

## ACKNOWLEDGMENTS

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# **Community Assessment Action Summary Report: Disparities in Diabetes Health in Southeast Chicago**

## **I. INTRODUCTION**

### **A. DISPARITIES IN DIABETES RELATED HEALTH**

Diabetes mellitus is a group of metabolic diseases in which the body is unable to produce insulin or use insulin properly. Insulin is a hormone which helps "unlock" cells and allows glucose (blood sugar) to enter and fuel them. This results in high blood glucose levels called hyperglycemia. Diabetes contributes to many long-term health complications, including damage to the cardiovascular system, the circulatory system and the nervous system, particularly affecting the heart, eyes, feet, kidneys and other organs. It is also the leading cause of non-traumatic amputation, blindness and end-stage kidney disease (USDHHS, 2000). Increasingly, diabetes is a major contributor to heart disease and stroke. Therefore, it contributes to an impaired quality of life and substantial disability. Nationally, gaps have been identified among racial and ethnic groups in the prevalence of diabetes, undiagnosed diabetes, the greater seriousness of disease (complications and co-occurring illnesses), inadequate access to diabetes services, and improper quality of care (USDHHS, 2000).

- ◇ The diagnosis of diabetes in the United States increased fivefold from 1.6 million in 1958 to 10.5 million in 1999, representing 4% of the U.S. population. By the year 2050, it is estimated that diabetes prevalence will increase by 129% to 7.2% of the U.S. population or 29 million persons. The burden is heavier among the elderly and minorities, including African Americans and Latinos (CDC, 2001; Boyle et al, 2001).
- ◇ In the United States, diabetes is the seventh leading cause of death, and is a major contributor to death from heart disease, kidney disease, influenza and pneumonia, and septicemia.
- ◇ It is estimated that 8.4% of minorities in Chicago were told by a physician that they had diabetes, compared to 6.4% of non-Hispanic whites (IDCP, 2001: combined data 1997-1999).
- ◇ Diabetes in Illinois is more prevalent among females, African Americans, and those 55 years and older (IDCP, 1997). Diabetes is also highly prevalent among low income and low educated populations (ibid).
- ◇ In Illinois, diabetes is a major cause of prolonged poor health and premature mortality as evidenced by the enormous direct and indirect costs (totaling \$7.3 billion in 1997, rising from \$1.1 billion in 1990) and high diabetes mortality (38.1/100,000 in 1998) (IDCP, 2001).
- ◇ Some direct medical costs in 1999 for the city of Chicago were \$941.3 million for hospitalizations, \$28.3 million for diabetic ketoacidosis, and \$28.3 million in amputations (IDCP, 2001).

Major diabetes risk factors include genetics (related to parental history and ethnicity), obesity, inactivity, history of gestational diabetes, high birth weight (over 9 lbs), and diets high in carbohydrates (sugars, starches) and fats, and low in yellow and green vegetables, fruits and fibers.

### **Objectives of this Report**

This report summarizes a comprehensive assessment of community assets and needs which was performed in Spring 2000 in an attempt to document diabetes-related health disparities in southeast Chicago, and to develop an action plan aimed at prevention and reduction of diabetes mortality and disability associated with complications of the disease. This study was conducted by the Midwest Latino Health Research, Training and Policy Center at the Jane Addams College of Social Work-University of Illinois at Chicago (UIC), in collaboration with members of the Chicago Southeast Diabetes Community Action Coalition (CSEDCAC).

## **B. BACKGROUND OF THE COALITION**

Chicago's southeast side includes six geographic community areas with a total of 166,550 residents in 2000 (see Table 1). These communities are: South Shore (Community Area (CA) 43), South Chicago (CA 46), Calumet Heights (CA 48), South Deering (CA 51), East Side (CA 52) and Hegewisch (CA 55). The community is diverse in its demographic and economic characteristics. African Americans and Latinos are the largest racial and ethnic minority groups. South Chicago has the oldest Mexican settlement in Chicago and the Midwest, with immigration beginning in the early 1900s.

Historically, these community areas were called the "Calumet Area Steel Belt of the Midwest" because the major source of employment had been the steel mills, railroad cart production facilities, and the automotive industry. Heavy manufacturing began to gravitate to the Southeast Side as early as the 1870s, attracted by its excellent rail transport as well as ready access to fresh water and other raw materials necessary for steel making. Foundries, shipbuilders, grain handlers and local yards were among the first industries in the area. By the 1920s, the shores of the Calumet River and southern Lake Michigan boasted one of the highest concentrations of steel production in the nation. U.S. Steel's South Works stretched for almost two miles along Lake Michigan and had a workforce of over 20,000 at its peak after World War II. Industries, which had provided great stability for the working class, blue-collar families were going to change forever. During the 1970s, the steel industry declined almost to extinction – over 187,000 jobs were lost in Cook County and Northwest Indiana. By the 1980s, severe unemployment and displacement was apparent throughout the region. The Southeast side communities have never recuperated from this devastation. Its community health centers were born from the demand for healthcare to the indigent, unemployed, uninsured and underinsured residents of Southeast Chicago (Kitaqawa & Taeuber, 1963).

The Southeast region of Chicago contains vast vacant and underutilized land. Industry has not been able to develop this land because of site contamination, lack of infrastructure, unsuitable buildings and lack of access to dependable transportation. These large uninhabited areas essentially form barriers between the designated community areas, further contributing to a lack of access to residents for healthcare services and other primary services. The steel mill era also left behind generations of pollution in the air, water and ground. Land use is restricted in this area by the U.S.

Environmental Protection Agency (USEPA) and the rate of certain diseases such as cancer and respiratory diseases are high.

In June 1999, in preparation for submitting a proposal to the Centers for Disease Control and Prevention (CDC), the Chicago Southeast Diabetes Community Action Coalition was established. The coalition expanded on the membership of the Southside Health Consortium (SHC), which already had an active group of health and human services organizations working on issues of maternal and child health, and asthma, among other areas. On September 30, 1999, the Midwest Latino Health Research, Training and Policy Center, at the University of Illinois at Chicago, in collaboration with the Illinois Diabetes Control Program (IDCP) of the Illinois Department of Human Services (IDHS), and the Southside Health Consortium (now the Healthcare Consortium of Illinois), received a one-year grant from CDC to enable the coalition to engage in a comprehensive diabetes community assessment and planning process. The ultimate goal of the grant was to develop a Community Action Plan for effective community mobilization to reduce diabetes related health disparities.

### **Mission and Principles of the Coalition**

Coalition members adopted the following mission:

"assure and enhance access to quality health services and quality of life of persons *at risk* and with diabetes in Chicago Southeast communities through the establishment and institutionalization of a Diabetes Coalition of community residents, health and human services providers, and persons living with diabetes."

The principles of collaboration developed by the coalition were:

- ◇ Commitment to equity, collective decisions and collective action;
- ◇ High quality, ethical research and interventions;
- ◇ Joint ownership of the data;
- ◇ Collective interpretation and/or dissemination of results;
- ◇ Welfare of coalition members – that is, no partner shall act in any manner that is considered detrimental to another partner;
- ◇ Institutionalization of programs which benefit the community through pursuing new funding;
- ◇ Challenging social and environmental inequalities that affect health; and
- ◇ Support for diabetes-related community changes and actions that ultimately will lead to positive health and outcomes.

### **Goals and Objectives**

The main goal of the coalition is to reduce diabetes mortality, hospitalizations, complications and related disabilities among African Americans and Latinos in Chicago's southeast side communities. In order to accomplish this, the coalition set the following objectives:

- 1) Mobilize communities through the establishment of the Chicago Southeast Diabetes Community Action Coalition.
- 2) Empower communities through participatory research by conducting a comprehensive assessment concerning diabetes-related issues.
- 3) Develop and implement a diabetes community action plan.
- 4) Integrate and expand diabetes care as a health priority area.

Initially, the following organizations made up the Coalition: UIC Midwest Latino Health Research, Training and Policy Center, Southside Health Consortium (now the Healthcare Consortium of Illinois), Illinois Diabetes Control Program (IDCP), Chicago Family Health Center (CFHC), Jackson Park, Trinity, and South Shore Hospitals, the Hispanic Nurse's Association, African American Nurse's Association, We Care Dental, African American Dietician's Association, Osco Drug, and the Chicago Park District.

### **C. BACKGROUND OF KEY PARTNERS**

**The UIC Midwest Latino Health Research, Training, and Policy Center** of the Jane Addams College of Social Work serves as the central coordinating organization for the Chicago Southeast Diabetes Community Action Coalition. The UIC Latino Center was established in 1993. Since that time, it has conducted outcomes research on health disparities following a community participatory and empowerment approach and engaged in policy formation and community health education in the areas of chronic conditions and maternal/child health. The Center also directs its resources toward the training of new minority investigators. Specifically in the area of diabetes, the UIC Latino Health Research Center has conducted studies in the following areas: a) assessment of the quality of diabetes care offered to Latinos; b) gender issues in diabetes services delivery; and c) assessment of provider attitudes towards Latinos and their familiarity with diabetes clinical guidelines. The UIC Latino Health Research Center also has completed four diabetes resource manuals for CDC, based upon the accumulation of experiences, observations and evaluation of the effectiveness of training persons with diabetes as peer educators: 1) a multi-cultural/bilingual diabetes Type 2 patient education curriculum for Latinos and African Americans; 2) A Diabetes Education Implementation Guide; 3) a Cross Cultural Diabetes Resource and Training Guide; and 4) a Diabetes Peer Educator/Health Promoter Skills Training Guide.

**Healthcare Consortium of Illinois (HCI)** is also a key partner involved in the coalition. HCI is a membership organization representing most health and human service organizations on Chicago's South Side. The partners include twelve hospitals, approximately 30 mental health and substance abuse organizations, 11 community health centers and ten human services organizations. HCI has three offices located throughout the South Side and has been working for the past eight years in the areas of maternal and child health, child welfare and asthma. Through the Diabetes Coalition, they embraced diabetes as a major area of work. As a result of its diabetes work under the REACH program, a series of chronic disease-related programs have been consolidated into a new HCI Division of Community Health.

**The Illinois Diabetes Control Program (IDCP)** has the mission of lessening the burden of diabetes in Illinois communities through prevention and intervention activities with the cooperation of public and private service organizations. IDCP is located within the Illinois Department of Human Services, Bureau of Family Nutrition. IDCP has successfully demonstrated the effectiveness of community based prevention and intervention activities targeted to rural and urban communities through partnerships and coordination. The IDCP comprehensive diabetes program has the following components: 1) improve diabetes standards of clinical practice and education; 2) improve access to quality care; 3) improve referral and follow up services for those with diagnosed diabetes; 4) increase public awareness of recommended care; and 5) identify people at risk for

developing diabetes and refer them for appropriate prevention activities. IDCP distributes diabetes information throughout Illinois.

## **II. METHODOLOGY**

The purpose of the study was to assess the diabetes related health disparities in this geographic area, including the prevalence of diabetes-related chronic conditions, diabetes awareness, access to health services, and frequency and quality of preventive health and diabetes care. Data is severely limited in this area, located in a variety of dispersed databases. There was no previous behavioral risk assessment and limited availability of utilization and quality of care data in this geographic area. The first task of the coalition was to conduct a thorough community assessment, which would form the basis for developing the goals, objectives and strategies of the Diabetes Community Action Plan. Several approaches were used in conducting the needs assessment, including:

- a) analyses of census, epidemiological, public health surveillance and other public data sources;
- b) community inventory/mapping of assets;
- c) two focus groups with health care providers;
- d) twelve focus groups with persons living with diabetes and persons at risk for developing diabetes;
- e) a random-digit-dialing telephone survey of Chicago zip codes (60617, 60633, and 60649) which covers the target areas; and
- f) two community forums to share findings and obtain additional comments concerning how to best interpret the data using socioeconomic, cultural and historical perspectives.

This survey has limitations because Year 2000 census data was not available to draw the sample and make accurate estimates. Furthermore, households with telephones are not included. Finally, persons with health concerns may have been more interested in cooperating. However, the mix of both quantitative and qualitative data gathered during the study provides a variety of information from many perspectives essential to the development of the Community Action Plan.

Assessment activities during Phase I were guided by a participatory research framework that actively involves ordinary people living in the target community in a collective assessment of the reality related to diabetes care. Participatory research asserts that community activists must be well schooled in the issues and problems at hand in order to direct and/or engage in activities to transform the situation. Working committees (task forces) that focused on a specific community assessment activity were formed and coalition members were trained to participate in the development of questionnaires, data collection and analyses, action plan development and dissemination, and other activities. The coalition's task forces included: a) Telephone Survey Task Force, b) Consumer Focus Groups Task Force, and c) Healthcare Providers Task Force.

## **III. COMMUNITY ASSESSMENT FINDINGS**

### **A. ANALYSES OF PUBLIC DATA SOURCES**

When studying health disparities among racial and ethnic minorities, the value of data available for public use is severely limited. This is true nationally and especially in Illinois and Chicago. Most demographic and health data available in Chicago is available through the Chicago Department of

Public Health and provides select indicators, but does not break down the information by ethnicity. On the other hand, hospital discharge data is available only by zip codes and is not available by ethnicity.

### **Population** (See Table 1)

- ◇ In 2000, the six communities areas had a total population of 166,550 persons.
- ◇ The population is not equally distributed among the all community areas. The largest population concentrations are South Shore (61,556) and South Chicago (38,596), and the smallest is Hegewisch (9,781).
- ◇ The ethnic composition of the six community areas is as follows: African Americans (66.8%), Hispanics/Latinos (21.6%) and non-Hispanic whites (10.1%).
- ◇ There was a total of 111,182 African Americans. The areas with the greatest concentrations of African Americans are South Shore (96%), Calumet Heights (93%), South Chicago (68%) and South Deering (61%).
- ◇ In 2000, 36,057 Hispanics were counted in the area. Latinos are concentrated in East Side (68%), Hegewisch (29%) and South Chicago (27%).
- ◇ The total non-Hispanic White population in 2000 was 16,835 persons, the smallest racial-ethnic group. This population has continued to decline during the past two decades. This group also has the most persons age 18 years and over. They are concentrated in the Hegewisch (67%) and East Side (29%) areas.
- ◇ There are a total of 118,172 persons age 18 years and over. The areas with the most persons over age 18 are Calumet Heights (78%) and Hegewisch (76%), while the lowest areas are South Chicago (66%) and East Side (69%).

### **Socioeconomic Status**

The 1990 census data is dated but was the most recent census data available at the time of the study. Chicago Community Area Health Inventory (CDPH, 1999b) indicates the following:

- ◇ South Chicago, with its Mexican and Mexican Americans populations, and South Shore, predominantly African American, had much lower 1989 median household income (South Chicago, \$22,840; South Shore, \$20,094, compared to the City of Chicago, \$26,301).
- ◇ South Chicago (48.8%) and South Shore (47.5%) have the highest percentages of persons living twice below poverty level, compared to the city as a whole (41.1%).
- ◇ They also have the highest percentages of people living on public assistance (South Chicago, 28.2%, South Shore, 34.9%), compared to 23.4% for Chicago as a whole; and some of the highest proportions of unemployed individuals 16 years of age and over, respectively 17.9% and 15.6% compared to 11.3% for the City of Chicago as a whole.
- ◇ These same communities had the highest percentage of families headed by a female (South Shore, 43.7%, and South Chicago, 61.9% respectively), as opposed to 38.7% for the City of Chicago).
- ◇ East Side and South Chicago communities had the low rankings of persons who had completed a high school degree (58.1%, 59.3%, respectively), compared to 66% for Chicago.

### **Health Disparities in Southeast Chicago**

People in the study area experience a number of socioeconomic disadvantages as well as numerous health disparities. The Chicago Department of Public Health Community Area Inventory (CDPH, 1999a) provides selected health characteristics of the southeast communities.

- ◇ The most frequent type of cancer is lung cancer (higher than the city average) and female breast cancer.
- ◇ Some southeast Chicago communities have higher mortality rates than the city of Chicago for unintentional injury, homicide, pulmonary diseases, pneumonia, influenza and heart disease (South Deering).
- ◇ Some southeast Chicago communities experience high rates of negative health indicators; for instance high birth rates (East Side, 100.9 per 1000); low birth weight babies (Calumet Heights, 14.3%; South Deering, 14.0%; and South Shore, 13.9%); and adolescent pregnancies (South Shore, 23%; South Chicago, 19.7%).
- ◇ Environmental pollution is a serious problem because of the toxic waste dumps and landfills left behind by the recently shutdown industries.

### **Diabetes Service Utilization and Hospitalizations**

Between 1999 and 2000, Coalition health care facilities saw a total of 3,993 outpatients with diabetes. During that same time, 4,075 (unduplicated) persons were seen as inpatients with diabetes as a primary or secondary diagnosis. (See Table 2) This may indicate the high levels of complications among persons with diabetes in the area, and that they might be considered poorly controlled. The vast majority of the diabetes clients (outpatient and inpatient) were African American (71%), persons over the age of 45 (87%) and/or female (62%).

The high burden of diabetes hospitalization on the target minority communities is also reflected in hospital discharge 1994-1998 data corresponding to zip codes 60617 (1,383 cases), 60649 (1,108 cases), and 60633 (53 cases). The numbers of hospitalization are higher than the Chicago average, with the exception of zip code 60633 (Hegewisch).

### **Hemoglobin A<sub>1c</sub> Testing**

The Hemoglobin A<sub>1c</sub> (glycosylated hemoglobin) blood test is used as measure of good diabetes control and quality. With the results, the patient and provider can determine which strategies to use to improve diabetes control. The Illinois Diabetes Control Program (IDCP, 1999) recommends that providers perform this test quarterly. Medicare claim data, generated by the Illinois Foundation for Quality Health Care (IFQHC) upon request from IDCP, combined for 1997 through June 30, 1998, indicates:

- ◇ Medicare patients were the least likely to have received an HbA<sub>1c</sub> test. Only 26% of African Americans received the test, followed by 29% of Hispanics.
- ◇ Only 840 Medicare recipients with diabetes in Southeast Chicago (23%) received an HbA<sub>1c</sub> test, compared to Illinois as a whole (36%).

## **B. INVENTORY OF COMMUNITY RESOURCES**

As a means of conducting an inventory of community resources (or assets), UIC project staff and members of the Coalition a) reviewed directories of community resources in the target areas (local newspapers and telephone books); b) conducted field observations in the target areas; and c) made telephone calls to organizations using available telephone and community directories. Information was updated and verified, to obtain more precise information about the community services being offered, including the name and telephone number of each contact person. After revision, several maps were generated at UIC and IDCP. About 500 organizations and businesses were identified and grouped together in the following categories based upon different strategies to prevent and control diabetes:

- ◇ Clinics/Health Centers (primary care).
- ◇ Pharmacies (medicines and diabetes supplies).
- ◇ Hospitals (emergency, acute, and specialty care).
- ◇ Churches (outreach and spiritual support).
- ◇ Social Services (government benefits, mental health, etc.).
- ◇ Recreation & Fitness (exercise).
- ◇ Restaurants (food).
- ◇ Grocery Stores & Supermarkets (food).
- ◇ Schools & Libraries (literacy and information).

The study group concluded:

- ◇ There is an uneven distribution of services available in Chicago southeast community areas (with the exception of parks and libraries).
- ◇ The majority of the agencies are located in South Chicago, specifically along South Commercial Avenue.
- ◇ Consequently, access to health and human services is more difficult for people who live in community areas like Hegewisch, East Side or South Deering.

## **C. FOCUS GROUPS WITH HEALTHCARE PROVIDERS**

Two focus groups were conducted with health care providers serving the area, including family physicians, pediatricians, registered nurses, nutritionists and social workers. The majority of participating professionals were African Americans.

- ◇ Providers felt that patients needed healthier diets and daily exercise in order to maintain health. They mentioned their clients do not want to hear the word “diet.”
- ◇ They acknowledge the shortage of minority health professionals in the area of diabetes care, and in some specialty areas (podiatry, endocrinology). (In fact, this area has been designated as a health professionals shortage area by the Health Resource and Services Administration.)

- ◇ They also agreed that there is an urgent need for more resources and more culturally appropriate programs in the African American and Latino communities. Diabetes centers and free clinics are needed in the community.
- ◇ They reported that when a person is diagnosed with diabetes, referrals should be made to the optometrist, dietician, podiatrist, and endocrinologist, but, in reality, these services were viewed as inaccessible to many patients or not provided by health professionals in the area.
- ◇ They agreed that some health professionals are not familiar with diabetes clinical guidelines for management and control.

Many changes were viewed as necessary to provide adequate services. Recommendations include:

- ◇ Provide training in cultural competence to health care professionals.
- ◇ Provide training and support in quality of care improvement.
- ◇ Increase availability of after-hours and weekend care at local health facilities.
- ◇ Implement sliding fee scales to make health care affordable.
- ◇ Modify health messages to adjust to cultural beliefs and practices of local people.
- ◇ Reduce delays and waiting times to obtain health care and preventive services.
- ◇ Provide classes on healthy eating and lifestyle changes, and arrange transportation to classes.
- ◇ Organize walking groups and/or offer dance classes at Chicago park facilities; and
- ◇ Network with the food industry, including grocery chains, to offer produce at reasonable prices.

#### **D. FOCUS GROUPS WITH COMMUNITY RESIDENTS "AT RISK" FOR DIABETES**

Six focus groups were conducted for people with diabetes. Five groups included African Americans and one was composed of Spanish-speaking immigrants. The findings from these groups reveal:

- ◇ Most participants were familiar with basic diabetes information and wished to improve their current health status.
- ◇ They have a series of barriers to overcome such as limited income, lack of access to health care, no health insurance, lack of adequate information about diabetes, drugs and violence in the community, poor lifestyles and eating habits.
- ◇ Exercise facilities were viewed as costly to use by some focus group members. Public parks were seen as dangerous, especially in the evening (although there are plenty of parks).
- ◇ Transportation was seen as a barrier to regularly using and accessing health services.
- ◇ Specialty services are not available in the area and require long trips to places such as Cook County Hospital.
- ◇ The Spanish-speaking group identified the additional barriers of lack of interpreters, lack of cultural sensitivity, and the lack of availability of classes on diabetes management and control.
- ◇ Participants expressed concerns about the high cost of medication and glucose monitoring test strips, poor quality of care, lack of safe parks for exercise, and the limited availability and cost of vegetables.

Another six focus groups were conducted with people “at risk” for diabetes. These persons met criteria set by the American Diabetes Association risk factors (ADA, 2002).

- ◇ In general, people “at risk” expressed a desire to change their lifestyles but acknowledged difficulty due to limited understanding of diet, exercise and basic preventive care habits such as regular physical exams.
- ◇ Many have little support from their family members for lifestyle changes, which makes it more difficult to change poor health behaviors.
- ◇ Many participants wanted health information but did not know where to get it or whom to ask. Those who could not speak English had a much more difficult time trying to acquire information.

Part of the lack of knowledge was attributed to doctors who do not inform their patients or answering their questions. Some non-English speakers never received any diabetes information in Spanish. Therefore, patient education and creating a supportive and rewarding system is critical. Focus group participants recommended that communities take action at the local level and work their way up. As one participant said, “It's like campaigning for senator, go door to door, check with committeemen and the active blocks.”

## **E. TELEPHONE SURVEY**

The specific aim of the survey was to obtain quantifiable data on key access, medical, environmental and behavioral factors that may be associated with racial-ethnic disparities in diabetes prevalence, risk and quality of care among Latinos and African-Americans and other groups in southeast Chicago. The survey included questions from a standardized survey, including the CDC Behavioral Risk Factors Survey Surveillance System. The quantitative data forms a baseline from which to measure change.

### **Who was interviewed** (See Tables 3 and 4)

Based on a probability sample, persons ages 18 or older living in selected zip codes corresponding to the target communities were interviewed by telephone during June 2000. A total of 411 surveys were completed of which 394 were analyzed. Of this total, 69% of respondents were African-American, 17.5% were non-Hispanic Whites, and 13.2% were Hispanics. The majority of Hispanics were Mexican-Americans. The sample was two-thirds female and one-third male. Over one-half were 44 years old or younger, 29% were 45-64 years of age, and 17.3% were 65 years old or older. Of the total sample population, 60 persons report being diabetic. The average age of this group was 56 years; non-Hispanic Whites were older (mean age 60.5) and Hispanics were younger (mean age 50.7). These respondents with diabetes reported an average of 12.4 years of formal education, with Hispanics below average (9.3 years of schooling.) (Data not shown in tables.)

### **Diabetes Awareness**

- ◇ Almost all respondents have heard of diabetes.
- ◇ However, only 70.6% of respondents knew diabetes was a condition where blood sugar is high all of the time.

- ◇ By ethnicity, 88% of non-Hispanic Whites, 73.8% of Hispanics and 66.5% of African-Americans knew diabetes was related to high blood sugar.
- ◇ More respondents (52.3%) were aware that high blood sugar occurs when the body no longer produces insulin but 4.1% did not know that diabetes occurs when the body cannot use the insulin, it produces (insulin resistance). In addition, 14.6% were not sure that diabetes refers to high blood sugar.

**Risk Factors** (See Table 3.)

**Family history of diabetes** is a well-recognized risk factor for diabetes, specifically among first-degree relatives (parents, children, siblings). It also heightens one's awareness of diabetes. Related to this factor specifically, the study found that:

- ◇ 53% of respondents reported have one or more family members with diabetes. This was highest for Latinos (56.5%), followed by African Americans (53.1%), and non-Hispanic Whites (48.1%). (See Tables 3 & 4.)

**Overweight and obesity** is highly prevalent in the area, based on Body Mass Index (BMI) measurements.

- ◇ Approximately one-half of the total respondents were overweight (BMI>27%) or obese (BMI>30%). African Americans and Hispanics were most likely to report being obese (25.4% and 26%, respectively). (See table 3.)
- ◇ In terms of physical activity, 20.5% of African-Americans, 23.1% of non-Hispanic Whites, and 26.2% of Hispanics reported never exercising. (Data not shown on tables.)
- ◇ In general, of those who claimed they exercise, most reported walking as their main form of exercise. Less than 20% participated in any organized exercise or sport (African Americans, 17%; non-Hispanic Whites, 11.4%; Hispanics, 8.6%).

**Gestational diabetes mellitus** (GDM), or diabetes during pregnancy, is a risk factor for women. GDM generally occurs late in pregnancy and results in large babies.

- ◇ 12.1% of all women reported GDM, which varied by ethnicity: 17.6% of Latinas, 10.7% of African-American, and 11.1% of non-Hispanic white women.
- ◇ 10.3% of all women reported giving birth to babies over nine pounds which again varied by ethnicity: 13.3% of Latinas, 8.9% of African-Americans, and 12.5% of non-Hispanic White women.

**Healthy Eating** (Data not shown in tables.)

There seems to be some community awareness about controlling the amount of eating and/or engaging in healthy eating patterns.

- ◇ 57.9% reported trying to control their eating during the past 12 months.
- ◇ Most respondents' efforts involved eating food with less fat or cholesterol (18.8%); eating food with fewer calories (14.6%), or eating food with less salt (13.6%).
- ◇ Latinos were most likely to control their diet by eating food with fewer calories and less fat; African Americans were most likely to report eating with less fat or cholesterol or with less salt, while non-Hispanics Whites were most likely to report eating smaller portions or serving.

### **Food insufficiency** (See Table 4).

- ◇ Worries about lack of sufficient food were reported, particularly by Hispanics (13%), followed by African-Americans (8.9%) and non-Hispanics Whites (3.9%).
- ◇ Among people with diabetes in the telephone survey (n=60), approximately 17.2% reported worrying about not having enough food. This was particularly true among Hispanic respondents (28.6%)
- ◇ Food insufficiency leads to eating inexpensive foods higher in carbohydrates and fats.

### **Access to Health Care** (See Table 3.)

There are significant ethnic disparities in this area. Minorities were slightly more likely to report not having a regular source of health care and to report that during the previous year they needed medical care and did not get.

- ◇ 12.5% of African-Americans and 20.6% of Hispanics reported having no health insurance coverage, compared to 1.9% of non-Hispanics Whites. (See Table 3.)
- ◇ Of the insured, slightly over one-half reported having a managed care plan with very little difference emerging among racial and ethnic groups. (Data not shown in tables.)
- ◇ About 8.1% of African-Americans, 5.8% of non-Hispanic Whites, and 13% of Hispanics reported needing medical care in the past year and not getting it. (See Table 3.)
- ◇ 23.9% of Hispanics reported linguistic barriers in communicating with providers (See Table 3.); with 16.9% reporting using interpreters. (Data not shown in tables.)

### **Diabetes Prevalence** (See Table 3.)

- ◇ Among persons age 18 and over, 16.6% of African-Americans, 22.4% of non-Hispanic Whites (a considerably older group), and 10.8% of Hispanics reported having diabetes. This would result in an estimated 18,830 persons with diagnosed diabetes, of whom 13,126 would be African-American (69%), 2,478 Latino (13%), and 3,226 non-Hispanic Whites (17%). (Unweighed estimations are based upon Year 2000 population data.)
- ◇ The mean age of onset was 44.9 years for African-Americans, 47.8 years for non-Hispanic Whites, and, much younger, 38.4 years for Hispanics. (See Table 4.)
- ◇ The percentage of obesity, based on mean BMI for persons with diabetes was 37.5%. (see Table 4.)
- ◇ The proportion of people with diabetes who reported being unable to work was 19%. This was highest among Hispanics (42.9%) and lowest among African-Americans (17.3%).
- ◇ About 14.5% of persons with diabetes reported diabetes-related hospitalization. Hispanics reported the highest percentage of hospitalizations (42.9%). (Data not shown in tables.)

### **Prevalence of Diabetes-related Chronic Conditions** (See Table 3.)

- ◇ 8.5% of the total sample reported being diagnosed with heart disease. This percentage increased to 14% for non-Hispanic Whites.
- ◇ 4.1% reported kidney disease. Hispanics were twice as likely to report kidney disease (9%).
- ◇ 26.8% reported hypertension (Data not shown in tables.)
- ◇ 17.5% reported high cholesterol; among non-Hispanic Whites, 26% reported elevated cholesterol. (See Table 4.)

### **Use of Preventive Services in Total Study Population (See Table 3.)**

Sixty-four percent (64%) of all respondents reported a physical examination within six months of the survey 21.6% reported they had a physical exam 6-12 months before the survey. Hispanics were least likely to report a physical exam (48.5%). They were also least likely to have had a physical exam within the past five years (10.3%), within five years or more (4.4%), or never (4.4%). Among the 75.6% of the total study population who reported a physical exam in the past year:

- ◇ 78.4% reported having a blood glucose test in the past year. However, this is lower for Hispanics (71.5%). Approximately 11.1% of Hispanics reported never having a blood glucose test, compared to 5.5% of African-American and 2.0% for non-Hispanic Whites.
- ◇ 92.8% reported having a blood pressure check within the past two years. Hispanics, again, were least likely to report having it done (13.5%).
- ◇ Over 50% reported their blood cholesterol had been checked in the past six months (54.7%); an additional 16.9% reported it had been checked within the past year.
- ◇ 20% reported taking aspirin on a regular basis. In general, non-Hispanic Whites were most likely to report this behavior (25.5%), while Hispanics reported the least use (17.4%). (See Table 4.)
- ◇ Many physicians have talked to their patients about diet (65.2%); however physicians were least likely to talk about preventing accidents, falls and injuries (18.2%), alcohol use or abuse (25%) or about psychosocial issues including depression (31.1%) (Data not shown in tables).

### **Are Adults Getting Immunizations?**

The outcomes for persons with diabetes and chronic conditions are poorer than for healthy persons who contract respiratory infections. Updated immunizations are indicators of quality and timeliness of health care (IDCP, 1999).

- ◇ The proportion of adults receiving a flu shot during the past 12 months was 29.7% (see Table 3). This was highest for the older non-Hispanic Whites (44.2%), compared to African-Americans (28.6%) and the younger Hispanics (24.6%).
- ◇ The proportion of persons with diabetes receiving an annual influenza (flu shot) vaccine was 50%. (See Table 4.) This was highest for Whites (72.7%), followed by African Americans (45.2%) and Hispanics (42.9%).

### **Are People with Diabetes Getting Quality Care? (See Table 4.)**

We measured quality of diabetes care, based upon the recommendations of the Illinois Diabetes Control Program (1999), the American Diabetes Association and others.

- ◇ Only 51.7% of respondents with diabetes reported ever having received formal diabetes education. This was higher for whites (63.6%) than for Hispanics (57.1%) and African-Americans (47.5%) in the sample.
- ◇ Approximately 19.1% did not know what type of diabetes they had. This was the highest for Hispanics (42.9%), compared to African-Americans (17.5%) and non-Hispanic Whites (9.1%).
- ◇ Critical for the prevention of blindness, only 58.6% of diabetics had a dilated eye exam in the past year, and 25.9% reported a dilated eye exam within the past month. The proportion was highest among non-Hispanic Whites (72.7%).

- ◇ 82.9% reported having a physical exam in past six months (standard: quarterly).
- ◇ 32.8% reported seeing a dietitian within the past year for help with meal planning. This was particularly high for Hispanics (42.9%).
- ◇ Respondents reported having an average of 2.8 HbA<sub>1c</sub> tests in the past year. (Caution is needed in the interpretation of the findings, as many did not know about this test.) (See Table 4.)

**Are People with Diabetes Taking Care of Themselves?** (See Table 4.)

Self-management (self-care) is the cornerstone of diabetes control. This involves coordinating or balancing medications or insulin, dietary intake and physical activity through blood glucose self-monitoring. Findings indicate:

- ◇ 43.1% of diabetics reported checking their blood sugar at least daily while 6.5% never check their blood sugar. However, never checking is more common among Hispanics.
- ◇ 87.9% reported checking their feet daily.
- ◇ 28.3% reported taking aspirin to prevent cardiovascular crises.
- ◇ About 7.5% of African-Americans and 14.3% of Hispanics reported using home remedies for diabetes (Data not shown on table).

**IV. SUMMARY OF FINDINGS**

Chicago's Southeast side communities have a high concentration of minorities and people of low socioeconomic status. As a result, both minority and non-minority residents are experiencing similar social and health disadvantages. This appears to indicate that socioeconomic factors are the strongest determinants of the health of community residents rather than ethnicity. Despite this, there seem to be disparities by race and ethnicity on selected health status indicators, access to care, health status, diabetes risk factors, and other lifestyle practices, based on the telephone survey.

Access to care disparities exist in many areas, specifically in the use of preventive health services and access to health services (e.g., health insurance). The prevalence of diabetes and cardiovascular conditions in the target populations is noticeably higher than in the rest of the city (and the state). Minorities are least likely to report a regular source of health care and health insurance coverage. They are also more likely to report not getting medical care when they needed it the year prior to the study. One-fourth of Latinos reported difficulties in communicating with health care providers due to language barriers.

The prevalence of diabetes in the local target populations is noticeably higher than that in the state of Illinois. There is evidence that the quality of diabetes care needs improvement, as people with diabetes are not receiving care on par with standard treatment recommendations. For example, the use of aspirin on a regular basis is low. Lifestyle practices, reflected in exercise, weight control and smoking indicate either lack of knowledge about the latest evidence-based health information or lack of skills in transferring knowledge to behavior, and/or a lack of community norms or reinforcing factors to sustain behavioral changes among those who engage in lifestyle change.

## **V. COMMUNITY ACTION PLAN** (See Charts 1-4 in appendix.)

There is a need to develop a comprehensive approach to address the diversity of problems confronting people with diabetes or at risk of developing diabetes, as well as the challenges confronting providers serving this area. Based on preliminary findings of the Southeast Chicago Community Assessment, the Coalition developed an action plan with the following long-term goals:

- ◇ reduce diabetes mortality;
- ◇ reduce the prevalence of diabetes;
- ◇ reduce the complications and disabilities related to diabetes;
- ◇ improve the quality of diabetes-related care;
- ◇ improve access to health and medical services for persons with diabetes and/or at risk of developing diabetes;
- ◇ reduce inappropriate use of costly medical services (e.g., emergency room use, hospitalizations) by persons living with diabetes and/or at risk of developing diabetes.

These proposed community interventions are aimed at system change through capacity-building (such as a centralized diabetes information system in hospitals and clinics), improving the quality of diabetes care, establishing community Diabetes Self-Care Resource Centers to engage in health maintenance and health promotion activities and diabetes self-management education. The social network (social capital) theory will guide coalition work. The action plan includes activities aimed at:

**1. Building Community Capacity.** To reduce diabetes-related disparities, it is critical to reinforce or establish the necessary infrastructures and systems of operation among collaborating community agencies and organizations so as to assure a high level of success for our community interventions, for the appropriate monitoring of the impact of our interventions, and for the institutionalization of the coalition's efforts. These goals will be achieved through the following: 1) development of an assessment, referral and tracking system, using the Cornerstone Management Information System (MIS) Tracking System; 2) linkage development (referral agreements, etc); 3) diabetes self-care centers; 4) training and education (of clinicians, community leaders, and health promoters); and 5) resource development (for sustainability).

**2. Targeting People at Risk.** Our research findings show a significant proportion of the population to be at risk for developing diabetes. Despite the high incidence of diabetes, the focus groups indicated low levels of knowledge about diabetes risk factors, causes, symptoms and complications of diabetes. Family members of a person with diabetes do not recognize their own family risk factors. A lack of culturally appropriate materials such as informational handouts, posters, etc. contributes to low awareness levels among target populations. Furthermore, 1988-1994 national NHANES indicates 35% of people with diabetes are undiagnosed. The at-risk population will be identified through: 1) outreach and social marketing; 2) screening and assessment; 3) education interventions; and 4) linkage to services and follow-up.

**3. Improving the Quality of Services for People with Diabetes.** Our study documented the following: a) language barriers affect access of health care services; b) there is a high prevalence of diabetes in the area (10-15%), compared to the state of Illinois (6-7%), and high rates of hospitalization for diabetes; c) lack of patient adherence to diabetes self management, based

primarily of lack of diabetes education; and d) providers lack familiarity with and/or adherence to current clinical guidelines and standards of care. The effort to improve the quality of service for people with diabetes will involve organizational self-assessments, training and systems and policy changes.

**4. Diabetes Self-Management Education.** A series of diabetes self-management education activities will be conducted at Diabetes Self-Care Resource Centers, strategically throughout the area. In addition, diabetes self-care centers will be established to provide: 1) assessment, 2) brief and intensive diabetes education (including exercise and cooking classes) for the individual and the family; 3) referrals and linkages to needed services; and 4) follow-up by social workers and health promoters.

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