



**NESEA**

NORTHEAST SUSTAINABLE ENERGY ASSOCIATION

# Greening Affordable Housing: Driving Energy Efficiency, Clean Energy, and Health in Our Communities

March 9, 2017



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# What I will cover today:

- Describe a collaborative project to promote affordable, green and healthy housing in NYC
- Key elements that drove and sustained the collaboration
- Evaluation strategy
- Successes and challenges

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# Two Shades of Green (TSG)

## The Goal:

TSG integrates green, healthy and cost-effective measures into existing affordable housing rehabilitation and property maintenance

## Collaborative Effort:

- Local Initiatives Support Corporation (LISC)
- NYC Department of Health & Mental Hygiene (DOHMH)
- NYC Department of Housing Preservation and Development (HPD)
- NYC Smoke Free

## Program Partners:

- 10 Community Development Corporations (CDCs)

## Funders:

- State Farm
- Wells Fargo

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# TSG Priority Areas

- **Energy and Water Conservation**
- **Integrated Pest Management**
- **Smoke-Free Housing**
- **Active Design**
- **Green Cleaning**

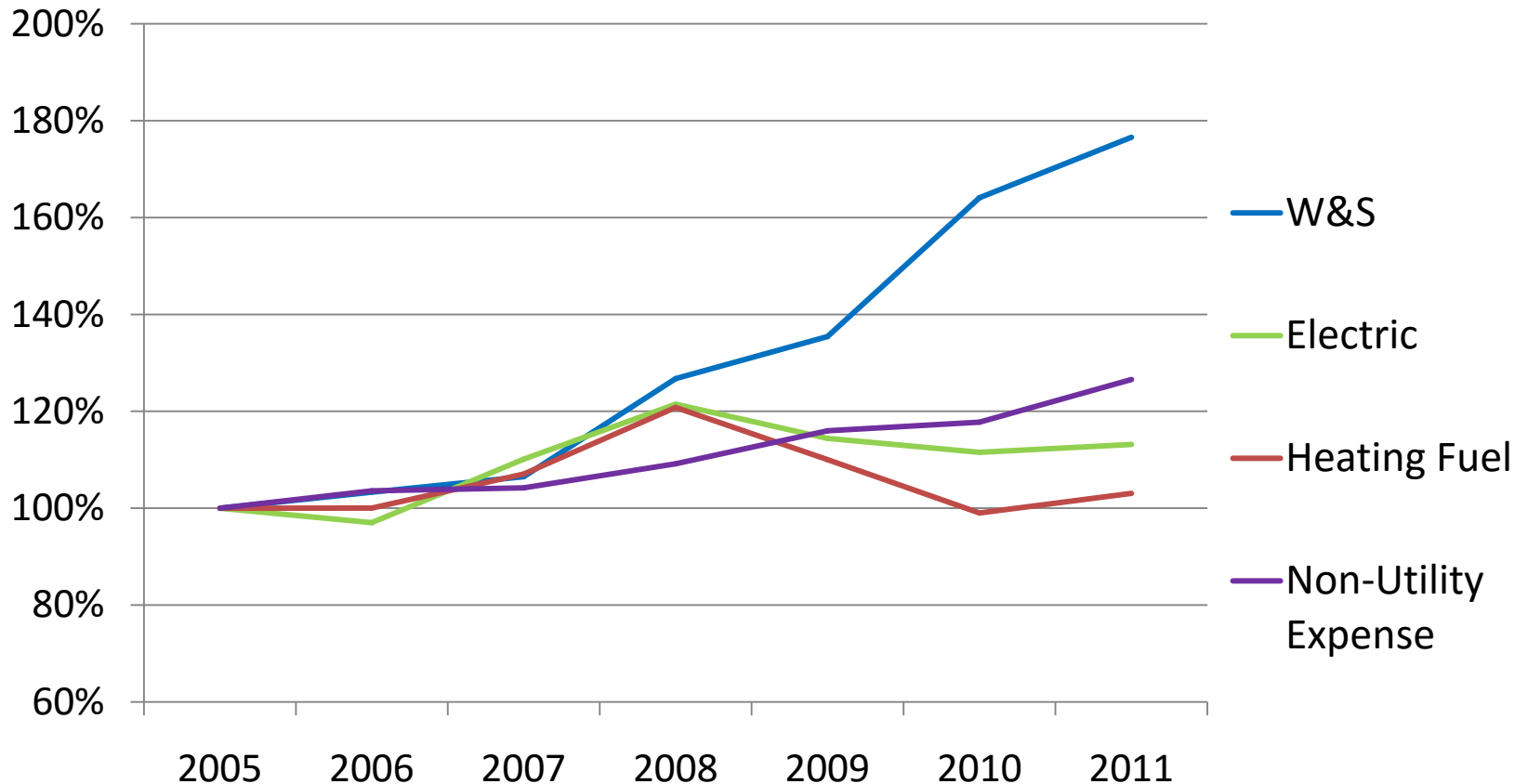
# History

- In 2012, LISC NYC and Enterprise completed energy and water retrofits in **2,226 affordable housing units** through a **\$15 M** Weatherization Assistance Program (WAP) contract in American Recovery and Reinvestment Act (ARRA) funds and **\$3,800,000** in city and private funds leveraged
- Weatherization Plus Health Conference 2012
  - DOHMH and HCR sponsored, in collaboration with HPD
- Two Shades of Green collaboration was born!



# Challenges to Housing Affordability in NYC

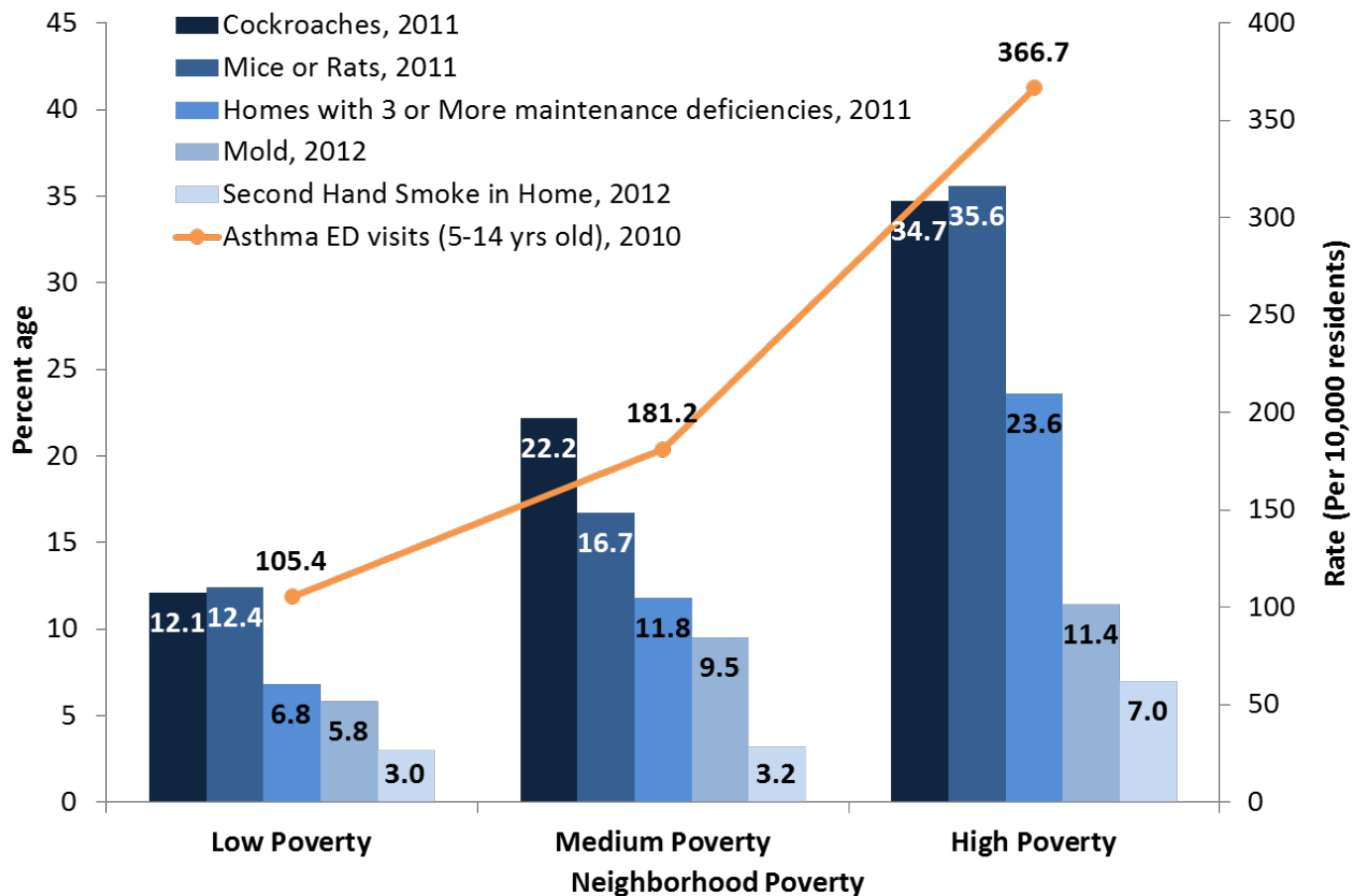
## Operating Expense Trends



Source: National Equity Fund

# Housing Asthma Triggers Vary with Income

## Housing Disrepair, Allergens, and Poor Health Outcomes Increase with Neighborhood Poverty



Source: NYC EPHT Portal - HVS 2011; CHS 2012, SPARCS 2010

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# Focus on Existing Housing

- Promotes green and healthy retrofits and property maintenance using cost effective measures
  - During renovation
  - On-going property management
  - Uses building wide approach
- Demonstrates how health driven upgrades have health and non-health benefits
- Cost effective and scalable



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# The Role of the TSG Team For Each Priority Area

- Work with Community Development Corporations (CDCs) to assess current practices and experience, including costs
- Support implementation through technical assistance, training and resource identification
- Evaluate intervention success
  - Establish baseline measures, perform tenant/staff pre-survey and agree to performance targets
  - Assess change over time – costs, complaints, other markers, post tenant/staff survey

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# TSG Evaluation

- **Goal**

- Is TSG a viable model for affordable housing that saves money and results in greener and healthier housing

- **Primary Questions:**

- Changes in building management practices and staff/tenant behaviors?
- Cost savings?
- Were TSG materials, training sessions, webinars, TA useful?
- Is this model replicable and sustainable?

- **Data Collection:**

- Building assessment tool, building records, pre-post tenant and staff survey, focus group/lessons learned interviews

# Two Shades of Green - Case Study

## West Side Federation Senior and Supportive Housing renovation (145 units of senior housing in South Bronx)

### Energy efficiency measures

- Reduced energy use and cost by over 20%

### Water conservation - toilets, showerheads, fixed leaking pipes

- Used 45% less water
- Saved \$50,000/year, 12 month payback
- Fewer leaks & asthma triggers, reduced tenants complaints
- Reduced maintenance workload (running toilets, plumbing)
- Less unreported plumbing leaks

### Transition to green cleaning supplies

- 28% reduction in cleaning cost

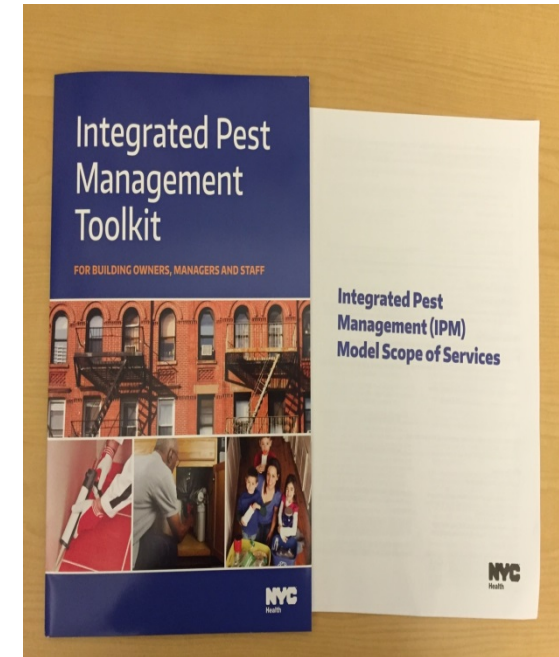
### Integrated Pest Management Plan

- Fewer pests
- Fewer tenant complaints and sightings by staff
- Reduced pesticide use
- Improved property maintenance



# TSG Successes and Resources

- Implemented energy, water & health upgrades in 800 affordable housing apartments
- Strong Health and Housing partnership
- Leveraged private funding support - State Farm & Wells Fargo
- Created resources and tools
  - Property Management Guide and Case Studies
  - Checklists during rehab and annual asset management site visits
  - Workshops/Trainings
- Bringing TSG to scale
  - Finance
  - Roundtables between housing and health sectors
  - TSG toolkit
  - Integrating health into Green Physical Needs Assessment for NYC housing preservation programs
  - LISC National replication



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# Benefits for DOHMH

- Built a stronger partnership between affordable housing and health, expanding our reach and leveraging collective resources
- TSG = implementation laboratory for program and policy development
  - Spawned new efforts, especially focusing on healthy housing interventions during building life cycle, for example:
    - IPM Toolkit-  
<https://www1.nyc.gov/assets/doh/downloads/pdf/pesticide/ipm-toolkit.pdf>
    - DOHMH Healthy Homes Training for HPD Financed new construction and rehabilitation work
    - Health GPNA in collaboration with Enterprise and LISC