OHIO DEPARTMENT *of* HEALTH

OHIO BED BUG WORKGROUP

2011

FINAL REPORT AND
RECOMMENDATIONS
TO THE GOVERNOR AND
OHIO GENERAL ASSEMBLY

Prepared by:

Ohio Department of Health
Zoonotic Disease Program

January 5, 2011

The Honorable Ted Strickland
Governor of Ohio
Statehouse
Columbus, Ohio 43215

Dear Governor Strickland:

With the resurgence of bed bugs in Ohio and all across the nation, these pests have taken over the headlines as the citizenry and government officials collectively grapple with how best to deal with this problem. Since its formation in early 2010, the Ohio Bed Bug Workgroup has met to assess the growing bed bug problem, identify how it is currently being handled across the state and determine the best possible approaches to assist Ohio's citizens and communities in prevention and control efforts. The Ohio Bed Bug Workgroup has completed its work and submits to you for your consideration the enclosed final report and recommendations.

The workgroup's discussions have taught us a great deal about the complex challenges we face and the report reflects what we have learned through these discussions. To put it simply, our communities are being overtaken by an insect that is stubbornly resistant to most currently-available pesticides, can live for several months on one blood meal alone, and can hitchhike undetected to new locations via clothing, furniture, purses, backpacks, and other belongings. The scope of this issue is such that it literally has the ability impact every single Ohioan if left unaddressed. There is clearly no simple fix from a policy or legislative standpoint, but rather a variety of strategies that both government leaders and citizens alike can utilize to aide in prevention and control efforts.

The workgroup has found that not only must the federal government work tirelessly with pesticide manufacturers on a chemical solution that is safe, effective and affordable; state and local governments must work just as hard in educating Ohioans on awareness and prevention measures. Likewise, citizens must remain vigilant in indentifying bed bugs and preventing further infestations.

The report and recommendations are also being forwarded to all four caucuses of the Ohio General Assembly to share with both incoming and outgoing members and will be included in the Ohio Department of Health's transition materials. The workgroup recognizes that decisions will have to be made on how best to move forward with these recommendations by both the legislature and incoming administration and we stand willing to assist in any way possible.

Thank you for your continued leadership and commitment to this issue.

Sincerely,

Alvin D. Jackson, M.D.
Director of Health

Overview

Bed bugs are blood-sucking insects and have been significant pests to humans for thousands of years (Usinger 1966). The bites are delivered painlessly, but may cause reactions ranging from no reaction at all, to itchy, swollen and blistered bites on exposed skin sometimes resulting in secondary bacterial infections (Goddard and de Shazo, 2009). By the mid 1950's, this insect all but disappeared in the U.S. and other developed countries, likely the result of the development and use of broad-spectrum long-acting pesticides (Harlan et al. 2008). For the last 50 years, bed bugs have been virtually unheard of; and until recently most people in the U.S., including pest management professionals (PMPs), have had no firsthand experience dealing with them.

There has been a re-emergence of bed bugs in the U.S. and other countries over the past decade (Krueger 2000, Goddard 2003). While the reasons for this worldwide resurgence remain unclear, some contributing factors are as follows:

1. Safety and environmental concerns have led to changes in pesticide use over the past few decades. By the 1990s, conventional baseboard sprays used to control ants and cockroaches were replaced by baits, which have no effect on bed bugs. As the U.S. Environmental Protection Agency (U.S. EPA) further restricted the use of pesticides (http://www.epa.gov/pesticides), many of the broad-spectrum pesticides became unavailable for both the general public and PMPs.

2. Bed bugs are resistant to many of the pesticides currently available to the public and to PMPs (Romero et al. 2007).

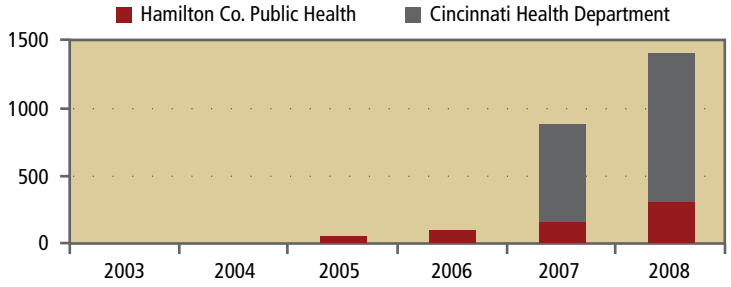
3. Increased international travel and commerce. Bed bugs are readily transported because of their ability to hide in small places and hitchhike in luggage and other items.

4. Because of their long absence, the loss of experience in dealing with bed bugs means that most people, including some PMPs, are uninformed about the biology of these bugs and the difficulty of managing this pest. Knowledgeable PMPs report that unrealistic expectations and noncompliance by residents and apartment owners are major factors in control failure.

During the past decade in Ohio, bed bug complaints have increased dramatically. Cities such as Cincinnati, Dayton and Columbus have experienced major bed bug infestations **(Table 1,2)**. Outbreaks are most widely reported in homes, apartments, hotels, nursing homes, residential facilities and senior living centers. Based on complaints received by the Ohio Department of Health (ODH) and local health departments (LHDs), bed bugs have now migrated to suburban areas and are becoming a more significant problem statewide.

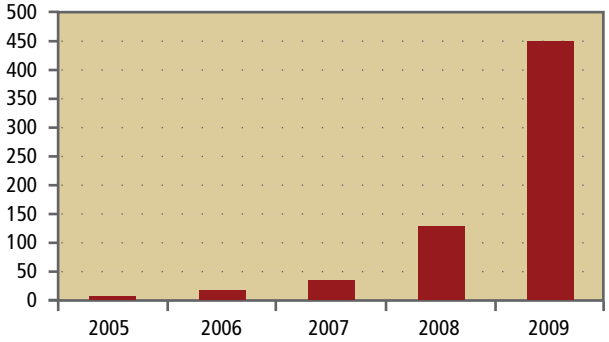
According to the Ohio Department of Commerce, bed bugs are spreading into the retail, secondhand and rental industries. These industries are experiencing the same difficulties with control and the associated expenses as hotel and apartment management complexes. The rising number of bed bug infestations is negatively impacting commerce and trade within the state. The Ohio Department of Commerce is also

Table 1: Cincinnati/Hamilton County Bed Bug Complaints



Data sources: Hamilton County Health Department, Cincinnati Health Department

Table 2: Central Ohio Bed Bug Complaints



Data source: Compiled by Central Ohio Bed Bug Taskforce from Columbus Code Enforcement and Franklin County Board of Health

concerned that this may lead to retail businesses closing temporarily while infestations are being treated. Recent media reports have cited infestations in movie theaters, schools, office buildings, retail establishments and universities.

The impact of these infestations has been most significant in lower socioeconomic areas where the cost of treatment and lack of information puts safe and effective control out of reach for many residents. At the local level, the response to bed bug complaints is determined by local ordinances and resource availability. While some LHDs provide extensive bed bug response programs, the majority, due to a lack of resources, are unable to provide even minimal attention to prevent infestations from growing and spreading to other areas.

The Ohio Department of Aging represents the interests of all of Ohio's older adult citizens, including those who participate in home and community-based programs. These include persons residing in a private home or apartment and who are receiving some type of supportive service in order to remain in the community rather than in an institution such as a nursing home. The Ohio Department of Aging reports that as the bed

bug problem grows, there is a greater potential for the spread of bed bugs by service providers who may travel to several consumer homes each day. Consumers may also use services such as transportation vans, Adult Day Centers, and other locations/services unique to aging and disability populations in addition to those used by other age groups. Other state agency service providers have similar risks, such as the Ohio Department of Job and Family Services, through the Ohio Home Care Program and the Ohio Department of Developmental Disabilities. There is an urgent need for resources to provide social service employees with education focused on prevention.

Bed bugs' effect on Ohio's aging and disabled populations has been further illustrated through the Medicaid waiver process. Medicaid waiver funds, intended to provide consumers with in-home care and services as an alternate to more costly nursing home placement, are being diverted to address bed bug infestations. The cost of additional homemaking or chore services to prepare a home for extermination and, in some cases, the actual cost of extermination services have reduced already limited Medicaid waiver funds. Left unchecked, costs for bed bug extermination could grow to significantly impact Medicaid waiver budgets.

The Ohio Department of Mental Health (ODMH) has regulatory oversight responsibility for Ohio's community mental health system, which currently consists of 384 community mental health agencies and 156 residential facilities. Additionally, ODMH licenses private psychiatric hospitals and residential facilities, and operates seven regional psychiatric hospitals. ODMH's Office of Licensure and Certification has received multiple complaints, notifications and reports of bed bug infestations within ODMH licensed residential facilities in multiple Ohio counties. In accordance with Ohio Administrative Code (OAC) 5122-30-05(C)(1), ODMH's Licensure and Certification Office has issued interim licenses to agencies, so that residents are moved to temporary locations while bed bug extermination is being completed.

Some mental health centers and residential facilities have spent significant funds to eradicate bed bugs, which have required the relocation of clients, purchasing of new furniture and extermination expenses. In some incidents, case managers and other residential staff have expressed concerns and fears that they would carry, or have carried, bed bugs into their private homes. Consequently, community mental health centers and ODMH Regional Psychiatric Hospitals have been developing guidelines, educational materials and precautions to address and prevent bed bug infestations when transporting individuals known to have been exposed to bed bugs or when working in bed bug infested homes and residential facilities. It is suspected that the number of mental health provider agencies affected by bed bugs is significantly under-reported.

Further adding to the burden of bed bugs is their impact on public health. While they are not known to transmit diseases to humans, they are nonetheless a pest of significant public health importance because of the negative physical and mental health implications of their blood feeding behavior. The resurgence of this pest has overwhelmed LHDs; some of which have had to suspend bed bug programs and others that do not usually address bed bugs have now been inundated with calls. As the problem continues to grow and spread, these examples further demonstrate the need for an integrated and coordinated state, local and federal approach to the bed bug resurgence. (CDC and USEPA 2010).

Formation of the Ohio Bed Bug Workgroup

In response to increasing complaints to LHDs, regional bed bug taskforces have been formed in Southwest and Central Ohio. In addition, state legislation has been introduced, generally seeking to bring more involvement and responsibility to the state level and a more active and consistent approach to bed bugs at the local level. Each legislative approach has been met with varying levels of both interest and concern. The workgroup believes that it has become increasingly clear that there is no simple fix to address bed bugs.

- **Purpose:** In December 2009, the ODH Office of Government Affairs and the ODH Zoonotic Disease Program organized a meeting with other state agency legislative liaisons and the governor's office to discuss the issues surrounding bed bugs in Ohio. After thorough discussion, it was decided that ODH would organize a workgroup to assess the growing bed bug problem, identify how it is currently being handled across the state and determine the best possible approaches to assist Ohio's citizens and communities in prevention and control efforts. These results would take the form of a report and recommendations to the governor and the Ohio General Assembly.

- **Process:** A workgroup of approximately 40 members and stakeholders **(Appendix A**), chaired by ODH Director Alvin D. Jackson, M.D., was assembled to provide broad representation and expertise. The Ohio Bed Bug Workgroup met four times between February 1, 2010 and March 29, 2010. These meetings were used to share information, bring all members up to date on the scope of the problem, to identify critical issues and priorities for action planning, and to make recommendations to the governor and general assembly. In Dr. Jackson's absence, the meeting was chaired by Dr. Richard Gary, public health entomologist. The meetings were facilitated by Steve Wall, Bill Demidovich, and Tom Terez, from the Ohio Department of Administrative Services.

  The first four meetings yielded a preliminary report, which was issued on May 7, 2010 and circulated to workgroup members for review and comment. Feedback revealed the need to further discuss several specific issues and explore the possibility of additional recommendations. Two subgroups were formed, the education and outreach subgroup and the infrastructure subgroup. Both subgroups met one time but provided for ongoing communication on the issues relevant to each.

  The education and outreach subgroup's purpose was to further examine existing challenges to educating the public, to identify opportunities for improving education and outreach, and to review the content, distribution, and cost of educational materials.

  The infrastructure subgroup focused on two issues; hotels and landlord/tenant situations. With hotels, the primary topics of discussion were current regulations, oversight and the relationship between the State Fire Marshal and LHDs, all of which vary among health jurisdictions. The discussions focused on identifying issues and determining whether improvements could be made. When considering the apartment rental issue, the subgroup examined landlord/tenant law, discussed whether the law is sufficient in addressing bed bug situations and examined additional recommendations with respect to rental situations.

Finally, based on the workgroup's emphasis on the availability of an effective, safe, and affordable pesticide and the group's ongoing communication to the U.S. EPA regarding this issue, a final workgroup meeting was held on August, 18, 2010, attended by federal agencies of interest including the U.S. EPA, the Centers for Disease Control and Prevention (CDC), the U.S. Department of Agriculture (USDA), the U.S. Department of Defense (DOD) and the U.S. Department of Housing and Urban Development (HUD). The meeting provided an open forum for discussion between workgroup members and the federal agencies in an attempt to convey the urgent need for a solution in Ohio and learn more about the federal government's planned response.

Current Efforts to Address Bed Bugs in Ohio

One of the workgroup's primary goals was to identify current state and local bed bug response efforts. As the problem has continued to increase, the question of ultimate responsibility continues to be raised. This section provides an overview of what the workgroup has learned.

- **Local Health Departments:**
  As Ohio is a home rule state, public health nuisances are addressed at the local level. ODH provides information and technical support to its local counterparts. The LHD response to bed bugs depends on whether bed bugs are considered a public health nuisance within a particular jurisdiction. Most LHDs do not consider bed bugs to be a public health concern because they are not known to transmit disease to humans. Another factor that varies among jurisdictions is the presence or absence of a nuisance abatement, housing or motel/hotel program. LHDs without these code enforcement programs have no capacity to respond to bed bug complaints.

- **Hotels / Motels:**
  Due to the national epidemic of bed bugs, most hotel/motel chains have now implemented proactive inspection and treatment procedures as part of their operational protocols. Patrons of hotels and motels are expected to address bed bug concerns directly with the business establishment. It is important that the facility's management is made aware so they may quickly address the issue and begin eradication if necessary. All hotels and motels are required to be licensed by the Ohio State Fire Marshal's office according to Ohio Revised Code (ORC) chapter 3731 to ensure compliance with state codes. While it is most effective to work with the facility directly, patrons wishing to initiate a complaint against a hotel or motel may do so with the State Fire Marshal's code enforcement office.

- **Apartments / Rental Housing:**
  Ohio landlord/tenant law does not address bed bugs specifically, but specifies that landlords are required to maintain buildings that comply with all local health and safety codes. The buildings must also be free of health and safety hazards (ORC 5321). The code also prevents landlord retaliation against the tenant for reporting problems to the landlord or other authorities. ORC, chapter 3767, states that "infestation" is one of the reasons that a residence can be considered a public health nuisance, which is further defined as a menace to public health, welfare or safety. The chapter also stipulates that tenants may pursue legal recourse and place their rent in escrow until nuisance complaints are resolved. Current interpretation is that landlords may not refuse to remediate infestations, but the law is unclear as to who is responsible for paying for such treatment. Some landlords are now writing bed bug waivers into their rental agreements declaring that the unit is currently free of infestation and that the tenant is responsible for eradication should bed bugs become introduced. To the workgroup's knowledge, this has not yet been challenged in court.

Section 8 housing, under the regulation of the Public Housing Authority, must comply with the federal Uniform Physical Conditions Standards which specifically require inspections and management response to insect infestations.

- **Residential Care Facilities / Nursing Homes:**
  State (OAC 3701-17-22) and federal regulations require that nursing homes maintain pest control and environmental measures to prevent and control pests such as bed bugs. Residential Care Facilities (RCFs) have similar state regulatory requirements (OAC 3701-17-65) as those for nursing homes. ODH is the regulatory agency for these facilities.

- **Used bedding/stuffed toys /upholstered furniture:** All businesses and persons engaged in reselling used bedding, stuffed toys and upholstered furniture must register to do so with the Ohio Department of Commerce Superintendent of Labor (ORC 3713). The seller of used bedding, stuffed toys and upholstered furniture must sanitize and tag all items in accordance with rules established by the superintendent. Complaints should be referred to the Department of Commerce.

- **Local Taskforces:** Local taskforces have been formed to address bed bugs in Southwest and Central Ohio regions. These groups have been collecting data to monitor the growing number of bed bug complaints and their impact on the community. In some cases, guidance documents and informational resources have been made available to the public.

Critical Issues and Needs Identified by the Workgroup

Through the course of the workgroup and subgroup meetings and discussions, the following critical issues were identified:

1. **There is a need for accurate and concise information regarding bed bug prevention and control. Educational efforts are uncoordinated and misinformation is a problem. The general lack of information has not only contributed to the further spreading of bed bug infestations, but has also led to potentially dangerous situations in which people attempt to treat infestations with unapproved and often unsafe methods.**

Root Causes:

After a 50 year absence, bed bugs have returned and the nationwide infestation is growing rapidly. Much of what was known about bed bugs as a pest has been forgotten or is otherwise no longer common knowledge among the public. Prevention is essential to slowing the spread of bed bugs, but there is a general lack of awareness of how to prevent bed bug infestations. Once infestations occur, there are unrealistic expectations on the part of building owners and residents who are unaware of the difficulty in controlling this pest. Additionally, the bed bug crisis has emerged so rapidly that professionals have been unable to coordinate efforts to educate citizens quickly.

Without an understanding of how bed bugs "hitchhike," people who are affected by bed bugs will often inadvertently spread infestations to others by leaving furniture and belongings outside of their residences to be picked up by others or by unintentionally transporting bed bugs on their clothing or other belongings such as purses or backpacks.

The common misconception that bed bugs only infest beds also contributes to the spread of infestations. Since bed bugs have been more widely known as a problem in homes, apartments and hotels, people do not typically consider other public places such as movie theaters, public transit and schools as an avenue for picking up bed bugs.

With regard to treatment options, education also plays a significant role. Not only is this important for bed bug control, but also to protect citizens from unsafe practices. The following examples of complaints received by ODH and the Ohio Department of Agriculture illustrate the problems caused by misinformation and do-it-yourself control methods:

- Callers complaining they have been misled into spending money to treat bed bugs with ineffective and/or unsafe chemicals.
- Parents spraying their children with DEET before bed, which, while not known to repel bed bugs, could pose significant health hazards to the child.
- Emergency medical personnel spraying patients and personnel with pesticides before transporting by ambulance to avoid infestations.

There are also news reports of people, desperate for relief, causing house and apartment fires by spraying isopropyl alcohol in an attempt to control bed bugs.

While it is not appropriate for the state to endorse a particular pest control company, it is important to inform citizens that they should only trust an operator who is licensed by the Ohio Department of Agriculture. It is also important to educate people about the importance of following label instructions when applying household pest control products.

Without an awareness of bed bugs and an understanding of how to prevent and control them, infestations often become severe. This leads to a larger opportunity for bed bugs to spread to others in the community. It is clear that education plays an important role in mitigating the spread of infestations and providing for the safety of Ohio citizens, and thus, the need for accurate and concise information cannot be overstated.

2. Pest Management Professionals lack access to effective pesticides needed to control bed bugs safely and economically.

Root Causes:

Laws regulating pesticide use became more restrictive in the 1990s and, as a result, many residual insecticides are no longer available for use in residential settings. Unfortunately, many insects, bed bugs in particular, demonstrate resistance to currently available pesticides. In most instances, repeated treatments are often required to control an infestation, leading to significantly increased costs and higher cumulative pesticide exposure for residents.

3. There is a lack of coordination between agencies and various entities that must come together in addressing bed bug problems. Additionally, there exists confusion between these entities and the citizenry with regard to jurisdictional authority and responsibilities.

Root Causes:

Bed bugs have become a major problem over a relatively short time frame. Most local infrastructures (including public health) do not have overall authority or protocols to address the issue in a comprehensive manner. The issue of bed bugs is complex by nature, and current infrastructure does not appear to have been created with such complexity in mind. This has led to uncertainty and confusion among those agencies involved.

Ohio landlord/tenant law (ORC 5321) places responsibility on both landlords and tenants with regard to keeping rental units pest free and in a sanitary condition. Additional health and building codes may also apply depending on location (e.g. county, city or township) and these local codes vary by jurisdiction. Residents and landlords are left with little guidance regarding their respective responsibilities for bed bug prevention and control. Attempts to legislatively address this inconsistency have been unsuccessful because of the difficulty in placing sole responsibility on either party. In the case of multi-unit housing, bed bugs may travel through wall voids and vents from unit to unit and there can be considerable difficulty in determining the source of an infestation once it has spread.

The infrastructure subgroup considered the issue of landlord/tenant law. In the end, there were some members of the subgroup who felt the law should be more explicit with regard to responsibilities of landlords and tenants, but others who felt the law could not be more specific because of the above-mentioned issues. Currently, disputes between landlords and tenants are handled on a case-by-case basis through the judicial system, and some members feel this is adequate, especially considering the complexity of the issue of bed bugs.

Similar jurisdictional issues exist among the Ohio Department of Commerce, LHDs and hotels. The Department of Commerce licenses hotels and can order extermination if bed bugs are identified in an inspection. Some local boards of health have additional licensure programs further regulating hotels within their jurisdiction. Hamilton County Public Health, for example, imparts an additional license on hotels and inspects based on sanitation and safety, including the presence of bed bugs.

Most recently, however, additional LHDs have considered passing local ordinances to further regulate hotels (with respect to bed bugs). This is problematic for the hotel and lodging industry which, depending on the jurisdiction, sometimes objects to multiple fees, inspections and dual standards. Additionally, there is no consensus among LHDs regarding regulation. For example, while one department may welcome additional regulation and attention given to bed bugs in hotels, others have felt that additional regulation and fees are unnecessary and duplicative. The Association of Ohio Health Commissioners (AOHC), a workgroup and infrastructure subgroup member, indicated that several local prosecutors have not allowed LHDs to establish proactive hotel/motel inspection programs without specific legislative authority to do so, citing a 2009 Attorney General's opinion (2009-026) as rationale.

Throughout these discussions it has become clear that there is much to be gained through better coordination of efforts, better communication and more clearly defined roles.

4. The cost of treating bed bugs is beyond the reach of many low income residents and there are few resources to assist with bed bug control. Because of the high cost currently associated with bed bug control, many Ohio citizens are unable to afford pest management services. Current outreach and education efforts are not always effective at reaching this population. Low income, urban areas may be the hardest hit by bed bug infestations and unchecked bed bug populations become both a health threat and a source for new infestations.

Root Causes:

Low income residents are hard hit by the bed bug problem on multiple fronts. First, much of the current outreach and educational resources are Web-based and unavailable to those who lack computer access or knowledge. In addition, active awareness programs are lacking. Effective prevention of bed bug infestations depends on a level of awareness supported by easy access to reliable information.

Because currently available products are not sufficiently residual in nature (meaning they only kill pests on contact and have no lingering effect), it takes multiple treatments to control a bed bug infestation. The high cost associated with bed bug treatments is largely due to the number of treatments needed to effectively control the pests with currently available pesticides. Alternative treatment methods, such as heat treatments, are emerging, but such treatments are also expensive and not widely available.

Recommendations

Based on the above described critical issues, the following recommendations were developed, not necessarily in order of priority:

Recommendation 1:
Pest management professionals need pesticides which are effective and safe alternatives to those currently available for the control of bed bugs.

Rationale:
Resistance to currently available pesticides is considered a major factor in the resurgence of bed bugs (Romero et al 2007). This leads to increased levels of pesticide exposure due to the need for repeated treatments. Resistance also makes control more expensive and therefore unavailable to underserved populations.

Strategies:

- Support the Ohio Department of Agriculture's October 2009 request that the U.S. EPA provide an emergency exemption for the residential use of Propoxur based on its demonstrated effectiveness in studies by Dr. Mike Potter and the University of Kentucky.

- Petition the U.S. EPA and other federal agencies to direct resources to a facilitated development and registration of new pesticide active ingredients or formulations against bed bugs which are safe, effective and affordable.

- Maintain the position that while education and outreach are important components of integrated pest management (IPM), responsible pesticide use is an equally important component and bed bugs will not be eradicated without an effective pesticide.

The workgroup took the following action steps in support of the above recommendation and strategies:

- ODH Director Dr. Jackson and several members of the Ohio Bed Bug Workgroup provided letters in support of the Ohio Department of Agriculture's request to the U.S. EPA **(Appendix B)**.

- When U.S. EPA offered no immediate response to the emergency exemption request, the workgroup requested that the governor send a letter to the U.S. EPA Administrator requesting a response and, if negative, an alternative solution. The governor sent such a letter on April 19, 2010 **(Appendix C)**.

- On June 2, 2010, the U.S. EPA responded, essentially denying Ohio's request for an exemption and offering little new information regarding an alternative solution **(Appendix D).**

- On June 30, 2010, the governor responded to the U.S. EPA citing the need for urgency in addressing the situation and requesting the U.S. EPA involve Ohio in their deliberations **(Appendix E).**

- The governor's letter led to the involvement of several federal agencies in the workgroup's August 18, 2010 meeting, several discussions between the governor and U.S. EPA Administrator Lisa Jackson and ongoing dialogue between staff from the Ohio Department of Agriculture, ODH and the U.S. EPA.

- Members of the workgroup were informed of the opportunity to provide proponent testimony on House Resolution (HR) 182, which was sponsored by State Representative Dale Mallory. HB 182 supports the Ohio Department of Agriculture's emergency exemption request. Several Workgroup members individually provided testimony in support of this initiative. HR 182 and a similar resolution in the Ohio Senate sponsored by State Senator Eric Kearney, Senate Resolution (SR) 132, both passed out of their respective committees, bringing additional awareness to this issue.

- In December 2010, the governor strongly urged the U.S. EPA to reconsider allowing the use of Propoxur in homes **(Appendix F).**

Recommendation 2:
Identify the roles and responsibilities of local and state agencies in addressing bed bug problems to better coordinate education and control efforts.

Rationale:
There is a lack of coordination between agencies and various entities that otherwise might come together in addressing bed bug problems. Regulations related to nuisance abatement vary by jurisdiction and there are considerable gaps where no guidance is available.

Strategies:

- Conduct a survey of LHDs and other agencies statewide to determine their current responsibilities related to bed bugs.

- Encourage local agencies to convene local bed bug workgroups and develop local response plans. Information from these groups should be used to develop model protocols, such as flow charts, detailing which entities are responsible for various complaints (i.e. apartments, hotels, etc.).

- As the Ohio Bed Bug Workgroup provides a vehicle for all agencies to collaborate, this group should seize the opportunity to coordinate consistent messaging, education and outreach strategies. For example, the number of entities represented in the workgroup provides an excellent opportunity to not only collaborate on educational materials, but a more accessible route to reach more people through each entity's Web sites, publications and meetings. Although the workgroup meetings have officially concluded, communication and coordination is expected to continue among its members.

Recommendation 3:
Implement measures to coordinate education and awareness to reduce the spread of bed bugs and prevent infestations.

Rationale:
As a result of the lack of quick, effective, and inexpensive methods of bed bug control, the media has reported potentially hazardous home remedies being used including misuse and overuse of pesticides and other household chemicals. In addition, misinformation about the cause and control of bed bugs is abundant and only serves to worsen the problem. It is important that efforts to educate the public about prevention and awareness be unified to provide the safest and most effective measures of prevention and control.

Strategies:
Many of the following strategies require resources for full implementation which are not currently available. An estimated budget for implementing an Ohio bed bug awareness and prevention program is provided in **Appendix G**.

- Develop standardized educational literature in collaboration with Ohio State University Extension and the Ohio Pest Management Association that can be utilized by LHDs, businesses, agencies and the general public.

- Implement and evaluate a social marketing campaign to increase public awareness of the prevalence of bed bugs and the problems associated with their control. The workgroup recommends a campaign modeled after ODH's successful West Nile Virus awareness campaign which includes:
  - Educational materials, such as pamphlets and posters for distribution to LHDs, schools, hotels, physicians; AV equipment for giving presentations.
  - A Web site, which must be maintained and updated regularly.
  - A bed bug information line with voice mail for after hours and weekends
  - A state bed bug coordinator, who should have sufficient trained professional staff to coordinate all bed bug prevention activities, such as educational activities with LHDs and the management of a statewide bed bug information line. The person would also coordinate future workgroup activities and act as liaison w/ LHDs, pest control specialists and other interested parties.
  - Contract with the Ohio State University to expand the reach of this program. The cooperative extension service has a statewide network to reach rural populations and the school of public health has a training module to assist LHDs and maximize outreach to underserved populations
- Those communities impacted by bed bugs are should develop local Workgroups and implement bed bug prevention awareness. It is important to maintain consistent messaging and coordination, where possible, with other state/local workgroups while accounting for local variability of ordinances and infrastructure in dealing with bed bugs. Such programs can become models for other impacted communities.
- Establish an ongoing subcommittee to assure effective implementation of workgroup recommendations and to evaluate progress in continued efforts to address bed bug infestations. This group would continue to meet periodically to update information as it becomes available.

The workgroup took the following action steps in support of the above recommendations and strategies:

- In October, 2010, the US EPA released a request for proposals for the Education/Outreach and Environmental Justice grant with a maximum $200,000 award. ODH, on behalf of the workgroup, submitted a proposal **(Appendix H)** to 1) pilot a community engagement project, 2) add a bed bug component to the Ohio healthy housing training and 3) fund an automated bed bug information phone line.

Recommendation 4:
Identify ways to assist low income persons with bed bug prevention and control.

Rationale:
While bed bugs are not a problem solely associated with poverty, the cost of control is out of reach for persons of low or no income. Left untreated, infestations become severe and serve as sources for new infestations.

Strategies:

- Increased awareness of the seriousness of the bed bug issue in Ohio and across the country could potentially provide a platform for obtaining federal funding sources.

- As current education efforts are insufficient in reaching many of those who are disproportionately affected by a bed bug infestation, a previously validated public engagement process is recommended to reach out to at-risk communities.This will assure that educational information is appropriately targeted and delivered in the most effective and efficient ways possible.

The workgroup took the following action steps in support of the above recommendation and strategies:

- As part of a proposal for the U.S. EPA Bed Bug Education/Outreach and Environmental Justice grant **(Appendix H)**, ODH requested $175,284 to contract with The Ohio State University Center for Public Health Practice and LHDs in Central and Southwest Ohio to pilot a two-year community and stakeholder engagement project. As part of the proposal, a toolbox would be developed and made available to all Ohio LHDs. The toolbox would allow them to perform needs assessments in their communities and customize available outreach and education efforts.

Recommendation 5:
Create a state operated toll-free information line to provide information on bed bug prevention and control and direct callers to appropriate resources. Usage statistics could be used as a sentinal source of data to monitor bed bug complaints and concerns throughout the state.

Rationale:
During the course of the workgroup's efforts, Rep. Dale Mallory's office requested that the workgroup consider the merits of a state-operated toll-free number for the purpose of registering bed bug complaints, providing education to the citizenry and collecting data, similar to the proposed toll-free number contained in HB 201, sponsored by Rep. Mallory.

As such, in the workgroup's third meeting, a small subgroup was assembled within the full workgroup to discuss the toll-free number concept. The goal of the small group was to provide a thoughtful

analysis of whether such a number would be useful, logical, and practical, and, if determined as such, to explore potential funding opportunities and the most appropriate placement.

The subgroup recognized the possible benefit of providing reliable information and connecting callers to the correct agencies, but cited concerns about public records, cost of staffing and data collection and interpretation. The subgroup further expressed concern that state agencies cannot recommend specific products or pest control companies. Further, there is no ability with this service to send out staff for inspection or enforcement purposes. Callers may expect action from the department that is housing the number beyond simply documenting that it received a complaint or a call.

The subgroup determined that while the volume of phone calls to local and state public health agencies is increasing, the cost of maintaining support to a toll-free information line with "live" staff is prohibitive. Also, the goals of providing education and serving as a center for data collection might be better achieved in other ways presented in this report. However, those currently responding to bed bug complaint calls report that most questions and concerns are the same, and they find themselves repeating similar information to each caller. A fully automated system would be an inexpensive alternative, providing the information most callers are requesting, especially in times of decreasing state, federal and local resources.

Strategies:
The workgroup proposes that ODH pilot an automated information line that would provide key information about bed bugs with links to five topic areas, one of which would direct callers to appropriate resources. Usage statistics from this line could be used as a sentinal source of data to monitor bed bug complaints and concerns throughout the state.

The workgroup took the following action steps in support of the above recommendation and strategies:

- As part of a proposal for the US EPA Bed Bug Education/Outreach and Environmental Justice grant **(Appendix H)**, ODH requested funding to support a two-year pilot of the automated information line.

Recommendation 6:
Individual LHDs should have the ability to create local hotel/motel inspection programs, should the need for such programs be determined and should the political will to create such a program exist.

Rationale:
While the workgroup recognizes the concern presented by the hotel and lodging industry with regard to duplicative fees and oversight, if, within a specific jurisdiction the bed bug problem outweighs such concerns, then the LHD should have the ability to create a hotel/motel inspection program.

Recommendation 7:
The Association of Ohio Health Commissioners should continue to work with its membership to further engage and explore ways for LHDs to consult with or assist the State Fire Marshal's office with hotel inspections involving bed bugs.

Recommendation 8:
ODH should encourage and facilitate increased communication between the State Fire Marshal's office and LHDs.

Rationale:
The workgroup recognizes that the State Fire Marshal's office inspects hotels and motels for bed bugs as one of many licensure requirements typically focused on building structure and fire safety. Additionally, given the economic climate facing the state and continuing budget challenges for all state agencies, it is unrealistic to expect additional funding to assist the State Fire Marshal's office with bed bug inspections. Therefore, the workgroup recommends that LHDs and the State Fire Marshal's office continue to communicate and look for ways for LHDs to be involved with bed bug inspections, where warranted.

Recommendation 9:
Publicize and post contact information for the State Fire Marshal's office on ODH and LHD Web sites.

Rationale:
A lack of information and understanding as to which entity performs inspections of hotels has led to confusion. Any effort to publicize the correct contact information by which a citizen can initiate a complaint in a hotel or motel could lead to improved awareness and a better overall response.

Recommendation 10:
Inspections must be done for all units that share a common wall with the infested unit. With regard to treatment, hotel and motel management must also be sure to hire only individuals and companies that are properly licensed as pesticide applicators.

Rationale:
While this is already a part of the State Fire Marshal's normal procedures for inspecting and treating hotels and motels, the workgroup felt it was important to include a recommendation on these issues to emphasize the importance of such procedures in all multi-unit facilities, given the ease by which bed bug infestations may spread and concerns over possible improper and unregulated methods of treatment.

Ohio Bed Bug Workgroup Members

Chair

Alvin D. Jackson, M.D.	Ohio Department of Health

Organizing Committee

Richard Gary	Ohio Department of Health
Brad Corso	Ohio Department of Health
Mary Daniels	Ohio Department of Health
Robin Holliman	Ohio Department of Health
Steve Wall	Ohio Department of Administrative Services
Bill Demidovich	Ohio Department of Administrative Services
Tom Terez	Ohio Department of Administrative Services

Workgroup Members

Lonnie Alonso	Ohio Professional Applicators for Responsible Regulation
Donald Baumgartner	Ohio Environmental Protection Agency
Matt Beal	Ohio Department of Agriculture
Beth Bickford	Association of Ohio Health Commissioners
Suzanne Burke	Council on Aging - Southwestern
Andrew Christman	Ohio Exterminating Company, Inc.
Allison Coffman	University of Toledo – Residence Life
Mike Deemer	Office of the Governor
Gregory Dennis	Ohio Department of Education
Polly Doran	Council on Aging - Southwestern
Mike Eckhardt	Ohio Department of Aging
Christopher Eddy	Wright State University
Cynthia Ellis	Ohio House of Representatives
Michael Evans	Ohio Hotel and Lodging Association
Amir Eylon	Ohio Department of Development
Jennifer Flatter	Ohio Department of Commerce
Tracy Freeman	Ohio Environmental Protection Agency
Robin Harris	Office of the Governor
John Hashizume	Bowling Green State University
Emerald Hernandez	Ohio Department of Veteran Affairs
Tom Hooper	Cincinnati Health Department
Ed Jerse	Ohio Department of Health
Jennifer Johnson	Ohio Department of Job and Family Services
Matt Johnson	Ohio Environmental Health Association
Belinda Jones	Ohio Pest Management Association
Camille Jones	Cincinnati Health Department
Susan Jones	OSU Extension
Eric Kearney	Ohio Senate
Chad Keller	Ohio University
Greg Kesterman	Hamilton County Public Health

Ohio Bed Bug Workgroup Members (contd.)

Afet Kilinc	Ohio Department of Mental Health
William Kirchner	Ohio Pest Management Association
Sheri Kiser	Ohio Department of Aging
Matt Koppitch	Ohio Department of Commerce
Emily Lundgard	Ohio Department of Development
Jennifer Lynch	Office of the Governor
Dale Mallory	Ohio House of Representatives
John Mahaney	Ohio Department of Development
Josh Martin	Ohio Housing Council
Joe Mazzola	Ohio Department of Health
Grace Moran	Ohio Department of Aging
Leah Pappas	Ohio Apartment Association
Christina Phalen	Ohio Senate
Scott Pozna	Lorain County Health Department
Alicia Reece	Ohio Department of Development
Stacey Renker	Ohio State University
Rob Risner	Burton Carol Management
Rebecca Schey	Calfee, Halter, and Griswold LLP
Andrew Showe	Ohio Apartment Association
Robert Smith	Cincinnati Health Department
Marisia Styles	Ohio Senate
Mike Suver	Inter-University Council of Ohio
Laura Swanson	Ohio Apartment Association
Tom Terez	Ohio Department of Administrative Services
Martha Trapp	Ohio Department of Commerce
Jo Ellen Walley	Ohio Department of Aging
Patrick Wambo	Ohio Department of Commerce
Randall Warman	Shawnee State University
Paul Wenning	Franklin County Board of Health
Allen Wilson	Pest Control Industry
William Wylie (Ed)	Ohio Housing Finance Agency

A special thanks to the workgroup members who contributed to writing the draft and final reports:

Dr. Rich Gary
Mary Daniels
Brad Corso
Dr. Jeanette O'Quin
Dr. Kathy Smith
Jo Ellen Walley

A special thanks to Matt Beal and Mick Eckhardt for their technical assistance to the workgroup related to Ohio Department of Agriculture's Section 18 request.

Ohio Department of Health Director Jackson's letter of Support on Behalf of the Ohio Bed Bug Workgroup for Ohio's Section 18 request

OHIO DEPARTMENT OF HEALTH
246 North High Street
Columbus, Ohio 43215
614/466-3543
www.odh.ohio.gov
Ted Strickland/Governor
Alvin D. Jackson, M.D./Director of Health

FEB 22 2010

Anthony Britten
Team Leader, Emergency Response Team
USEPA Office of Pesticide Programs (7505P)
Document Processing Desk (EMEX)
1200 Pennsylvania Avenue N.W.
Washington D.C. 20460-0001

Dear Mr. Britten:

As the Chair of the newly formed Ohio Bed Bug Workgroup, I am writing to support the Ohio Department of Agriculture in its application for a FIFRA Section 18 emergency exemption for the use of propoxur against bed bugs (*Cimex lectularius*).

After nearly 50 years of virtual absence, bed bugs have been making a comeback across the United States, and these parasitic insects have emerged as major pests in many communities nationwide. Currently, Ohio is experiencing a bed bug epidemic that began in southwestern communities and has spread through central Ohio and across the state. These infestations pose health and quality of life issues, especially for our most disadvantaged citizens.

While pest management practices must always integrate non-chemical measures, it is clear that this pest has gained a strong foothold and tools should include the safe and judicious use of effective pesticides. According to Dr. Mike Potter, Professor of Entomology at the University of Kentucky, resistance of bed bugs to currently available pyrethroid pesticides is rampant. Resistance can be prevented by rotating the use of unrelated classes of pesticides. Dr. Potter has shown that Propoxur, a carbamate pesticide commonly used in pet flea collars, is 100% effective against resistant populations of bed bugs.

Meanwhile, there have been instances in Ohio where residents have taken matters into their own hands, applying dangerous chemicals and even starting apartment fires in their effort to control bed bug infestations. This underlines the need for education and awareness as well as safer and more effective control options. We have formed the Ohio Bed Bug Workgroup in an effort to better understand the scope of the problem and to coordinate awareness efforts across the state. However, the success of this will depend on having effective pesticides that can be applied safely by qualified professionals.

Continued

Anthony Britten
Page Two

The current bed bug crisis in Ohio represents an urgent, non-routine situation that warrants your strongest consideration for a FIFRA Section 18 emergency exemption. As a member of the Bed Bug Workgroup and as a concerned Ohio citizen, I respectfully request that you grant the Ohio Department of Agriculture's request for the emergency exemption for the use of Propoxur against bed bugs.

Sincerely,

Alvin D. Jackson, M.D.
Chair, Ohio Bed Bug Workgroup

ADJ/reg

Section 18 request, Correspondence between Governor Strickland and Administrator Lisa Jackson of the United States Environmental Protection Agency

TED STRICKLAND
GOVERNOR
STATE OF OHIO

April 19, 2010

The Honorable Lisa P. Jackson
Administrator, Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Jackson,

I am writing to you with great concern regarding a peculiar and growing problem that is socially and economically impacting Ohio's citizens - bed bugs.

In October of 2009, Ohio Department of Agriculture Director Robert Boggs wrote a letter petitioning the U.S. EPA for a Section 18 Emergency Use Exemption to allow for the limited residential use of a pesticide called Propoxur to combat the rapidly growing number of bed bug infestations in Ohio. According to a study by Dr. Michael Potter from the University of Kentucky, control rates with currently registered products range from 6.7 percent to 43 percent for a 24-hour period. Propoxur, during this same period, achieved 100 percent control.

Bed bugs are blood-feeding insects that infest all areas of homes, day care centers, senior care centers, hotels and hospitals. The nocturnal insects are mostly associated with the bedroom, where they emerge at night and bite inhabitants, causing significant emotional stress and problematic allergic reactions.

And the bed bug infestation in Ohio is not only affecting citizens' quality of life—the economic impact is also steadily mounting. For example, one Dayton apartment complex recently spent more than $280,000 in an attempt to destroy these invasive pests. The current pesticide treatments used may reduce infestations but the bed bugs quickly rebound.

Reinstating the residential use of Propoxur on a limited basis is necessary because of the insects' resistance to currently approved pesticide products. Without the use of Propoxur, there is very little that can be done to meaningfully stop the spread of bed bug infestations. If the U.S. EPA is not willing to grant this request, I ask that it provide an alternative solution to effectively address this problem.

This is an urgent matter to which I would appreciate your immediate attention. Thank you for your time and consideration.

Sincerely,

Ted Strickland

Ted Strickland
Governor, State of Ohio

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Section 18 request, Correspondence between Governor Strickland and Administrator Lisa Jackson of the United States Environmental Protection Agency

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN - 2 2010

THE ADMINISTRATOR

The Honorable Ted Strickland
Governor of Ohio
77 South High Street
Columbus, Ohio 43215

Dear Governor Strickland:

Thank you for your letter of April 19, 2010, regarding the State of Ohio's emergency exemption request for the use of propoxur to control bed bugs. I want to assure you EPA is aware of the difficult challenges and distress facing those who are trying to combat the resurgence of this pest and we are taking many active steps towards potential solutions to this growing pest problem. I appreciate the opportunity to address your concerns.

EPA staff have reviewed Ohio's emergency exemption request for the pesticide active ingredient, propoxur. Although EPA recognizes the severe and urgent challenges that Ohio is facing from bed bugs, the results of the risk assessment do not support the necessary safety findings as required by the Food Quality Protection Act (FQPA) and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). In particular, the requested use presents an unacceptable risk to children who might be exposed to propoxur in and around rooms treated for bed bugs. EPA is required to make a safety finding in support of newly requested pesticide uses, including those that are sought on an emergency basis, such as this use of propoxur on bed bugs. Propoxur, along with other members of its chemical class, is known to cause nervous system effects. The Agency's health review for its use on bed bugs suggests that children entering and using rooms that have been treated may be at risk of experiencing nervous system effects. The specific exposure scenarios that are of most concern involve inhalation risk and also hand-to-mouth behaviors on the part of children.

We are collaborating with experts and stakeholders nationwide to determine what other pesticides may be effective for bed bug control. The issue of resistance to bed bug control products is a national, and even international, concern. To help address this serious challenge, my staff has been communicating with pesticide regulatory authorities and industry experts throughout the United States to discern if there are new and effective registered products under development. As of this writing, an immediate solution has not been identified; however, we are continuing to engage the industry. Pesticides are an important element in an integrated bed bug control program, and EPA is open to new chemical control options that meet the safety findings of FIFRA and FQPA.

EPA continues to take a leadership role in bringing together many key leaders, both in the public and private sector to identify and develop solutions to the bed bug issue. The seriousness of bed bug problems prompted EPA to convene the National Bed Bug Summit in April 2009. The Summit was very well attended and provided a forum for open dialogue about solutions for

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all stakeholders involved with bed bug issues, including many Federal and State agencies. Collaboration promises to be key to sustainable bed bug control efforts. EPA continues to be actively engaged with States, municipalities, and Federal agencies that are grappling with bed bug issues.

EPA is supporting research into techniques that can be used in an Integrated Pest Management (IPM) approach to bed bug control. IPM is an effective and environmentally sensitive approach to pest management that considers pest life cycles and relies on a combination of common-sense chemical and non-chemical solutions. EPA is supportive of stakeholders involved in bed bug issues who are studying non-chemical practices to control bed bugs. Some of these practices appear to have utility in homes and commercial settings (e.g., hotels and apartments), including the use of heat or cold to kill all life-stages of bed bugs and physical exclusion techniques to prevent bed bugs from entering areas where people reside and sleep (e.g., mattress encasements).

EPA is working with the Centers for Disease Control and Prevention, the Department of Housing and Urban Development (HUD), and the Department of Agriculture's Agricultural Research Service (ARS) to coordinate programs for IPM techniques to address bed bugs. Also, while not an immediate solution, ARS is currently evaluating for efficacy several dozen new compounds (both natural and synthetic) that may be effective against bed bugs. We understand from Dr. Peter J. Ashley of HUD's Office of Healthy Homes and Urban Development that HUD has conducted IPM training for the Cincinnati Metropolitan Housing Authority and that the Cincinnati Health Department was involved in the planning for the IPM training. Dr. Ashley can be reached at (202) 402-7595.

Regardless of the ultimate solution to this challenge, education and outreach are key components to bed bug control on a community-wide basis. EPA will be issuing a *Request for Proposal* in mid-June to make $550K available in the form of grants to state and tribal agencies to be used in pilot projects to expand education and outreach. EPA also recently launched a web site devoted to bed bug issues that provides information on IPM techniques, current research efforts, links to educational materials developed by reputable sources, and other useful information that will be helpful for the public suffering from bed bug problems and professionals on the front lines of this battle. EPA's website can be found at: http://epa.gov/pesticides/controlling/bedbugs.html.

Again, thank you for your letter. We are committed to working with you to address this problem. If you have any further questions or concerns, please contact me or your staff may call Sarah Hospodor-Pallone, Deputy Associate Administrator for Intergovernmental Relations, at (202) 564-7178.

Sincerely,

Lisa P. Jackson

2

Section 18 request, Correspondence between Governor Strickland and Administrator Lisa Jackson of the United States Environmental Protection Agency

TED STRICKLAND
GOVERNOR
STATE OF OHIO

June 30, 2010

The Honorable Lisa P. Jackson
Administrator, Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Dear Administrator Jackson,

I am in receipt of your letter dated June 2, 2010, regarding the EPA's denial of Ohio's emergency exemption request for the use of the pesticide propoxur against bed bugs. While I certainly respect that in scrutinizing such requests the EPA must carefully balance the pesticide's benefits to its potential risks, I am concerned that there appears to be no immediate plan of action for how to address this rapidly growing problem. I appreciate that the EPA is meeting with experts and stakeholders nationwide to explore other pesticide options, but fear the damage that may be done by the time an acceptable treatment is discovered could potentially outweigh the risk you mentioned in your response.

I have initiated a Bed Bug Workgroup comprised of representatives from state agencies, Ohio's legislators, the pest control industry, local boards of health, the hotel and lodging industry, apartment owners and tenants, The Ohio State University, and other stakeholders. We established this group to develop a better understanding of bed bugs and determine best practices and approaches for addressing the serious nature of this problem. Dealing with this problem is a priority for Ohio, as there are individuals who are relying on us to help find a permanent control strategy. The bed bug problem has created a very real physical, emotional and economically devastating situation for many Ohioans.

Ohio has previously evaluated the alternative treatments described in your correspondence, such as heat and cold treatments, but we still struggle with the lack of safe and effective treatments available to Ohioans at a reasonable cost. Additionally, while physical exclusion techniques can temporarily mitigate the burden of living with bed bugs, these methods do nothing to permanently control bed bug infestations, which should be our ultimate goal.

Citizens faced with a bed bug infestation are becoming increasingly desperate for a viable solution. On June 4, 2010, the Ohio Department of Agriculture was notified of a situation in Cincinnati involving a potential misuse of a pesticide in an occupied rental property. Upon investigation, it was discovered that the property owner had hired an unlicensed pesticide applicator to treat the property for bed bugs. The applicator sprayed the interior of the duplex to the point of saturation with a product called Malathion. The tenants, including one small child, were treated for chemical exposure at a local hospital. The property is currently quarantined and the tenants have been relocated, although most of what they own is still in the apartment and may have to be destroyed. A criminal investigation has been launched,

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Continued

and the department and U.S. EPA Superfund are currently taking samples from the property to determine the necessary level of clean up. In addition to the serious health risk posed to the occupants, the clean-up costs are estimated to be as high as $20,000. Unfortunately, without access to an effective product to control infestations, the number of these types of life-threatening incidents will likely continue to rise.

At this time, Ohio is working with the state of Florida on a sampling protocol to gather actual data in areas where Propoxur has been applied. There is a concern that even after field data is collected, EPA may refuse to accept the data, or, that a cumulative risk assessment for carbamates will be applied to override data indicating low exposure levels.

Propoxur has been registered for use in the United States since 1963 and is currently registered for use in stores and warehouses, inedible areas of meat packing and food processing plants, non-food areas such as restrooms, and offices. Under EPA guidelines, product labels must use one of three classifications to distinguish product toxicity from lowest to highest: "Caution," "Warning," and "Danger." The Propoxur products submitted to EPA carry only a "Caution" classification.

While I appreciate the gesture to make funding available for education and outreach, unfortunately, education and outreach cannot substantially address this issue unless the use of an effective pesticide is also permitted. I would like to request a meeting with you, or Deputy Administrator Bob Perciasepe, to discuss all possible solutions and determine what the agency's plans are to resolve this expanding problem.

In addition as the EPA continues to meet with interested stakeholders and agencies, I respectfully request that you include a representative from Ohio in these efforts. The Ohio Department of Agriculture and the Ohio Department of Health have both been instrumental in working through the issue of bed bugs in Ohio, and I am confident that lead staff from both of these agencies could significantly contribute to your efforts. The directors of these agencies, who can assist you in indentifying the appropriate lead staff on this issue, can be reached via the following, Director Bob Boggs of the Ohio Department of Agriculture at: (614) 728 -2143 and Director Alvin Jackson, M.D. of the Ohio Department of Health at: (614) 466-2253.

I am hopeful we can promptly work together to find a safe, effective, and cost efficient treatment to provide relief to those who are burdened by bed bugs. Thank you for your time and effort into this matter and I look forward to your response.

Sincerely,

Ted Strickland

Ted Strickland
Governor, State of Ohio

Section 18 request, Correspondence between Governor Strickland and Administrator Lisa Jackson of the United States Environmental Protection Agency

TED STRICKLAND
GOVERNOR
STATE OF OHIO

December 27, 2010

The Honorable Lisa Jackson
Administrator, U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Dear Administrator Jackson,

As the bed bug infestation worsens in Ohio, I am again writing to ask the U.S. EPA to approve the Ohio Department of Agriculture's (ODA) Section 18 request to allow for the use of Propoxur. I understand that the U.S. EPA has proposed allowing a limited, one-time use treatment for managed multiple-unit facilities where senior citizens reside. On behalf of those struggling to rid their homes and belongings of these terrible pests, I strongly urge you to reconsider allowing the use of Propoxur in all residential areas in order to adequately address this crisis.

Your agency is currently allowing existing stocks of Propoxur to be used in residential settings. It does not seem reasonable that the U.S. EPA can legitimately refuse the ODA's Section 18 request while continuing to allow this product to be used in residences, specifically where young children and elderly reside, if the product poses a significant threat.

I too, want to protect Ohio's citizens. If it can be determined that Propoxur does actually create an unacceptable risk, then Ohio will immediately rescind its Section 18 request. There could be benefit to U.S. EPA's current offer to move forward in such a limited manner only if the U.S. EPA would commit to gathering data after treatment to further consider our Section 18 request. Otherwise, the proposal does nothing for the core problem—large reservoirs of bed bugs in residential settings. In fact, infestations within senior living facilities are likely caused by employees or visitors bringing bed bugs from home into the facilities. In essence, the U.S. EPA's proposal would inadequately treat one small extension of the problem rather than the root.

The ODA has repeatedly invited the U.S. EPA to come to Ohio to conduct live sampling in residential settings where Propoxur is currently being applied. The ODA has also offered to take the samples and conduct testing to assist the U.S. EPA so accurate, scientific decisions may be made. To date, the U.S. EPA has not responded to these offers, nor has the U.S. EPA gathered sufficient data on its own to scientifically preclude

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Continued

the use of Propoxur but instead continues to rely on non-laboratory-based assumptions while our citizens continue to suffer.

To make matters more confusing, the ODA discovered a separate label for Propoxur that was approved by the U.S. EPA in April 2010 that is far broader than U.S. EPA's limited-use proposal. Under the label approved in April, the product may be used by the general public, in managed multiple-unit facilities where senior citizens reside, would not have to be used by a licensed pesticide applicator and would not be limited to one-time use. I am disappointed that the U.S. EPA would fail to mention this label to anyone in Ohio while these discussions were taking place over the last nine months.

I urge you to reconsider our request and to work with Ohio to find a real solution to this serious public health problem.

Sincerely,

Ted Strickland

Ted Strickland
Governor, State of Ohio

Cost Estimate to Coordinate and Implement a State Bed Bug Awareness, Prevention and Control Program

The following is an estimated budget justification, modeled after Ohio's West Nile Virus awareness campaign, for the cost of a bed bug awareness program to accomplish this through the Ohio Department of Health:

- Educational materials, such as pamphlets and posters for distribution to LHDs, schools, hotels, physicians; AV equipment for giving presentations. (Cost ~$50,000 for materials, not development)
- A website, which must be maintained and updated regularly paid thru indirect costs
- An automated (not "live") information line with voice mail for after hours and weekends. (Cost ~$6,600 for phone system operations, not development)
- Two full time staff and seasonal staff to cover phone and mail inquiries; Full time staff would also be responsible for giving presentations and educational programs, act as liaison w/ LHD, pest control specialists and other interested parties. (Cost salaries, fringe, indirect ~$180,000 - $200,000)
- Provide grants to local health departments / bed bugs task forces in communities most impacted by bed bugs to implement awareness prevention and control initiatives. The focus would be to identify successful interventions that would serve as models to be used state-wide by other impacted communities. Estimate a minimum of 5 awards, for 18 months @ $50,000 each. (Cost ~ $250,000)
- There is the potential to contract with university extension services to expand the reach of this program through their many contacts. (Cost ~$20,000 - $50,000)

Total cost for a program with these components ~$505,000 to $555,000.

Project Description from ODH Proposal for U.S. Environmental Protection Agency Bed Bug Education/Awareness and Environmental Justice Grant

The Ohio Department of Health, in conjunction with our partners, proposes a three-part project to provide education and outreach through community engagement. Designed to help those suffering disproportionately from exposure to environmental harms and risks as a result of bed bug infestations, these projects will provide knowledge and skills needed to prevent infestations and seek appropriate assistance when needed to safely control bed bugs.

Healthy Homes Bed Bug IPM training (request $20,000)
The first part of our proposal involves educating key personnel in bed bug Integrated Pest Management (IPM) techniques. The Ohio Department of Health Healthy Homes and Lead Poisoning Prevention Program (Healthy Homes) proposes to incorporate an IPM and bed bug component into existing healthy homes training that will be offered to various public health officials, home health professionals, building and code inspectors, in-home child care providers, lead poisoning prevention case management professionals, community health workers and primary care providers. This workforce regularly interacts with the public in their homes and can directly share their newly acquired knowledge and skills with at-risk populations.

Previously known as the Childhood Lead Poisoning Prevention Program, Healthy Homes has transitioned its focus from childhood lead poisoning prevention to a more comprehensive, multi-disciplinary approach towards improving home health. Their training program is centered on the Seven Principles of Healthy Homes, a concept originally developed by the Department of Housing and Urban Development (HUD). These principles include the following: 1) Keep it Dry, 2) Keep It Clean, 3) Keep It Pest-Free, 4) Keep It Safe, 5) Keep It Contaminant-Free, 6) Keep It Ventilated, and 7) Keep It Maintained. Utilizing this existing infrastructure provides a great cost benefit and allows us to effectively reach an audience who can directly impact bed bug concerns for low-income residents.

If awarded, the funding will subsidize the addition of new instructional materials to the existing healthy homes training programs. This will provide knowledge and skills necessary to recognize bed bug infestations, share prevention information with residents to prevent future infestations, and link those currently infested with the resources needed to eradicate bed bugs using safe and effective IPM strategies. Until June 30, 2011, these trainings will be offered by the four existing Regional Resource Centers. In July, 2011, Healthy Homes will expand to eight Regional Resource Centers whose sole focus will be marketing the healthy homes concept within their respective jurisdictions. Each Regional Resource Center is expected to act as a warehouse of healthy homes related materials and will have fully trained staff with at least one credentialed Healthy Homes Specialist. The center will also act as a liaison to connect families in need with the appropriate resources to address the health hazards in their homes. The Regional Resource Centers also participate at health fairs, county fairs and other health-related events providing additional opportunities for community outreach and public awareness campaigns.

Healthy Homes will conduct 128 training events over a two year period. It is estimated that an average of 20 individuals will attend each session, for a total of 2,560 individuals trained during this grant period. The training will be marketed to local health departments, professional groups, primary care providers, trade associations, social care providers, community health workers and other interested groups. The impact these properly trained staff can have on the communities in which they work is expected to be profound.

Continued

Community Engagement (request $115,788)
The second part of our proposal involves collaboration between ODH and The Ohio State University's Center for Public Health Practice (OSU). The goal is to use a previously validated public engagement process to identify at-risk populations, assess their current level of awareness of prevention and IPM eradication strategies, and determine the most effective and efficient way to provide the information and resources they need. Through this collaboration, we will develop an education and prevention toolkit that can be utilized by any community in Ohio, and beyond.

In year one of the grant, OSU will convene a steering committee of representatives from ODH, Columbus Public Health, Franklin County Board of Health, Hamilton County Public Health and Cincinnati Health Department to plan a coordinated pilot community and stakeholder engagement process intended to:

- Build and strengthen relationships that will assist these communities in reaching targeted populations regarding bedbug control
- Collect qualitative and quantitative data on knowledge, perceptions and values within the targeted populations through: Facilitated Small Group Discussion, Focus Group Discussion, Electronic Audience Polling and Large Group Discussion
- Provide local community stakeholders with the information and tools to develop a community-specific bedbug training and outreach program

OSU will pilot the community engagement process in the Columbus and Cincinnati metropolitan areas, which will include:

- Planning and conducting one community-at-large meeting (up to 100 participants) in each area to gather community knowledge, values and perceptions about bedbugs and bedbug control
- Compiling the results of the community-at-large meetings into a draft report
- Planning and conducting one stakeholder meeting in each area to report the data and information gathered from the community, analyze the results and discuss/prioritize interventions based on this information
- Compiling a final report of both the community information and stakeholder analysis in each pilot community

Four contracts will be administered by ODH to four local health departments in the Columbus and Cincinnati metropolitan areas for planning and implementation of public and stakeholder engagement meetings within their jurisdictions. This includes work to:

- Identify and convene appropriate jurisdictional work/planning participants
- Identify appropriate facilities / meeting sites in two areas: Hamilton county and Columbus
- Determine meeting dates/times to support optimal participation by target groups
- Identify and communicate with stakeholders and citizens-at-large, assuring inclusion of diverse, at-risk, and special populations
- Design, develop, and disseminate information and messaging appropriate for stakeholder and citizen representatives that include diverse, at-risk, special populations
- Assure involvement of appropriate decision makers and dissemination of project findings
- Contribute to interim and final reports by providing unique local descriptions, experiences, outcomes, and lessons learned

Continued

In the second year of the grant, OSU will create a draft toolkit based on the results from the pilot communities for broader use statewide, including:

- A process guide for conducting community engagement around bedbug issues
- Tools and templates for compiling and analyzing community and stakeholder engagement data
- A process for developing community-specific bedbug outreach activities based on community and stakeholder engagement results

In addition, OSU will provide up to four regional workshops to train participants on the use of the toolkit as well as effective planning and facilitation of community engagement processes. An evaluation report of activities regarding the use of the community engagement process and toolkit that assesses the effectiveness of the approach in the pilot communities from year one will be submitted and these results will include recommendations for further adapting the toolkit based on evaluation results.

Automated Toll Free Bed Bug information Line (request $13,200)
The third component of our proposal is a toll-free, automated, bed bug information line. The volume of phone calls to local and state public health agencies is increasing, but the cost of maintaining support for a toll-free phone line with "live" staff is prohibitive. A fully automated, menu driven system would be an inexpensive alternative and would provide consistent and accurate information for callers. Though a great deal of information is available on the internet, many individuals in our most affected populations do not have access to this technology. We propose to pilot an automated line that would provide key information about bed bugs with links to five topic areas, one of which would direct callers needing more details to the appropriate agency resources. Usage statistics from this line could be used as a sentinel source of data to monitor bed bug complaints and concerns throughout the state.

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