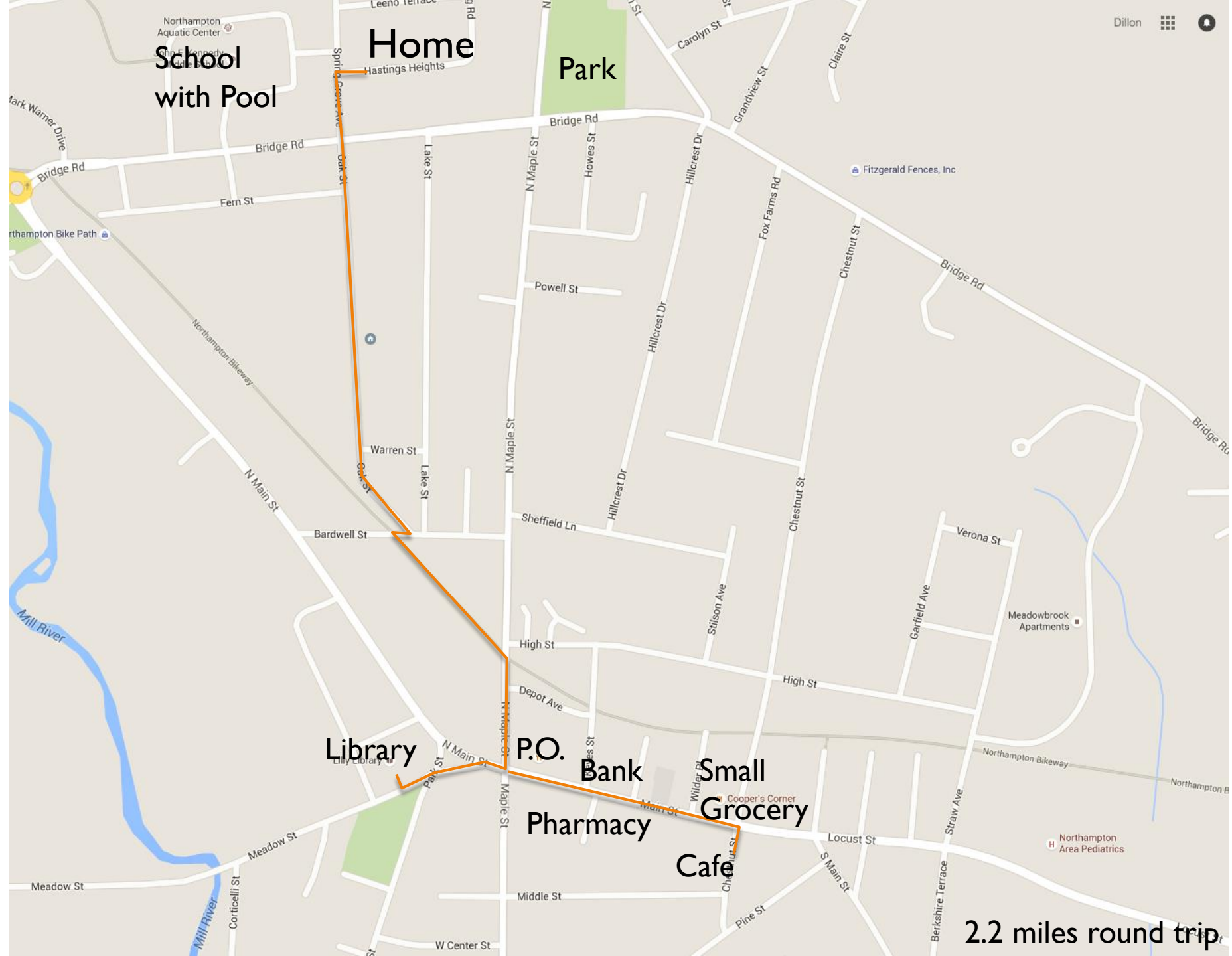


# 8-80 HEALTHY COMMUNITY DESIGN

Dillon Sussman &  
Catherine Ratte

Pioneer Valley Planning Commission with support from MA  
Dept of Public Health and the MA Council on Aging, MAHB





School  
with Pool

Home

Park

Library

P.O.

Bank

Pharmacy

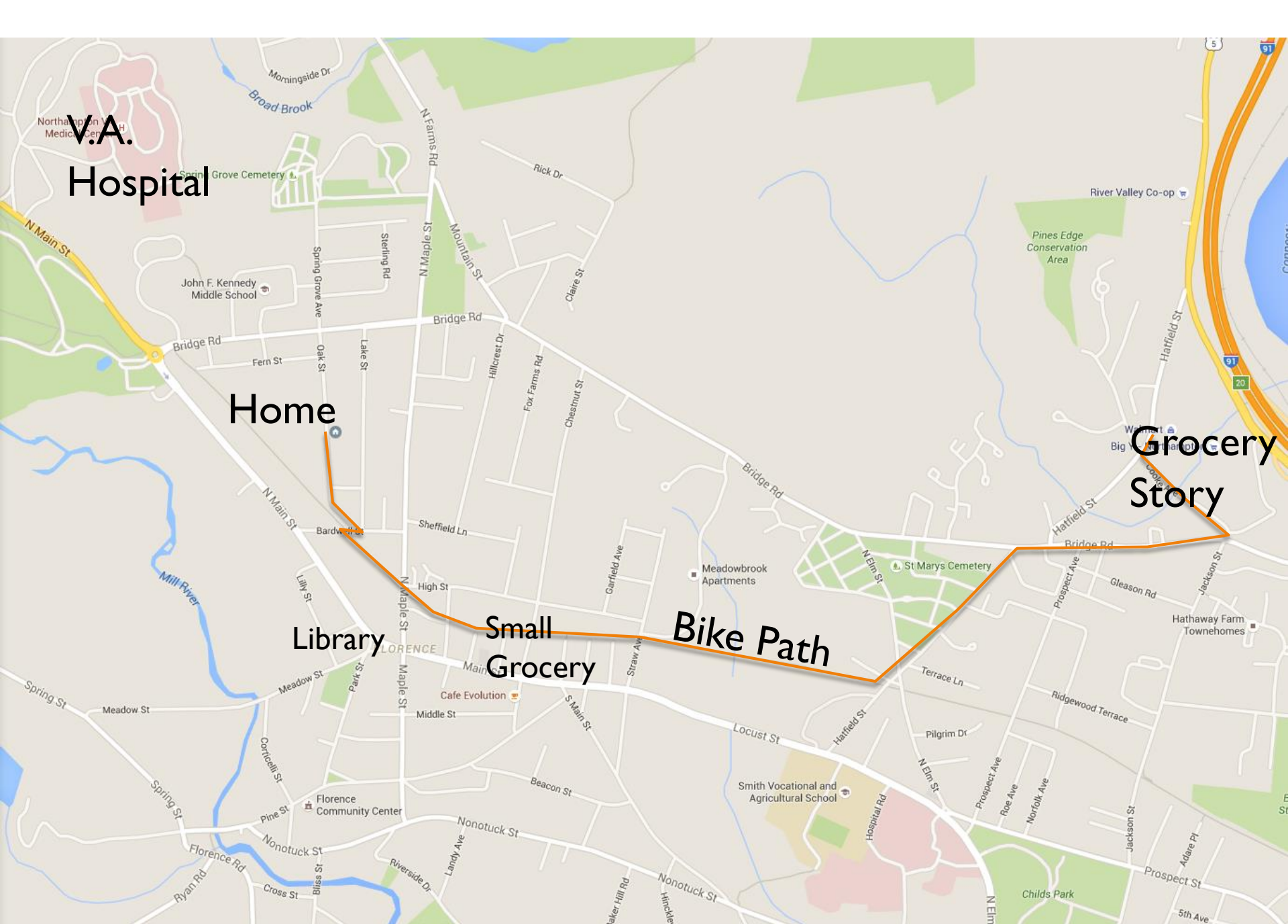
Small  
Grocery

Cafe

2.2 miles round trip

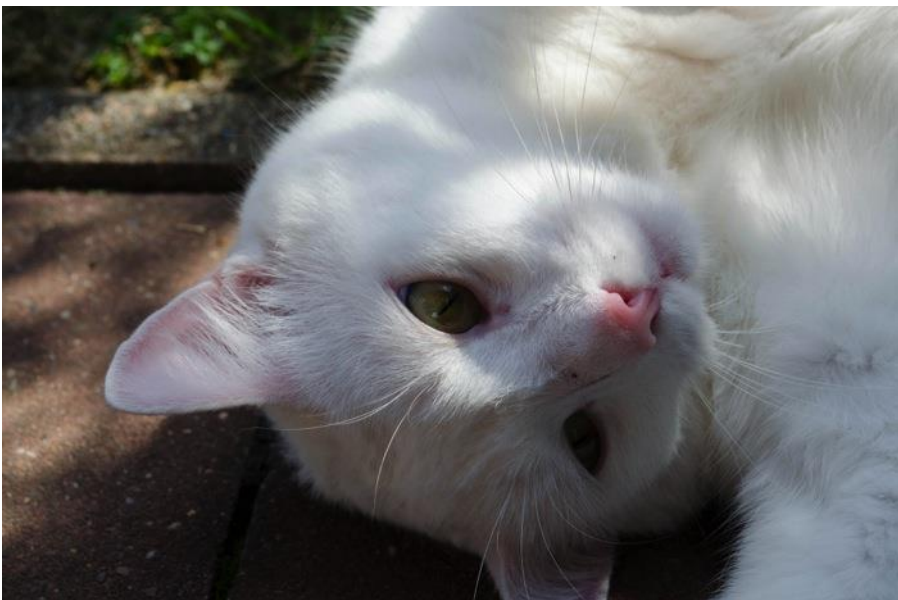


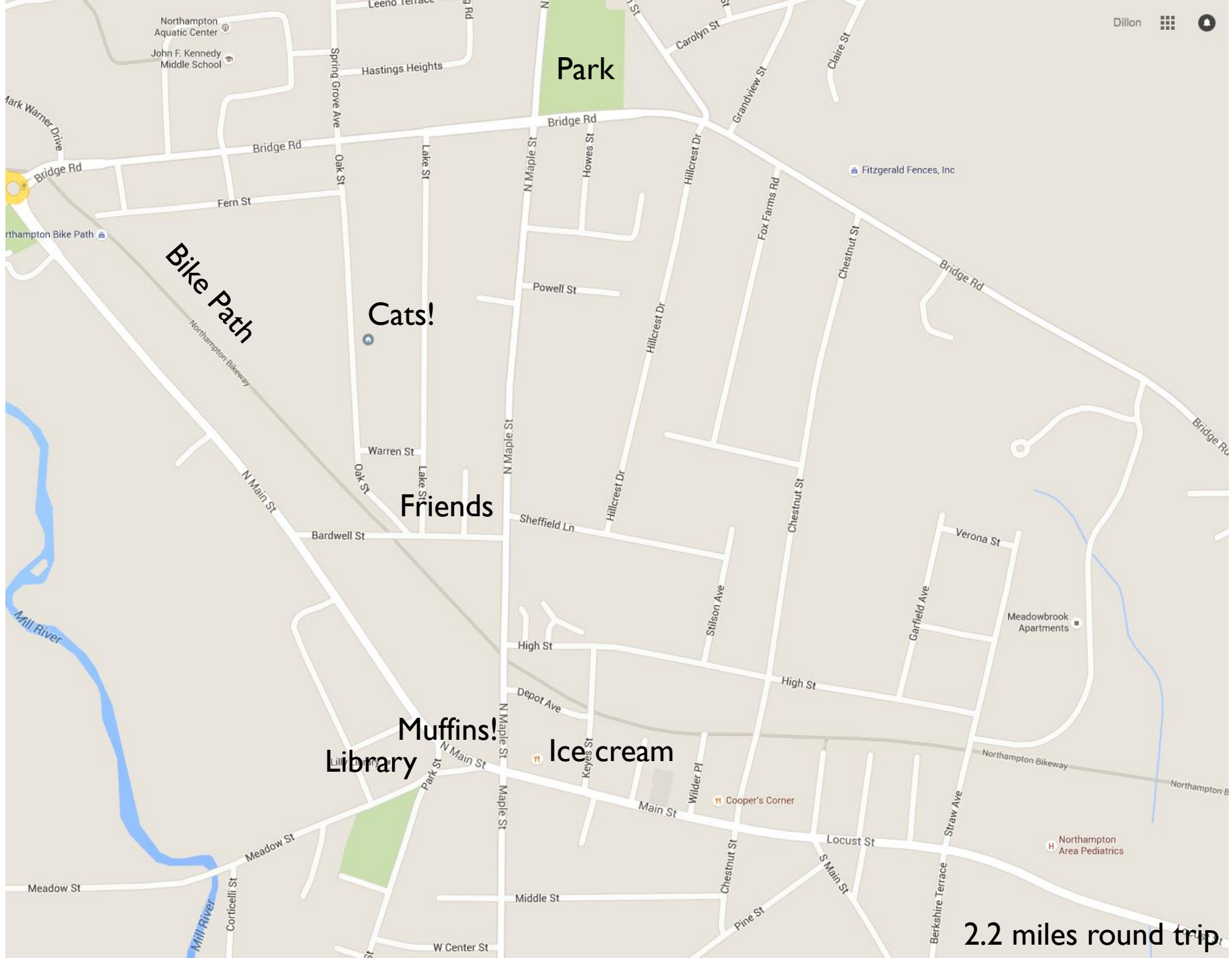




4.6 miles round trip







Dillon



Park

Bike Path

Cats!

Friends

Muffins!

Library

Ice cream

2.2 miles round trip

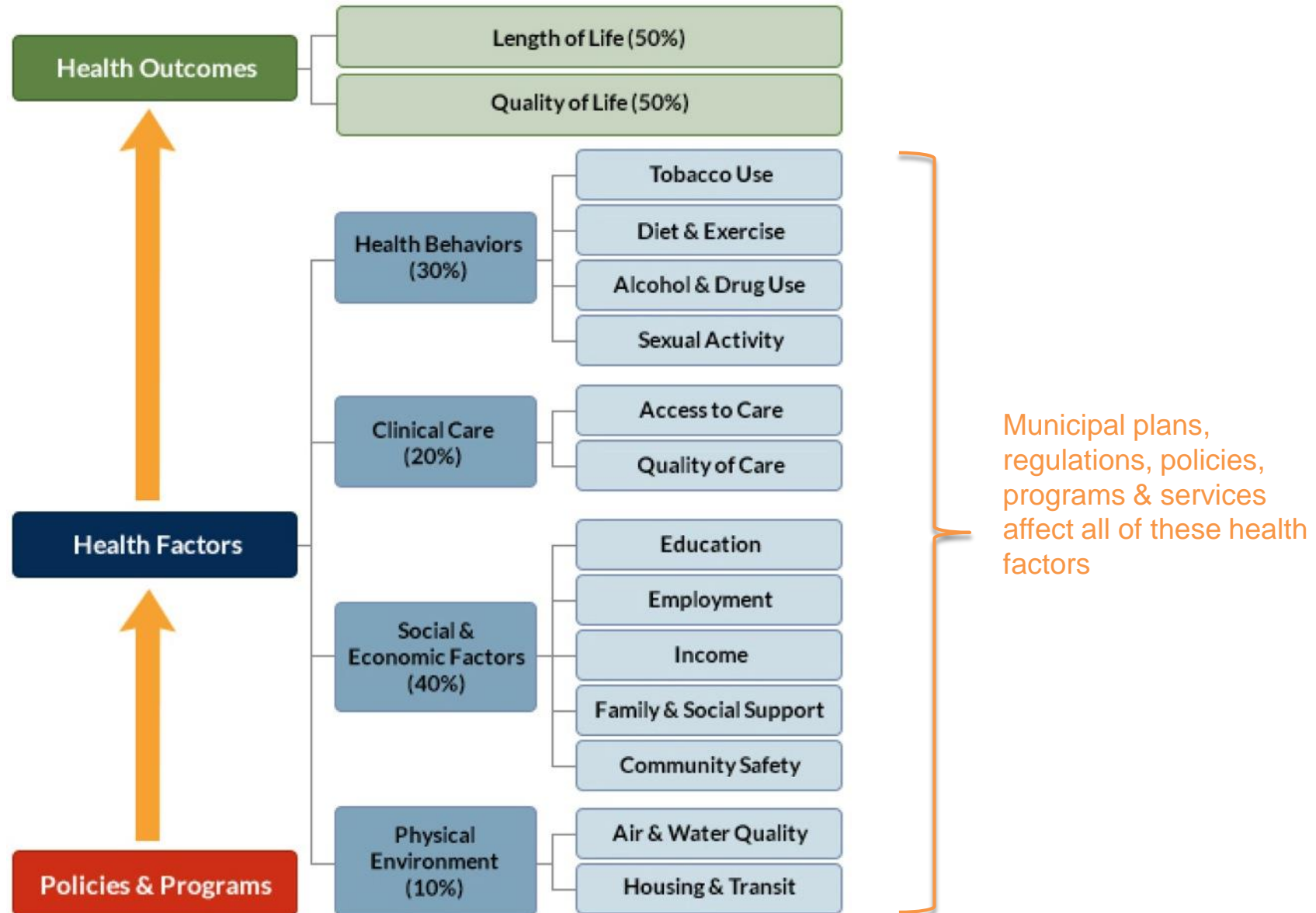




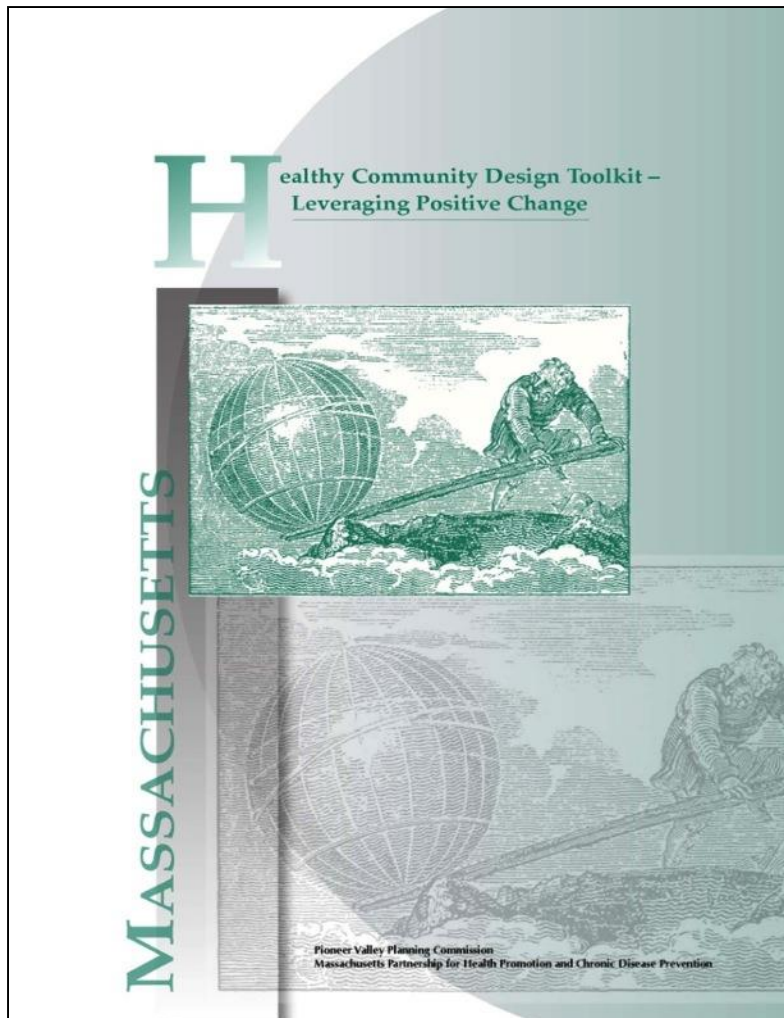
8-80. "Indicator Species."



# RWJF County Health Rankings Model



# Healthy Community Design Toolkit



- 2013: MA DPH engaged PVPC to prepare Healthy Community Design toolkit  
<http://www.pvpc.org/projects/healthy-community-design-toolkit-leveraging-positive-change>
- 2014: revised to ensure consideration of the needs of older adults in toolkit
- 2015: Completed 3 Regulatory Reviews to “Operationalize Toolkit”

“Leverage points” describe specific land use and planning tools that can be used to improve the built environment for better health outcomes





The **design** of the built environment **affects human health** and well-being.

Communities are planned and designed largely at the **local level**

# Land Use Regulatory Structure 101

Built environment is shaped by local plans, regulations, policies, and programs

- ❑ Community Plans: Master Plan, Open Space and Recreation Plan, Pedestrian & Bike Plan
- ❑ Regulations: Zoning, Subdivision Regulations, Stormwater Regulations
- ❑ Policies: Complete Streets Policy, Siting requirements for municipal buildings, Sidewalk Maintenance Policy
- ❑ Programs: Walking School-bus, Farm-to-School sourcing program



## PLANNING

Walking maps

Speed limit enforcement,  
Food Stamp Doubling at  
Farmer's Markets

Sidewalk clearing policy,  
Shared-use agreements

Land Use Mix, Density,  
Connectivity, Complete  
Streets, Parks

Housing,  
Economic  
Development

Smallest  
Impact

Counseling  
& Education

Clinical Interventions

Long-Lasting Protective  
Interventions

Changing the Context to make  
individuals' default decisions healthy

Socioeconomic Factors

*Largest Impact*

## PUBLIC HEALTH

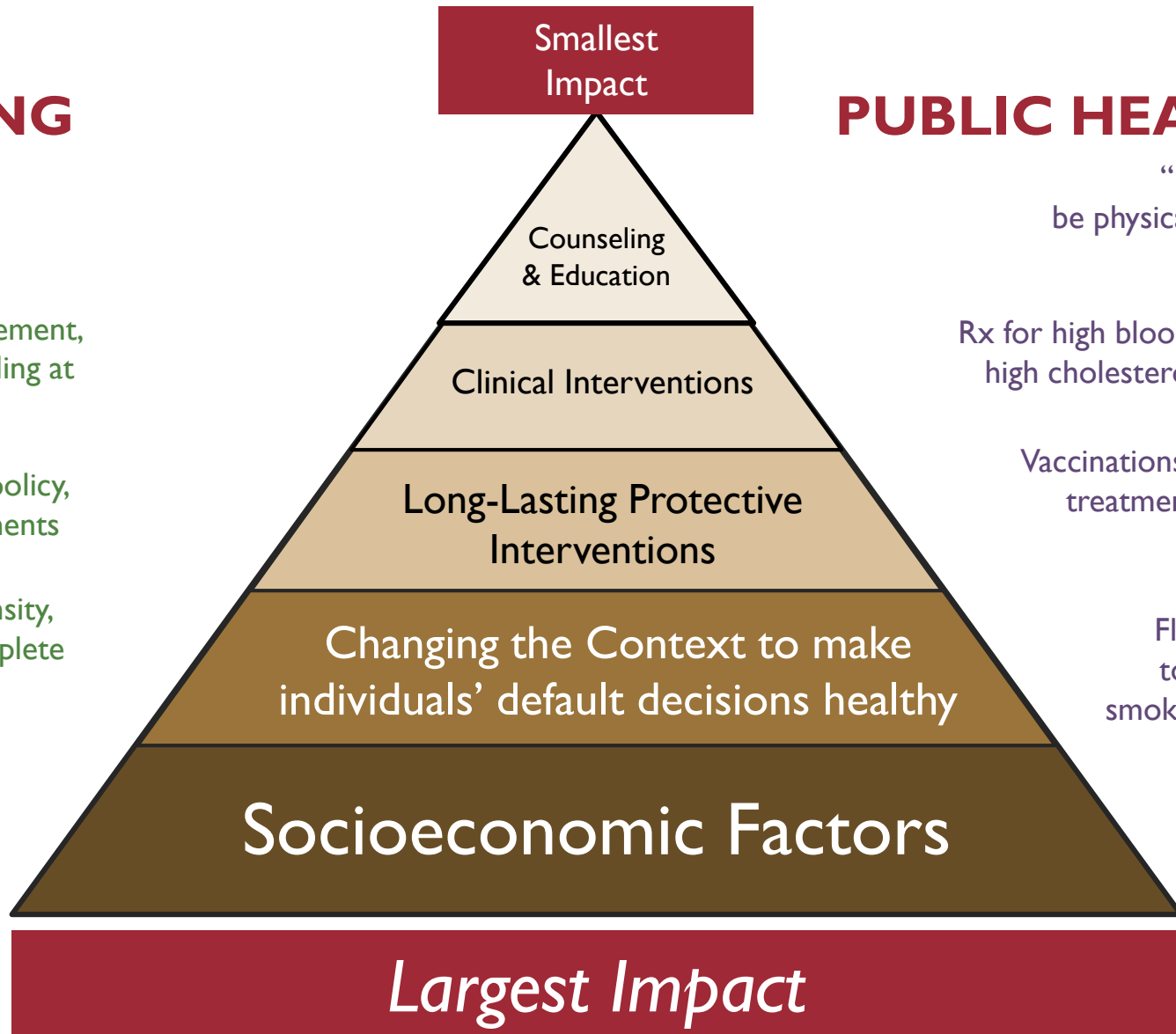
“Eat healthy,  
be physically active.”

Rx for high blood pressure,  
high cholesterol, diabetes

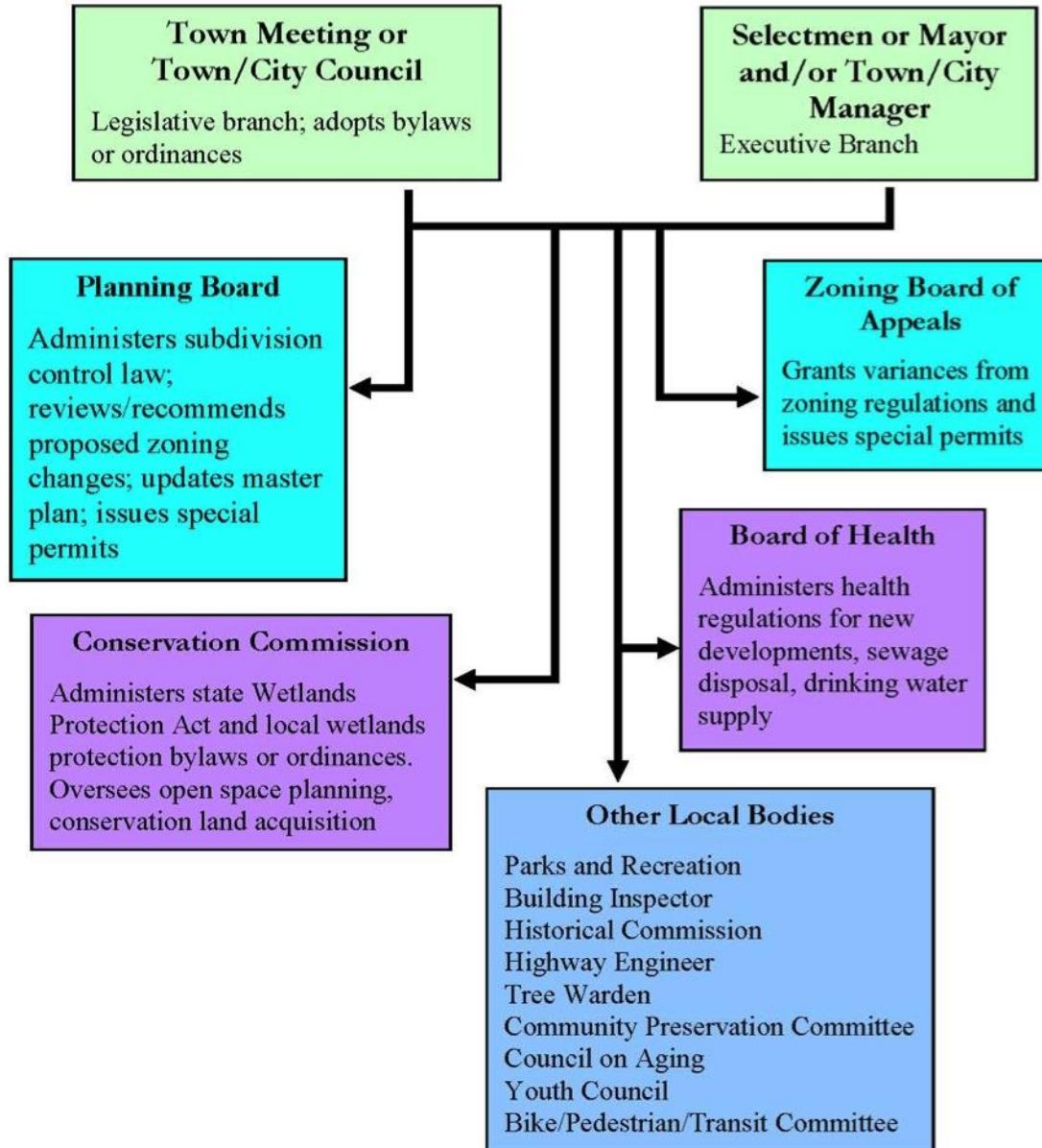
Vaccinations, cessation  
treatments (e.g. for  
smoking)

Fluoridation,  
tobacco tax,  
smoke-free laws

Income,  
Race,  
Education



## Local Government Organizational Chart





# Healthy Aging

A group of older adults are dancing in a street in front of a red building with blue trim. The scene is lively, with several couples and individuals moving to music. The background shows a red building with blue doors and windows, and trees are visible in the distance. The overall atmosphere is one of community and active living.

Older people (60+) are a growing segment of our population  
They increasingly want to “age-in-place”





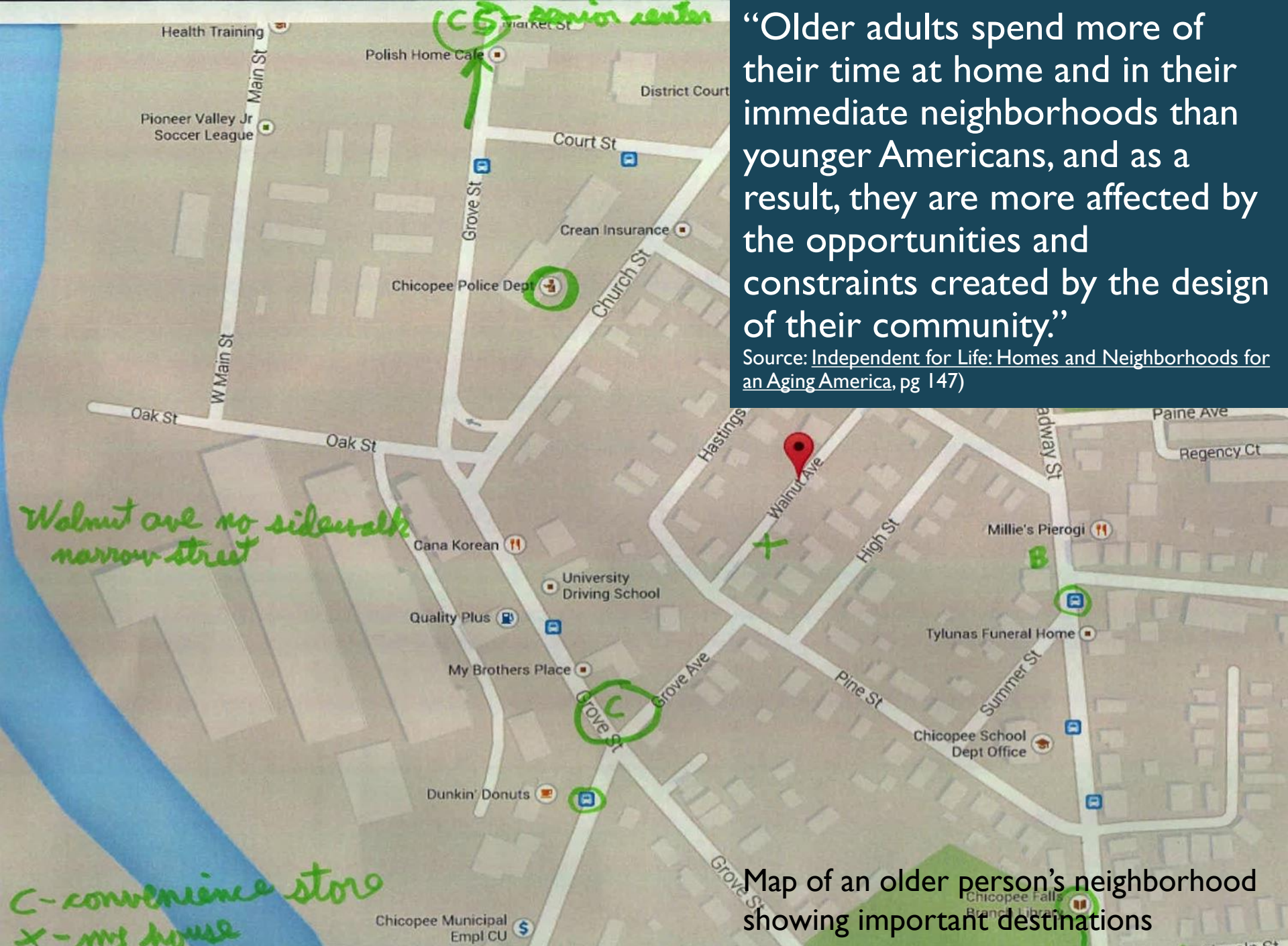
Good Fit=Independence  
Poor Fit = Decline





“Older adults spend more of their time at home and in their immediate neighborhoods than younger Americans, and as a result, they are more affected by the opportunities and constraints created by the design of their community.”

Source: Independent for Life: Homes and Neighborhoods for an Aging America, pg 147)



Map of an older person's neighborhood showing important destinations

# Characteristics of Older Adults:

?

?

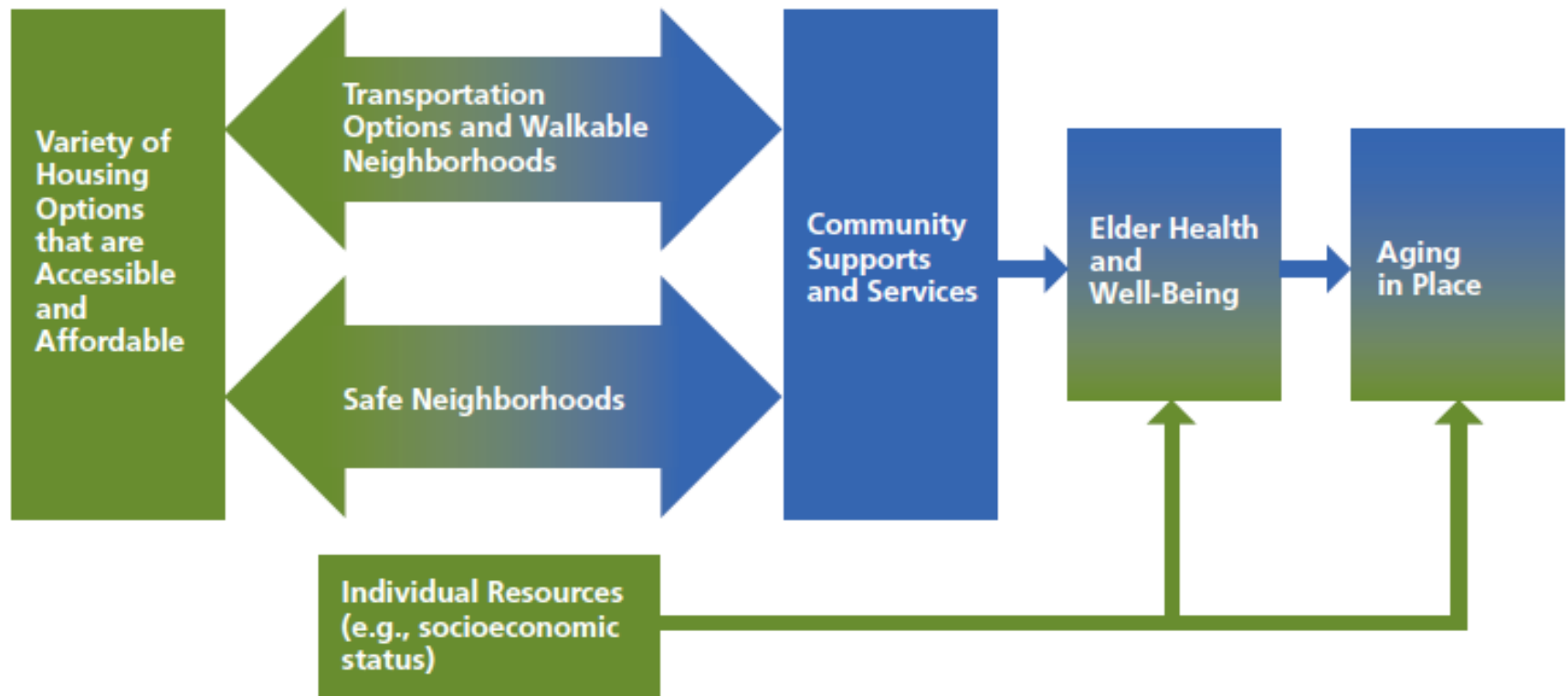
?

Community Design  
barriers to healthy aging  
are individual... and very  
specific.





# Livable Communities for Aging in Place





# Housing

# Housing Unit Type, Size & Cost

- ❑ Allow diverse housing types: 1-family, 2-family, multi-family
- ❑ Encourage diverse unit sizes and costs
- ❑ Allow non-standard housing types:
  - ❑ Accessory Dwelling Units
  - ❑ Elder cohousing
  - ❑ Mixed-age communities
  - ❑ Retirement community
  - ❑ Assisted living
  - ❑ Skilled nursing
  - ❑ Shared housing
  - ❑ Cottage housing





# Housing Location

- Proximity to goods and services is directly related to community planning
- Encourage mixed uses



# Building Design

- Require Universal Design for municipal buildings
- Incentivize Visitability
  - Zero step entrance
  - Wider doors (32"++)
  - Wider hallways
  - A ground-floor half bath

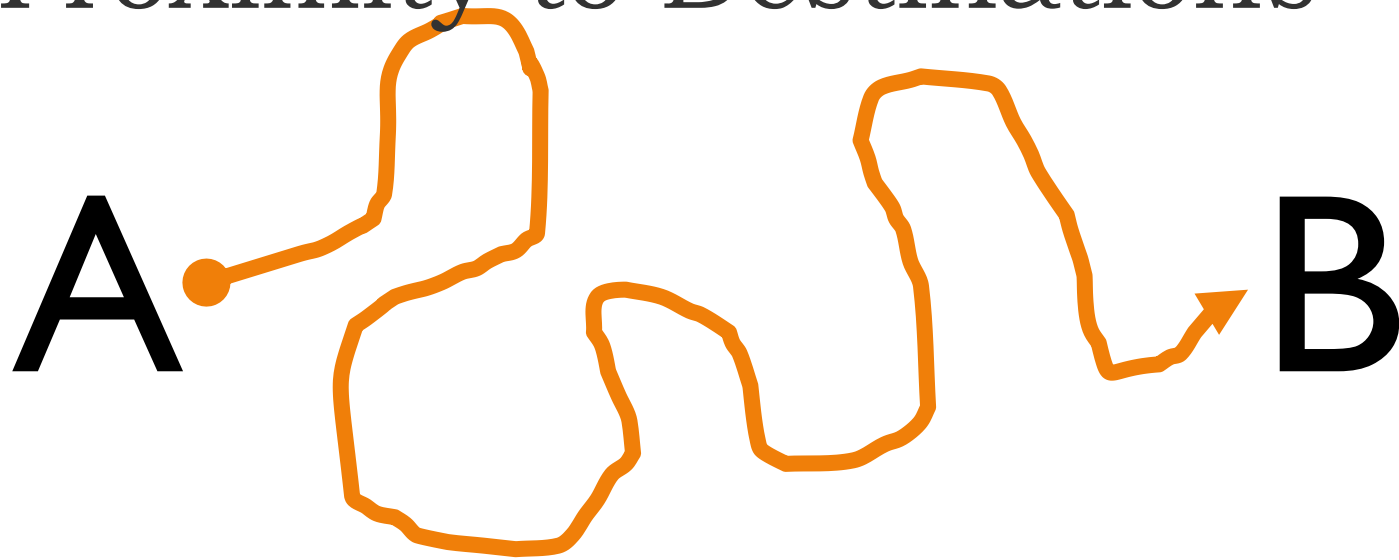




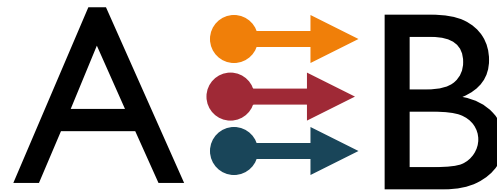
# Transportation



# Network Connectivity & Proximity to Destinations



Vs.



Network Connectivity strongly related to active transportation.  
Walk Score is a reasonable proxy.

# Transportation-Driving

- ❑ A well-connected road network (grid-like)
- ❑ Promote diverse road types (speeds, width)
- ❑ Four-way stops instead of two-way
- ❑ Dedicated left-turn lanes\*
- ❑ Limit right-turn on red
- ❑ Highly visible signs (placed in visible location, reflective, high contrast, large type)
- ❑ Use medians to minimize glare from on-coming cars on streets with a lot of traffic

\* Conflicts with pedestrian needs. Increases street crossing distance/time

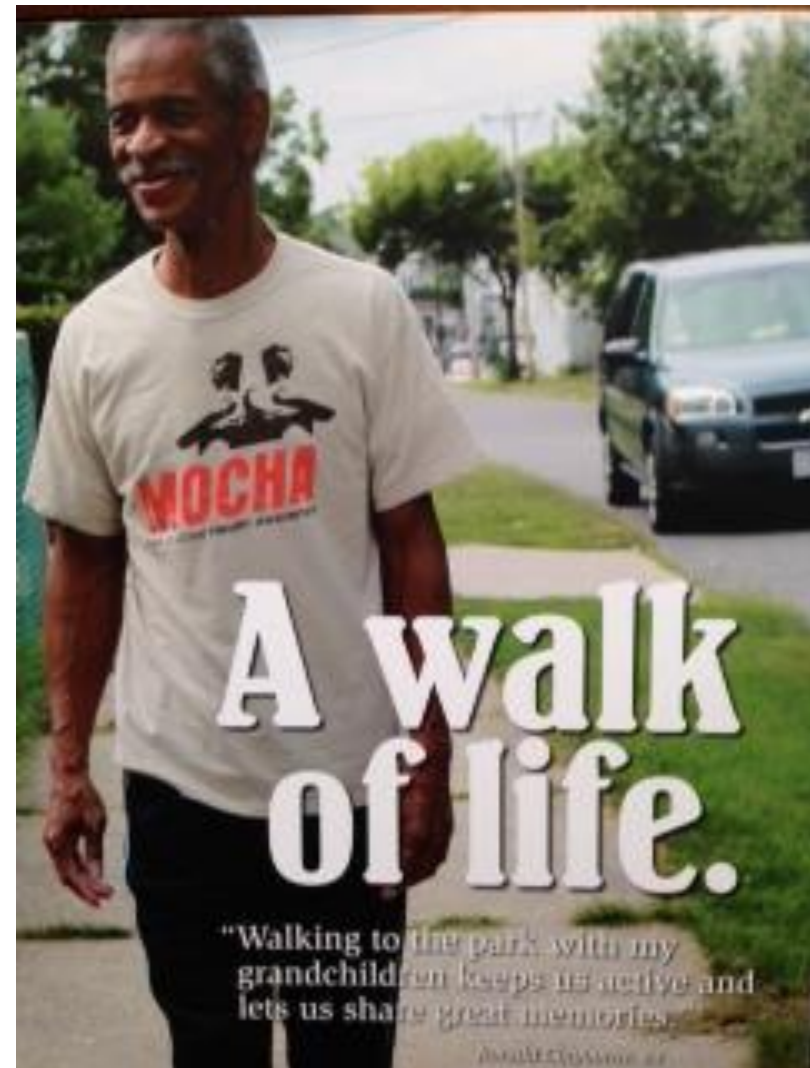
# Transportation-Walking

- Adequate sidewalks
  - ▣ 4-6 feet wide minimum “pedestrian clearway”
  - ▣ Smooth non-slip pavements
  - ▣ High contrast grade changes (like curbs)
  - ▣ Curb ramps that lead directly to sidewalks
  - ▣ Minimal cross-slope on sidewalks
  - ▣ Signalization modifications:
    - Longer crossing times on Walk signals
    - Leading pedestrian interval

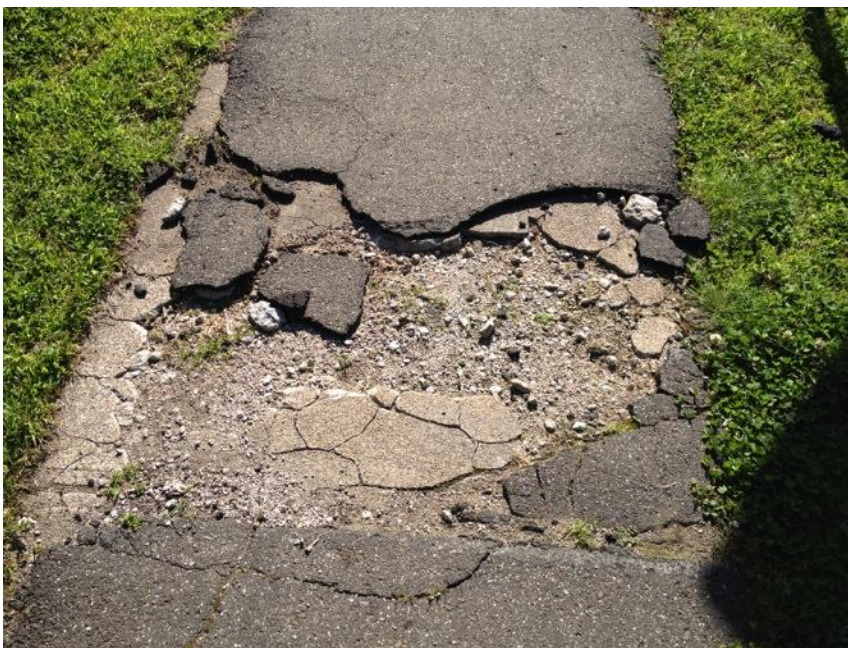




# Transportation-Walking









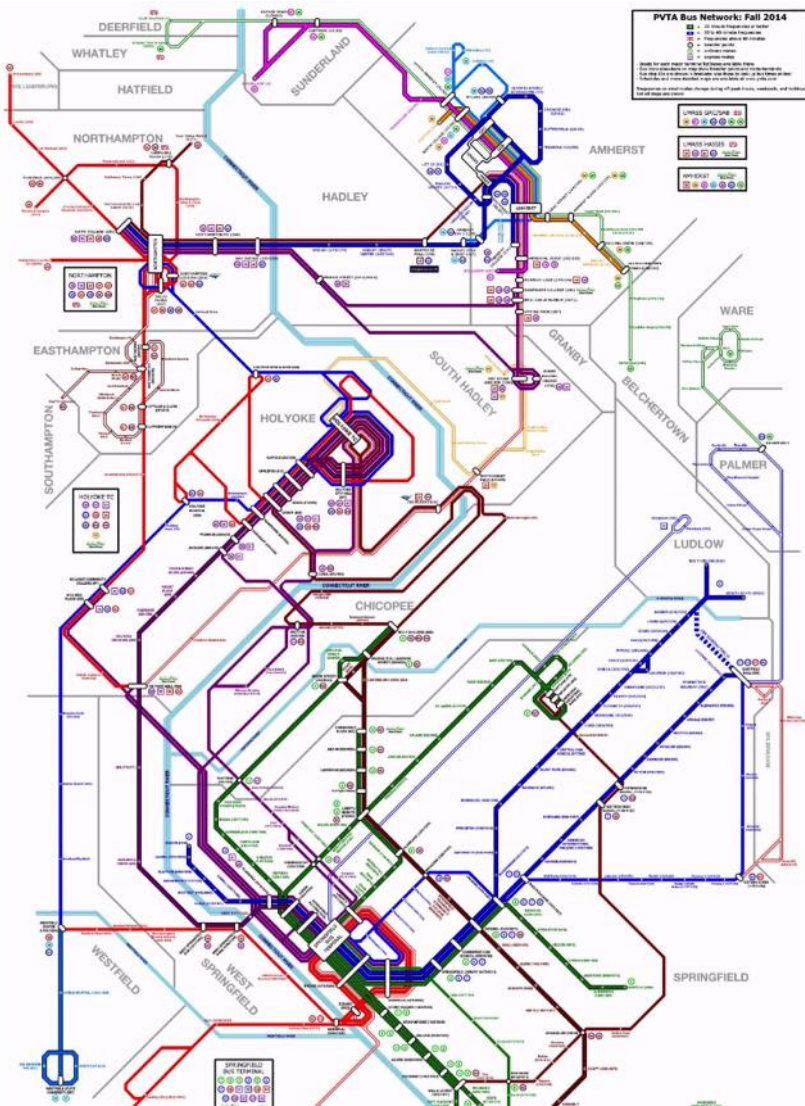
# Transportation-Biking

- ❑ Context-appropriate bike-facilities
- ❑ Include consideration of Bicycling in:
  - ▣ Subdivision Regulations
  - ▣ Site Plan and Special Permit
  - ▣ Public Realm standards (in a form-based code)
  - ▣ Municipal facility design
  - ▣ (and Complete Streets)





# Public Transportation



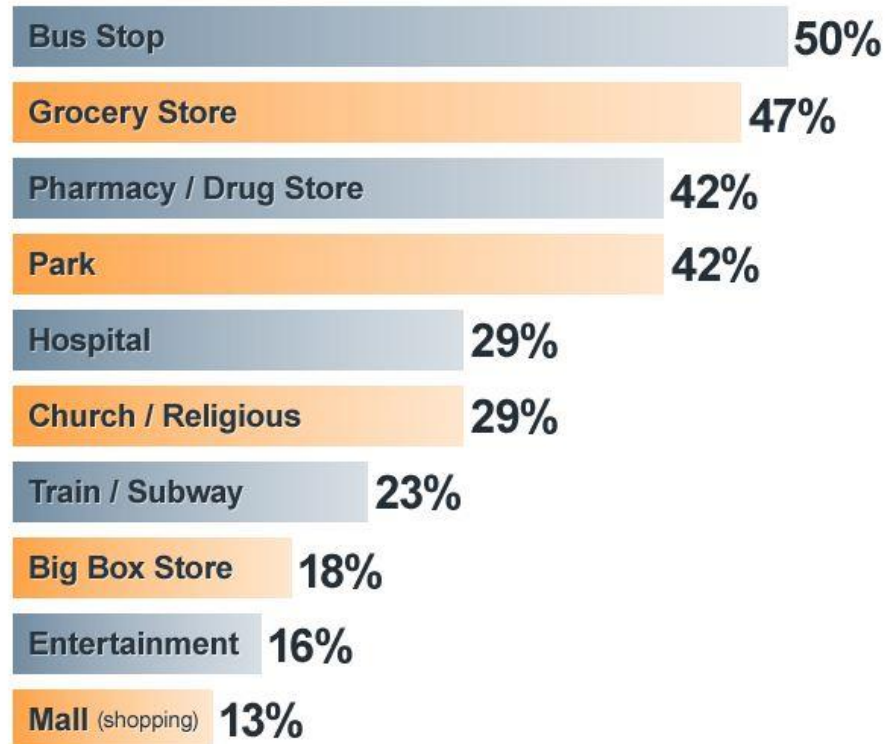


# Destinations

# Goods and Services/ Destinations

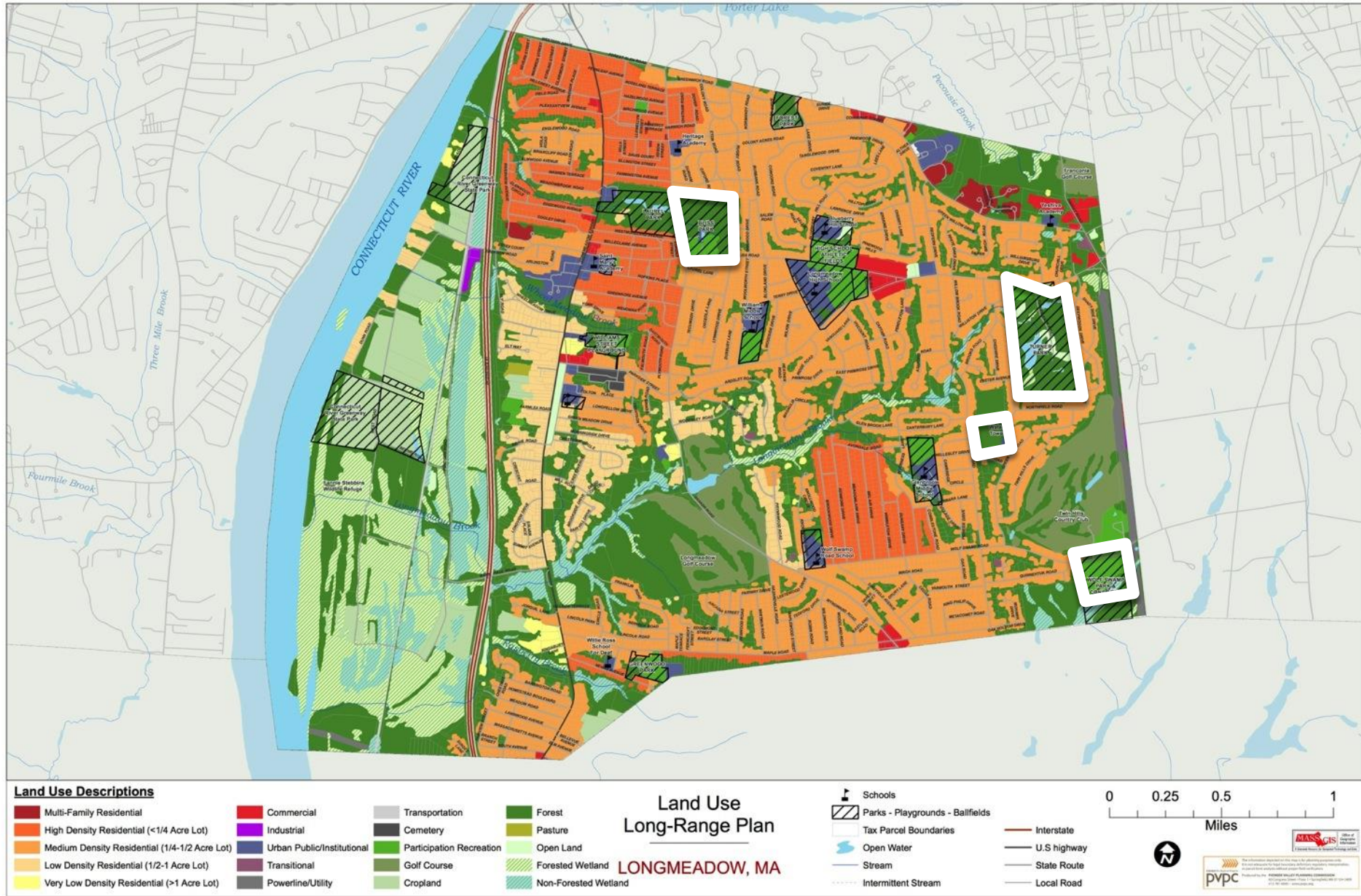
## What Community Amenities Do Older Adults Want Close to Home?

% endorsed within 1 mile or less





# Community Facility Siting Policy





# Can a walker or bicyclist safely get to the front door?

## Site Plan & Special Permit review of pedestrian and bicycle circulation



A front door with a direct path from sidewalk.  
Curb extension at crosswalk, benches, etc.



Cross-access (limit curb-cuts)  
Benches, bike racks, bollards, etc.

# Site Plan & Special Permit review of pedestrian and bicycle circulation



Innovative handicap parking. Separate from main traffic flow, creates a “shared space,” very shallow angle of parking spots—can use mirror for backing out.



Landscaping!

Parking lot also has solar panels that shade spots





Bike parking: for 8-80 or even 3-100.

If you see bikes locked to trees, parking meters, benches, you know you need more bicycle parking.







Prioritize development of “park-once” areas that will appeal to older adults.  
Look for locations with appealing destinations and proximity to where older people live

# Conclusions



- ❑ Older people are particularly affected by community design
- ❑ Healthy community design for older adults will benefit all people
- ❑ An informed and educated public is a key leverage point... and...  
informed older adults are an even more 'key' leverage point







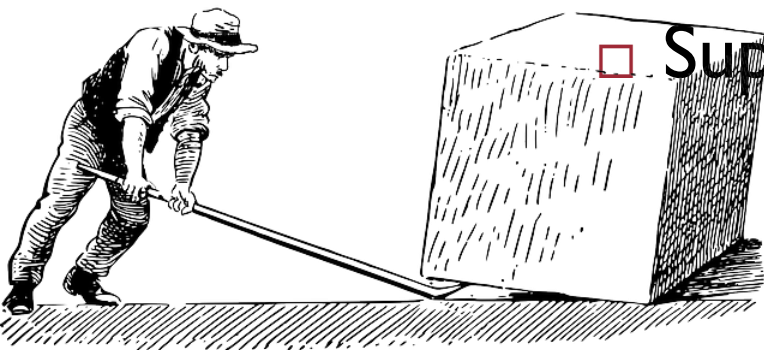
- Q&A 5 minutes

## Possible Projects for this mini-grant:

- Zoning bylaw/ordinance changes or other regulatory reforms that will have positive impacts on older adults in a community (such as regulatory reforms that impact the diversity of housing types and locations);
- Policy development (such as piloting a snow removal ordinance);
- Initiatives that improve access to healthy and affordable food for seniors;
- Initiatives that improve access for older adults to safe physical activity spaces;
- Policies related to siting of municipal facilities—especially senior centers, libraries and other facilities used by older adults;
- A health-based review of municipal regulations that assesses barriers to active transportation, public transit access, access to healthy food and access to green/open space;
- Adding a healthy aging/healthy community design component to an existing community planning project such as development of a Master Plan or Open Space and Recreation Plan, a zoning revision effort, a District Local Technical Assistance (DLTA) project, a Unified Planning Work Program project or an anticipated MassWorks or other grant application; and
- Policy and systems planning to support movement towards “Age Friendly Cities” designation.
- Etc...

# Using HCDDT for Project Design/Implementation

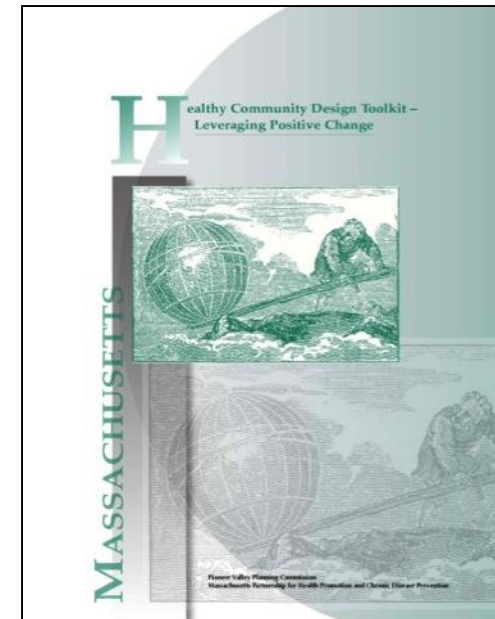
- Getting Organized → Health in all Policies – Wellness Leadership Team
- Comprehensive Health in all Policies Assessment & Action Planning
- Strategic Problem Solving
- Education/Training – esp great interdisciplinary
- Supplement Data Collection/Analysis





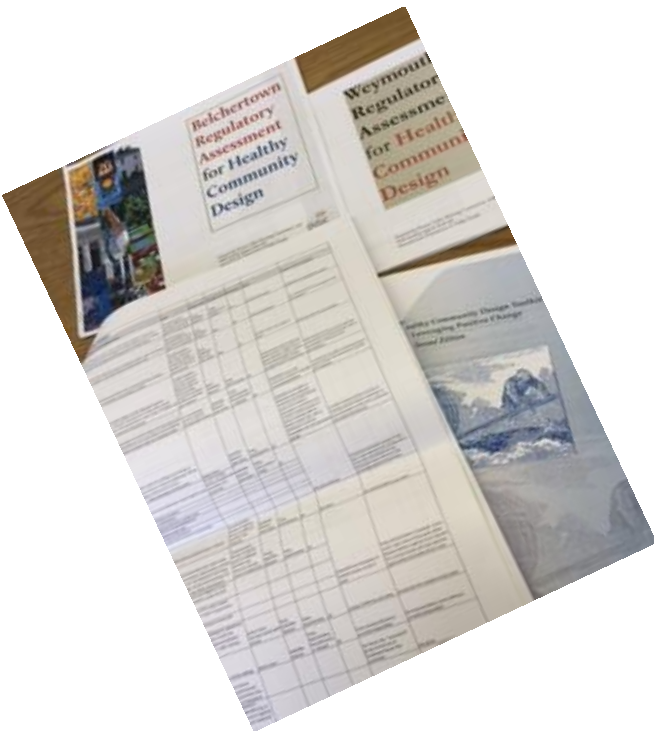
# Getting Organized → Health in All Policies WLT

- All members of WLT read HCDDT and discuss at a meeting
- Consider adding 10-15 minutes to each Agenda of your WLT for discussion of HCDDT
- Invite speakers to WLT meetings for a portion of the time to elaborate on “Leverage Points” of particular interest
- Your ideas...



# Comprehensive Health in All Policies Assessment & Action Planning

- ❑ M DPH funded “Operationalizing” the HCDDT
- ❑ Weymouth, Belchertown, Greenfield
- ❑ Est. 75 – 100 hrs



**Belchertown  
Regulatory  
Assessment  
for Healthy  
Community  
Design**

**Weymouth  
Regulatory  
Assessment  
for Healthy  
Community  
Design**

**Greenfield  
Regulatory  
Assessment  
for Healthy  
Community  
Design**

# Process

- ❑ Collect all documents: plans, regulations etc
- ❑ Read them all to get a sense of the community and then discuss your preliminary assessment of issues
- ❑ Use HCDDT as a checklist to see if everything recommended is included in what you collected
- ❑ Discuss the missing items and see how they might solve existing problems or help you to achieve stated goals
- ❑ Summarize all your work in an easy to read, relatively brief report



# Strategic Problem Solving

- You already know most pressing problem and you want to SOLVE it NOW and 'Permanently'!
- HCDDT is PSE = more permanent solutions
- Use by Topic or by Intervention Type: Regulation / Policy / Plan



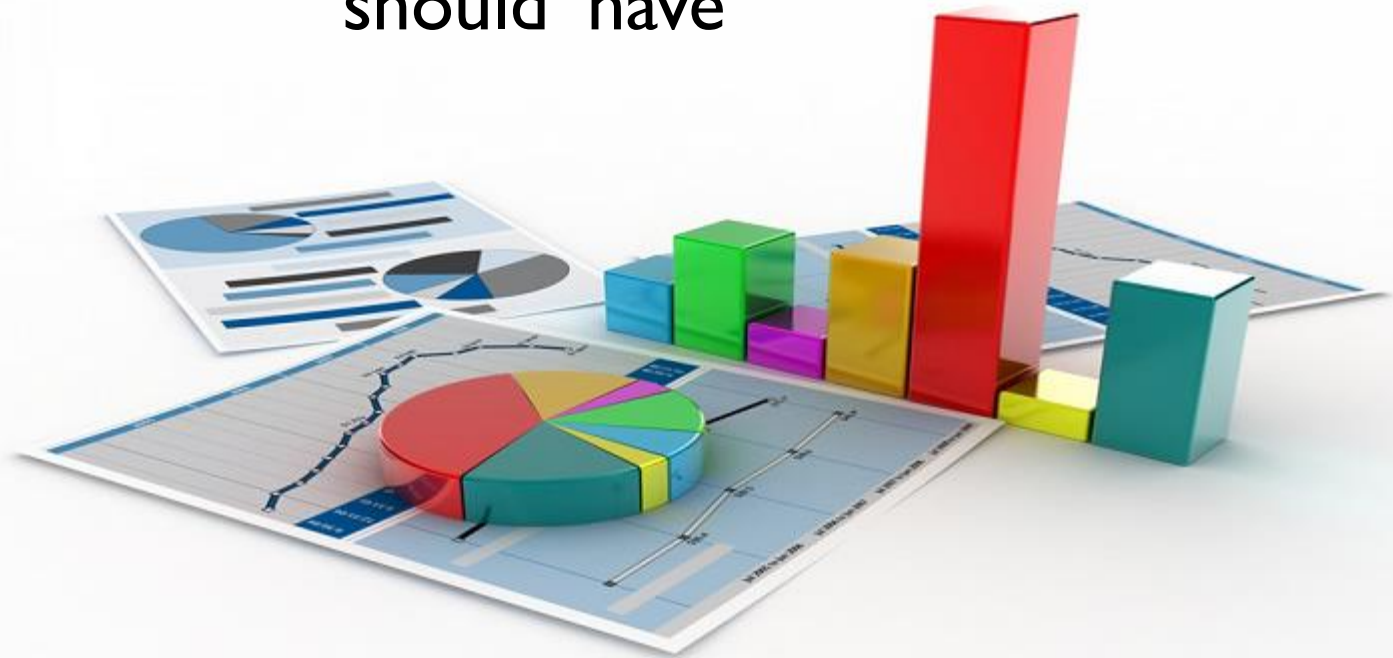
# Education/Training

- ❑ Perhaps your WLT is not as inter-disciplinary as you would like
- ❑ Use HCDDT to identify topics from other disciplines and invite your colleagues in those disciplines to come and educate you
- ❑ Use the HCDDT to prepare public presentations on topics of concern to the community



# Supplement Data Collection & Analysis

- After collecting all the data you planned to collect to assess your community, see if you have what the toolkit suggests you 'should' have







- Q&A 5 minutes



What change is the most  
important to implement?

Where should we start?

**Guiding Principle: Put People first.**



## PLANNING

Walking maps

Speed limit enforcement,  
Food Stamp Doubling at  
Farmer's Markets

Sidewalk clearing policy,  
Shared-use agreements

Land Use Mix, Density,  
Connectivity, Complete  
Streets, Parks

Housing,  
Economic  
Development

Smallest  
Impact

Counseling  
& Education

Clinical Interventions

Long-Lasting Protective  
Interventions

Changing the Context to make  
individuals' default decisions healthy

Socioeconomic Factors

*Largest Impact*

## PUBLIC HEALTH

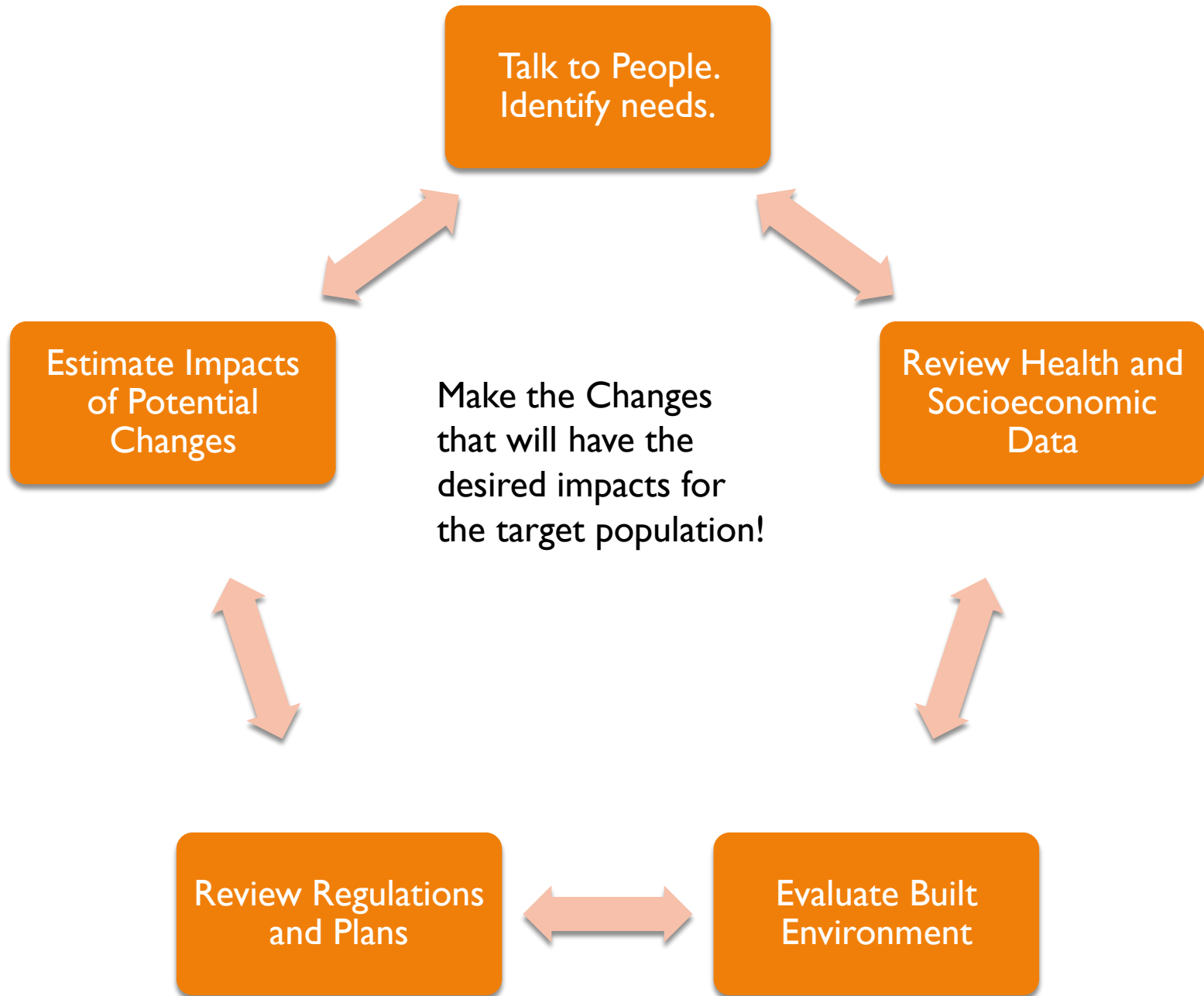
"Eat healthy,  
be physically active."

Rx for high blood pressure,  
high cholesterol, diabetes

Vaccinations, cessation  
treatments (e.g. for  
smoking)

Fluoridation,  
tobacco tax,  
smoke-free laws

Income,  
Race,  
Education










Talk to People—  
especially 8-80








# Use Data!





 About  Calendar  Contact 


DATA REPORT

PROGRAMS

BROWSE TOPICS

RESOURCES


CONNECT

BLOG

LOG INUsernamePassword

[Forgot your password?](#)

GO

Create Account 

DATA REPORT

Explore the Report

Highlights Report

Community Profiles

Infographic

State Maps




**Interactive Map**

Data Sources and Methods

Find Other Data

Area Plans on Aging

HOME > DATA REPORT > EXPLORE THE REPORT > INTERACTIVE MAP

+/- TEXT SIZE PRINT   

## Interactive Map

### Chronic Disease Maps

ALZHEIMER'S DISEASE  
OR RELATED DEMENTIAS  
DIABETES  
STROKE  
CHRONIC OBSTRUCTIVE  
PULMONARY DISEASE  
(COPD)  
HYPERTENSION  
EVER HAD A HEART  
ATTACK  
ISCHEMIC HEART DISEASE  
CONGESTIVE HEART  
FAILURE  
OSTEOARTHRITIS/  
RHEUMATOID ARTHRITIS  
**EVER HAD HIP  
FRACTURE**  
GLAUCOMA  
WOMEN WITH BREAST  
CANCER  
COLON CANCER  
MEN WITH PROSTATE  
CANCER  
LUNG CANCER  
OSTEOPOROSIS  
4+ CHRONIC CONDITIONS  
(OF 14)  
NO CHRONIC CONDITIONS  
(OF 14)

Percent of  
people age 65+  
with condition

1.4 – 3.0%

3.0 – 3.4

3.4 – 3.7

3.7 – 4.1

4.1 – 4.5

4.5+

+

-

Leaflet

Show only certain types of communities

PERCENT LOW INCOME

Older households with annual income under \$20,000.

PERCENT COLLEGE GRADS

People aged 65 or older with a college degree.

<https://mahealthyagingcollaborative.org/data-report/explore-the-profiles/interactive-maps/>

# Use Data!

AARP Home » AARP Public Policy Institute » AARP Livability Index »

## Livability Index | Great Neighborhoods for All Ages

LIVABILITY DEFINED CALCULATING SCORES LIVABILITY CATEGORIES ABOUT US FAQs



How livable is your community?

Fall River, MA, United States



### Location Results

PDF REPORT 

Current Location: Fall River, [Bristol County, MA](#)

RECENT LOCATIONS: [Arlington, MA](#) × | [Longmeadow, MA](#) × | [Northampton, MA 01060](#) ×

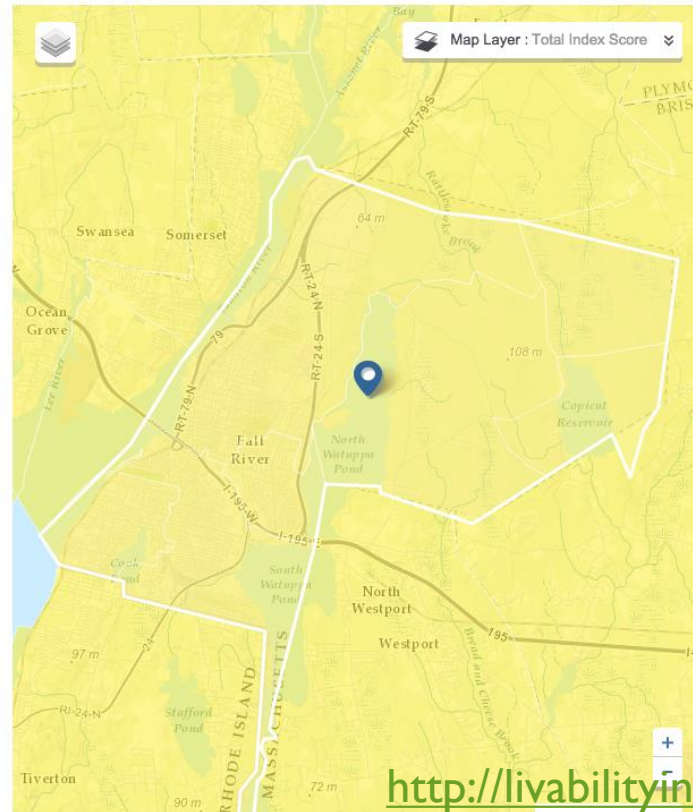
Livability Score ?



CUSTOMIZE THIS SCORE

#### CATEGORY SCORE

- 67** HOUSING  
Affordability and access
- 58** NEIGHBORHOOD  
Access to life, work, and play
- 58** TRANSPORTATION  
Safe and convenient options
- 54** ENVIRONMENT  
Clean air and water
- 44** HEALTH  
Prevention, access, and quality
- 48** ENGAGEMENT  
Civic and social involvement
- 46** OPPORTUNITY  
Inclusion and possibilities



<http://livabilityindex.aarp.org/>

# Use Data!

## MASSACHUSETTS

2015 ▾



Overview

Rankings

Measures

Downloads

Compare Counties

Select a county ▾



Print



Help

Select a Measure:

HEALTH FACTORS  
CHILDREN IN  
POVERTY



### Children in poverty

Map | [Data](#) | [Description](#) | [Data Source](#) | [Policies](#)

#### Description

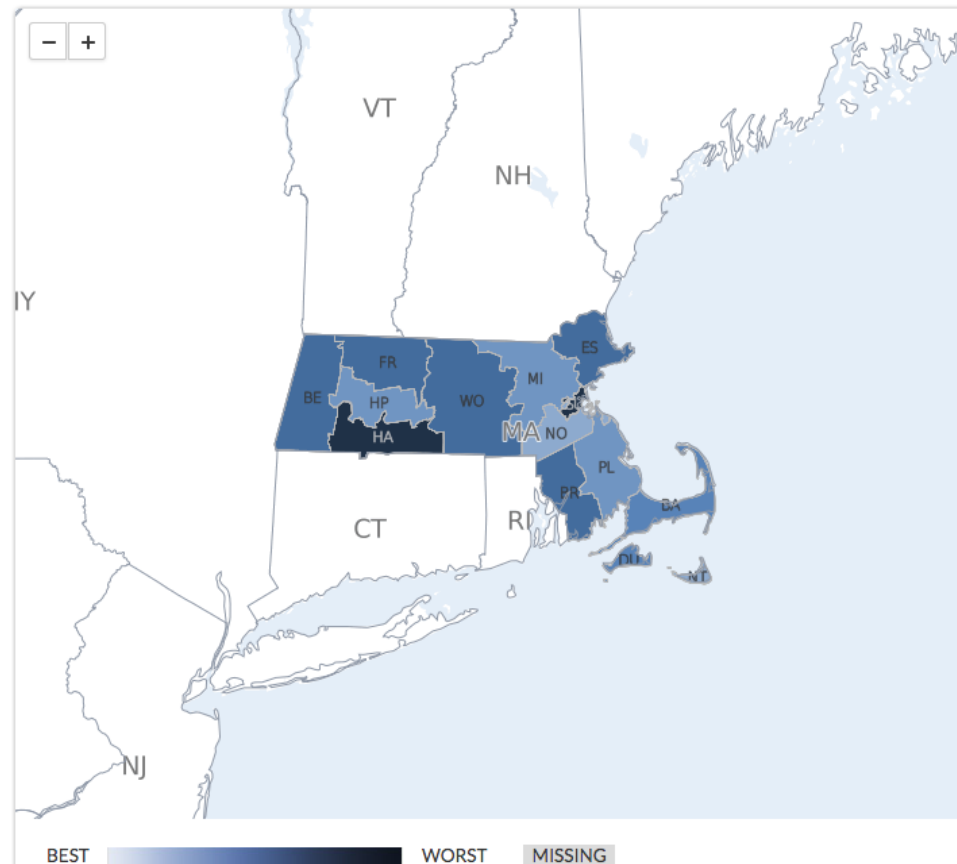
Percentage of children under age 18  
in poverty

#### Ranking Methodology

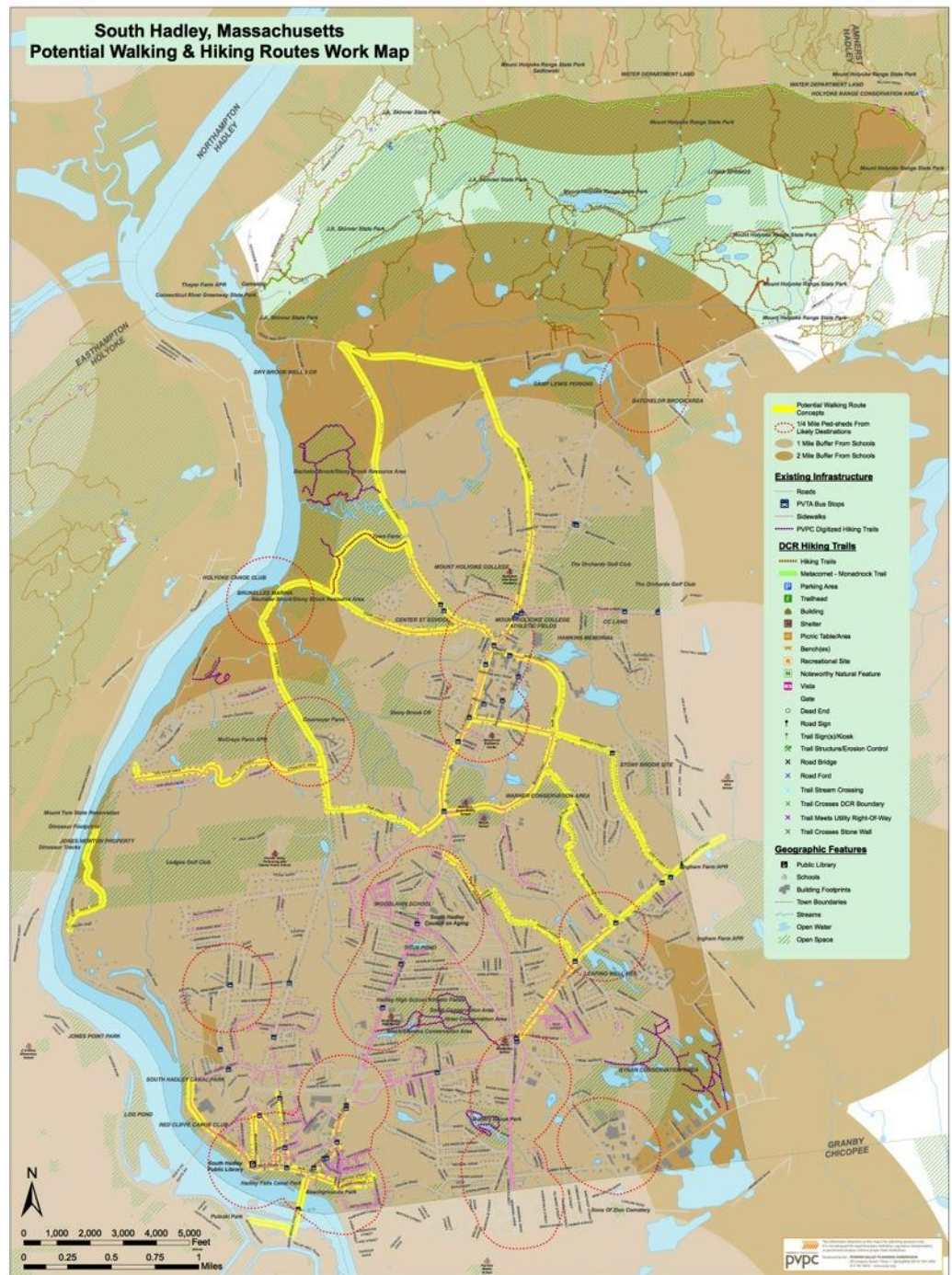
Summary Measure:	Health Factors - Social & Economic Factors (Income)
Weight in Health Factors:	7.5%
Years of Data Used:	2013

#### Summary Information

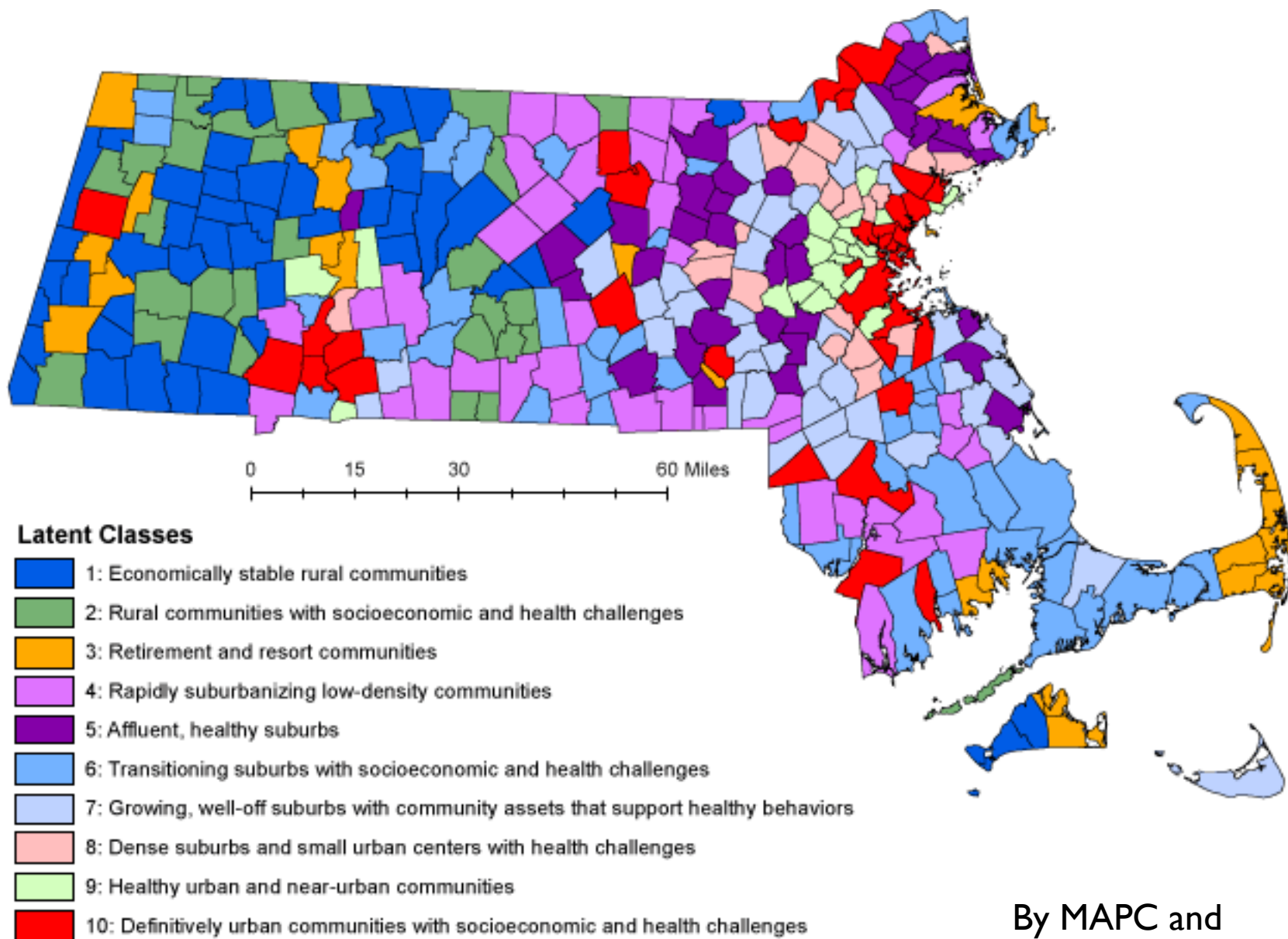
Range in Massachusetts (Min-Max):	8-29%
Overall in Massachusetts:	16%
Top U.S. Performers:	13% (90th percentile)







In person  
and through maps



By MAPC and  
others

[http://www.cdc.gov/pcd/issues/2014/13\\_0215.htm#l](http://www.cdc.gov/pcd/issues/2014/13_0215.htm#l)



# Prioritized Next Steps

## Prioritized Next Steps

1

**Adopt a Complete Streets Policy**, which will ensure eligibility for the MassDOT Complete Streets funding (projected to be available in late Summer 2015).

2

**Revise Off-street Parking Requirements and Site Plan Review Criteria:** Conduct a parking study. Use results to reduce off-street parking requirements in all zones and create more flexibility and incentives to allow for parking solutions that don't require large amounts of new surface lots. Develop site plan review criteria that establish the importance of integrating developments into the pedestrian/bicycle network, reduce the number and width of curb cuts, ensure direct paths from sidewalks to building entrances and safe pedestrian and bicycle circulation on all sites, design sites to create attractive streetscapes, and reduce the need to drive whenever possible (performance-based standards). Add a fee-in-lieu sidewalk requirement to target sidewalk improvements in the places where they are most needed.

3

**Develop Mixed-Use / Performance-Based Incentive Zoning:** Adopt a simple form-based code for Route 9 and/or downtown area that brings buildings closer to the street (maximum setbacks); reduces parking requirements; and has appropriate building form standards (minimum and maximum building heights, building types, etc) to create a walkable and more transit-friendly places. Or, develop design standards for an overlay district that incorporates basic form-based principles. Develop performance criteria for the area to match community vision. Consider only minimally prescribing uses or allowing more flexibility in uses.





## Impact Table

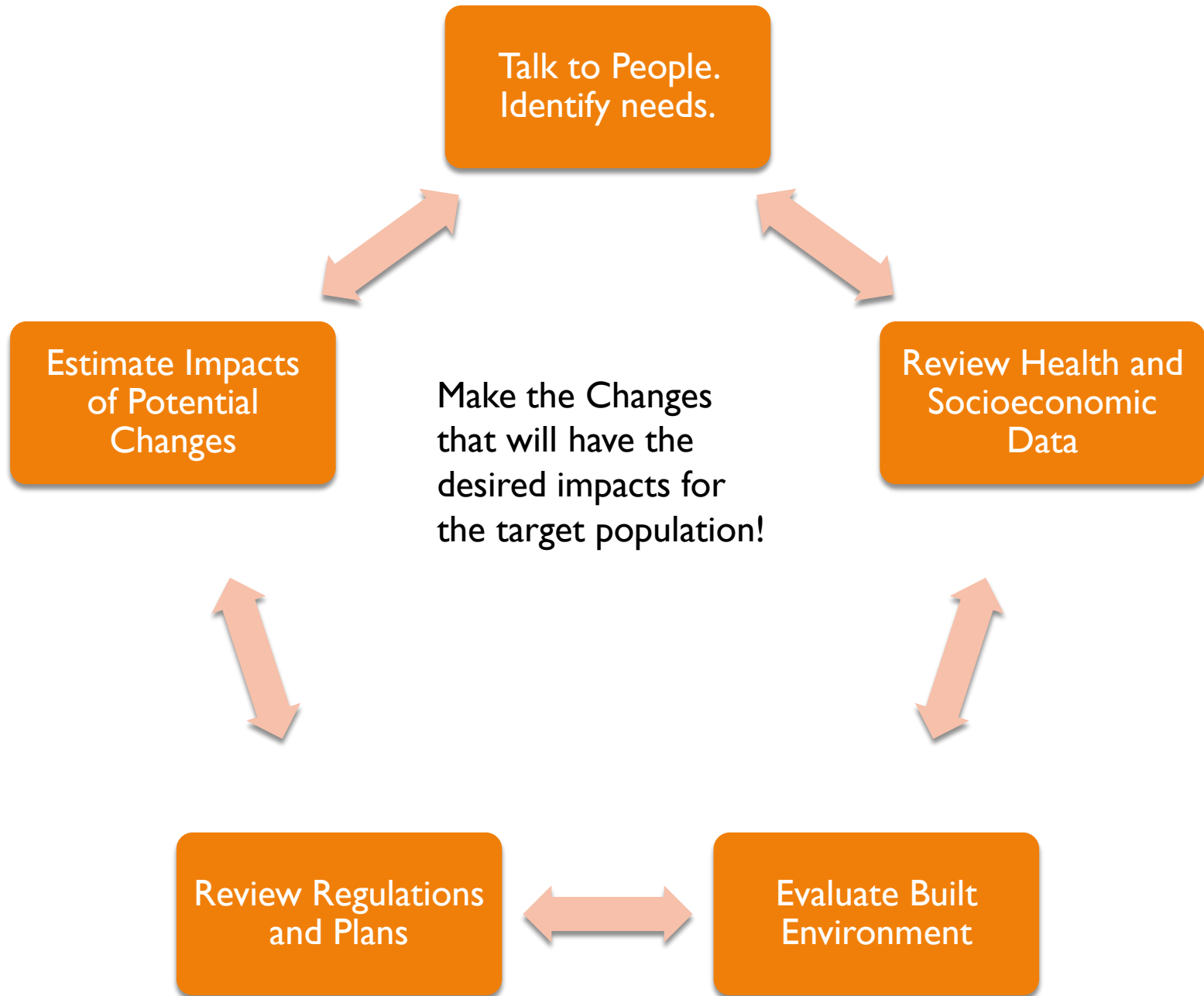
Health Determinant & Health Behaviors and/or Conditions Most Impacted <sup>10</sup>	Evidence linking Determinant to Health Outcomes <sup>11</sup>	Strength & Direction of Health Impact	Size of Impacted Population <sup>12</sup>	Time Frame <sup>13</sup>	Disproportionately Impacted Populations	Findings
<b>Active Transportation</b> Physical Activity Mental Health & Brain Development Chronic Disease (Cardiovascular Disease, Obesity, Diabetes, Pancreatic Cancer, Breast Cancer, Endometrial, Colon & Rectal Cancers)	<b>Walking for Active Transportation</b> A very robust body of literature links physical activity to a panoply of health benefits (listed on the left). Both high and low income individuals benefit from more walkable neighborhoods with increases in overall physical activity (Sallis et al. 2009). Consistent research has linked features of the built environment to active transport, defined as walking, biking, and public transportation (which typically requires some walking or biking). Active transport correlates with mixed land-use, street network connectivity, availability of destinations, residential density, street design, and distance to transit (Ewing and Cervero 2010; Freeman et al. 2012; Giles-Corti et al. 2013; McCormack and Shiell 2011; Litman 2013). Street-scale pedestrian design including the presence of amenities such as street furniture, lighting and shading is moderately related to general walking and improvements in health (McCormack and Shiell 2011; Sallis et al. 2015; Heath et al. 2012). Recreational walking is associated with proximity to recreational destinations and positive perceptions of neighborhood aesthetics (Giles-Corti et al. 2013; McCormack et al. 2013).	Medium positive impact	Large	Commences immediately, and continues indefinitely. Most significant impacts attained after 5+ years.	<ul style="list-style-type: none"> <li>Females</li> <li>Older Adults</li> <li>People with mobility impairments</li> <li>People with visual impairments</li> <li>People with low-incomes</li> <li>People who do not own cars</li> </ul>	<ul style="list-style-type: none"> <li>The Pleasant Street area provides a regionally significant location where multiple factors support walking for active transportation. Its walkability is reflected in high commute share for walking (20%) and supports positive health outcomes for a variety of conditions.</li> <li>People who walk to work in 01060 are twice as likely to be female than male.</li> <li>The proposed improvements would have a moderate positive impact on walking for active transportation.</li> <li>The largest benefits would come from the project's direct and indirect support for additional housing and commercial development on Pleasant Street, which will in turn increase walking for active transportation</li> <li>Proposed improvements—especially improvements at major network connectivity points and reduced vehicle speeds as a result of traffic calming measures—may positively influence perceptions of safety and therefore inspire some new walking trips</li> <li>Recreational walking may increase due to improved aesthetics</li> <li>New curb ramps, raised crosswalks, sidewalk replacement, will improve walkability, especially for people with mobility and/or sight impairments, and older adults.</li> </ul>

<sup>10</sup> Color coding represents strength of evidence in the literature. Dark purple indicates strong evidence. Medium purple indicates moderate evidence. Light purple indicates some evidence.

<sup>11</sup> This table only provides a brief summary of evidence, for a more extensive literature review please see the full report for the Pleasant Street Improvements Health Impact Assessment the [Healthy Neighborhood Equity Funds Health Impact Assessment](#).

<sup>12</sup> Small population is less than 5% of 01060 population. Medium population is 5-19% of population of 01060. Large is 20%+ of 01060. Very large is 50%+ of 01060.

<sup>13</sup> Baseline for timeframe is 2017.



# Project Ideas

## Brainstorm and Discussion



DILLON SUSSMAN &  
CATHERINE RATTE

PIONEER VALLEY  
PLANNING  
COMMISSION

413-781-6045



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