



Sustainability = Health, Safety & Welfare

Deb Ryan, RLA
Associate Professor
of Architecture & Urban Design
University of North Carolina at Charlotte

LIVABLE
CITY

BAND-
WAGON





CHOLERA INTENSIFIES ITS GRIP ON HAITI

AFFECTED AREAS

- Most affected
- Affected
- Possibly affected

Oct. 27



Oct. 28



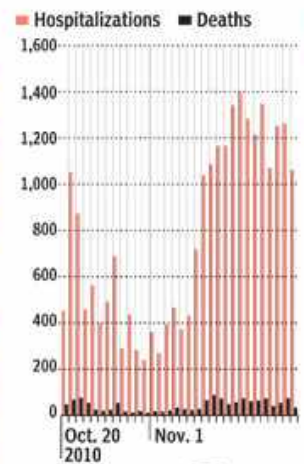
Oct. 29



Nov. 2

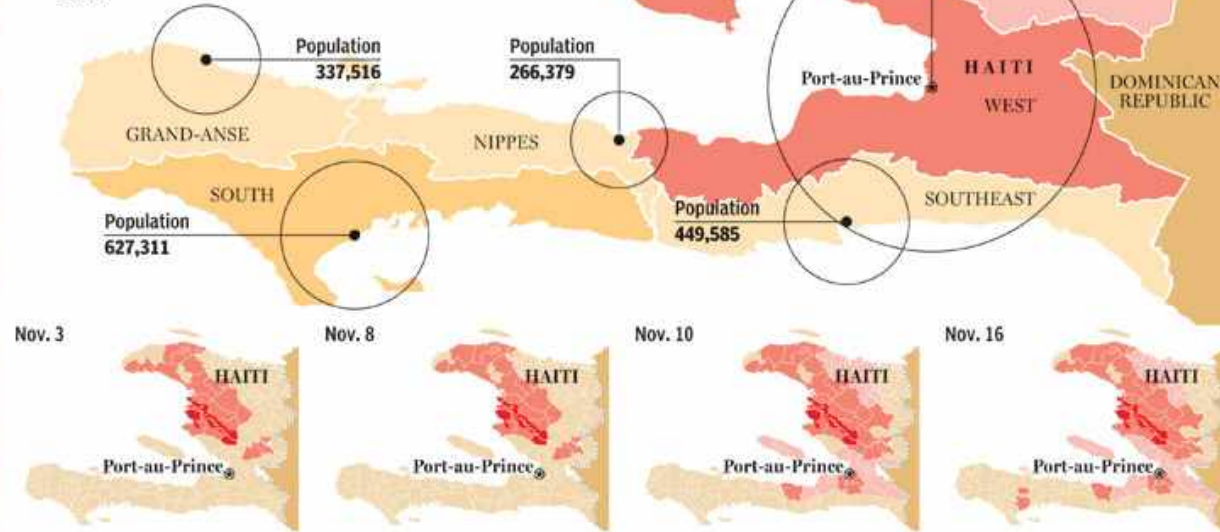


TOTAL NUMBER OF DEATHS AND HOSPITALIZATIONS FROM OCT. 20 TO NOV. 20



CURRENT CASE COUNT AS OF NOV. 20, 2010

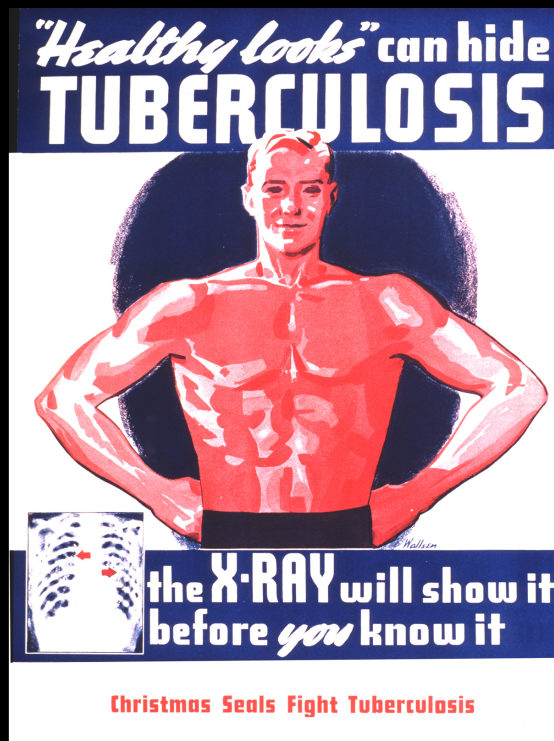
- 4,068-13,162
- 1,649-4,067
- 92-1,648
- 10-91
- Less than 10



SOURCE: OFFICE FOR THE COORDINATION OF HUMANITARIAN AFFAIRS, UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT, PAN AMERICAN HEALTH ORGANIZATION, HAITI 2003 CENSUS
JONATHAN RIVAIT / NATIONAL POST

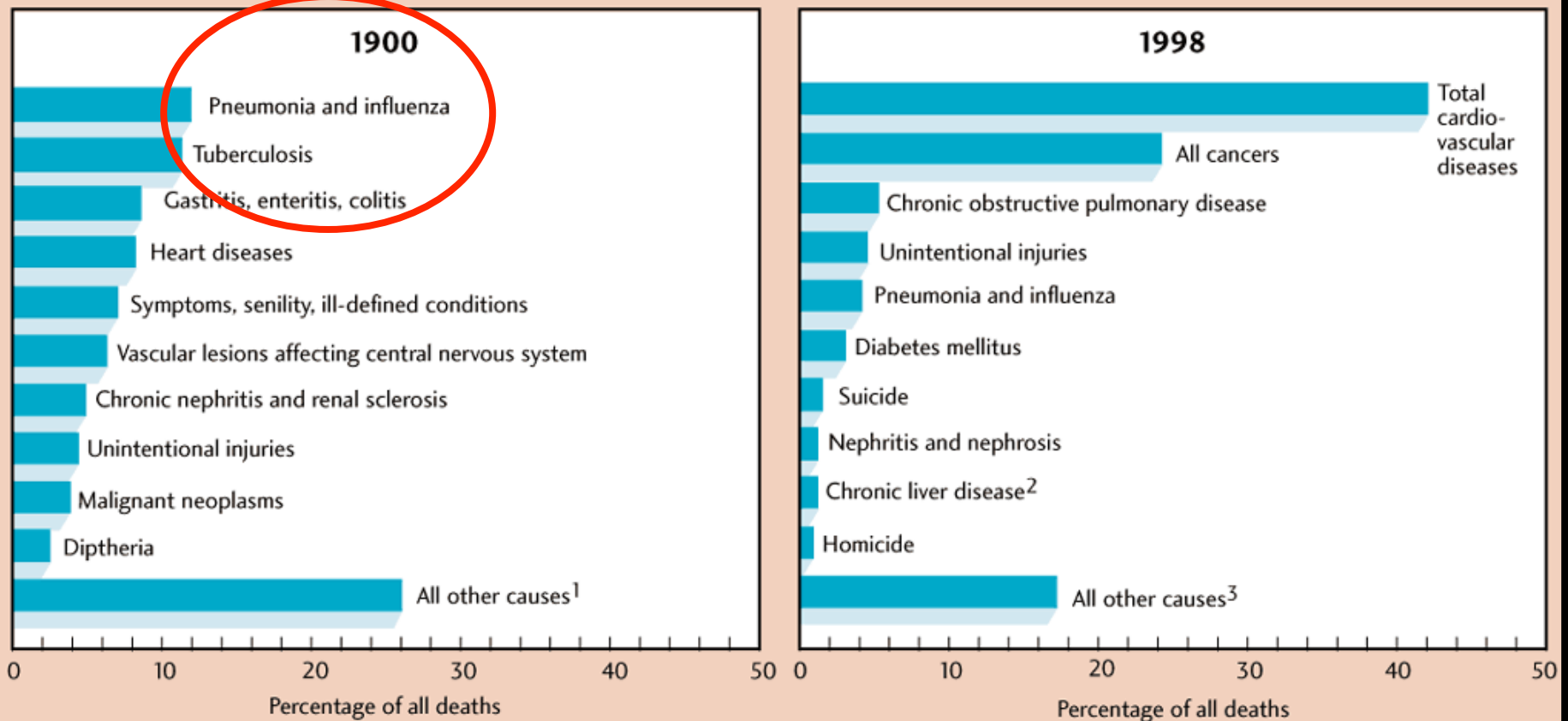


It has been estimated that in the two centuries from 1700 to 1900, tuberculosis was responsible for the deaths of approximately one billion human beings. The annual death rate from TB at the turn of the century was seven million people.



"If the importance of a disease for mankind is measured by the number of fatalities it causes, then tuberculosis must be considered much more important than those most feared infectious diseases, plague, cholera and the like. One in seven of all human beings dies from tuberculosis. If one only considers the productive middle-age groups, tuberculosis carries away one-third, and often more."

Exhibit 4-1: Causes of death, United States, 1900 and 1998





Taking the Cure
The Fresh Air Treatment

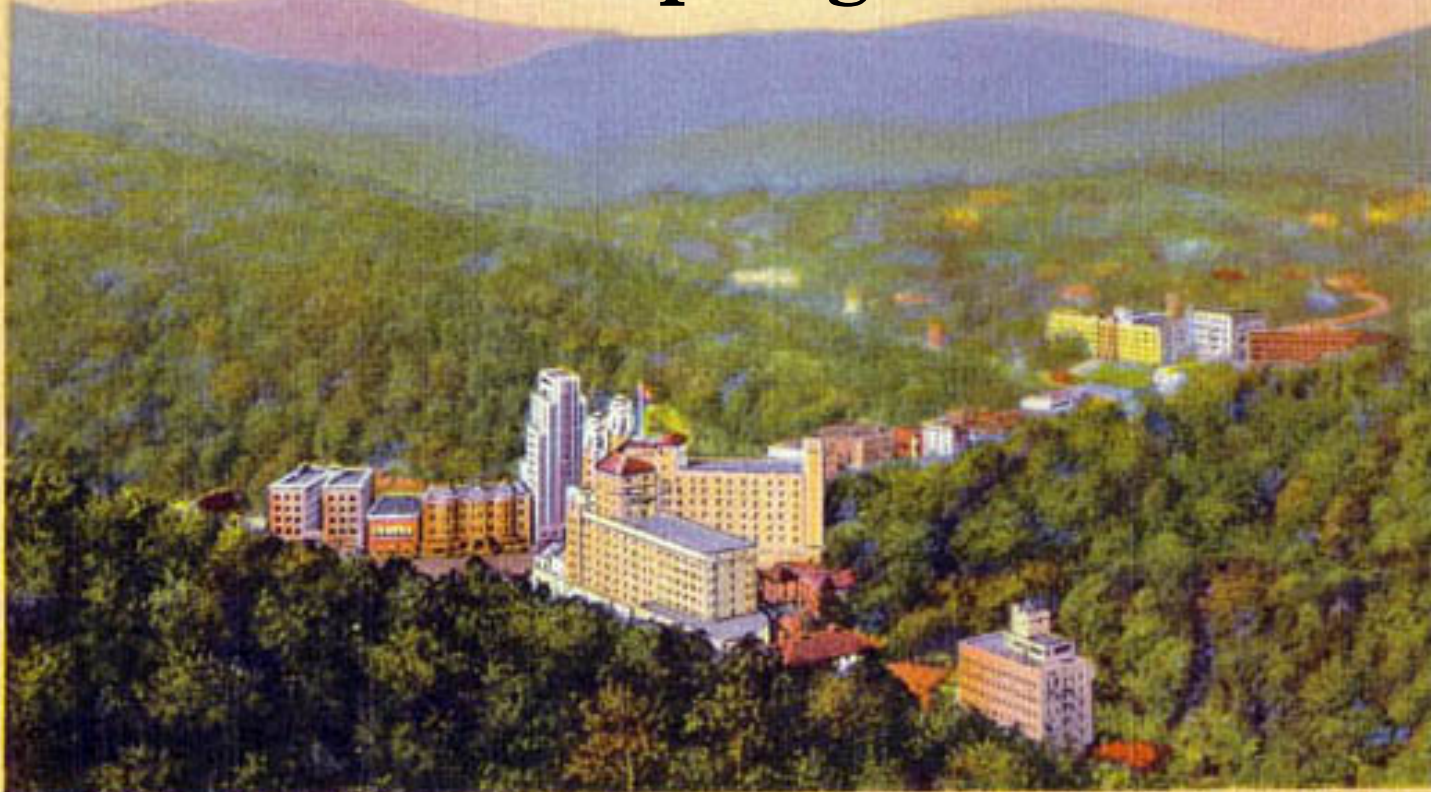


3434470



VIEW FROM TOWER—MEDICAL ARTS BUILDING, ARLINGTON HOTEL, PARK HOTEL

Hot Springs 1832



73 HOT SPRINGS NATIONAL PARK, ARKANSAS

ZA-H1004

Hot Springs is not merely a winter resort. Climate and conditions are delightful the year around, as increasing throngs are rapidly discovering.

It is above all a place **for rest and recuperation.**



Yosemite Valley 1864



Crater Lake

National Parks 1890's -1900's



Mount Ranier



Sequoia



Glacier



Crater Lake



German microbiologist
Robert Koch

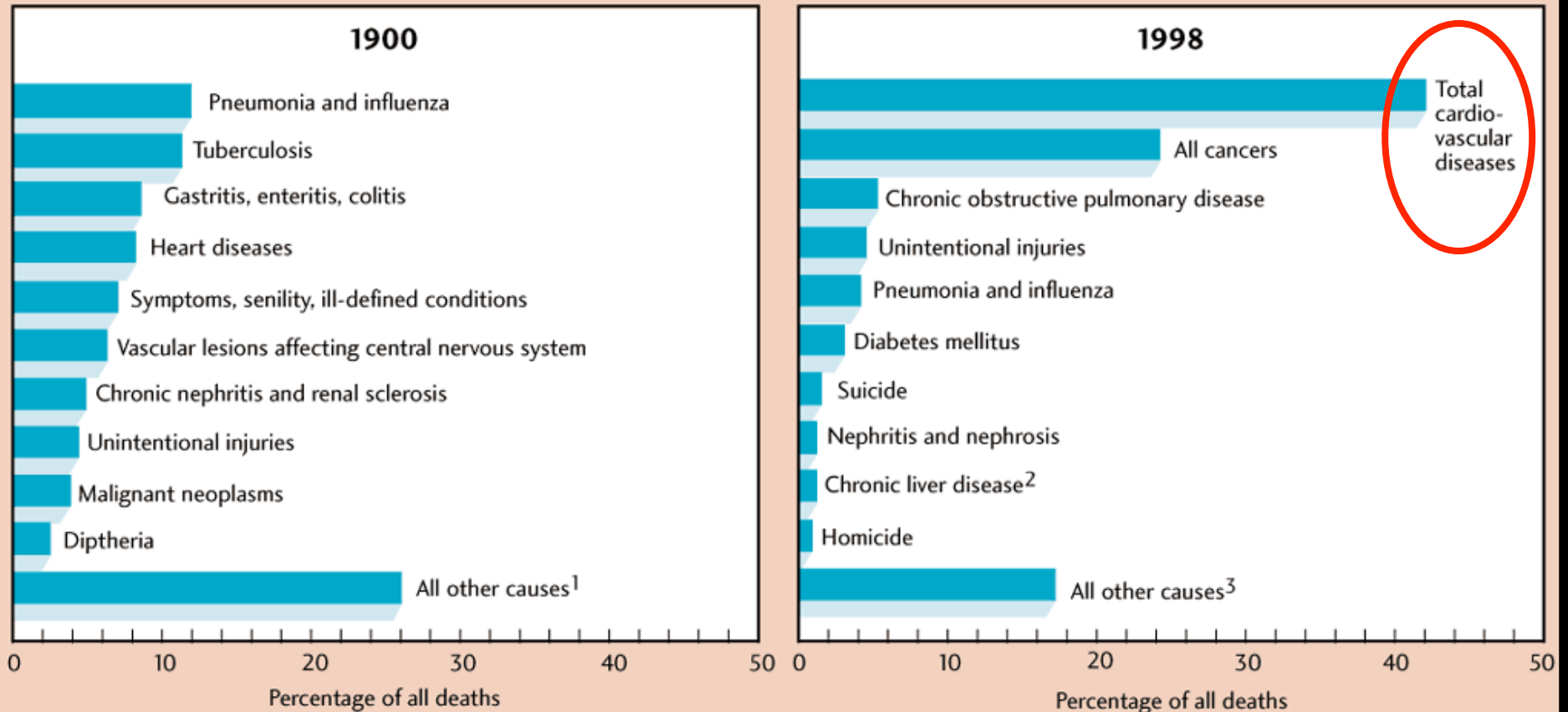
**In 1944, the first
tuberculosis patient was
treated with an antibiotic
named streptomycin.**

**Urban Open Space was
no longer valued .**

WHO Definition of Health

Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

Exhibit 4-1: Causes of death, United States, 1900 and 1998





**Traffic
Engineers
as Gods**







The Fantasy vs. the Reality





“While no single element overpowers other features in a traditional home, the front entrance is a focal point, conceived as an integral part of an entry sequence that begins at the street . . . Over the course of this century, the American home, like other aspects of our lives, has increasingly been designed around the requirements of the automobile. The garage has gravitated from a discreet position behind the traditional home to a position of architectural prominence at the front of the conventional home.”

-James Constantine and J. Carson Looney, Traditional Home Design: Volume II, p. 4



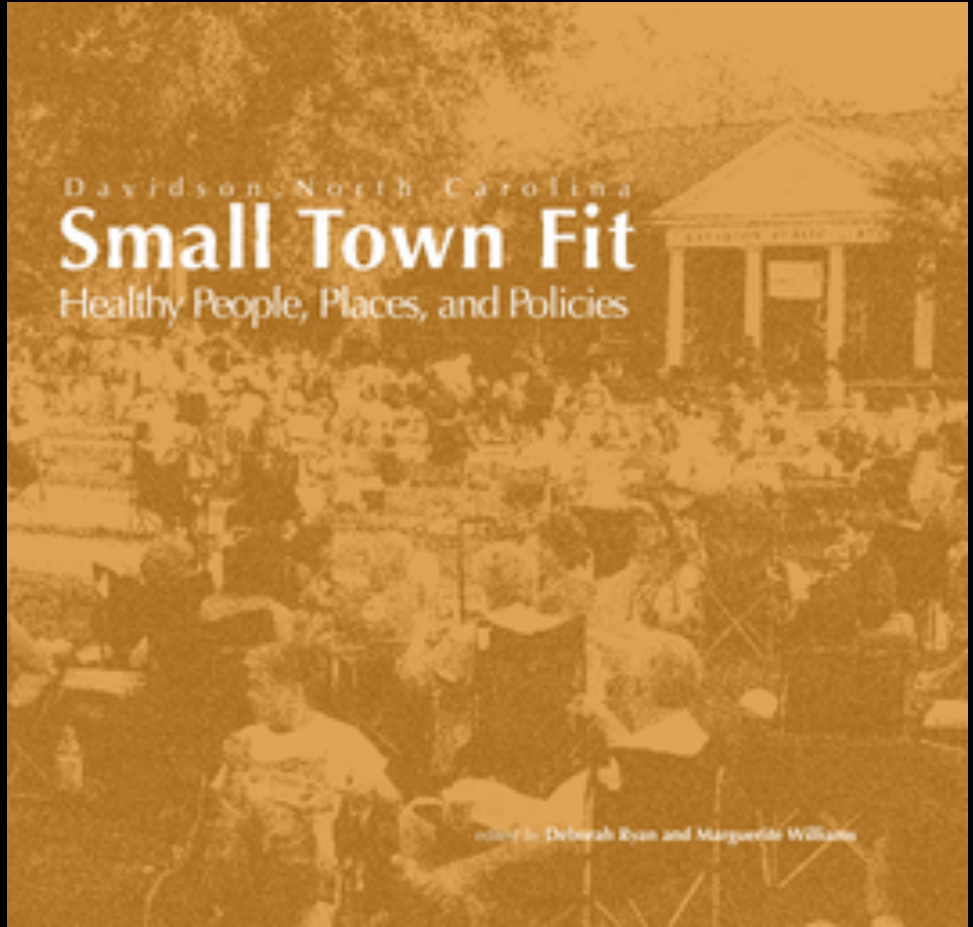




Urban Sprawl and Public Health

DESIGNING, PLANNING, AND BUILDING
FOR HEALTHY COMMUNITIES

Howard Frumkin,
Lawrence Frank
and Richard Jackson

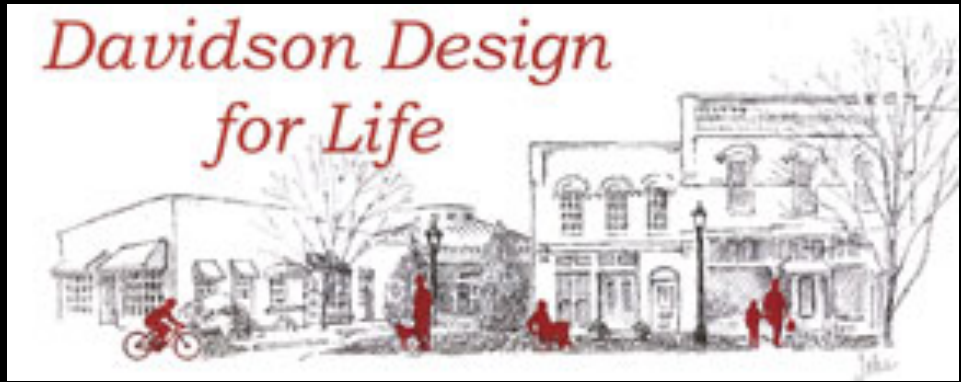


Davidson, North Carolina

Small Town Fit

Healthy People, Places, and Policies

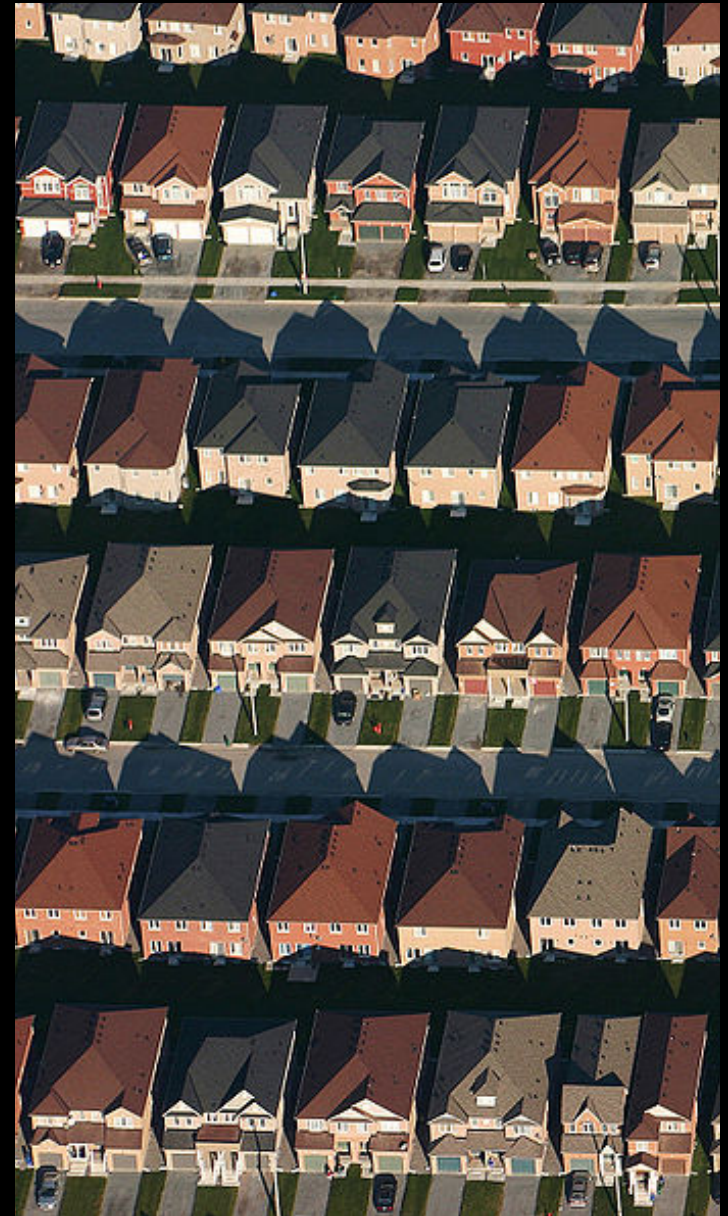
edited by Deborah Eyan and Marguerite Williams



Davidson Design for Life

corbis.
“Belonging to
social groups
and networks
appears to be
an important
predictor of
health - just as
important as
diet and
exercise.”

Jolanda Jetten, *The Social
Cure*, Scientific American
Mind, September / October
2009.



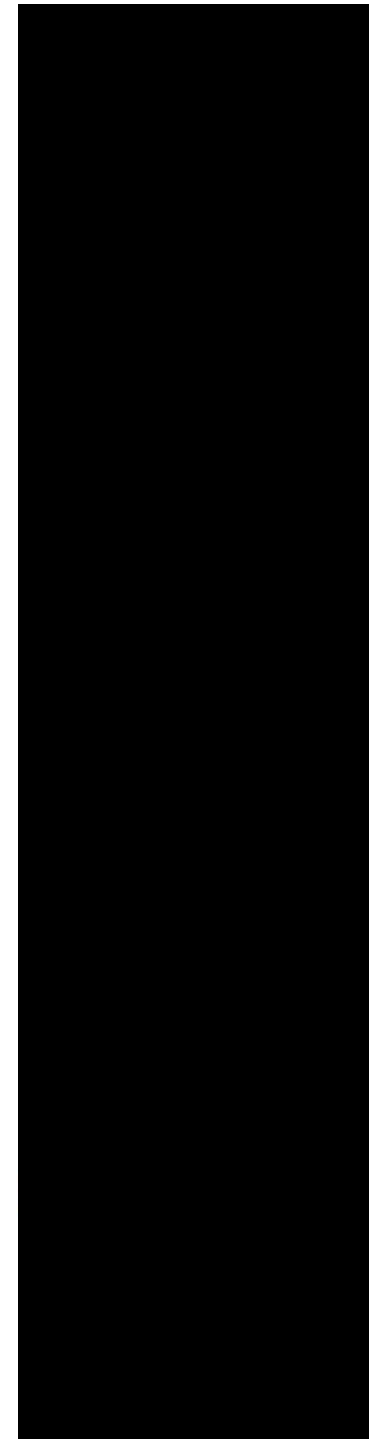
Davidson, North Carolina

Small Town Fit

Healthy People, Places, and Policies



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.....			
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1. Educate the Public.



2. Engage Local Residents.





1. Educate the Public.



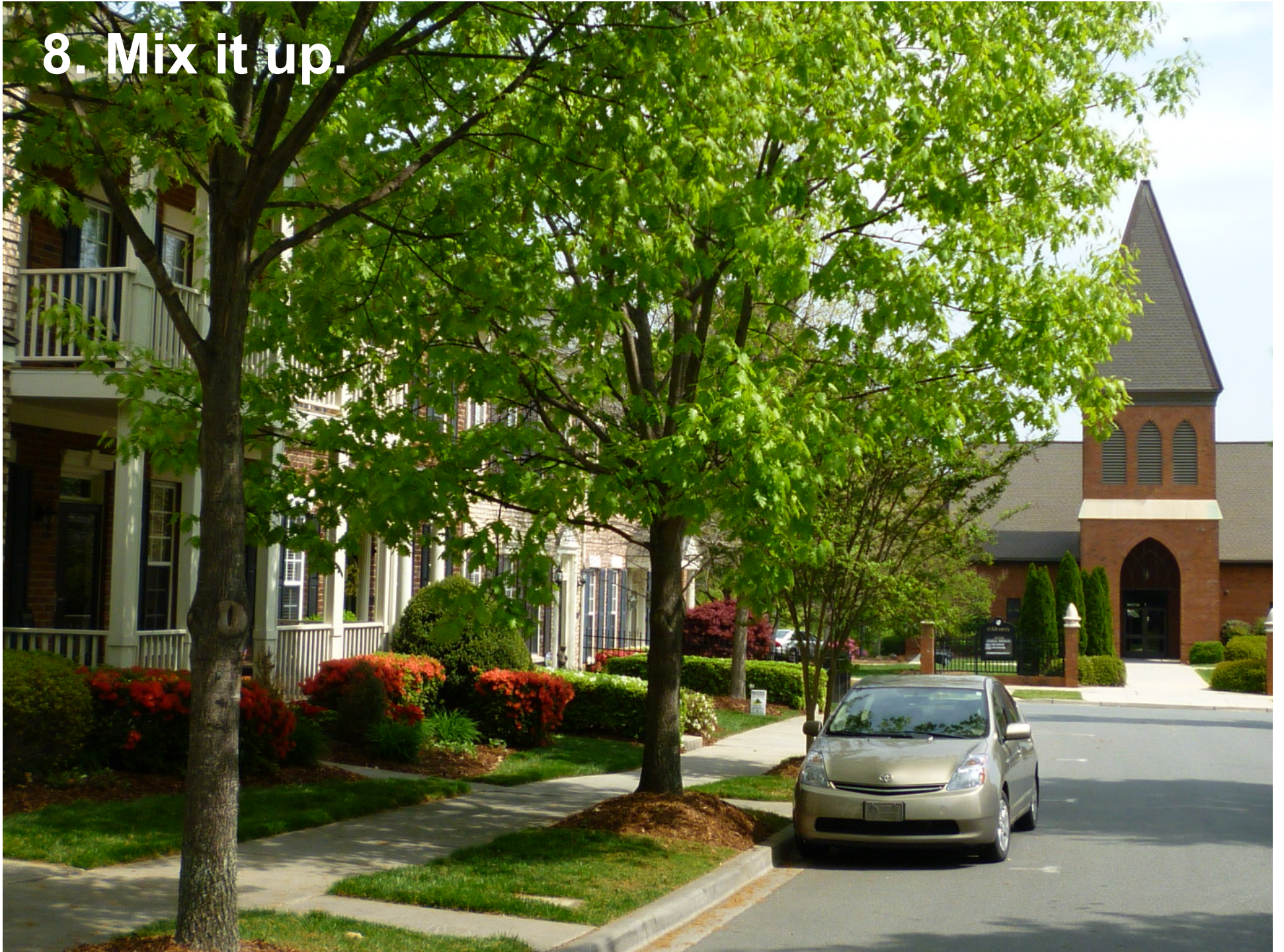
2. Engage Local Residents.



3. Establish a Vision.

*Davidson is a creative, safe, scholarly and **healthy** community that enjoys high quality public services and unique cultural and natural assets. We manage change based on our long-term vision, as defined by the Comprehensive Plan, that promotes **livable** and vibrant neighborhoods, businesses, landscapes, public spaces, relationships, and public-private partnerships.*

8. Mix it up.



9. Require Complete Streets & Connected Places



10. Get People Moving.



11. Assure Affordability.



12. Conserve.









CVS/pharmacy

CVS/pharmacy

**NOW
OPEN**



**DRIVE THRU
PHARMACY**

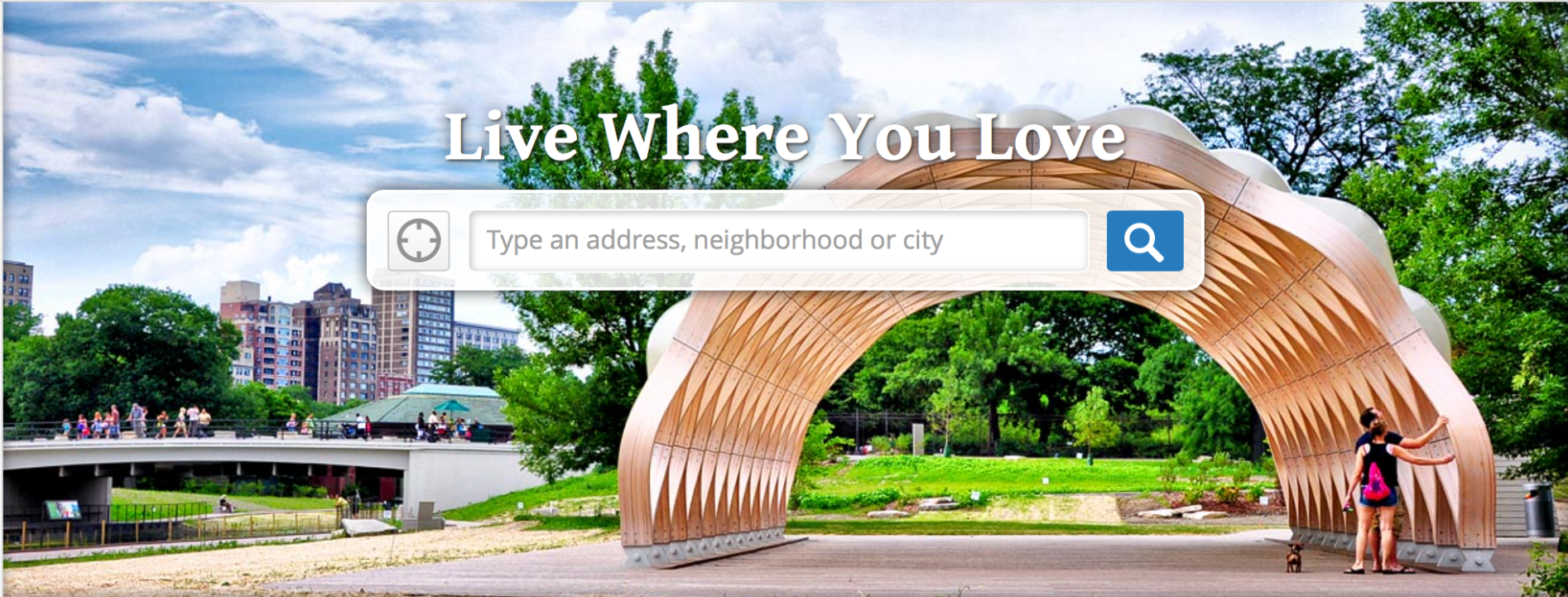






Live Where You Love

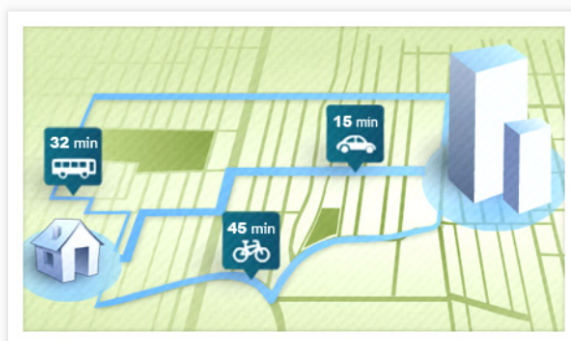


Great Nearby Places



View neighborhood restaurants, coffee shops, grocery stores, schools, parks, and more.

Improve Your Commute



Get a commute report and see options for getting around by car, bus, bike, and foot.

Fits Your Lifestyle

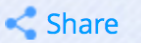


Learn about the neighborhood, view crime and safety, see what locals are saying, browse photos and places.

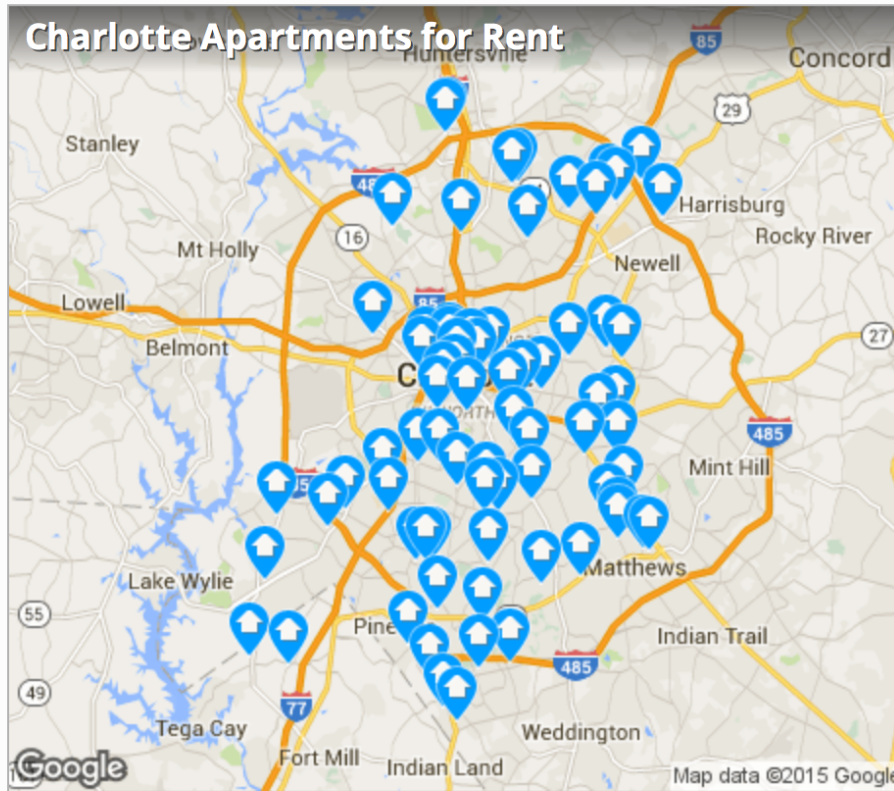


Type an address, neighborhood or city

Go



Living in Charlotte



Walk Score
24

Bike Score
36

Charlotte is the 50th most walkable large city in the US with 731,424 residents.

Charlotte does not have many bike lanes.

The most walkable Charlotte neighborhoods are [Fourth Ward](#), [First Ward](#) and [Second Ward](#).

[Nearby Apartments](#)

[View Charlotte apartments for rent](#) | [View Charlotte homes for sale](#)

CDC's Healthy Community Design Initiative

CDC's Healthy Community Design Initiative (also known as the Built Environment and Health Initiative) promotes health through **healthy community design** — a way of planning and designing communities to make it easier for people to make healthy choices where they live, work, and play.

Why do we need healthy community design?



Less than half of U.S. adults meet the 2008 Physical Activity Guidelines for Americans.



Fewer than **3 in 10** high school students get at least 60 minutes of physical activity every day.



4 in 10 trips are shorter than 3 miles, and most of these short trips are done in cars.

Healthy community design can directly impact health. When community and street scale interventions improve walking and bicycling infrastructure:



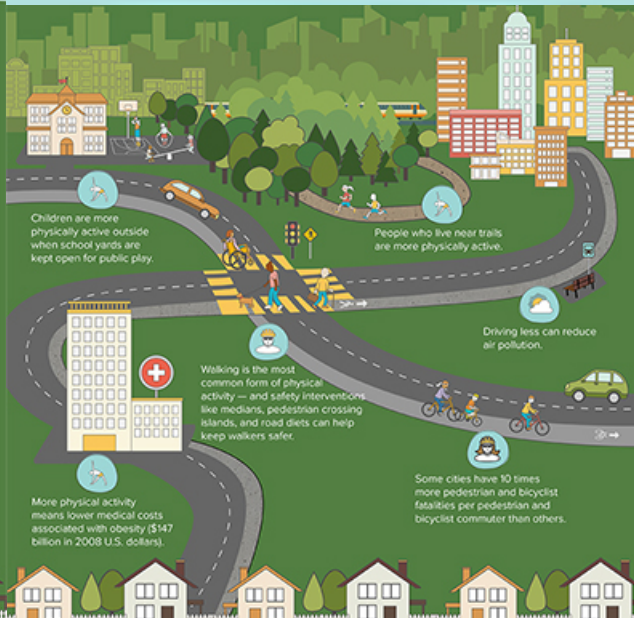
People are more



Walking and biking



People drive less, which



How does CDC's Healthy Community Design Initiative promote health?

The Healthy Community Design Initiative gives communities the tools they need to build healthy infrastructure by:



Supporting health impact assessments (HIAs) to help communities make informed choices about improving public health through community design



Educating local leaders on how design can affect community health



Providing scientific expertise to promote important federal priorities like healthy physical environments



Forming partnerships with federal agencies like the U.S. Department of Transportation and the National Park Service

The way we design and build our communities affects our physical and mental health. CDC is committed to forming new partnerships and seeking solutions to community-wide public health problems through changes in the built environment.

To learn more about our work, visit www.cdc.gov/healthyplaces



Centers for Disease Control and Prevention
National Center for Environmental Health



ACTIVE LIVING RESOURCES FOR COMMUNITIES

f Like 29

🐦 Tweet 0

📄 Share 3



The way communities are designed has a great influence on how active we are. When communities are safe, well-maintained and have appealing scenery, children and families are more likely to be active. Unfortunately, many people—especially those at high risk for obesity—live in communities that lack parks and have high crime rates, dangerous traffic patterns and unsafe sidewalks. Such communities discourage residents from walking, bicycling and playing outside. Increasingly, local governments are considering how community design will impact residents' physical activity. Our research documents effective strategies for creating communities that support active living and promote health.

View [The Role of Communities in Promoting Physical Activity](#) infographic.

COMMUNITIES TOPICS

- ▶ Rural
- ▶ Joint Use Agreements
- ▶ Crime
- ▶ Social and Cultural Environment
- ▶ Workplace
- ▶ Zoning and Mixed Land Use
- ▶ Architecture and Building Design
- ▶ Healthy Food Access



ACTIVE LIVING RESEARCH

Promoting activity-friendly communities

THE ROLE OF

Communities

IN PROMOTING PHYSICAL ACTIVITY

WALKABLE COMMUNITIES

People who live in walkable neighborhoods are

2 times

as likely to get enough physical activity as those who don't.

JOINT USE

The number of children who are physically active outside is

84% higher when schoolyards are kept open for public play.

TRAILS

People who live near trails are

50%

more likely to meet physical activity guidelines.

RECREATIONAL FACILITIES

Teens who live in poor or mostly minority neighborhoods are

50% less likely to have a recreational facility near home.

Active Living Research

www.activelivingresearch.org



HEALTHY PLANNING

An evaluation of comprehensive and sustainability plans addressing public health



American Planning Association



BUILDING HEALTHY PLACES

T O O L K I T



STRATEGIES FOR **ENHANCING HEALTH**
IN THE **BUILT ENVIRONMENT**

ULI Urban Land
Institute
Building Healthy
Places Initiative

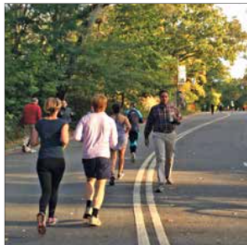
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BUILDING HEALTHY PLACES

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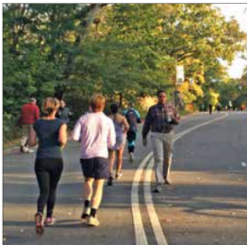
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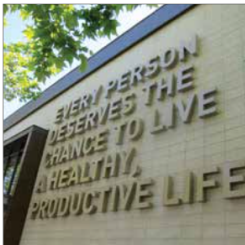
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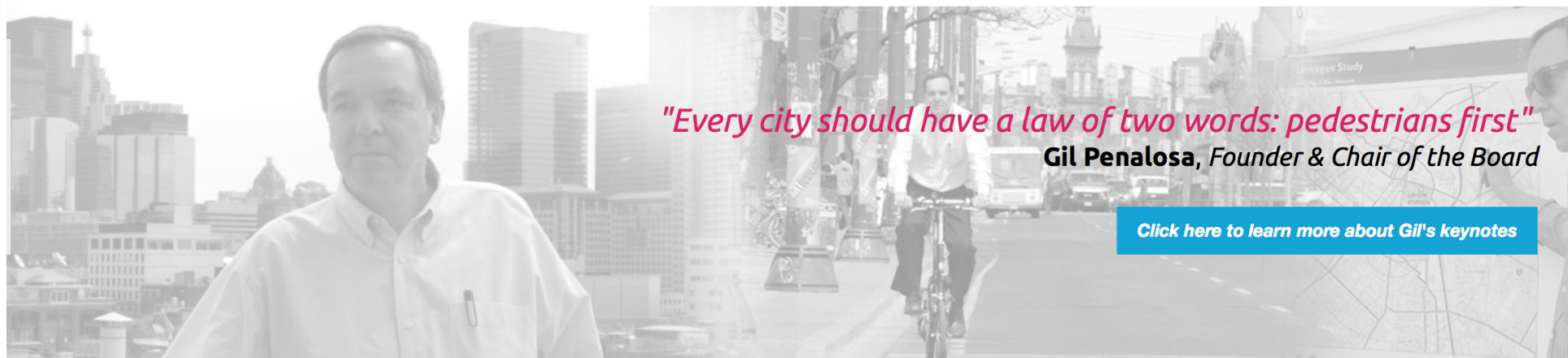
2

PHYSICAL ACTIVITY

DESPITE THE WELL-KNOWN BENEFITS of exercise, only one in five U.S. adults gets enough physical activity.¹ In an era of sedentary jobs, extended screen time, and long commutes sitting in cars, it's no surprise that health researchers are telling us "sitting is the new smoking."²

Design and development practices can make a significant impact by increasing opportunities for physical activity in daily life. Several studies show that people who live in places with good pedestrian amenities, bicycle infrastructure, and access to trails have higher rates of physical activity and lower body weights.^{3,4} Park and playground access is also critical, since people who live within half a mile of a park tend to exercise more than people who lack park access.^{5,6} The design of buildings can also affect physical activity habits by encouraging active circulation within the site. Regular stair use provides numerous health benefits, including reduced stroke risk,^{7,8} improved cardiovascular health,⁹ and weight management.

- 1 INCORPORATE A MIX OF LAND USES
- 2 DESIGN WELL-CONNECTED STREET NETWORKS AT THE HUMAN SCALE
- 3 PROVIDE SIDEWALKS AND ENTICING, PEDESTRIAN-ORIENTED STREETSCAPES
- 4 PROVIDE INFRASTRUCTURE TO SUPPORT BIKING
- 5 DESIGN VISIBLE, ENTICING STAIRS TO ENCOURAGE EVERYDAY USE
- 6 INSTALL STAIR PROMPTS AND SIGNAGE
- 7 PROVIDE HIGH-QUALITY SPACES FOR MULTI-GENERATIONAL PLAY AND RECREATION
- 8 BUILD PLAY SPACES FOR CHILDREN



LIVABILITY VISION FOR THE FUTURE

GREATER CHARLOTTE IS HOME.

Home to generations of families and cultures from all over the world.

Home to neighborhoods that blend thriving businesses with natural landscapes.

Home to endless opportunities for all, *where good people make great things happen.*

As we pursue our livability vision, we embrace the following **Guiding Principles**:



WELCOMING

We are a hospitable destination for those seeking opportunity.



INNOVATIVE

We are entrepreneurial and pioneer solutions to support a prosperous community.



CONNECTED

We are physically and socially linked to one another.



INCLUSIVE

We celebrate our differences and see them as strengths that bind us together.



PREPARED

We provide opportunities for learning and applying new skills—in school, on the job, and throughout our lives.



HEALTHY

We protect the foundation of our community—our residents and the environment.



RESILIENT

We collaborate and innovate in the face of a changing environment, evolving economy, and diversifying culture.



We are... *Resilient*

Our focus is on: Future Well-being, Collaboration

Our Strategies Are...

- S** Manage zoning and development to revitalize community character and the natural environment while allowing for growth and innovation

✓ Actions

- ★ Improve street networks by investing in road improvements and connecting transportation modes.
- ★ Develop and adopt sustainable infrastructure goals and/or guidelines for public capital projects that respond to population growth as well as natural and man-made events.
- ★ Establish mechanisms to provide residents and developers with information on sustainable building as new development and redevelopment occurs, and during the plan review/permitting process.

Incorporate into zoning considerations: infrastructure availability, density, and timing to best align land use planning with essential services to create vibrant, walkable, mixed-use neighborhoods.

Enhance the tree canopy through innovative development processes and collaboration.

Launch building retrofit incentive programs in all jurisdictions.

★ *Actions that are best positioned for immediate implementation.*



We are... *Resilient*

Our focus is on: Future Well-being, Collaboration

Our Strategies Are...

- S** Manage zoning and development to revitalize community character and the natural environment while allowing for growth and innovation

Incorporate into zoning considerations:
infrastructure availability, density, and
timing to best align land use planning
with essential services to create

vibrant, walkable, mixed-use neighborhoods.
(and bikable)



Doable City Reader

CHAPTER 4: WALKABILITY

www.8-80cities.org/doablecity/

ACTIVE LIVING
TOPICS

TOOLS &
RESOURCES

NEWS &
EVENTS

FOR GRANTEES
& RESEARCHERS

Home >

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  Tweet 0
  Share



TOOLS AND MEASURES

Measurement Instrument for Urban Design Quantities Related to Walkability

	A	B	C	D	E	F	G
1	measuring urban design qualities scoring sheet				auditor		
2	street: Clip 29				date & time		
3					recorded		(multiplier) x
4	step				value	multiplier	(recorded value)
5	imageability						
6	1. number of courtyards, plazas, and parks (both sides, within study area)				0	0.41	0.00
7	2. number of major landscape features (both sides, beyond study area)				0	0.72	0.00
8	3. proportion historic building frontage (both sides, within study area)				0.5	0.97	0.49
9	4. number of buildings with identifiers (both sides, within study area)				1	0.11	0.11
10	5. number of buildings with non-rectangular shapes (both sides, within study area)				4	0.08	0.32
11	6. presence of outdoor dining (your side, within study area)				1	0.64	0.64
12	7. number of people (your side, within study area)				10	0.02	0.20
13	8. noise level (both sides, within study area)				4	-0.18	-0.72
14						add constant	+2.44
15					imageability score		3.48
16	enclosure						



Priority for pedestrians and bicyclists Sidewalks and bicycle tracks across side streets



37% use bicycle
27% drive car
33% use public transit
5% walk



Major complain:
Serious congestions - on the bicycle lanes



2010:
After 50 years:
Another change
of thinking:

WANTED:

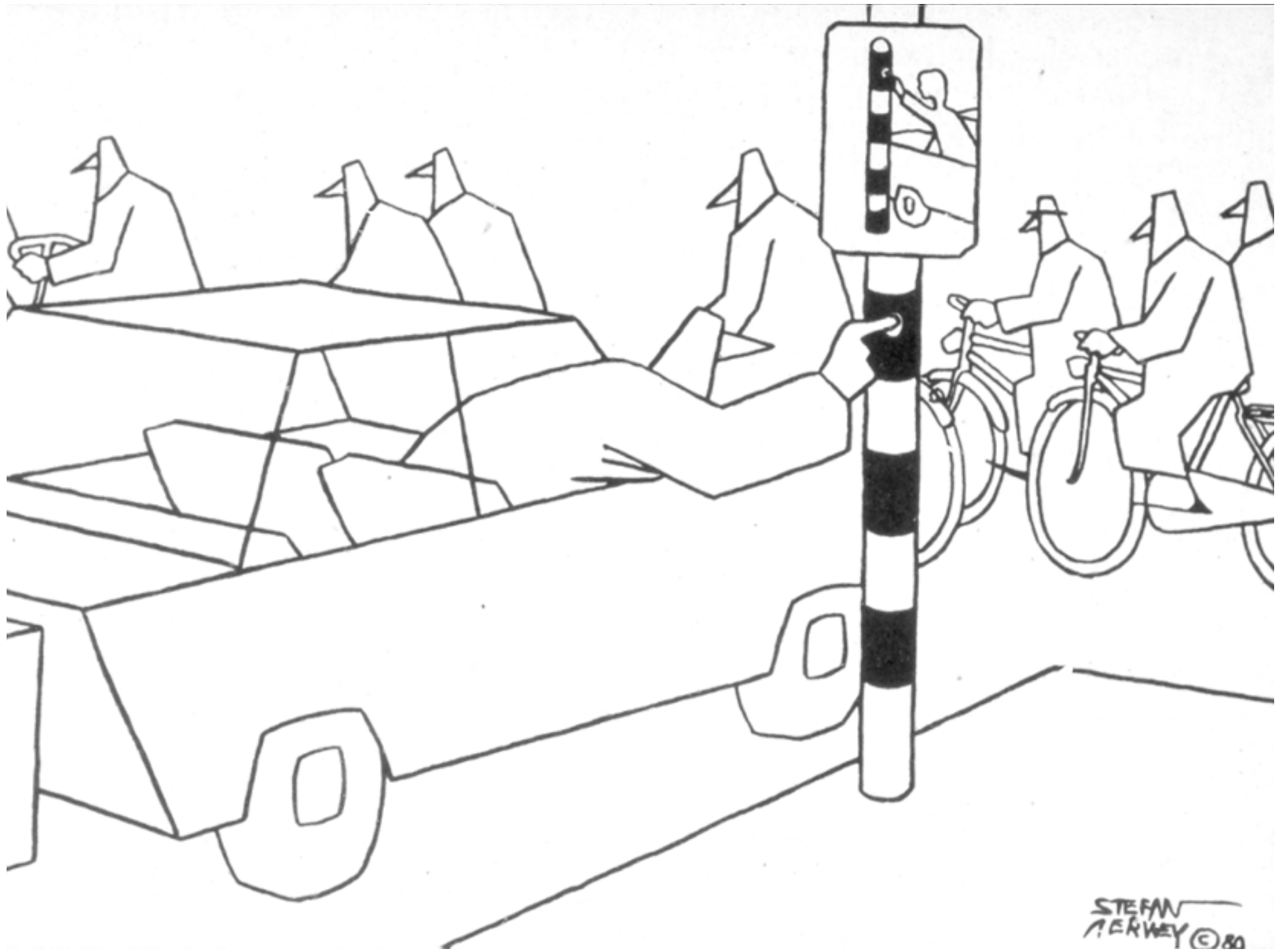
- Lively City
- Attractive City
- Safe City
- Sustainable City
- Healthy City

In this City everything will be done to invite people to **walk** and **bicycle** as much as possible in the course of their daily doings.

9th Ave. NYC Before and After







STEFAN
MERWEY © 80

Why is Planning
Important?



Why is Planning Important?

It's simply a matter of life and death.



Possible Action items for Planning Commission

- 1. Consider adopting a statement of position about the relationship between public health and planning.**
- 2. Identify strategies for building that relationship in Charlotte from documents developed by the APA, ULI, CDC, AIA etc.**
- 3. Share those strategies with city council members, lobby them for support, and put forth a statement of position for them to consider.**
- 4. Switch discussion of the new Zoning Ordinance from the adhoc committee to the Planning Committee so that they can work with the consultant to shape the outcome of the new document relative to these topics.**