Healthy Homes Rating System and Asthma

May 11, 2016

The Healthy Homes Rating System

- A rating system, adopted by HUD, that examine the level of hazard and extent of harm that might come from 32 hazards in homes.

- These are hazards that come from conditions in the home—structural, maintenance, substances—that might cause hard to children and vulnerable adults.

- Assessors spend about two hours thoroughly examining a home so as to rate it.

The Healthy Homes Rating System

- Healthy Homes Technical Studies Award 2012-2015
- Conducted in Detroit, Michigan; Greensboro, N.C., and Alameda County, California
- Implement the Healthy Homes Rating System (HHRS) in all three cities to develop baseline information about American housing conditions, relative to existing English averages

Table 75: Ratings with English Average Ratings

	Great Britain	Detroit	Greensboro	Alameda Co.	Study Average
Mold and Dampness	J	D	I	G	E
Excess Cold	D	C	D	E	C
Excess Heat	--	C	C	C	C
Asbestos and MMF	J	C	H	G	D
Biocides	J	J	J	J	J
Carbon Monoxide	J	G	E	G	F
Nitrogen Dioxide	J	J	I	I	I
Sulfur Dioxide and Smoke	J	J	J	J	J
Lead	J	E	H	H	F
Radiation	H	G	G	G	G
Uncombusted Fuel Products	J	I	I	J	I
Volatile Organic Compounds	J	J	J	J	J
Crowding and Space	I	H	H	H	H
Entry by Intruders	F	E	F	F	E
Lighting	J	J	J	J	J
Noise	J	J	J	I	J
Domestic Hygiene, Pests and Waste	J	H	I	H	H
Food Safety	J	J	I	J	J
Personal Hygiene, Sanitation and Drainage	J	G	H	J	H
Water Supply	J	H	J	J	H
Falls Associated with Baths	J	H	I	G	H
Falls on Level Surfaces	F	F	E	E	E
Falls on Stairs	H	E	E	D	E
Falls between Levels	J	J	H	G	H
Electrical	J	G	G	H	G
Fire	I	F	F	E	F
Flames and Hot Surfaces	H	H	G	G	G
Collision and Entrapment	I	G	F	G	G
Low Overhead	J	I	H	H	H
Explosions	J	H	I	I	H
Position and Operability of Amenities	J	J	J	J	J
Structural Collapse	J	I	H	H	H

Hazard 1: Mold and Dampness

Table 8: Mold and Dampness Overview

	Total	%Rated	Avg Score	Avg Rating	Letter Rating
Detroit	494	99.4%	701.0	7	D
Greensboro	261	98.9%	165.2	9	I
Alameda Co.	206	95.4%	77.1	8	G
Total	961	98.3%	417.9	8	E

Table 9: Mold and Dampness Prevalence by site

	%A-C	%A	%B	%C	%D	%E	%F	%G	%H	%I	%J
Detroit	8.9%	0.6%	3.0%	5.3%	5.7%	7.7%	6.7%	10.3%	26.3%	23.5%	10.9%
Greensboro	4.6%	0.4%	1.1%	3.1%	0.8%	4.2%	3.1%	6.1%	19.5%	18.0%	43.7%
Alameda Co.	1.5%	0.0%	0.0%	1.5%	2.9%	3.4%	3.4%	9.2%	24.8%	27.2%	27.7%
Total	6.1%	0.4%	1.9%	3.9%	3.7%	5.8%	5.0%	8.9%	24.1%	22.8%	23.4%

- 🟥 Higher than project mean
- ⬜ Same as project mean
- 🟩 Lower than project mean

Heat Map of A-C HHRS Hazard Rankings for Mold and Moisture (#1) in Detroit
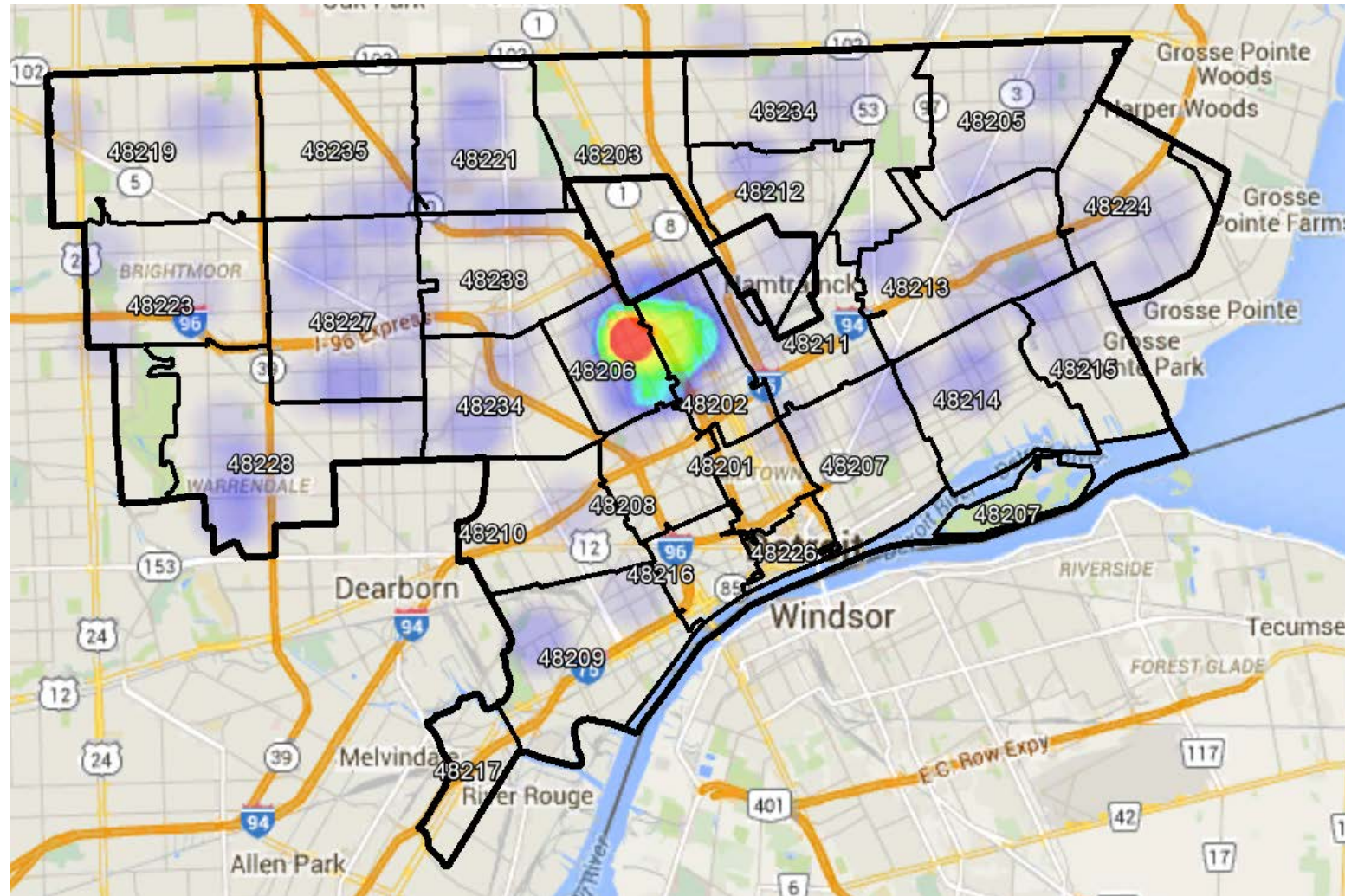
Hazard 2: Excess Cold

Table 10: Excess Cold Overview

	Total	%Rated	Avg Score	Avg Rating	Letter Rating
Detroit	491	98.8%	1748.5	4	C
Greensboro	262	99.2%	964.2	4	D
Alameda Co.	200	92.6%	236.4	6	E
Total	953	97.4%	1201.3	4	C

Table 11: Excess Cold Prevalence by site

	%A-C	%A	%B	%C	%D	%E	%F	%G	%H	%I	%J
Detroit	47.7%	2.9%	2.6%	42.2%	12.8%	24.8%	6.3%	4.7%	0.8%	0.2%	2.6%
Greensboro	57.3%	1.1%	2.3%	53.8%	29.4%	11.8%	1.5%	0.0%	0.0%	0.0%	0.0%
Alameda Co.	7.5%	0.0%	0.0%	7.5%	11.5%	23.0%	9.0%	12.0%	18.0%	8.5%	10.5%
Total	41.9%	1.8%	2.0%	38.1%	17.1%	20.9%	5.6%	4.9%	4.2%	1.9%	3.6%

- Higher than project mean
- Same as project mean
- Lower than project mean

Heat Map of A-C HHRS Hazard Rankings for Excess Cold (#2) in Detroit
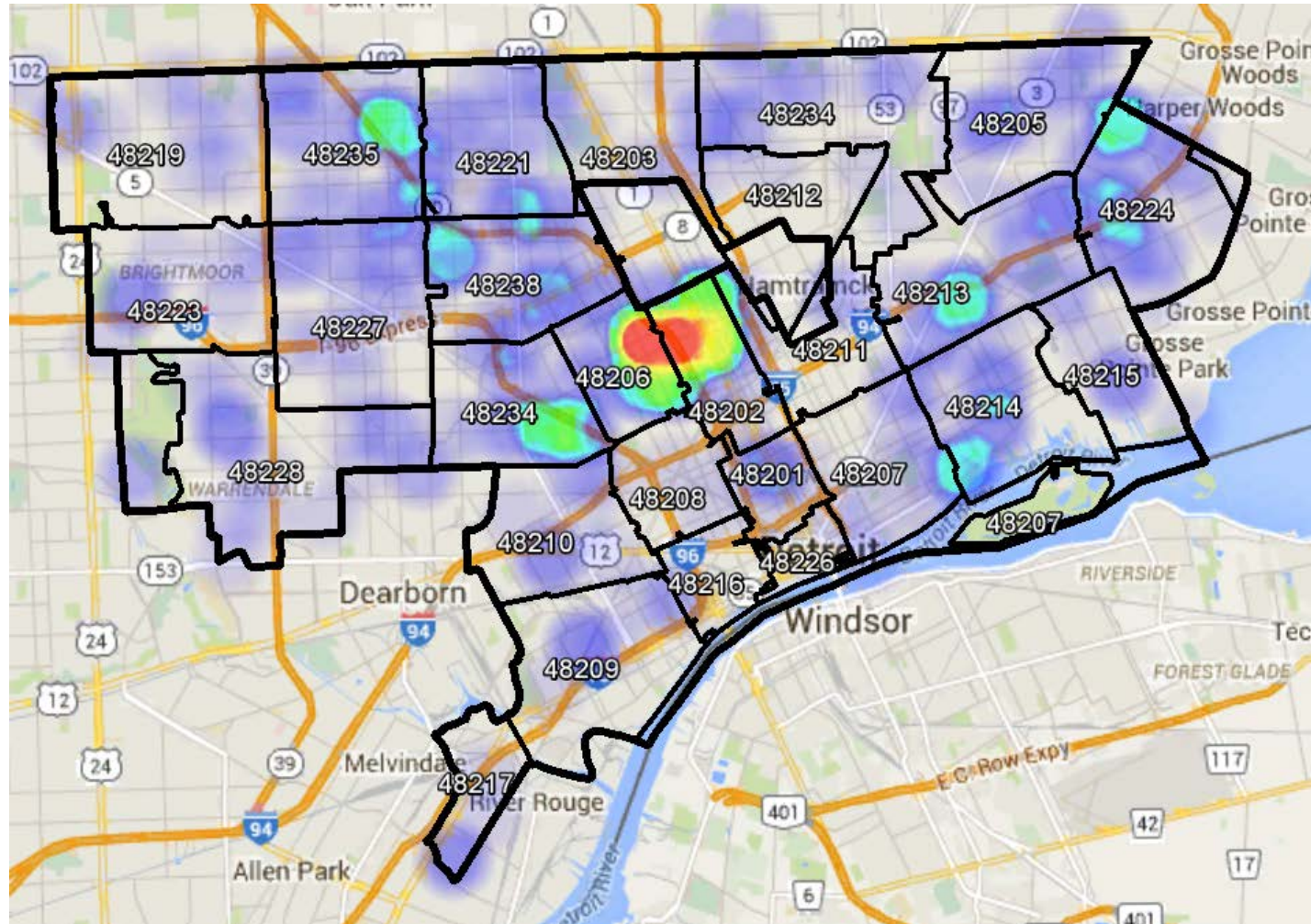
Hazard 3: Excess Heat

Table 12: Excess Heat Overview

	Total	%Rated	Avg Score	Avg Rating	Letter Rating
Detroit	483	97.2%	1628.4	6	C
Greensboro	261	98.9%	1376.4	7	C
Alameda Co	187	86.6%	1639.8	7	C
Total	931	95.2%	1562.9	6	C

Table 13: Excess Heat Prevalence by site

	%A-C	%A	%B	%C	%D	%E	%F	%G	%H	%I	%J
Detroit	8.9%	0.8%	0.8%	7.2%	3.7%	8.3%	48.2%	27.1%	0.2%	0.4%	3.1%
Greensboro	2.7%	0.4%	0.4%	1.9%	0.8%	1.1%	2.3%	93.1%	0.0%	0.0%	0.0%
Alameda Co.	1.6%	0.5%	0.0%	1.1%	5.3%	5.9%	2.1%	43.3%	25.7%	3.2%	12.8%
Total	5.7%	0.6%	0.5%	4.5%	3.2%	5.8%	26.1%	48.9%	5.3%	0.9%	4.2%

Higher than project mean
Same as project mean
Lower than project mean

Heat Map of A-C HHRS Hazard Rankings for Excess Heat (#3) in Detroit
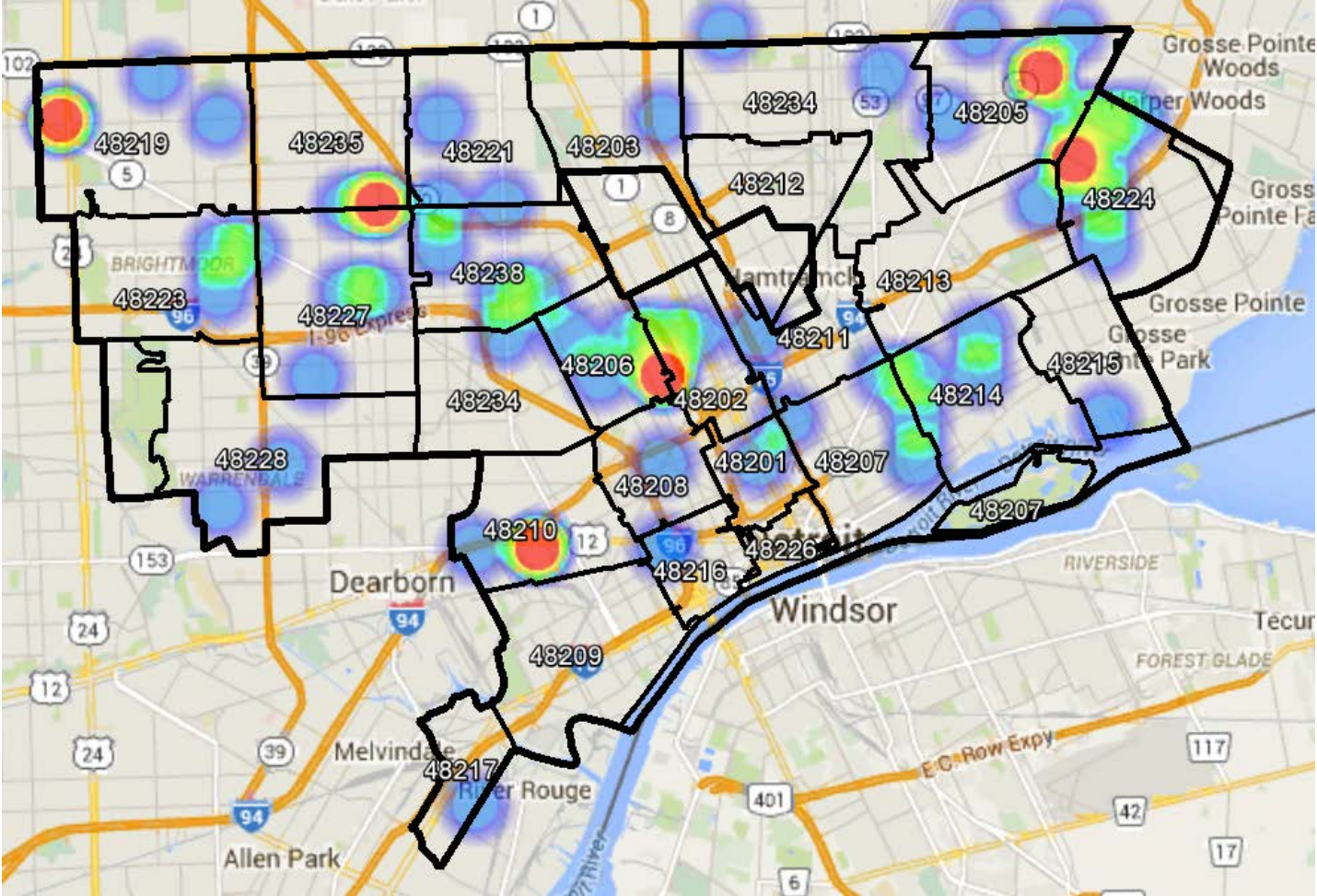
Hazard 15: Domestic Hygiene, Pests and Refuse

**Table 39: Domestic Hygiene Pests and Waste Overview**

	Total	%Rated	Avg Score	Avg Rating	Letter Rating
Detroit	458	92.2%	33.6	9	H
Greensboro	261	98.9%	16.1	10	I
Alameda Co.	202	93.5%	20.1	10	H
Total	921	94.2%	25.9	10	H

Table 40: Domestic Hygiene, Pests and Waste Prevalence by site

	%A-C	%A	%B	%C	%D	%E	%F	%G	%H	%I	%J
Detroit	0.2%	0.0%	0.2%	0.0%	1.3%	3.9%	1.7%	2.2%	5.2%	3.7%	81.7%
Greensboro	0.4%	0.0%	0.4%	0.0%	0.4%	0.4%	1.5%	0.0%	3.8%	2.3%	91.2%
Alameda Co.	1.0%	0.0%	0.0%	1.0%	0.0%	1.0%	0.5%	3.5%	4.0%	6.4%	83.7%
Total	0.4%	0.0%	0.2%	0.2%	0.8%	2.3%	1.4%	1.8%	4.6%	3.9%	84.8%

🟥	Higher than project mean
⬜	Same as project mean
🟩	Lower than project mean

# Heat Map of A-C HHRS Hazard Rankings for Pests (#15) in Detroit
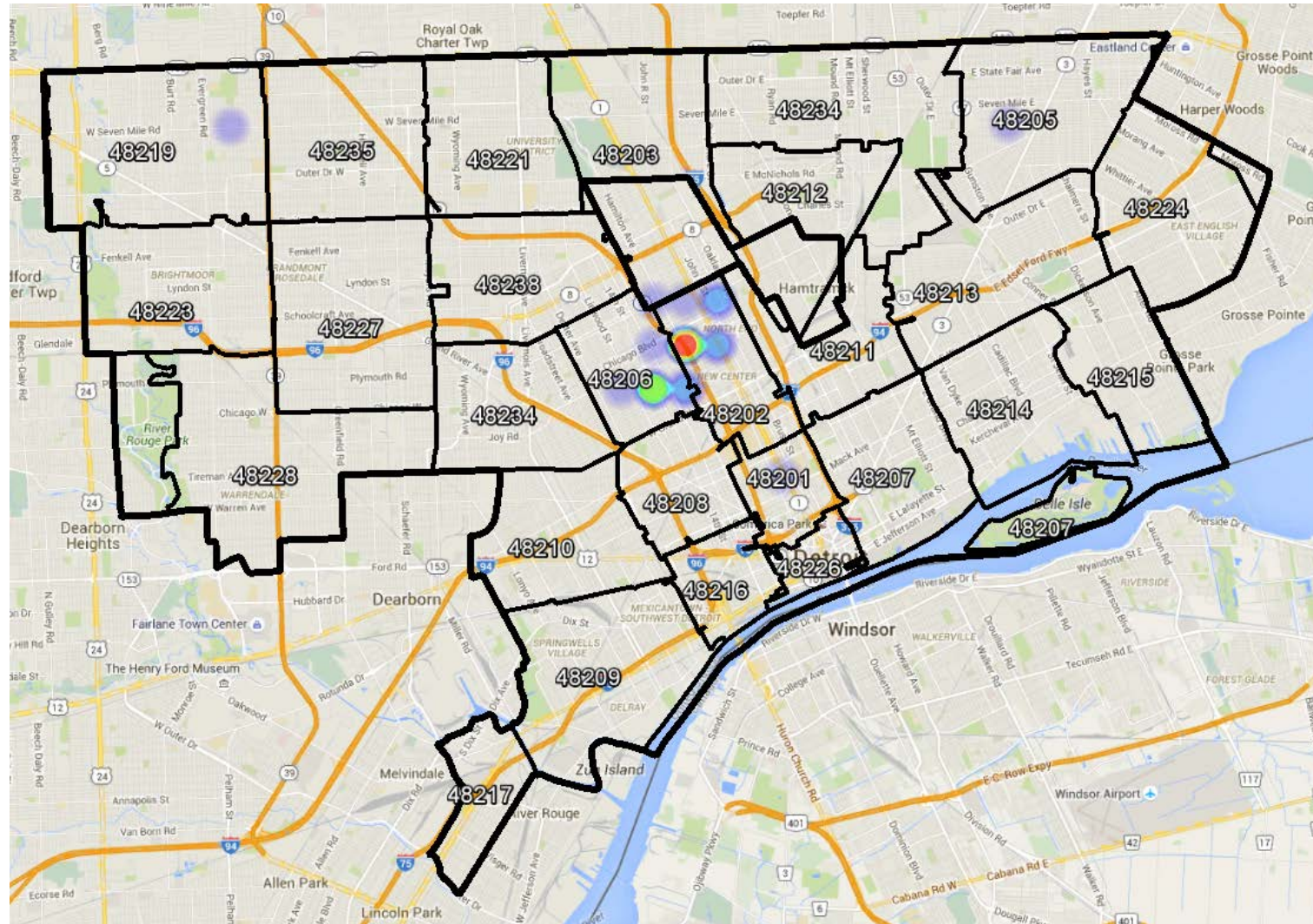
Rate of Asthma Emergency Department Visits by ZIP Code of Residence Among Children on Medicaid, 2013
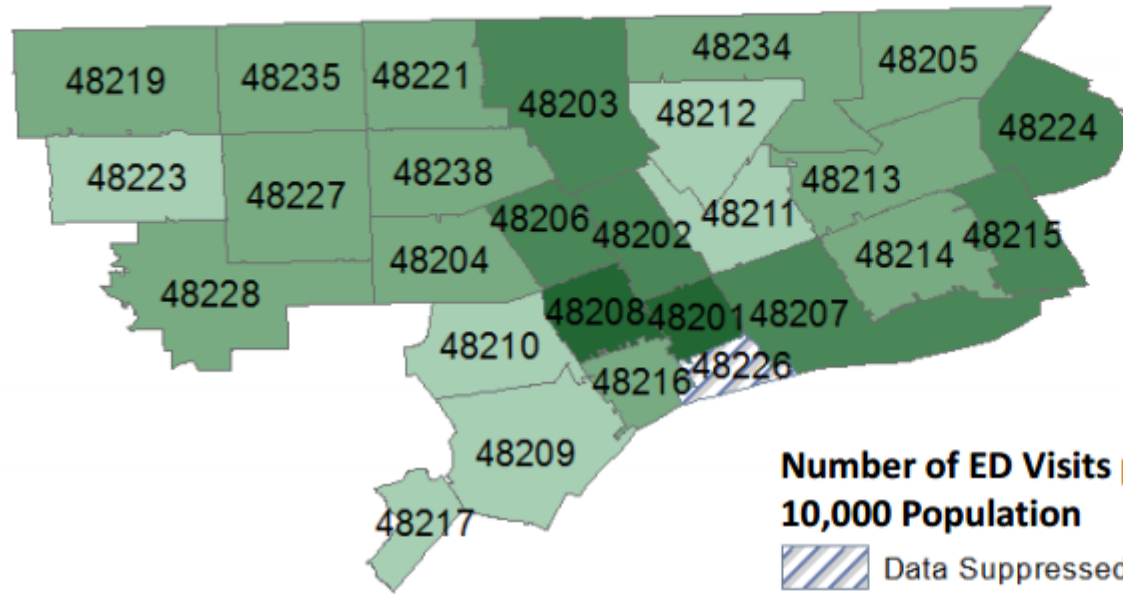
- With few exceptions, ZIP Codes in the center and eastern parts of Detroit tended to have the highest emergency department rates for asthma in the city.

Number of ED Visits per 10,000 Population

- Data Suppressed
- 164 - 361
- 362 - 445
- 446 - 551
- 552 - 787
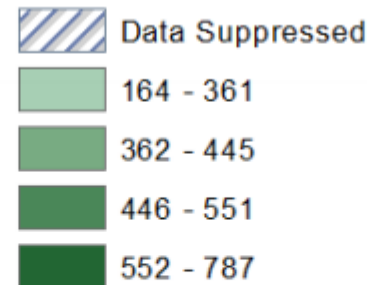
Data Notes:
Source: Data warehouse, MDHHS
1. Age-adjusted to the 2000 US Standard Population
2. Asthma as primary diagnosis, ICD-9-CM: 493.XX
3. Medicaid population of children <18 years is restricted to those who are continuously enrolled in Medicaid (11+ months) with full coverage and no other insurance
4. Suppressed due to hospitalization count < 5 or population < 5,000

Graphic source: State of Michigan report, Detroit: The Current Status of the Asthma Burden