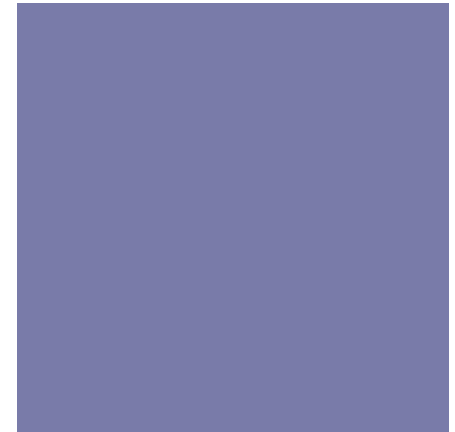
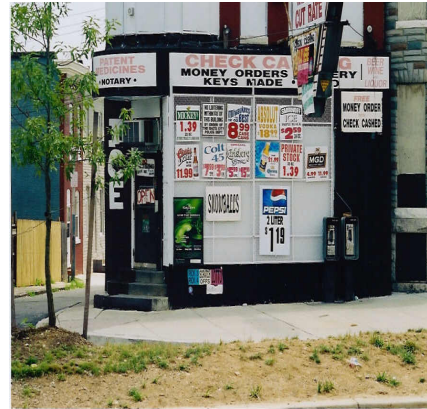




Neighborhood Assets and Hypertension in Disadvantaged Communities



Lydia A. Isaac, PhD MSc
November 9th 2010



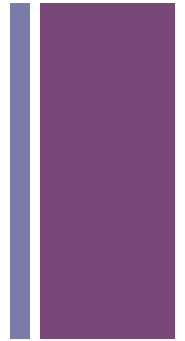
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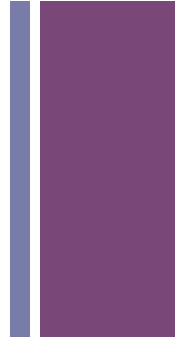
No financial relationship to disclosure.

+ Organization Of Presentation

- Introduction and background
 - Hypertension disparities
 - Neighborhoods and health
 - Community Capacity and Neighborhood Assets
- Study design and methods
- Results
- Discussion and Implications

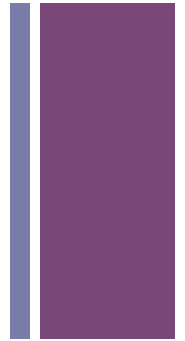


+ Hypertension Disparities



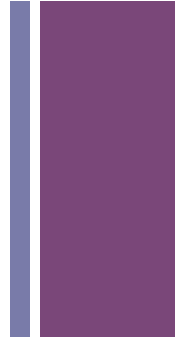
- Risk factor for several chronic diseases including cardiovascular disease, stroke and kidney disease
- There are large disparities in prevalence of hypertension between African-Americans and whites
- There is an association between neighborhood disadvantage and increased high blood pressure

+ Hypertension and Neighborhood Environments



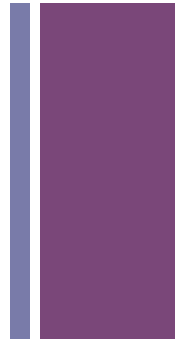
- Recent evidence has shown that:
 - Residents of neighborhoods with better walkability, availability of healthy foods, greater safety, and more social cohesion were less likely to be hypertensive (Mujahid et al 2009)
 - Low walkability neighborhoods with a high density of fast-food outlets and residents making visits to fast-food restaurants were associated with increases in blood pressure (Li et al 2009)

+ Neighborhood Role in Health Promotion Disease Prevention



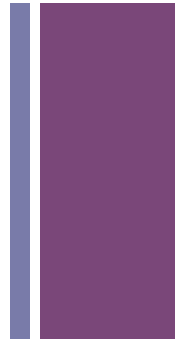
- Lifestyle factors such as eating habits and physical activity contribute most to both the prevalence and the reduction of chronic diseases
- Studying neighborhoods helps us to understand peoples' context and how these contexts interact with individuals to both encourage or hinder health promoting behaviors
- Understanding the influence of neighborhood context helps to inform policy and the creation of multilevel public health interventions

+ Community Capacity and Neighborhood Assets



- **Community Capacity** (Chaskin 2001, Goodman et al 1998)
 - the existence of resources (ranging from the skills of individuals to the strength of organizations to access to financial capital)
 - Networks of relationships
 - Leadership
 - support for some kind of mechanisms for or processes of participation by community members in collective action and problem solving
- **Assets Based Community Development** (Kretzmann and McKnight, 1998)

+ Study Rationale and Design



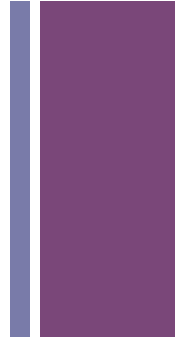
- The community capacity and assets literature has laid the foundation for the expanded role of communities in prevention and health promotion activities
- This movement has provided needed tools and methods for building capacity and identifying assets
- What is lacking is the empirical evidence and measurement of the benefits of neighborhood assets to health promotion
- Provide evidence for the continued support of community capacity building and assets identification

+Exploring Health Disparities in Integrated Communities (EHDIC)



- The EHDIC study is a multi-site study of the nature of health disparities within racially integrated communities without racial disparities in income.
- South West Baltimore Site (SWB)
- 45 minute in home survey
 - Measurement of high blood pressure
 - Insurance status, wealth, physical conditions, health behaviors etc.

+ EHDIC- SWB



■ Objective Measures

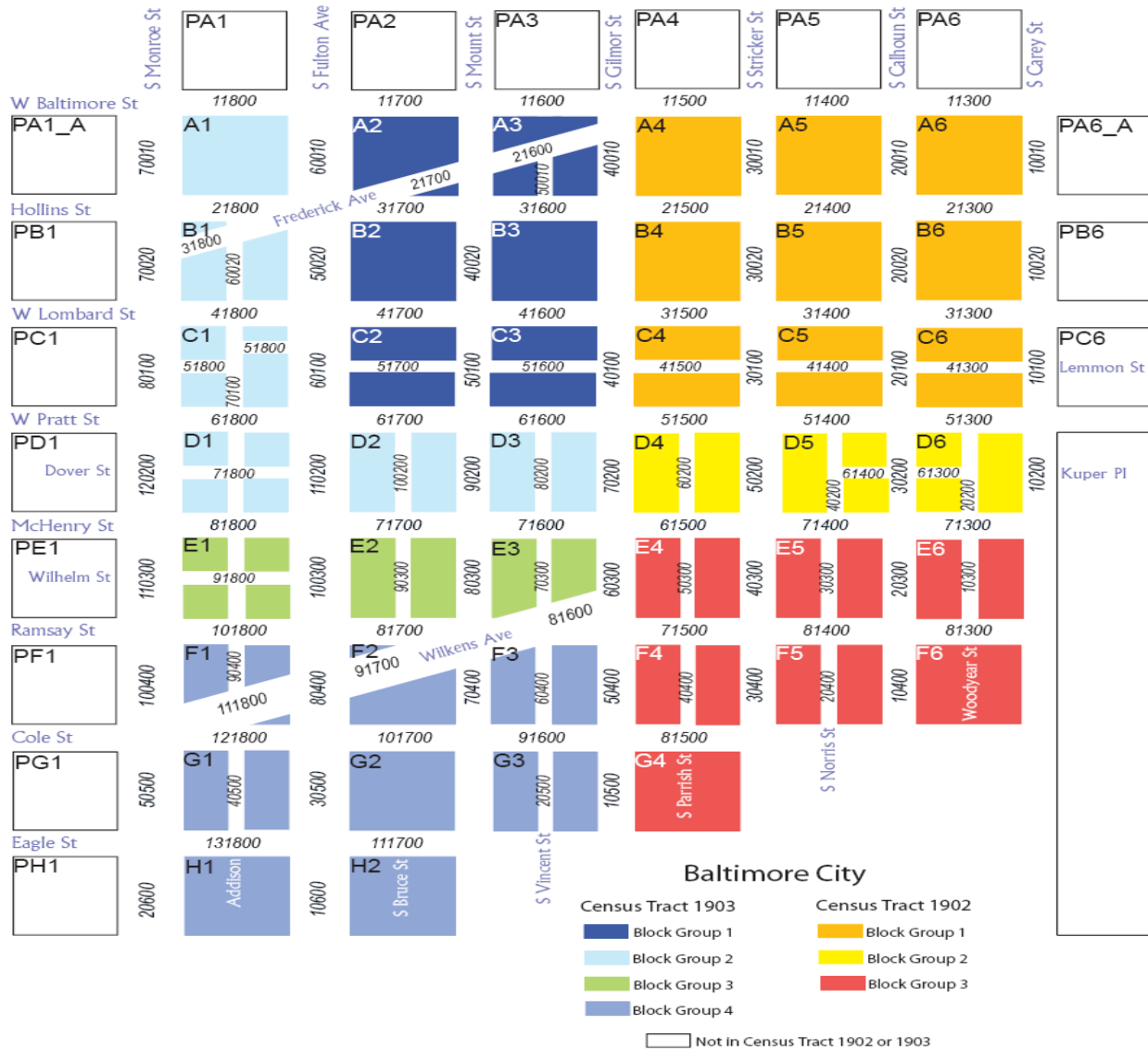
■ Systematic Social Observation

- Independent observers rating each street segment

- Housing assessment

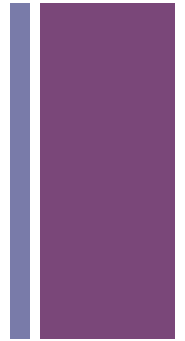


EHDIC - SWB Map

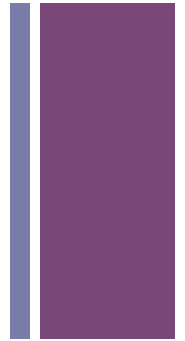


+ Methods- Dependent Variables

- Hypertension prevalence
- Hypertension- 69.25%

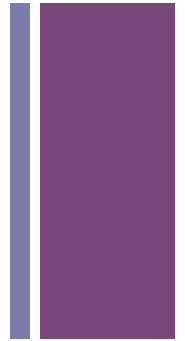


+ Methods –Socio-demographic Variables



- Income
- Education
- Age
- Sex
- Race
- Marital Status
- Regular doctor
- Community Duration
- Insurance status
- Physical activity
- Weight Status
- Drinking Status
- Self-reported health
- Diabetes
- Current Smoking Status

+ Methods – Desirable Neighborhood Resources

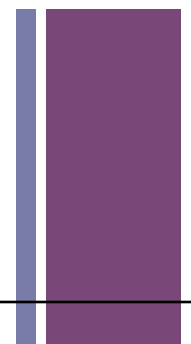


■ Desirable Resources

- Community Organization
- Church
- School or Library
- Industrial Company
- General Store that does not sell Liquor
- Recreational Facilities
- Murals
- Bus Stop

■ Undesirable Neighborhood Resources

+ Results- Demographics



Female	55.40%	Income	
Male	44.60%		
Age	40.65 yrs	Mean:	\$24,018.79
Race	African-American	< \$10,000	24.01%
		\$10,000-24,999	41.12%
White	40.70%	\$25,000-50,000	23.22%
		>\$50,000	12.64%
Marital Status		Education	
Married/living as married	19.47%	less than HS grad	40.63%
Widowed	7.25%	HS Grad or GED	40.27%
Divorce or separated	21.39%	Some College +	19.11%
Never married	51.88%		



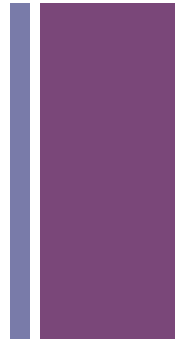
Results- Health Related Characteristics



Regular Doctor	61.1%
Insurance	62.7%
Weight Status	
Normal/Underweight	41.89%
Overweight	27.36%
Obese	30.75%
Regular Drinker	81.6%
Physical Activity	56.47%



Results- Health Related Characteristics



Community Duration	12.3 years
Diabetes	10.3%
Current Smoker	55.75%
Self-Reported Health	
Excellent	14.2%
Very Good	21.1%
Good	32.7%
Fair	25.7%
Poor	6.3%

+ Results- Neighborhood Assets

Desirable Items	
Community Organization	6.62%
Church	12.18%
School or Library	3.13%
Industrial Company	1.78%
General Store that does not sell Liquor	21.78%
Recreational Facilities	4.56%
Murals	4.27%
Bus Stop	29.96%
Undesirable items Index	
none	41.71%
>1	58.29%

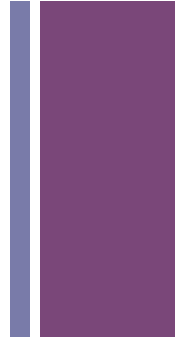
+ Results- Hypertension and Neighborhood Desirable Characteristics

Desirable Items	OR (CI)
Community organization	0.63 (0.36-1.22)
Church	1.05 (0.68-1.64)
School or Library	1.03 (0.46-2.29)
Industrial Company	2.23 (0.74-6.65)
General Store that does not sell Liquor	0.69* (0.50-0.96)
Recreational Facilities	0.42** (0.23-0.77)
Murals	0.86 (0.45-1.61)
Bus Stop	0.91 (0.67-1.23)

+ Discussion

- The presence of desirable neighborhood items can confer protective effects on hypertension prevalence
- The presence of a recreational facility or a general store is associated with a reduction in odds of hypertension.
- These two particular items may indicate that these residents have increase access to healthy diets and to exercise which are both known to reduce hypertension.

+ Implications



- We need a paradigm shift in how we think of neighborhoods and their influence on health and health promotion
- Providing evidence of the effects of neighborhood assets allows us to better advocate for their maintenance and improvement
- In the current economic climate resources are limited but finding existing opportunities for health promotion allows us to continue to serve the most vulnerable

+ Acknowledgements and Contact



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