of each school year. It should also be posted in a visible common area, such as in the main office and on the school website.
2. It is important to identify an IPM coordinator to oversee day-to-day pest challenges. This person is usually responsible for maintaining the facility and is aware of ongoing issues around and inside the building. School staff and student involvement is also important in identifying pest issues. Staff may need to be educated about school IPM and know to inform the IPM coordinator of any and all sightings; often, a pest complaint/sighting log in a central location is helpful.

School nurses are in the critical position of advocating for the health of all students and school staff. School nurses are all about prevention. Preventing health issues related to pests and pest management allows students to stay in

school and in their seats and ready to learn. It is a worthwhile challenge to promote an IPM program at your school. If there is already an IPM program in the school, get involved by joining your school's safety committee, school health committee, or IPM committee. If an IPM committee does not exist, start one. Be sure to include students. School nurse contributions go a long way in reducing the risk posed by pests and pesticides. ■

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