# DATA PROFILES

USING PUBLICLY AVAILABLE DATA TO
STRENGTHEN YOUR HEALTHY HOMES PROGRAM

SYRACUSE, NY • MARCH 22, 2012

## What we'll cover today:

- Why (the right) data matters
- Where to find data relevant to healthy homes
- Examples of how we use data for our own healthy homes programs



Monitor progress



Target Resources



Articulate need/value

to potential funders



Assess the impact



**Engage** partners



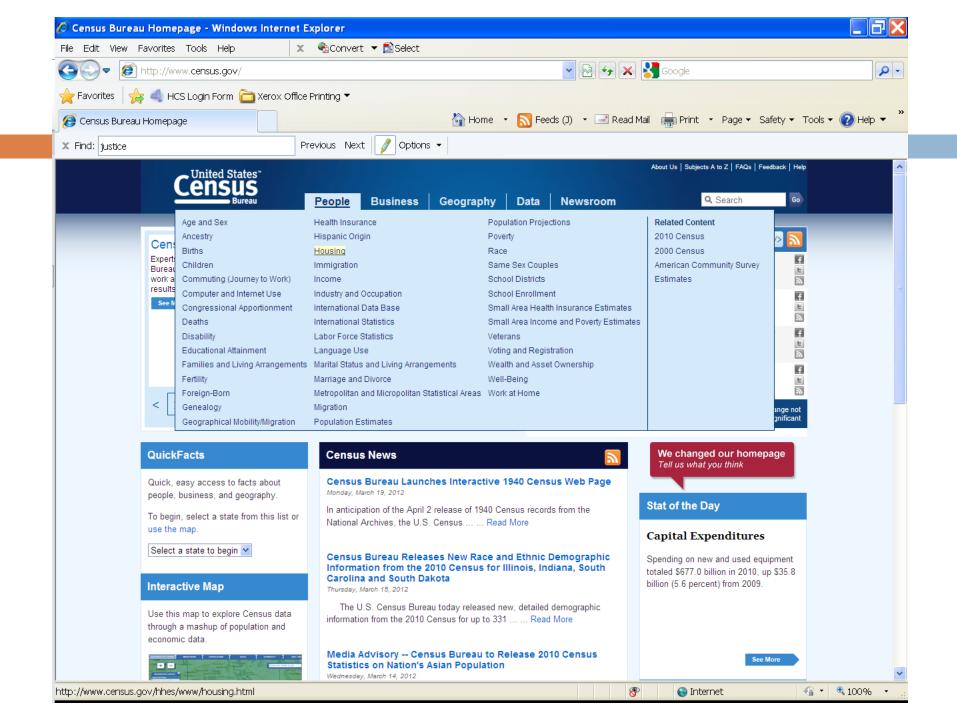
Refine the approach

## A note on EPHT....

- Environmental Public Health Tracking Network
  - New York State portal
    - https://apps.nyhealth.gov/statistics/environmental/public health tracking/tracker
  - New York City portal
    - www.nyc.gov/html/doh/html/tracking/tracking.shtml
  - National portal
    - http://ephtracking.cdc.gov/showHome.action

## **Demographics**

- While anyone can suffer from housing-related illness, risk factors associated with poor housing quality and increased risk of housing-related illness and injury include:
  - age and type of housing
  - poverty
  - geographical location
  - age of residents
  - race/ethnicity of residents

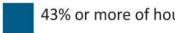


# **Demographics**

	Sum or range in target communities	NYS	U.S.	
	Year: 2000	Year: 20	10 (2000)	
Total population	757,397	19,378,102	308,745,538	
	737,337	(18,976,457)	(281,421,906)	
% of households with 1 or	21%-56%	32.4%	22 50/ (26 00/)	
more child	2170-3070	(31.6%)	33.5% (36.0%)	
% of households with 1 or	5 20/ 260/	25.8%	24 49/ (22 49/)	
more elderly resident	nore elderly resident		24.4% (23.4%)	
% of families below	3.5%-46.5%	11.0%	10.5% (9.2%)	
poverty level	3.5%-40.5%	(11.5%)	10.5% (9.2%)	
% of individuals below	6%-52.4%	14.4%	14 49/ (12 49/)	
poverty level	0/0-32.4/0	(14.6%)	14.4% (12.4%)	
% non-white	2 90/ 77 20/	34.3%	27 69/ (24 09/)	
% non-white 2.8%-77.3%		(32.1%)	27.6% (24.9%)	

#### NYS: Pre-1950 housing

Percent of occupied housing units built before 1950, by ZIP code, NYS, US Census 2000

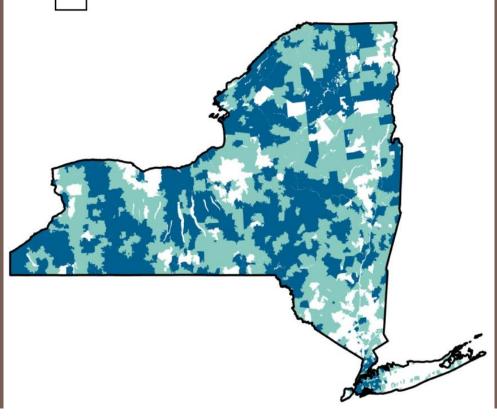


43% or more of housing units built before 1950

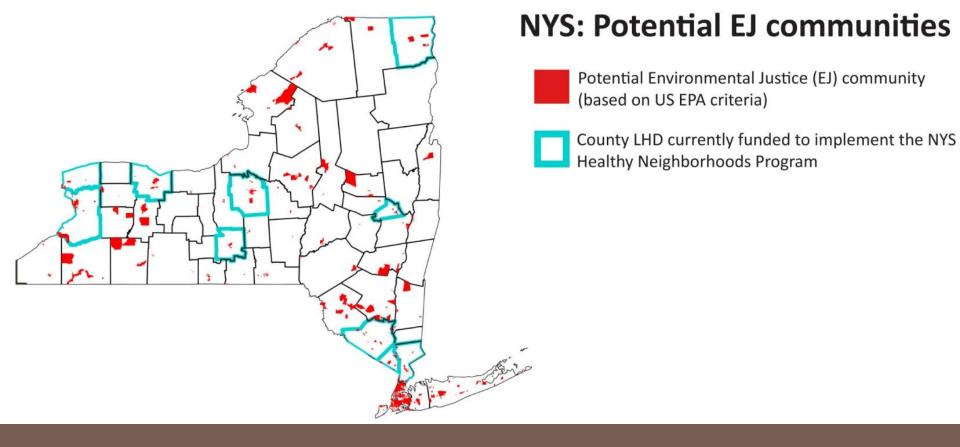


25% to < 43% of housing units built before 1950

Less than 25% of housing units built before 1950



# MAPS CAN BE POWERFUL TOOLS



A GIS layer of NYSDEC's Potential Environmental Justice Areas is available on the NYSDEC website.

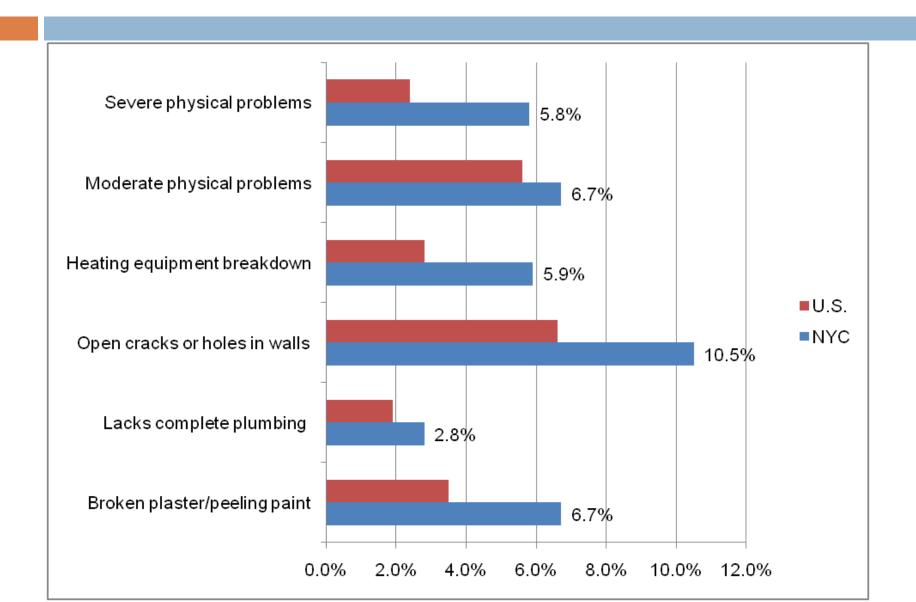
ww.dec.ny.gov/public/911.html

www.dec.ny.gov/pubs/42978.html

# General housing quality

- Can be actual hazards or conditions that promote the occurrence/presence of hazards
- May be difficult to find for all geographies, but some sources include:
  - NYC: American Housing Survey, EPHT
    - http://www.census.gov/housing/ahs/
    - www.nyc.gov/html/doh/html/tracking/tracking.shtml
  - Healthy Neighborhoods Program counties:
    - https://apps.nyhealth.gov/METRIX/main.action

#### Housing Quality: American Housing Survey



#### Housing Quality: Healthy Neighborhoods Program

	Range in target communities
% of homes with cockroaches	0.9% -23.6%
% of homes with mold/mildew	3.9%-16.7%
% of homes with short-term basement radon $\geq 4$ pCi/L	0%-55%
% of homes with confirmed or potential interior or exterior lead hazards	34.1%-98.7%
% of homes that lack a functional smoke detector	6.7%-55.9%
% of homes that lack a functional CO detector	37.1%-89.6%

#### **Asthma**

- 1 in every 10 adults and 1 in every 14 children in NYS currently has asthma
- 1.9 million missed days of school or daycare/pre-school
- □ \$652 million in asthma hospitalization costs

Does this tell us anything about asthma in your community? Or how our environmental intervention is going to make a difference?

## Key data sources for asthma indicators

- New York State Asthma Surveillance Summary Report
   www.health.ny.gov/statistics/ny asthma/pdf/2009 asthma surveillance summary report.pdf
- Information on Asthma in New York State
   www.health.ny.gov/statistics/ny asthma
- Behavioral Risk Factor Surveillance System (BRFSS), CDC <u>www.cdc.gov/asthma/brfss/default.htm</u>
- Asthma Call-back Survey (ACBS), CDC <u>www.cdc.gov/asthma/ACBS.htm</u>
- NYS Environmental Public Health Tracker, National Tracking Portal <a href="https://apps.nyhealth.gov/statistics/environmental/public health tracking/tracker">https://apps.nyhealth.gov/statistics/environmental/public health tracking/tracker</a>
   <a href="https://ephtracking.cdc.gov/showHome.action">http://ephtracking.cdc.gov/showHome.action</a>
- Other reports and publications
  - 2011 Information for Action #2011-6 <a href="https://www.health.ny.gov/statistics/ny">www.health.ny.gov/statistics/ny</a> asthma/</a>
  - Nguyen T et al. Profile of the National Asthma Survey-New York State: Does the home environment matter? Public Health Reports 2010. 125(6): 877-887.

# A more informative asthma profile

	Among homes visited in target communities	NYS	US
Current asthma among adults	11.8% (1-25%)	9.8%	8.6%
Current asthma among children ≤ 17 years	13.9% (3-23%)	7.4%	8.4%
Taught early warning signs of worsening asthma	94.9% (76-99%)	67.6%	60.0%
Have a prescription for long-term controller	57.1% (37-97%)	42.2%	33.5%
Advised to modify school/work/home environment		44.4%	50.9%
	In target areas		
Asthma ED visit rate per 10,000 residents	19.3-299.8	83.4	55.4
Asthma hospitalization rate per 10,000 residents	3.6-47.3	20.5	15.2

## Key data sources for lead

- New York State Environmental Public Health Tracker
  - https://apps.nyhealth.gov/statistics/environmental/public health tracking/tracker
- Reducing Lead Exposure in Children: Lead Testing and Lead
   Poisoning Among New York State Children, 2008 Report.
  - www.health.ny.gov/environmental/lead/exposure/childhood/surveillance report/docs/2008 reducing lead exposure children.pdf
- CDC, Childhood Lead Poisoning Data, Statistics, and Surveillance
  - www.cdc.gov/nceh/lead/data/index.htm
- For selected geographies:
  - New York State Healthy Neighborhoods Program.
    - https://apps.nyhealth.gov/METRIX/main.action
  - NYS Childhood Lead Poisoning Primary Prevention Reports
    - www.health.ny.gov/environmental/lead/exposure/childhood/primary prevention/pilot program/year two/final report.pdf

#### Lead

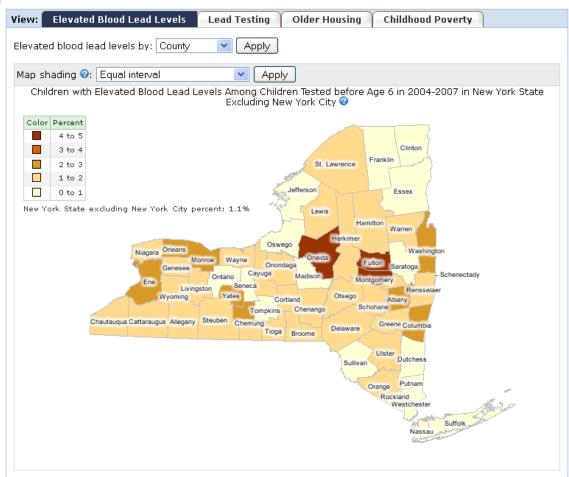
# Maps and exportable data tables:

- Elevated BLL by county, year of test
- Lead screening by county, year of birth
- Age of housing
- Childhood poverty



#### **Childhood Lead Poisoning**

Childhood lead poisoning is a preventable, but very serious environmental health problem. The most common cause of childhood lead poisoning is dust and paint chips from old lead-based paint found in older homes. New York State requires health care providers to test children with a blood lead test at age one and again at age two. View information about childhood lead testing, childhood blood lead levels and age of housing.



#### Data Table

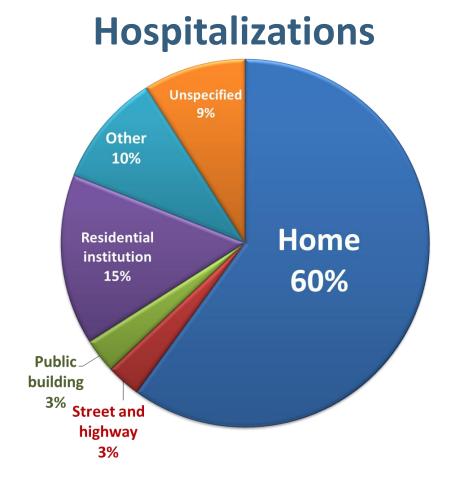
Children with Elevated Blood Levels Among Children Tested Before Age 6 in New York State Excluding New York
City

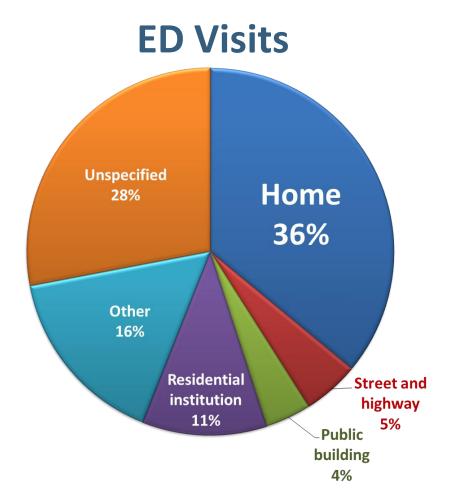
## Key data sources for safety and injuries

- New York State Department of Health, Falls in Older Adults,
  - www.health.ny.gov/prevention/injury prevention/falls in older adults nys.htm
- CDC Web-based Injury Statistics Query and Reporting System (WISQARS), 2008.
  - www.cdc.gov/injury/wisqars/index.html
- For selected geographies:
  - New York State Healthy Neighborhoods Program.
    - https://apps.nyhealth.gov/METRIX/main.action

# Safety and Injuries

#### Place of Fall, Ages 65+, New York State Residents, 2006-2008





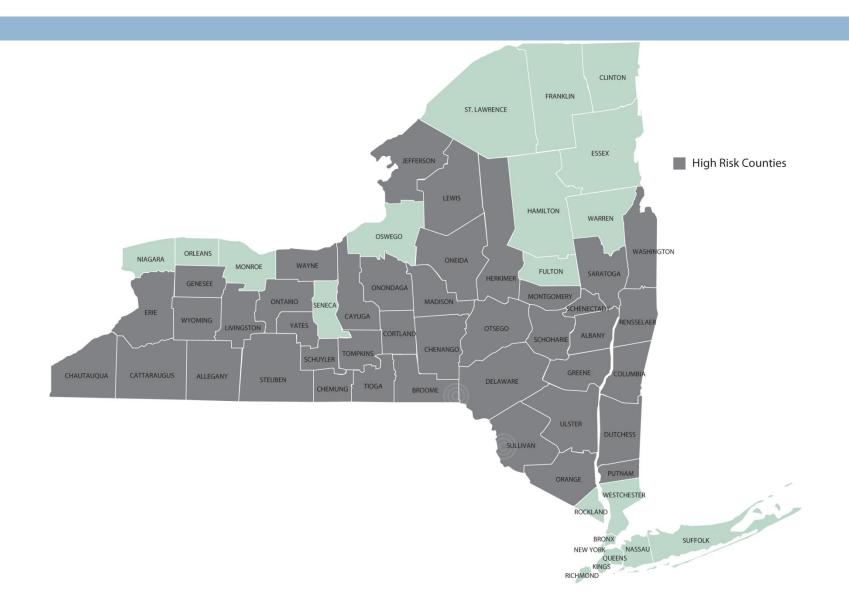
# Fire safety

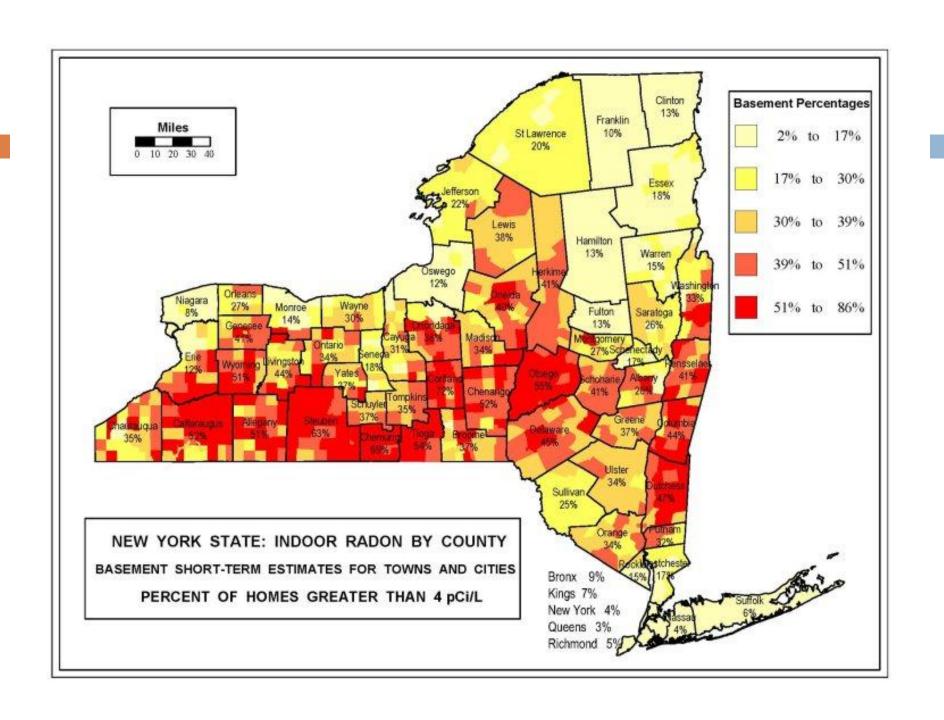
	Sum or range in target areas	NYS	US
	2007	2008	2008
% of homes that lack a functional smoke detector	6.7%-55.9%		6.6%
Rate of hospital admission and outpatient/ED visits for fire or burn-related injuries			132.9
Rate of unintentional residential fire- related deaths per 100,000 residents		0.71	0.82

## Key data sources for radon

- Measured Basement Screening Radon Levels by County www.health.ny.gov/environmental/radiological/radon/county.htm
- Measured Basement Screening Radon Levels by Town www.health.ny.gov/environmental/radiological/radon/towns.htm
- Radon Maps of New York State by County and Town
  - www.wadsworth.org/radon/

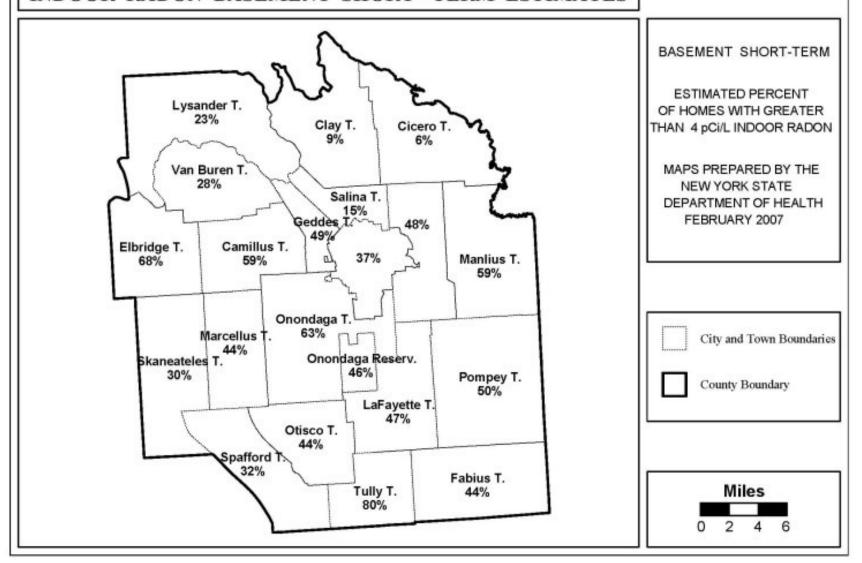
#### High Risk Counties for Elevated Radon Levels





#### ONONDAGA COUNTY, NY

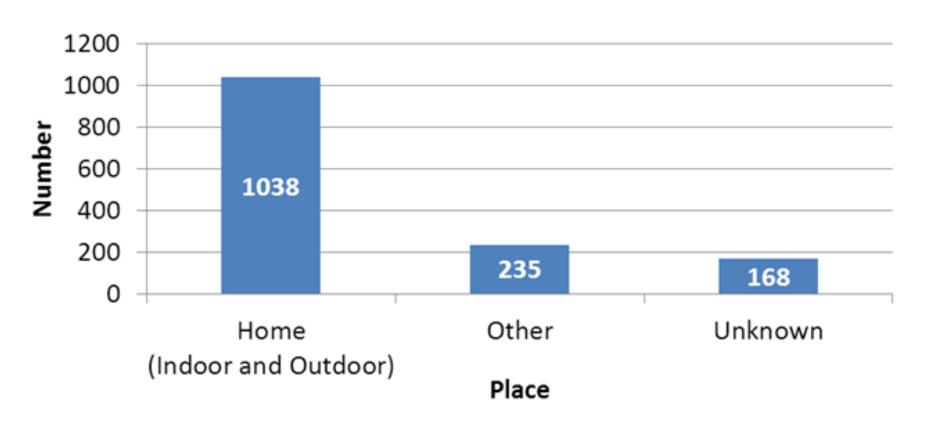
INDOOR RADON BASEMENT SHORT - TERM ESTIMATES



#### Key data sources for CO and other poisoning

- New York State Environmental Public Health Tracker
  - https://apps.nyhealth.gov/statistics/environmental/public health tracking/tracker
- CDC Web-based Injury Statistics Query and Reporting System (WISQARS), 2008.
  - www.cdc.gov/injury/wisqars/index.html
- New York State Department of Health, Unintentional Injuries
  - www.health.ny.gov/statistics/prevention/injury prevention/unintentional injury.htm

# Carbon Monoxide Poisoning Hospitalizations by Place of Exposure, New York State, 2000-2006



## Key data sources for preparedness

- New York State Department of Health: Emergency Preparedness.
  - www.health.ny.gov/environmental/emergency/

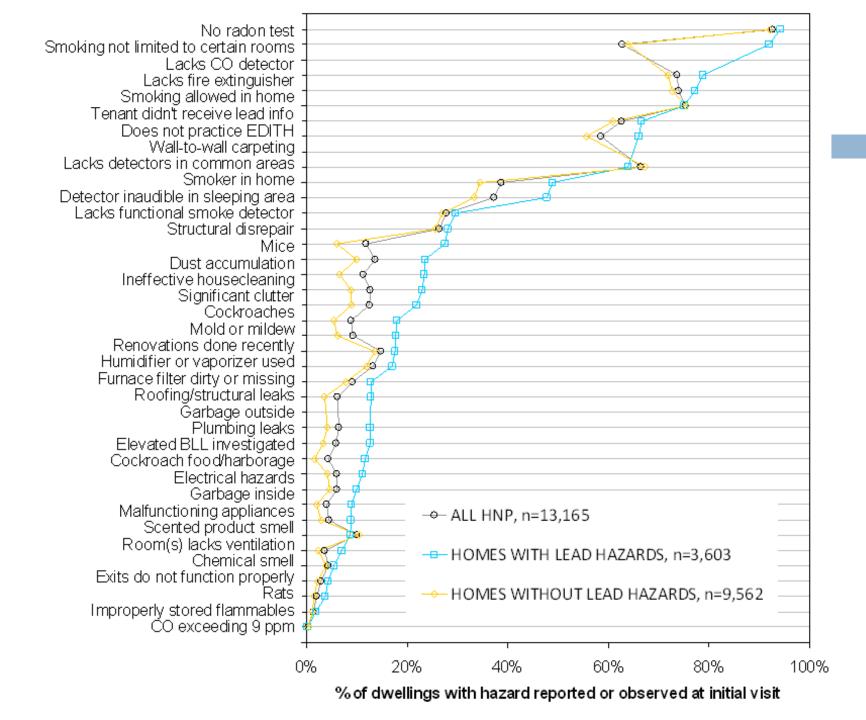
#### Cost data

- Can be hard to find, even on a state level, and nearly impossible to find on a local level, but you can start with publicly available information like this:
  - The financial impact of New York's higher burden of housing-related illness is significant. For example, in 2005, the total cost of asthma hospitalizations in NYS was estimated to be \$502 million and among Medicaid fee-for-service enrollees with asthma, asthma-related services accounted for nearly 6% of their total medical costs<sup>7</sup>.

...And then connect it to your local community by telling us about the high burden of asthma in your community and what proportion of your population is enrolled in Medicaid.

# Measuring the impact

- Selected results from NYS Healthy Neighborhoods Program evaluation
  - October 2007-December 2009
  - 12 LHD administered programs
  - Hazards assessed at initial visit and at 3-6 month follow-up (for approximately 22% of homes)



# Fire safety

Revisited dwellings, N=2,904	Present at initial visit	Present at revisit	% improved* (95% CI)
Lacks functional smoke detector	31%	3%	<b>94</b> % (92-96)
Lacks detector audible from sleeping area	32%	3%	<b>95</b> % (93-96)
Lacks detectors in common areas (multi-unit) <sup>a</sup>	52%	28%	<b>50</b> % (46-54)
Lacks functional fire extinguisher	73%	47%	<b>38%</b> (36-40)
Exits do not function properly	2%	2%	<b>63</b> % (50-76)
Electrical hazards	6%	3%	<b>57%</b> (49-64)
Improperly stored flammables	1%	1%	<b>52</b> % (32-71)
Does not practice EDITH <sup>a</sup>	62%	40%	<b>36%</b> (34-39)

<sup>\*</sup>Among dwellings with hazard at initial visit. Bold is p < 0.05.

<sup>&</sup>lt;sup>a</sup> More than 10% missing

## **General conditions**

Revisited dwellings N=2,904	Present at initial visit	Present at revisit	% improved* (95%CI)
PESTS			
Rats	3%	1%	<b>71%</b> (60-82)
Mice	15%	7%	<b>60%</b> (56-65)
Cockroaches	8%	4%	<b>59%</b> (53-65)
MOLD AND MOISTURE			
Roofing/structural leaks	7%	5%	<b>55%</b> (48-62)
Plumbing leaks	6%	3%	<b>69%</b> (61-76)
Evidence of mold/mildew	11%	7%	<b>58%</b> (52-63)
OTHER CONDITIONS			
Structural disrepair	11%	9%	<b>38%</b> (33-44)
Wall-to-wall carpeting	76%	77%	3% (2-4)

<sup>\*</sup>Among dwellings with hazard at initial visit. Bold is p<0.05.

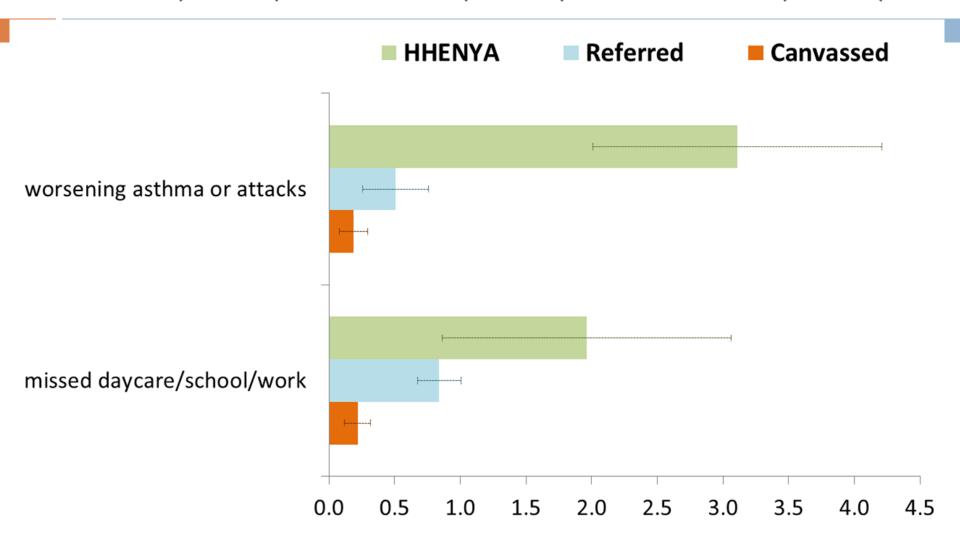
<sup>&</sup>lt;sup>a</sup> More than 10% missing

## Impact on individual residents

	Number of dwellings		# residents
Hazard	with hazard at initial visit	potentially improved	potentially impacted by improvement
Lacks CO detector	9,093	5,359	13,159
Smoker in home	4,595	392	1,260
Lacks functional smoke detector	3,226	3,032	8,279
Mice	1,652	998	3,072
Chipping, peeling paint indoors (pre-1978 dwellings)	1,641	584	(children only) 838
Clutter	1,491	526	1,760
Ineffective housecleaning	1,484	395	1,224
Dust accumulation	1,337	563	1,832
Mold/mildew	1,131	651	2,056
Cockroaches	1,088	644	2,310
Rats	254	180	527

## Improvement in short-term morbidity:

HHENYA (n=140) vs. Referred (n=573) vs. Canvassed (n=752)



Mean change in number of days in the past three months

## Evaluating partnerships...

- Organization/program name:
- Website:
- Core mission or purpose:
- Size of core program staff (Use scale of small, medium or large where small=fewer than 5 staff, medium=5-14 staff and large=15 or more staff):
- Rate your program's partnership development (Use scale of 1-4; 1-Limited partnerships with public sector, nonprofit, or for profit entities; 2-Growing relationships and collaborations with public sector, nonprofit, or for profit entities; 3-Useful working relationships with a few key partners; 4-Established, strong, on-going, and mutually beneficial relationships with a variety of partners)
- Briefly describe any home visiting activities conducted or leveraged by the program (none is an acceptable response!):
- Briefly describe the approximate number of housing units visited or impacted through the program each year (or enter NA or don't know):
- Any additional information you want to share about your program:

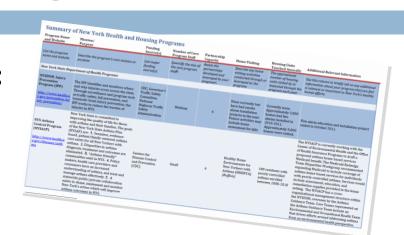
# How we described our existing partners and capacity at our first workgroup meeting:

#### □ 'Touched' over 18,000 units:

- Installed fire alarms
- Tested homes for radon
- Made housing units lead-safe
- Offered weatherization assistance to low-income seniors

#### Strong partnership capacity

- □ Useful working relationships with a few key partners (42%)
- Established strong, on-going and mutually beneficial relationships with a variety of partners (66%)



## General tips

#### Technical support available – Just ask!

State DOH and other state agencies, academic partners, other local or regional partners

#### Think about appropriate scale/geography

If you're trying to make the argument that your county or city or neighborhood has a higher burden, DON'T use national or state level data to describe the problem

#### Use validated tools when possible

- Saves time, avoids known problems, allows for comparison
- Consider your audience (what will they find most compelling? how do they like to receive information?)
- Pair quantitative data with qualitative stories
- Packaging matters

## For more information:

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## LIST OF DATA SOURCES BY TOPIC

#### **Asthma**

Data Source	Description of available data
New York State Asthma Surveillance Summary Report. 2009. NYSDOH, Public Health Information Group.  www.health.ny.gov/statistics/ny asthma/pdf/2009 asthma surveillan ce summary report.pdf	Prevalence, ED visits, Hospitalization rates, mortality stratified by demographics; healthcare utilization and cost of asthma among the Medicaid population; work-related asthma; outdoor air quality; school building conditions
2011 Information for Action #2011-6. NYSDOH Office of Public Health Practice and Division of Chronic Disease and Injury Prevention. www.health.ny.gov/statistics/prevention/injury_prevention/information_for_action/docs/2011-6_ifa_report.pdf	Summary of 2008 BRFSS and other data related to percent of New Yorkers with poorly controlled asthma, medication usage, self-management and control of environmental factors.
Information on Asthma in New York State, www.health.ny.gov/statistics/ny_asthma/index.htm	Asthma prevalence among adults, ED visits (by age, county, ZIP code) hospital discharge (by age, county, ZIP code), asthma mortality (by region and county). Links to reports with additional indicators including healthcare utilization among the Medicaid population, work-related asthma and selected environmental indicators.
Behavioral Risk Factor Surveillance System (BRFSS), Centers for Disease Control and Prevention. www.cdc.gov/asthma/brfss/	Lifetime and current asthma for children and adults (by region and race/ethnicity).
Asthma Call-back Survey (ACBS), Centers for Disease Control and Prevention, National Asthma Control Program.  www.cdc.gov/asthma/ACBS.htm	Asthma symptoms, healthcare utilization, asthma knowledge, self-management, medication usage, cost of care, use of complimentary/alternative medicine, modifications to the environment.
NYSDOH Environmental Public Health Tracker.  https://apps.nyhealth.gov/statistics/environmental/public_health_tracking/tracker/	Asthma hospitalizations, 2000-2005 by county, age, age and sex and month.
Nguyen T, Lurie M, Gomez M, Reddy A, Pandya K, Medvesky M. Profile of the National Asthma Survey-New York State: Does the home environment matter? <i>Public Health Reports</i> 2010. 125(6): 877-887.	Prevalence of common asthma triggers in homes of New Yorkers with asthma and control homes.
Among visited homes, NYSDOH, Healthy Neighborhoods Program, 2007-2009.	Dwelling level: presence of common asthma triggers or conditions that promote triggers. Individual level: medication use, asthma action plans, knowledge of early warning signs and what to do for worsening asthma, knowledge of personal triggers and trigger avoidance, days missed of school, work and daycare, number of days with worsening asthma, ED/urgent care visits, hospitalizations

## Lead

Data Source	Description of available data
New York State Environmental Public Health Tracker, Percent of Children Born 2001-2004 Who Were Blood Lead Tested By Around Age 1, New York State Excluding New York City.  https://apps.nyhealth.gov/statistics/environmental/public health tracking/tracker/lead/mapaction.map.	Percent of Children Born 2001-2004 Who Were Blood Lead Tested By Around Age 1, New York State Excluding New York City.
Reducing Lead Exposure in Children: Lead Testing and Lead Poisoning Among New York State Children, 2008 Report.  www.health.ny.gov/environmental/lead/exposure/childhood/surveilla nce_report/docs/2008_reducing_lead_exposure_children.pdf	Number and Percent of Children Tested for Lead By Age and County of Residence, New York State, 2003 – 2005 Birth Cohorts (2003-2008 Blood Lead Test Data)
New York State Primary Prevention Program Data System	Percent of assessed housing units with confirmed interior or exterior lead hazards; Percent of assessed housing units with one or more confirmed or potential interior or exterior lead hazard
New York State Healthy Neighborhoods Program. <a href="https://apps.nyhealth.gov/METRIX/main.action">https://apps.nyhealth.gov/METRIX/main.action</a>	Percent of pre-1978 homes with potential interior and exterior lead hazards (among visited homes by county) at the initial visit and 3-6 month follow-up.
Centers for Disease Control and Prevention — Childhood Lead Poisoning Data, Statistics, and Surveillance. http://www.cdc.gov/nceh/lead/data/index.htm	National and State Surveillance data, maps, charts and downloadable flat files for analysis.

## Safety and Injuries

Data Source	Description of available data
New York State Department of Health, Falls in Older Adults, New York State. <a href="http://www.health.ny.gov/prevention/injury prevention/falls in older adults nys.htm">http://www.health.ny.gov/prevention/injury prevention/falls in older adults nys.htm</a>	Rate of hospitalization due to falls, NYS residents age 65 and older per 100,000
CDC Web-based Injury Statistics Query and Reporting System (WISQARS), 2008.	2008 Unintentional Residential Fire/flame Deaths and Rates per 100,000, New York and U.S.
http://www.cdc.gov/injury/wisqars/index.html.	2008 Unintentional Fall Deaths and Rates per 100,000, New York and U.S.
	2008 Unintentional Fall Deaths and Rates per 100,000, Ages 65 to 85+, New York and U.S.
New York State Department of Health, Unintentional Injuries <a href="http://www.health.ny.gov/statistics/prevention/injury_prevention/unintentional_injury.htm">http://www.health.ny.gov/statistics/prevention/injury_prevention/unintentional_injury.htm</a> .	Rate of ED visits due to unintentional injury per 100,000
	Rate of hospitalizations due to unintentional injury per 100,000

## Housing quality

Data Source		Description of available data
U.S. Census B	ureau. American Housing Survey, 2009 Data.	Total occupied housing units without a working smoke detector,
http://www.ce		2009, in the United States.
National Cent	ter for Healthy Housing. State of Healthy Housing. U.S.	Total occupied housing units in the central city of New York City and
Census Burea	u, American Housing Survey, 2003 Data.	average central cities across the U.S. in 2003 with interior leaks,
http://www.r		exterior leaks, signs of rats, and signs of mice.
by-Housing-C		

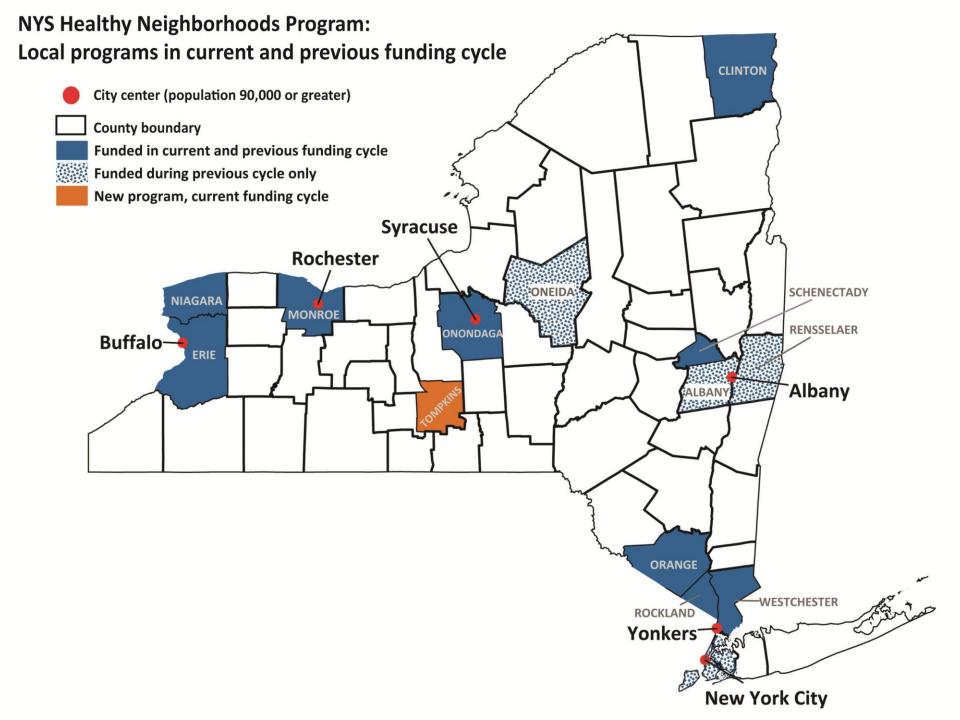
#### Pests, mold and indoor air quality

·	
Data Source	Description of available data
National Center for Healthy Housing. State of Healthy Housing. U.S. Census Bureau, American Housing Survey, 2003 Data. <a href="http://www.nchh.org/Policy/State-of-Healthy-Housing/Comparison-by-Housing-Characteristic.aspx">http://www.nchh.org/Policy/State-of-Healthy-Housing/Comparison-by-Housing-Characteristic.aspx</a> .	Total occupied housing units in the central city of New York City and average central cities across the U.S. in 2003 with interior leaks, exterior leaks, signs of rats, and signs of mice.
CO Poisoning Hospitalizations 2000-2006, SPARCS, Bureau of Biometrics and Health Statistics, analysis by NYSDOH Bureau of Environmental and Occupational Epidemiology.	Carbon Monoxide Poisoning Hospitalizations by Place of Exposure, New York State, 2000-2006
New York State Department of Health, Radiological Health <a href="http://www.health.ny.gov/environmental/radiological/radon/county.htm">http://www.health.ny.gov/environmental/radiological/radon/towns.htm</a>	Radon levels by county and town

## Preparedness

Data Source	Description of available data
New York State Department of Health: Emergency Preparedness. <a href="http://www.health.ny.gov/environmental/emergency/">http://www.health.ny.gov/environmental/emergency/</a> .	NYS BRFSS Data – General preparedness data, plans to use portable generators, presence of a CO detector, evacuation plans, and communication plans,

#### www.census.gov



#### NYS Lead Poisoning Primary Prevention Program: Local programs by year of entry

