



BUILT ENVIRONMENT AND PUBLIC HEALTH: A SYNDEMIC PERSPECTIVE

Presented by:
Michael McGeehin, PhD, MSPH
Senior Epidemiologist
Research Triangle Institute

“We recommend that in laying out new towns and villages, and in extending those already laid out, ample provision be made for a supply, in purity and abundance, of light, air, and water; for drainage and sewerage, for paving and for cleanliness.”

Report of the Sanitary
Commission of Massachusetts,
1850

Built Environment

- Encompasses all buildings, spaces, and products that are created or modified by people. It impacts indoor and outdoor physical environments as well as social environments and subsequently our health and quality of life



SYNDEMIC PERSPECTIVE

- An understanding of disease that focuses on the complex interconnections among co-morbid diseases, biological linkages, and interacting social and environmental conditions.

BUILT ENVIRONMENT

- Major Categories
 - Housing
 - Transportation
 - Community
 - Equity

HOUSING

- Indoor Air Contamination
- Pests
- Rodents
- Safety – crime, injuries

TRANSPORTATION

- Highway and Roadway Design
- Traffic Volume
- Access To Public Transportation
- Pedestrian Crossings
- Pollution
- Bike Paths

COMMUNITY

- Dilapidated Housing
- Heat Island
- Inferior Schools
- Decaying Infrastructure
- Limited Access to fresh, healthy food
- Limited access to parks and recreation facilities
- Access to health care
- Separation from other communities

CONDUCTIVE TO GOOD HEALTH?



HEALTH IMPACTS

- Heart Disease
- Cancer
- Stroke
- Accidents
- Asthma
- Obesity
- Diabetes

MENTAL HEALTH IMPACTS

- Fear
- Isolation
- Despair

WINNING STRATEGIES

- Incorporate Equity
- Community Engagement – advocacy
- Economic Development
- Prevent Displacement
- Impact Policy
- Collaboration Among Disciplines
- Built Environment – Human Health Research

Caracas, Venezuela – NY Times



RESEARCH TOPICS – B.E. and HEALTH

- Aim at Causal Links
- Associations Among Community Features and Obesity
- Barriers to Activity in Low Income Neighborhoods
- Associations Among Activity, Food Availability, and Obesity
- Air Pollution and Acute Cardiac Events

CONCLUSIONS

- Human Health and Built Environment are Closely Linked
- Built Environment and Health Associations are Complex and Comprehensive
- Focused Research on Cause is Needed
- Successful Strategies Must be Both Immediate and Long-Term
- Beware of Simple Solutions

