Transitioning to Healthy Homes

May 4, 2009 Teleconference Sponsored by the National Center for Healthy Housing



Deborah Nagin, MPH, Director Yma Andries, MPH, Deputy Director Lead Poisoning Prevention Program (LPPP) NYC Department of Health and Mental Hygiene **Today's Presentation**

Brief overview of lead poisoning in NYC

- LPPP efforts to integrate Healthy Homes into program activities
 - Home inspections
 - Hardware store campaign
- Accomplishments & challenges



Lead Poisoning in NYC





Steady Decline of in Number of Lead-Poisoned Children*

*Number and rate (per 1,000 tested) of children, age 0 to less than 18 years, newly identified with blood lead levels \geq 10 µg/dL, by year: NYC, 1995 – 2007.

Success Due to Many Factors

- Regulations prohibiting use of lead in:
 - Residential paint
 - Gasoline
 - Canned goods and other consumer products
- Housing improvements, including window replacement
- Education and outreach
- Early identification through screening



Strong Policy Infrastructure

- Local Law 1
 - NYC primary prevention law
 - Primarily enforced by HPD
 - Building owners must inspect and safely repair lead paint hazards in the homes of young children before they are lead poisoned
 - Group day care operators must visually survey facilities for peeling paint annually and make repairs immediately

NYC Health Code

- Authorizes DOHMH to:
 - Investigate lead hazards in the homes of lead-poisoned children and order abatement of hazards
 - Investigate complaints of unsafe work
 - Investigate and embargo consumer products contaminated with lead
- Bans the use of lead paint inside of homes and in items used by children
- Prohibits dry sanding and scraping



Yet.... Lead poisoning is Still a Problem in NYC

- Two-thirds of NYC's housing units were built before 1960, when lead paint was banned for interior use in NYC
- Blood lead levels previously thought to be safe are now associated with learning and behavior problems in young children
- About 2,000 children have blood lead levels
 ≥ 10 µg/dL



LPPP's Comprehensive Services

- Primary prevention to reduce lead hazards in homes and communities
- Outreach and education to the public and health care providers
- Case coordination for lead poisoned children and pregnant women
- Environmental investigation and enforcement
- Surveillance and research



Environmental Intervention Services for Lead Poisoned Children

- At blood lead levels of 15µg/dL or greater, LPPP provides:
 - Environmental inspections of primary and secondary addresses
 - Ordering building owners to abate hazards
 - Monitoring remediation timely and using safe work practices
 - Referral to our housing agency (emergency repair program if owner fails to do work)
 - Risk reduction education



Environmental Intervention

- LPPP performs a risk assessment for possible lead exposures, including:
 - Visual assessment
 - Comprehensive risk assessment interview
 - XRF testing
 - Environmental samples, as necessary



Services for Lead Poisoned Pregnant Women

- Collaboration with Adult Lead Program
- Visual assessment of home and/or work place
- Risk assessment interview with lead-poisoned pregnant woman
- Lead risk reduction education
- Care Coordination with health care providers
- Environmental inspections
 - At delivery
 - Prior to delivery if child < 6 years and peeling paint in home</p>



Collaboration with Home Visiting Programs Serving High-Risk Families

- Newborn Program and Asthma Initiative
 - LPPP trained home visiting staff to do visual assessment for peeling and deteriorated paint
 - Referral is made to LPPP
 - LPPP performs environmental inspection
 - If lead paint hazards identified, landlord is ordered to remediate the hazards



New 2008 Initiative

- Using lead and vital records registries to identify high-risk housing with young children and offer inspections to those families
 - Children (< 3 yrs) with BLLs of 10-14 µg/dL</p>
 - Families with newborns (< 3 mo.) in the same building</p>
- Intervening earlier and creating primary prevention opportunities



Integrating Healthy Homes into Case Investigations



Components of Healthy Homes Inspections

In addition to complete lead hazard inspection and risk assessment:

- Visual inspection for other home health hazards
- Education for occupants and building owners (brochures, checklists, oral messages)
- Referral to appropriate city agencies for enforcement using 311





Home Health Hazards We Look For

Missing or improperly installed window guards

- Missing smoke and carbon monoxide alarms
 Alarms with missing or expired batteries are also identified
- Mold
- Pests roaches, mice, rats



Inspection Staff

- 17 field-based public health sanitarians
- All are EPA-certified lead paint risk assessors
- They have received additional HH training from:
 - NYC Fire Department
 - Window Falls Prevention Program (a DOHMH program that checks for mandatory window guards)
 - In-house training on mold, pests



Window Guards

- Guards are required by NYC law on every window (except fire escape) for children < 11 years of age</p>
- LPPP inspector immediately reports missing or improperly installed window guards directly to DOHMH Windowfalls Prevention Program (WPP)
- WPP orders building owner to correct the violations
- Window guard inspection has been part of LPPP inspection protocol for many years



Smoke and CO Alarms

- Both types of alarms are required by NYC law
- Inspector's responsibilities:
 - Checks for alarms within 15 feet of bedrooms and at least one on every floor
 - Distributes free batteries provided by Fire Dept
 - Distributes fire department brochure with messages on fire prevention
 - Does not test the alarms

Possible future program enhancements

- Distribute free alarms
- Arrange for installation of free alarms





Pests and Pesticide Hazards

Inspector's Responsibilities:

- Checks for roaches, mice and rats
- Helps occupant report rats to DOHMH Office of Pest Control
- Warns occupants not to use dangerous, illegal pesticides such as *Tempo*®, Chinese Chalk and *Tres Pasitos*
- Encourages occupants to use Integrated Pest Management; provides brochure on IPM

How to Control Pests Safely



Getting Rid of Roaches and Mice





Mold

Inspector's Responsibilities:

- If mold is extensive, helps the occupant file a complaint with NYC's housing agency
- If mold is small or found only on bathroom tiles, gives the occupant information on cleanup procedures





Healthy Homes Inspection Report



Healthy Homes Inspection Report

Date:	Child ID Number:	Building Type: a 1-2 family a Multiple Dwelling
Address:	Apartment Number:	Floor:
Borough:	Zip Code:	Phone Number:

Inspect apartment and speak with the tenant about Healthy Homes topics. Fill out form, provide appropriate education messages, and make call to 311 with tenant to make a complaint, where applicable

1. Was mold observed in apartment? (Do not report mold found on bathroom tiles or grout.)

D No □ Yes → Has tenant already made a complaint?

□ Yes → Advise that they call 311 to find out status of their complaint. □ No → Make referral to 311 with tenant and record complaint number in question 7.

2. If yes, please list all locations (room and component) where mold was observed;

Inspector fills out report for office use 3. Were the following pests observed during inspection or reported by tenant? Indicate yes if pests were directly observed or reported by tenant. If Yes for RATS
A Make referral to 311 with tenant and record complaint number in question 7.

RAIS MILE RUNCHES	S	RO	MIÇE		RATS	
a Yes a No Yes a	⊐ No	🗆 Yes	No No	D Yes	D No	🗆 Yes

Primary Sleeping Area	Other Sleeping Area (> 15 feet away from primary sleeping area)	Basement (1- and 2-family homes only)
□ Yes □ No	⊡Yes □ No	□Yes □ No

5. Are there carbon monoxide alarms present in the following areas?

Primary Sleeping Area	Other Sleeping Area (>15 feet away from primary sleeping area	
🗆 Yes 🗆 No	□ Yes □ No	

Complaint # (MOLD):

6. Were 9 Volt batteries provided for smoke or carbon monoxide alarms?

PYes
No 6a. # of batteries provided:

7. Complaint # (RATS):

Comments

PHS (Print)	PHS (Signature)	Badge #	Employee ID #
Supervisor (Print)	Supervisor (Signature)	Badge #	Employee ID#

NYC



Tenant Checklist

- Inspector fills out the tenant checklist with the tenant and uses this opportunity to reinforce HH messages
- Form has space to record complaint reference number if problem is reported to a city agency

NYC	KEEP YOUR HOME HEALTHY AND SAFE FOR YOUR CHILDREN!	۲
LI#:	Date:	
Address:	Apt. #:	

An inspector from the NYC Department of Health and Mental Hygiene (DOHMH) inspected your apartment for lead paint hazards and other home health hazards. This checklist tells you what problems the inspector found in your apartment. A checklist is also being sent to your landlord.

Protect your child's health! Please read the checklist below and the brochures provided. For more information, call 311.

TENANT CHECKLIST

HOME HEALTH HAZARD	HAZARD FOUND IN YOUR HOME	WHAT YOU CAN DO
Were home health hazards found in your apartment?	∏Yes ∏No	Yes → Read this checklist for more information. No → Keeping your home healthy and safe is very important. Please read the brochures provided.
Lead paint hazards in your apartment	□Yes □No	The health department has ordered your landlord to fix lead paint hazards. If the owner does not make the repairs, please call (212) 676-6379.
Missing or broken window guards (if a child under age 11 lives with you)	□Yes □No	The health department will order the landlord to install or fix the window guards. If the landlord doesn't make the repairs within 30 days, call 311.
Missing smoke alarms Missing carbon monoxide (CO) alarms	□Yes □No □Yes □No	Ask the landlord to install the alarms or do it yourself. Change batteries twice a year, when you change your clocks for daylight savings time. If either the smoke or the CO alarm rings, everyone should leave the apartment immediately. Then call 911.
Mold in the apartment (except on bathroom tiles and grout)	□Yes □No	Landlords are responsible for removing mold everywhere except on bathroom tile and grout. Call 311 if the landlord doesn't remove mold and fix leaks. You can remove mold on bathroom tiles and grout with soap and water. Read the enclosed brochure to learn how to prevent mold growth.
Roaches and/or mice in your apartment	□Yes □No	Read the enclosed brochure to learn safe ways to control pests without using dangerous pesticides.
Rats in your apartment	Yes No	Call 311 to report rats in your apartment, building or neighborhood!

Complaint # (Rats)

Department of Health and Mental Hygiene Lead Poisoning Prevention Program 253 Broadway, 11th Floor, CN 58, New York NY 10007



Landlord Checklist

- Filled out by inspector <u>after</u> s/he returns to the office
- Mailed to the building owner along with the Healthy Homes brochures
- Tells building owner which home health hazards were found by the inspector
- Includes tips on how to fix the hazards



An inspector from the NYC Department of Health and Mental Hygiene (DOHMH) inspected the above-mentioned apartment for lead paint hazards and other home health hazards. If lead paint hazards were identified, you will receive a Commissioner's Order with a list of the lead paint hazards you must repair. The checklist below tells you the problems other than lead paint hazards which the inspector found in the apartment and what you should do to fix the problems. Please read the checklist below and the enclosed brochures. For more information, please call 311.

Landlord Checklist

Home Health Hazard and Inspection Results	HAZARD FOUND IN APARTMENT	WHAT LANDLORDS AND HOME OWNERS SHOULD DO
Has any hazard been found in this apartment?	Yes No	NO → Remember periodic maintenance is the key to keeping homes healthy and safe. Please read the enclosed brochures for more information! YES → Read the information below.
Does apartment have smoke alarms and carbon monoxide alarms in the required locations? Smoke alarms and carbon monoxide alarms save lives!	Smoke Alarm: Yes No Carbon Monoxide Alarm: Yes No	Building owners are required by law to install a smoke alarm and a carbon monoxide (CO) alarm within 15 feet of every room where people sleep. The alarms must have the Underwriter's Laboratory (UL) seal of approval. In an apartment or home with more than one floor, smoke alarms are required on every floor and in the basement. The Fire Department recommends that you install CO alarms in these locations also. Prevent fires and CO problems. Make sure that all gas and oil-fueled appliances are operating properly. Hire a qualified technician to inspect these appliances annually. Propane and kerosene heaters are illegal in NYC. They are a fire and CO hazard. Provide adequate heat so that tenants do not use space heaters. To find out why smoke and CO alarms are so important, read the enclosed pamphlets from the NYC Fire Department.
Does the apartment have all required window guards? Are any of the window guards loose or incorrectly installed? Window guards can save lives!	Yes No	Building owners are required by law to install DOMHM- approved window guards in every apartment where a child younger than 11 years lives, if the apartment is located in a building with 3 or more apartments. Window guards must be installed on every window in the apartment, except the window that opens onto the fire escape. Window guards are required even if the apartment is on the first floor. To learn more about window guard requirements read the enclosed brochure: Window Guards: They Save Lives. They're the Law.

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Preparation for Healthy Homes Pilot

- Research to select hazards
 - Nature and severity of health impact
 - Prevalence
 - Existence of housing and health code requirements that could be used to support intervention
- Priority given to hazards that
 - Can be fatal -- fire deaths, CO poisoning, window falls
 - Are associated with asthma -- mold, pests, pesticides
- Development of inspection protocol and checklists for occupants and owners
- Revisions to data management software to allow tracking of HH inspection results
- Training of inspectors



Bringing Pilot to Scale

- Started as small pilot in a few neighborhoods in March 2008
- After 8 weeks, met with sanitarians to get feedback
 - Sanitarians enjoyed helping families to address additional home health hazards
 - Most families welcomed the assistance provided
- Incorporated sanitarian suggestions into inspection protocol
- Gradually expanded; city-wide scope as of September 2008



Number of Homes Inspected

Inspected 442 homes in 2008

Anticipate 1000 inspections in 2009

2008 program was not citywide until 9/09

Inspections for children under 3 years with BLLs of 10-14 ug/dL started in 12/08



Healthy Homes Inspection Data (2008)

	Number of housing units
Units inspected	442
Units with one or more hazards	302 (68.3%)
Frequency	1 hazard103 units2 hazards108 units3 hazards55 units4 hazards32 units5 hazards4 units6 hazards0 units



Healthy Homes Inspection Data (2008)

	# of units in which hazard was identified	% of 442 units inspected in which hazard was identified
Pests		
Roaches	157	35.5%
Mice	125	28.3%
Rats	8	1.8%
Mold	54	12.2%
Alarms		
Missing Smoke Alarm	119	26.9%
Missing CO Alarm	169	38.2%



Healthy Homes Hardware Store Campaign



"Point of Sale" Educational Strategy

Reach "do-it-yourselfers" and small contractors to educate them about lead-safe work practices

- 529 hardware and paint stores in high-risk neighborhoods for lead poisoning enrolled as of 12/08
- Health Code Requirement: Stores that sell paint or paint removal supplies must post a sign notifying customers that dry painting and dry sanding are prohibited in dwellings, schools and day care centers



Warning Sign for Stores

Preventing Childhood Lead Poisoning in New York City

PROHIBITED BY LAW DRY SANDING OR DRY SCRAPING PAINT*

In Homes, Day Care Centers, and Schools



Always Use Wet Methods and Safe Work Practices

> Call 311 for more information or to report unsafe work.

* Lead paint and paint of unknown lead content





Information and Give-Aways



- Brochures and promotional items distributed with DOHMH "branding"
- Stores are encouraged to place decal in window to announce participation
- LPPP staff visit periodically to restock and check for the mandatory warning sign





More Branded Give-Aways









Healthy Homes Refrigerator Magnet





Accomplishments and Challenges



2008 Accomplishments

- Successfully integrated Healthy Homes into primary and secondary inspections for lead poisoning
- Enriched our collaboration with home visiting partners
 - Identify high-risk apartments for lead poisoning
 - Respond to other tenant concerns, eg. rats and mold
- Established new collaboration with Fire Department
 - **Training for inspectors**
 - Brochures and free batteries
 - Possible collaboration on a FEMA grant
- Developed brochures in several languages to more effectively serve multilingual population



Challenges in Controlling Other HH Hazards

Mice and Roaches

- Two most common hazards found
- Education is the only intervention
- No specific city agency responds to complaints
- LPPP hopes to:
 - Find additional funding to create and distribute IPM pest kits
 - Promote building-wide approach and encourage owners to hire IPM pest control contractors

- Smoke and CO Alarms
 - Ability to order installation is complicated
 - Lack of funds to purchase alarms
 - Lack of staff for distribution of alarms
 - LPPP hopes to:
 - Identify donors and explore possibility of installation by other city agencies (e.g. Fire Dept)



Challenges: Tenant Participation

- Tenants who decline apartment inspection out of fear of eviction or deportation
- Tenants who allow the apartment inspection but are afraid to file complaints or to have owner notified of the problems
- Context: Housing shortage, unofficial tenants, undocumented immigrants



Challenges: Evaluation

- Were hazards identified by LPPP inspectors addressed?
 - For apartments with lead paint hazards and other HH hazards
 - LPPP checks on progress of lead hazard remediation
 - Should we re-inspect of HH hazards?
 - For apartments with HH hazards but no lead paint hazards
 - Currently no re-inspection
 - Should we revisit? Would telephone survey be a viable alternative?



Challenges: Evaluation

- If hazards were addressed, did the intervention have a health impact?
 - Project is small and interventions are widely dispersed
 - Will we see a city wide health effects?
 - However, research has demonstrated efficacy of window guards and smoke alarms in reducing fire deaths and child deaths from window falls
 - Some small studies have shown decrease in asthma symptoms with decrease in roaches and pesticide use



Next Steps....

- Continue to assess our intervention efforts
- Look for ways to improve upon and expand interventions based on data, research and best practice
- Build new collaborations to leverage resources and expand our reach in high risk communities

