



Persistent Childhood Asthma in Detroit

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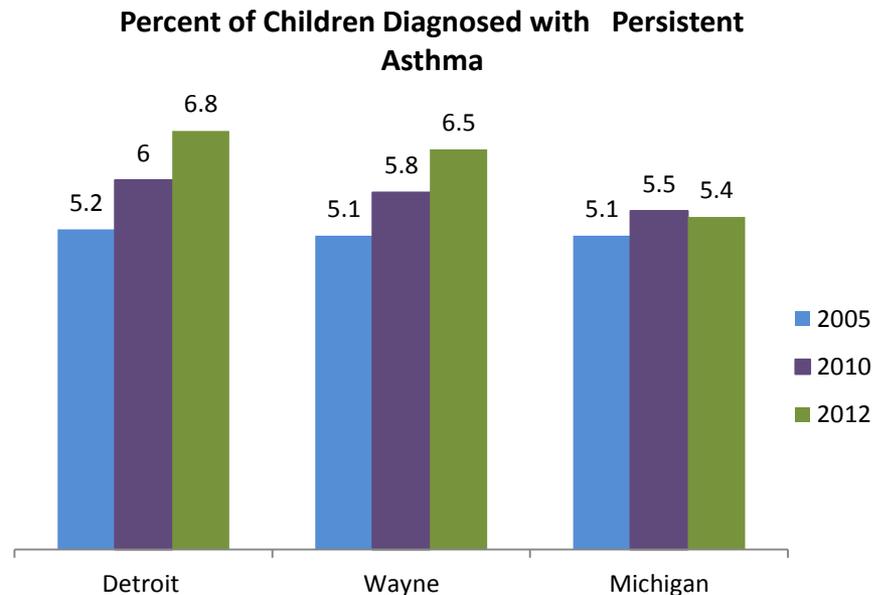
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Overview of the Data

- The data in this power point was provided by the Michigan Department of Community Health and was taken from the Michigan Medicaid beneficiary and administrative claims data
 - The data covers children age 17 years and younger with continuous Medicaid enrollment (11+ months), full Medicaid coverage, and no other insurance
 - Results were not calculated for zip codes that had prevalence rates of lower than 50 individuals
- Each zip code, except for the ones where data was unavailable, showed evidence of childhood asthma in 2012.
 - Note: Some zip codes do not have data reported. This is because there were so few cases that reporting was suppressed

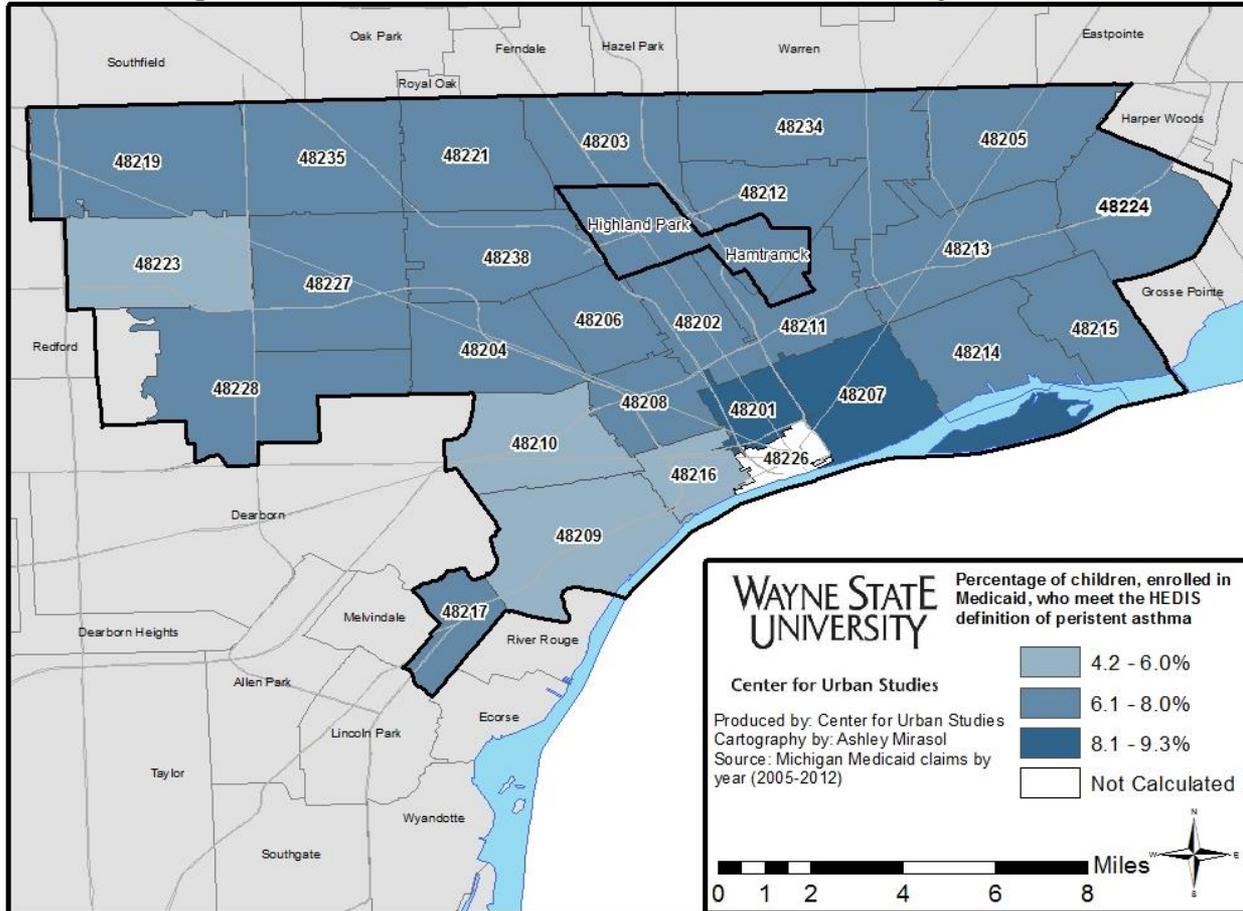
Overall Patterns

- Most zip codes experienced an increase in persistent asthma
- Approximately 8.1% of children, in zip 48207, located along the Detroit River near Belle Isle, were consistently in the top or second highest grouping in every map
- For children with persistent asthma, in the majority of the zip codes had over 25.1% of children had two or more outpatient visits for persistent asthma



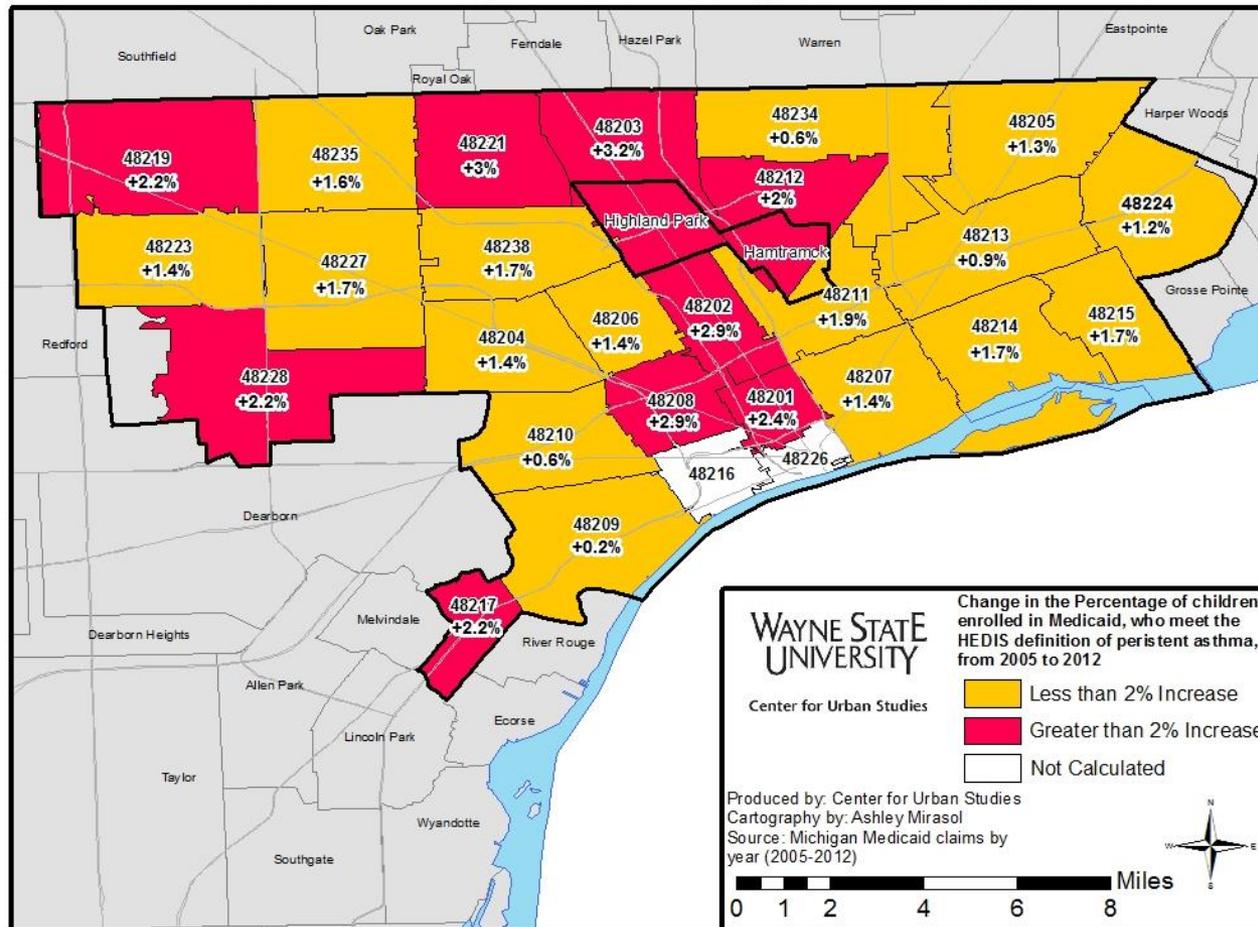
Percentage of Children with Persistent Asthma

Percentage of Children with Persistent Asthma, City of Detroit, 2012



- Persistent asthma, as defined according to the Healthcare Effectiveness Data and Information Set (HEDIS) classification, is in one year someone has
 - At least one emergency department visit or
 - one inpatient claim or four outpatient visits with two asthma medication dispensing events or
 - at least four asthma medication dispensing events where asthma is the principal diagnosis
- The zip code of 48201 had 9.3% of children who met the definition of persistent asthma

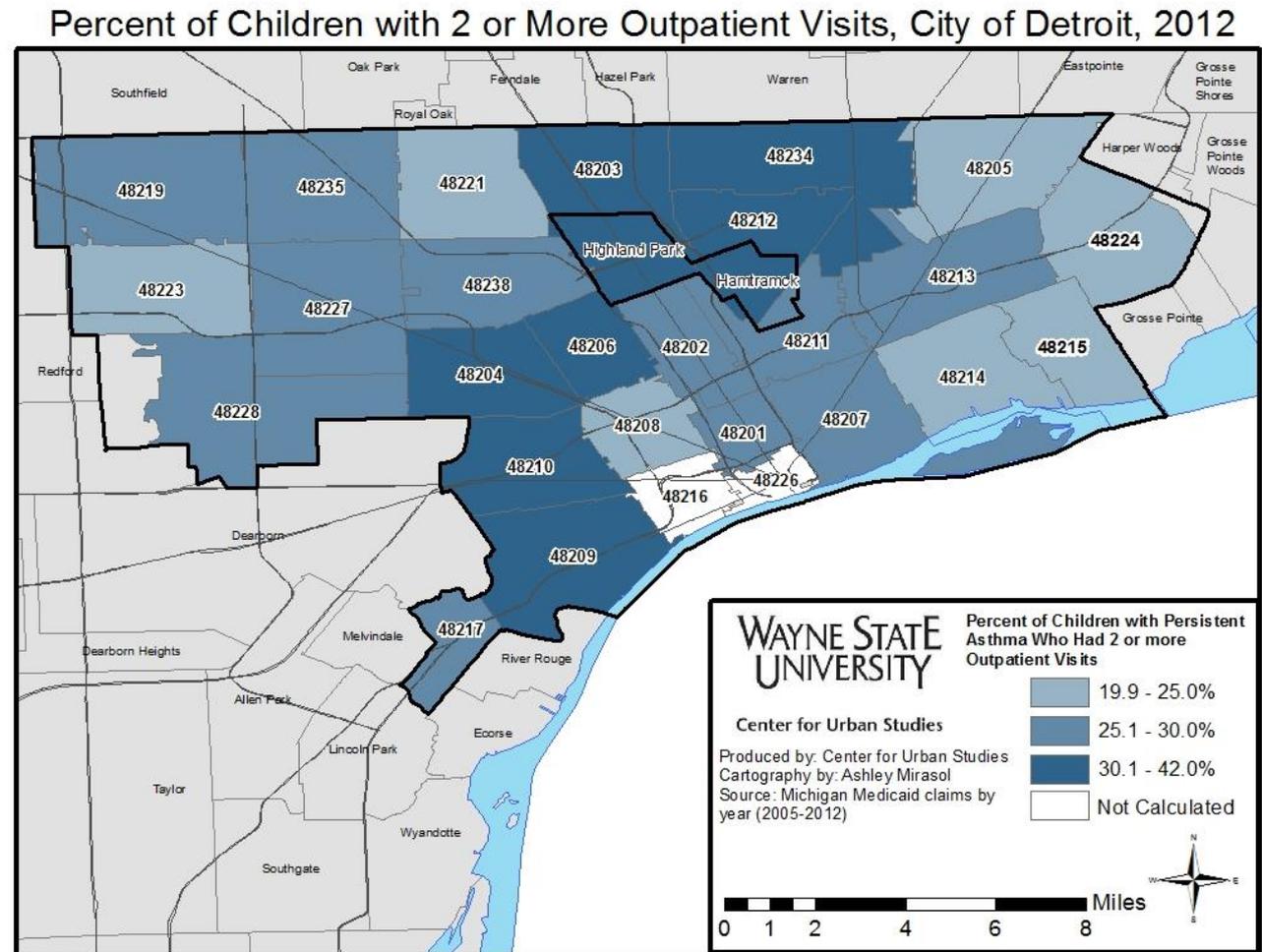
Children with Asthma, City of Detroit, Change in Percentage 2005 - 2012



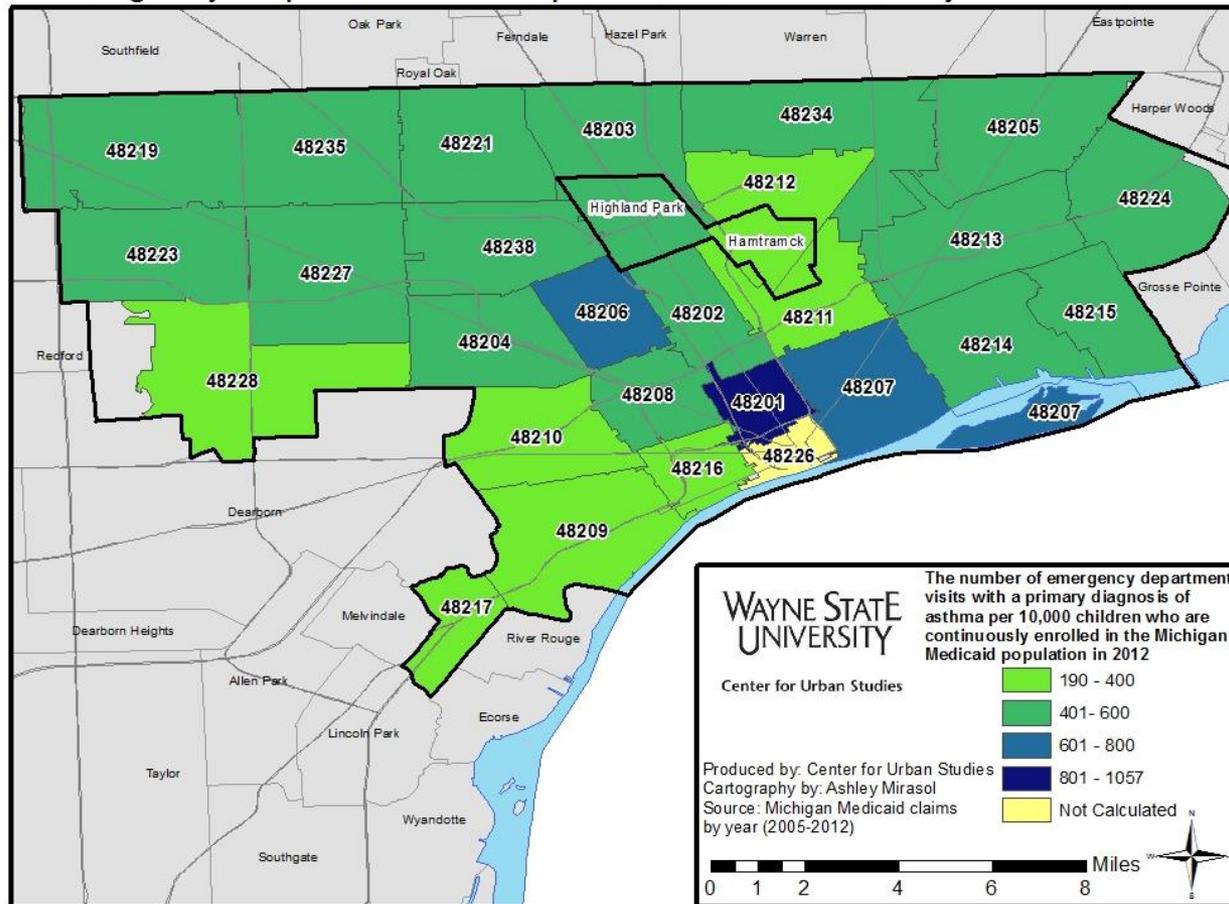
- While zip codes 48207 and 48201 had the highest percent of children with persistent asthma (between 8.1 and 9.3 percent), it was codes 48203, 48221, 48202, 48208 and 48201 that experienced the highest increase in percentage from 2005 to 2012.

Percent of Children with 2 or More Outpatient Visits

- Percentage of children, with persistent asthma who are covered by Medicaid with one or more outpatient visits for asthma.
- Many of the higher percentage point changes occurred in the zip codes where between 30.1 - 42% of children had two or more outpatient visits for persistent asthma (48217, 48235, 48238, 48234, 4820, 48203) all showed percentage increases greater than 9%.



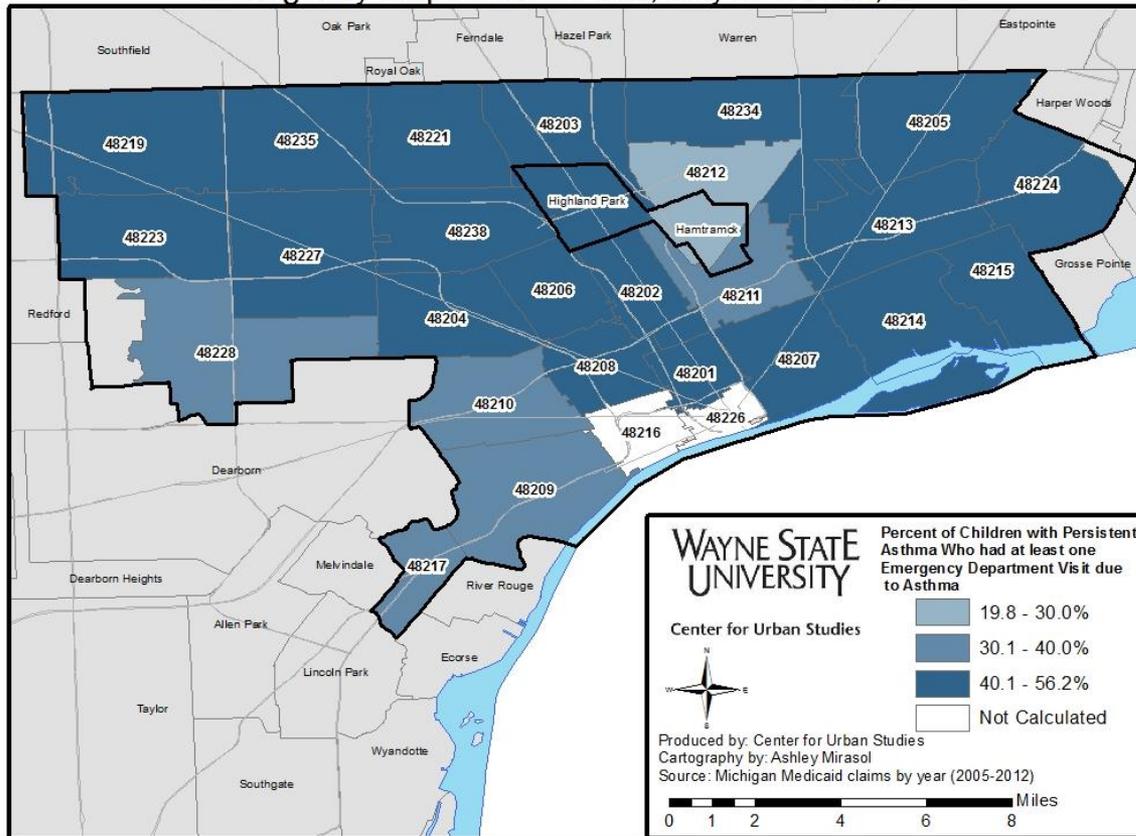
Emergency Department Visits, per 10,000 Children, City of Detroit, 2012



- Number of emergency department visits, among children with persistent asthma and who are covered by Medicaid, which occurs in the emergency department. This number shows the number of children who rely on emergency services as the primary care doctor for asthma treatment.
- The zip codes of 48206 and 48207 show the highest number of emergency department visits
- Detroit's 48201 showed a large increase going from 628 per 10,000 children to 1057 per 10,000 children. However, this could be due to the introduction of more specialized services at Detroit Medical Center and other hospitals in the area.

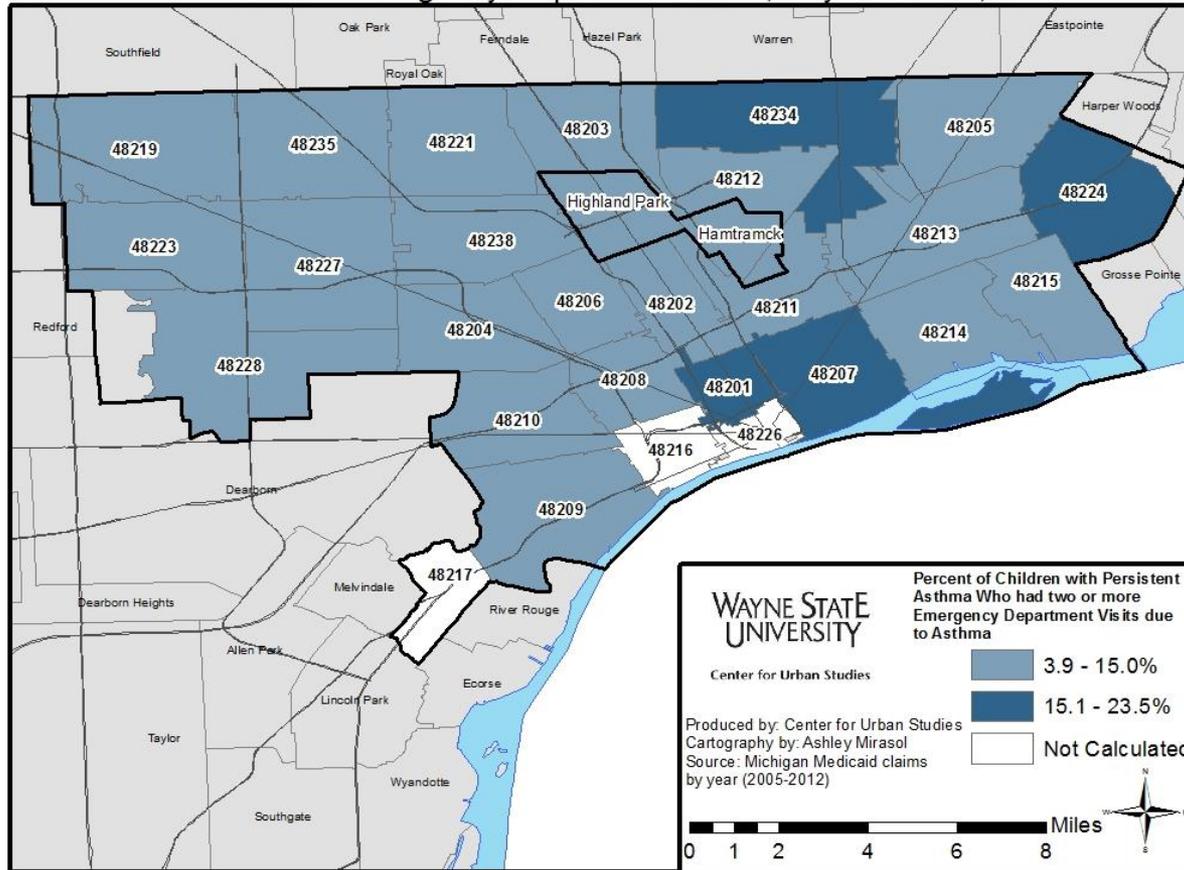
Percentage of Children with at Least 1 Emergency Department Visit

Emergency Department Visits, City of Detroit, 2012



- A majority of Detroit zip codes showed that between 40.1% and 56.2% of children with persistent asthma visited the ER for asthma
- The only zip code in Detroit where **below** 30.1% of children with persistent asthma have visited the ER was 48212
 - This area also experienced a 15.8 percentage point decrease of such visits from 2005 to 2012
- Zip code area 48211 experienced the highest percentage point decrease from 2005 to 2012 at 25.7 percent; it was 30.9% in 2012
- Northwest Detroit's 48219 zip code had the highest percentage increase at 10.3%; with 50.5% of children visiting the ER due to Asthma

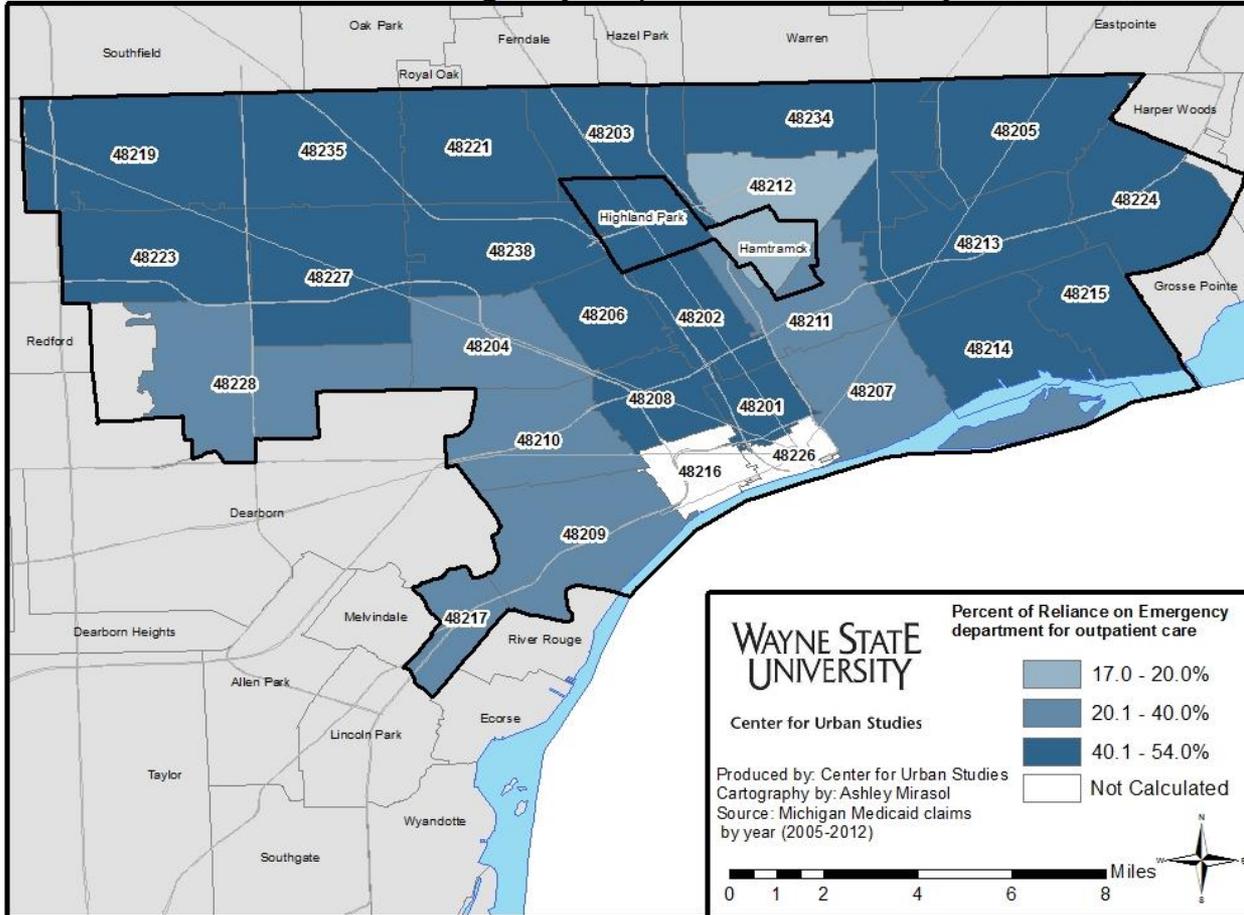
Two or More Emergency Department Visits, City of Detroit, 2012



- In 2012 there were only four zip codes where between 15.1 - 23.5% of the children with persistent asthma visited the ER more than once because of the asthma (this includes 48201, 48207, 48234, 48224)
 - The zip code 48201, also had the highest percentage point increase from 2005 to 2012 at 8%

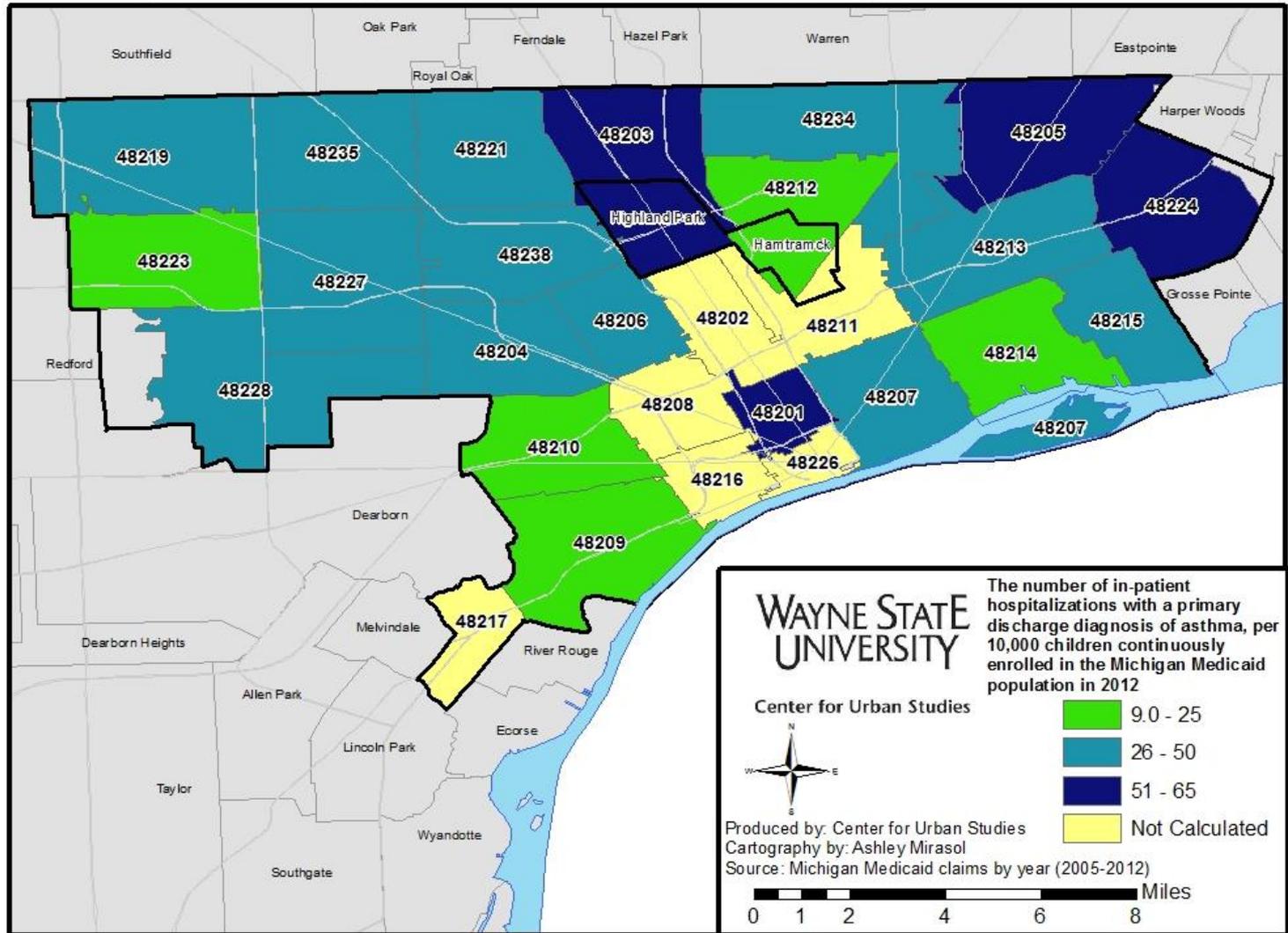
Percent Reliance on Emergency Department Care

Percent Reliance on Emergency Department Care, City of Detroit, 2012



- Reliance on Emergency Care is an indicator of outpatient utilization for asthma in the ER rather than utilizing other outpatient care settings
- For the Detroit zip codes, 9.3 – 54% of children with asthma are relying on the ER for outpatient care.
 - Most Detroit Zips showed a decrease in percentage points from 2005-2012.
 - 48209, 48215 48219 were the only zip codes with increases (less than 2.2%)

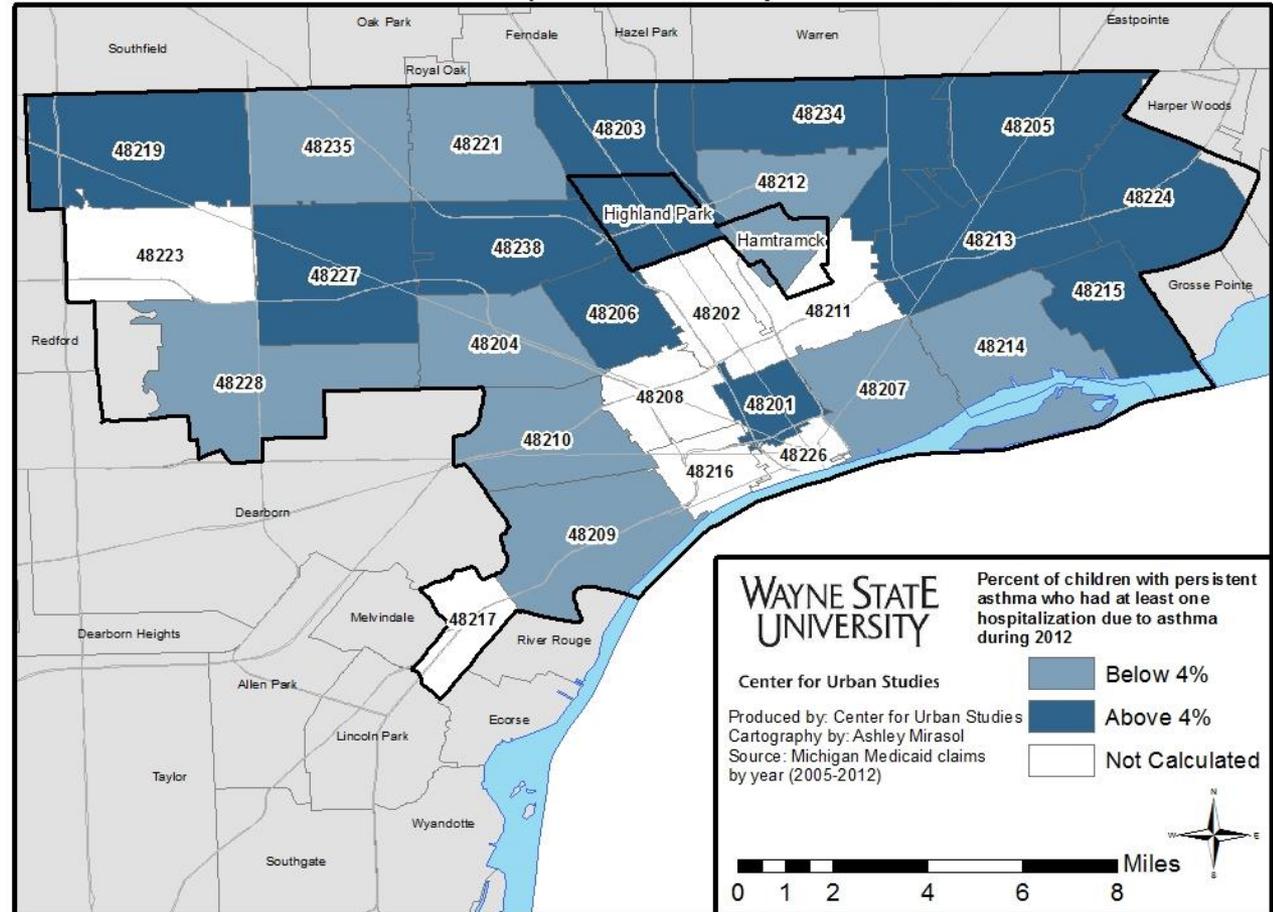
Inpatient Hospitalizations for Asthma, City of Detroit, 2012



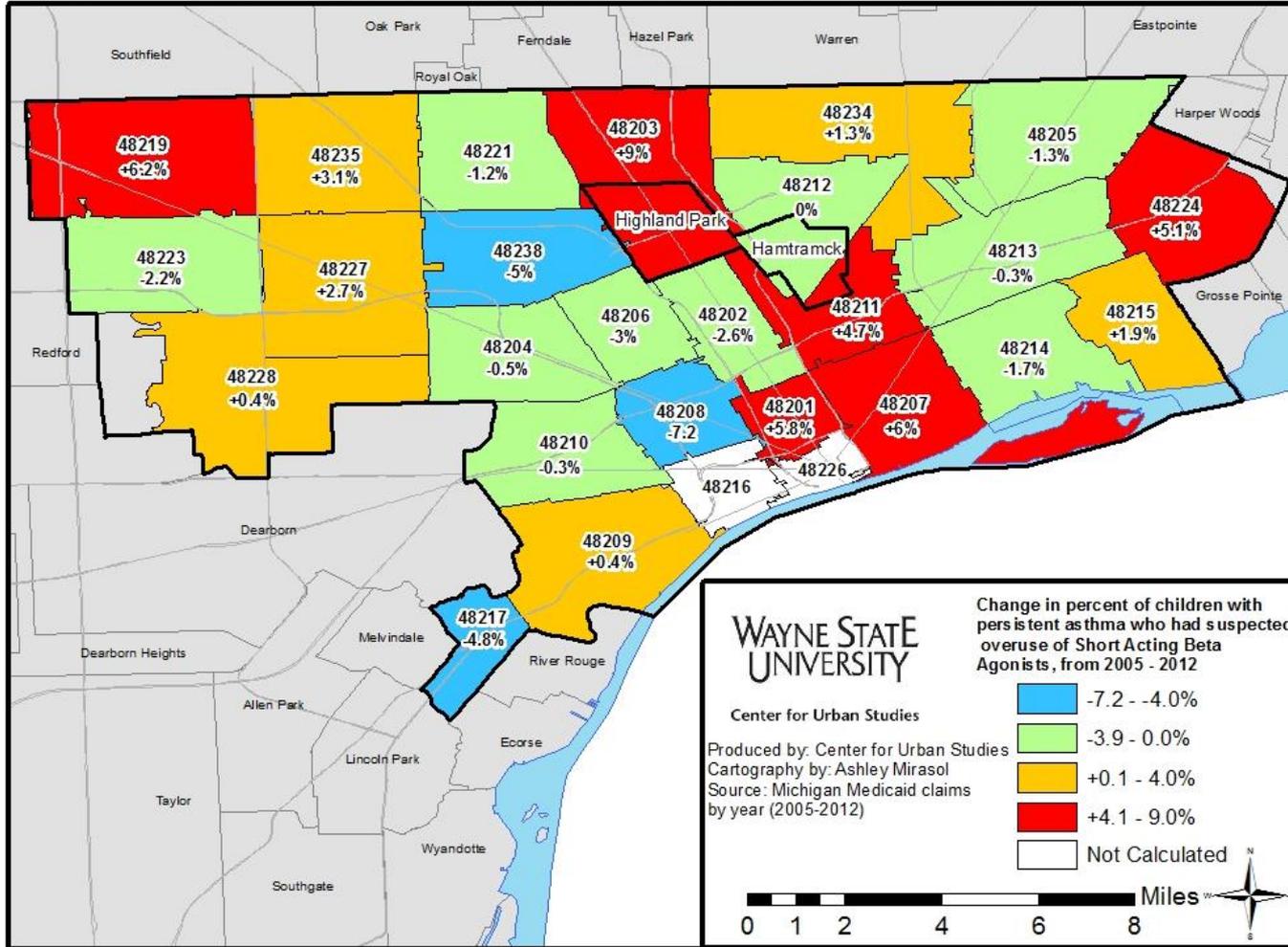
Percent of Children with At Least 1 Hospitalization

- This data shows the percentage of children with asthma, who have had primary hospitalization for asthma (rather than the number of persons with hospitalizations for asthma)
- The percentage of children with persistent asthma who had asthma-related hospitalizations decreased from 2005-2012. All of the zip codes in Detroit experienced a decrease, the highest being a 13.9% decrease in zip code 48223.

At Least One Hospitaliation, City of Detroit, 2012



Overuse of Short Acting Beta Antagonists, City of Detroit, Change in Percentage 2005 - 2012

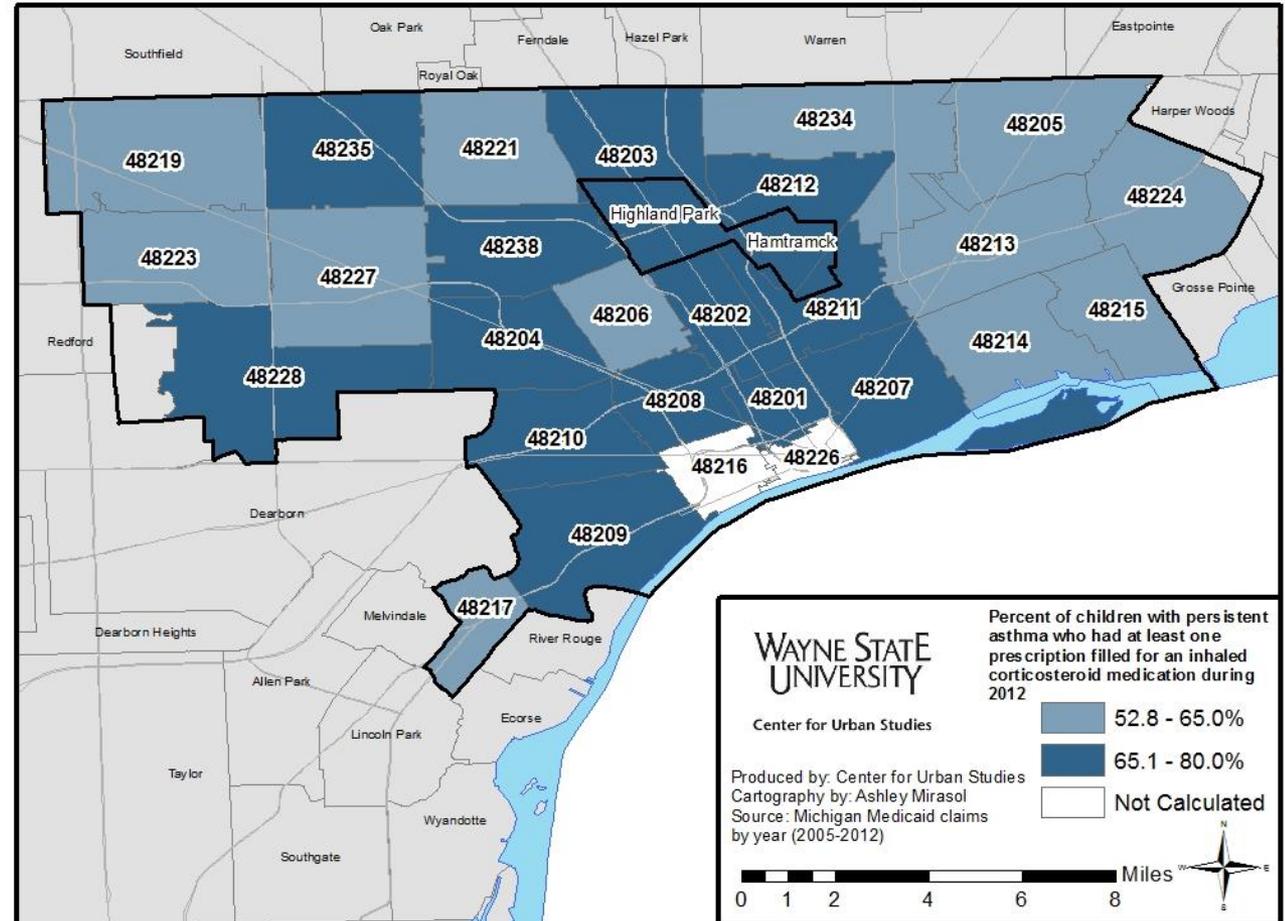


The zip code area 48219 had the highest percentage point increase in the overuse of SABA medications. The percentage point increase was 6.2%.

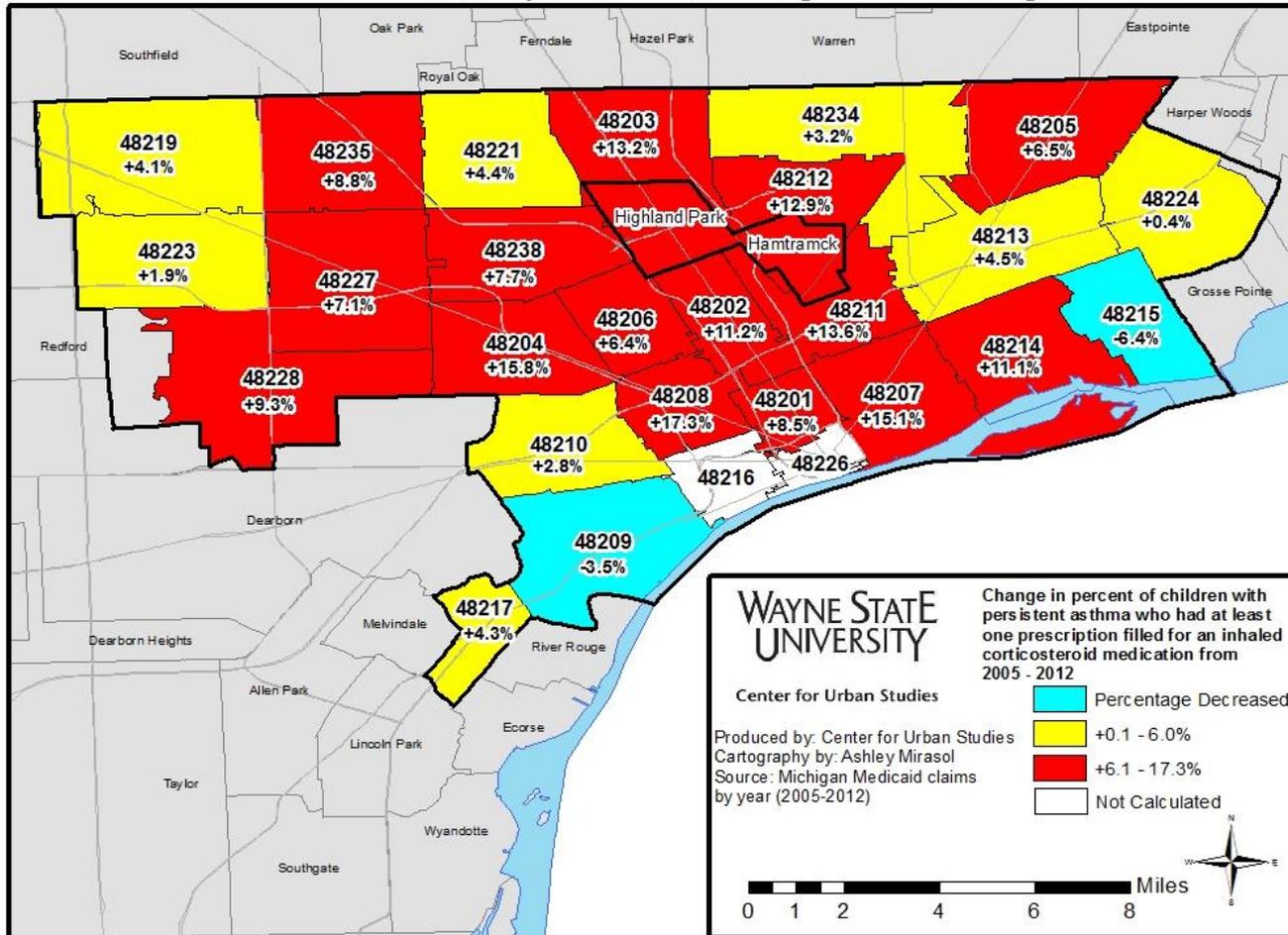
Percent Use of Inhaled Corticosteroid Medications

Use of Inhaled Corticosteroid Medications, City of Detroit, 2012

- Percentage of children with persistent asthma, who are enrolled in Medicaid and have filled one or more prescriptions for an inhaled corticosteroid.
- Percentages for this indicator varied from 52.8% - 80% of children with asthma.
- From 2005-2012, the percentages changed from a decrease of 3.5% to an increase of 17.3%.
 - The zip codes of 48202, 48203, 48204, 48207, 48208, 48211, and 48214 showed percentage increases larger than 10%



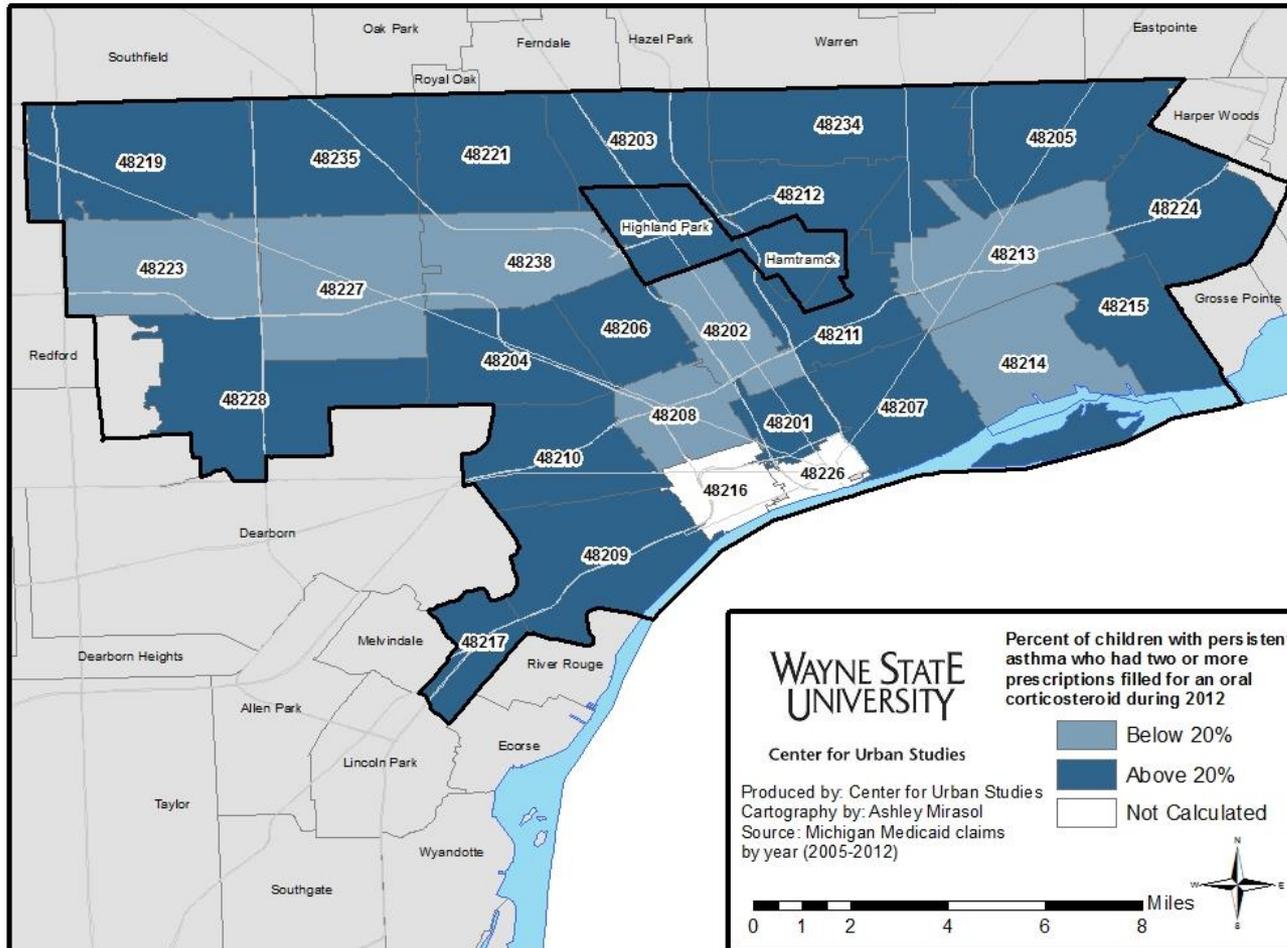
Inhaled Corticosteroid Use, City of Detroit, Change in Percentage 2005 - 2012



- From 2005-2012, the percentages changed from a decrease of 3.5% to an increase of 17.3%.
- The zip codes of 48202, 48203, 48204, 48207, 48208, 48211, and 48214 showed percentage increases larger than 10%

Percentage of Children who had 2 or more Oral Steroid Medications

Two or More Oral Corticosteroid Medications, City of Detroit, 2012

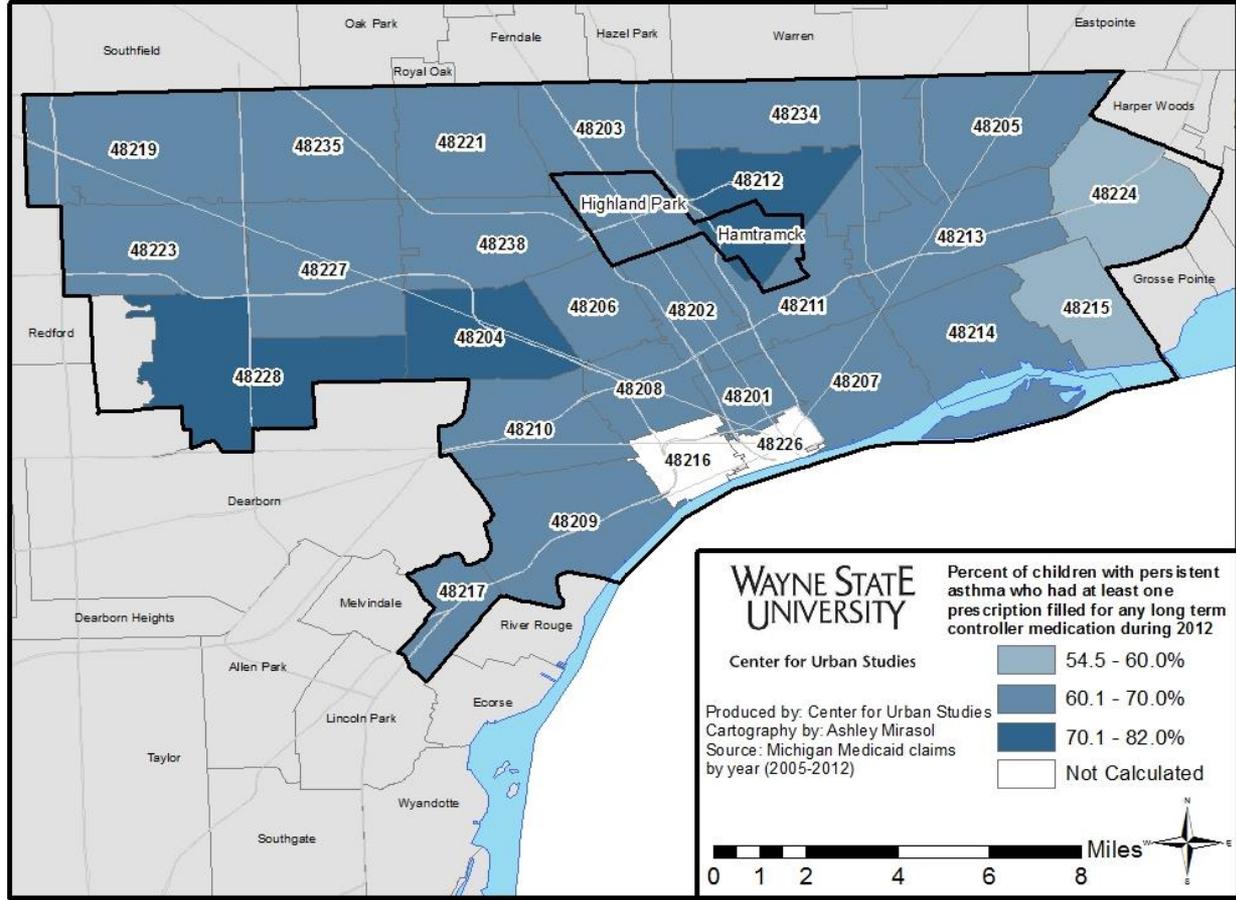


- Percentages of children who had 2 or more oral corticosteroids ranged from 15.9 to 30.8%, with a majority of zip codes above 20%
- A majority of the zip codes showed an increase in percentage points
 - 48210 showed a percentage point increase of 11.2%

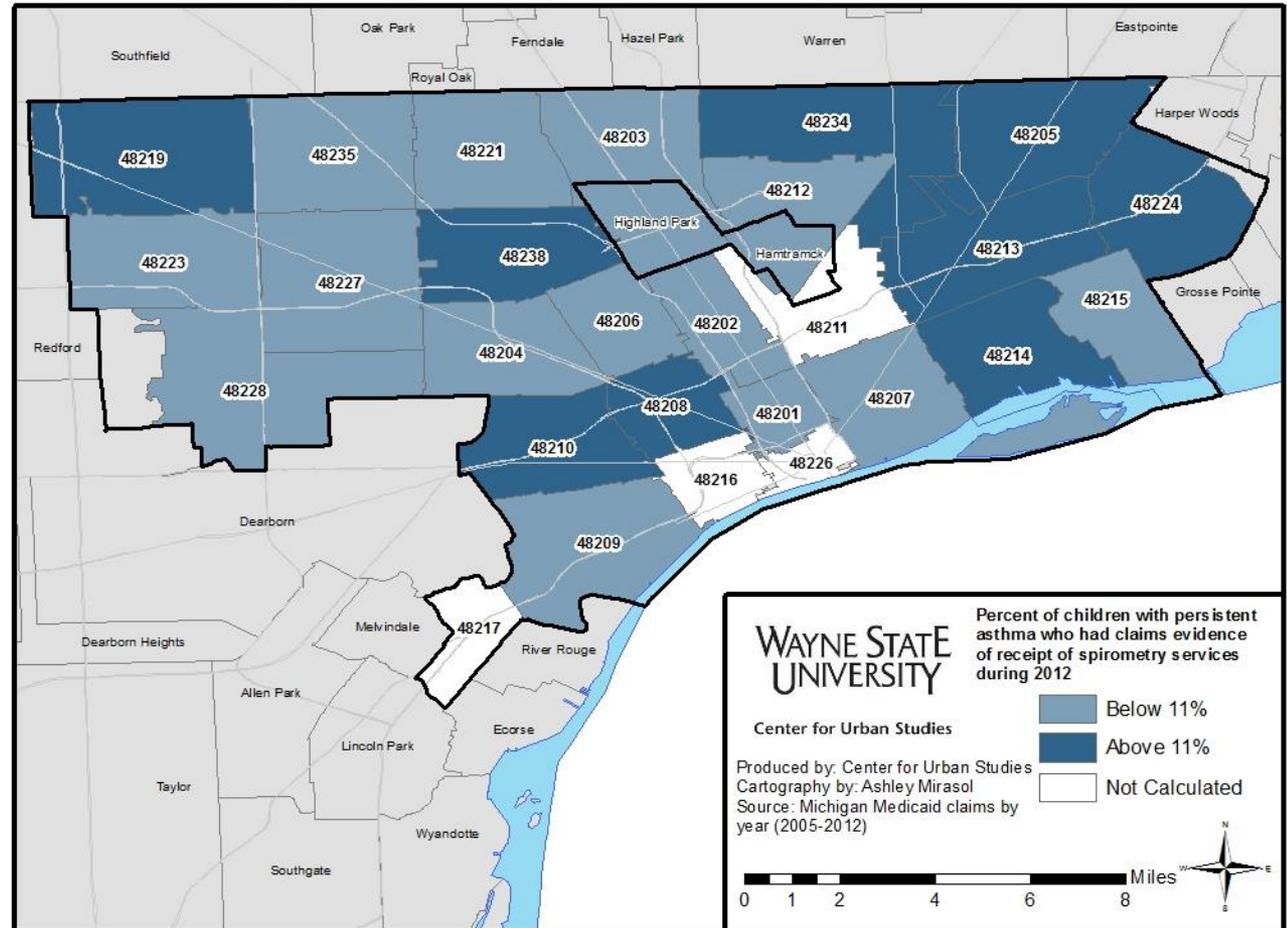
Percentage of Children with Longer Term Controller Medication Prescriptions

Prescriptions for Long Term Controller Medications, City of Detroit, 2012

- Percentage of those who had at least one prescription for long term controller medication ranged from 54.5 to 82% of children with asthma.
 - The counties with the highest percentages were: 48212 (81.8%), 48204 (73.2%), 48228 (71.9%)
- The largest percentage increases (greater than 10% increase) took place in 48204, 48207, and 48211



Receipt of Spirometry Services, City of Detroit, 2012



- A spirometry helps to diagnose conditions involving the lungs and can help to monitor asthma, the severity, and responses to treatment.
- Percentage of children who received spirometry services varied from 6.7 – 16.2% in the Detroit zip codes.
- The highest increase in the receipt of spirometry services was in 48234 with a 7.2% increase