Block by Block: Neighborhood Cohesion, Activism and the Fight Against Diabetes

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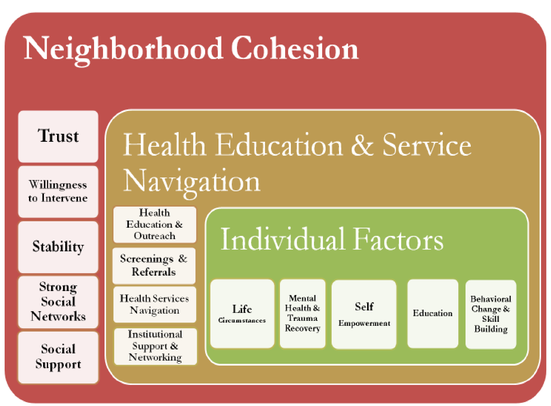
Introduction

North Lawndale has one of the highest diabetes rates in the city of Chicago (16%, twice the national rate). The North Lawndale Diabetes Community Action Project (NLCAP), also named Block by Block North Lawndale, aims to reduce the impact of type 2 diabetes mellitus on the health of residents of North Lawndale through a replicable multi-level strategy developed and implemented through community, medical and academic collaboration.

Block by Block North Lawndale builds on community strengths to increase the early detection of diabetes and involves an entire neighborhood in efforts to enhance self-management by those with the disease. Our community-academic partnership proposes to impact the lives of 10,000 adults living in the North Lawndale neighborhood one block at a time.

Objectives

1. Assess and explain the value of local health data in driving community based interventions;
2. Demonstrate how community-based initiatives can address specific disparities in health; and
3. Highlight the implications of local data on eliminating disparities in other urban settings.
4. Explain the importance of neighborhood cohesion and coalition building in eliminating health inequalities and its key indicators
5. Demonstrate the evolving and important role of community health workers in eliminating health inequalities.
6. Discuss key sustainable factors for improving neighborhood health and behavioral change through collective efficacy and coalition building.



Methods

The Sinai Urban Health Institute, Sinai Health Systems, Rush University Medical Center and a community based organization (Family Focus North Lawndale) have developed a multilevel community intervention using a media campaign, community engagement, and individual self-management training by "Diabetes Block Captains." Neighborhood residents work as Diabetes Block Captains to conduct household screenings for diabetes and engage their neighbors in activities that promote diabetes self-management (e.g. cooking classes, exercise classes, neighborhood walks, produce giveaways). This Community Based Participatory Research (CBPR) approach seeks to support residents in changing the culture within the community, to make diabetes a neighborhood priority, and to address the cultural and social environment to support healthier lifestyles.

Phase I of Block by Block focuses on a cluster of blocks in one segment of the community. Subsequent Phases will cover the remainder of the community. Block by Block encourages North Lawndale residents to know their diabetes status and to eat more fruits and vegetables, check blood sugar regularly, see a doctor often and exercise frequently. Block by Block wants friends and neighbors talking about diabetes and working to make the community safer, improve access to quality foods and increase social cohesion and collective efficacy.

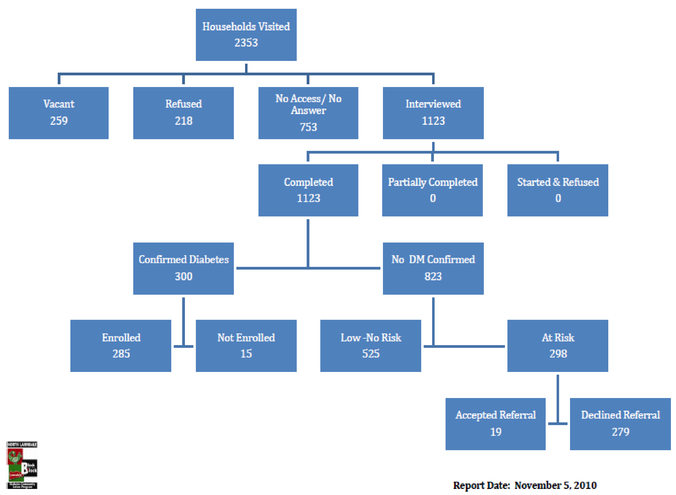
OVERALL PURPOSE: To reduce the impact of type 2 diabetes mellitus on the health of residents of North Lawndale through a replicable multi-level strategy developed and implemented through collaboration between the community and an academic health center.

PRIMARY AIM: To determine whether a multi-level community intervention, featuring an educational campaign, community engagement, and individual self-management training by a "Diabetes Block Captain" will result in a mean reduction of HbA1c greater than 0.5% among persons with type 2 diabetes mellitus living in a medically underserved urban neighborhood.

SECONDARY AIMS: 1) To demonstrate the cost-effectiveness of a multi-level community intervention resulting from significant improvements in rates of diabetes self-management (SDSCA) behaviors among persons with Type 2 diabetes mellitus; 2) To determine whether this multi-level community intervention can improve early detection of diabetes in a medically underserved urban neighborhood by increasing the number of persons diagnosed by at least 25% over a one-year period.

Preliminary Results

Preliminary Data: Over a 6-month survey period NLCAP has visited 2,353 households, completed 1,123 interviews and enrolled 285 North Lawndale residents (Type 2 diabetes neighborhood prevalence of 26.7% (300/1,123)), which exceeds the prevalence in North Lawndale found in our 2003 Community Survey of 10%[1]. This is more than 3 times the U.S. rate. However, when you account for the CDC statement that one-third of persons with diabetes are unaware that they have the disease[2], this would elevate the actual neighborhood prevalence. Of residents interviewed 298 have been determined as high risk (26.5%), based on a standardized risk assessment. NLCAP has a health educator focused on helping those residents that are at risk for Type 2 diabetes receive a clinical confirmation and a referral for services.



Sinai Health System has established a Diabetes Health Center staffed by three endocrinologists, a diabetes nurse practitioner and a diabetes nutritionist. NLCAP provides direct referrals and appointments for persons identified as at risk for diabetes, and for persons with diabetes that do not have a primary care provider. Comparing data collected in the community with that seen in the Health System and Center, 42% of patients with diabetes seen at Sinai Health System have an average HbA1C of 9.0 or greater, indicating the need for tighter management. Baseline collection of HbA1C for NLCAP shows similar numbers of poorly controlled diabetes.

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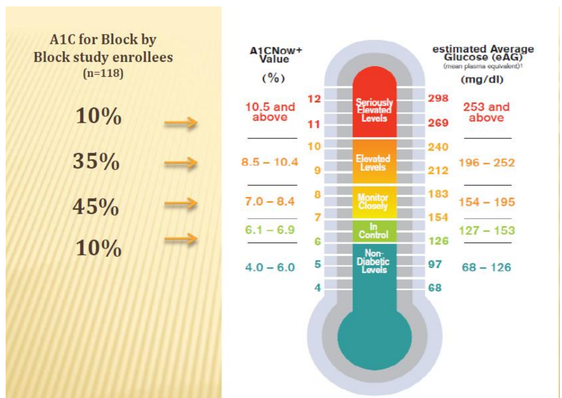
Discussion

The growing prevalence of Type 2 diabetes in the U.S. has been well documented. It is estimated that the direct medical care costs per person per year with diabetes is 2.3 times higher than for the person without diabetes. Local survey data showed that North Lawndale, a poor African-American community and Humboldt Park, a poor Hispanic community had the highest diabetes rates in Chicago.

Employing well-trained community health workers the interventions aim to improve diabetes self-management in selected areas of each community one block at a time. HbA1C has come to be used as a measure of diabetes management, self-care and risk for development of diabetes complications. It has been estimated that at least a one percent change in HbA1C levels can lead to significant healthcare cost savings. A primary outcome for both studies is a mean reduction HbA1C levels of 0.5%.

North Lawndale is considered a "food desert" community. This means that there is a big imbalance or "food security" gap between grocery stores that provide quality food and the number of fast food outlets that provide foods high in fat, calories and sugar. Block by Block seeks to build community knowledge, and establish a Community Wellness Coalition and Health Services Navigator in order to empower residents for activism to make North Lawndale healthier.



References

1. Whitman S, Williams C, Shah A. Sinai Health System's Improving Community Health Survey: Report 1. Chicago: Sinai Health System, 2004.
2. Centers for Disease Control and Prevention. National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2007. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2008.