## HEALTH DISTRICTS IMPROVING HEALTH THROUGH DESIGN

#### Jason Harper, AIA, LEED AP

Associate Principal, Sr. Medical Planner, Perkins+Will, New York

Co-Chair, AIANY Health Facilities Committee

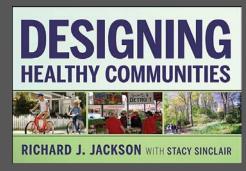
Co-Chair, CNU Health Districts Initiative

#### **HEALTH & WELLNESS AS THE DRIVER OF DESIGN**



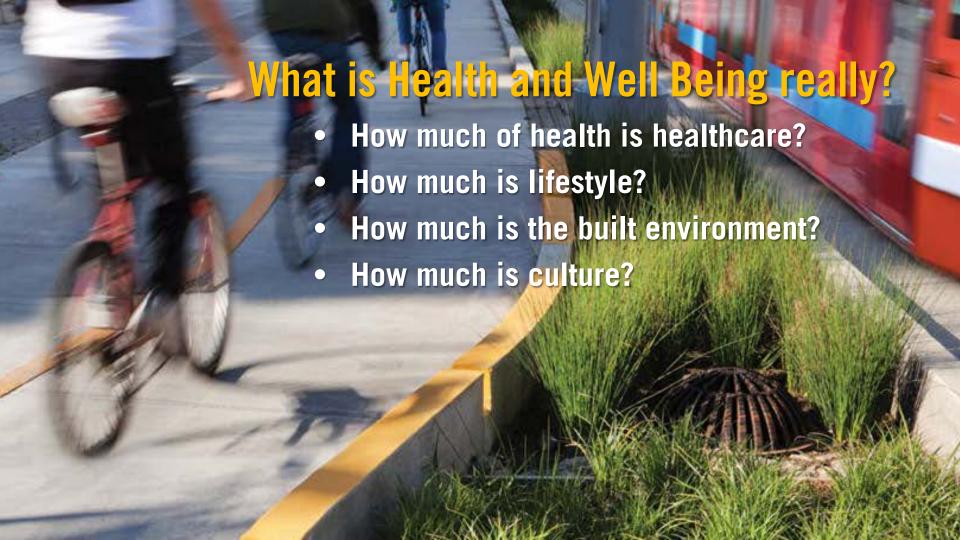


- Active Design Guidelines
- ULI- Building Health Places Initiative
- CDC- Healthy Community Design Initiative
- CNU- Health Districts Initiative
- EPA-Sustainable and Healthy Communities
- Robert Wood Johnson Foundation
- **EcoDistricts**



"The design and location of homes, schools, workplaces, stores, streets, and open spaces - our built environment - has a tremendous impact on physical, mental, and social health"

Dr. Richard Jackson, M.D., M.P.H.



#### WHAT MAKES US HEALTHY?

"Although medical care is important, our reviews of research and the hearings we've held have led us to conclude that building a healthier America will hinge largely on what we do beyond the health care system."

10%	CLINICAL CARE
20%	GENETICS
20%	ENVIRONMENT
50%	HEALTHY BEHAVIORS

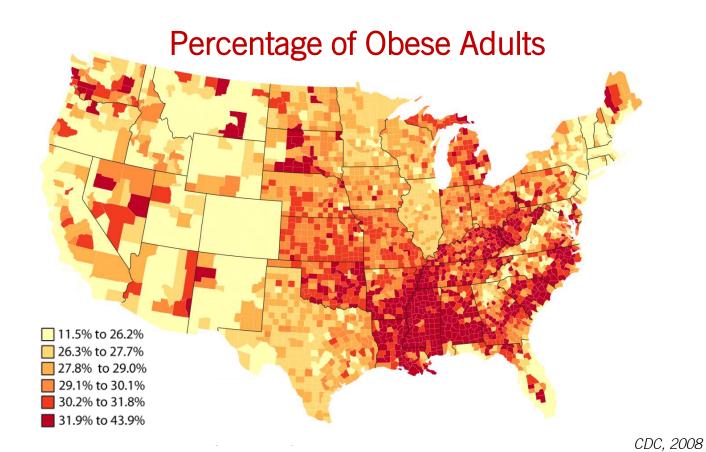
<sup>&</sup>quot;Health beyond Healthcare" -- Robert Wood Johnson Foundation's bi-partisan Commission to Build a Healthier America

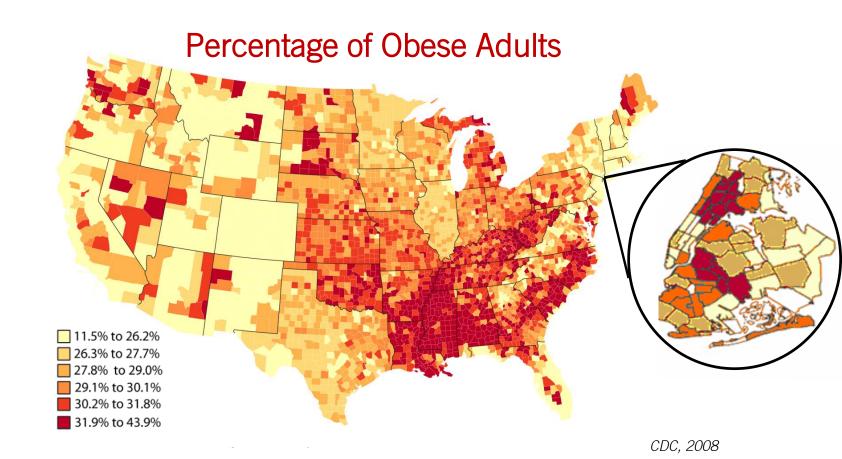
## **US** healthcare spending

## is not correlated to outcomes

#### **AVERAGE LIFE EXPECTANCY** 82 81 80 79 78 77 **PER CAPITA** 76 **SPENDING** 75 74 Andorra Canada Austria Singapore Germany Cyprus Ireland Portugal Iceland France Italy Norway Greece Malta Belgium Finland Cuba Monaco Switzerland Spain Israel Luxembourg New Zealand Netherlands United Kingdom Australia Denmark United States

US HEALTH EXPENDITURES PER PERSON

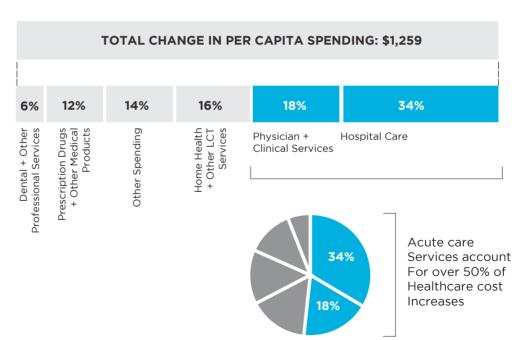




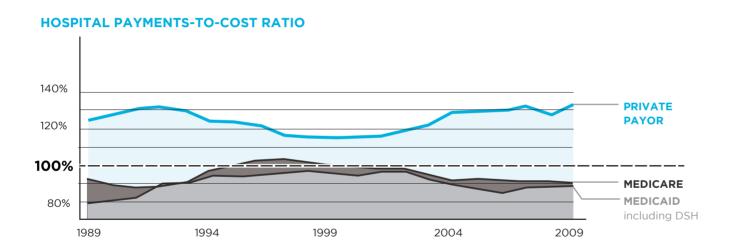
#### Big Picture: Focus on Prevention

# PERCENT of our healthcare spending goes to treating obesity-related chronic diseases.

#### INCREASE IN PER CAPITA HEALTHCARE COSTS OVER PAST DECADE



#### Big Picture: Healthcare Reform

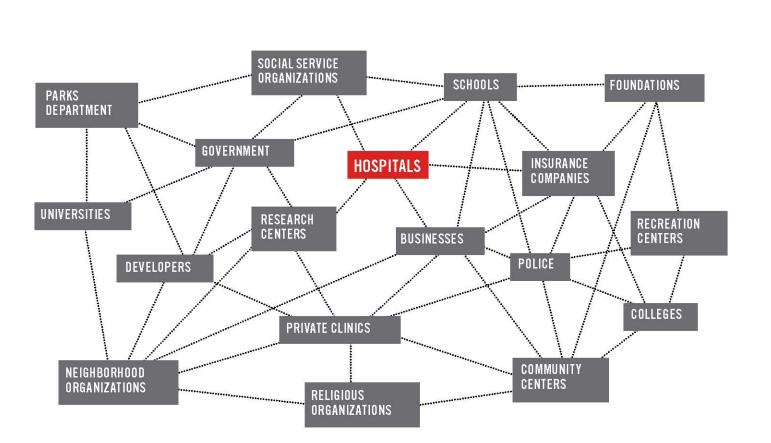


Cost of care can't be further increased for private payors to cover for government underpayment and cost inflation.

#### CDC Healthy Community Design Checklist







## HEALTHY COMMUNITY DESIGN

community plan / vision zoning / guidelines urban design projects public process

#### HEALTH DISTRICT PLAN

shared vision / plan flexible regulations partnership projects

#### HEALTHCARE PLANNING

strategic plan / vision operations plan campus master plan acquisitions plan

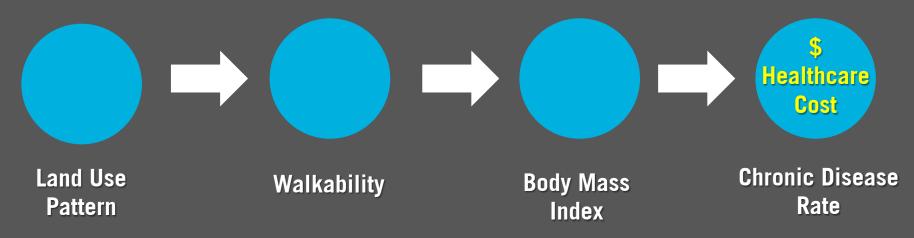
## BALANCING NEEDS OF THE INSTITUTION WITH THE COMMUNITY

PERKINS+WILL perkinswill.com

## **Evidence Based Strategies**

Establishing the Causal Link Between The Design of the Built Environment & Population Health

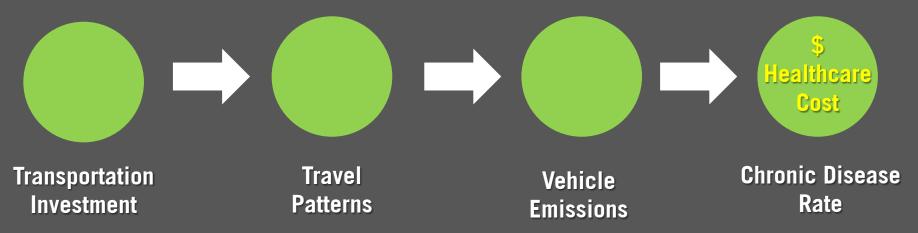
# **Evidence Based Strategies Example, Behavioral Approach:**



Concept: Urban Design 4 Health

Establishing the causal link between design and health

# **Evidence Based Strategies Example, Exposure Approach:**



Concept: Urban Design 4 Health

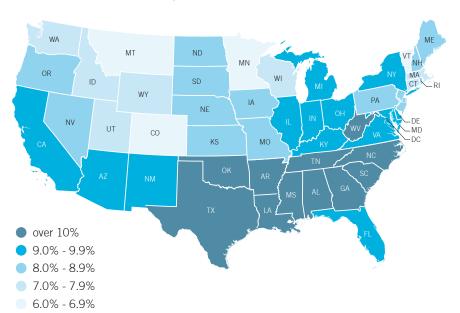
Establishing the causal link between design and health

## THE BATON ROUGE HEALTH DISTRICT

... Many Needs, One Vison: It's All About Health

#### Louisiana - A State at Severe Risk

#### **DIABETES PREVALENCE, BY STATE (2013)**



#### LOUISIANA RANKS #6

among all states in prevalence of adult obesity.

#### 1 IN 10 ADULTS

in Louisiana have been diagnosed with diabetes.

#### 1 IN 3 ADULTS

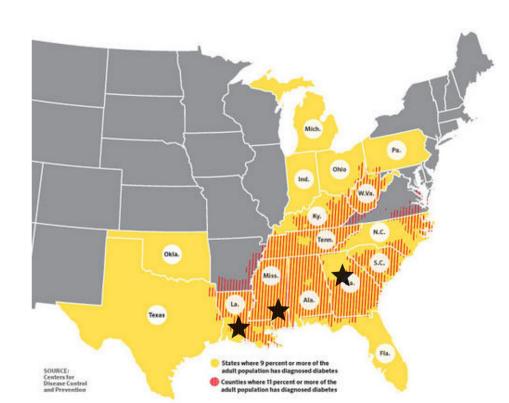
in Louisiana are obese, or have a self-reported BMI of 30 or higher.

#### 19.5%

prevalence of obesity among Louisiana residents making less than \$15,000 per year.

#### Diabetes – A National Epidemic

- Diabetes rates are escalating nationally
  - Focused on South/South Fast
- Diabetes Belt = states where rates are above 11% for adults
- Contributing factors:
  - Poverty
  - Inactivity
  - Obesity



#### FuturEBR: Transportation

### ADOPT AND IMPLEMENT COMPLETE STREETS POLICY

Include multi-modal planning into transportation projects

IMPROVE BICYCLE AND PEDESTRIAN NETWORK

Incorporate bicycle and pedestrian facilities into new and existing development.









#### FuturEBR: Urban Design and Neighborhoods

- Recognized the concentration of facilities
- Called for the creation of the South Medical District
- Recommended actions:
  - Transform and improve street network
  - Incorporate future transit options within the District
  - Improve housing options





#### FuturEBR: Economic Development

#### LEVERAGE EXISTING RESOURCES

Define and develop a District

Establish a management entity

Brand and market the District







#### Subsequent Action

- Baton Rouge Area Foundation takes the lead:
  - Fund a Plan
  - Coordinate the Stakeholders
  - Inform the Public
- Mayor's Healthy City Initiative gains momentum:
  - Partnership Programs to support Healthy Eating, Active Lifestyles, Obesity Prevention, Emergency Room Utilization.

#### Baton Rouge Area Foundatıon

A community foundation with \$548 million in assets, BRAFprovides two essential functions for the capital region:

- Connects philanthropists with nonprofits to make sure the needs of our communities are met.
- Begins and manages civic leadership projects.



A consortium of over 40 organizations dedicated to health, the initiative has a strong focus on obesity prevention, supported by projects promoting healthy eating and active lifestyles in Baton Rouge.

#### FROM MEDICAL TO HEALTH DISTRICT

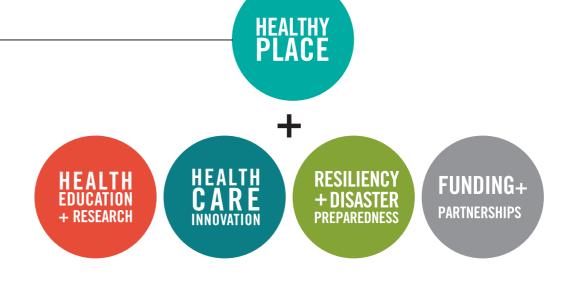
2011
SOUTH MEDICAL DISTRICT STUDY
(FUTUREBR)

LAND USE
TRANSPORTATION
URBAN DESIGN
ECON. DEV.

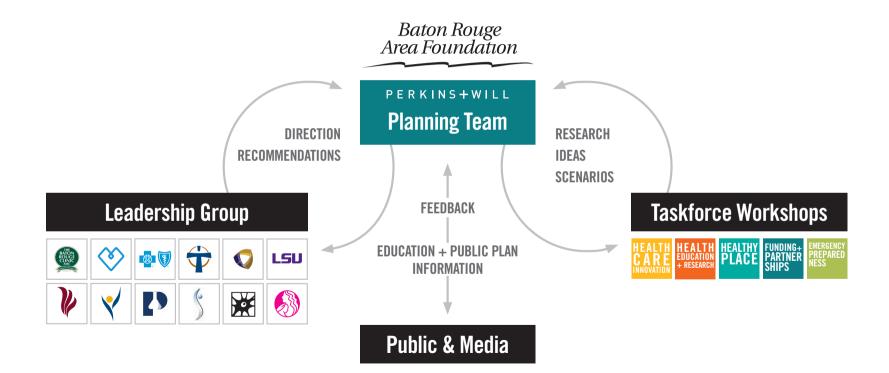
2014

BATON ROUGE

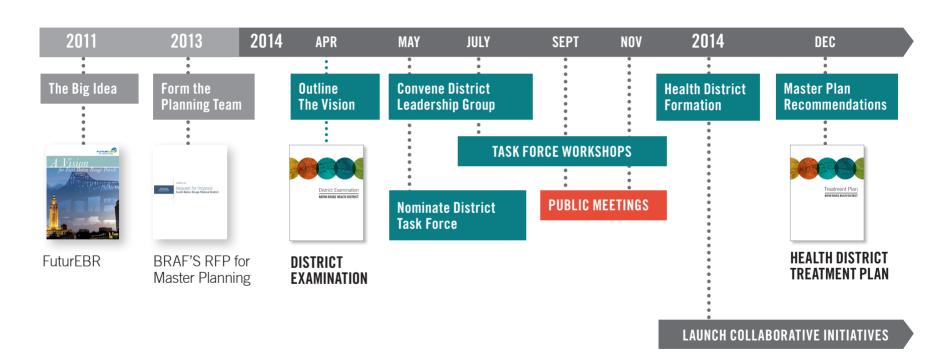
HEALTH DISTRICT PLAN



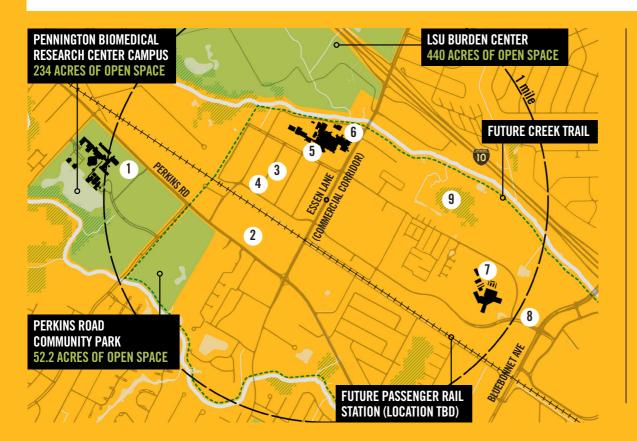
#### Planning Process



#### Planning Timeline



#### THE DISTRICT CORE /



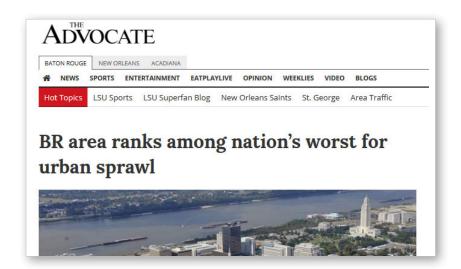
The district core has a large concentration of pillar healthcare institutions, as well as many private practices, physicians' groups and other businesses.

#### **MAJOR DESTINATIONS**

- 1. Pennington Biomedical Research Center
- 2. Baton Rouge Clinic
- 3. LSU Medical Education and Innovation Center
- 4. Our Lady of the Lake College
- 5. Our Lady of the Lake Regional Medical Center
- 6. Mary Bird Perkins Cancer Center
- 7. Baton Rouge General Medical Center — Bluebonnet Campus
- 8. Ochsner Medical Center Summa / Bluebonnet
- 9. Future Children's Hospital



We need to change the way we build to support healthier lifestyles and healthy communities.



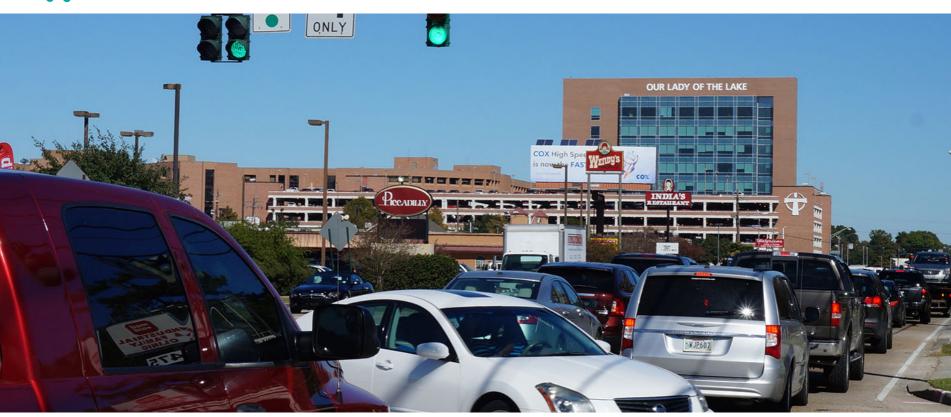
KEY ACCOMPLISHMENT

#### Consensus on District Vision





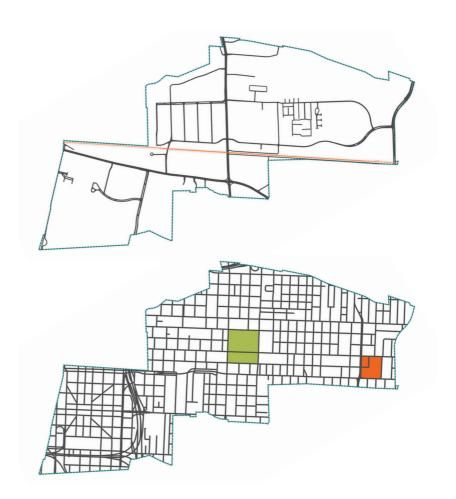
#### COMPLAINT Acute Congestion On Arterial Roads In The District





Existing Street Network in the Health District

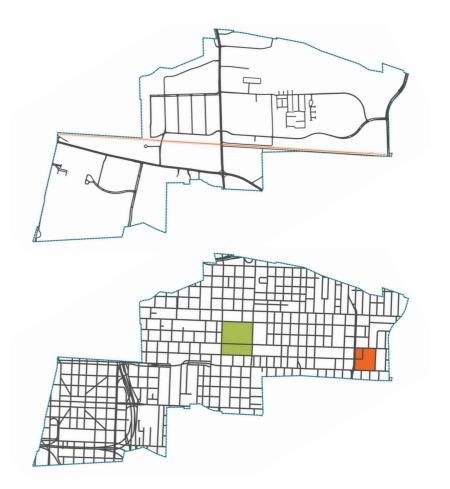
If it were built like Downtown / Mid City



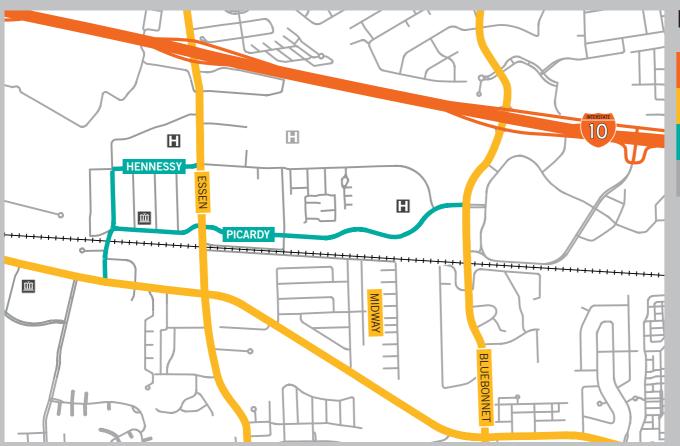


25
intersections
per square mile

230 intersections per square mile







#### **EXISTING NETWORK**

HIGHWAY
URBAN ARTERIALS
MAJOR STREETS
LOCAL STREETS



#### PROPOSED NETWORK

HIGHWAY

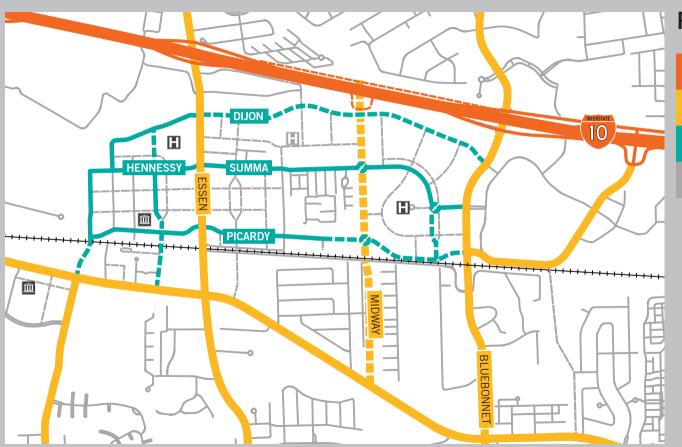
URBAN ARTERIALS

MAJOR STREETS

LOCAL STREETS

#### Key Projects:

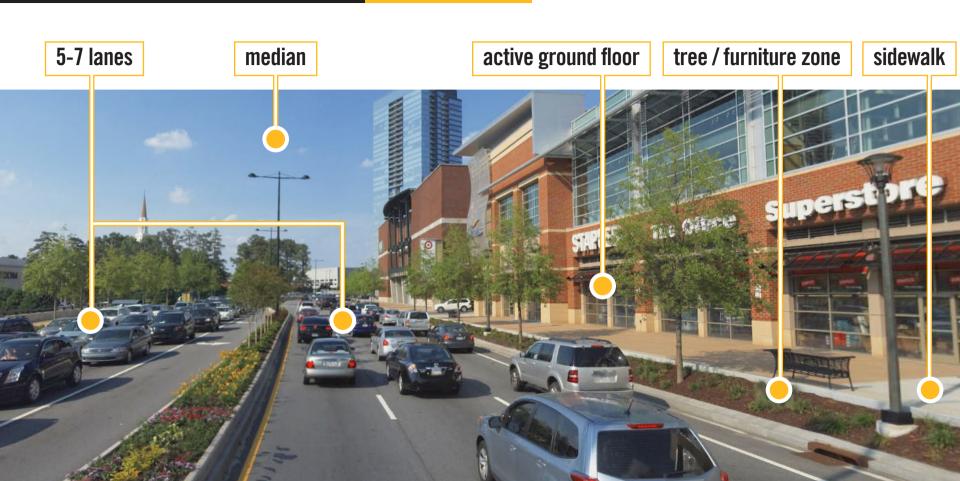
- Midway Blvd
- Dijon Extension
- Picardy Realignment



#### PROPOSED NETWORK

HIGHWAY
URBAN ARTERIALS
MAJOR STREETS
LOCAL STREETS

Opportunity for well-connected local street network











## **Action Plan**



### **Treatment Actions**

The following is a summary of all actions and recommendations made in the Treatment Plan.

### IMPLEMENTATION

- Determine the governance model for the Health District organization
- . Continue to convene the Health District Leadership Group as the Health District
- Elect a board chair
- Determine and pay membership dues
- · Hire an executive director
- Pursue action steps outlined below
- · Continue to partner/communicate with nearby neighborhoods
- . Continue to partner/coordinate with elected officials (City-Parish, Metro Council, Planning Commission, State, etc.)
- . Continue to convene the task forces created through the planning process

### HEALTHY PLACE

- . Coordinate with the City-Parish / Planning Commission to adopt the proposed plan
- Extend Dijon Drive/Service Road to Bluebonnet Boulevard
- Connect Picardy Avenue to Mall of Louisiana Boulevard
- . Complete the proposed and funded Picardy-Perkins Connector
- Insert local access streets to divide mega-blocks along Essen Lane
- . Transfer Curb cuts to local access streets along Essen Lane and Bluebonnet Boulevard (and Midway, once completed)
- . Improve the intersection of Kenilworth Avenue and Perkins Road
- · Add rail crossings (as feasible): O'Donovan Drive OR Dijon Drive, Brittany Drive, Midway Boulevard
- Midway Boulevard
  - Acquire right-of-way for Midway (or encourage the City-Parish to do so)
- Complete engineering study for design guidelines Complete environmental assessment
- · Complete Midway from Perkins to Dijon Drive
- Complete I-10 access for Midway
- . Incorporate a protected, multi-use sidewalk into Midway implementation
- . Connect Midway to future trails along Ward's Creek and Dawson's Creek

IMPLEMENTATION / Treatment Actions

- · Advocate for funding for the Health Loop trail
- . Negotiate easements where necessary for the Health Loop Trail
- . Restore the creeks along the trail into natural riparian corridors . Create a connection to Burden Museum and Gardens
- · Coordinate development along the creeks to incorporate mixed-use buildings
- and appropriate development
- . Track utilization and health impacts of new trail
- Adopt District Street Design Guidelines . Create a pedestrian zone along streets (sidewalks with appropriate buffers)
- · Create on-street parking for businesses located on local and major streets
- · Implement bicycle lanes on priority bike-corridors
- · Reduce lane widths to 10 feet on streets not designated for high speeds . Incorporate medians on larger streets for access management and pedestrian
- Implement coordinated way finding using the Health District brand

- · Implement a bike share program
- Establish a circulator bus service
- Build a multi-modal transit center
- . Promote commuter rail service between Baton Rouge and New Orleans
- . Coordinate with CATS to improve transit options to, from and within the District

- · Create signature parks

- · Prioritize lawn in areas for larger gatherings and recreational opportunities Implement public art

- · Adopt pedestrian-oriented zoning regulations
- · Promote parcel consolidation
- · Promote mixed-used developments by coordinating with developers

## Health District Non-Profit

Joining forces to improve lives and redefine healthcare in Louisiana.

## **Scales of Impact**





## Diabetes and Obesity Center



STEPHANIE RIEGEL MARCH 28, 2016

Home

**Business** 

Politics Real Estate

Daily Report AM Daily Report PM

**Events** 

# Baton Rouge Health District's new director getting organized, planning for diabetes center

Three weeks into her job as executive director of the newly created Baton Rouge Health District, Suzy Sonnier wants to develop a strategic plan to help guide the implementation of the master plan for the district, which includes health care institutions clustered between Essen Lane and Bluebonnet Boulevard in southeast Baton Rouge.

She also wants to move forward with the development of a Diabetes and Obesity Research Center, which was highlighted in the master plan as a centerpiece of the district and a potential catalyst for additional health care and economic development.

"It's exciting because there's so much potential," says Sonnier, who served as secretary of the state

Department of Children and Family Services during Gov. Bobby Jindal's second term. "But for me the most
important thing is figuring out what we can do first that creates a domino effect for everything else—what
will keep driving the growth so it will be self sustaining."

### **TIMEFRAME**

2-5 Years

## ESTIMATED COST

\$4M

### **LEADS**

Blue Cross Blue Shield of LA Pennington Biomedical Research Center Key Anchor Institutions

## **KEY FUNDING SOURCES**

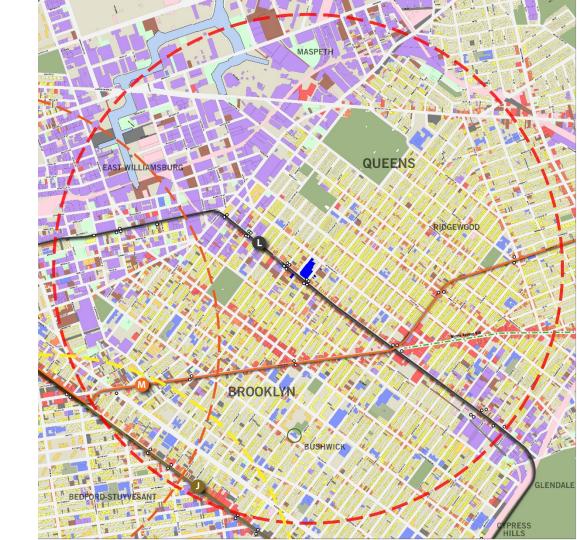
Anchor Institution Contributions Grants, Private Sector Support

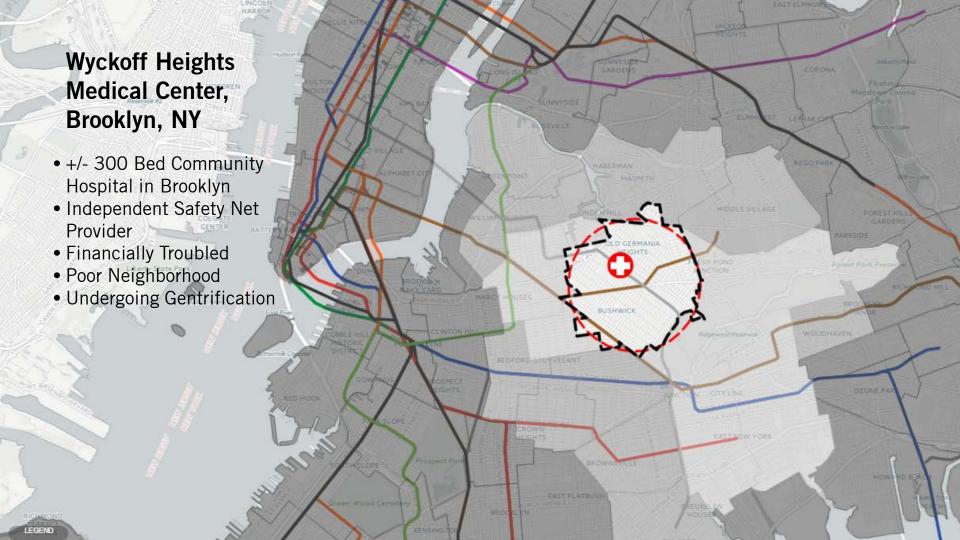
# WYCKOFF HEIGHTS Health Improvement District Brooklyn, NY

...organizational transformation



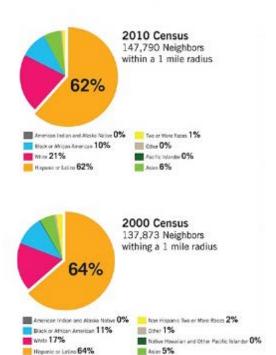
**WYCKOFF HEIGHTS Health Improvement District** 

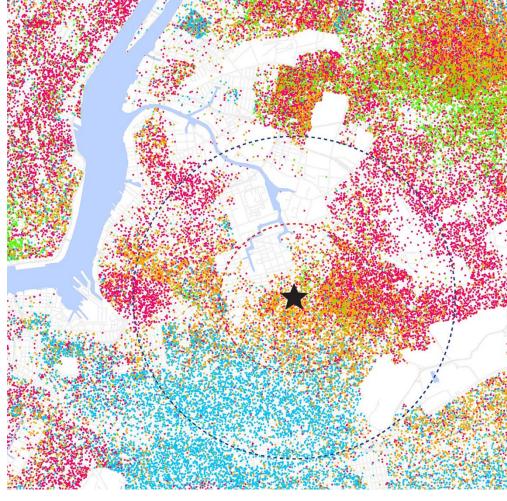






## Giving a voice to the Community





PERKINS+WILL perkinswill.com

## Ridgewood, Queens/Bushwick, Brooklyn

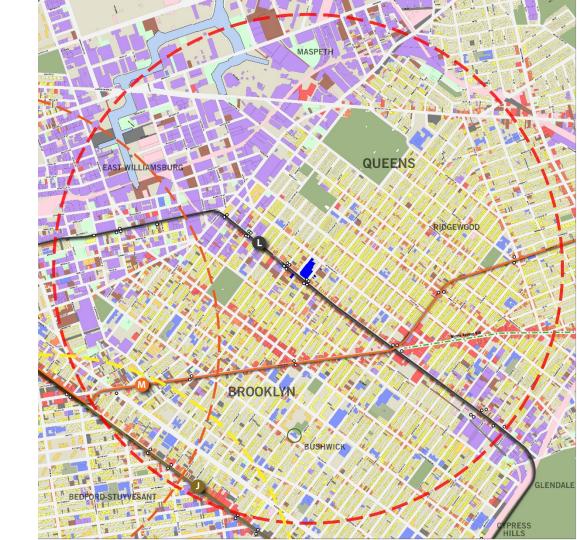
- 01 One & Two Family Buildings
- 02 Multi-Family Walk-up Buildings
- 03 Multi-Family Elevator Buildings
- 04 Mixed-Family Elevator buildings
- 05 Commercial and Office Buildings
- 06 Industrial and Manufacturing
- 07 Transportation and Utility
- 08 Public Facilities and Institutions
- 09 Open Space and Outdoor Recreation
- 10 Parking Facilities
- 11 Vacant Land
- ■ 1 mile radius (Wyckoff)
- = = 1 mile radius (Woodhull)
- = 1 mile radius (Interfaith)
- District Public Health Office (DPHO)-Brooklyn Health Center 335 Central Ave



PERKINS+WILL perkinswill.com

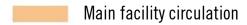


**WYCKOFF HEIGHTS Health Improvement District** 



## **SCALES OF INFLUENCE**

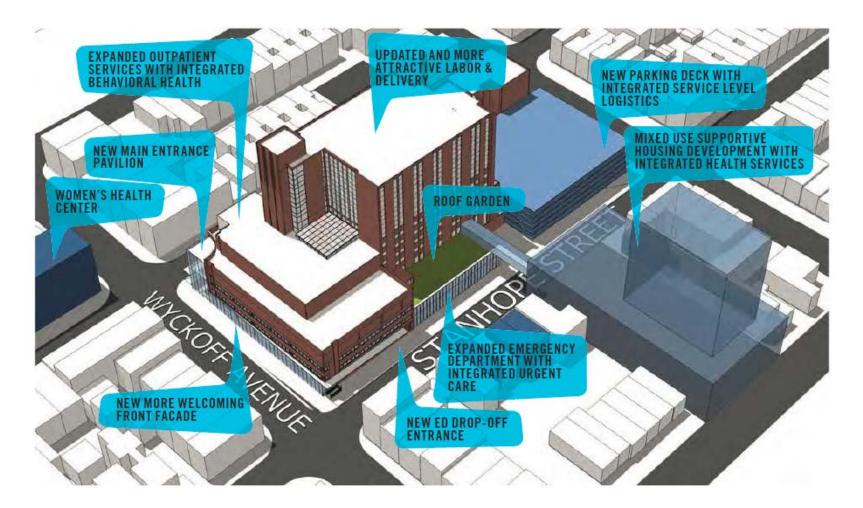
## **Campus Structure**





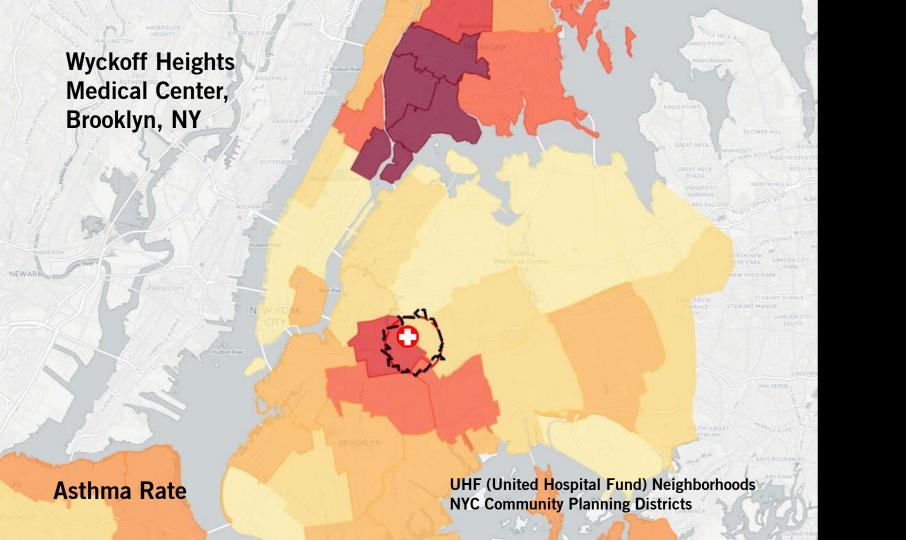
Additional Wykoff owned/leased space

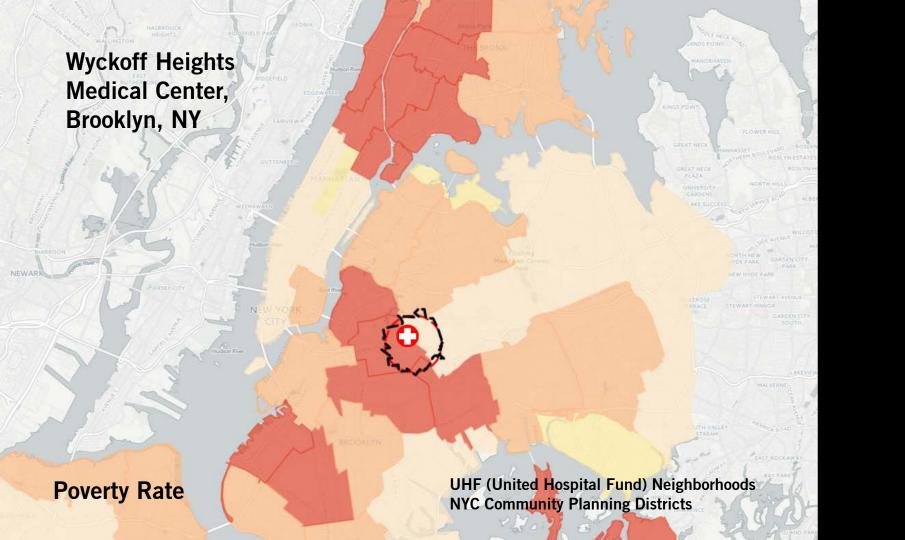


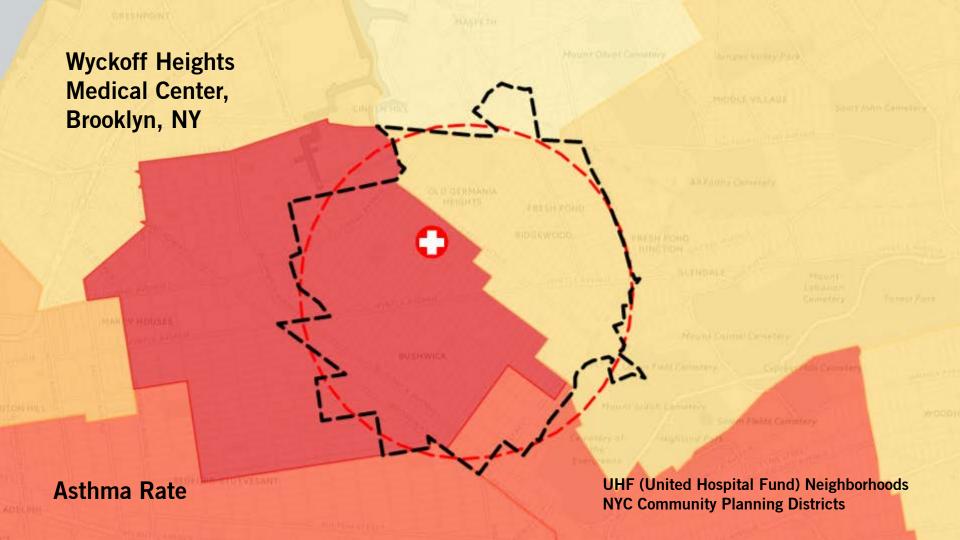


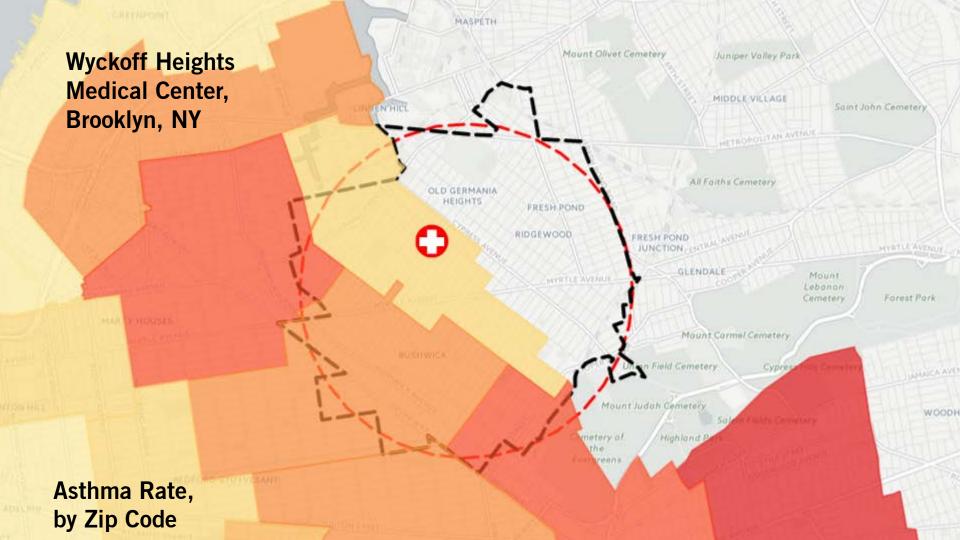
PERKINS+WILL perkinswill.com

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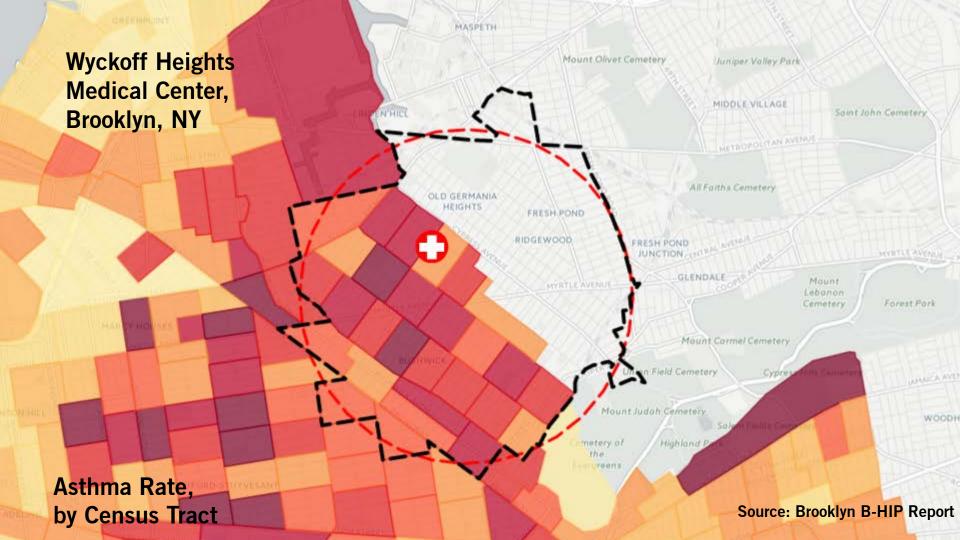


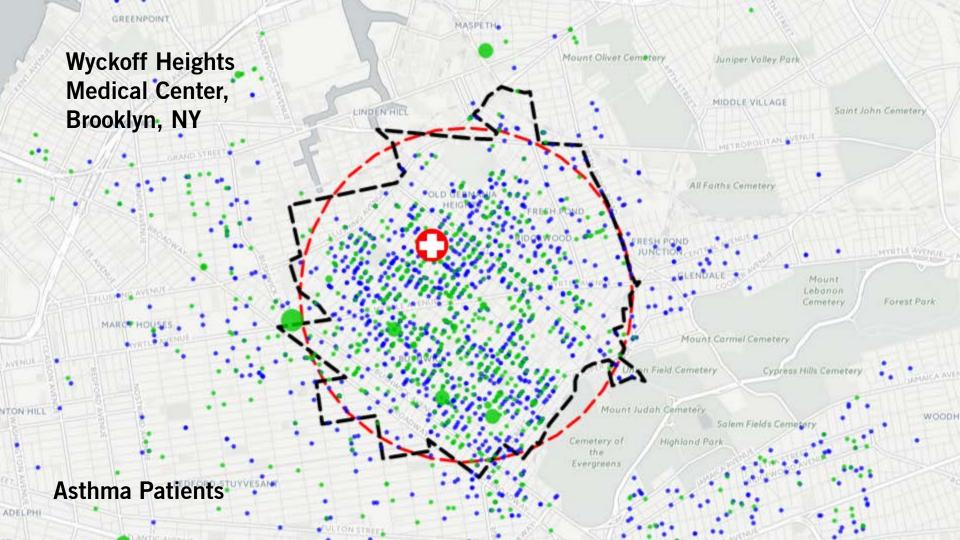


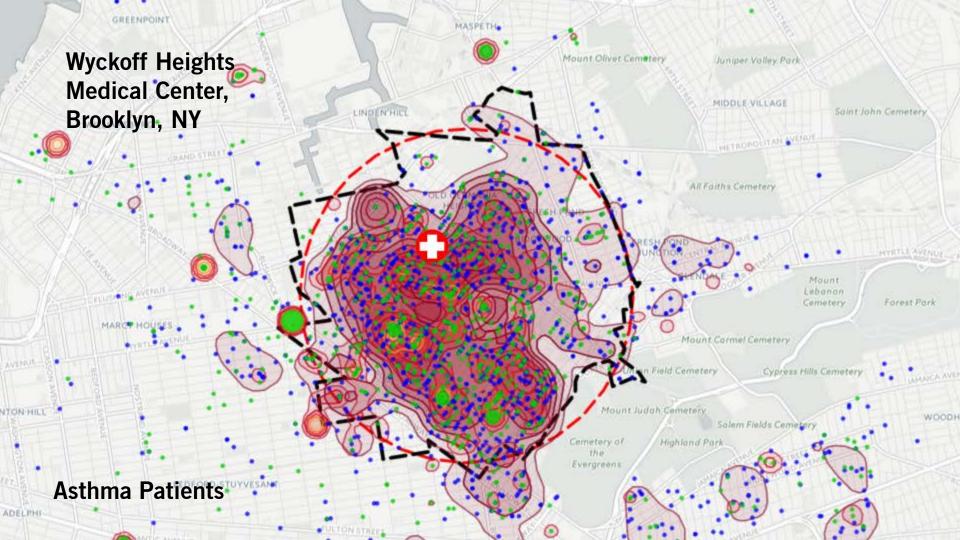


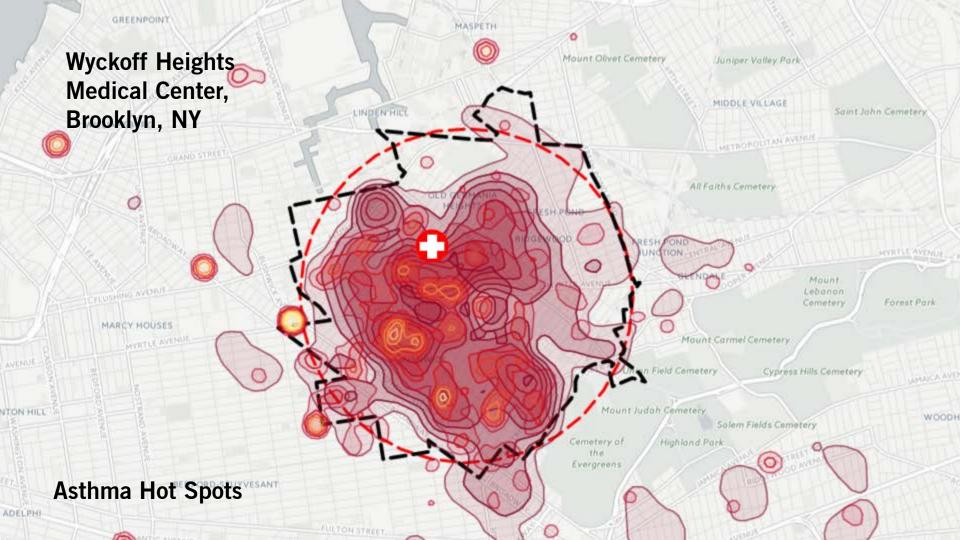


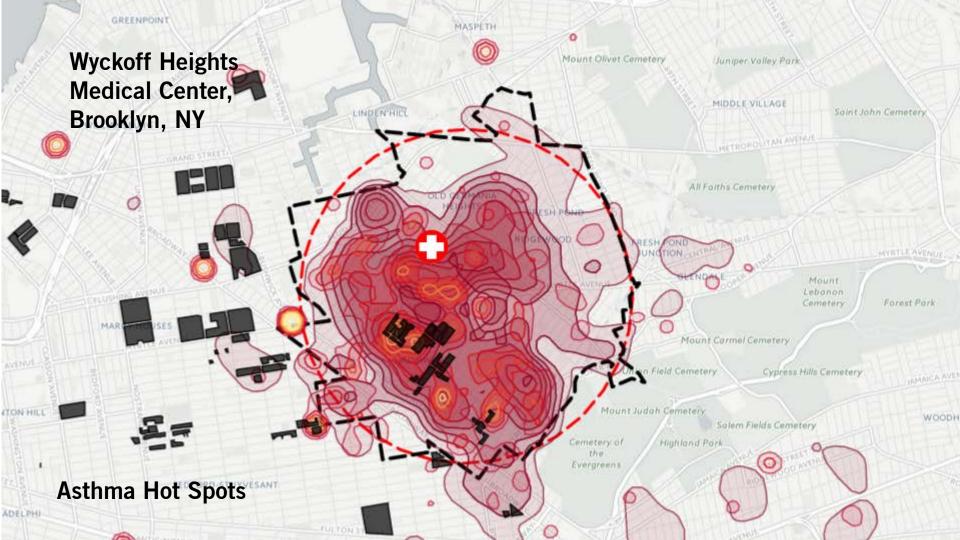


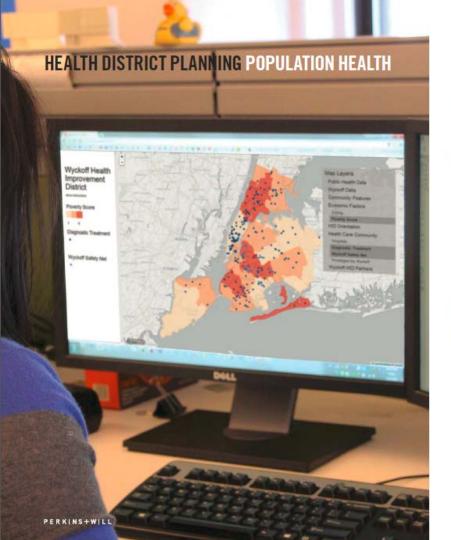




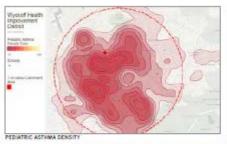


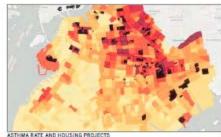






## **EMPOWERING THE DECISION MAKERS**







- **GIS HEALTH MAPPING TOOL**
- LOCAL
- **CUSTOMIZED**
- **REAL TIME WEB-BASED ACCESS**
- **BUILT IN ANALYTICS**

# **GREENBELT LIVING**

4/20/2016



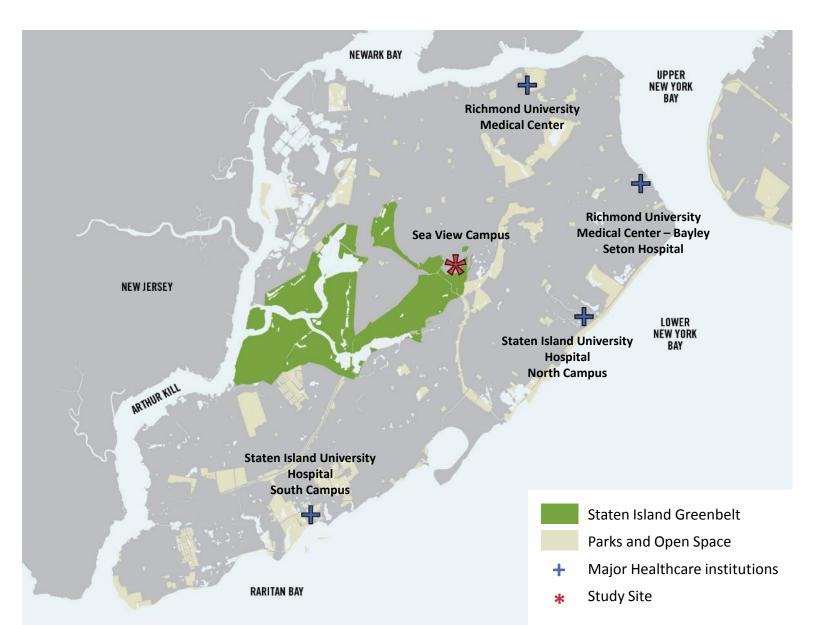
A senior-focused, wellness based, mixed-use community at Sea View. Providing a framework for a health-focused lifestyle that capitalizes on existing site assets and the proximity to the second largest contiguous park land in New York City.

# Staten Island Greenbelt- 2,800 acres of open space, parks, an extensive trail network and public facilities









# Planning and Design Principles for Wellness Based Mixed-Use Communities

- 1. Incorporate a mix of land uses and a well connected street network that invites different user groups and allows for limited car trips while encouraging walking, biking, and general physical activity.
- 2. Provide a range of housing options, local and destination based programs, and a mix of community based programs, both retail and social.
- Enhance access to nature and healthy foods while minimizing pollutants and toxins.
- 4. Create socially vibrant and culturally inviting spaces that is geared toward residents but is also inviting to outside visitors.



# What makes a wellness based mixed-use community?



PHYSICAL ACTIVITY



**HEALTHY ENVIRONMENT** 



**HEALTHY FOOD** 



**SOCIAL ENGAGEMENT** 

## Mid-Island current conditions

- Oldest community within the oldest borough
- Car oriented community
- Health disparities
- Social isolation









# Mid-Island reimagined

- Active aging in place
- Walkable communities
- Integrated health
- Social Engagement









# The historic campus geometry can inform site moves

Men's Open Air Pavilions demolished to make way for the current Sea View Rehabilitation Center & Home

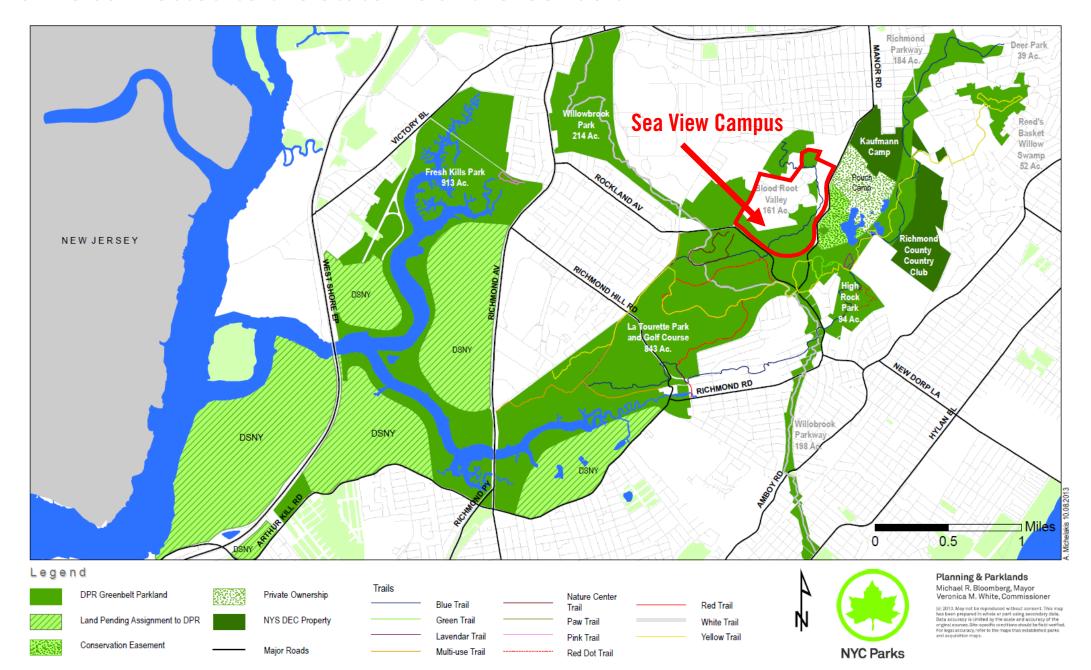
Walking corridors

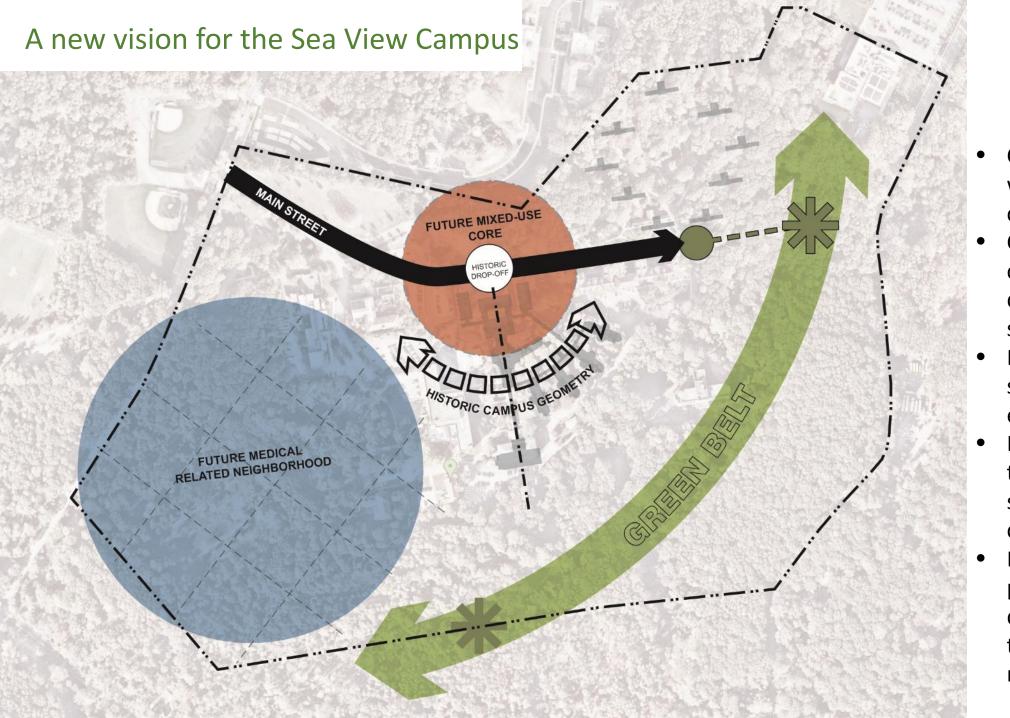
Gardens

Historic Drop Off



## Sea View is connected to the Staten Island Greenbelt





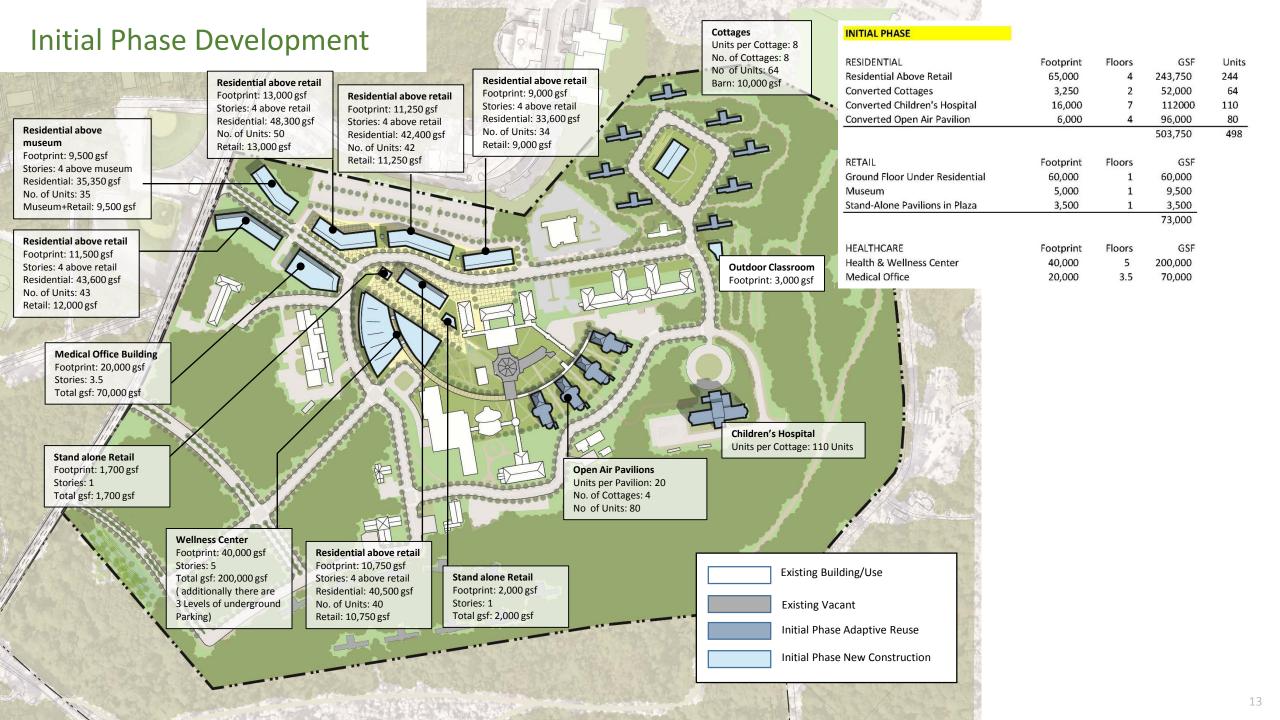
- Create a compact walkable health focused community
- Celebrate the historic campus and integrate new development with historic structures
- Develop a new double sided main street to focus early phase
- Link to the greenbelt through a series of open space and pathway connections
- Develop a walkable block pattern for future development that relates to the proposed new rehab hospital





- 1. Residential above Sea View Museum
- 2. Residential above Retail
- 3. Surface Parking
- 4. Meals on Wheels
- 5. Cottages converted Residential
- 6. Community Barn/Multi-Purpose Space
- 7. Woods Trail
- 8. Outdoor Classroom and Greenbelt Trail Access
- 9. Park Lane Senior Housing
- 10. Children's Hospital converted Residential
- 11. Ballet Offices/Studio
- 12. Gardens
- 13. Open Air Pavilion converted Residential
- 14. Kitchen Building
- 15. Administration Building
- 16. Staff House
- 17. Surgical Pavilion & Sea View Medical Museum
- 18. Plaza
- 19. Stand alone retail
- 20. Wellness Center
- 21. Medical Office Building
- 22. FDNY and Medical Examiner's Office
- 23. Police Surgeon/GRACE Foundation
- 24. Open Air Trellis
- 25. Robitzek Building
- 26. Interfaith Chapel and Solarium
- 27. Colony Hall
- 28. Community Board #2
- 29. Sea View Playwright Theatre
- 30. Camelot
- 31. Men's Cottages









- 1. Welcome Center within Structured Parking
- 2. Structured Parking
- 3. Office Space above Retail
- 4. Central Community Space
- 5. Perimeter Gardens & Trail
- 6. New Residential
- 7. Single Story addition to Existing Rehab Hospital + Façade/Interior Renovations
- 8. Event Porch
- 9. Guest House
- 10. Heritage Trail
- 11. Arrested Ruin
- 12. Charter School, Community Library, Daycare, Playground
- 13. Agriculture Fields

## Potential Future Development

- 14. Medical Office / Research
- 15. Residential-Style Lifestyle Center
- 16. District Structured Parking
- 17. Medical Office / Research
- 18. Medical Office / Research
- 19. New Residential
- 20. Easement to Manor Rd.
- 21. New Sea View Rehabilitation Center & Home
- 22. Outdoor Classroom & Green Belt Trial Access



