

The Community Environment

Goals:

- Appreciate how features of the neighborhood and community impact children's health
 - Physical design
 - Access to health promoting resources
 - Social structure

Introduction:

A comprehensive view of a child's life lends understanding of how a given risk affects a given child. An environmental health perspective helps the provider take this broad view as it allows exploration of the interplay between genetics, demographics, toxic exposures, positive influences, the built environment, chronic illness, maternal exposures, prior exposures, age, and behavior. These influences function at both the individual and community level. To appreciate the complex interplay of these influences at the community level, the pediatrician's best tool is her observation skills. These skills, honed in the clinic, can help a pediatrician begin to understand how the built environment impacts children's health.

DIRECTIONS:

Preparation:

Before visiting the neighborhood, prepare by becoming familiar with key concepts in environmental health, key concepts of the built environment, and learn some of the characteristics of the neighborhood you will visit.

- 1) Environmental hazards as they relate to children. Read: *Pediatric Environmental Health Toolkit: Key Concepts*
- 2) The Built Environment and Health:

Review: AAP Committee on Environmental Health: "Statement on The Built Environment." *Pediatrics June 2009*

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- 3) Your instructor with provide you with a patient to be considered during this exercise.
- 4) Spend 20 minutes on google and google maps familiarizing yourself with the chosen neighborhood. Use the worksheet to mark important places on your google map.
- 5) Familarize yourself with online tools for neighborhood evaluation. Learn about the pollutants in the zip code you've been given and how your patient's neighborhood compares to others.

Scorecard <u>www.scorecard.org</u>: A pollution information website. It provides pollution reports by county including toxics, air, water, and environmental justice.

EPA Enviromapper Storefront http://www.epa.gov/enviro/html/em/index.html: Interactive mapping tools for querying environmental information by zip code. It includes an environmental justice database.

Air Quality Index: www.airnow.gov Check the local Air Quality Index and forecasts for air quality in your patient's zip code.

If you want to learn more about pollutants in the neighborhood: ATDSR ToxFAQs http://www.atsdr.cdc.gov/toxfaq.html: Frequently asked questions about contaminants found at hazardous waste sites.

Neighborhood visit:

- 1) Visit your patient's neighborhood. Look for neighborhood features that impact children's health. Use the worksheet to guide your thinking as you walk.
- 2) Consider the relationship between your patient's health and the greater community.



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WORKSHEET for use while reviewing online tools:	
Name or location of the community or neighborhood:_	

Environmental Hazards:

Environmental measure	Details/Toxin released	Name and addresses of schools/children's areas near pollution sources
EPA Superfund sites nearby		
Pollution sources nearby		
Air Quality		
Water Quality		

Places:

While online, note important places in your patient's neighborhood. Mark your printed google map with features that aren't already marked.

Educational center: daycare, school (Mark S)
Recreation centers: Gym, Park, Field (Mark R)
Transit: Parking lots, bus lines, freeways, trains and switching yards, mass
transit, ports
Local Industrial Centers: factories, cement kilns, refineries (Mark I)
Waterways: Creeks, rivers

Notes:

WORKSHEET for use while on the walk:

As you walk through the neighborhood, note the following. If appropriate, mark location on your google map.

Community centers, community action groups (Mark C)

Nutritional access: Grocery store, liquor store (Mark G or L)

Safety: graffiti, security on homes, sense of safety, crime, pedestrian safety

Neighborhood Maintenance: Upkeep of homes, paint, sidewalks, windows

Aesthetics: cleanliness, art and culture evident

Walking or cycling facilities: sidewalks, bike lanes, designated parking areas for bikes

Notes and Ideas:

As you walk, consider how the built environment relates to your patient's health. Brainstorm with your group for ideas of patient, neighborhood, local, and state level efforts that could improve your patient's health.



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References:

- Addy, C., Wilson, D., Kirtland, K., Ainsworth, B. E., Sharpe, P., & Kimsey, D. (2004). Associations of Perceived Social and Physical Environmental Supports with Physical Activity and Walking Behavior. *American Journal of Public Health*, *94*(3), 440-443.
- Allender, S., Cavill, N., Parker, M., & Foster, C. (2009). 'Tell us something we don't already know or do!' The response of planning and transport professionals to public health guidance on the built environment and physical activity. *J Public Health Policy*, 30(1), 102-116.
- Araya, R., Dunstan, F., Playle, R., Thomas, H., Palmer, S., & Lewis, G. (2006). Perceptions of social capital and the built environment and mental health. *Soc Sci Med, 62*(12), 3072-3083.
- Atkinson, J. L., Sallis, J. F., Saelens, B. E., Cain, K. L., & Black, J. B. (2005). The association of neighborhood design and recreational environments with physical activity. *Am J Health Promot*, *19*(4), 304-309.
- Boarnet, M. G., Anderson, C., Day, K., McMillan, T., & Alfonzo, M. (2005). Evaluation of the California Safe Routes to School legislation: Urban Form Changes and Children's Active Transportation to School. *American Journal of Preventive Medicine*, 28(2), 134-140.
- Burdette, H. L., & Whitaker, R. C. (2005a). A National Study of Neighborhood Safety, Outdoor Play, Television Viewing, and Obesity in Preschool Children. *Pediatrics*, *116*, 657-662.
- Burdette, H. L., & Whitaker, R. C. (2005b). Resurrecting Free Play in Young Children: Looking Beyond Fitness and Fatness to Attention, Affiliation, and Affect. *Arch Pediatr Adolesc Med, 159*, 46-50.
- Burgess, J., Harrison, C. M., & Limb, M. (1988). People, Parks and the Urban Green: A Study of Popular Meanings and Valules for Open Spaces in the City. *Urban Studies*, *25*, 455-473.
- Carver, A., Salmon, J., Campbell, K., Baur, L., Garnett, S., & Crawford, D. (2005). How do perceptions of local neighborhood relate to adolescents' walking and cycling? *Am J Health Promotion*, *20*(2), 139-147.
- CDC. (2005). Barriers to Children Walking to or from School- United States, 2004. *MMWR*, *54*(38), 949 952.
- Cervero, R., & Duncan, M. (2003). Walking, Bicycling, and Urban Landscapes: Evidence From the San Francisco Bay Area. *American Journal of Public Health*, 93(9), 1478-1483.
- Committee on Environmental Health. (2004). AAP Policy Statement. Ambient Air Pollution: Health Hazards to Children. *Pediatrics*, *114*(6), 1699 1707.

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- Cotterill, R. W., & Franklin, A. W. (1995). *The Urban Grocery Store Gap* (Issue Paper). Storrs, CT: Food Market Policy Center, University of Conecticuto. Document Number)
- Cummins, S. K., & Jackson, R. J. *The Built Environment and Children's Health* o. Document Number)
- Ewing, R., Handy, S. L., Brownson, R. C., Clemente, O., & Winston, E. (2006). Identifying and Measuring Urban Design Qualities Related to Walkability. *Journal of Physical Activity and Health, 3*(Suppl 1), S 223- S 240.
- Farley, T., Meriwether, R., Baker, E., Watkins, L., Johnson, C., & Webber, L. (2007). Safe Play Spaces to Promote Physical Activity in Inner-City Children: Results from a Pilot Study of an Environmental Intervention. *American Journal of Public Health*, *97*(9), 1625-1631.
- Frumkin, H. (2001). Beyond toxicity: Human health and the natural environment. American Journal of Preventive Medicine, 20(3), 234-240.
- Frumkin, H., Frank, L. D., & Jackson, R. J. (2004). *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Washington D.C.: Island Press.
- Ginsburg, K. R., AAP Committee on Communications, & AAP Committee on Psychosocial Aspects of Child and Family Health. (2007). The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent-Child Bonds. *Pediatrics*, 119(1), 182-191.
- Gordon-Larsen, P., Nelson, M. C., Page, P., & Popkin, B. (2006). Inequality in the Built Environment Underlies Key Health Disparities in Physical Activity and Obesity. *Pediatrics*, *117*, 417-424.
- Jackson, R. J., & Kochtitzky, C. Creating a Healthy Environment: The Impact of the Built Environment on Public Health. Retrieved 12/1/04, 2004, from www.sprawlwatch.org
- Kuo, F., & Taylor, A. F. (2004). A Potential Natural Treatment for Attention-Deficit/Hyperactivity Disorder: Evidence From a National Study. *American Journal of Public Health*, *94*, 1580-1586.
- Larson, N. I., Story, M. T., & Nelson, M. C. (2009). Neighborhood environments: disparities in access to healthy foods in the U.S. *Am J Prev Med*, *36*(1), 74-81.
- McDonald, N. (2007). Active Transportation to School: Trends Among U.S. Schoolchildren, 1969 2001. *American Journal of Preventive Medicine*, 32(6), 509-516.
- Mijanovich, T., & Weitzman, B. C. (2003). Which "Broken Windows" Matter? School, Neighborhood, and Family Characteristics Associated with Youths' Feelings of Unsafety. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 80(3), 400 415.
- Timperio, A., Ball, K., Salmon, J., Roberts, R., Giles-Corti, B., Simmons, D., et al. (2006). Personal, Family, Social, and Environmental Correlates of Active Commuting to School. *Am J Prev Med*, *30*(1), 45-51.
- Brownson, R., Boehmer, T., & Luke, D. (2005). Declining Rates of Physical Activity in the United States: What are the contributors? *Annual Reviews of Public Health*, *26*, 421-443.

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