Thought Leaders Webinar

Toward a healthier, more equitable, and cleaner transport future in New Jersey

December 13, 2021
1:00 pm (EDT)

Keynote Speaker

Calvin Gladney, LEED AP
President and CEO, Smart Growth America

Speaker

Curtis Ostrodka, AICP, LEED AP
Director of Community Planning, VHB

Speaker

Regan F. Patterson, PH.D
Transportation Equity Research Fellow, Congressional Black Caucus Foundation, Inc. (CBCF)

Speaker

Brianne Eby
Senior Policy Analyst, Eno Center for Transportation
# Research, Planning, and Policy

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Planning for Healthy, Just, Resilient, and CO2-Neutral Mobility in New Jersey

Thought Leaders Webinar
December 13, 2021
Acknowledgements
Existing Work Groups

- Long-term Statewide Planning for Climate Change Workgroup
- Natural and Working Lands Workgroup
- Offshore Wind Ecological Monitoring Workgroup
- Public Health Workgroup
- Sustainable Organic Materials Management Workgroup
Changing policy dynamics at the State and national levels
New Jersey Emissions Targets

2020 Emissions Reduction Goal
(Equivalent to 1990 GHG Emissions)

2050 Emissions Reduction Goal
(80% Decrease from 2006 Baseline)

New Jersey’s GHG Emissions and Goals (MMTCO₂e)
GHG Emissions in New Jersey

Reductions in the transportation sector will be critical to achieving NJ’s emissions target.

Source: NJDEP

NJ GREENHOUSE GAS SOURCES & SINKS 2019

Total Net Emissions, 97.7 million metric tons CO₂e

Source: NJDEP
Significant attention being paid to vehicle electrification

- Charging infrastructure investments
- Rebates and tax credits to encourage EV purchases
- EVs can use HOV lanes
This infographic compares emissions and space consumption for different transport modes. Source: Institute for Sensible Transport
Healthy. Improve health outcomes for people and communities by improving air quality and making it easier and safer to walk and bike.

Just. Promote equity by making travel by transit more reliable and convenient and by enhancing access to opportunity for marginalized groups.

Efficient. Increase transportation system efficiency and effectiveness by integrating advanced and emerging transportation technologies and modes.

Resilient. Adapt infrastructure to climate hazards and ensure services are flexible and responsive to change and well coordinated.

Carbon Neutral. Reduce energy use and emissions of all kinds by facilitating a transition to CO2-neutral transportation.
Guiding concepts

• Decarbonize the transportation sector
• Empower people to drive less
• Create a network of diverse and inclusive neighborhoods that are well connected to each other
• Think of mobility as a service and reimagine public transportation
• Embrace new technologies but ensure they are affordable and accessible to all
• Make social justice a key indicator of transportation performance
Potential Organizing Framework

“15-minute” City/Neighborhood

Leading Practice Examples

- Singapore
- Paris
- Portland
- Melbourne
- Ottawa
- Barcelona

Source: https://www.ft.com/content/c1a53744-90d5-4560-9e3f-17ce06aba69a
What is a “15-minute” city/neighborhood?
Phase 1 Case Study Locations

1. Atlantic
2. Camden
3. Cumberland
4. Essex
5. Hudson
6. Mercer
7. Middlesex
8. Warren
Key relationships

People + Places + Connections

Neighborhood  Community  Region
“15-min.” Accessibility

Accessibility
- Best access
- Moderate access
- Limited access
- Low income block group

Data Source: NJGIN, ESRI base map, ESRI Business Analyst, NJ Transit GTFS data

Planning for Healthy, Just, Resilient, and CO2-Neutral Mobility in New Jersey
Prepared: June 10, 2021
by Alan M. Voorhees Transportation Center

RUTGERS Edward J. Bloustein School of Planning and Public Policy
Thought Leaders Webinar

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Thoughts? Questions? Discussion?
Phase 2 – Jan-Sep 2022

- Convene county-specific and youth (14-18 year-olds) visioning workshops
  - Identify needs and desired long-term outcomes
- Conduct neighborhood-scale analysis in 3-4 locations
  - Field visits and interview
  - Community engagement
  - Prepare concept plans
  - Identify infrastructure needs
- Develop planning and policy recommendations
- Prepare comprehensive final report
- Convene “Thought Leaders” Forum #2 – How do we get there?
What factors determine our health?
Family health history
Behaviors/lifestyles
66% of children walked or biked to school in 1974.
10% of children walked or biked to school in 2019
Consequences Adult Obesity

1995

2016
Consequences Adults with Diabetes

1995

2016
The Growing Cost of Healthcare is at Epidemic Proportions

- Centers for Medicare & Medicaid Services reports that in 2018 the United States spent $3.6 trillion on Healthcare—$11,172 per person

- Nearly 40% of adults and over 18% of children in the U.S. are obese

- We could save ~$5.5 billion in health care costs related to obesity if one in 10 adults started a walking program

- Physical inactivity and unhealthy diets are second only to tobacco use as the main cause of premature death in the U.S.

- How we design communities reinforces the epidemic of obesity, diabetes, high blood pressure, heart disease, asthma, orthopedic, and psychological disorders
Bringing Health into Planning Decision Making

Leveraging data to plan and design communities in a way that confers health benefits and makes it easier for people to live healthy lives
Can we build a tool that would help?

Healthy Community Design Principles

Open Data

GIS
Healthy Mobility Model Goals

To analyze land use, urban design, and mobility factors that affect community health

To establish baseline health assessment and trends for a community

To forecast likely community health outcomes or conditions

To identify physical and prioritize improvements that can contribute to better community health
Healthy Mobility Model Inputs

Tier 1

US Census Data
- Demographics
- Education
- Commuting
- Labor Participation
- Housing Affordability

500 Cities Data (CDC)
- High Blood Pressure
- Asthma
- Heart Disease
- Diabetes
- High Cholesterol
- Obesity
Tier One Risk Assessment

First, we used 500 Cities data. Starting point for the analysis with known health outcomes for these tracks across major cities.

Then, statistical testing was performed on the health data with Census demographic data, open data and socio-economic data.

This identified relationships that could be used to complete the gaps in health data availability.
Tier One Risk Assessment

The statistical testing allowed for the entire state of Florida to be analyzed.

Healthy Mobility Model estimates the percent of population affected by each of the 6 health criteria and established an output Health Risk Score.
## Tier Two: Recommend Strategies

### Social Determinants
- Income, employment, race and ethnicity, discrimination, social vulnerability, rent burden, public expenditures, school quality, educational attainment, age, food security, civic participation, language and literacy

### Transportation Infrastructure
- Sidewalk miles, highway miles, bike lanes, parking, transit, block length, commute mode, walkability, vehicle miles traveled, street width, safety

### Institutions and Destinations
- Parks and playgrounds, healthcare, schools, community gardens, cultural institutions, banking, libraries, business districts and jobs

### Land Use
- Density, housing mix and stability, polluting industries, brownfields, zoning, food retail options, housing age and quality, vacancy

### Others
- Tree cover, internet access, noise, air quality, impermeable surface, water quality, universal accessibility
St. Petersburg

Six of 10 areas have high incidence of obesity, diabetes, asthma, and COPD.

Areas with parking behind buildings have lower incidence of chronic diseases.

Areas within ½ mile from grocery stores and health care providers have lower incidence of chronic diseases.
Metroplan Orlando 2045 MTP Update

Health & Environment

- Bicycle Level of 25% Stress
- Residential Density 25%
- Non Residential 12.5% Density
- Public Health 18.75% Indicators
- Environmental 18.75% Justice
- Relative Change 0% in VMT
How can the HM Model be used?

- Establish a **baseline health profile** in conjunction with existing conditions work.
- **Neighborhood Studies** - assess built environment and social factors most connected with health to target solutions.
- **Interventions/Alternatives Assessment** – determine which built environment changes would be most positively associated with better health outcomes. Alternatives can be compared to one another.
- **Transportation Studies** - look specifically at transportation access factors and indicators like walkability, micro-mobility, traffic, air quality and more.
- **Prioritization** - factor community health considerations into decision making on budgeting and prioritization.
Learn More:

https://www.vhb.com/technology-solutions/healthy-mobility-model/

costrodka@vhb.com
Just Mobility

Regan F. Patterson, Ph.D.
Congressional Black Caucus Foundation
Just Mobility

Mobility Equity

“A transportation system that increases access to high quality mobility options, reduces air pollution, and enhances economic opportunity in low-income communities of color.”
- The Greenlining Institute

“Mobility justice is less about mode choice, although that’s important, and more about \textit{freedom of movement}, freedom to navigate space and place, in the absence of racism.”
- Dr. Destiny Thomas
Automobile-Centric Planning

Hastings Street, a main street running through Paradise Valley and Black Bottom, predominantly Black neighborhoods in Detroit, MI

Chrysler Freeway, as viewed from the same location
Highways
Percent of African-Americans living near highly trafficked roads: 24%

Percent Black adults with asthma: 9%

Percent Black children with asthma: 14%
Access

- Percent Black households that do not have access to an automobile: 20%
- Percent public transit riders that are African-American: 24%
Safety

Percent of traffic-related pedestrian deaths that are African-American: 18%
Police Violence

Average percent that Black drivers are more likely to be stopped by police than white drivers

20%
Between 2010 and 2020, Los Angeles police wrote 31,712 jaywalking citations. Those tickets were issued disproportionately to Black pedestrians, who represent nearly a third of total citations, but account for about 9% of the city's population.

![Chart showing jaywalking citations by ethnicity compared to population percentages.]

Percentages rounded to nearest whole number; Ethnicity information presented as reported by LAPD; Pedestrians who identified as Indigenous, Native Hawaiian, Native Alaskan or Pacific Islander represented 0.07% of citations.

Source: laist.com
Access

Percent of hybrid vehicle buyers in CA who are African-American: 3%

Percent of plug-in electric vehicle buyers in CA who are African-American: 2%
A rendering of the proposed plan for I-375 in Detroit.
Michigan Department of Transportation

Source: grist.org
Free, accessible, reliable, safe public transportation

Source: thedreamcorps.org
Thank You!

Regan F. Patterson, Ph.D.
rpatterson@cbcfinc.org
@Regan_Felice

cbcfinc.org/publications
Brianne Eby
Senior Policy Analyst
Eno Center for Transportation

@Enotrans
@briannne_eby
beby@enotrans.org
Vision Forum: Healthy, Just, Resilient and CO2-neutral Mobility for All

The NJ CCA & the NJ CCRC in association with the AMVTC @Rutgers

Presentation by Calvin Gladney, @SmartGrowthCEO
Smart Growth America envisions a country where no matter where you live, or who you are, you can enjoy living in a place that is healthy, prosperous, and resilient. We empower communities through technical assistance, advocacy, and thought leadership to realize our vision of livable places, healthy people, and shared prosperity. smartgrowthamerica.org
One organization, many programs, achieving our mission through:

Land use and development  Economic development  Transportation and Infrastructure
Vision Forum: Healthy, Just, Resilient and CO2-neutral Mobility for All

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Vision Forum: **Healthy, Just, Resilient and CO2-neutral Mobility for All**

15-MINUTE CITIES

The NJ CCA & the NJ CCRC in association with the AMVTC @ Rutgers

Presentation by Calvin Gladney, @SmartGrowthCEO
YES,
And...
GET YOUR TIME BACK
GET YOUR TIME BACK
Emitting more because we’re driving more
Sources of emissions

- **Transportation**: 28%
- **Electric Power**: 27%
- **Industry**: 22%
- **Other sectors**: Agriculture, Commercial, Residential, Other

**2018 U.S. GHG Emissions by Sector and Source**

- **Cars**: 59%
- **Freight Trucks**: 23%
- **Aircraft**: 9%
- **Other**: 2% Rail, 2% Ships and Boats, 5% Other
Sources of emissions

- Transportation: 28%
- Electric Power: 27%
- Industry: 22%

Detailed breakdown:
- 59% Cars
- 23% Freight Trucks
- 9% Aircraft
- 2% Rail
- 2% Ships and Boats
- 5% Other
Two areas within Savannah, GA seen at the exact same scale. Sprawl requires greater spending on infrastructure, public service delivery, and transportation.
Dangerous by Design 2021

Report: Available now smartgrowthamerica.org/dangerous-by-design
People of color are disproportionately represented

Relative pedestrian danger by race and ethnicity (2010-2019)

- Asian/Pacific-Islander: 30.5
- White, Non-Hispanic: 53.5
- Hispanic/Latinx: 55.1
- Black or African American: 89.6
- American Indian or Alaska Native: 111.5

All population: 63.3
THE 15-MINUTE PARIS

- Eat Healthy
- Learn
- Work
- Share and Reuse
- Stay Active
- Get Around
- Take Care of Your Health
- Enjoy the Outdoors
- Stock Up
- Be Engaged in Your Community

MICHEL
Equity is not the default option.
This editorial cartoon endorsed the increased use of zoning to stop "the blight bug" and protect residential communities. The zoning was misused to bar non-white residents from moving into most neighborhoods in urban areas.

Source: St. Louis Post-Dispatch

Race & Zoning, St. Louis Zoning Code

Zoning as a Tool of Inequity
I-35 UPPER DECK CONSTRUCTION
1973
Austin, Texas

Source: Austin Chronicle
Book Recommendations

The Color of Money
Black Banks and the Racial Wealth Gap
Richard Rothstein

The Color
of Law
Mehrsa Baradaran

Know Your Price
Valuing Black Lives and Property in America's Black Cities
Andre M. Perry
The spatial scale of segregation has gradually increased over time.

These distributions are based on the contemporary metro regions that contain what were the top 50 U.S. cities by population in 1950. Even as the population shifted from city to suburb, segregation has persisted.
Black people are more likely to die in traffic accidents. Covid made it worse.

More Black people died in traffic deaths in 2020 than any other racial group even though Americans drove less in the pandemic. Experts say this is not new.
Climate Resilience
For Whom?
Climate Resilience For Whom?
Climate Adaptation For Whom?
1937 REDLINING MAP
(Philadelphia, PA)
(Average Temperature Difference Between Neighborhoods Philadelphia, PA)

Source: City of Philadelphia
Redlining --> Disproportionate Heat in POC areas
What About Public Transit?
BUILD IT AND THEY WILL COME
15-Minute Neighborhood

Residents can fulfill their shopping, recreational and service needs within a 15-minute walk, bike or roll. A 15-minute neighborhood has these key characteristics:
15-Minute Neighborhood

Residents can fulfill their shopping, recreational and service needs within a 15-minute walk, bike or roll.

Evaluate the existence or possibility of a 15-minute neighborhood using these metrics:

- Flexible Zoning and Land Use Regulation
- Affordable Public Transit to a Job Center
- Housing & Transportation Costs < 45% of Income
- Demographic, Ability and Mobility Equity