



HEALTHY COMMUNITY DESIGN

MIKE THOMPSON M.Ed

OVERVIEW

- Why Focus On Health
- Public Health and Planning
- Built Environment Factors
- Additional Resources



PLANNERS4
HEALTH

PLAN4Health

An American Planning Association Project



Department of
Health





WHY FOCUS ON HEALTH?

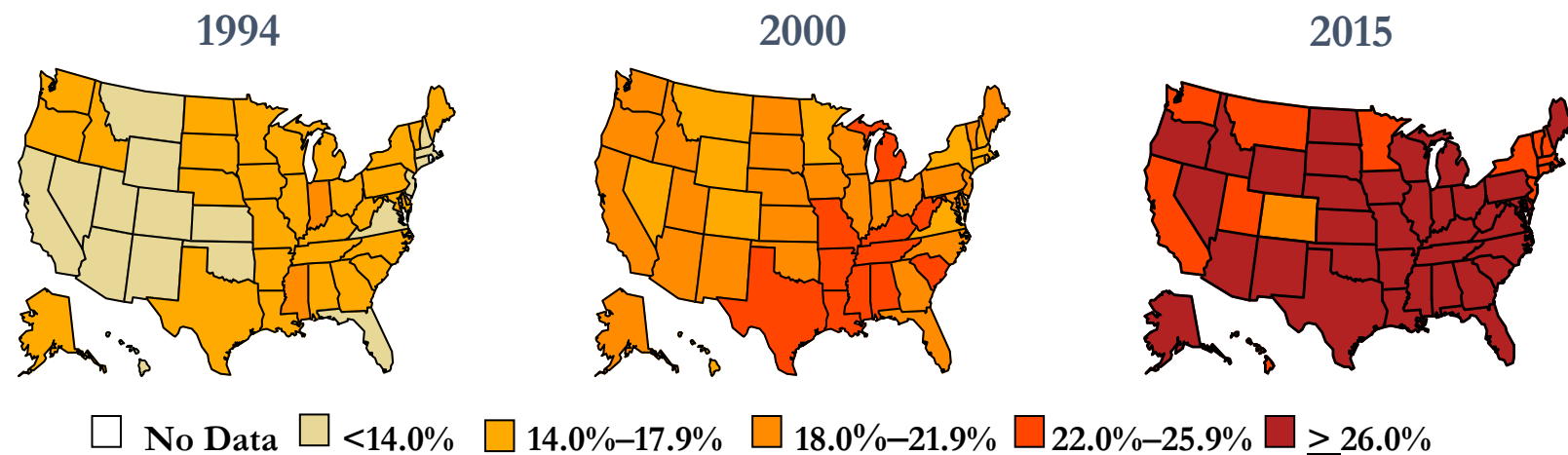
DEFINITION OF HEALTH

“A state of complete **physical, mental**
and **social well-being** and not merely the
absence of disease or infirmity”

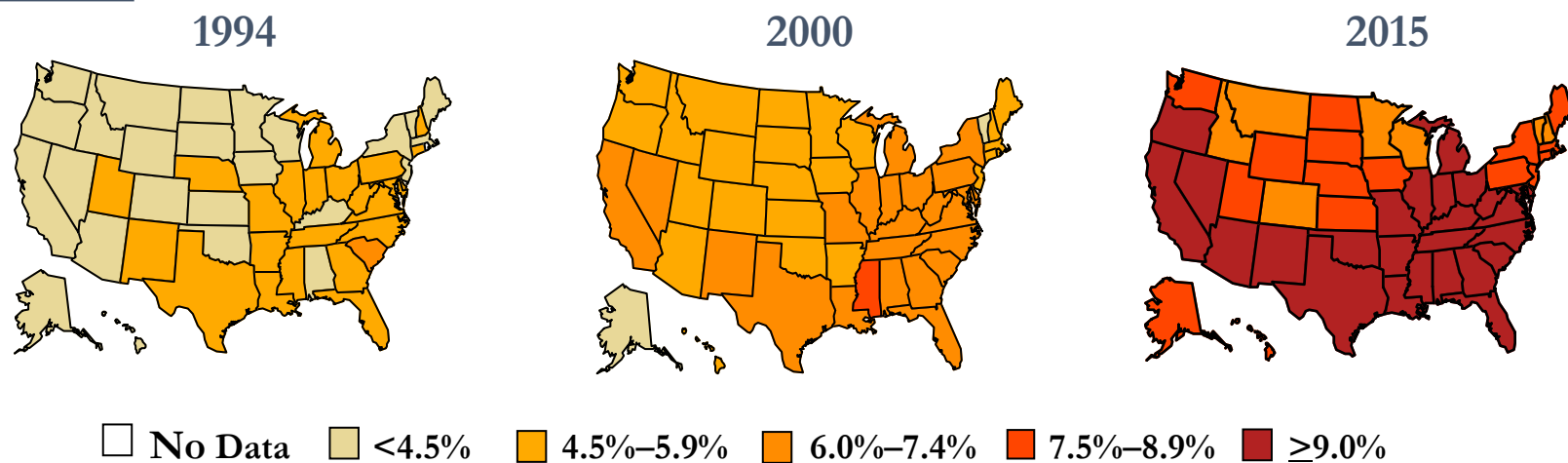
-- World Health Organization (WHO)

DECLINING TRENDS

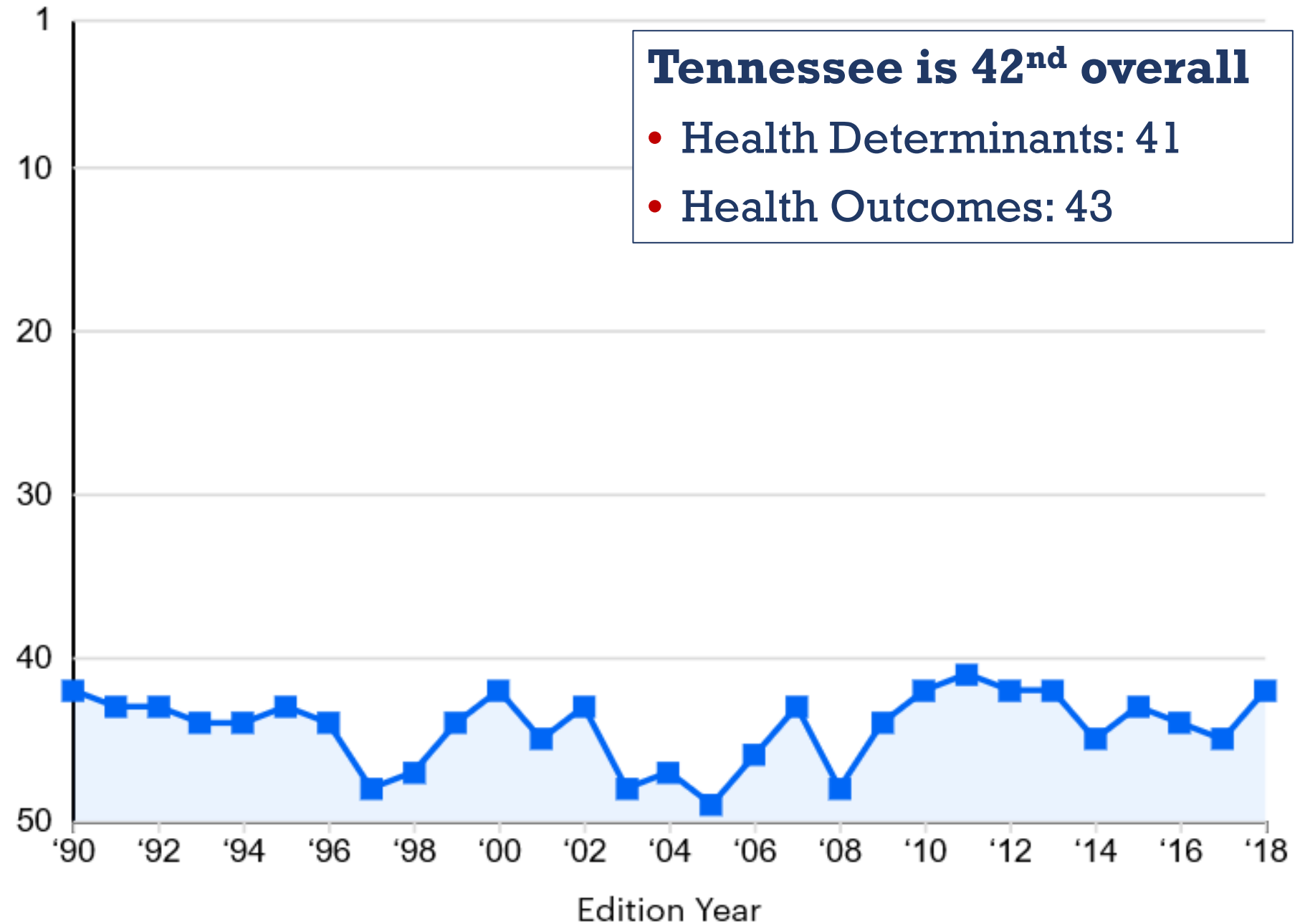
Obesity (BMI ≥ 30 kg/m²)



Diabetes

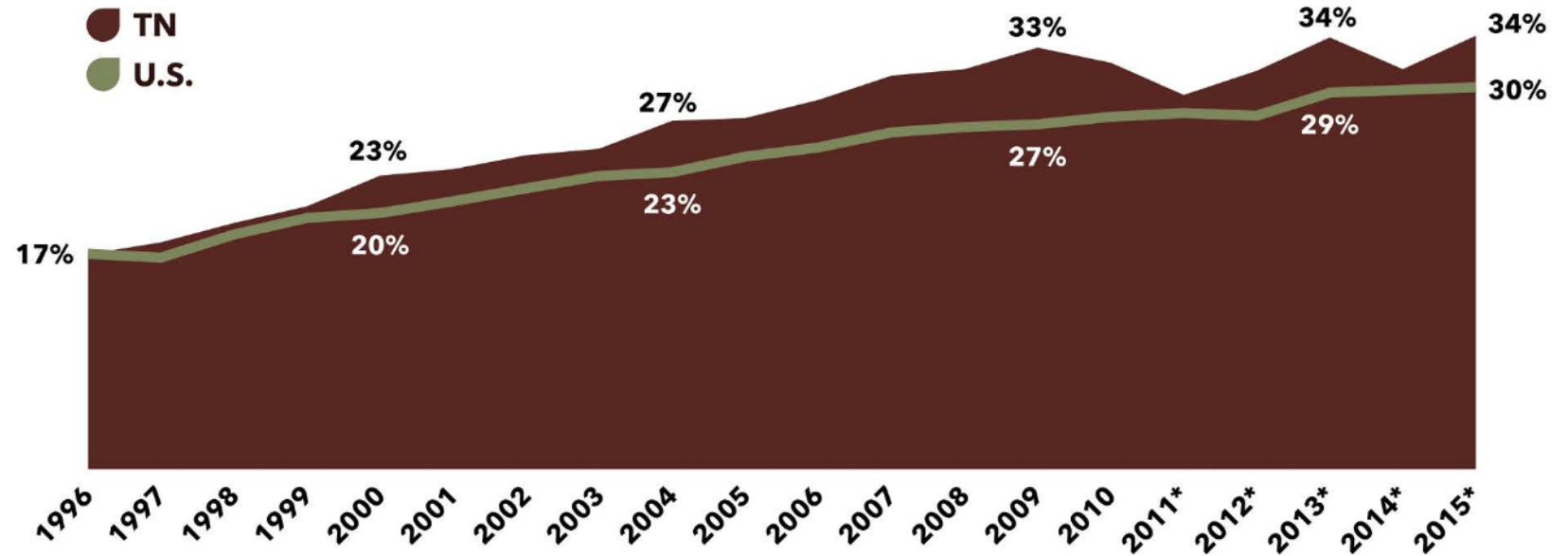


STATE OF OUR STATE

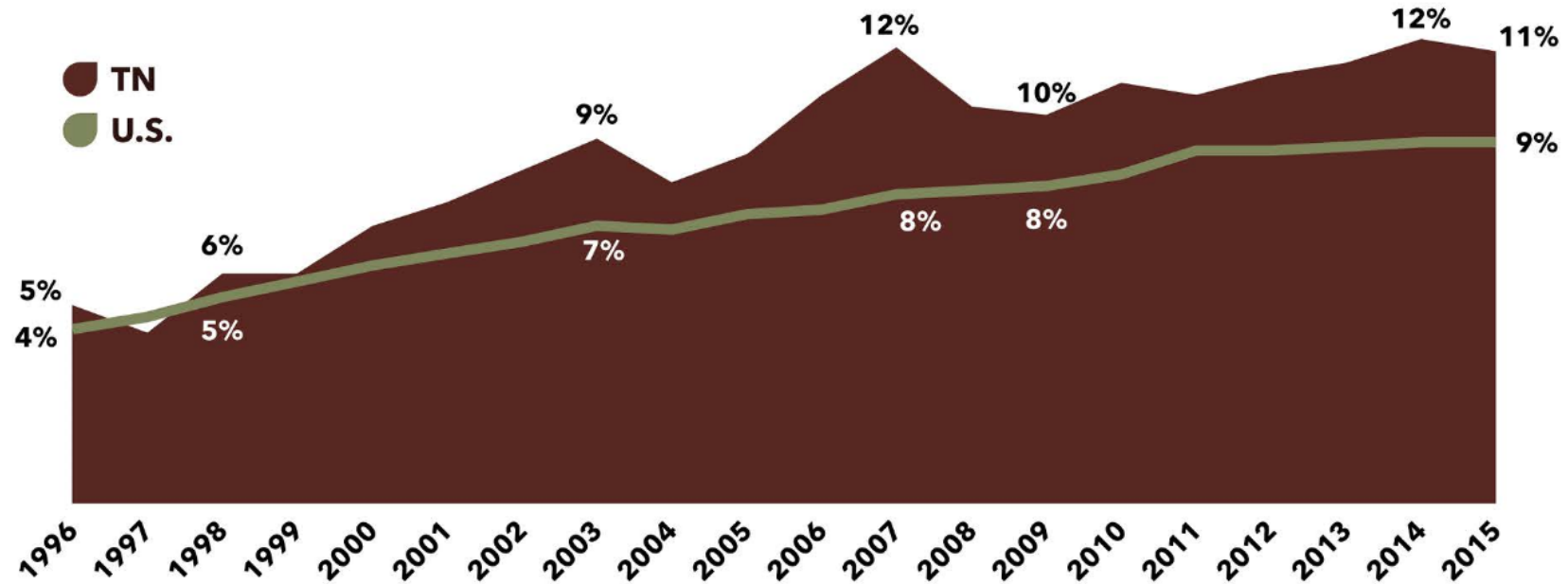


STATE OF OUR STATE

OBESEITY

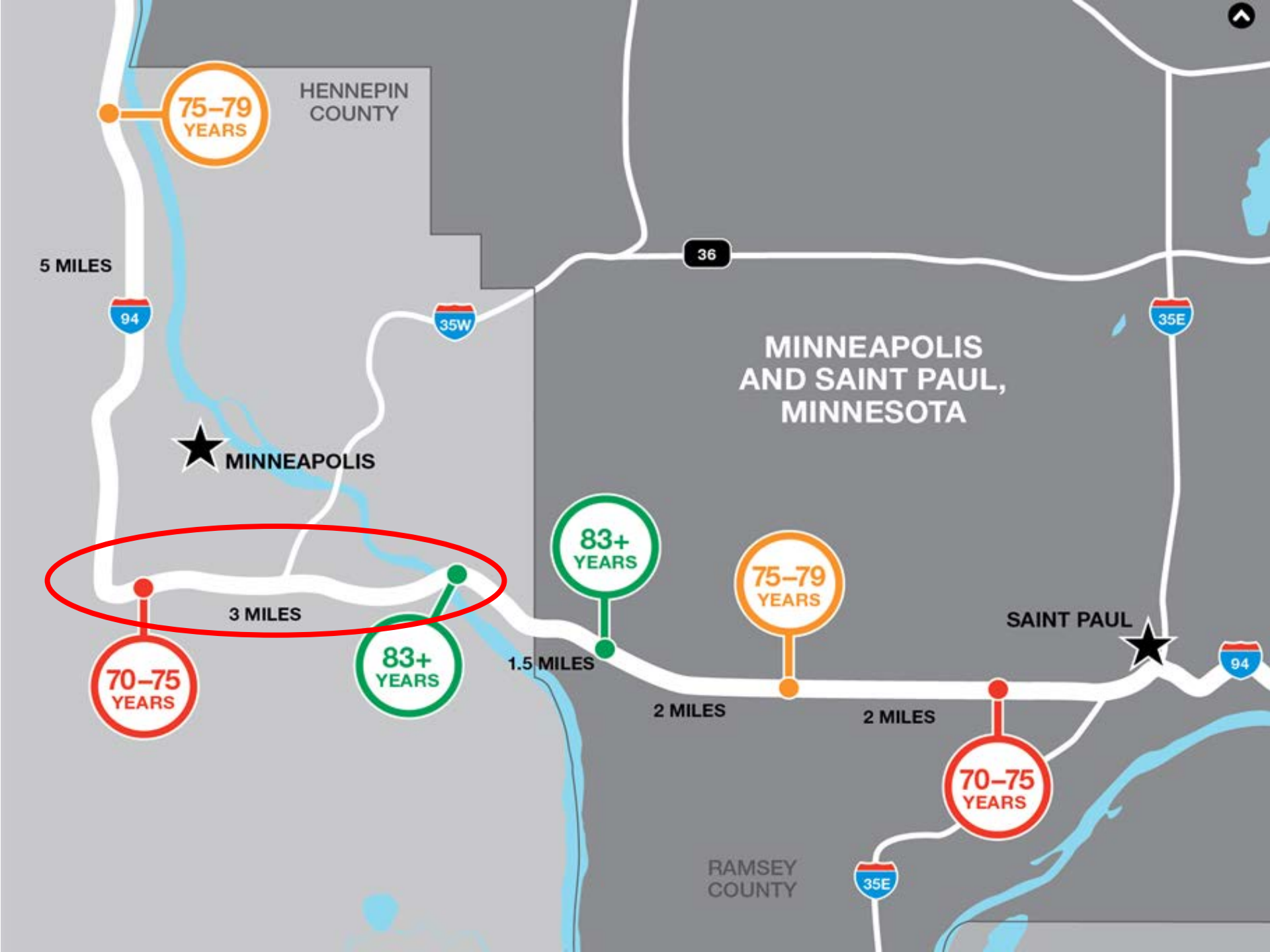


DIABETES

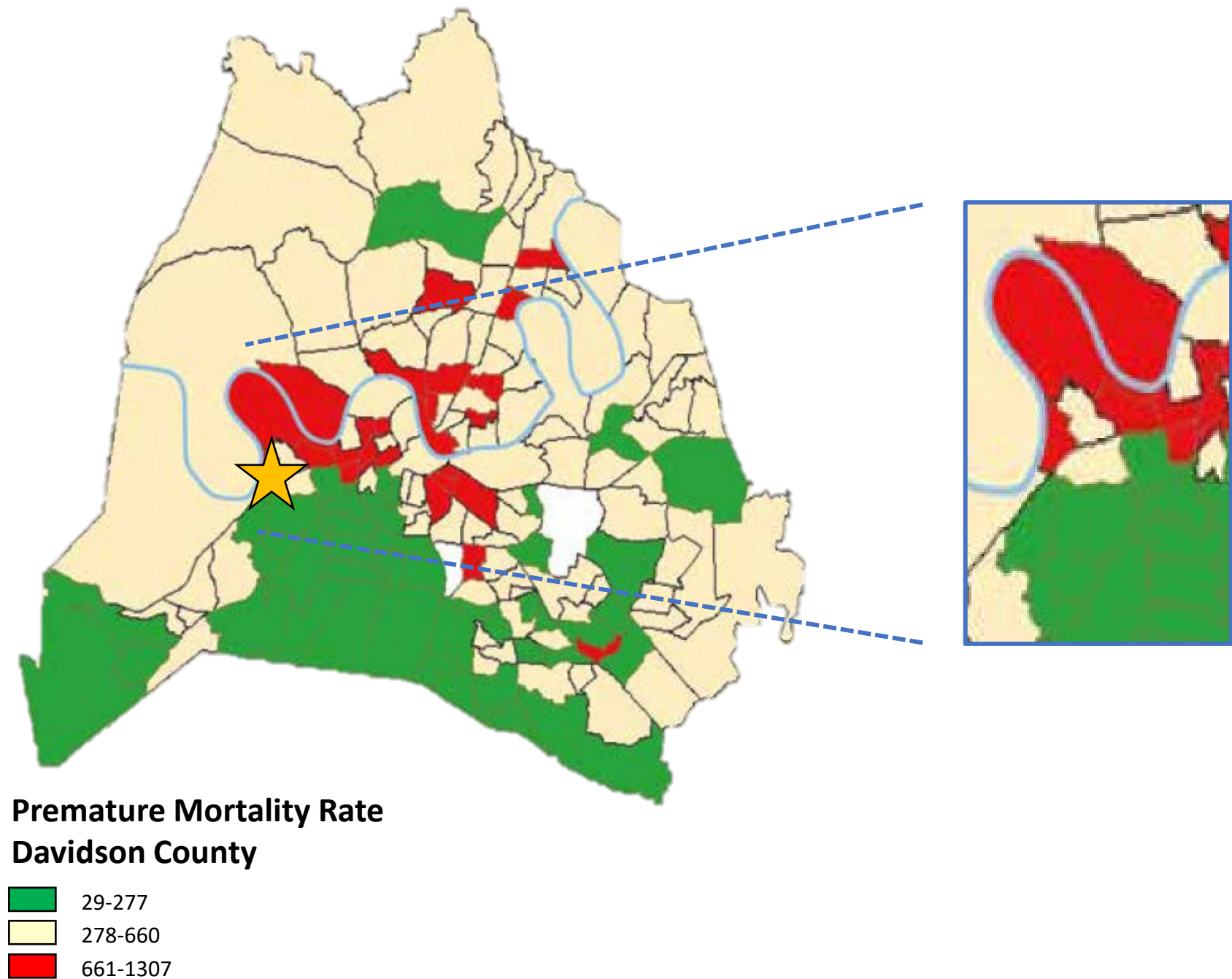


Source: U.S. Centers for Disease Control and Prevention (55)

ZIP CODE >
GENETIC CODE



ZIP CODE >
GENETIC CODE





THE SYCAMORE INSTITUTE

-  Societal Cost of Premature Death
-  Lost Productivity
-  Direct Medical Costs



Diabetes
\$1,036 Million



Hypertension
\$336 Million



Cardiovascular Disease
\$3,898 Million

HEALTH AND
ECONOMICS



PLANNING AND PUBLIC HEALTH

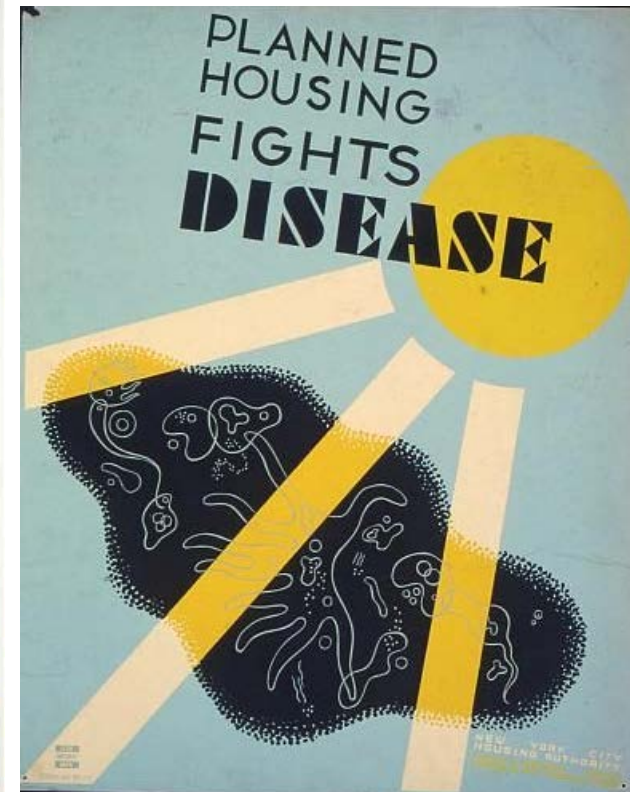
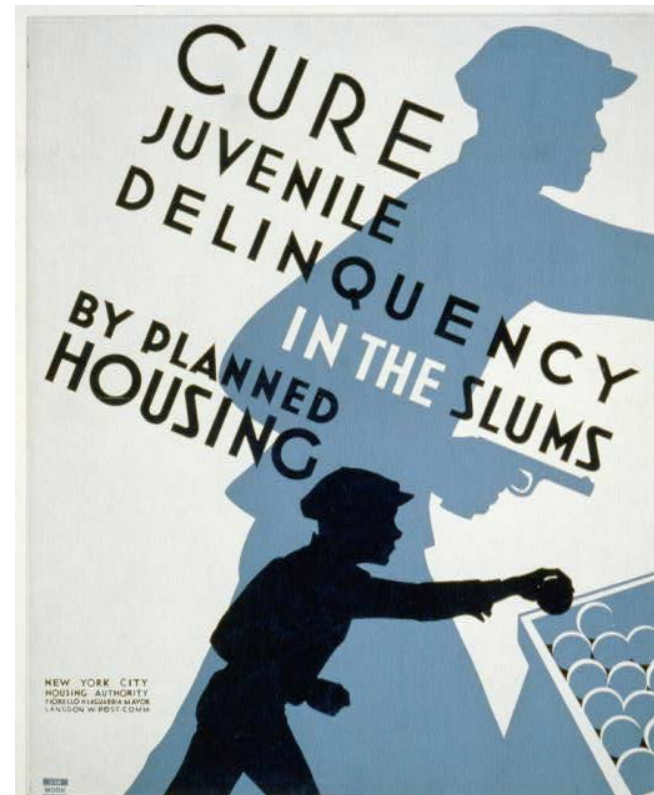
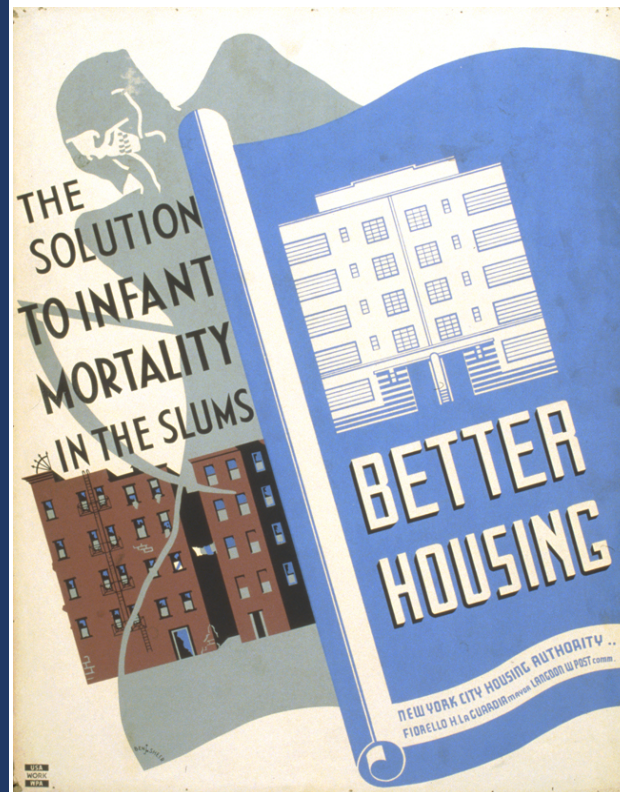
DEFINITION OF PUBLIC HEALTH

“Public Health promotes and protects the health of people and communities where they live, learn, work, and play”

-- American Public Health Association (APHA)

Planning and Public Health were once joined around common goals stemming from rapid urbanization

PLANNING AND PUBLIC HEALTH



SOCIAL DETERMINANTS OF HEALTH

Economic Stability	Neighborhood and Physical Environment	Education	Food	Community and Social Context	Health Care System
Employment Income Expenses Debt Medical bills Support	Housing Transportation Safety Parks Playgrounds Walkability	Literacy Language Early childhood education Vocational training Higher education	Hunger Access to healthy options	Social integration Support systems Community engagement Discrimination	Health coverage Provider availability Provider linguistic and cultural competency Quality of care
Health Outcomes Mortality, Morbidity, Life Expectancy, Health Care Expenditures, Health Status, Functional Limitations					

Source: Kaiser Family Foundation

**SOCIAL
DETERMINANTS
OF HEALTH**

Walkable cities reduce blood pressure and hypertension risk, study finds

Research finds significant link between the walkability of a city and the blood pressure and hypertension risk of the people who live there

The study of around 430,000 people aged between 38 and 73 and living in 22 UK cities found significant associations between the increased walkability of a neighbourhood, lower blood pressure and reduced hypertension risk among its residents.

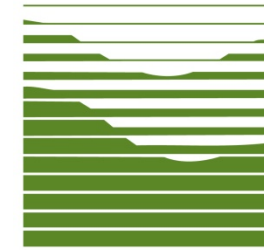
JOINT CALL TO ACTION



**The American
Institute
of Architects**



American Planning Association
Making Great Communities Happen



**AMERICAN
SOCIETY OF
LANDSCAPE
ARCHITECTS**



APHA

AMERICAN PUBLIC HEALTH ASSOCIATION
For science. For action. For health.



NRPA National Recreation
and Park Association
Because everyone deserves a great park



**Urban Land
Institute**

BENEFITS OF PARTNERSHIP

COMMON GOAL:

- Create thriving and desirable communities

STRATEGIC PARTNERSHIP

- Data Collection and Measurement
- Policy Influence
- Funding Opportunities
- Public Engagement



BUILT ENVIRONMENT FACTORS

FACTORS OF A HEALTHY COMMUNITY



NEIGHBORHOOD DESIGN



HOUSING



OPEN SPACE AND PARKS



TRANSPORTATION



WALKABILITY



FOOD RESOURCES



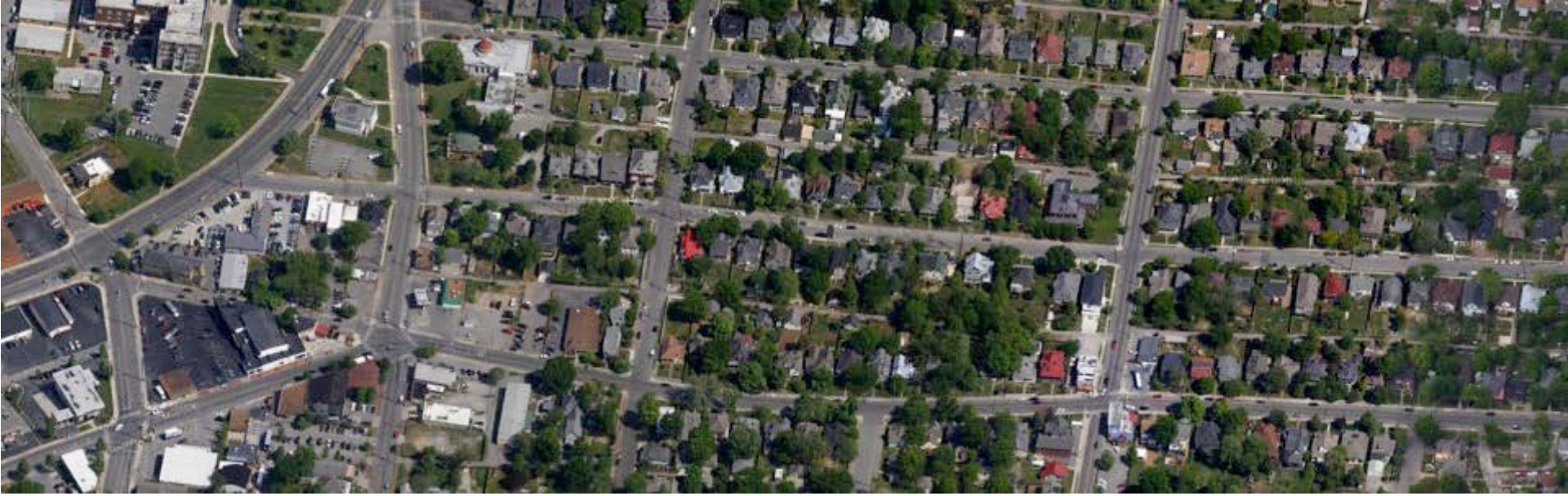
NEIGHBORHOOD DESIGN



NEIGHBORHOOD DESIGN



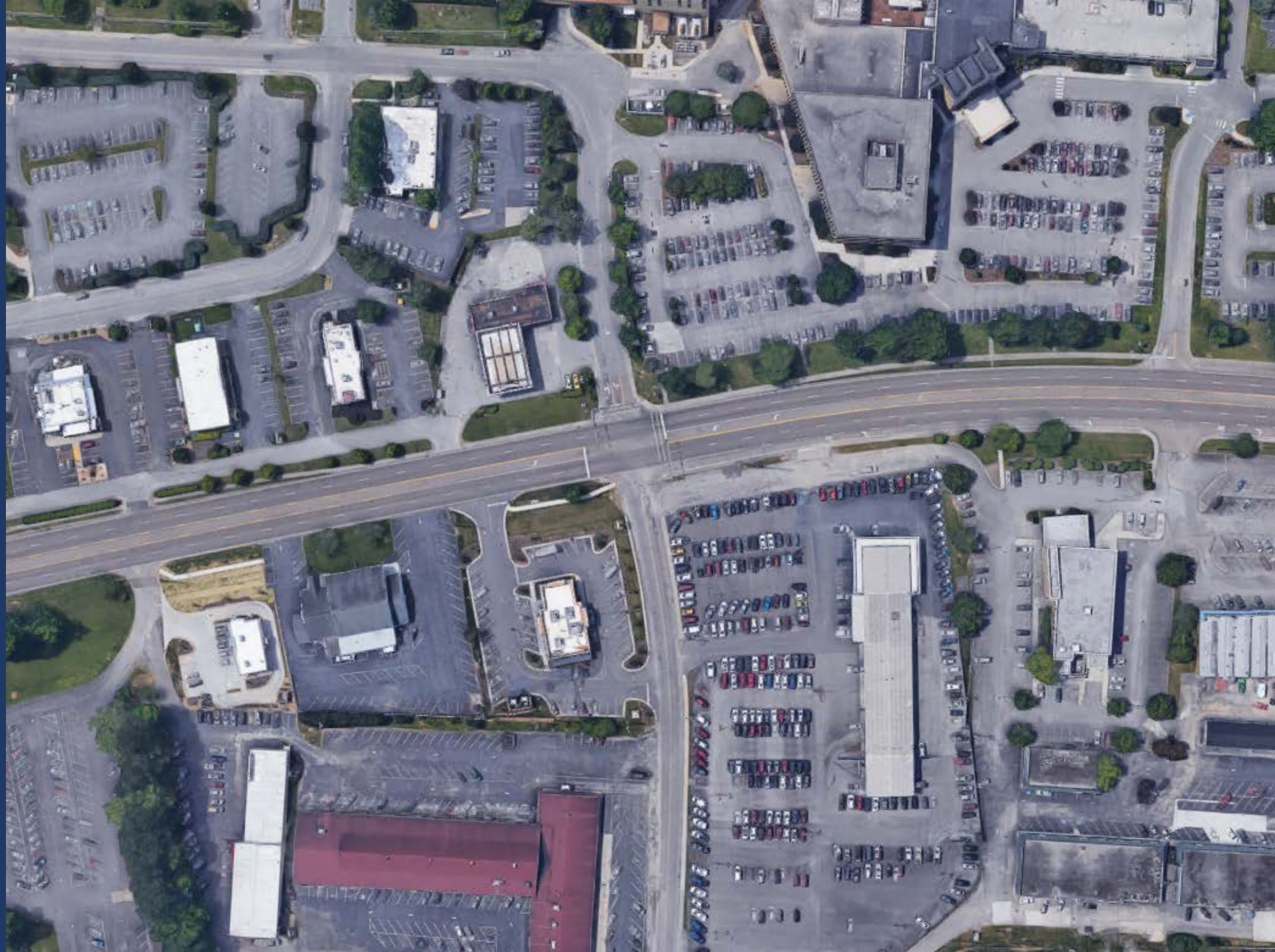
NEIGHBORHOOD DESIGN



NEIGHBORHOOD DESIGN



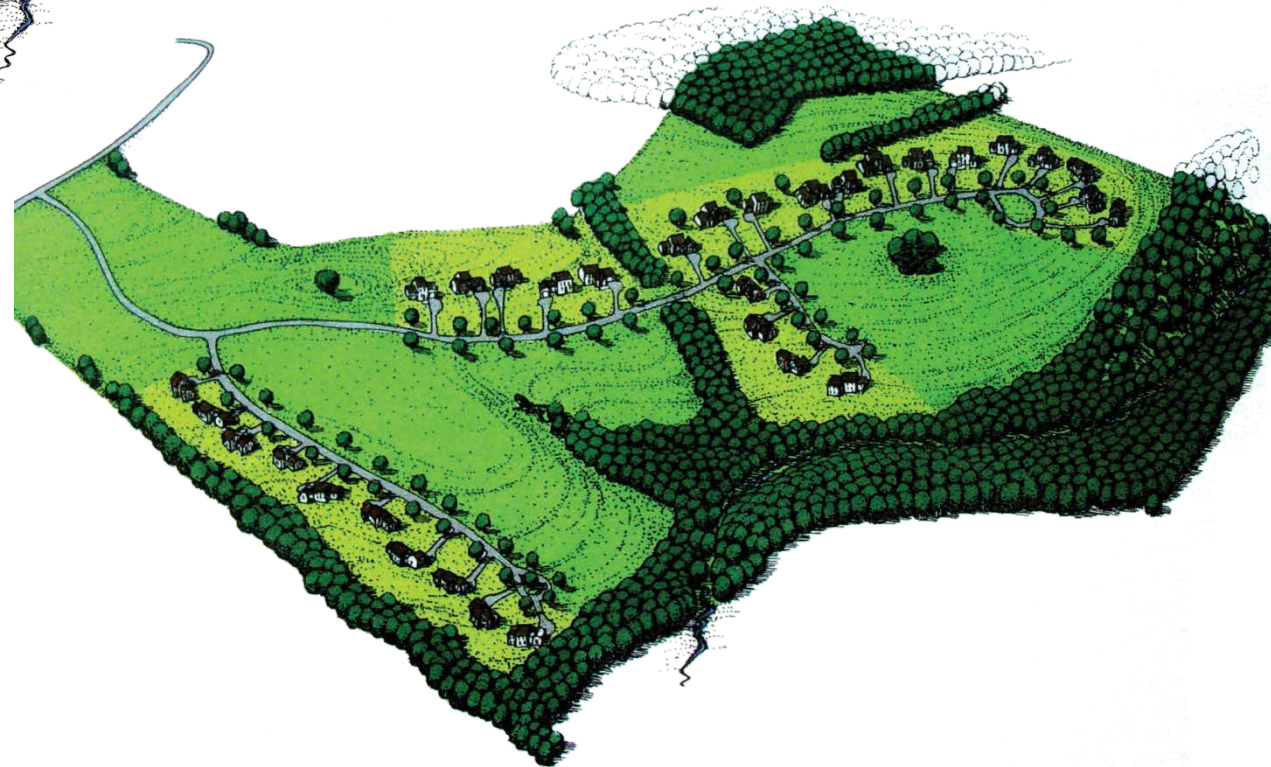
Islands in Seas of Asphalt



NEIGHBORHOOD DESIGN



CONSERVATION DEVELOPMENT



RURAL HAMLET



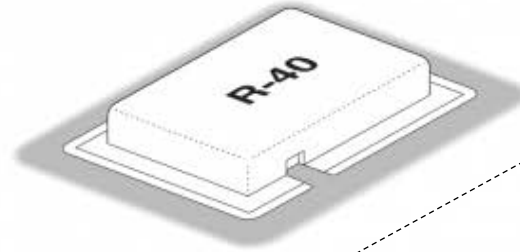
RETROFITTED SUBURBS



FORM BASED CODE

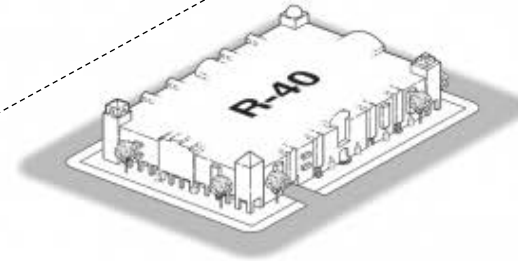
Conventional Zoning

Density use, FAR (floor area ratio), setbacks, parking requirements, maximum building heights specified



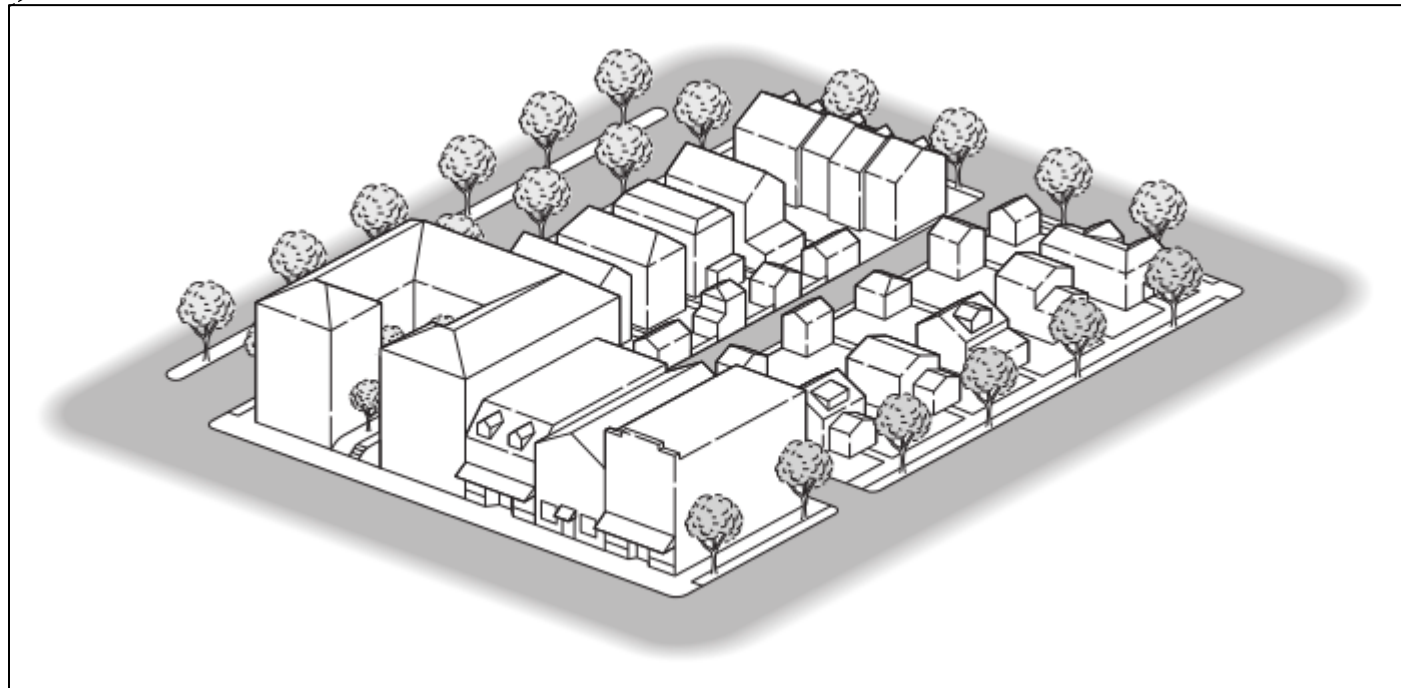
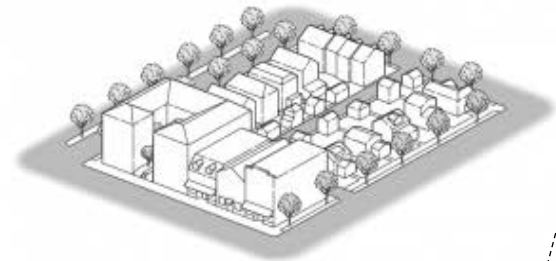
Zoning Design Guidelines

Conventional zoning requirements, plus frequency of openings and surface articulation specified



Form-Based Codes

Street and building types (or mix of types), build-to lines, number of floors, and percentage of built site frontage specified.



DESIGN FEATURES

- **Mixed-use developments and integrated neighborhood zoning**
- **Interconnected and unique commercial centers – *placemaking***
- **Infill development**
- **Grid style street network, with safe and supportive infrastructure**
- **Communities designed at the human scale, with considerations for all users, economics, and transportation types**

NEIGHBORHOOD DESIGN

- **Incentives and zoning for infill development**
- **Adopting innovative zoning approaches**
- **Exploration of strategic zoning overlays or community design guidelines**
- **Encouraging low impact and green infrastructure**
- **Reviewing and minimizing parking minimums**
- **Complete streets policies**

HOUSING



HOUSING



HOUSING AND HEALTH

Permanent, supportive housing can make important contributions to our health.

56%

Reduction in emergency room visits



5x

More money available to spend on health care needs



35%

Greater chance of being classified as a "well" child



8%

Increase in the daily intake of healthy food



1.5M

Dollars saved by shifting seniors to a healthier housing location

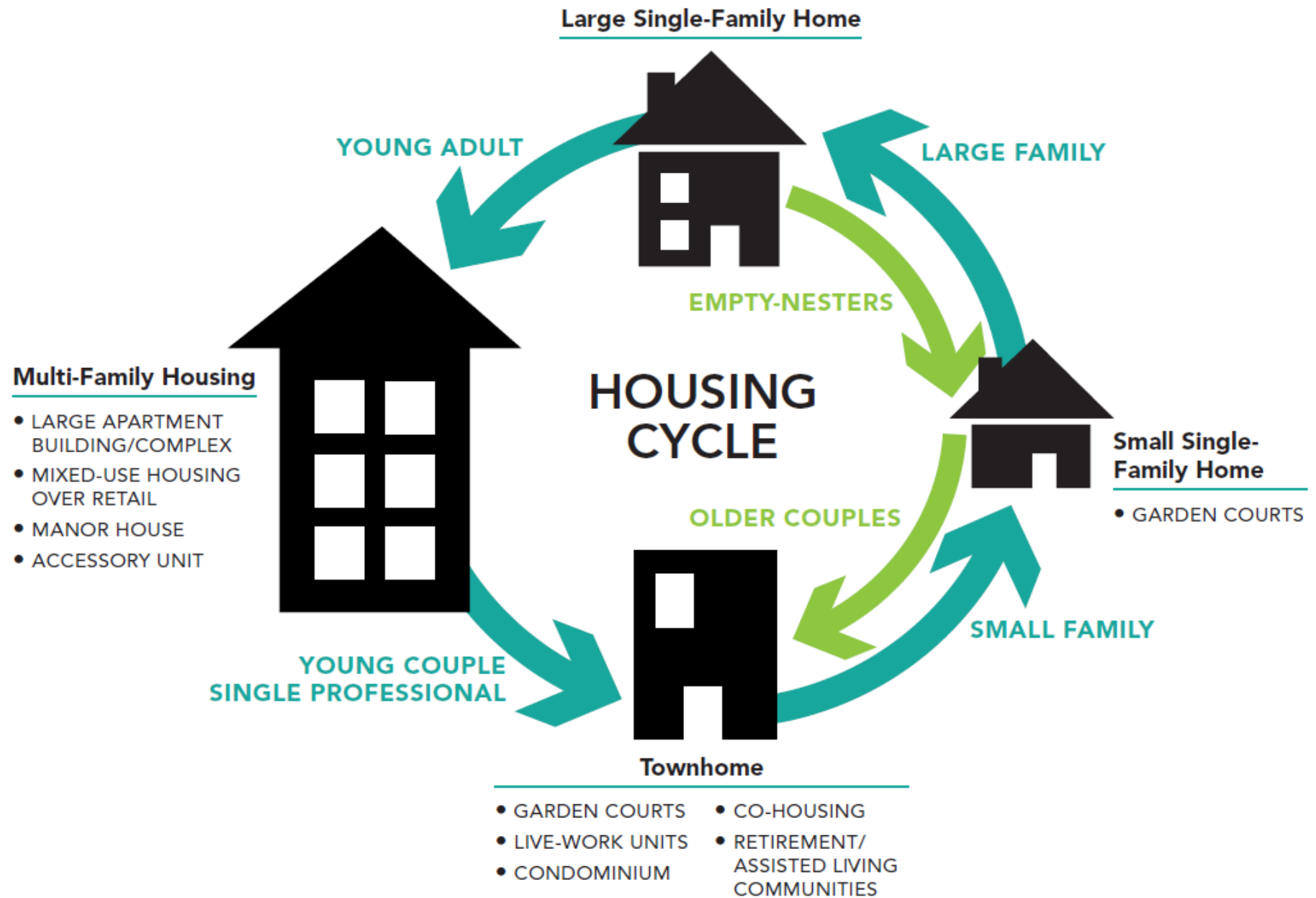


9%

Increase in some form of daily physical activity or exercise



HOUSING CYCLE



“MISSING MIDDLE”



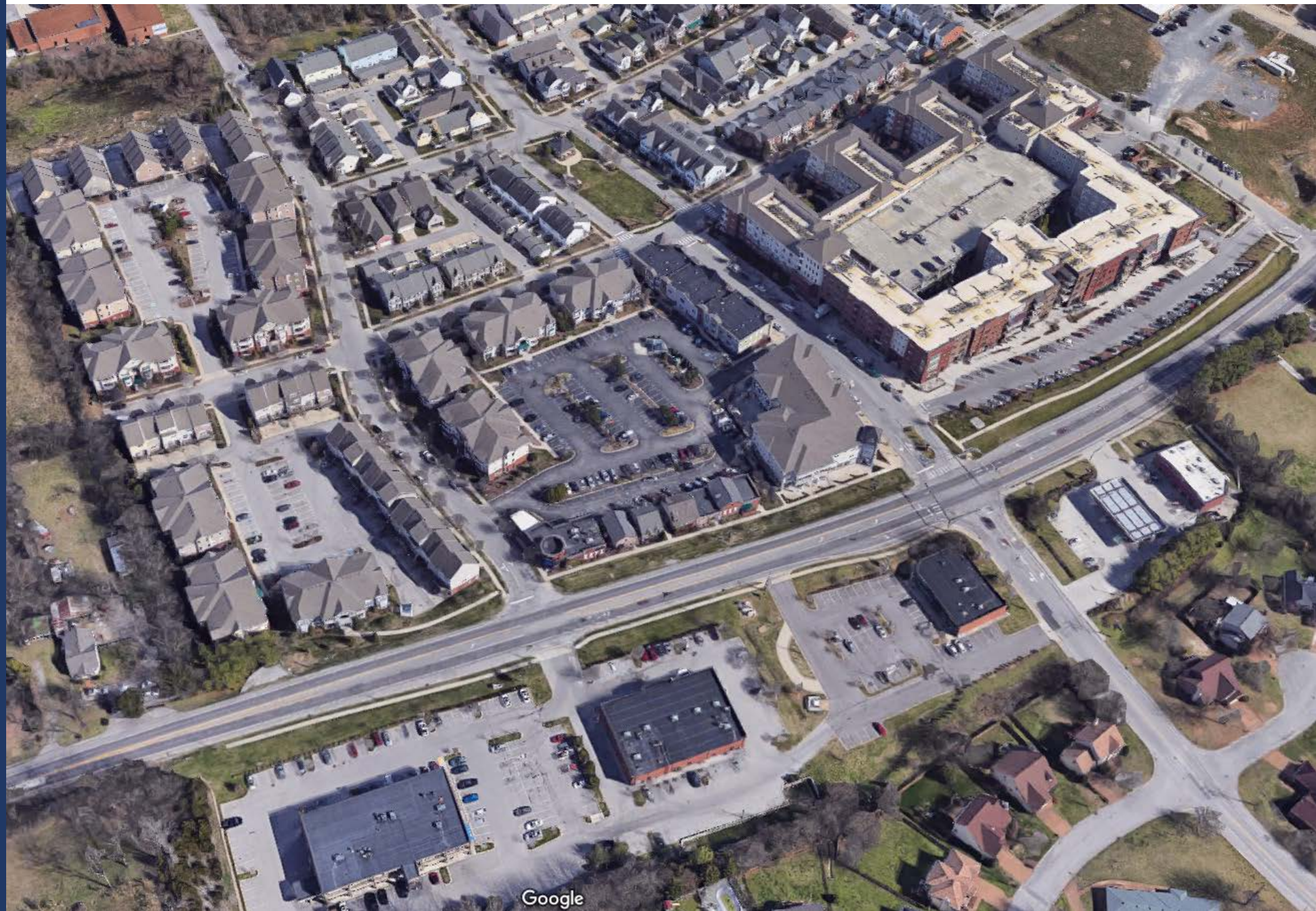
HOUSING DESIGN



LENOX VILLAGE



LENOX VILLAGE



HOUSING

- **Quality housing in both materials and design**
- **Diversity of housing types, prices, and locations**
- **Accessible distance to amenities and services – ½ mi or 20min walk**
- **Accessible distance commercial centers – ½ mi or 20min walk**
- **Consider proximity to pollutants and contaminants**
- **Prioritize development along corridors**

HOUSING

- **Zoning that promotes and encourages multiple uses**
- **Updated and enforced housing codes**
- **Clear process for construction and approval**
- **Housing preservation policies**
- **Inclusionary zoning**
- **Establish land trusts**
- **Create a community “housing plan”**

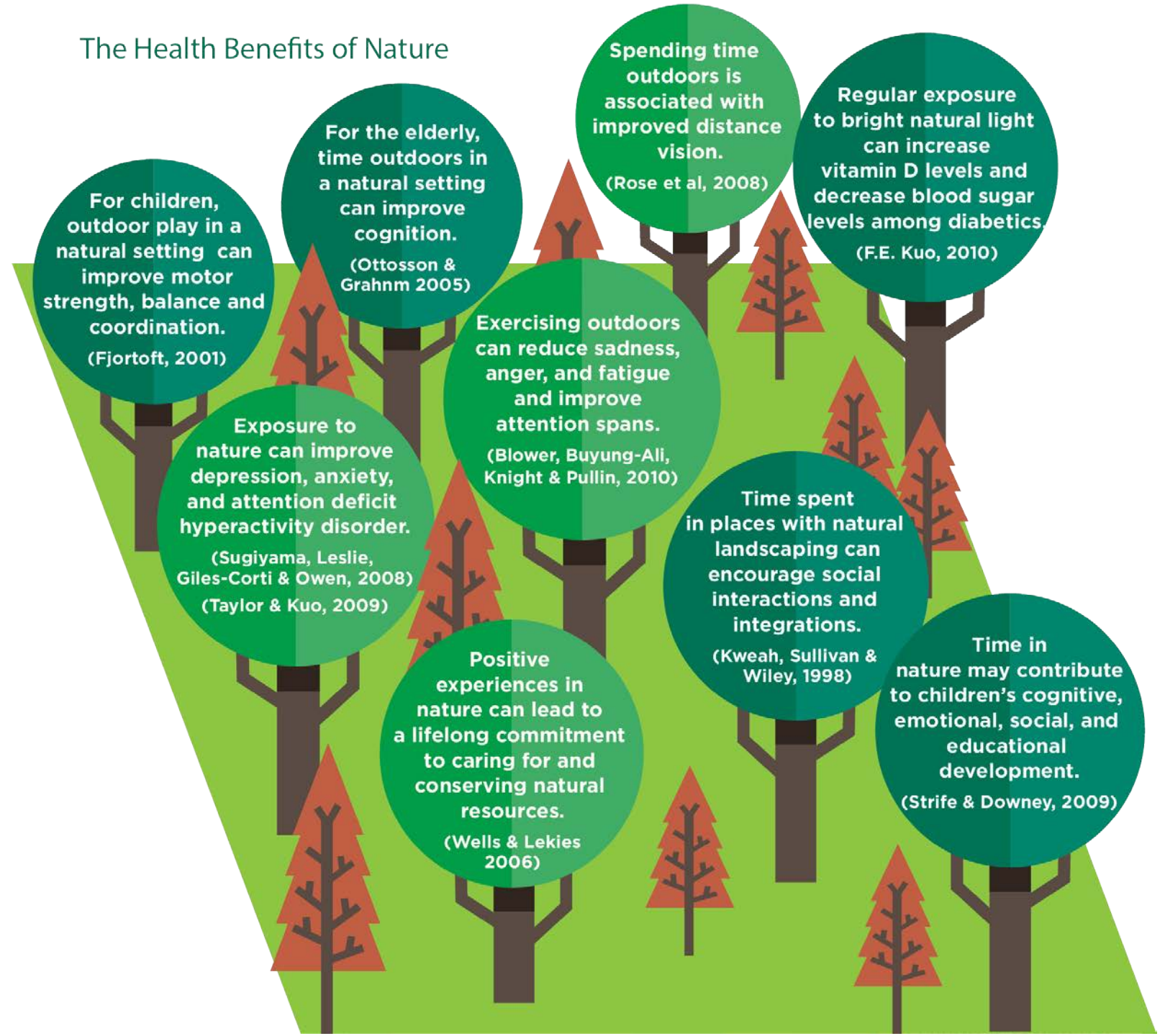
OPEN SPACE AND PARKS



OPEN SPACE AND PARKS

OPEN SPACE AND PARKS

The Health Benefits of Nature



OPEN SPACE AND PARKS



CONNECTIVE PUBLIC SPACES



PARKLETS



PARKLETS



BIOSWALES



615 Gallatin Ave, Nashville, TN 37206



1223 Dickerson Pike, Nashville, TN 37207



Korean Veterans Blvd, Nashville, TN 37203



28th Ave & Charlotte Ave, Nashville, TN 37209

PUBLIC SPACE AND PARKS

- **Accessible open and public spaces within 10min walk from residential areas**
- **Interactive elements, and design that reflect and emphasizes the surrounding context**
- **Public spaces interwoven into business and retail centers, downtowns/main streets - alleys and “pocket parks”**
- **Rain gardens and bioretention ponds that aide in pollutant mitigation**
- **Consider programming and events to encourage usage and quality of services**

PUBLIC SPACE AND PARKS

- **Parks master plan adoption**
- **Public space requirements for certain developments in specific geographies**
- **Legislation requiring investment in parks and public spaces**
- **Business Improvement Districts as method of creating & maintaining public spaces**
- **“Friends” groups to maintain parks and public spaces**
- **Explore public-private partnerships for park development, maintenance, and programming**

TRANSPORTATION



TRANSPORTATION

TRANSPORTATION



TRANSPORTATION AND HEALTH

**Every 60 min in a car per day increases your overall odds of obesity,
if no other counter-actions are taken**

(2017) How transportation impacts public health. The Sycamore Institute. Nashville: TN

**Motor vehicle crashes are the leading cause of death
for people between the ages of 1-34**

(2016) American Community Survey

**TN has nearly twice the rate of motor vehicle crash deaths
than the US average**

(2017) How transportation impacts public health. The Sycamore Institute. Nashville: TN

**Average vehicle crash reductions resulting from complete streets
and traffic calming measures**

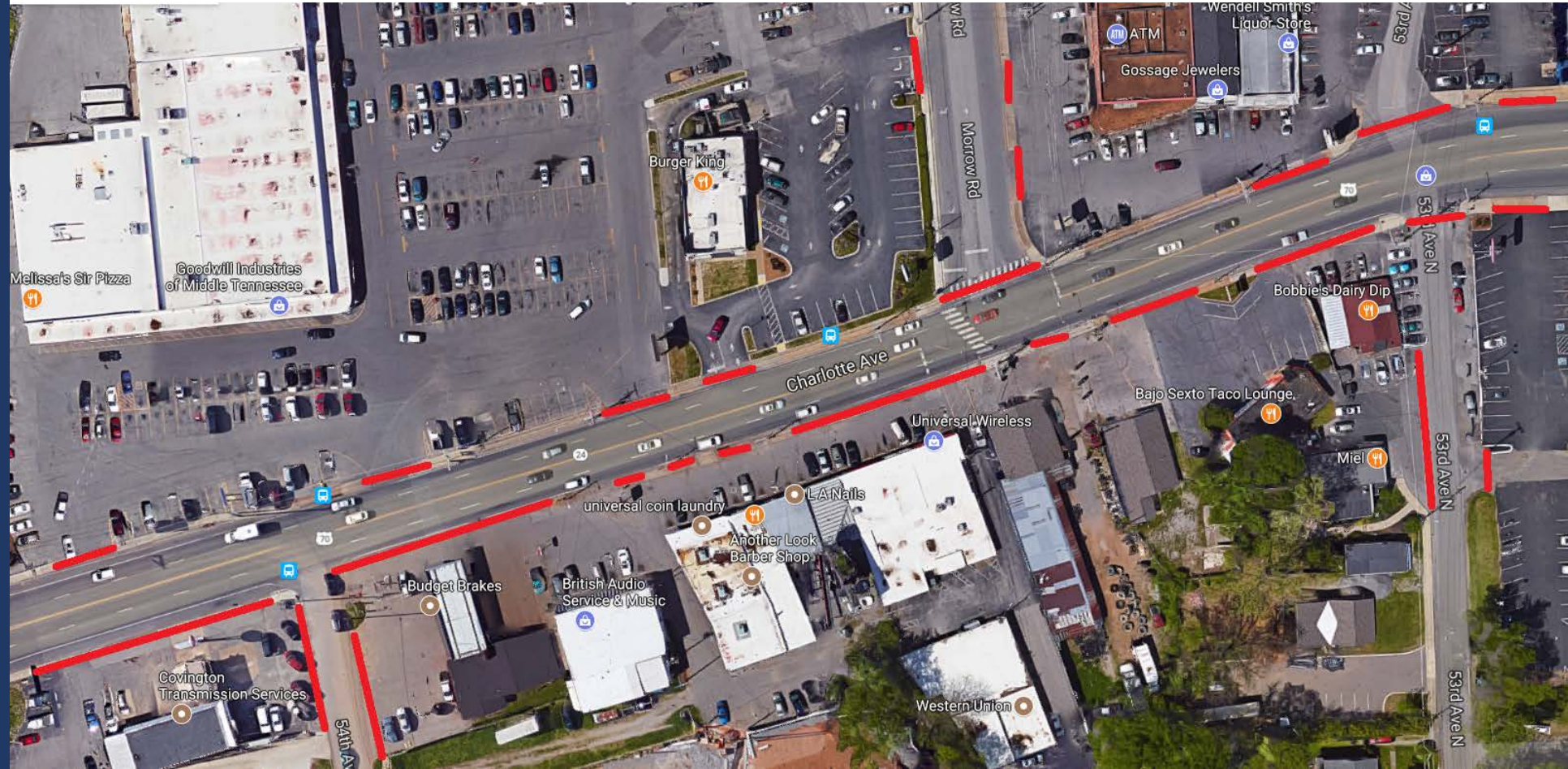
25%

Residential Areas

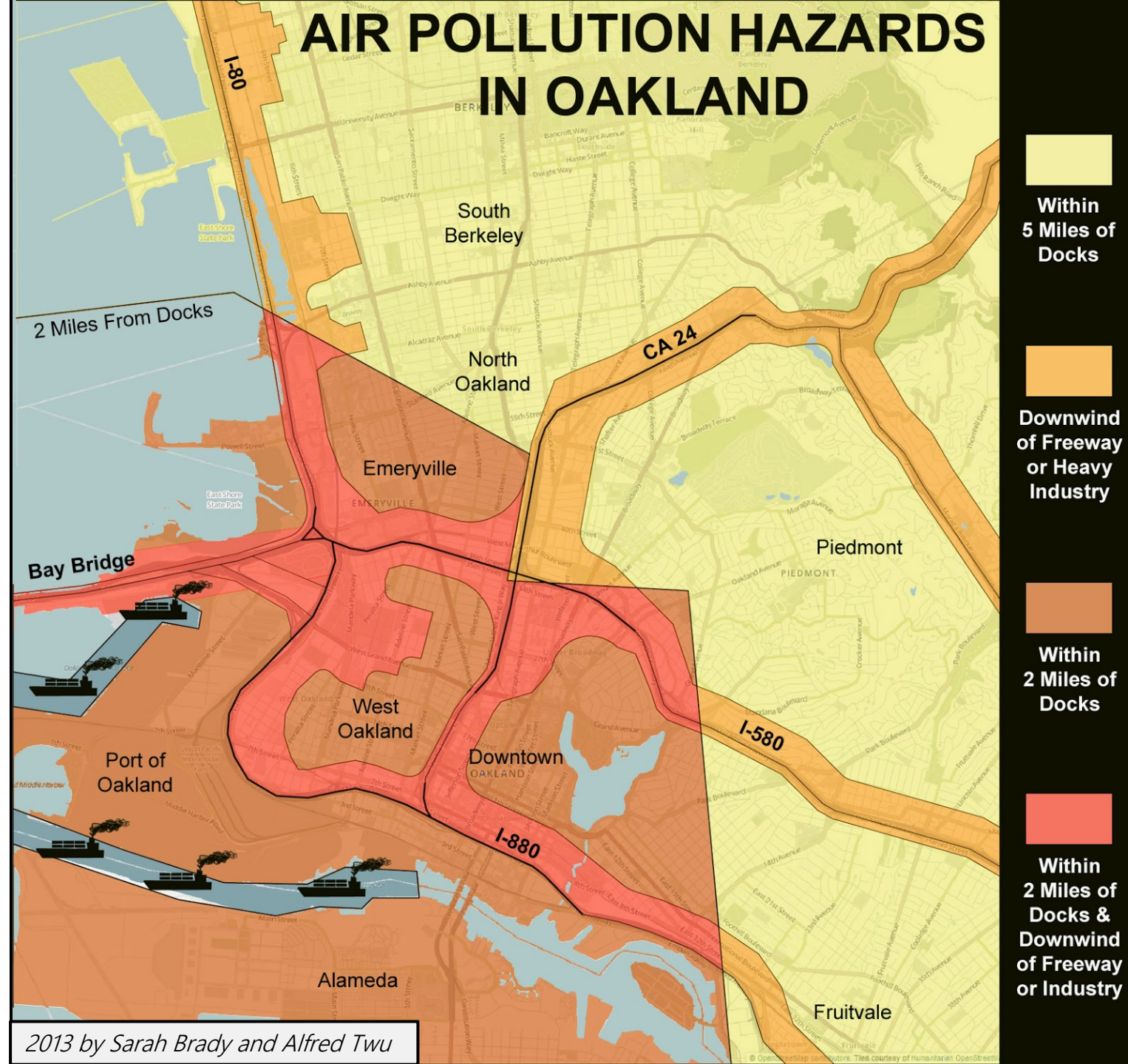
10%

Arterials/Corridors

ACCESS



AIR QUALITY



COMPLETE STREETS



COMPLETE STREETS



CONNECTIVITY



TRANSPORTATION

- **Connective and safe transportation infrastructure including roadways, trails, and public transit**
- **Public transit stations located within ~1/2 mile from residential areas, connected to major business/retail centers**
- **Complete streets that accommodate all forms of travelers**
- **Creative placemaking incorporated into transportation design**
- **Connected network of trails and paths**
- **Development prioritized around centers and connective transit**

TRANSPORTATION

- **Complete Streets policy adoption - “Road Buffet”**
- **Legislation prioritizing bike and pedestrian investments**
- **Transit Oriented Development**
- **Transportation demand management**
- **Review parking requirements and parking minimums**
- **Institute a traffic calming program**

WALKABILITY



WALKABILITY

FACTORS OF A HEALTHY COMMUNITY

Walkable cities reduce blood pressure and hypertension risk, study finds

Research finds significant link between the walkability of a city and the blood pressure and hypertension risk of the people who live there

The study of around 430,000 people aged between 38 and 73 and living in 22 UK cities found significant associations between the increased walkability of a neighbourhood, lower blood pressure and reduced hypertension risk among its residents.

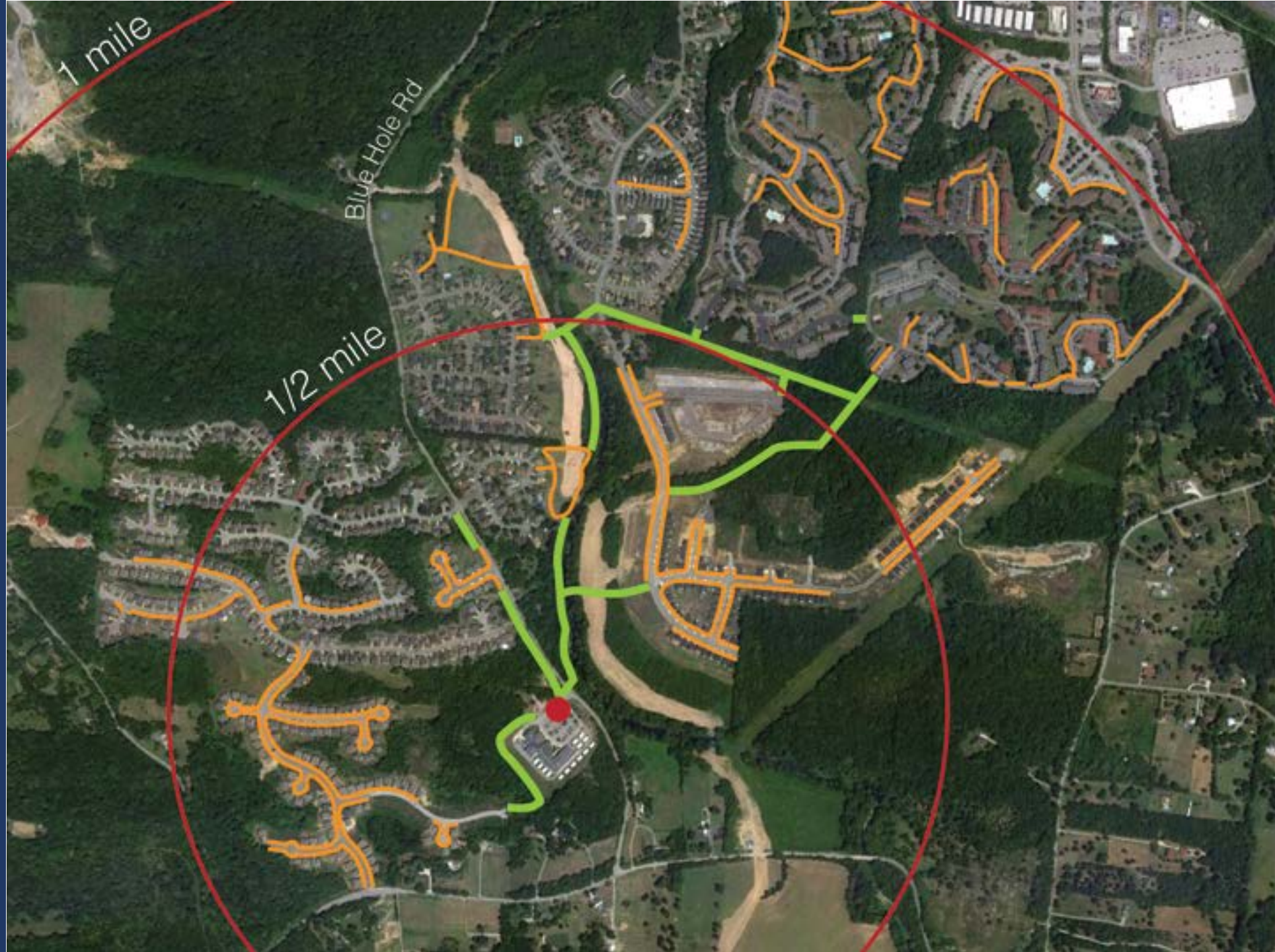
WALKABILITY



WALKABILITY



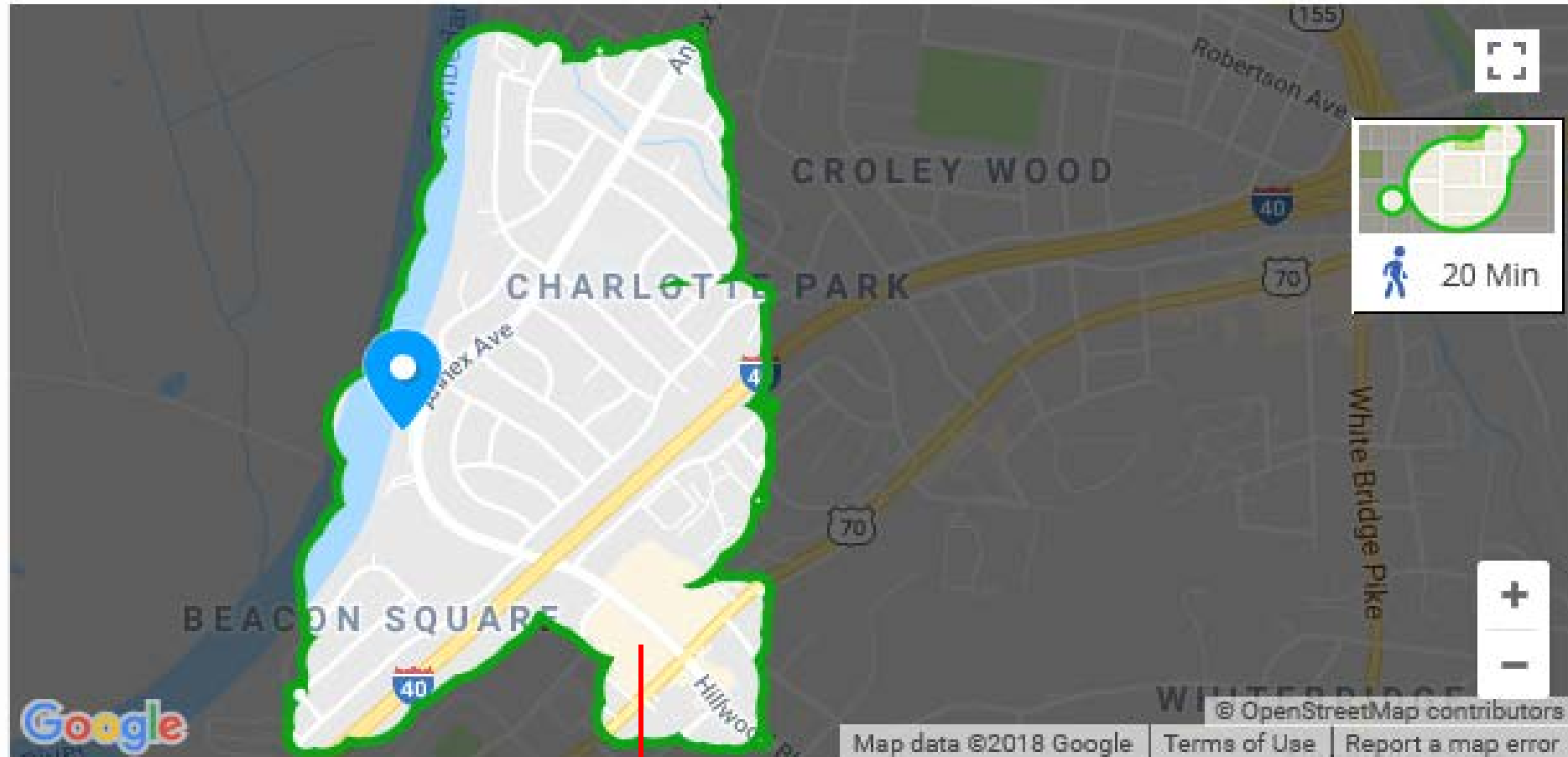
WALKING RADIUS



Travel Time Map

[Add to your site](#)

Explore how far you can travel by car, bus, bike and foot from 411 Annex Ave.



20 MIN WALKING
DISTANCE

Restaurants, retail, commercial
Edge of 20min "zone"

WALKABILITY

- **Protected and unobstructed network of sidewalks and trails**
- **Paths cognizant of elevation changes and surrounding context – *placemaking and attractive features***
- **Connectivity of amenities/business/retail to residential areas**
- **Combined land uses with parks/greenways for linear green spaces**
- **Density that provides multiple destinations**

WALKABILITY

- **Pedestrian “master plan” adoption**
- **Zoning that encourages density and multiple uses**
- **Complete streets policy adoption**
- **Vision Zero adoption**
- **Legislation prioritizing pedestrian infrastructure investments**
- **Legislation requiring sidewalk construction for new/renovated developments fitting certain parameters**

FOOD RESOURCES



FOOD RESOURCES

FOOD RESOURCES

Access to Healthy Food and Why It Matters:

A Review of the Research



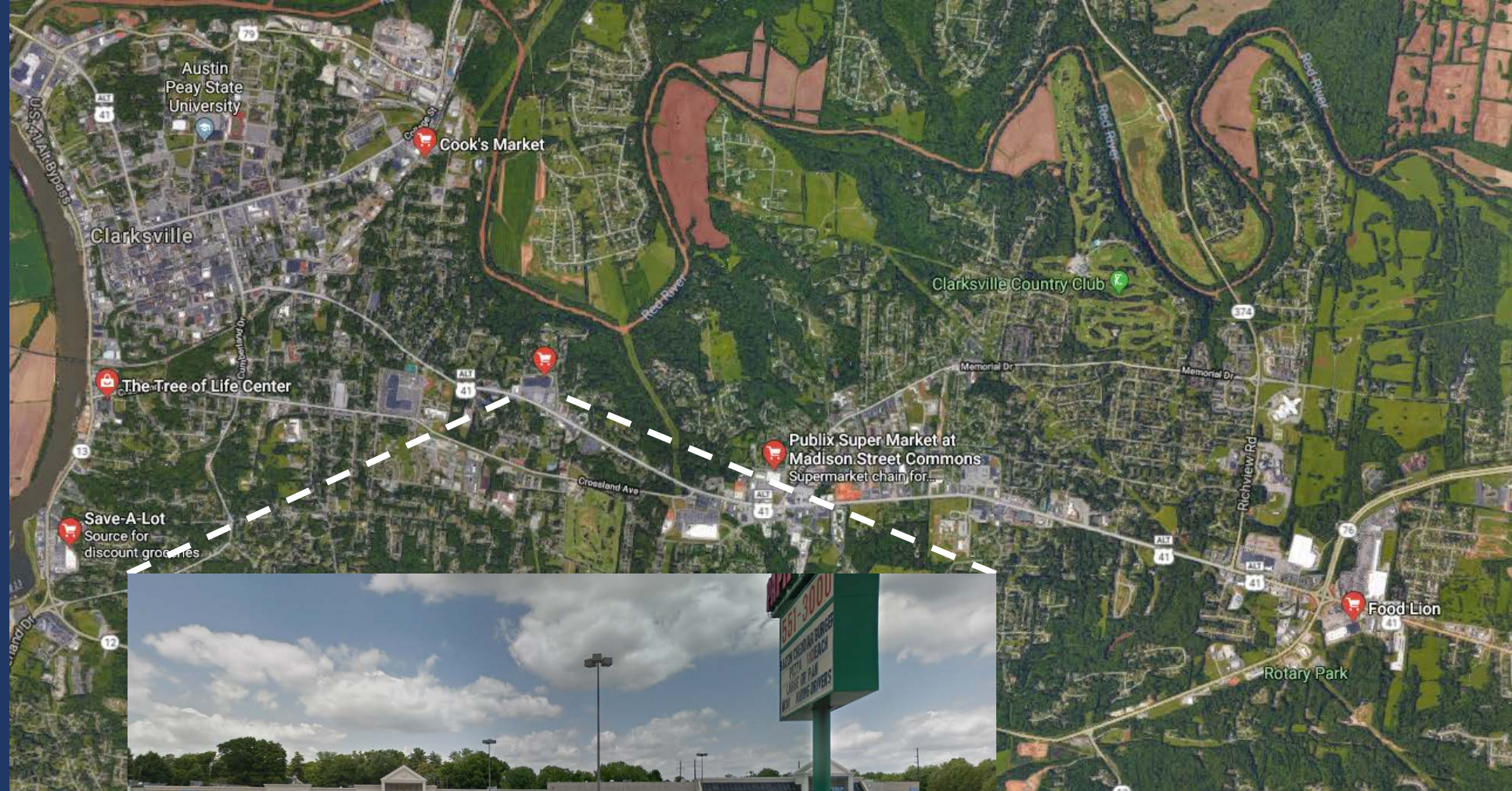
FOOD STORES



CREATIVE FOOD ACCESS



FOOD ACCESS



FOOD RESOURCES

- **Prioritize food store locations within short and accessible travel distance from residential areas**
- **Promote corner stores in denser residential neighborhoods**
- **Connective sidewalks and trails to food stores**
- **Encourage farmers markets and gardens in accessible, attractive, public gathering places**
- **Mixed use development leveraged for food stores**
- **CSA, Co-Op's, or local gardens**

FOOD RESOURCES

- **Explore policies and code barriers for local/residential farming (i.e. allowing community gardens by right in residential districts)**
- **Reconsider grocery store access, design, and location**
- **Exploration of policies that encourage farmers markets**
- **Zoning that allows for inclusion of food stores**
- **Establish “Food-Hubs”**
- **Pursuit of Agritourism**

ADDITIONAL CONSIDERATIONS

- **Measurements & Data**
- **Intentionality and Good Design**
- **Partnerships**
- **Programming**



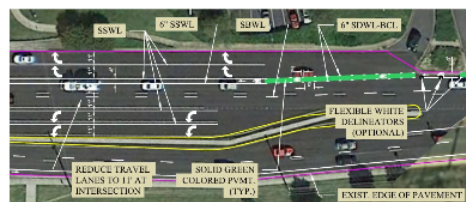
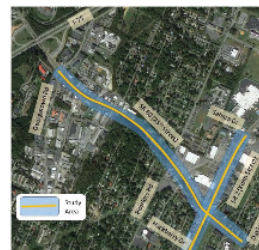
ADDITIONAL RESOURCES

CASE STUDY

Bike & Pedestrian Safety Assessment

The Bike and Pedestrian Safety Assessment was a follow-up to a similar 2015 study conducted in Nashville, TN. These studies examine existing bike and pedestrian infrastructure with actual usage, contrasting with recommended adaptations. The Assessment also builds upon the 2008 Cleveland Bike and Pedestrian Master plan that outlined sidewalk and pedestrian accommodation needs, and with the Cleveland Area MPO Regional Transportation Plan created in 2016.

The Assessment focused on a portion of State Route 60 and State Route 2, including their intersection, to determine current safety and offer recommendations to improve upon user safety. Findings from the Assessment are intended to assist and inform future safety assessments and master plans. The study team followed an eight step review process, consistent with the 2012 Federal Highway Administration's Bicycle Roadway Safety Audit Guidelines. The Guidelines intend to provide a consistent and uniform method of safety reviews, and can be read [here](#). Cleveland's full bike and pedestrian plan, including funding details, can be found [here](#).



Suggested Improvements: ICleveland Bike & Pedestrian Safety Assessment

Multi-Phase Approach

- Review of previous studies and reports
- Study of traffic volume, patterns, crash data, and existing infrastructure
- Field reviews
- Participant suggestions
- Suggested improvements



Return on Investment Toolkit



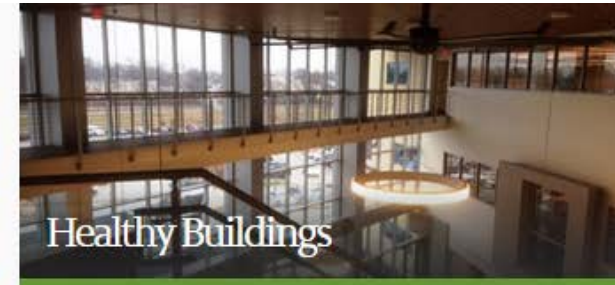
ADDITIONAL RESOURCES



Active transportation is getting around using human energy such as walking or biking. Active transportation benefits health from increased physical activity and reduced chronic disease. People like to choose whether they walk, bike, ride



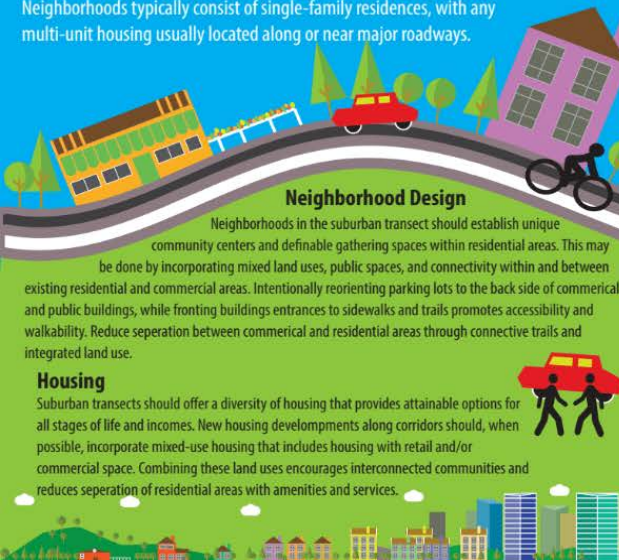
The ways we choose to use our land impacts our health. The planning, development and preservation of land can be done in ways that benefit our health and wellness. We can design buildings and create spaces to promote people's



Americans spend a majority of their time indoors. It is important the buildings people live, work, learn, and worship in are designed, built and maintained to promote health and safety. Learn about healthy homes, public

Suburban Transect

The suburban transect is marked by low to moderate development, and seperated land uses. Denser commercial areas are often located along major cooridors and strip malls away from residential areas. Most suburban transects are car-centric commuter communities, with little or no public transportation, and road networks that generally aren't conducive to pedestrian travel. Neighborhoods typically consist of single-family residences, with any multi-unit housing usually located along or near major roadways.



Neighborhood Design

Neighborhoods in the suburban transect should establish unique community centers and definable gathering spaces within residential areas. This may be done by incorporating mixed land uses, public spaces, and connectivity within and between existing residential and commercial areas. Intentionally reorienting parking lots to the back side of commercial and public buildings, while fronting buildings entrances to sidewalks and trails promotes accessibility and walkability. Reduce separation between commercial and residential areas through connective trails and integrated land use.

Housing

Suburban transects should offer a diversity of housing that provides attainable options for all stages of life and incomes. New housing developmpments along corridors should, when possible, incorporate mixed-use housing that includes housing with retail and/or commercial space. Combining these land uses encourages interconnected communities and reduces seperation of residential areas with amenities and services.

Transportation

Connecting existing or new bike and pedestrian infrastructure creates connectivity and access to amenities and services typically not accessible to pedestrian or bicyclists. Limiting vehicle access points to primary cooridors and integrating more cross streets, reduces congestion and accidents while streamlining traffic patterns. Adopting complete streets policies along major roadways calms traffic while offering safer pedestrian travel opportunities.

Food Resources

Food stores within the suburban transect should be located in short, accessible travel distances from residential areas. Recognizing that not all residents may have access to vehicles, locating food stores near or on public transit routes should be prioritized. Similarly, encouraging local corner stores within residential areas increases access.

Walkability

Suburban walkability can be encouraged through complete streets, sidewalk and trail creation, and integrated land use. Encouraging pedestrian infrastructure, particularly within and between existing amenities and services, can be coupled with fronting buildings to sidewalks and roadways.

Open Spaces and Parks

Suburban open space and parks can be interwoven into existing residential and commercial spaces through miniature parklets and plazas. Similarly, pursuing infill development throughout existing suburban spaces preserves greenspace and reduces sprawl - an idea known as *retrofitting the suburbs*.

Design Features



2013 Nashville Civic Design Center

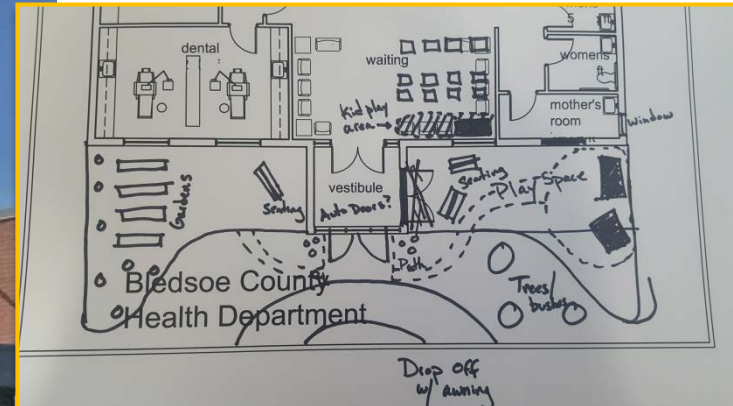
Lack of safe pedestrian infrastructure, like this corridor, is an unfortunately common suburban design feature. This lack of infrastructure decreases accessibility and increases safety hazards for people without access to a personal vehicle.



2013 Nashville Civic Design Center

A standard suburban neighborhood design. Residential units are often the sole use of a neighborhood, with the only option for transportation being a car. Notice too that each road ends in an unconnected cul-de-sac, with each funneling into a one access road.

ADDITIONAL RESOURCES



ADDITIONAL RESOURCES

Healthy Development Coordinators

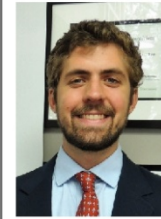
Tennessee Department of Health



Northeast
Ashley Davies
ashley.e.davies@tn.gov
423.979.4648



West
Tim King
tim.king@tn.gov
731.884.2645



Upper Cumberland
Kurt Heischmidt
kurt.heischmidt@tn.gov
931.528.7531



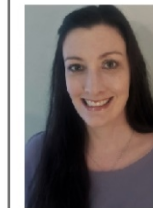
East
Cameron Taylor
cameron.taylor@tn.gov
865.549.5317



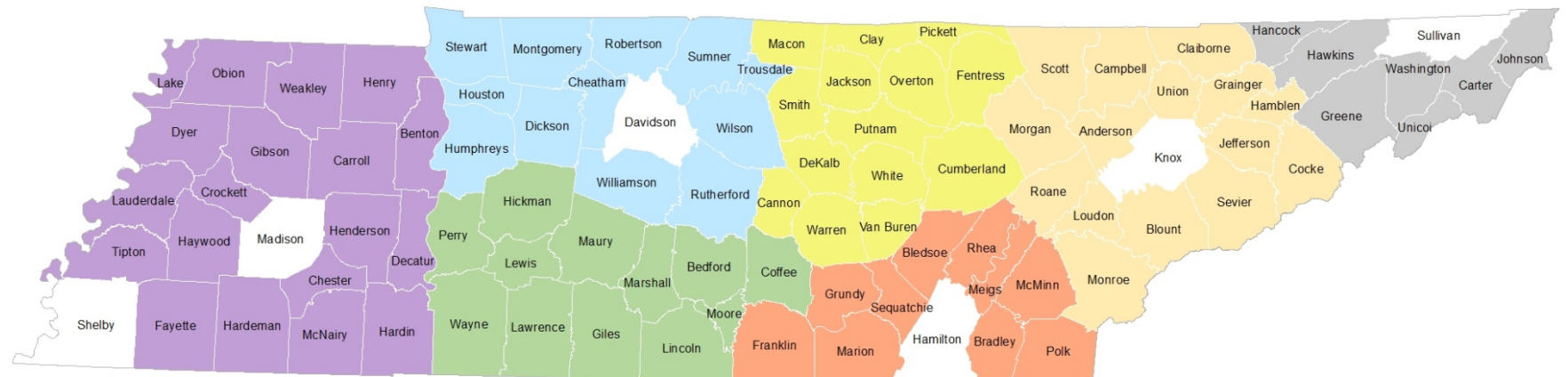
Mid-Cumberland
Sara Cox
sara.m.cox@tn.gov
615.253.4736



South Central
Kelly Ware
kelly.ware@tn.gov
931.490.8353



Southeast
Rachel Swafford
rachel.swafford@tn.gov
423.634.5806



ADDITIONAL RESOURCES

Integrating Health Into the Comprehensive Planning Process

An Analysis of Seven Case Studies and Recommendations for Change



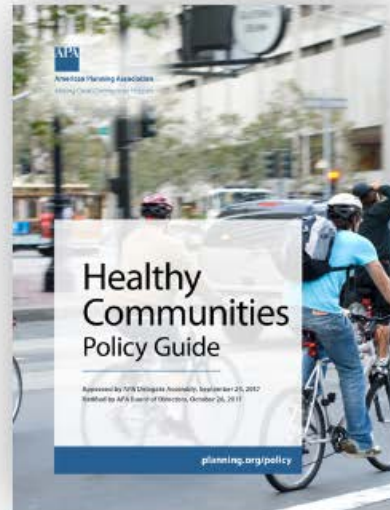
Download

The issues facing cities and counties, and their neighborhoods and communities, continue to change and become more complex and, at the same time, bring the planning profession back to its roots in promoting public health. As planning has shifted toward sustainability, public health has been identified as a core element of communities that thrive, so cities have begun to integrate health into their comprehensive plans. In addition, the sustainability plan, a new cast of plan that takes a holistic view of natural systems and the human activities affecting them, seems well suited to focus on public health as key component of its policies.

ADDITIONAL RESOURCES

Healthy Communities Policy Guide

By American Planning Association



Download

APA's Healthy Communities Policy Guide identifies policy ideas for local, state, and federally elected officials aimed at improving community health and quality of living through planning.

Details

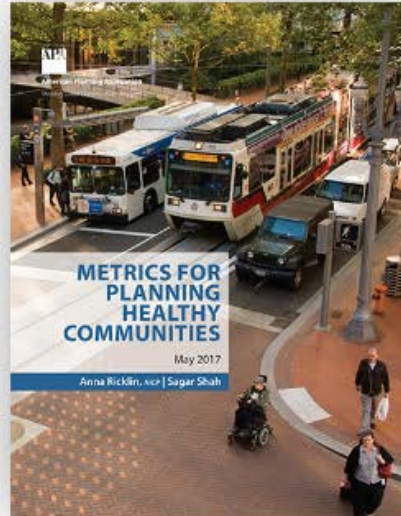
Page Count: 15

Format: Adobe PDF

ADDITIONAL RESOURCES

Metrics for Planning Healthy Communities

By Anna Ricklin, AICP, Sagar Shah, PhD, AICP

[Download](#)

Inside this "Metrics for Planning Healthy Communities" report is a set of Healthy Planning Metrics that can be used to assess, measure, monitor, and report progress toward healthy planning goals.

Key built environment indicators and policies are identified for five healthy communities domains to promote health and measure health inequities.

Details