Neighborhoods, Maps, & Poverty:

How to Create a Curriculum about the Geographical-Context of Health

Joe Real, MD, Kate Distler, MD, Christine Cheston, MD, Andy Beck, MD, MPH, Megan Tschudy, MD and Melissa Klein, MD, Med

OBJECTIVES:

- Analyze the importance of where a patient lives when it comes to effective care especially for families impacted by poverty
- Design an education module that links neighborhoods with potentially health-promoting resources targeting residents and/or faculty as learners
- Identify key stakeholders and resources necessary for implementation of a neighborhood-based education initiative at your home institution

Background Poverty:

- 16.1 million children nationwide living in poverty
- Poverty adversely impacts health outcomes

"The complex, integrated, and overlapping social structures and economic systems are responsible for most health inequities. These social structures and economic systems include the **social environment, physical environment, health services, and structural and societal factors**. Social determinants of health are shaped by the **distribution of money, power, and resources** throughout local communities, nations, and the world."

"The range of **personal, social, economic, and environmental factors** that influence health status are known as determinants of health."

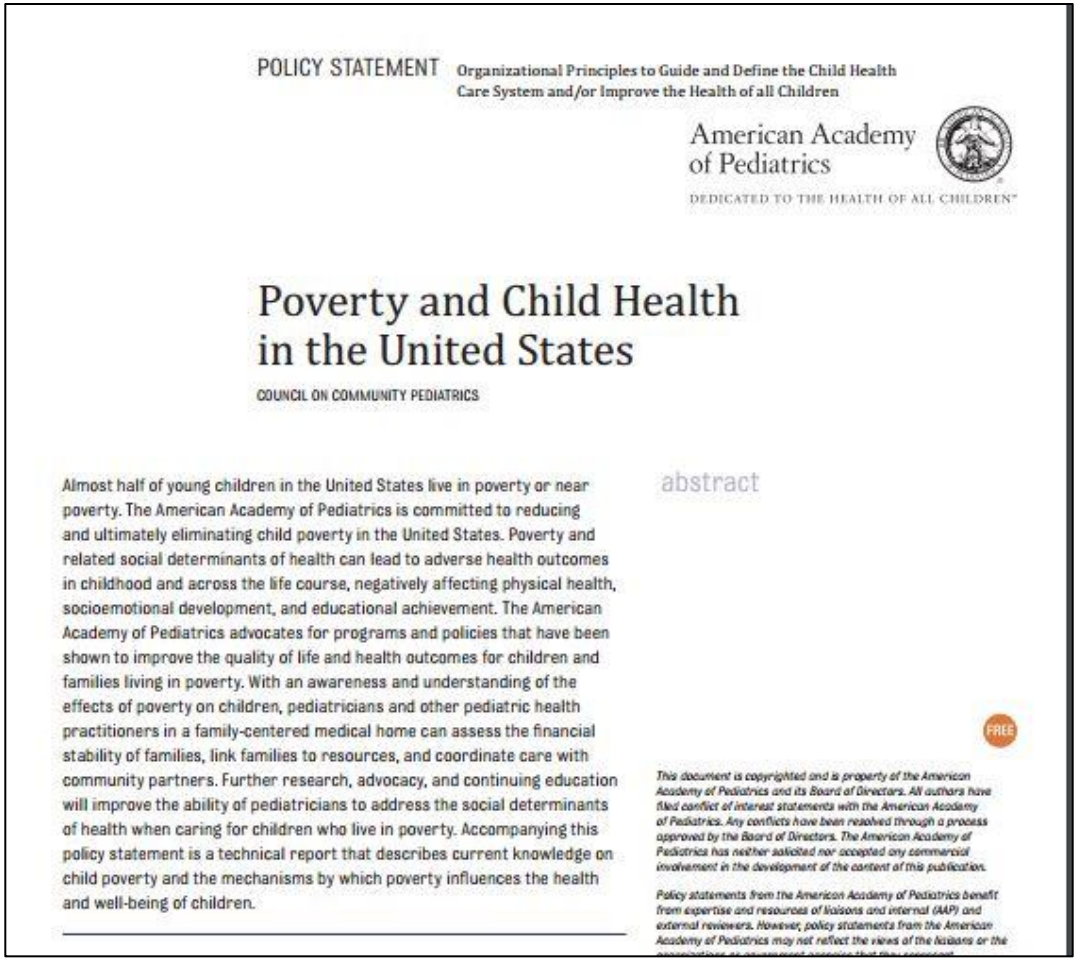
SOCIAL DETERMINANTS OF HEALTH DEFINED

Maslow's Hierarchy of Needs

Importance of Advocacy in training:

- ACGME requirements for Advocacy
  - Minimum of five educational units of ambulatory experiences, including elements of community pediatrics and child advocacy
- LCME requires curricula content includes:
  - Societal problems, cultural competence and health care disparities
  - Organ system and primary care content must include recognition of determinants of health, opportunities for health promotion and the potential impact of behavioral and socioeconomic factors on health

IMPORTANCE OF ADVOCACY IN TRAINING:



POLICY STATEMENT Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

Poverty and Child Health in the United States

COUNCIL ON COMMUNITY PEDIATRICS

abstract

Almost half of young children in the United States live in poverty or near poverty. The American Academy of Pediatrics is committed to reducing and ultimately eliminating child poverty in the United States. Poverty and related social determinants of health can lead to adverse health outcomes in childhood and across the life course, negatively affecting physical health, socioemotional development, and educational achievement. The American Academy of Pediatrics advocates for programs and policies that have been shown to improve the quality of life and health outcomes for children and families living in poverty. With an awareness and understanding of the effects of poverty on children, pediatricians and other pediatric health practitioners in a family-centered medical home can assess the financial stability of families, link families to resources, and coordinate care with community partners. Further research, advocacy, and continuing education will improve the ability of pediatricians to address the social determinants of health when caring for children who live in poverty. Accompanying this policy statement is a technical report that describes current knowledge on child poverty and the mechanisms by which poverty influences the health and well-being of children.

FREE

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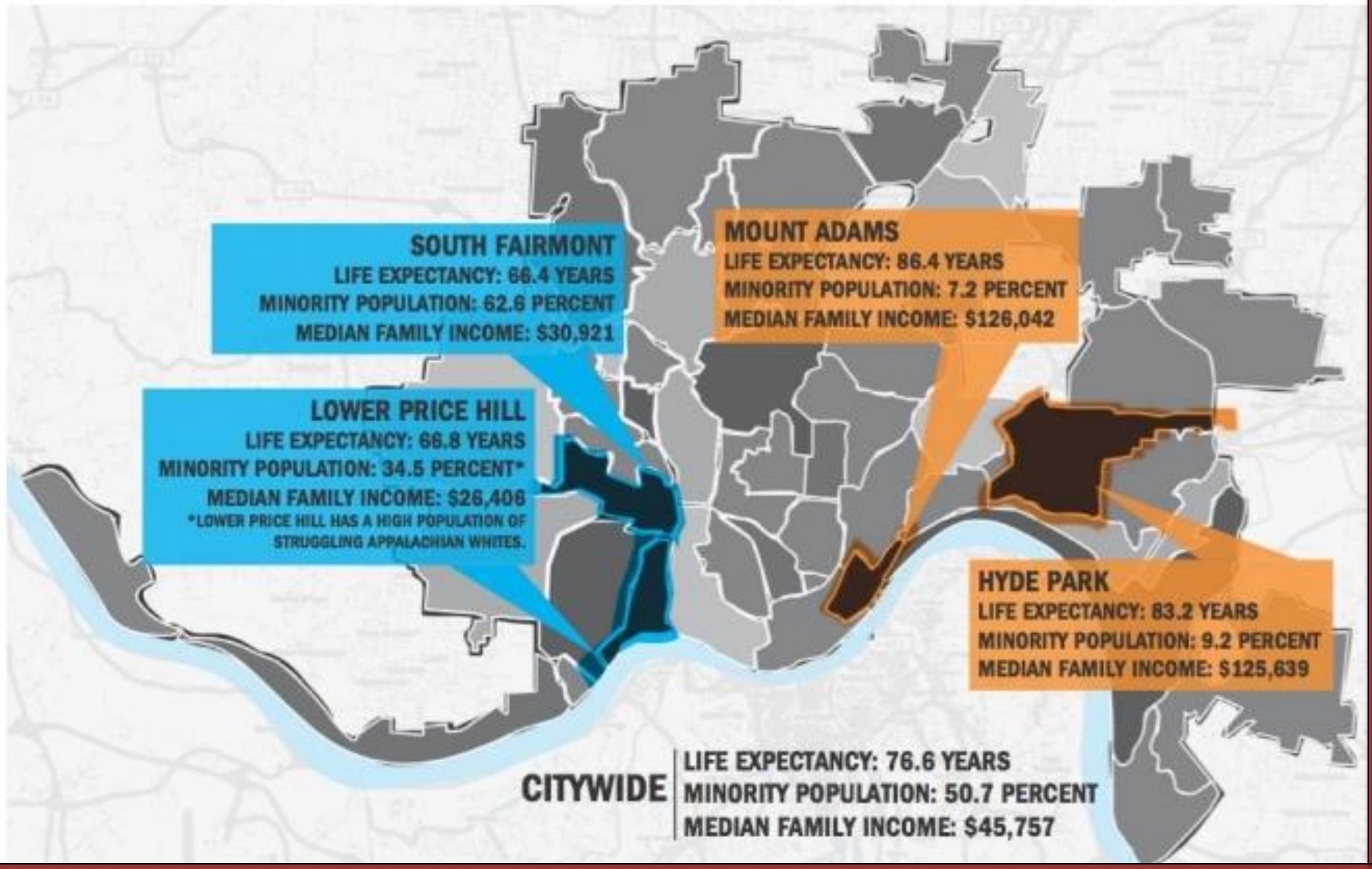
Small Group Activity:

- How does your institution teach about poverty & advocacy?
- What are the strengths and weakness of your curriculum?
- What are the educational gaps?

GEOGRAPHY IMPACTS HEALTH:

- Neighborhoods characterized by social, economic, and environmental risk factors for health inequalities
- Pediatric residents have little knowledge about such neighborhoods and their related risks

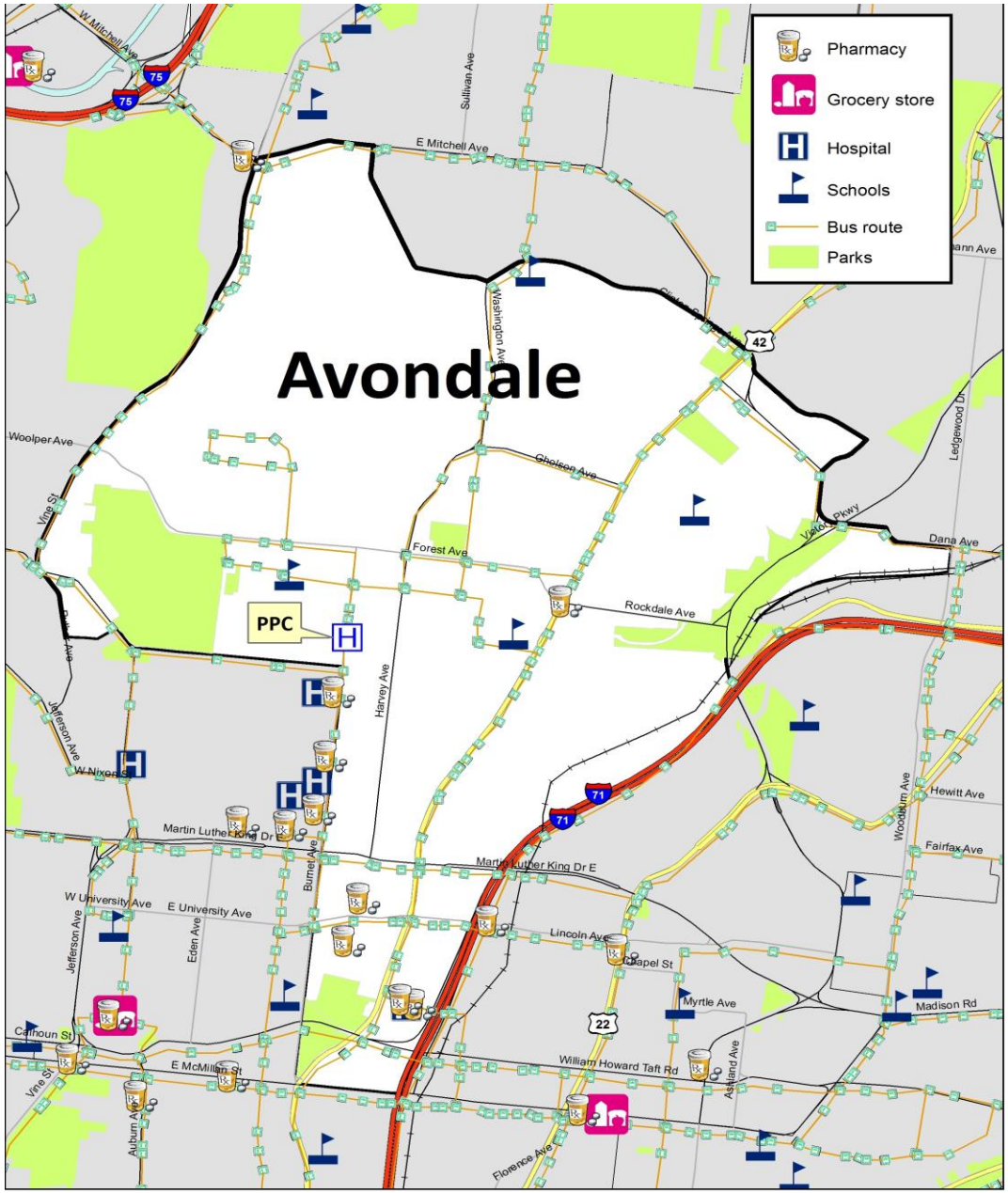
Connection Between Life Expectancy and Neighborhood



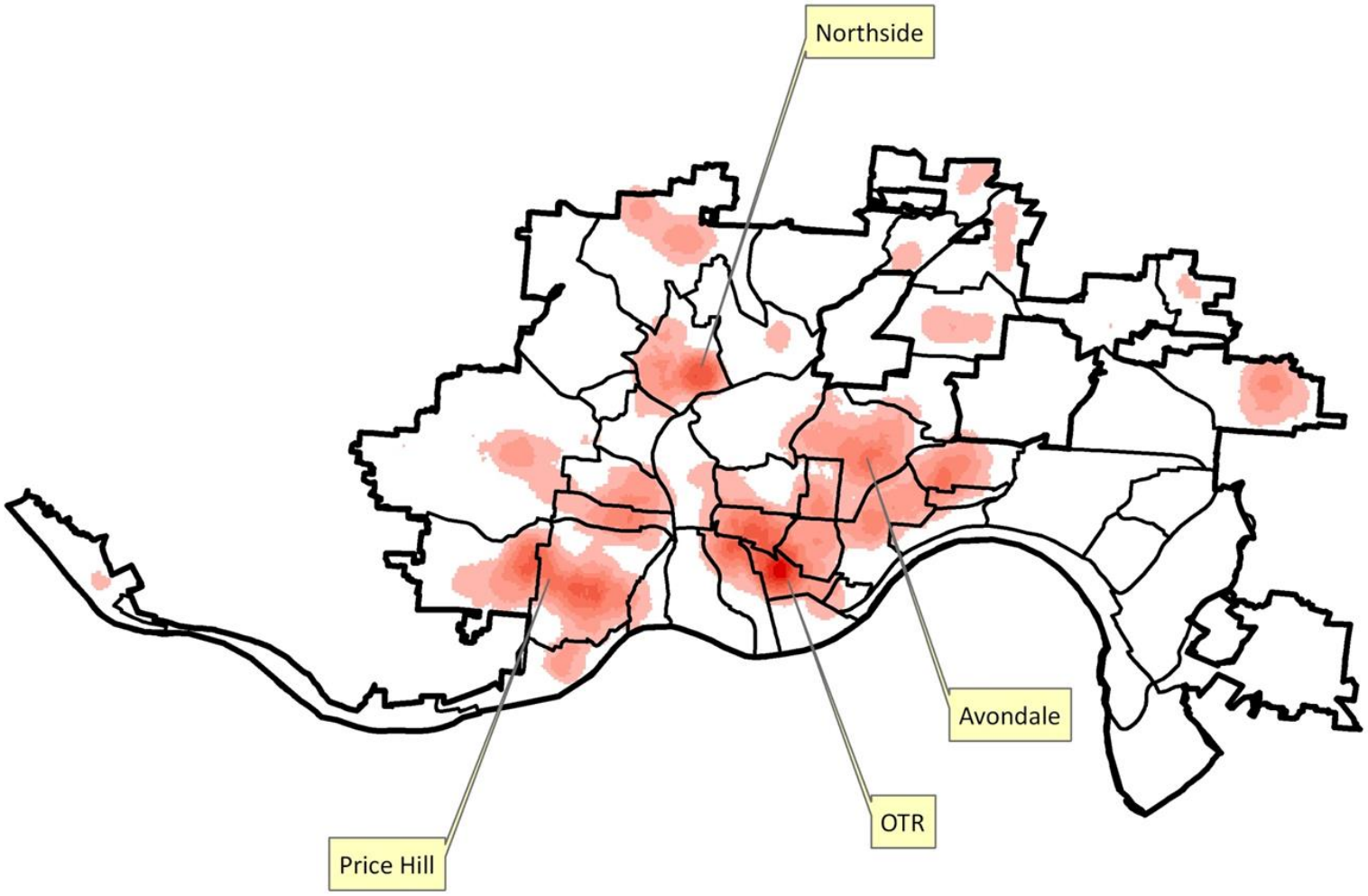
Birth Place and Life Expectancy in the US

Birth place and life expectancy: A look at American cities. Robert Wood Johnson Foundation. http://www.rwjf.org/en/about-rwjf/newsroom/features-and-articles/ Commission/resources/city-maps.html

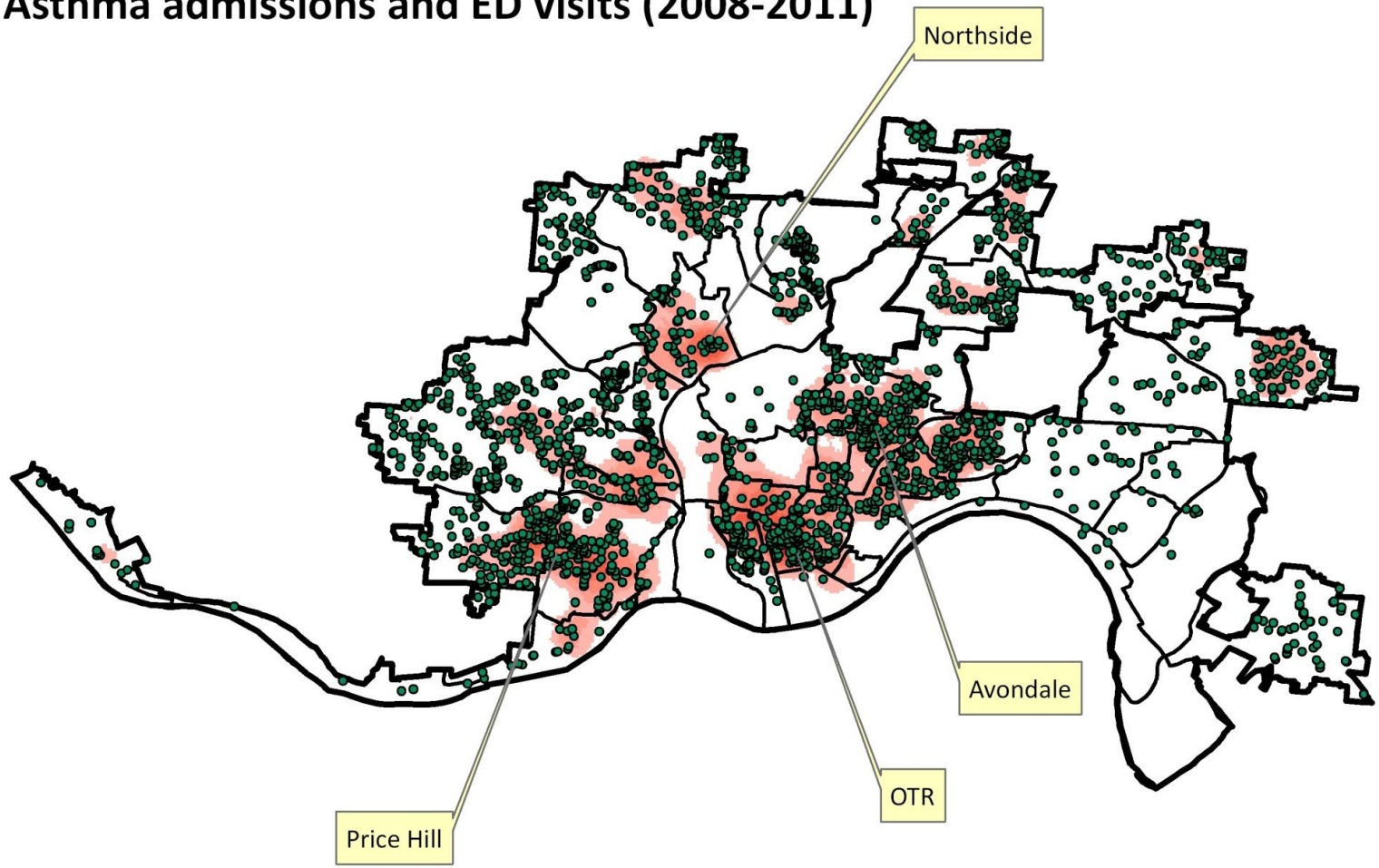
Birth Place and Life Expectancy in the US


Avondale
Pharmacy
Grocery store
Hospital
Schools
Bus route
Parks
PPC
E Mitchell Ave
W Mitchell Ave
Sullivan Ave
Washington Ave
Woolper Ave
Chelsea Ave
Forest Ave
Rockdale Ave
Dana Ave
Harvey Ave
Jefferson Ave
W Nixon St
Martin Luther King Dr E
W University Ave
E University Ave
Eden Ave
Burnet Ave
Lincoln Ave
Chapel St
Myrtle Ave
Madison Rd
Hewitt Ave
Fairfax Ave
Woodburn Ave
Ashland Ave
William Howard Taft Rd
E McMillan St
Calhoun St
Auburn Ave
Florence Ave
Vine St
Edgewood Dr
75
42
71
22

Building code violation density

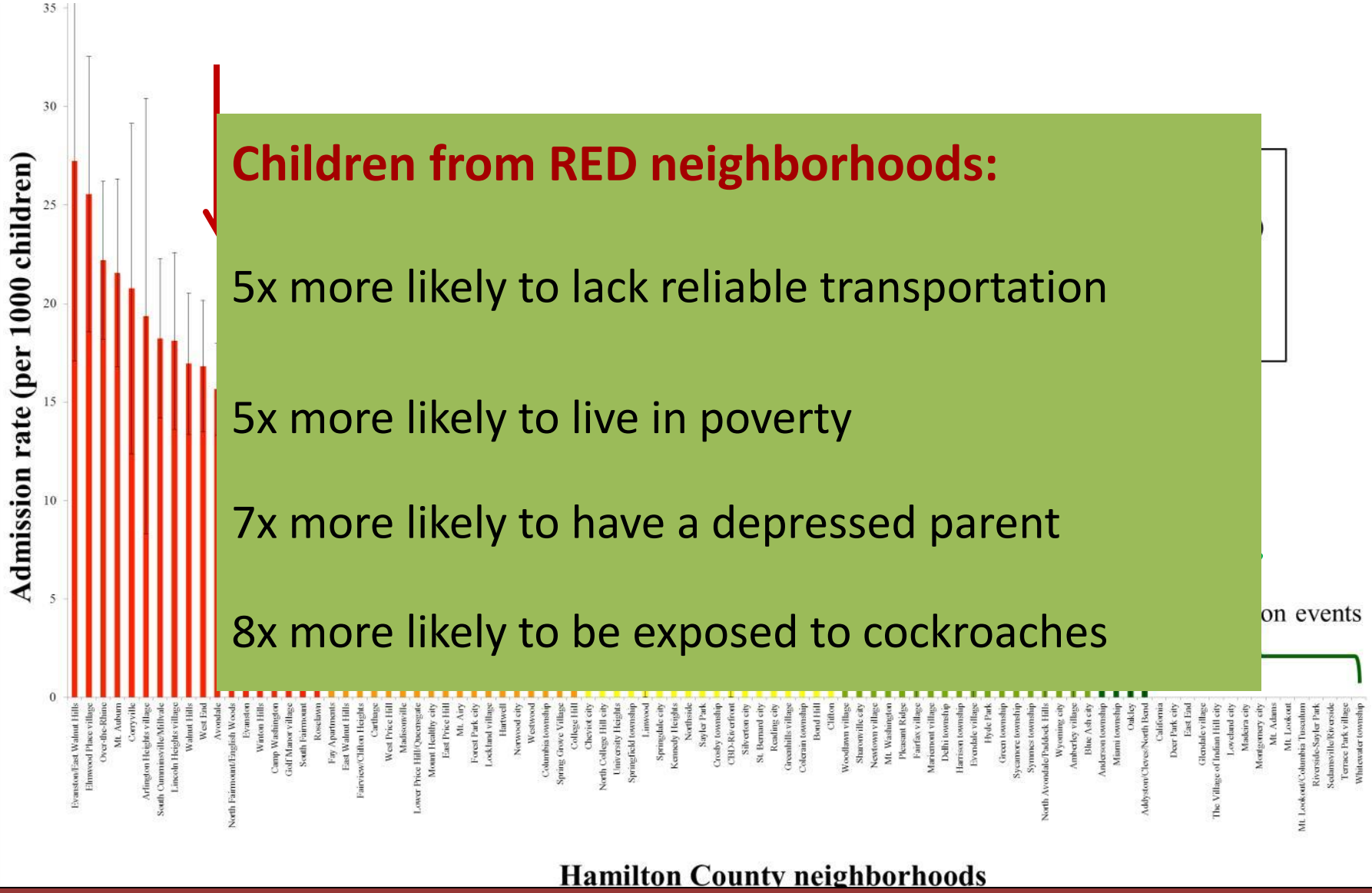


Building code violation density & Asthma admissions and ED visits (2008-2011)



Asthma admission rates also vary by neighborhood

9/10-8/11



Children from RED neighborhoods:

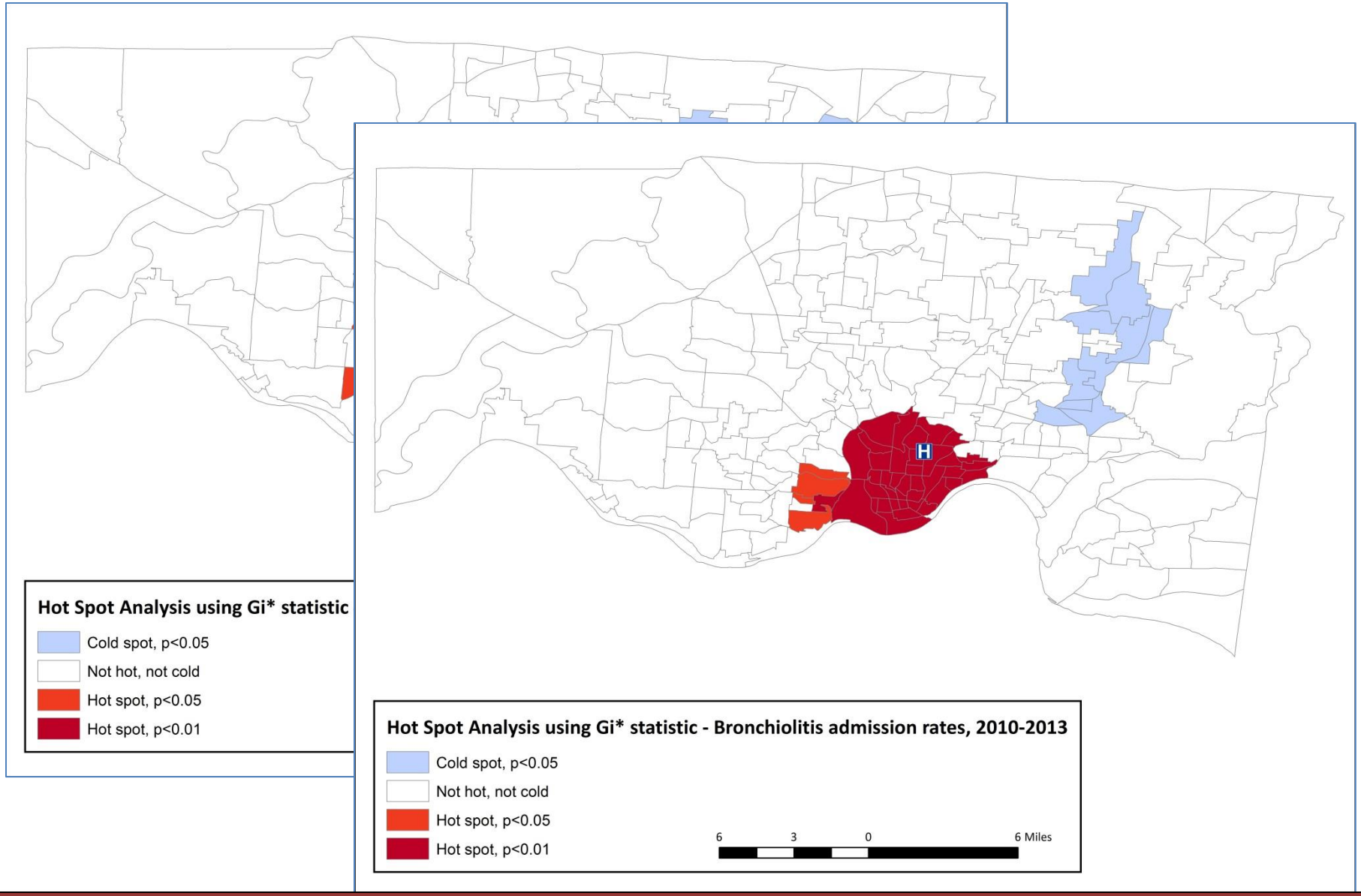
5x more likely to lack reliable transportation

5x more likely to live in poverty

7x more likely to have a depressed parent

8x more likely to be exposed to cockroaches

IT'S NOT JUST CHRONIC ILLNESSES...



Individual Reflection: Questions to Consider

- How knowledgeable are you of resources in your local neighborhood?
- How skilled are you at tailoring anticipatory guidance based on family's neighborhood?
- To what extent is geography/neighborhood context taught to your learners? How it is presented?

Small Group Activity:

- Discuss your individual reflections
- Identify the top 5 critical topics where geography can impact health and well-being
- Report out these topics to large group

Background Online Resources:

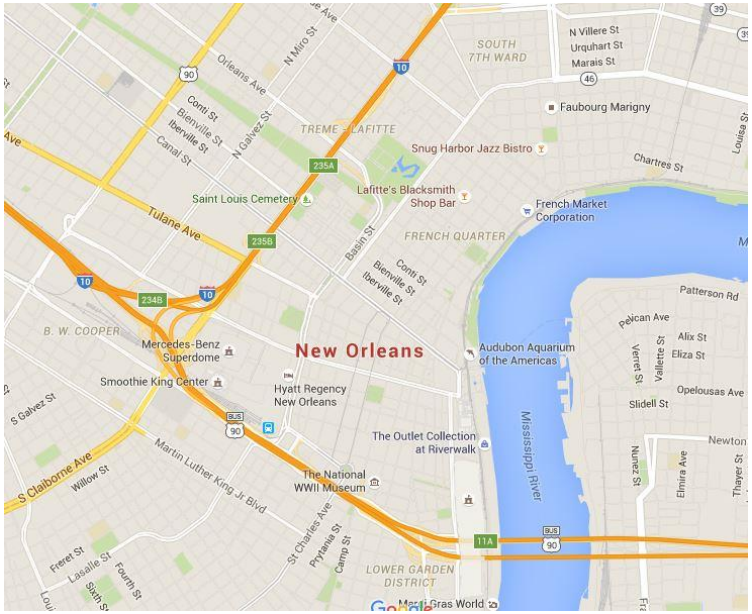
Basic Mapping

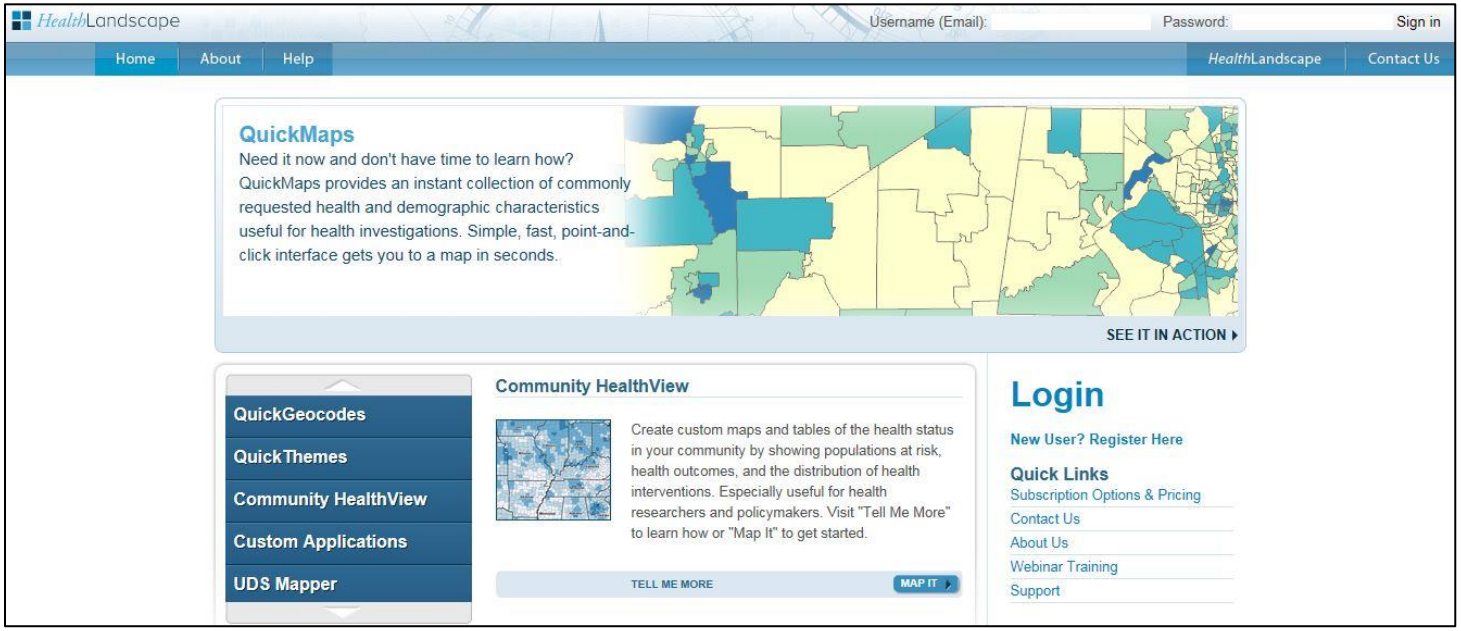
Review national online resources

- Tailored to the topics identified in prior activity,
- Easily accessed
- Incorporated into a clinical setting to provide specific anticipatory guidance based on geography

Basic Mapping:

- Google maps
- Census webpages
- Healthlandscape





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Enter any address, city or state

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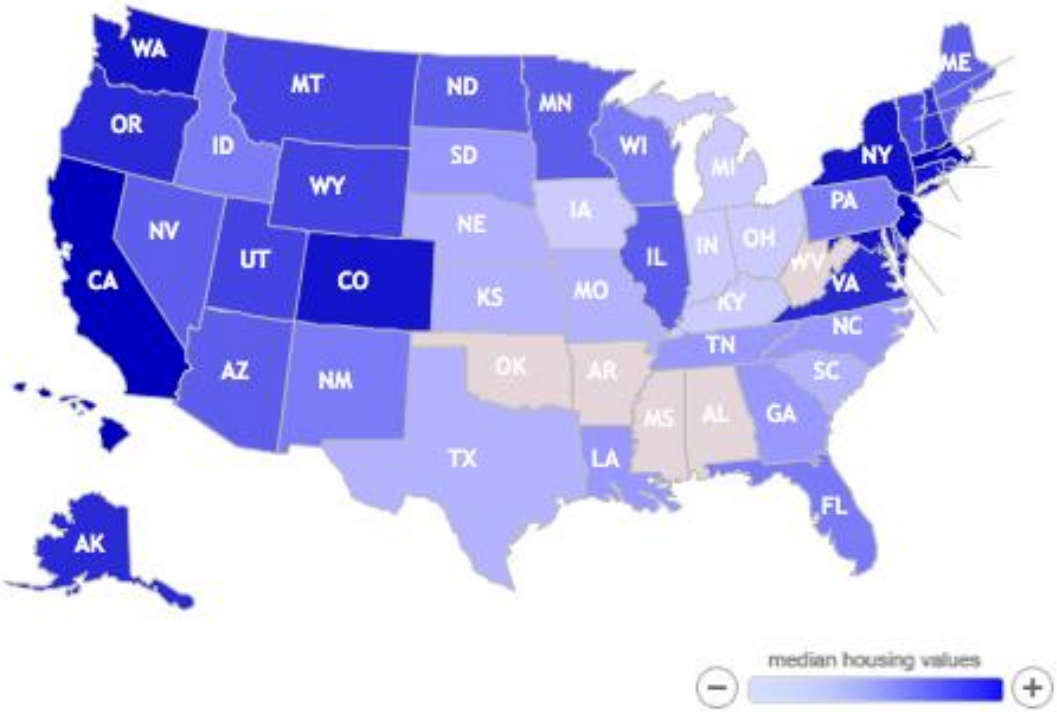
Find the Best Neighborhoods

Click a state below and start scouting



Alabama	Florida	Louisiana	Nebraska	Oklahoma	Vermont
Alaska	Georgia	Maine	Nevada	Oregon	Virginia
Arizona	Hawaii	Maryland	New Hampshire	Pennsylvania	Washington
Arkansas	Idaho	Massachusetts	New Jersey	Rhode Island	West Virginia
California	Illinois	Michigan	New Mexico	South Carolina	Wisconsin
Colorado	Indiana	Minnesota	New York	South Dakota	Wyoming
Connecticut	Iowa	Mississippi	North Carolina	Tennessee	

Scout's Top Lists (See All)

Most Dangerous Cities in America

U.S. Cities with Highest Murder Rates

Safest Cities in America

America's Best Public Schools

Florida's 10 Best Towns for Families with Children

Choose a Lifestyle Neighborhood Searc

10 one-click searches that instantly reveal neighborhoods matched to your lifestyle

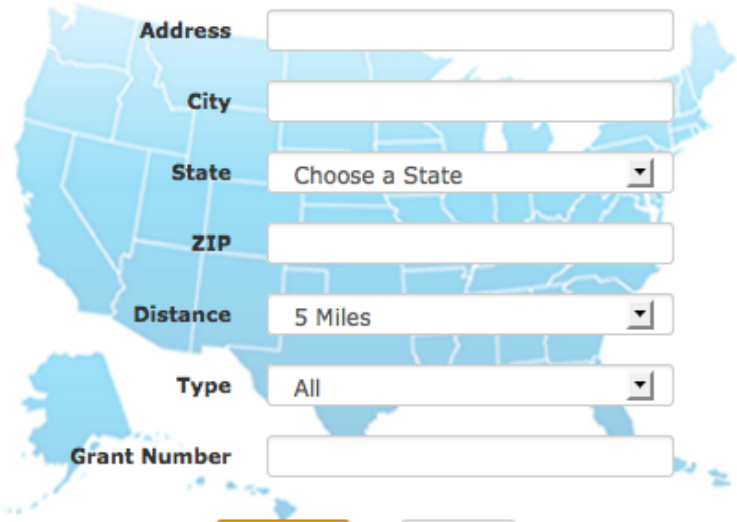
Head Start Locator

Español

Enter your location to find a program near you. If you are looking for datasets, please see our **center locations datasets**.

How do I apply for Head Start?

Search By



Address

City

State — Choose a State

ZIP

Distance — 5 Miles

Type — All

Grant Number

Search | Reset

Select Language

Text Size +A -a Reset

United Way of Greater Cincinnati

LIVE UNITED United Way

HOME. ABOUT US. NEWS. LINKS. REPORTS. CONTACT US.

This search is not restricted by city or ZIP Code. If you click go back and enter a ZIP Code, resources will display by distance from you.

Start Over Search Hints

Find the help you need > Basic Needs

Browse Service Category
(Click to choose a new category.)

- **Basic Needs**
- Consumer Services
- Criminal Justice and Legal Services
- Education
- Environmental Quality
- Health Care
- Income Support and Employment
- Individual and Family Life
- Mental Health Care and Counseling
- Organizational/Community Services
- Support Groups
- Target Populations

Basic Needs
(Click the + to see services.)

- + Food
- + Housing/Shelter Services
- + Material Resources
- + Temporary Financial Aid
- + Transportation

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Google Maps | Transit

Home Cities Covered

From

Enter a location

To

Enter a location

Get Directions

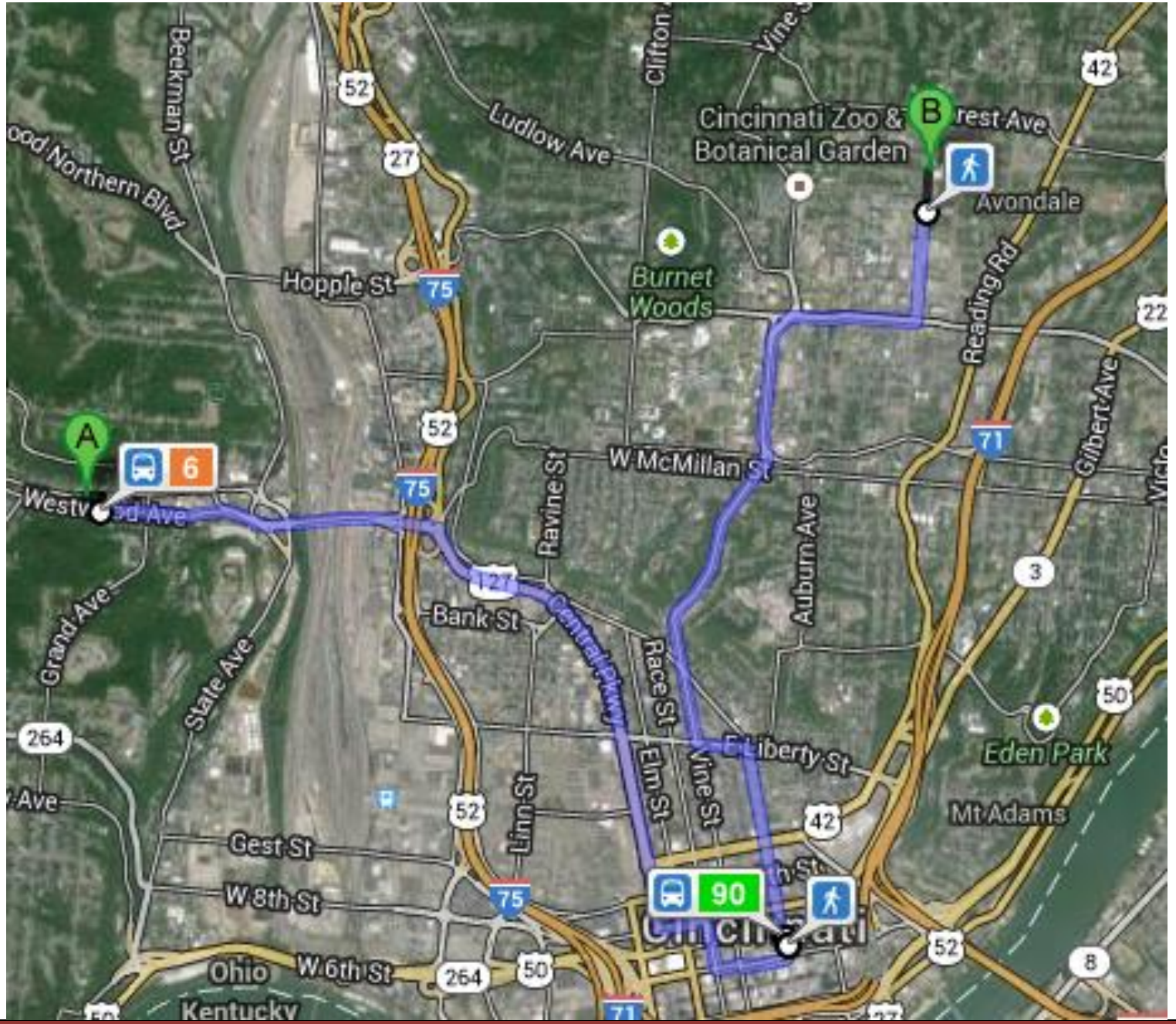
Options

Any transit mode

Best route

If you provide a transportation service that is open to the public, and operates with fixed schedules and routes, we welcome your participation - it is simple and free.

Join Transit Partner Program


Beckman St
Ludlow Ave
Clifton
Vine
Cincinnati Zoo &
Botanical Garden
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Avondale
Hopple St
Burnet
Woods
Reading Rd
Gilbert Ave
A
6
W McMillan St
Ravine St
Auburn Ave
Grand Ave
State Ave
Bank St
Central Pkwy
Race St
Elm St
Vine St
Linn St
Liberty St
Eden Park
Mt Adams
Gest St
W 8th St
W 6th St
90
Ohio
Kentucky
52
27
75
71
42
50
264
3
8
22

Businesses | Residents | Visitors | Services & Payments | Government

ezTrak — Code Enforcement Reviews — Address Search

Complaint # | Address | Community | Parcel ID

Use this screen to search for Code Violations by Address.

Explanantion of the Different Complaint Status Levels

Address Search

Exact Street Number:

Street Name:

☐ Check for all addresses for this building.

Search | Export to Excel

Street Numbers are Required.
Street Names are Optional.
Do not include St., Ave., Ct., etc.
1713 VI will find 1713 VINE and 1713 VINTON.

B201006415	810 BLAIR AV	HOUSING	CLOSED	NY GROUP OH 1 LLC	11/23/2010	Missing firestopping 1) Is this a COMMERCIAL building? NO 28) INTERIOR PLUMBING - Pipes - leaking or clogged NO 29) INTERIOR-Rubbish and trash stored in the building? NO
B201006415	810 BLAIR AV	HOUSING	CLOSED	NY GROUP OH 1 LLC	11/23/2010	Missing firestopping 1) Is this a COMMERCIAL building? NO 28) INTERIOR PLUMBING - Pipes - leaking or clogged NO 29) INTERIOR-Rubbish and trash stored in the building? NO
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CHCE102674	810 BLAIR AV	ENVIRONMENTAL	CLOS-NO	NY GROUP OH 1 LLC% CINCY URBAN APARTMENTS	11/19/2010	roaches in apt. 1) What type of home is this? Multi family home 2) Did you obtain the caller's phone number and address YES 3) Have you contacted the owner or building manager about the roaches? NO 4) What is the landlord's phone number and address? unknown
B201005378	810 BLAIR AV	HOUSING	CLOSED	NY GROUP OH 1 LLC	09/15/2010	ENTRANCE DOOR IS BROKEN - HINGES BROKEN, HOLES IN THE BATHROOM CEILING AND WALLS - ALSO LIVINGROOM WALLS, KITCHEN CABINETS ARE DEFECTIVE, OUTLETS ARE NOT WORKING THE BEDROOM - THERE WAS A SMALL ELECTRICAL FIRE IN THE WALL (OUTLETS WERE REMOVED BY THE FIRE DEPT) ALSO BEDROOM CEILING IS READY TO FALL , KITCHEN OULETS DO NOT WORK, AT 810 BLAIR AVE. APT. 15 THERE IS ALSO MOLD IN THE APT, AND ROACHES IN THE BUILDING (REFRIGERATOR) 1) Is this a COMMERCIAL building? NO 8) UTILITY-ELECTRIC Wiring or Fixtures are defective - fixtures, outlets and switches, wiring. DEFECTIVE WIRING - OUTLETS 24) INTERIOR - Walls, Doors, Ceiling Tile, Paint - Problems with the conditionof the rooms in the building? Doors are borken, missing or defective., Holes or defects inthe drywall. 26) INTERIOR - Mold, Insects or rodents infestation Mold, Insects 27) INTERIOR Kitchen - Problems with sink or cabinets. Kitchen cabinets are defective. 28) INTERIOR PLUMBING - Pipes - leaking or clogged NO 29) INTERIOR-Rubbish and trash stored in the building? NO
						ENTRANCE DOOR IS BROKEN - HINGES BROKEN, HOLES IN THE BATHROOM CEILING AND WALLS - ALSO LIVINGROOM WALLS, KITCHEN CABINETS ARE DEFECTIVE, OUTLETS ARE NOT WORKING THE BEDROOM - THERE WAS A SMALL ELECTRICAL FIRE IN THE WALL (OUTLETS WERE REMOVED BY THE FIRE DEPT) ALSO BEDROOM CEILING IS READY TO FALL , KITCHEN OULETS DO NOT WORK, AT 810 BLAIR AVE. APT. 15 THERE IS ALSO MOLD IN THE APT, AND ROACHES IN THE BUILDING (REFRIGERATOR) 1) Is this a

Cincinnati Recreation Centers

Basic program search

Use a keyword to fill out the entry below to find out what's in your area. You may search by program, facility or instructor.

Keyword Search | Soccer | [Advanced Program Search]

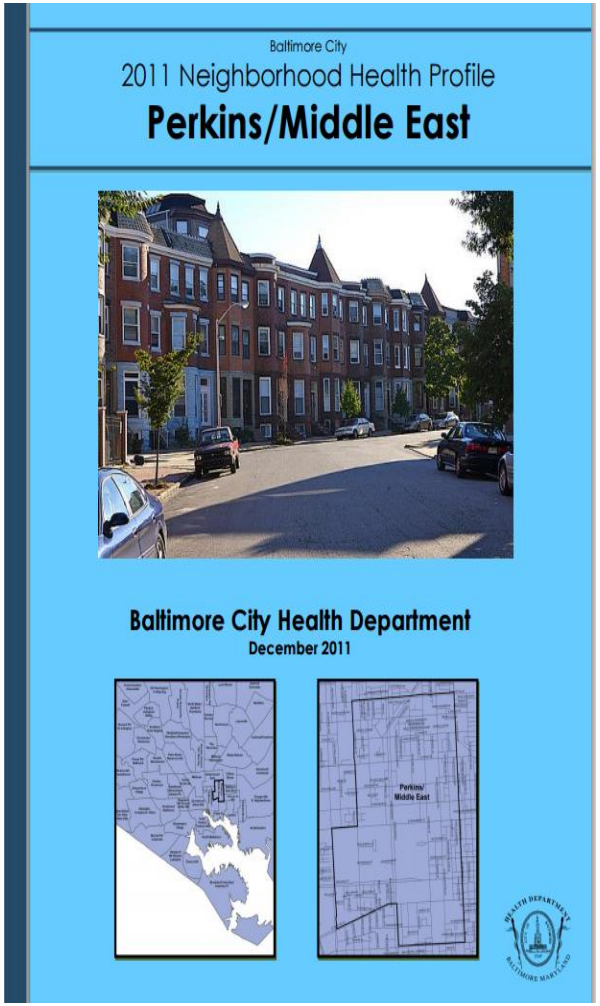
The Cincinnati Recreation Commission (CRC) conducts programs and events at recreation centers, aquatic facilities, golf courses and hundreds of playgrounds, sports fields and Sawyer Point.

An Advanced Program Search allows for many more search options.

Facility	Program Title	Start Date	End Date	Time	Day
Bush (Myron B.) Recreation Center	Gym Games	1/5/2015	6/2/2015	2:45 PM - 4:45 PM	Mon, Tues, Weds & Thurs
Dunham Recreation Center	After School Day Camp	8/25/2014	5/29/2015	2:00 PM - 6:00 PM	Mon. - Fri.
Hartwell Recreation Center	Soccer Skills and Drills 9 and under	12/2/2014	2/26/2015	3:30 PM - 4:30 PM	Tues
Mt. Washington Recreation Center	Family Open Gym	1/3/2015	12/26/2015	10:00 AM - 1:45 PM	Sat
Mt. Washington Recreation Center	Family Open Gym	1/5/2015	12/30/2015	7:00 PM - 9:00 PM	Mon & Weds
Pleasant Ridge Recreation Center	Pleasant Ridge After School Day Camp	8/25/2014	5/28/2015	2:00 PM - 6:30 PM	Mon. - Fri.
Sayler Park Recreation Center	Sports Sampler - Winter 2015	1/6/2015	2/24/2015	3:45 PM - 4:30 PM	Tues

Baltimore

55 Neighborhood Health Profiles



2. Socioeconomic Characteristics

Median Household Income

The household income distribution of Perkins/Middle East compared to Baltimore City overall (2010).

	Perkins/Middle East	Baltimore City
Median Household Income	$18,522	$37,395
Less than $25,000	56.7%	33.3%
$25,000-$39,999	12.1%	18.1%
$40,000-$59,999	10.3%	17.1%
$60,000-$74,999	6.5%	9.1%
$75,000 and over	14.3%	22.5%

Source: American Community Survey, 2005-2009.

Unemployment

The percent of the Perkins/Middle East population 16 years of age and older that are unemployed in the civilian labor force.

	Perkins/Middle East	Baltimore City
Percent Unemployed	17.5%	11.1%

Source: American Community Survey, 2005-2009.

Top Ten Causes of Death

These are the 10 causes of death that account for the greatest number of deaths in Baltimore City. They can help determine where efforts and resources should be directed to best prevent premature deaths. The following table displays mortality rates, percent of total deaths, and percent of premature deaths by cause for the citywide top 10 causes of death, comparing Perkins/Middle East to Baltimore. The percent of premature deaths indicates the percent of all premature deaths that each specific cause accounts for. The mortality rate for each cause provides an absolute measure of the impact of each cause on residents. The percents of total deaths and percent of YPLL indicate the impact of a particular cause relative to others.

	Perkins/Middle East			Baltimore City		
Cause of Death	Rate[1] (Deaths per 10,000)	Percent of Total Deaths	Percent of YPLL	Rate[1] (Deaths per 10,000)	Percent of Total Deaths	Percent of YPLL
1. Heart Disease	32.2	24.4%	14.9%	28.4	25.8%	15.4%

http://health.baltimorecity.gov/neighborhoods/neighborhood-health-profile-reports

Health of Boston's Children

Child Health Assessment Mapping Project

BOSTON PUBLIC HEALTH COMMISSION

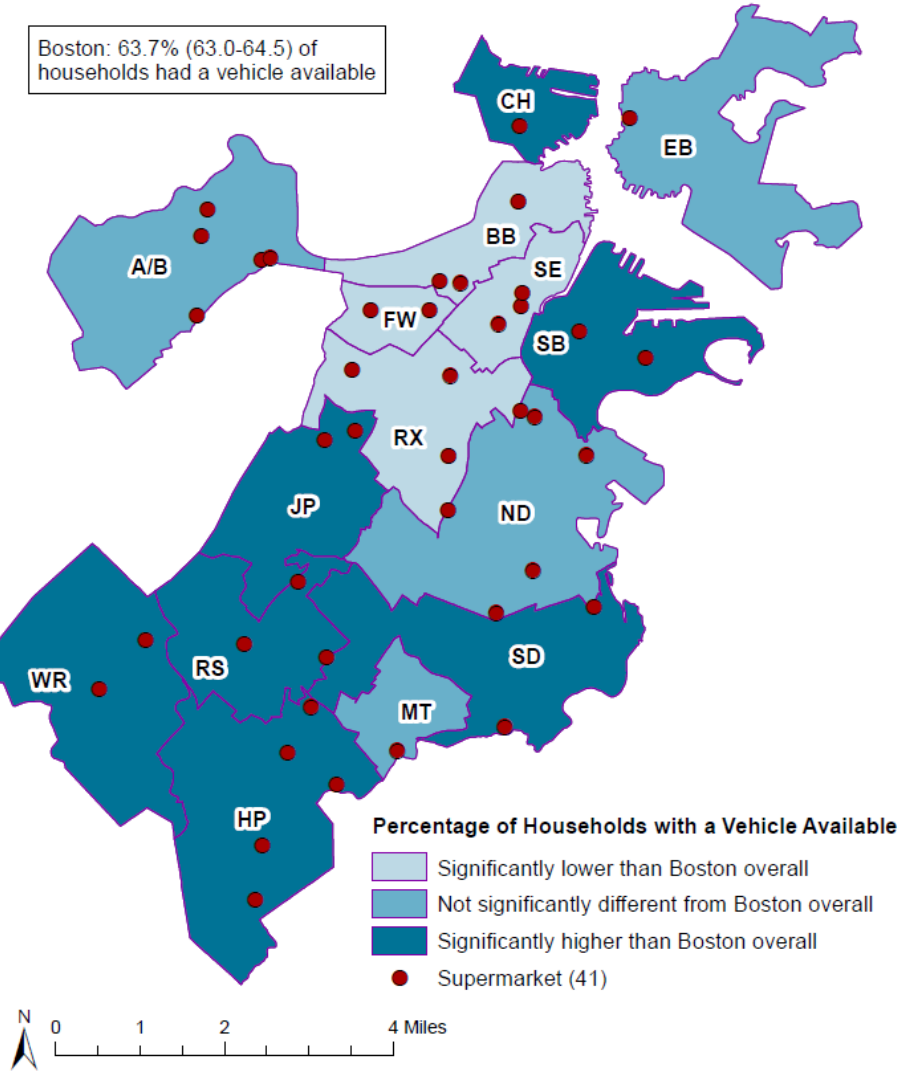
Building a Healthy Boston

With support from

Boston Children's Hospital

Until every child is well

Figure 2.8 Percentage of Households with a Vehicle and Location of Supermarkets by Neighborhood, Boston, 2013



A Geomedicine Module: An Example

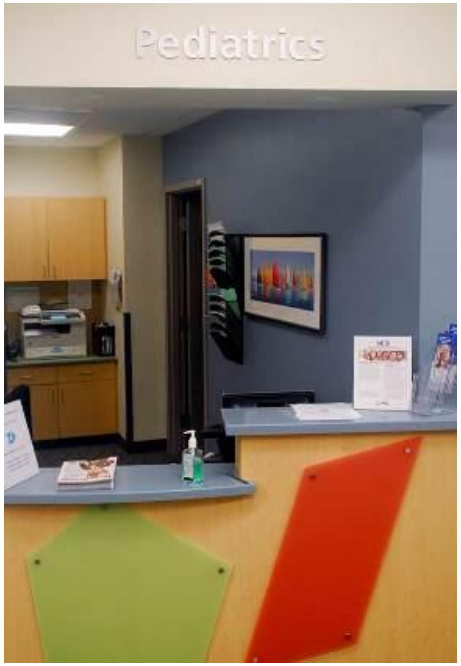
1) Select a population and setting

A Geomedicine Module: An Example

2) Select a critical topic

A Geomedicine Module: An Example

3) Consider how it impacts childhood health and well-being



A Geomedicine Module: An Example

4) Look for background on this topic in the neighborhood of interest

?

A Geomedicine Module: An Example

5) Identify a resource that might be easily utilized in the clinical setting to address this critical topic

Google maps

Legal Aid Society of Greater Cincinnati

United Way • AIRS 2-1-1 Get Connected. Get Answers. United Way of Greater Cincinnati

Basic program search

ord to fill out the entry below to find out what's in your area. You may search by program, facility or

Keyword Search | Soccer | [Advanced Program Search]

C) conducts programs and events at recreation centers, aquatic facilities, golf courses and hundreds Point.

An Advanced Program Search allows for many more search options.

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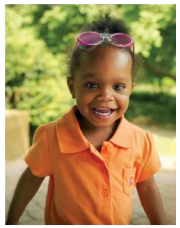
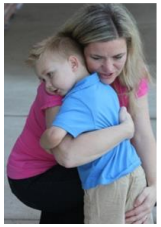


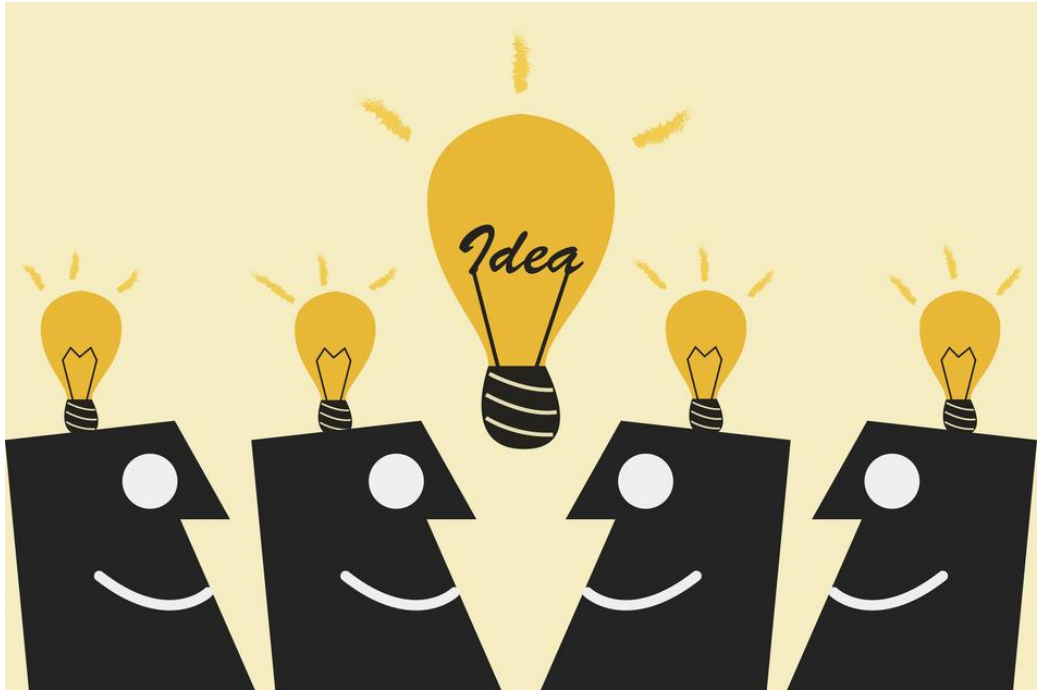


eliminating racism empowering women
ywca

CINCINNATI WORKS
FROM POTENTIAL TO SUCCESS

A Geomedicine Module: An Example

6) Brainstorm an activity



A Geomedicine Module: An Example

7) Identify key stake holders

The Smiths

To Do:

- ❑ Pick up kids
- ❑ Doctor Appointment at 2 PM
- ❑ Grocery store
- ❑ Pharmacy

Bus Costs:

$1.75 one way

$0.90 for zone change

$0.30 for transfer

Children < 2 ride free

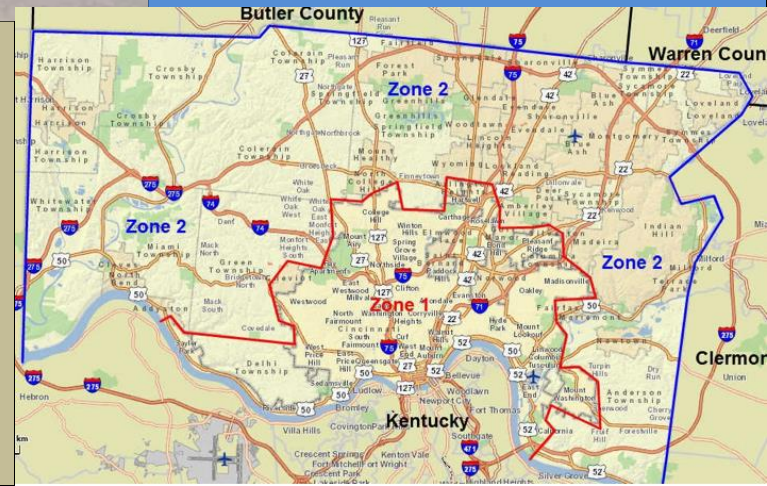
Fare Deal ID

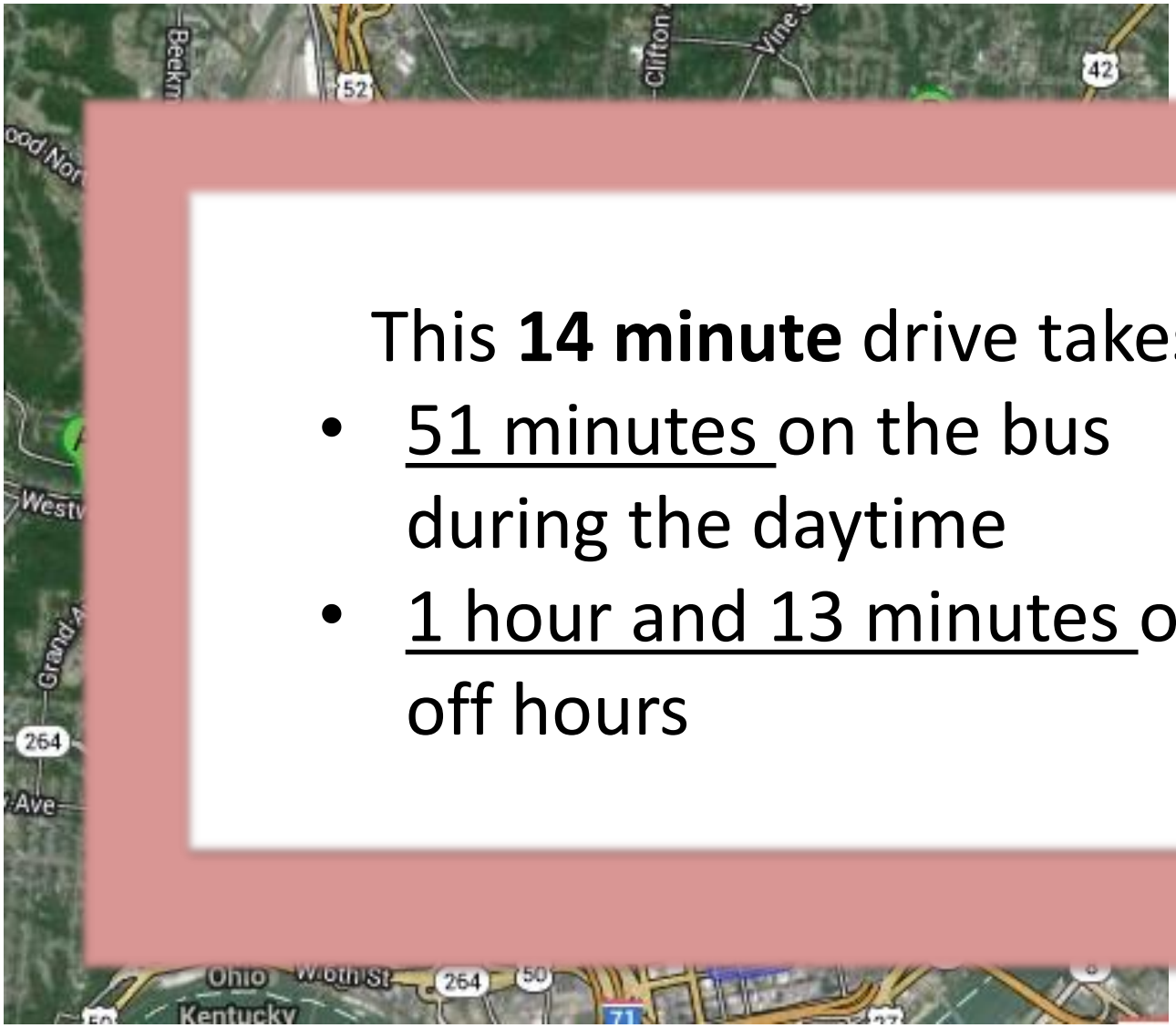
Cincinnati State ID

Home Address: 4123 W Liberty Street

School Address: 1798 Queen City Avenue

PPC Address: 3430 Burnet Ave.





How long will the trip take via bus?

This **14 minute** drive takes:

- 51 minutes on the bus during the daytime
- 1 hour and 13 minutes on off hours

s a

s late

apply

?

A Geomedicine Module: An Example

1) Select a population and setting
2) Select a critical topic
3) Consider how it impacts childhood health and well-being
4) Look for background on this topic in the neighborhood of interest
5) Identify a resource that might be easily utilized in the clinical setting to address this critical topic
6) Brainstorm an activity
7) Identify key stake holders

Small Group Activity:

- Brainstorm an education module for one of your critical topics

A Geomedicine Module Review:

1) Select a population and setting
2) Select a critical topic
3) Consider how it impacts childhood health and well-being
4) Look for background on this topic in the neighborhood of interest
5) Identify a resource that might be easily utilized in the clinical setting to address this critical topic
6) Brainstorm an activity
7) Identify key stake holders

Large Group Report Out:

- Share your modules with the group

Individual Reflection:

- Commit to Action
- Please complete your evaluation

commit!
Our Kids. Our Tomorrow.

Questions?
Thank you!