Testimony

of

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before the

New York State Assembly Standing Committee on Environmental Conservation Jointly with the Assembly Standing Committee on Health

On

Pesticide Sales and Use Reporting

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Good morning, Chairmen Gottfried and Sweeney, and members of the Committees on Environmental Conservation and Health. My name is Daniel Kass, and I am the Deputy Commissioner for the Division of Environmental Health at the New York City Department of Health and Mental Hygiene.

The Health Department's Division of Environmental Health conducts surveillance of environmental-related disease; assesses risk from exposure to potential environmental and occupational hazards; inspects child care facilities, food service establishments and other permitted entities; monitors air and water quality; works to control the City's rat population; treats mosquito breeding sites to curb West Nile Virus; and acts to prevent injury, including from gun violence. We also respond to complaints of environmental and occupational exposures; and educate the public and health care providers about environmental and occupational illnesses.

In my testimony today, I will address two issues for the committees' consideration. The first is to underscore the critically important role that the New York State Reporting Law plays in the City's ability to track and ultimately reduce pesticide exposure. The second is to suggest ways that implementation of the law could be strengthened to dramatically amplify its benefits.

The Pesticide Reporting Law Provides Data Critical to Protecting New Yorkers' Health

As you know, the New York State legislature enacted the Pesticide Reporting Law (PRL) in 1996, which requires licensed pesticide applicators to report the location, product and quantity of each application made the year before and mandates that some form of that information be made public. The law was enacted in the face of concerns by breast cancer advocates and others about the links between pesticide exposures and disease.

There are special concerns for City residents about pests and pesticide use: population density is great, so when pesticides are applied, they have the potential to result in exposure to more people, or cause environmental consequences that affect areas that are reached by more people; target organisms for pesticides in urban areas tend to be indoors, where pesticides may degrade more slowly and concentrate; the decision to apply pesticides are often made by people other than those who may ultimately benefit from their use; and finally, target organisms do not merely appear randomly across a city. Their presence, especially in housing, is highly correlated to conditions of poverty, housing disrepair, and general social disadvantage. These factors, in turn, are highly predictive of health vulnerabilities, some of which may be exacerbated by pests, or pesticide exposure.

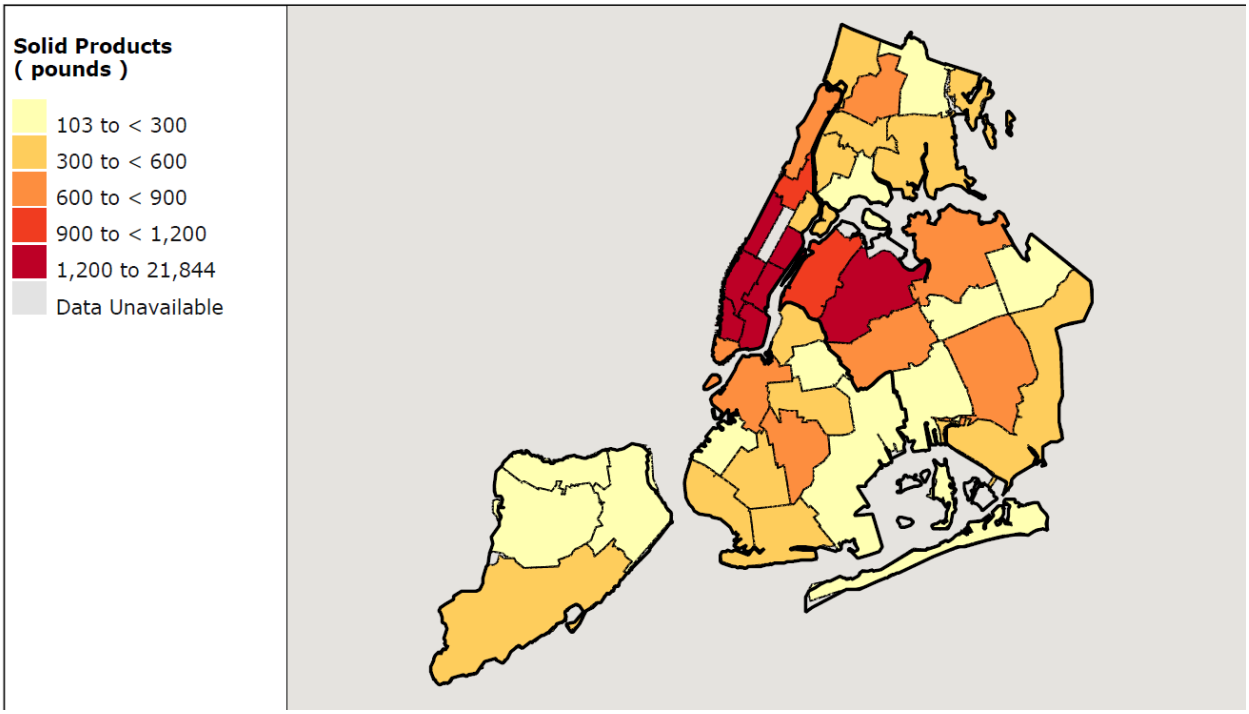
Pesticides can reduce pest problems, but they are harmful. They are unique as the only products specifically permitted by the state and federal government that is used for their toxic properties. The most common pesticide components, organophosphates and pyrethroids, can damage both the reproductive and developing nervous system, and acute exposure can cause a variety of ailments from dizziness, headaches, vomiting and diarrhea to seizure and in extreme cases, death. The risk of pesticide exposure increases when pesticides are used in a confined, indoor space – such as a New York City apartment – because chemical compounds are slower to break down when not exposed to sun, rain and soil and because there is a greater chance that the apartment dweller will have contact with pesticide residue. Studies by academic investigators have indeed found that pesticide residues long persist in indoor urban environments. Our own

Department found that most organophosphorous and pyrethroid pesticide metabolites, measured in urine, are higher in the New York City adult population than among US adults generally.

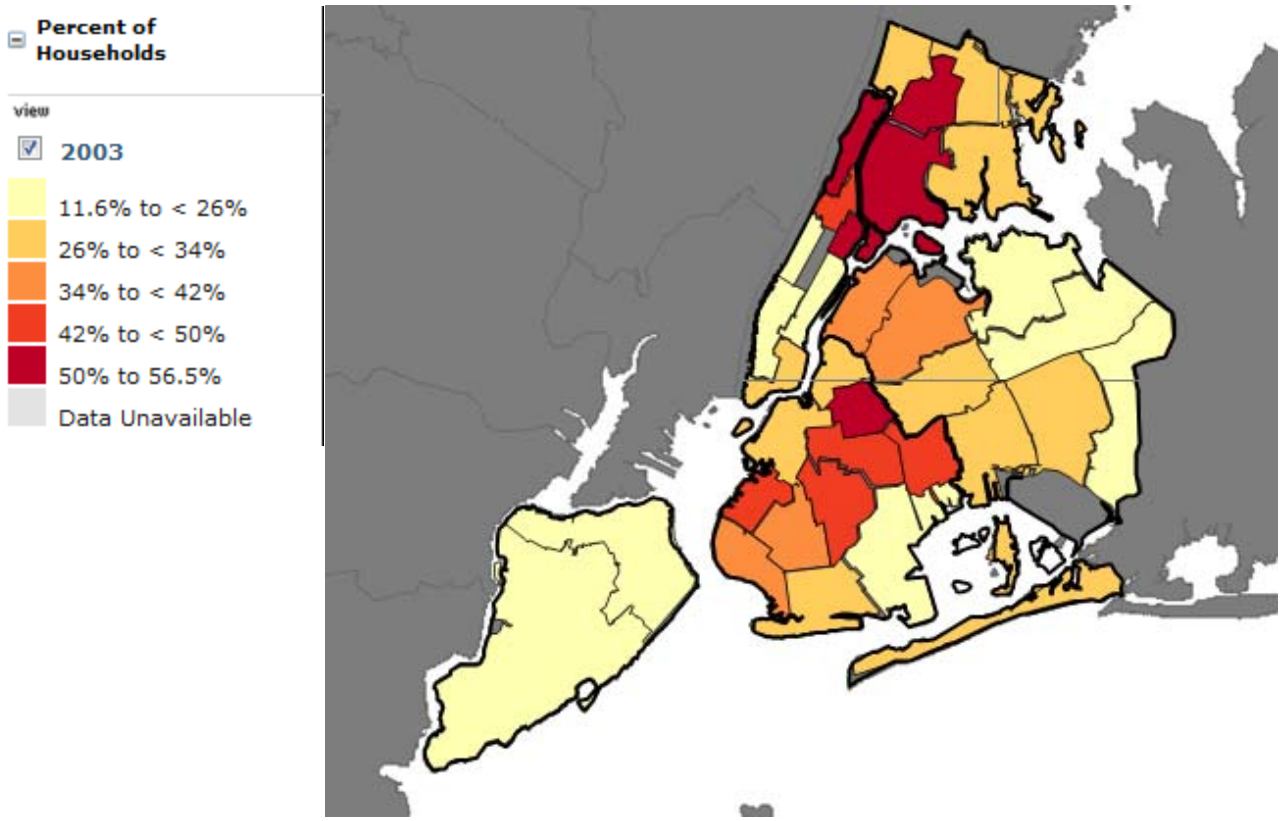
New York City does not advocate against all pesticide use, and indeed applies significant quantities of certain pesticides to combat fungi, insects, rodents, and invasive and undesired plant species. But the City, overall, has embraced integrated pest management techniques that reduce the reliance on pesticides as a sole or even primary strategy. Because of the harms of pesticides, it is a nearly universal goal among public health experts and environmental advocates to reduce unnecessary exposure and adopt preventive practices that minimize the need for the use of pesticides of greatest ecologic, environmental and health concerns. To achieve that goal, however, we need information that can enable policy making and education.

The data provided under the Pesticide Reporting Law are essential to these efforts. New York City uses the data collected by the state to track pesticide use in our communities and to promote safer practices. For example, by cross-matching the state data with information from the federal Environmental Protection Agency, the Department was able to show commercial pyrethroid applications by neighborhood. We found, in 2005, the last year of data made available for analysis by DEC under the Pesticide Reporting Law, that pyrethroids were more heavily applied commercially in more affluent neighborhoods of New York City. In contrast, people's own use of hazardous off-the-shelf pesticide products is far more likely in lower income neighborhoods. These disparate use patterns are illustrated in the maps provided as part of my written testimony, and you can see there how usage varies across city neighborhoods.

Commercial Application of Pyrethroid/Pyrethrin Insecticides by Neighborhood (UHF 42) , 2005



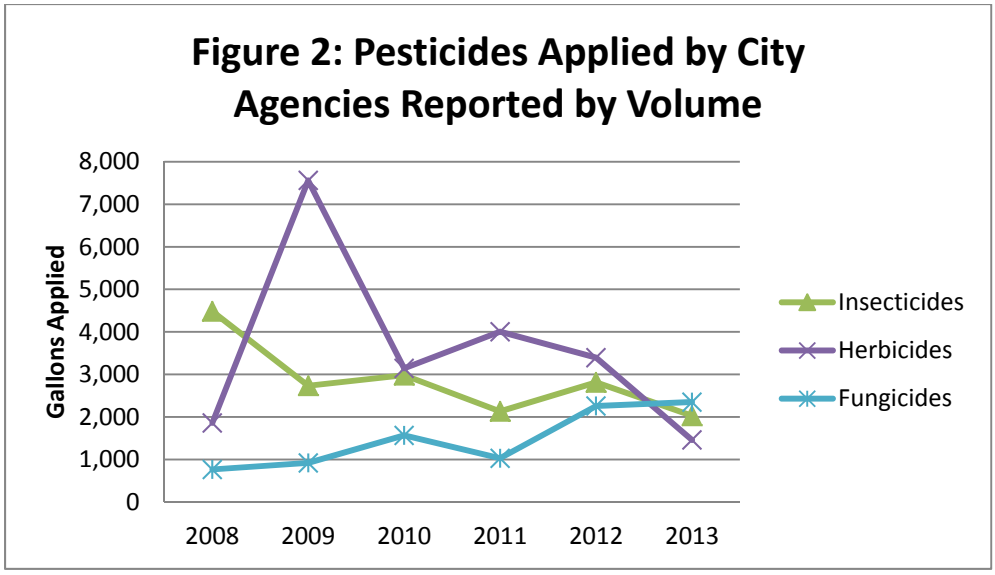
Households Using Pesticide Sprays, Bombs, or Foggers by Neighborhood (UHF 34)



The finding that professional pest control is more likely to occur in neighborhoods with higher income, and products that lead to unnecessary exposure are used in lower-income communities of color, is just one of many examples of things we learn from using PRL data for surveillance purpose, and their implications are obvious.

Moreover, the transparency enabled by the PRL has pushed the City to reduce its reliance on pesticides. In 2005, the City enacted a local law, piggy-backing on the PRL, requiring pesticide applicators to submit the data they provide to the state to the city as well, for applications made on city property. To comply with this law, the Health Department created an online pesticide registry that all state licensed applicators applying pesticides on City-owned or leased property now use to report their applications. Ninety-eight percent of applicators use an upload tool we created to enable them to export data from their own recording systems and upload it into our database or directly enter the data on our website. Each year, by May 1, we report the previous year's applications on a citywide basis, by product and by agency. These reports have been posted to our website for each of the last six year and are available to policymakers, advocates and industry for review.

Insecticide and herbicide applications by City agencies have fallen dramatically as Integrated Pest Management has been adopted, and disclosure has driven policy.



In 2005, New York City also determined it would prohibit certain pesticide formulations from being applied on City-controlled property, without a waiver. Our ability to work with the State reporting requirements enables us to evaluate compliance with this law.

These examples are just a few of the many ways we have promoted public policy and environmental health surveillance because of the PRL law. We were therefore alarmed by calls earlier this year to amend the PRL reporting requirements, and sharply diminish the law's effectiveness. We appreciate the efforts by committee members to protect this important law.

Improvements in Data Collection Would Amplify the PRL's Benefits

I want to turn now to some recommendations for improving data collection and access. I know there are concerns about the quality of some of the data collected under the PRL. We ourselves have pointed out several problems with both zip code and record-level data, including the use of incorrect units and outlier quantities. There are certainly problems with incomplete reporting, a phenomenon that DEC has historically recognized and tried to overcome by reaching out to non-reporting licensees. But it is important to note that there is no perfect administrative dataset. Whether data about hospitalizations, cases of cancer, inspectional findings, or tax records, there are outlier data, and there is incompleteness. It is incumbent on the steward agencies to do their best to identify concerns, where resources are available clean data, and where problems persist, to alert users of potential issues and caveat their use. There are ways to improve data collection to eliminate errors, to make corrections in data once collected, and ultimately, to simply acknowledge the limitations that a given dataset may have.

Improving Data Collection. To improve collection and to simplify reporting for the industry, our Department created an electronic reporting system, which includes an import function that makes it easy to upload data, validity checks and applicator-specific templates, among other tools, that solve many of the data quality concerns. We would be more than happy to share our source code with the State.

Data Cleaning. This can be achieved through a variety of efforts. Information that does not appear to be accurate can be verified by the original source. In addition to that, data can be flagged for concern, removed from public view, or approximated to capture the important statistical pattern.

Data Analysis and Reporting. Finally, we urge the committee members and the Department of Environmental Conservation (DEC) to rethink their reliance on outside researchers entirely to analyze the data. Based on our experience as a government agency, DEC should dedicate resources to enable it to analyze the data itself, and not outsource the work; these data provide invaluable information that enable DEC to meet its agency mission, including providing the public with information it seeks and being held accountable for the role it is meant to play under the PRL.

The Department of Environmental Conservation's analysis would not replace the research that others do; there are many academics, government scientists and advocates who work with these data and are interested in doing more. Unfortunately, however, because DEC has not released zip code level data since 2005, research has been stymied. And even when data have been made available, DEC relies on a narrow view of health outcomes research, limiting those who can access address-level data by research study agreement only to those who meet its narrow definition. I urge the committees to craft a bill that enables DEC to release record level data to a broader set of researchers, at minimum to those at local health departments, who can then explore the data, and generate hypotheses that might ultimately produce a variety of outcomes research.

The Department has developed significant expertise in collecting, evaluating and reporting this information to sister agencies and to the general public from our work with State pesticide application data and under our own local law. When necessary, our publications simply acknowledge the limitations in the data and what that might mean for the results. But we hope that this committee would agree that those limits do not prevent us from evaluating the information altogether.

We welcome the chance to discuss this issue further today, and to subsequently meet with State Health and Environmental Conservation officials to build on strategies to improve data collection and dissemination. Information can help us promote effective and safe pest control, and reduce, where possible, unnecessary public exposure.

Thank you for the opportunity to testify, and I would be happy to address any questions you may have.