SUSTAINABUILD LAUNCH

BEH: Measuring the urban environment

March 29, 2016

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Built Environment and Health (BEH)

Walkability
Business density
Food environment
Pedestrian safety
Safety from crime
Physical disorder
Transit accessibility
Recreational facilities
Parks & green space
Architecture
Streetscape & public spaces
Environmental quality

Physical activity
Diet
BMI/Obesity
Chronic disease
Common challenge

Built environment constructs
Common challenge

Built environment constructs → Health outcomes
Common challenge

Built environment constructs → Health outcomes

Built environment indicators
Urban Design Qualities

- **Constructs:**
  - Imageability
  - Enclosure
  - Complexity
  - Human scale
  - Transparency

- **Hypothesized effects on health:** Promote walking in urban spaces

- **Protocol:** Research by Reid Ewing and colleagues
Examples of Urban Design Quality indicators

- **Enclosure:** Estimate proportion street wall
- **Complexity:** Presence of outdoor dining
- **Complexity:** Count building accent colors
- **Enclosure:** Count long sight lines

- **Human scale:** Count street furniture
- **Human scale:** Estimate building height
Physical disorder

- **Construct:** Physical disorder
- **Hypothesized effects on health:** Increase fear and stress, discourage walking and other physical activity in public spaces
- **Protocol:** Research by Robert Sampson and others
Examples of Physical Disorder indicators

- Litter
- Poor building maintenance
- Burned out buildings
- Abandoned buildings
- Bars on windows
Nutritional environments of food stores and restaurants

- ** Constructs: **
  - Availability of healthy foods
  - Nutritional information
  - Facilitators and barriers to healthy eating
  - Price incentives

- **Hypothesized effect on health:** Promotes healthy eating

- **Protocol:** Research by Karen Glantz and colleagues
Examples of Nutritional Environment indicators

Food availability: Healthy main - dish salad

Pricing: Combination meal cheaper than individual items

Facilitators and barriers to healthy eating: Signage promoting unhealthy items

Nutritional information: Healthy choices identified on menu
Audits of human activities

• **Constructs:**
  • Social interaction
  • Walking
  • Park-based physical activity

• Human activities can be:
  • Built environment indicator OR
  • Outcome measure
Examples of human activity indicators

- People sitting in groups
- People shopping at street vendors
- Recreational and physical activity in park
Other approaches

- Street intercept surveys
- Qualitative interviews
- Virtual audits with Google Street View

- beh.columbia.edu
- activelivingresearch.org