Crossroads: The Built Environment, Health and the NYS Prevention Agenda

November 20, 2014

Evaluations

Nursing Contact Hours, CME and CHES credits are available.

Please visit www.phlive.org to fill out your evaluation and complete the post-test.

Featured Speakers

- **Nathan Graber**, MD, MPH
  - Director, Center for Environmental Health
  - NYS Department of Health

- **Karen Derusha**, Principal Public Health Educator
  - Clinton County Health Department
  - Health Planning and Promotion Division

Disclosure Statements

The planners and presenters do not have any financial arrangements or affiliations with any commercial entities whose products, research or services may be discussed in this activity.

No commercial funding has been accepted for this activity.

Thank You to Our Sponsors:

- University at Albany School of Public Health
- NYS Department of Health
  - Center for Environmental Health
Historical Background

1660  1831

Urban Sprawl

Built Environment

*The human-made spaces in which people live, work, learn and play.*

- Sidewalks, bike lanes, bus shelters, greenways
- Destinations and streetscapes
- Street connectivity, developmental density
- Traffic concentration
- Mixed vs. Single Use Zoning

Sprawl Index

- Residents with high sprawl index
  - Weigh more
  - Are more likely to be hypertensive
  - Walk less during leisure time

*Ewing R et al Am J Health Promot (2003)*
Convenience Stores and BMI

Proximity of children’s homes and convenience stores is associated with a higher BMI-percentile.

Galvez et al., 2009

Built Environment & Climate Change

Built Environment: Connections to Health

New York State’s Health Improvement Plan Prevention Agenda 2013-2017

Built Environment: Improving the Design and Maintenance

Built Environment: Improving the Design and Maintenance

- Inform a wide variety of stakeholders about the impact of the built environment on health
- Conduct school, workplace and community-based physical education programs


- Apply tracking, surveillance and research
- Organize neighborhood play streets, walking tours, prescriptions for exercise
The Gates in Central Park - 2005

Photos courtesy of Maida Galvez

Built Environment: Improving the Design and Maintenance

• Seek opportunities to promote compliance with and enforcement of existing laws and ordinances, such as NYS Smart Growth Infrastructure Act; NYS Complete Streets

• Innovative policing strategies focused on prevention

Built Environment: Improving the Design and Maintenance

• Construct and maintain safe sidewalks, bike lanes, recreational facilities, parks and other amenities, especially in low-income communities

• Inspect, maintain and upgrade public transit

• Implement land use planning and respond to local needs

Community Guide Recommendations: Design and land use policies and practices

• Median improvement in some aspect of physical activity (e.g., number of walkers or bicyclists) was 35% or 161%. (Small vs. large geographic areas)

• Additional Benefits:
  • Improvements in green space
  • Increased sense of community and decreased isolation
  • Increased consumer choice for places to live
  • Reduced crime and stress

Smart Growth: Before & After

Community Gardens

Photos courtesy of Maida Galvez
“Measures Submitted for NYS Prevention Agenda Action Plan: Promote a Healthy & Safe Environment”

<table>
<thead>
<tr>
<th>Outdoor Air Quality</th>
<th>Water Quality</th>
<th>Built Environment</th>
<th>Injuries, Violence and Occupational Health</th>
</tr>
</thead>
<tbody>
<tr>
<td># LHD’s</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td># Hospitals</td>
<td>1</td>
<td>4</td>
<td>7</td>
</tr>
</tbody>
</table>

Initiatives include adaptation to climate change, implementation of a Complete Streets Resolution, improved public transit and access to grocery/food stores.

Becky Schneider, Student Assistant
August 2014

Clinton County

Public Transportation and Food Access at Grocery Stores

Healthy People 2020: Clinton County Goal

- Increase the proportion of Americans who have access to a food retail outlet that sells a variety of foods that are encouraged by the Dietary Guidelines for Americans.
- Increase the number of Clinton County Public Transit (CCPT) riders to local grocery stores
Goal: 10% increase by December 2015

Food Access & Built Environment

- “Vehicle access is perhaps the most important determinant of whether or not a family can access affordable and nutritious food.”
  - Access to Affordable and Nutritious Food: Measuring and Understanding Food Deserts and Their Consequences, USDA
- Most areas of Clinton County are defined as tracts with ‘low vehicle access’

Public Transportation and Access to Grocery Stores

Pink: Low vehicle access
Tracts in which more than 100 households have no access to a vehicle and are more than 1/2 mile from the nearest supermarket.

Green: Original food desert measure
Low income census tracts where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket.

Orange: Food desert measure
Urban > 1/2 mile
Phase One

Data Collection Method

- **Stop Audits:** Direct observation of number of people utilizing bus service to obtain groceries
  - Number of people exiting bus
  - Number of people boarding bus
  - Number of people boarding bus with grocery bags

Phase One

- 186 of 300 stops - NO riders exiting or boarding at grocery locations.
- The existing bus service is underutilized by the local target population for grocery shopping purposes.
- Barriers may exist which prevent people from using public transportation effectively when planning to buy food.

Conclusions

- 186 of 300 stops - NO riders exiting or boarding at grocery locations.
- The existing bus service is underutilized by the local target population for grocery shopping purposes.
- Barriers may exist which prevent people from using public transportation effectively when planning to buy food.

Phase Two

- Identified need to collect qualitative data
  - Determine current food shopping habits
  - Determine awareness of bus availability
  - Determine potential barriers
- Conduct resident surveys

Survey of Target Population

- Clinton County households:
  - Low income and low access to store - 6,442
  - No car and low access to store – 1,386
    - USDA Economic Research Service (2010, most recent year available)
- **Goal:** minimum 10% = 650 responses from low income population

Phase 3 - intervention

- Response analysis to identify transportation-related barriers to food access
- Data from survey will inform planning of intervention to positively affect food access through increased CCPT ridership
- Community based effort will be continued through 2015
**Phase 4**
- Repeat quantitative ridership survey
- Assess new data
- Look for minimum 10% increase

**Complete Streets at the Next Level**
When the Community Embraces Complete Streets Concepts

---

**Ideas Take Hold**
- Citizens group wants to apply complete streets concepts
- Bike/Pedestrian Safety
- Road Diet - Rt. 9 North of Plattsburgh
- Connection to existing Bicycle Routes
- YouTube Video: Plattsburgh Safe Streets

---

**Project: North Margaret St.**

---

**Improvement: Road Diet**
- Four lanes become three
- Bike lanes on both sides
- Pavement resurfaced
- Clear lane markings

---

**Other Improvements**
- Signage to direct traffic
- **Bike Box** - cyclists navigate in front of vehicle traffic to avoid right turn collisions or make left turns
Community Response

CDC's Built Environment and Health Initiative: www.cdc.gov/nceh/information/built_environment.htm

Articulates the current understanding of the relationship between the built environment and the quality of air, water, land resources, habitat, and human health: www.epa.gov/smartgrowth/built.htm


Additional Resources


Evaluations

Nursing Contact Hours, CME and CHES credits are available.

Please visit www.phlive.org to fill out your evaluation and complete the post-test.

Thank you!