





Asthma in Rhode Island: Greater Providence Area

Agenda Overview



- **General information: asthma and available services**
- **New Asthma Data and Maps**
- **Environmental Factors**
- **I-95 Air Quality Study**
- **Discussion**

General Asthma Information



- **Asthma is a chronic lung disease.** When people with asthma are exposed to triggers, airways become inflamed and airway muscles tighten, making it hard to breathe.
- **Asthma is serious.** A person can die during an asthma attack. Knowing how to take care of your asthma and when to get emergency help is important.
- **Asthma does not go away, and it cannot be cured.** Once you develop asthma you are likely to have it for life. Even when you have no symptoms, asthma is there and can flare up.

What are the symptoms of asthma?

When someone with asthma is exposed to an asthma trigger, they may have some of the following symptoms:

- Wheezing (breathing with a whistling sound)
- Coughing, especially during the night or in the morning
- Chest tightness or chest pain
- Shortness of breath



What should I do if I have asthma symptoms?

If you have symptoms of asthma, see your doctor.

Your doctor will:

- Talk to you about your medical and family histories,
- Listen to your breathing,
- Test you for allergies, and
- Look for other signs of asthma.

Be sure to tell your doctor if you have any of the problems listed below. They can be associated with asthma.

- Runny or itchy nose
- Trouble sleeping or exercising
- Heartburn
- Psychological stress

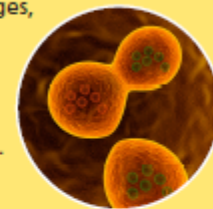
Additional testing may be necessary to know if you have asthma. Your regular doctor may refer you to an asthma specialist.

Who can get asthma?

Asthma affects people of all ages, but it usually starts during childhood. A number of things may affect whether or not someone develops asthma.

These may include:

- Family medical history
- Allergies or eczema (a skin condition)
- Exposure to certain viruses or allergens that you breathe in early in childhood (some of these allergens include dust, pollen, mold, and pet fur)
- Exposure to tobacco smoke, especially in childhood



Asthma Triggers



Asthma Triggers

Asthma attacks are triggered by **allergens, irritants, and aggravators**. Know and avoid your asthma triggers.



Controlling Asthma

Asthma cannot be cured, but it can be controlled. You can control your asthma by taking three important steps:

- Know and avoid your **asthma triggers**.
- Take all **asthma medication** as prescribed by your doctor.
- Have an **Asthma Action Plan**.

Allergens

An allergen is anything that can cause an allergic reaction. Ask your doctor about allergy testing to accurately diagnosis allergies. This will help you better manage your asthma. Some allergens that trigger asthma include:

Dust Mites

Dust mites are found in rooms with carpeting, upholstered furniture, curtains, bedding, and stuffed toys. Encase pillows, mattresses, and box springs in allergy-proof covers. Dust and vacuum often with a HEPA (high efficiency particulate air) vacuum and wash bedding weekly in hot water. Remove stuffed animals and toys (unless they can be washed).



Pests

Cockroaches and rodents need food and water to live. Store food in sealed containers and clean crumbs, dirty dishes, and other sources of food waste as soon as possible. Fix leaks as soon as possible and use garbage cans with lids.



Pets and Other Animals

Keep animals with fur or feathers out of bedrooms and bathe them weekly. This includes dogs, cats, hamsters, rabbits, and birds. If possible, remove these animals from your home.



Pollen

Pollen is seasonal and affects people at different times of the year. Close windows and use air conditioning if possible. Do not hang laundry outside on high-pollen days.



Mold

Too much moisture can create problems with mold and mildew. This is especially true in bathrooms, kitchens, and basements. Make sure your bathroom exhaust fan is on when showering and do not over-water houseplants. Use a dehumidifier and remember to empty and clean the container regularly.



Irritants

Asthma irritants are things in the air that can trigger asthma. Some asthma irritants include:

Smoke

If you smoke, quit smoking. While you are trying to quit, do not smoke in your home or in your car.



Aerosols

Do not use scented products such as perfume, aftershave, cologne, air fresheners, or strong-smelling cleaning products.



Air Pollution

During the summer, ozone is a major air pollutant. Listen to weather reports and stay inside when ozone levels are high. Close windows and use air conditioning on these days, if possible.



Pesticides, Insecticides, and Weed Killers

These chemicals should only be used if all other methods of pest, insect, and weed removal have been tried and did not work. Anyone with asthma should not be around when these products are used and for several hours after they are used.



Aggravators

Other things that can trigger asthma are known as asthma aggravators. Some common aggravators include:

Viral Infections that Lead to Cold or Flu

Viruses can live on dry surfaces for several days. Wash your hands frequently or use antibacterial gels. Avoid touching your eyes, nose, and mouth. This is how viruses enter your body.



Exercise

Exercise is very important. Everyone with asthma can still be active. Some people with asthma can do strenuous exercise, such as distance running. Others with asthma may have to choose activities with built-in rest periods, such as baseball or softball, or less strenuous activities, such as walking or light biking. Swimming and dancing can also include rests. Always warm up before exercising. Take quick relief asthma medication between 15 and 20 minutes before exercising, if recommended by your doctor.



Cold Air

The airways of someone with asthma can close when they go from an area with warm air to an area with cold air. This usually happens in the winter when someone goes outside. You can warm the air you breathe outside by covering your nose and mouth with a scarf. If possible, stay indoors on very cold days.



www.health.ri.gov/asthma

Asthma Program Services



Free Asthma Services

Families who have children with asthma and live in Providence, Pawtucket, Central Falls, or Woonsocket may qualify for:

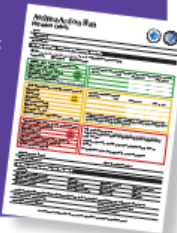
- Up to three classes to learn how to manage their child's asthma
- Home visits by a Certified Asthma Educator to help find and fix asthma triggers (things that cause asthma attacks)
- Help coordinating asthma care with primary care providers, school nurses, teachers, and caregivers
- Help getting support for healthy housing, tenant rights, and social services

To see if you qualify, call the Health Information Line: 401-222-5960 / RI Relay 711



Asthma Action Plan

An Asthma Action Plan is a written plan. It lists a person's asthma triggers, medicines, and doses. It also tells what to do in an asthma emergency.



Asthma at Home

Clean and healthy homes help reduce asthma. Asthma triggers in the home include dust mites, mold, pets, pests, smoke, and chemical cleaners. The Asthma Control Program offers:

- **Breathe Easy at Home (BEAH)** If a landlord will not fix a suspected housing code violation that triggers asthma, BEAH helps doctors contact building code officials. BEAH can also help tenants get legal support.
- **Asthma Home Visits** Families can have up to three visits by a Certified Asthma Educator. The Certified Asthma Educator teaches how to get rid of asthma triggers and better manage asthma.



Asthma at School

Asthma causes children to miss school, so schools need to be asthma-friendly. Schools in cities with more childhood asthma need this most. Healthy schools are good for all students and staff.

Project CASE (Controlling Asthma in Schools Effectively) works with elementary schools to:

- Offer Hasbro's *Draw a Breath* classes for students with asthma
- Give training for school staff about asthma needs at school
- Improve the school's indoor and outdoor spaces, asthma-friendly policies, and indoor air quality
- Promote the use of Asthma Action Plans
- Improve asthma care coordination between school nurses, teachers, healthcare providers, and families

Asthma and Healthcare

The Asthma Control Program works with healthcare providers, community health centers, and patient-centered medical homes. It helps them offer better asthma care by:

- Encouraging the use of Certified Asthma Educators
- Providing a current Asthma Action Plan for patients
- Teaching families how to use the Asthma Action Plan to manage asthma
- Partnering with community-based public health programs
- Sharing national guidelines that help providers diagnose, monitor, and treat asthma

Health Information Line: 401-222-5960 / RI Relay 711 | www.health.ri.gov/asthma

Asthma Program Services



Do you live in
Providence, Pawtucket,
Central Falls or Woonsocket?

Do you rent your home or
apartment?

Do you think your
housing conditions are making
your child's asthma worse?



Breathe Easy at Home
may be able to help.

You have a right to safe, healthy housing,
but are you worried about landlord retaliation?

What is landlord retaliation?

A landlord who is retaliating is trying to "get even" with a tenant. Landlord retaliation is a spiteful act a landlord makes in response to something you might say or do about a problem in your apartment. **Landlord retaliation is illegal.** Some examples of landlord retaliation include:

- ▶ Raising your rent.
- ▶ Taking away heat or hot water.
- ▶ Refusing to make repairs in your home.
- ▶ Threatening to evict you from your apartment or filing an eviction case in court.

What are some of your rights as a tenant?

It is illegal for your landlord to retaliate against you when:

- ▶ You ask your landlord to fix something that is wrong with your apartment (such as peeling paint, leaks, insect and mice problems).
- ▶ You contact a building or health inspector, the fire department, or another government agency about unsafe living conditions.
- ▶ You join a tenants' union or similar organization.
- ▶ You participate in the Rhode Island Department of Health's Breathe Easy at Home project. (for more information, see: www.health.ri.gov/asthma).

When is eviction not retaliation?

Your landlord can still legally evict you if:

- ▶ You owe your landlord rent.
- ▶ You complain about a problem requiring repairs that you caused, or was caused by a member of your family or other person on the premises with your consent.
- ▶ Your apartment or building is condemned.

Who should you contact if you think your landlord is retaliating against you?

You should contact a lawyer if you feel your landlord has retaliated against you. Free legal services are available to help some tenants who are having problems with their landlords. Services are available in both English and Spanish.

Rhode Island Center for Justice
1 Empire Plaza, Suite 410
Providence, RI 02903
401-491-1101 ext. 810
www.centerforjustice.org

For more information, see the Rhode Island Landlord-Tenant Handbook:
sos.ri.gov/assets/downloads/documents/state-library/RI-landlord-tenant-handbook.pdf



Data: Children with Asthma



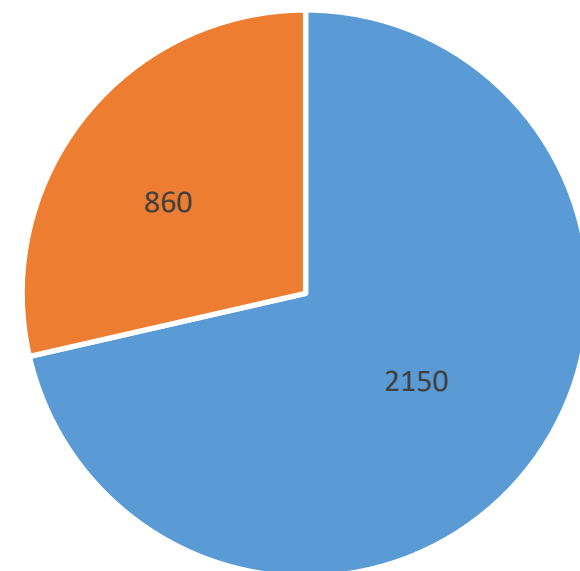
Key points:

- Asthma is the most common chronic condition in children
- Nationally 8.4% of children have asthma
- In Rhode Island, 10.9% of children have asthma, the 9th highest prevalence in the nation
- Black children and Hispanic children are more likely to visit the emergency room or be hospitalized due to asthma
- Over 70% of pediatric asthma emergency department visits in Rhode Island are children on Medicaid

RI asthma emergency department rates (per 1000):

1. Providence: 13.7
2. Central Falls: 11.5
3. Newport: 10.8
4. Woonsocket: 10.7
5. Pawtucket: 9.7

Asthma Emergency
Department visits, 2016-
2017



■ Medicaid

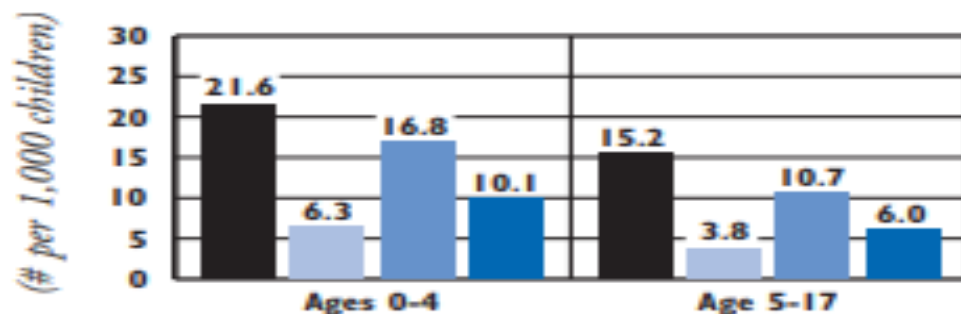
■ Commercial, self-pay or unknown

Asthma Data: Health Inequities

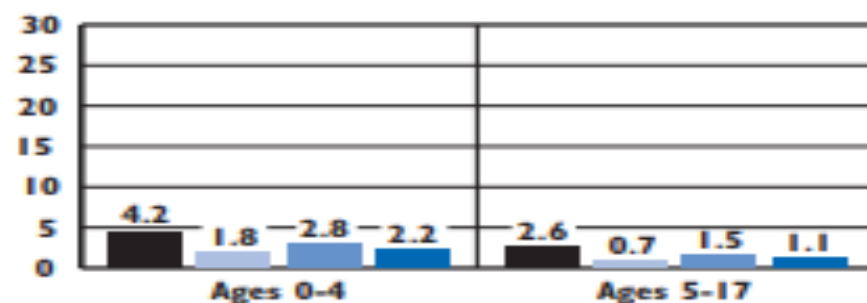


Asthma* Emergency Department and Hospitalization Rates, by Age and Race/Ethnicity, Rhode Island Children, 2012-2016

Black White Hispanic** All Races



Emergency Department Visit Rates



Hospitalization Rates

Source: Rhode Island Department of Health, Hospital Discharge Database, 2012-2016; U.S. Census Bureau, Census 2010.

*Rates are for primary diagnosis of asthma. **Hispanic children can be of any race.

| CITY/TOWN | ESTIMATED # OF CHILDREN UNDER AGE 18 | # OF CHILD EMERGENCY DEPT. VISITS WITH PRIMARY ASTHMA DIAGNOSIS | RATE OF CHILD EMERGENCY DEPT. VISITS WITH PRIMARY ASTHMA DIAGNOSIS, PER 1,000 CHILDREN |
|---------------------------|--|---|--|
| <i>Four Core Cities</i> | <i>73,741</i> | <i>4,513</i> | <i>12.2</i> |
| <i>Remainder of State</i> | <i>150,215</i> | <i>3,404</i> | <i>4.5</i> |
| <i>Rhode Island</i> | <i>223,956</i> | <i>7,917</i> | <i>7.1</i> |

Medicaid Asthma Claims Data



— Hassenfeld —
CHILD HEALTH
INNOVATION INSTITUTE
BROWN UNIVERSITY

Data analysis and maps produced by
Hassenfeld Child Health Innovation
Institute at Brown University.

Data source information:

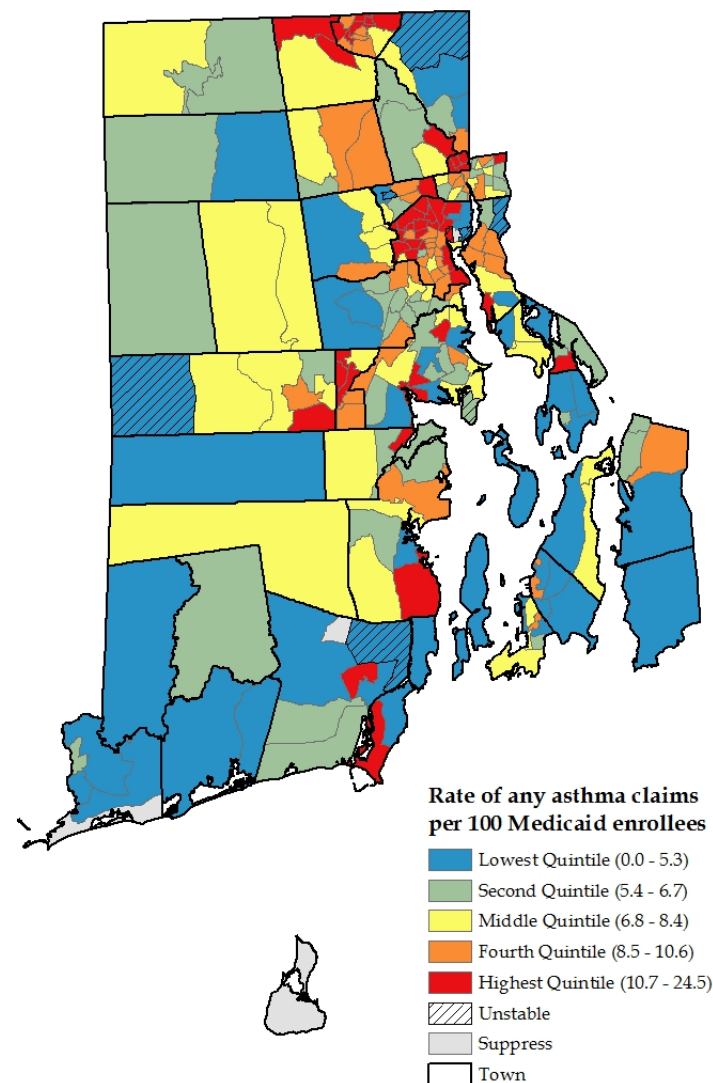
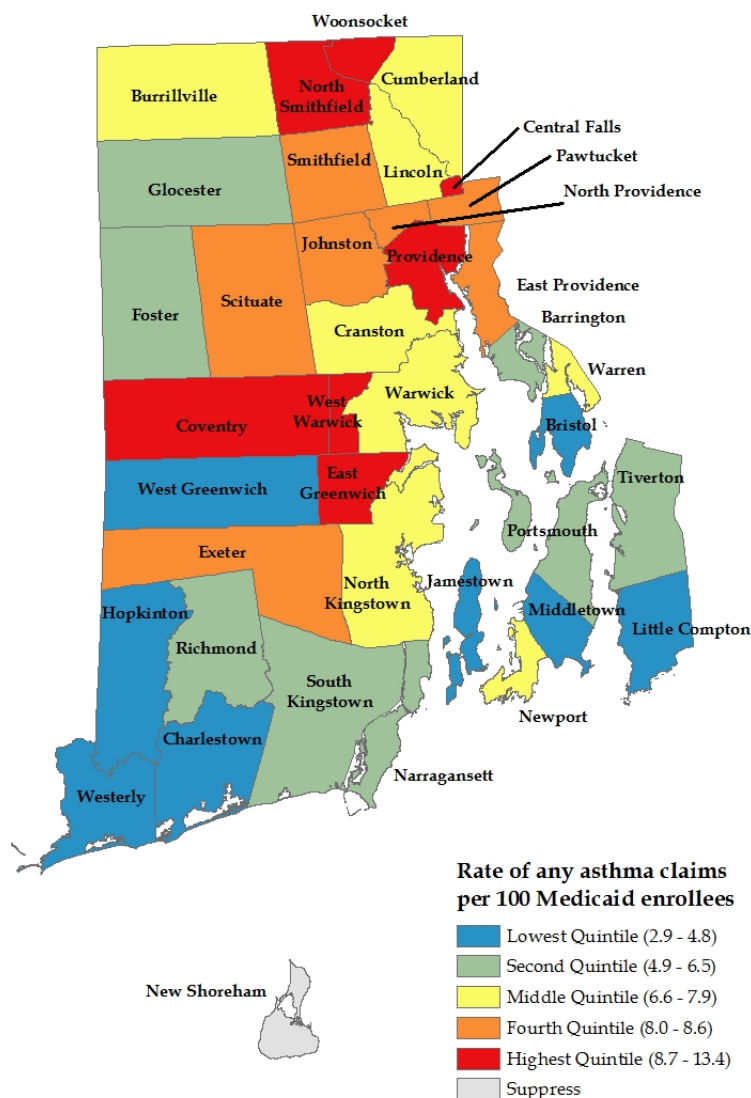
- All Medicaid claims data for Rhode Island Children ages 0-18 between 1/1/13 - 12/31/17
- Asthma claim defined as primary diagnosis of asthma ICD-9 493.xx or ICD-10 J45
- Address-level data obtained from Medicaid eligibility database, August 2017

Map types and information:

- Mapped by Municipality and by Census Tract with natural break quintiles
- RIDOH Small Numbers Data policy applied to ensure reported data are reliable rates
- Emergency Department (ED) visits and Inpatient hospitalizations with primary diagnosis asthma were mapped against two different populations (denominators) -
 - All children 0-18 enrolled in Medicaid between 2013-2017
 - Asthmatic children 0-18 enrolled in Medicaid between 2013-2017 (any asthma claim)
- “Any asthma claim” defined as paid claim with an asthma diagnosis code. It includes office visits, urgent care, emergency department, or hospitalizations, but not medications. It is the best available estimate of asthma prevalence based on claims data but undercounts true prevalence due to missing people with asthma but no any asthma claim between 2013-2017.

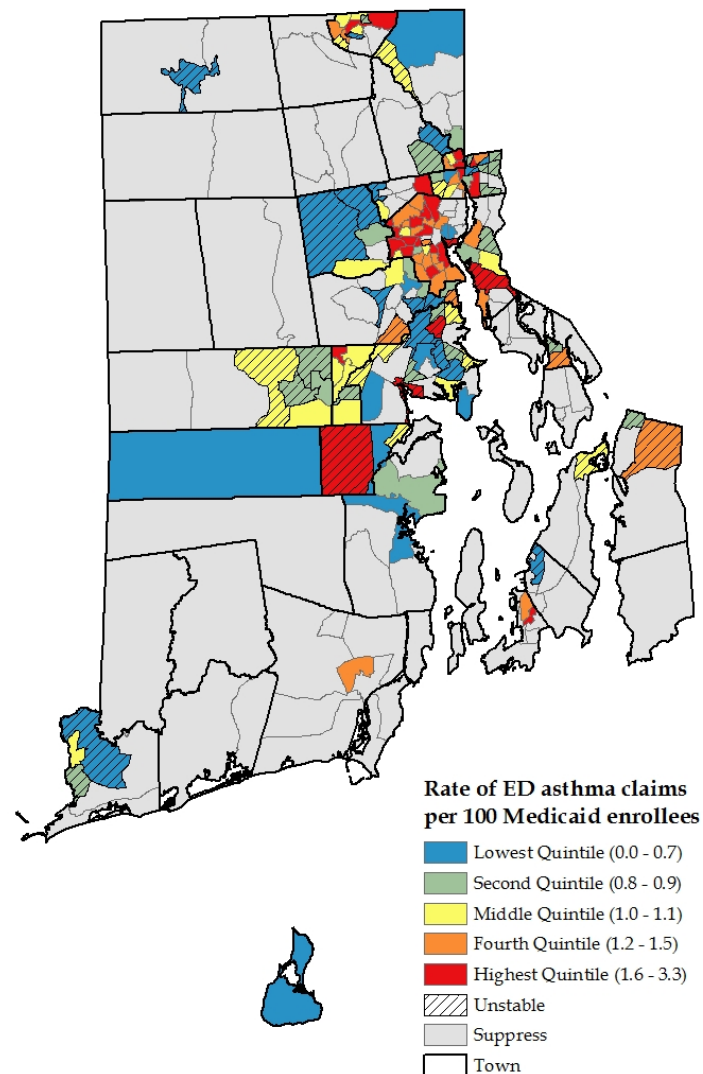
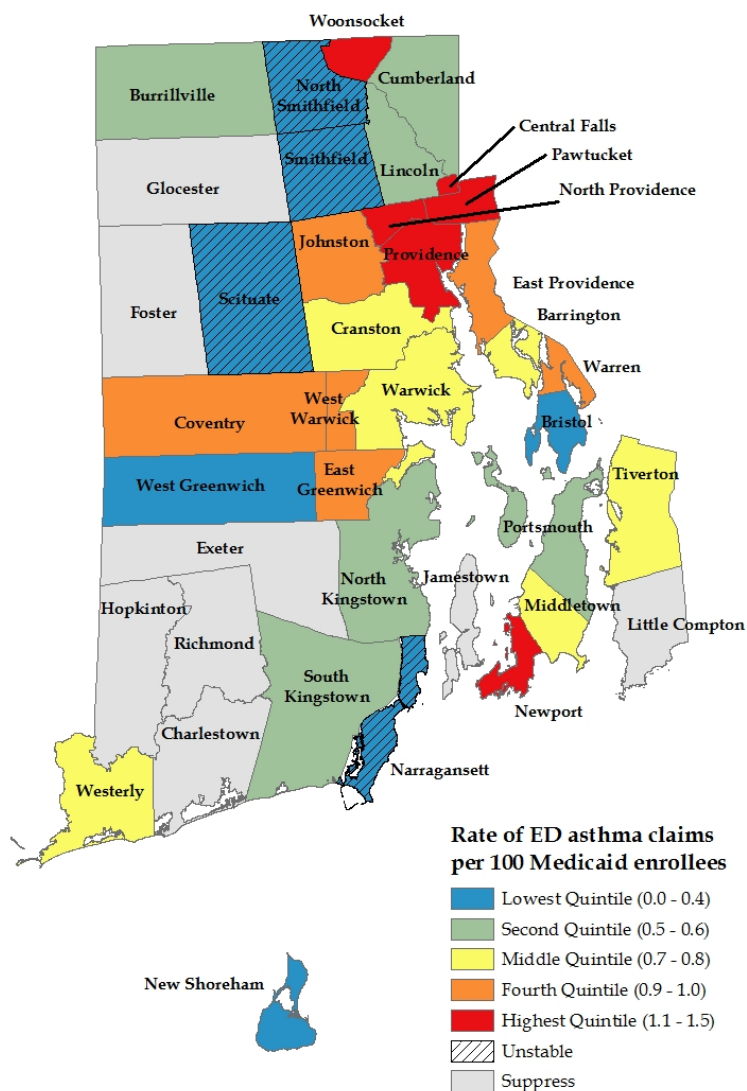
Children with Asthma in Medicaid

Any Asthma Claims among Children on Medicaid, 2013-2017 (asthma prevalence)



Medicaid Asthma ED Visits

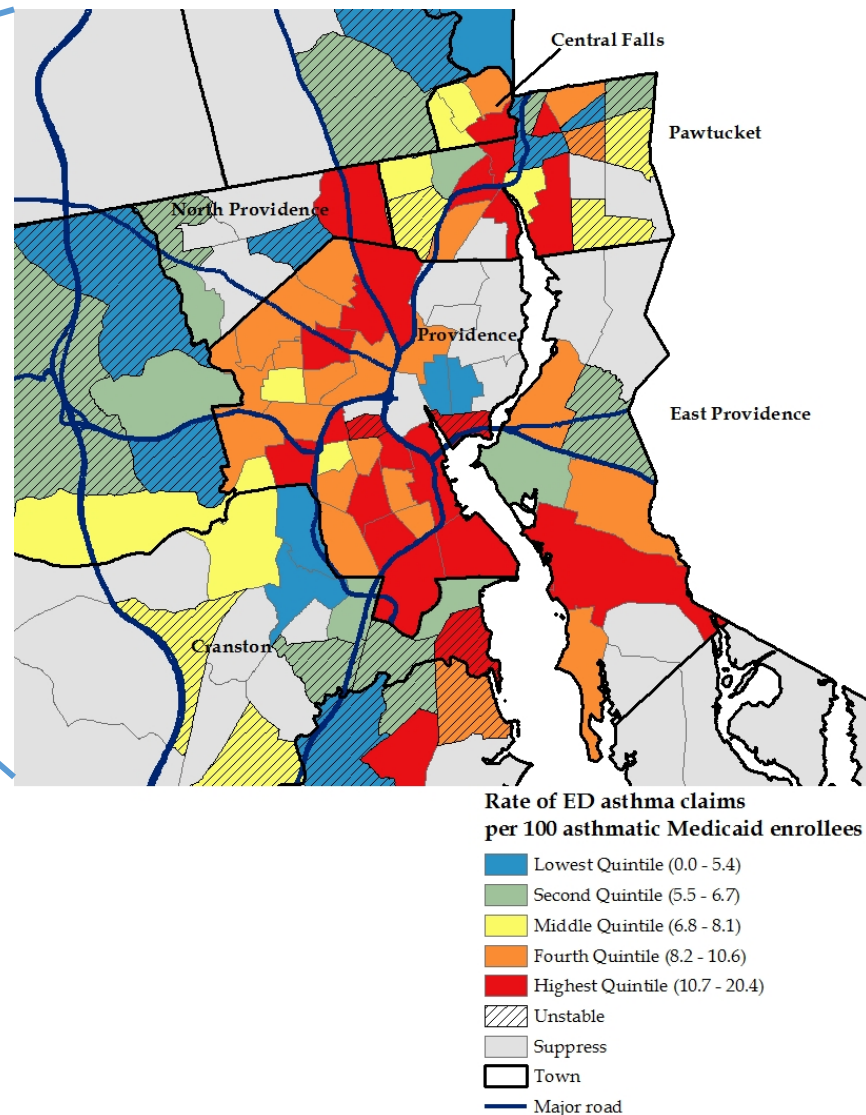
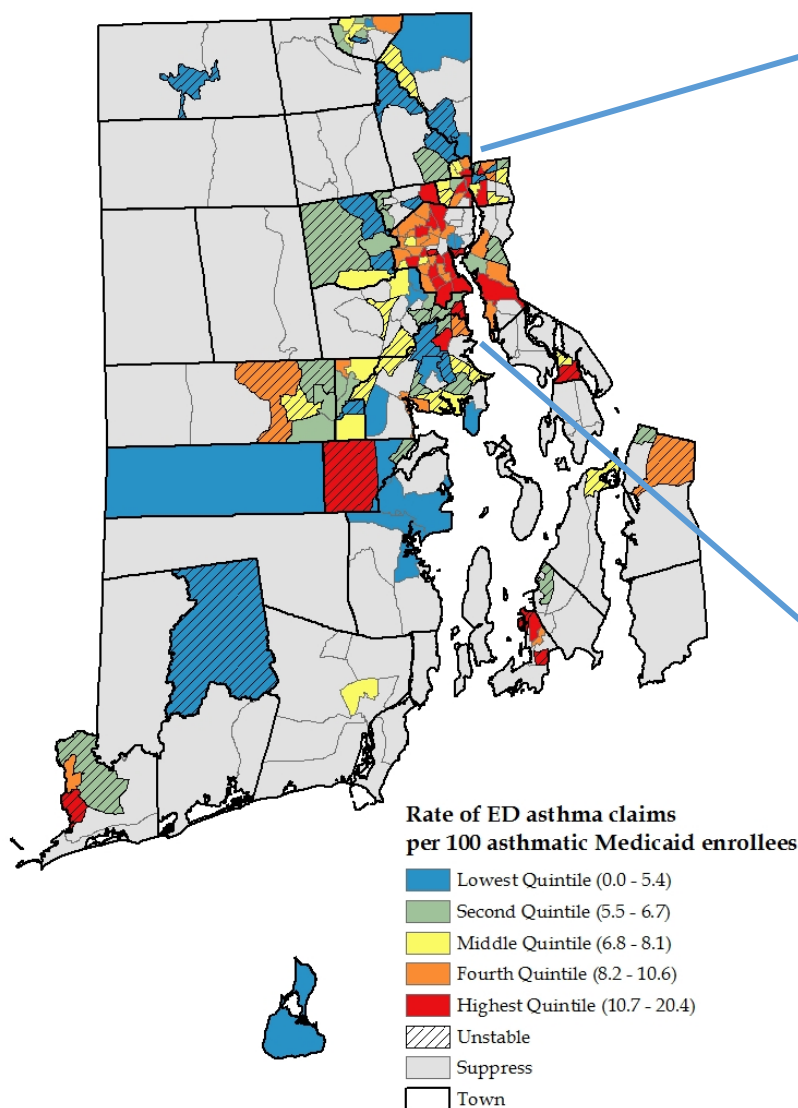
Asthma Emergency Department Visits among all Children on Medicaid, 2013-2017



Children with Asthma: ED Visits



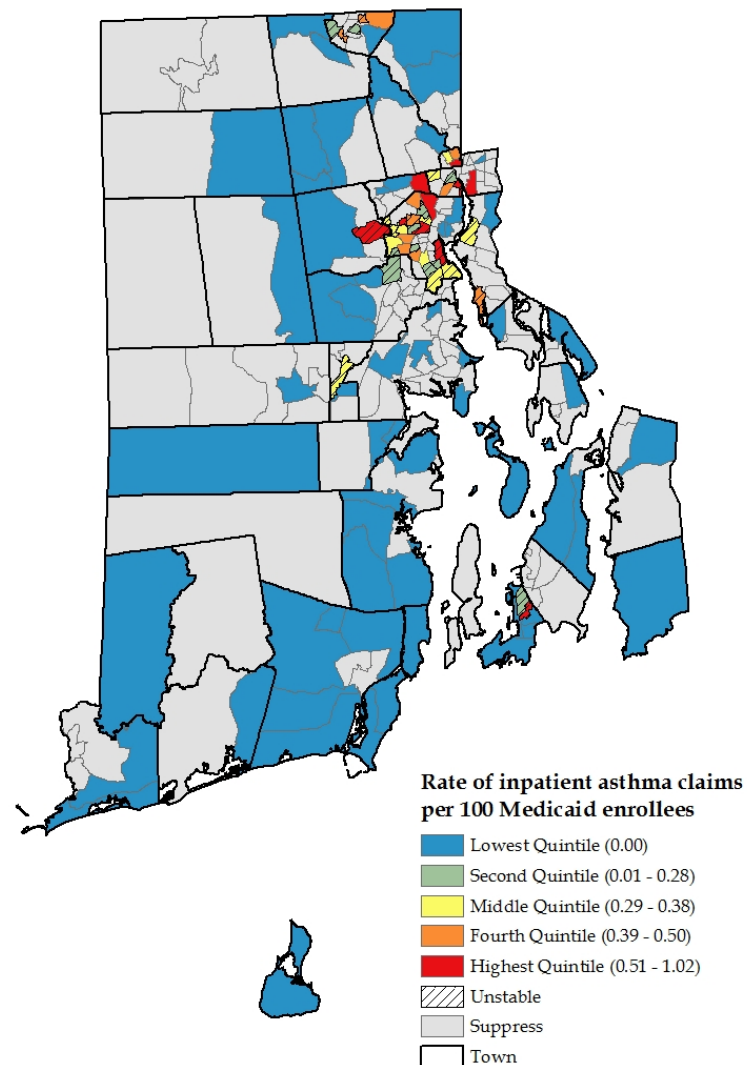
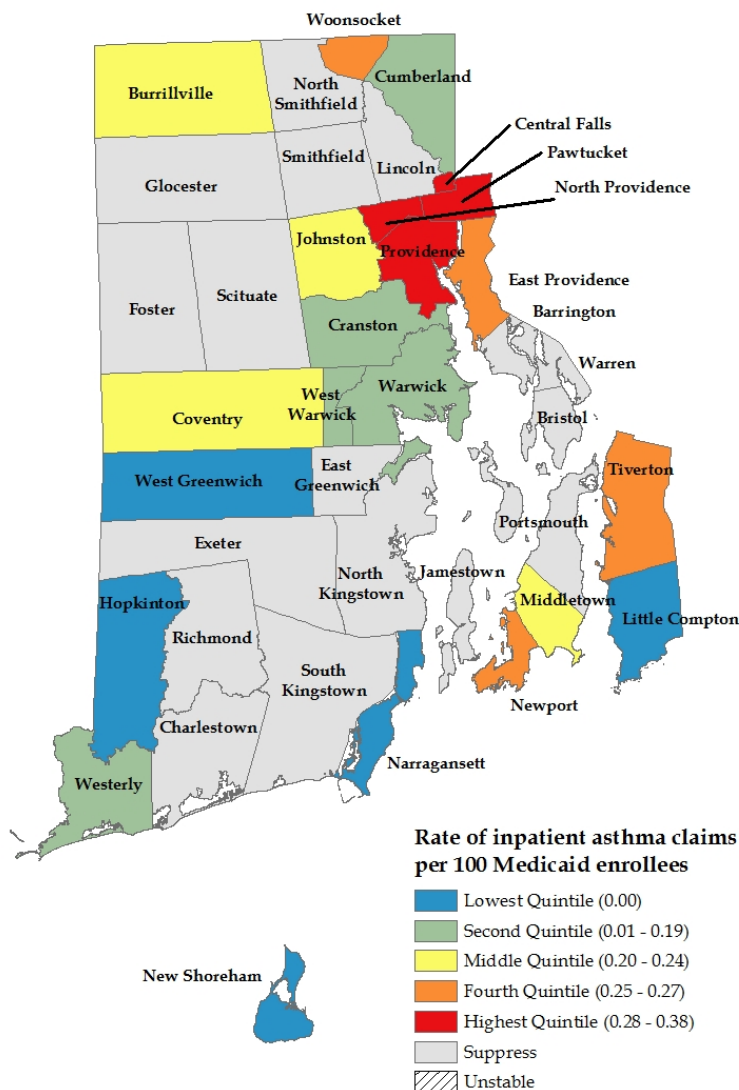
Asthma Emergency Department Visits among Children on Medicaid with Asthma, 2013-2017



Medicaid Asthma Hospitalizations

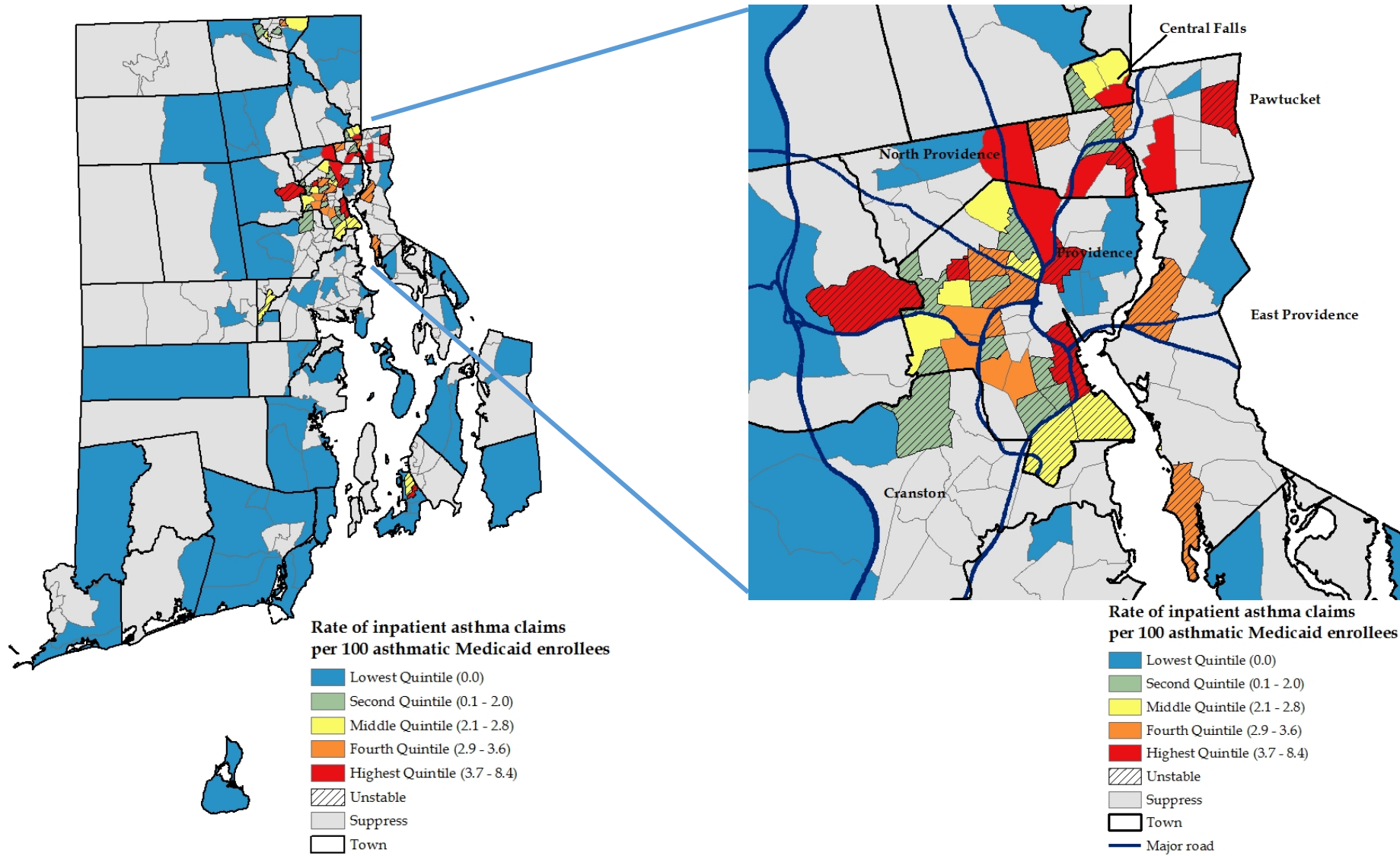


Asthma Inpatient Hospitalizations among all Children on Medicaid, 2013-2017



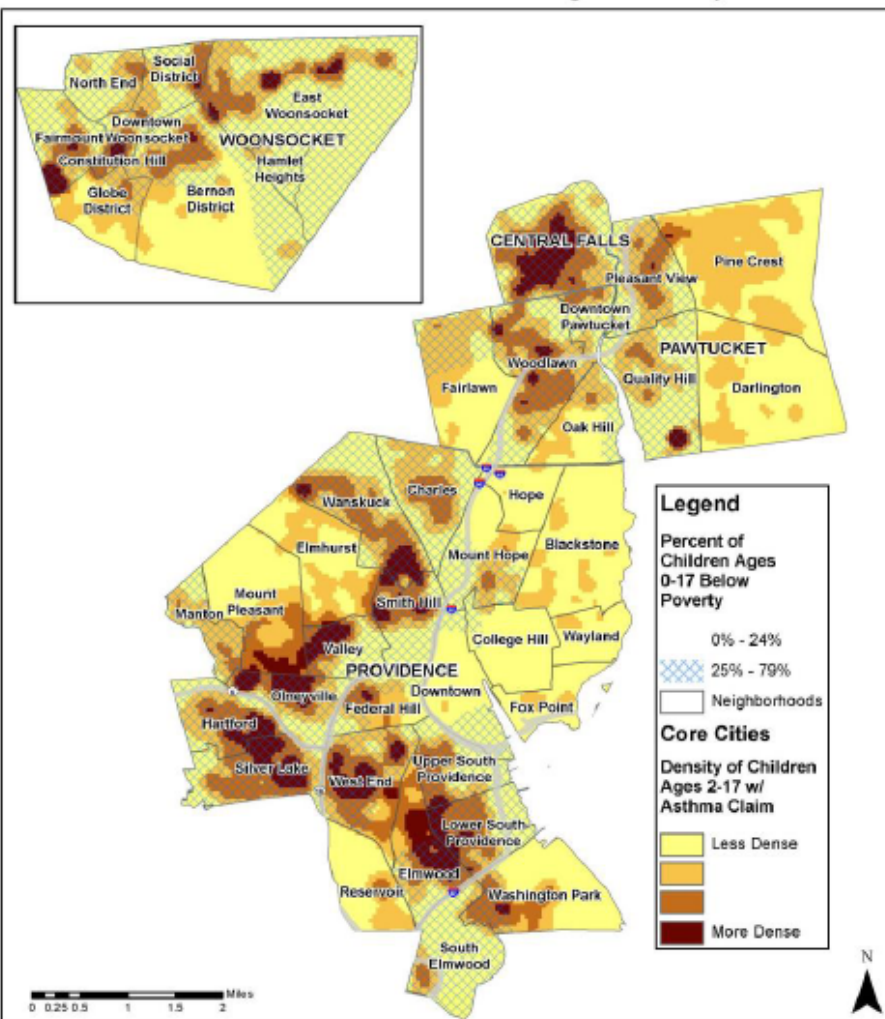
Children with Asthma: Inpatient

Asthma Inpatient Hospitalizations among Children on Medicaid with Asthma, 2013-2017

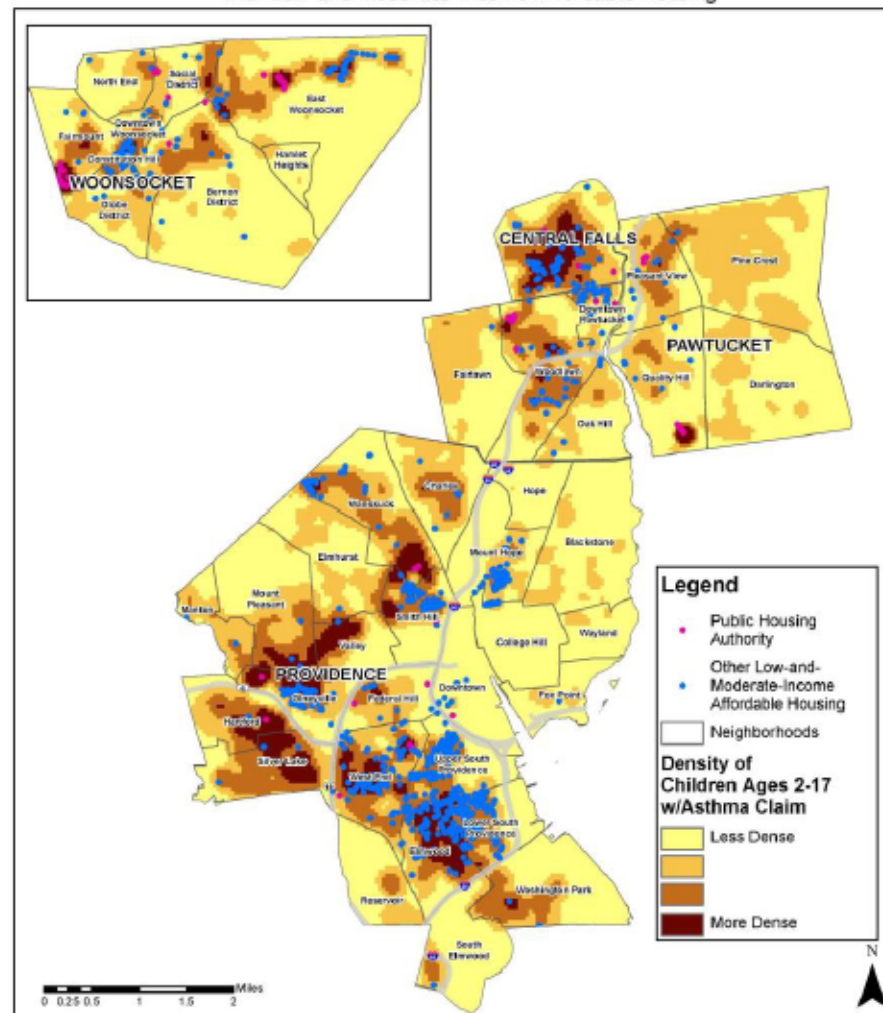


Asthma, Poverty, and Housing

Density of Children Ages 2-17 with an Asthma Claim*, 2010-2012,
with Percent of Children Under 18 Living Below Poverty



Density of Children Ages 2-17 with an Asthma Claim*, 2010-2012,
with Low-and-Moderate-Income Affordable Housing



* Asthma diagnosis in diagnosis fields 1-6 (UHC) or 1-4 (BCBSRI and NHPRI) on any claims form, ICD-9-CM 493.xx

* Asthma diagnosis in diagnosis fields 1-6 (UHC) or 1-4 (BCBSRI and NHPRI) on any claims form, ICD-9-CM 493.xx

Low-income Communities of Color



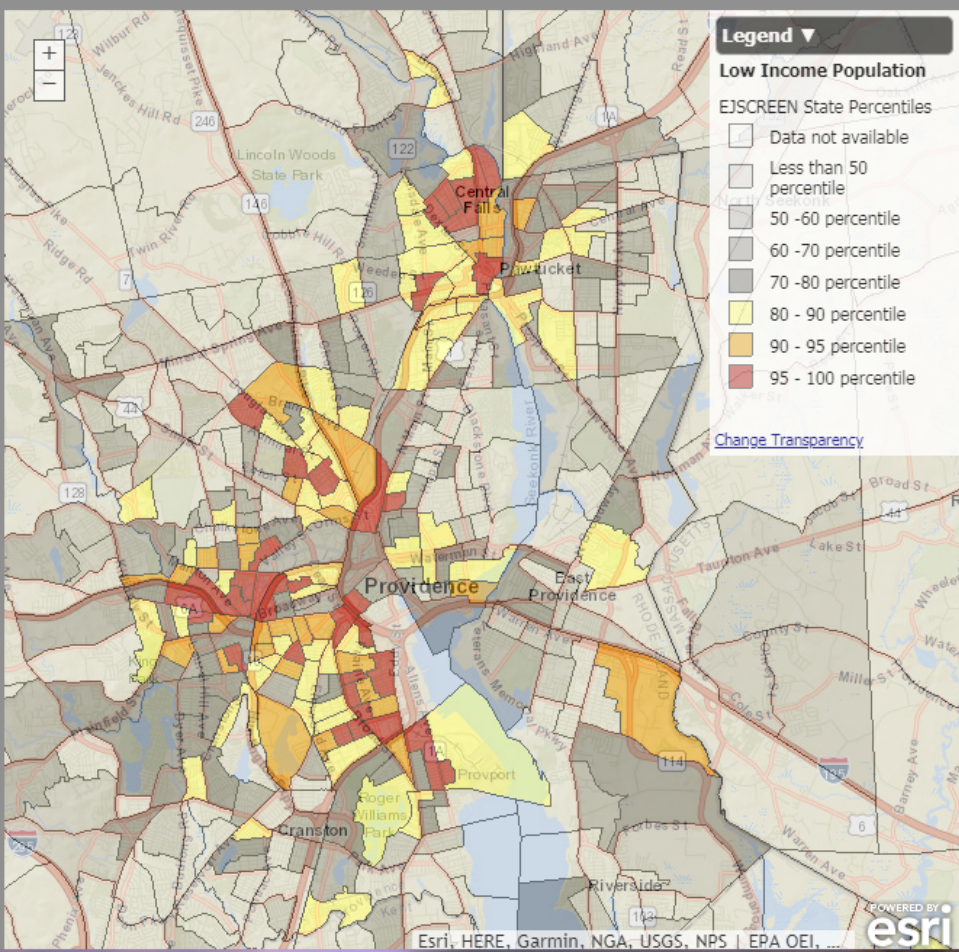
Low-Income (compared to rest of RI)

Communities of Color (“Minority”)

EPA EJSCREEN Map Comparisons

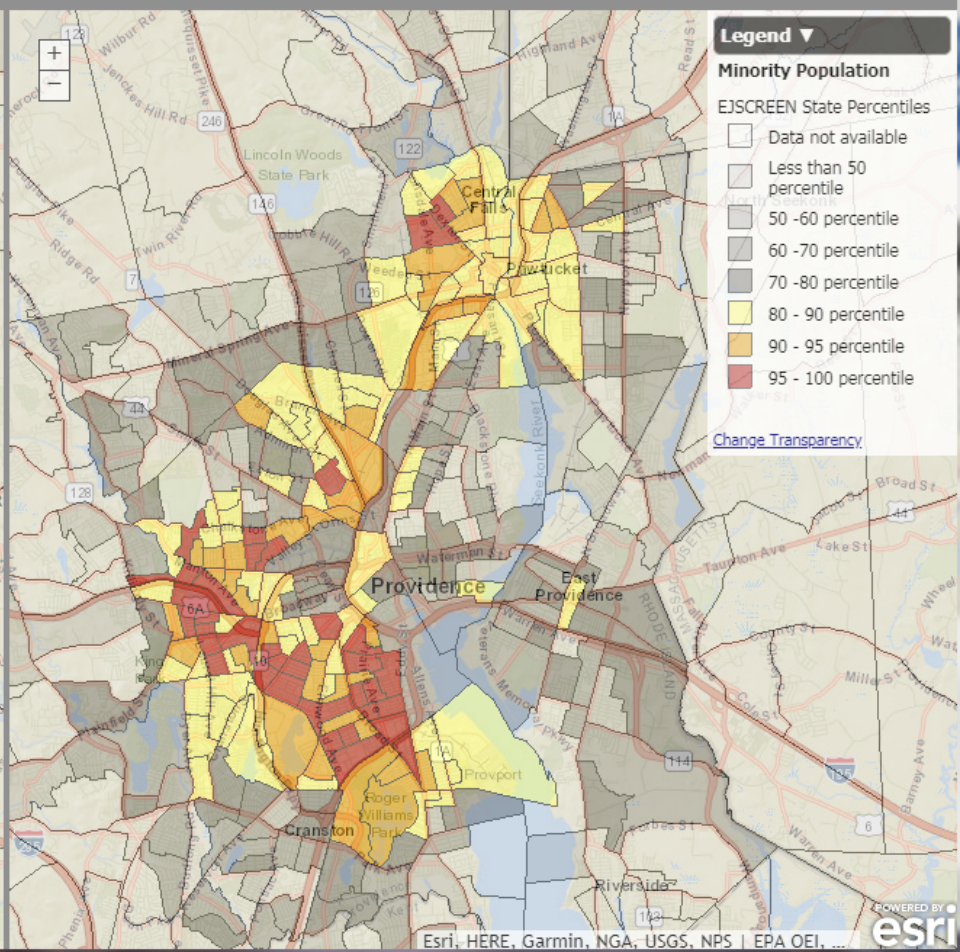
Map Data ▼

Low Income Population State Percentiles



Map Data ▼

Minority Population State Percentiles



Air Pollution Risk



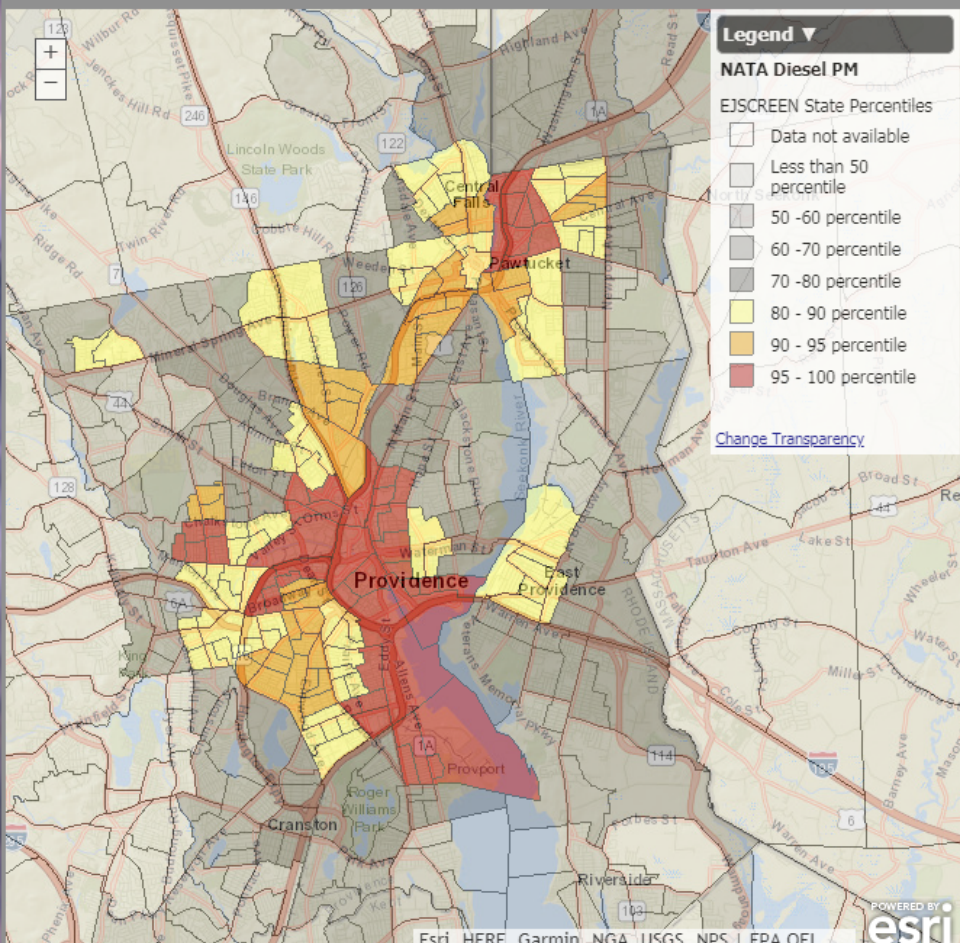
Air Toxics: Diesel Particulate Matter

Respiratory Hazard Index

EPA EJSCREEN Map Comparisons

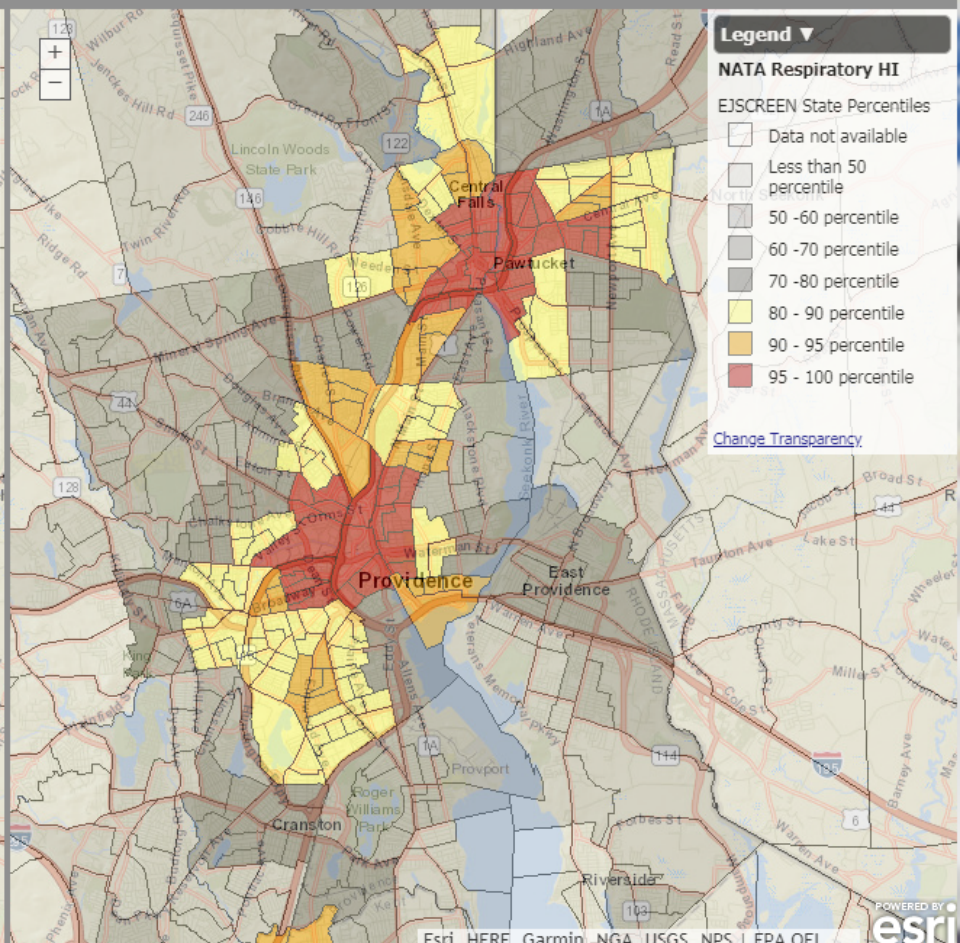
Map Data ▼

NATA* Diesel PM ($\mu\text{g}/\text{m}^3$) State Percentiles



Map Data ▼

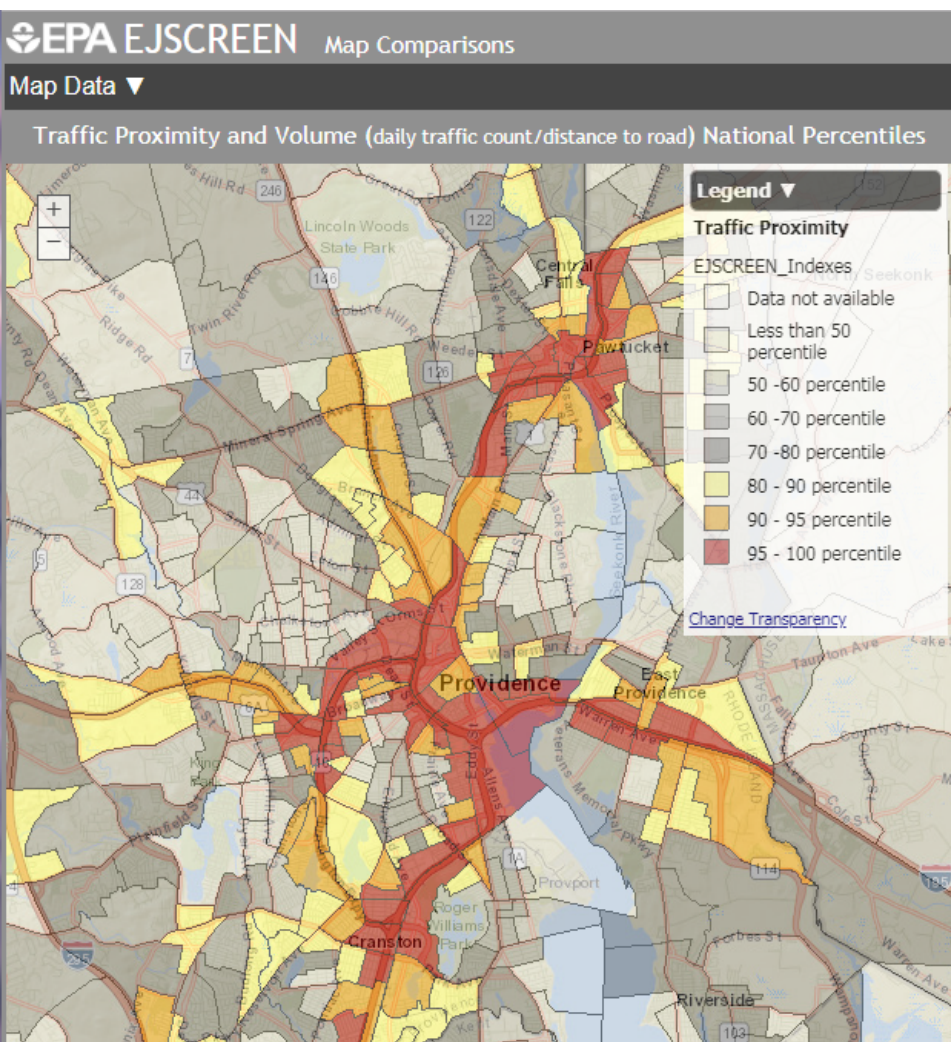
NATA* Respiratory Hazard Index State Percentiles



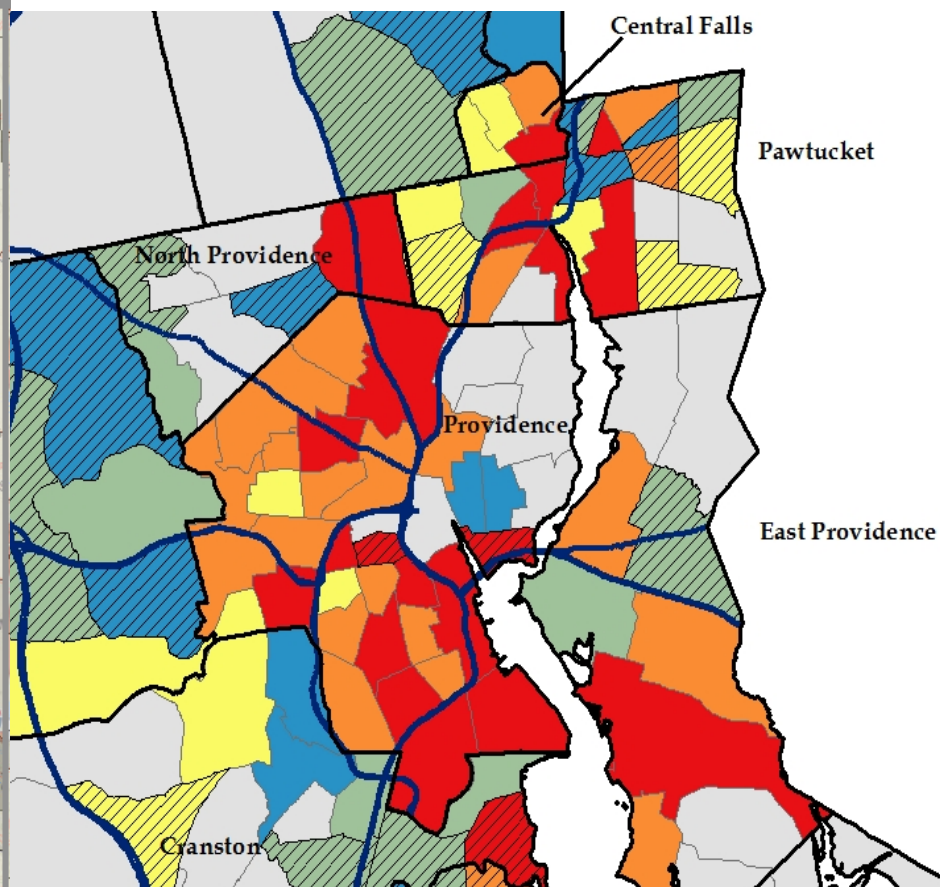
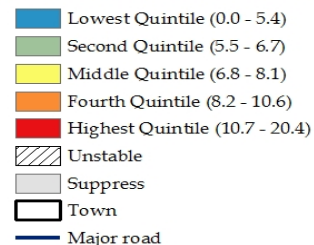
Traffic Exposure and Asthma



Exposure to Traffic (compared to rest of US)



Rate of ED asthma claims
per 100 asthmatic Medicaid enrollees





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