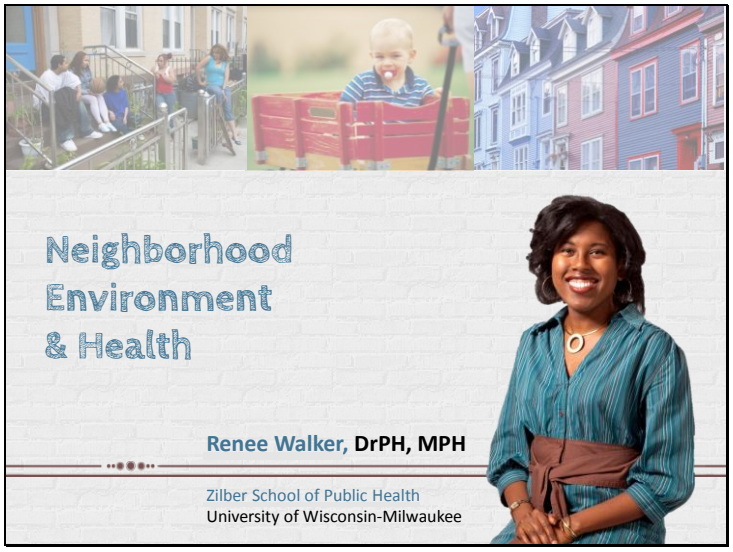
Slide 1



This week we will look at neighborhood environment and health.

This part of the course presents a brief review of the emerging issues in neighborhood research.

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One of the emerging issues in neighborhood research is social selection versus social causation in terms of residential preference.

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Although some of the geographic patterning of health undoubtedly reflects residential preferences, it is also overwhelmingly true that many people have no choice about where to live.

It is common to hear of banks that refused mortgage loans to minority applicants who wish to purchase new homes. Homeowner associations in gated communities routinely exercise their veto power to prevent families from moving in their neighborhoods based on class, color, or other discriminatory grounds. Very seldom do people with means deliberately "choose" to move into disadvantaged neighborhoods.

So in other words, context determines people's choices.

Slide 4

Another issue in neighborhood research is the need to distinguish the contextual effects of neighborhood from compositional effects. The reason we study the differences is to convince decision makers that the characteristics of places where people live have an influence on health independent of the characteristics of the people in them, somewhat related to residential selection we just talked about.

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Few personal characteristics are truly exogenous to the social environment. To take a simple example, many researchers have controlled for personal income when looking for the contextual effect of neighborhood income on mortality risk. If a residual and statistically significant effect of neighborhood income persists after such a procedure, then it can be concluded that area-level income exerts an independent "contextual" effect on individual mortality risk. However, the procedure just described overlooks the fact that residential segregation is a powerful mechanism by which individuals end up being sorted into low and high incomes. Where one lives affects both the quality of one's education as well as access to labor markets and high-paying jobs. That's why it has been quoted "people make places and places make people".

The type of statistical over-adjustment just described applies also to multilevel analyses that attempt to control for a host of individual level risk factors as confounders of neighborhood-disease association. A low-quality diet is often the consequence of limited food choices available in poor neighborhoods. It may be reported that grocery owners stock a limited range of foods in response to limited local demands for healthy foods, but even if that is the case, an individual resident expressing a preference to eat a healthy diet is nonetheless denied the opportunity to eat well, because of the decisions made by others. This is an example of a contextual effect.

While policy makers may wish to know whether they should intervene on people or the places where people live, very likely the correct answer is BOTH.

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The third issue in neighborhood research is the need to distinguish the psychosocial from materials explanations.

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Broken windows and abandoned vehicles can lead to crime, exposure to crime, the loss of the reputation of a neighborhood, and a loss of self-esteem. In turn, crime and social disorder can lead to the flight of commercial facilities and banks.

For both researchers and policy makers, it would be helpful to identify which mechanism (psychosocial or material) would more effectively address specific health problems. Some problems, such as cognitive impairment due to lead-contaminated housing, have everything to do with materials living conditions and nothing to do with psychosocial mechanisms. Other problems, such as the "contagion" effects of high smoking prevalence within an area among adolescents, have a significant psychosocial component. Therefore, a successful neighborhood-based intervention might involve networks of peer counselors to help boost levels of self-efficacy to resist peer pressure to smoke.

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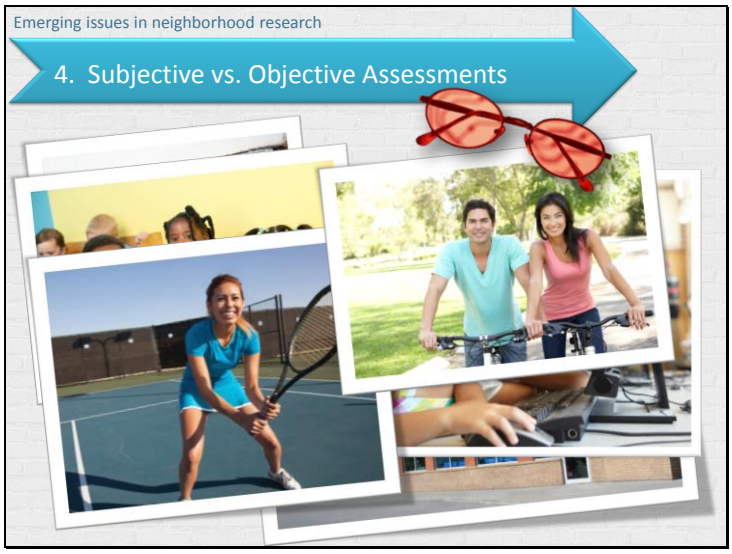
The fourth issue in neighborhood research is the need to distinguish the subjective assessment from objective assessment. Actually this is related to materials versus psychosocial differences we just discussed.

Slide 9



Residents self-reporting on their neighborhood environment frequently display less variation than objective assessments do. For example, asking residents to rate the adequacy of services within their neighborhoods can result in a misleading impression of sameness, leading researchers to falsely conclude that services do not matter in terms of explaining between-place variation in health outcomes. However, an objective count of the same services (for example, the number of local transport services or the range of foods available in local grocery stores) often provides a picture of much wider, and telling, variations.

Why does this subjective-objective discrepancy happen? A well-known phenomenon of psychological adjustment is part of the reason to explain this. Lessons from educational psychology taught us to be wary of parental assessments of the quality of their children's day care because few parents would admit to sending their children to substandard day care.

So can we cay, subjective rating of neighborhood environment is useless? No, we can't. Subjective rating of crime (and fear of crime) is a stronger predictor of behavior (that is, reluctance go to outdoors to exercise) than are actual crime rates. Subjective assessments therefore tell us something over and above objective data. Cleary, we need both.

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Following on the theme of subjective versus objective ways of "knowing", a further tension in neighborhood research arises between qualitative versus quantitative approaches to study design and analysis. It is well known that qualitative and quantitative approaches offer complementary insights into neighborhood processes and how they affect health.

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Qualitative approaches offer the advantage of grounding neighborhood processes within a historical context. "Thick" descriptions of neighborhoods are uniquely suited for providing in-depth, contextual portraits of the realities of people's daily lives. Therefore qualitative approaches are effective in communicating to decision makers a convincing story about HOW places can affect people's hope, aspirations, opportunities, and misery, as well as levels of well-being.

Nevertheless, qualitative approaches are rarely sufficient enough to produce action because they are limited to observations of a relatively small number of individuals within a limited geographic location. So qualitative description usually lacks of generalizability and here quantitative approaches help to point to more generalized phenomena.

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The final, and possibly most challenging, question concerns the distinction between neighborhoods and other forms of "community".

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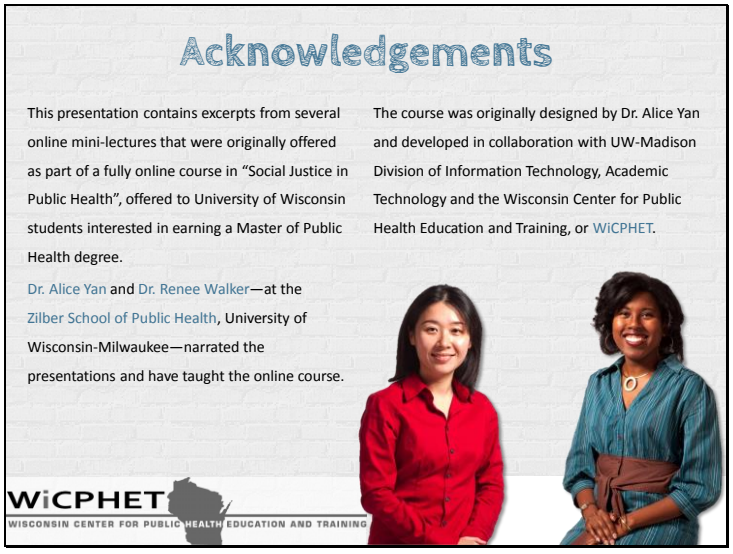
The challenge lies in how do we define the boundaries of neighborhood or communities, do we use Census Tracts, blocks, or historically defined neighborhoods?

And what components fall into the boundaries? Could neighborhoods or communities be multi-dimensional? Is the neighborhood more physical? Can a community be a virtual community since the rapid spread of the Internet? And if so, how do geographically defined neighborhood and virtually defined neighborhood influence health? Through the same mechanism or different mechanism? And how different could it be?

These are all questions we need to think about more, and answer.

Slide 14



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