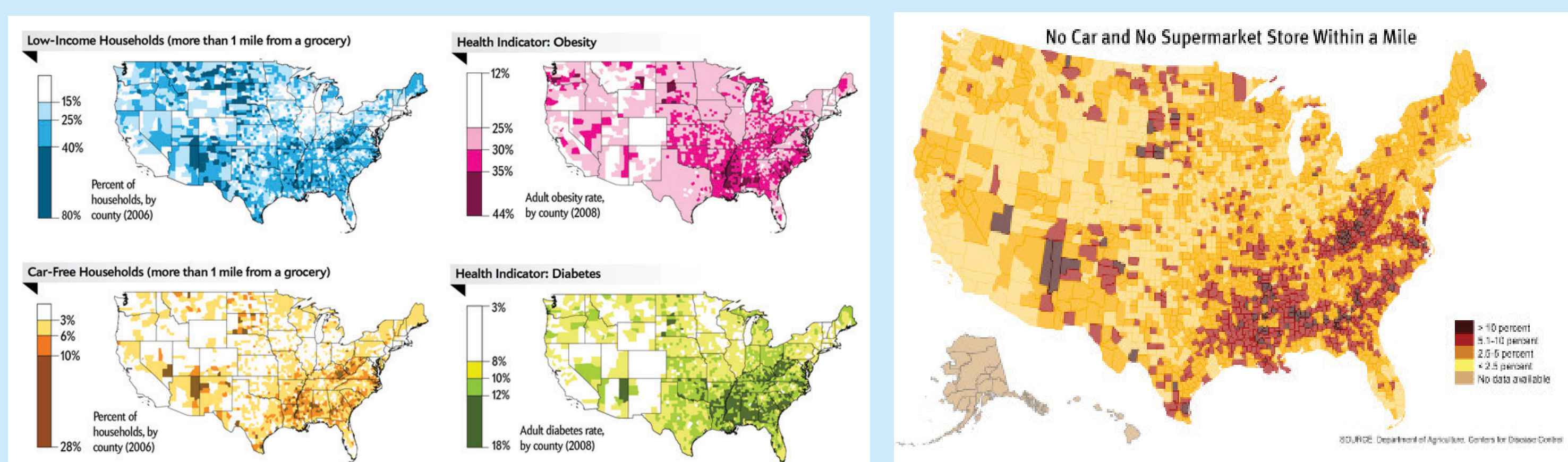


Food Desert and Health Disparities in the Lower Ninth Ward: An Evaluation of Community Solutions and Policies

Carlie Peters (Brown University) and John Estrada, MD (LSU Health Sciences Center)

Access to Food and Health Disparities

- Socio-cultural factors contribute to health disparities caused by chronic diseases: obesity, cancer, cardiovascular, and other.
- In the US 5-10% of cancers are linked to inherited genetic defects and 90-95% can be linked to modifiable environmental and lifestyle factors: Cigarette smoking, obesity, lack of physical activity, environmental pollutants, and infections.
- Poor dietary patterns contribute 30-35% and obesity contributes 10-20% of all cancer deaths in the US.
- Neighborhood disparities in access to produce, deprivation, and demographic composition are linked to health disparities.
- Well documented studies have concluded that replacing high energy density foods with fruits and vegetables lowers adiposity, inflammation, and body weight, major risks factors for cancer and cardiovascular diseases.
- Intake of fruits and vegetables is low among children and adults.
- Governmental and non-governmental efforts are being implemented to solve this problem.



The L9W is a Food Desert (USDA)

- **Food Desert:** USDA defines a food deserts any low-income area with a population greater than 500 that lacks a full service grocery store within one mile. These areas are dense on quickie marts that provide food with no nutritional value.
- Residents served by a supermarket nationwide: 8,800; Served by a supermarket in New Orleans Pre-Katrina: 12,000; Post-Katrina: 18,000. Current 5,500 population in the L9W may not support a supermarket.
- There are 10 corner marts in the L9W, seven sell unhealthy food, one sells fast food and two sell limited fresh produce.
- Residents in the L9W travel almost double the city's average distance from the neighborhood center to a supermarket.
- The Food Action Plan for the L9W was published in 2012 as a result of a community engagement process led by CSED.

Rationale for the Study

A high level of community activism has taken place in the L9W to improve access to healthy food including fruits and vegetables. For the most part these interventions are less dependent on the supermarket model and, while keeping a local flavor, they reflect a general trend in the US. Research documenting the efficacy of interventions in terms of nutritional outcomes and availability of food is lacking nationwide. The primary focus of this study is to evaluate the longevity and sustainability of these intervention in the L9W, compare them with current evidence based interventions, and investigate the relevance of current policies at both the local and federal levels. These types of studies would complement ongoing NIH-funded community based participatory research investigating the molecular and social determinants of health disparities in the L9W.

Objectives

1. Document status of community based and policy approaches to improve access to fruits and vegetables in the L9W.
2. Establish comparisons with successful interventions in other neighborhoods.
- 3) Evaluate the relevance of the interventions against evidence based approaches.

Methods

This study is qualitative and involved interviews of community key informants, and direct observation and documentation of interventions in the L9W and other communities. Relevant policy documents from federal agencies and local government were examined with regard to their relevance to communities of study. Extensive PubMed search and review of the scientific literature were conducted in order to document evidenced based interventions and compare with local approaches. Implications and recommendations for future research were provided.

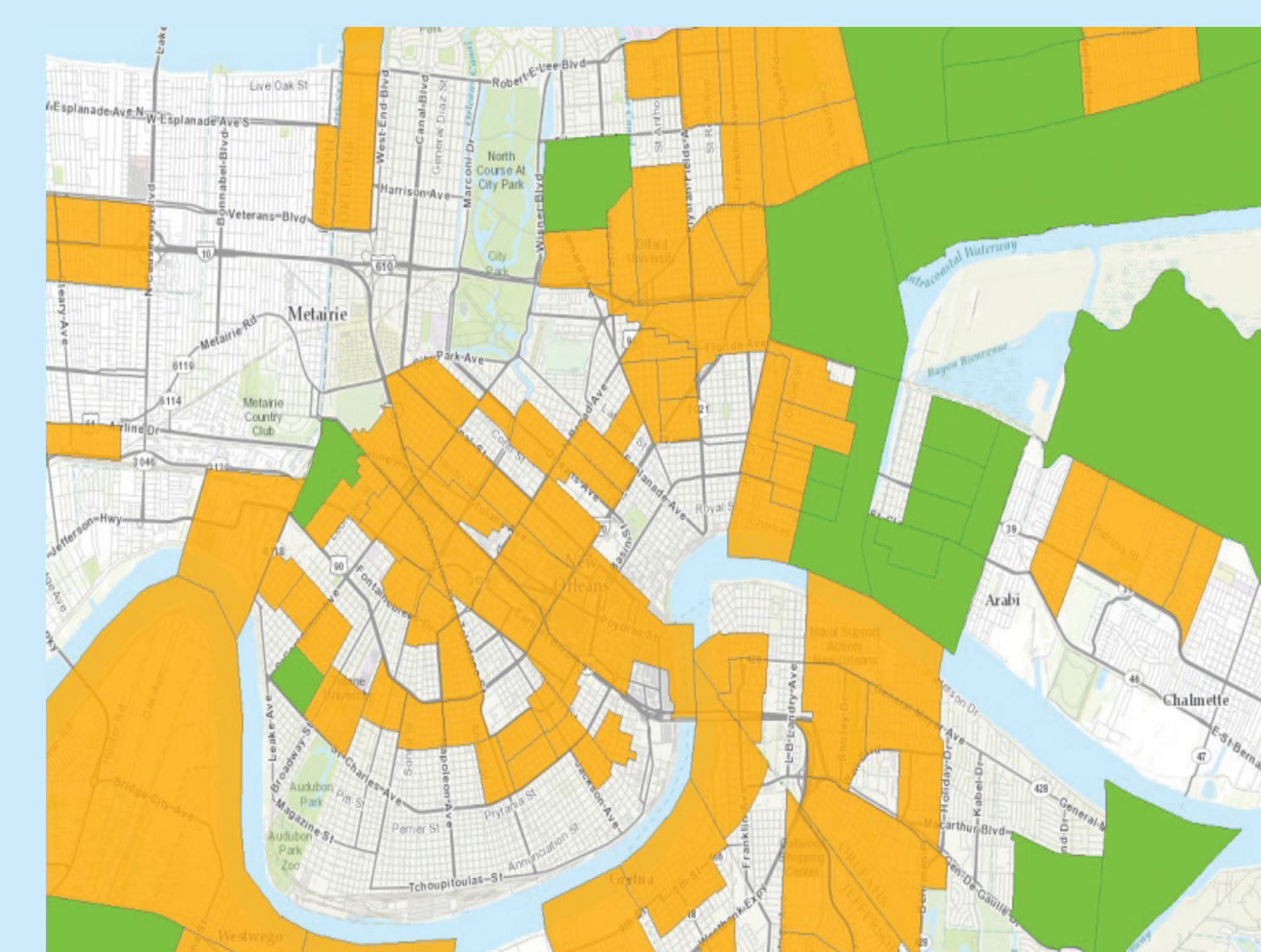
Current Community Approaches:
 Community Gardens (L9W)
 Backyard Gardens (L9W)
 School-based Nutrition Education
 Farmers' Markets
 Community Supported Agriculture (CSA)



Food Action Plan for the L9W:
 Short-term Solution: Mobile Grocery Store
 Intermediate Solution: Healthy Corner Store
 Long-term Solution: School-Based Grocery Store

Policy:

CDC Guide to Community Prevention Services (evidenced best approaches)
 USDA (Food distribution, child nutrition, supplemental assistance)
 New Orleans Fresh Food Retailer Initiative



Food deserts in New Orleans (USDA 2013)



Results

- Several community gardens, and backyard gardens were found in various conditions of maintenance.
- Community Supported Agriculture, Farmers' Markets, and the Fresh Food Retailer Initiative have not been tried the L9W. Farmers' Markets are popular in other Neighborhoods.
- The Garden of Eatin' Food Science and Nutrition Program at the MLK Charter School has shown some promise but hasn't been met with school's support. There are five successful Edible Schoolyards in New Orleans, none in the L9W. Evidence shows that school-based nutrition education increases interest and consumption of fruits and vegetables among students.



Conclusions

- Large body of scientific evidence links diets rich in fruit and vegetables with lower risk of many chronic diseases.
- It is believed by some that the food desert in the L9W will be best-addressed by/through a community-based approach rather than by the creation of a supermarket.
- A community approach would stimulate the local economy, encourage community building and improve the environment.
- Behavioral interventions alone don't seem to change dietary patterns. The nationwide evidence shows that behavioral interventions needs to be combined with other approaches.
- Expert groups have recommended the need for federal laws to increase access and consumption of fresh foods.
- Lack of objectives and championing have been barriers for implementation of effective policies in New Orleans.

References

1. Kushi, Lawrence H., et al. American Cancer Society Guidelines on Nutrition and Physical Activity for cancer prevention. *Cancer* 56.5 (2006): 254-281.
2. McCormack, L. A., et al. Review of the nutritional implications of farmers' markets and community gardens: a call for evaluation and research efforts. *J Am Diet Assoc* 110.3 (2010): 399-408.
3. Robinson-O'Brien, R., et al. Impact of garden-based youth nutrition intervention programs: A review. *J Am Diet Assoc* 109.2 (2009): 273-280