Diabetes in nine Chicago community areas

HEALTH SNAPSHOT NO.5

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Diabetes is a chronic medical condition characterized by high blood sugar levels. It is highly prevalent in the US, with over 29 million adults having either diagnosed or undiagnosed diabetes.[1] Not only is diabetes the seventh leading cause of death for Americans, but it has huge direct and indirect costs (estimated to be $245 billion in 2012) due to increased use of health resources and decreased productivity.[1-3] Knowing one's risk factors (such as family history) and being tested regularly are important ways to address this growing health problem. This health snapshot presents diabetes findings from the *Sinai Community Health Survey 2.0*, a community-driven, representative survey of nine communities in Chicago.

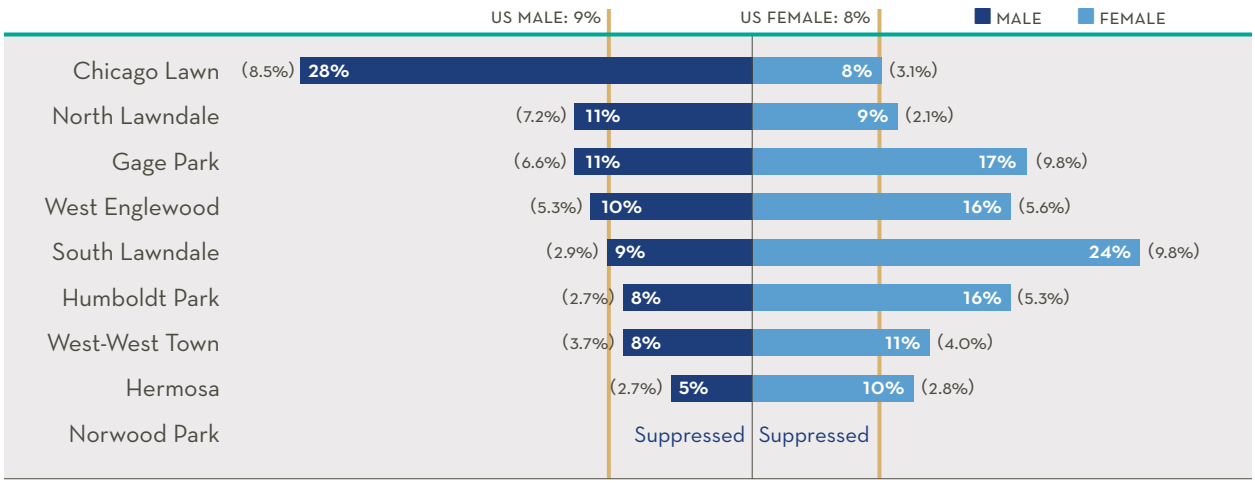
WHICH COMMUNITIES ARE MOST AFFECTED?

- About one quarter of males in Chicago Lawn and females in South Lawndale had been diagnosed with diabetes.
- In Chicago Lawn, Hermosa, South Lawndale, and Gage Park, about half of adults had a family history of diabetes.
- Only 29% of males in South Lawndale had a blood test to screen for diabetes in the past three years.

WHO IS MOST AFFECTED?

- One in four females of Puerto Rican origin had been diagnosed with diabetes.
- Over half of adults of Puerto Rican or Mexican origin had a family history of diabetes.

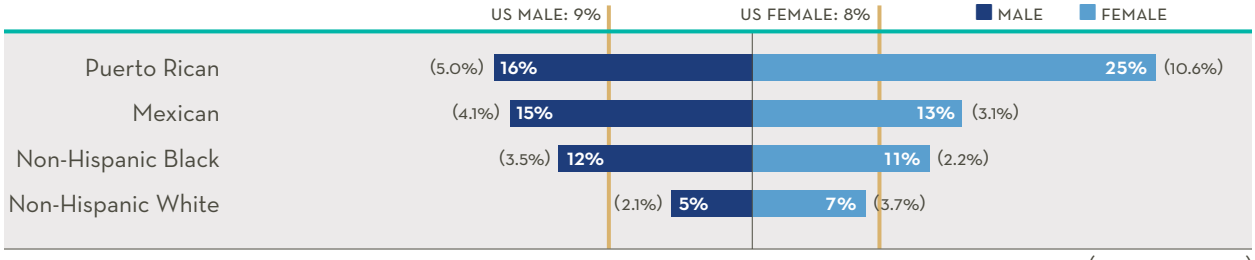
FIGURE 1: Prevalence of diagnosed diabetes by community area and sex



Sampled West Town community area west of Western Avenue only
US DATA SOURCE: *National Health Interview Survey, 2015 (age-adjusted)*

- Among females, the prevalence of diagnosed diabetes ranged from a high of 24% for females in South Lawndale to a low of 8% for females in Chicago Lawn.
- Among males, the prevalence of diagnosed diabetes ranged from a high of 28% for males in Chicago Lawn to a low of 5% for males in Hermosa.

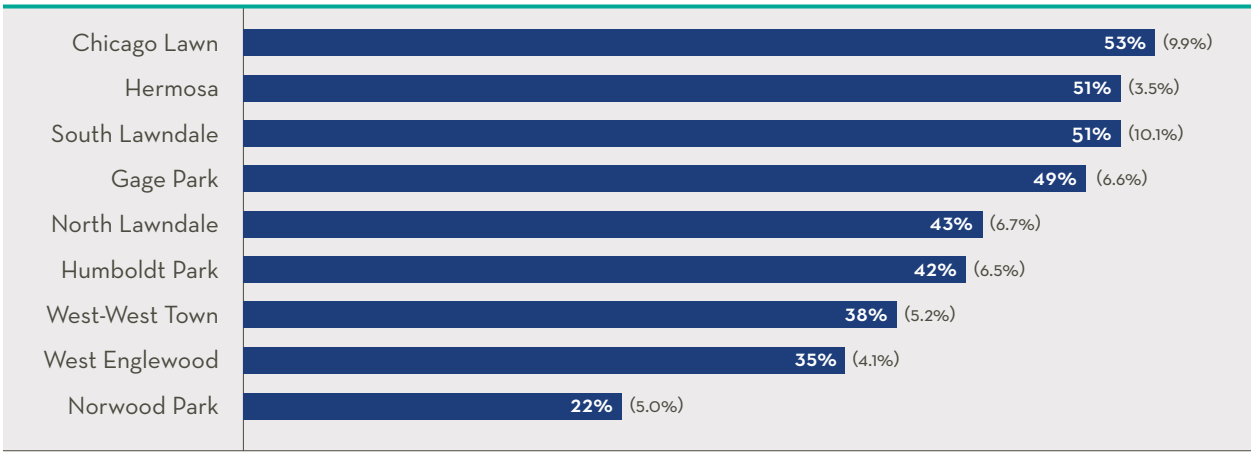
FIGURE 2: Prevalence of diagnosed diabetes by race/ethnicity and sex



US DATA SOURCE: *Behavioral Health Interview Survey, 2015 (age-adjusted)*
Rao-Scott Chi-Square p-value = 0.2462 (males); p = 0.2304 (females)

- Among females, the prevalence of diagnosed diabetes was highest for females of Puerto Rican origin (25%) and lowest for non-Hispanic White females (7%).
- Among males, the prevalence of diagnosed diabetes was highest for males of Puerto Rican origin (16%) and lowest for non-Hispanic White males (5%).
- The differences in the prevalence of diagnosed diabetes by race/ethnic group were not statistically significant for males or females.

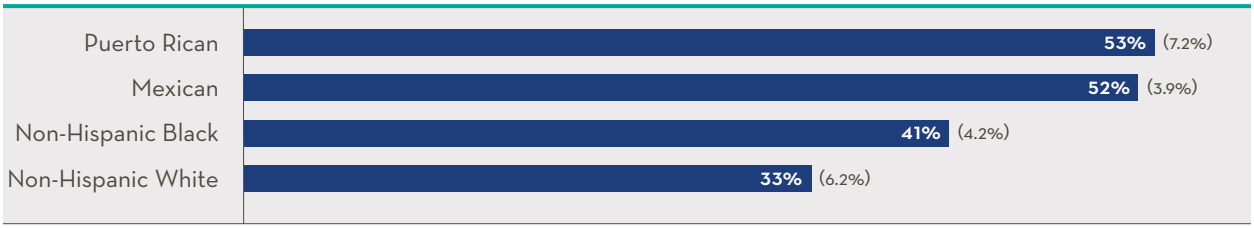
FIGURE 3: **Percent with a family history of diabetes by community area**



Sampled West Town community area west of Western Avenue only
Restricted to one adult respondent per household
No national comparison data available

- In the nine communities surveyed, the percentage of adults with a family history of diabetes ranged from a high of 53% in Chicago Lawn to a low of 22% in Norwood Park.
- In Chicago Lawn, Hermosa, South Lawndale, and Gage Park, about half of adults had a family history of diabetes.

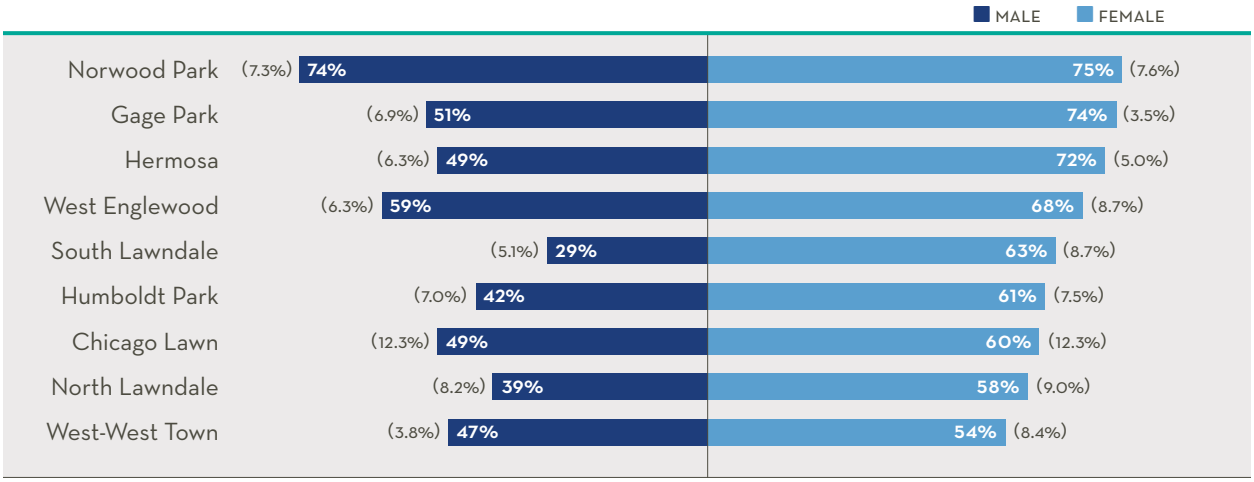
FIGURE 4: **Percent with a family history of diabetes by race/ethnicity**



Restricted to one adult respondent per household
No national comparison data available
Rao-Scott Chi-Square p-value = 0.0099

- There was a statistically significant difference in the percentage of adults with a family history of diabetes by race/ethnic group, which was highest for adults of Puerto Rican origin (53%) and lowest for non-Hispanic White adults (33%).
- Over 50% of adults of Puerto Rican or Mexican origin had a family history of diabetes.

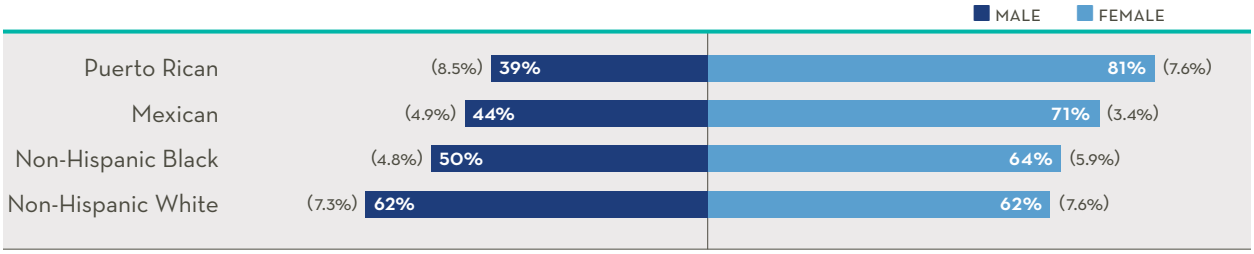
FIGURE 5: **Percent with a diabetes blood test screening in past three years by community area and sex**



Sampled West Town community area west of Western Avenue only
Restricted to adults without diagnosis of diabetes
No national comparison data available

- The percentage of females who had a blood test to screen for diabetes in the past three years ranged from a high of 75% for females in Norwood Park to a low of 54% for females in west-West Town.
- The percentage of males who had a blood test to screen for diabetes in the past three years ranged from a high of 74% for males in Norwood Park to a low of 29% for males in South Lawndale.

FIGURE 6: **Percent with a diabetes blood test screening in past three years by race/ethnicity and sex**



Restricted to adults without diagnosis of diabetes
No national comparison data available
Rao-Scott Chi-Square p-value = 0.1259 (males); p = 0.3378 (females)

- The percentage of females who had a blood test to screen for diabetes in the past three years was highest for females of Puerto Rican origin (81%) and lowest for non-Hispanic White females (62%).
- The percentage of males who had a blood test to screen for diabetes in the past three years was highest for non-Hispanic White males (62%) and lowest for males of Puerto Rican origin (39%).
- The differences in the percentage of adults who had a blood test to screen for diabetes in the past three years by race/ethnic group were not statistically significant for males or females.

ABOUT THE SURVEY

Sinai Urban Health Institute (SUHI) is a unique, nationally-recognized research center on the west side of Chicago. Our mission is to achieve health equity among communities through excellence and innovation in data-driven research, interventions, evaluation, and collaboration. SUHI is a proud member of Sinai Health System. For more information about SUHI, visit www.SUHIChicago.org.

SUHI designed and conducted the *Sinai Community Health Survey 2.0* in partnership with our Community Advisory Committee and The University of Illinois at Chicago Survey Research Laboratory (SRL). SRL administered surveys face-to-face in both English and Spanish to randomly selected households from each of the nine surveyed communities. Interviewers randomly selected up to two adults (18 and over) per household. Data collection took place between March 2015 and September 2016 with a final sample size of 1,543 adults. Survey results are representative at the community area level for all communities with the exception of West Town, which was sampled west of Western Avenue only. More information about the survey is available at www.SinaiSurvey.org.

DEFINITIONS

Diagnosed diabetes was defined as having ever been told by a doctor or other health professional that you have diabetes or sugar diabetes, excluding during pregnancy. Borderline diabetes was not classified as diagnosed diabetes.

Family history of diabetes was defined as having a mother, father, sister, or brother with diabetes.

Diabetes blood test in the past three years was defined as having a test for high blood sugar or diabetes within the past three years.

METHODS

We used sampling weights to compute statistical estimates to ensure (1) the estimates accounted for the differential probability of the selection of respondents; and (2) the demographic profile of survey respondents matched the community area demographic profiles from the *2010–2014 American Community Survey*. The Rao-Scott Chi-Square test was used to test for statistical differences by race/ethnic group overall or by sex, as appropriate. Findings were suppressed when the number of observations was less than five.

REFERENCES

1. Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of diabetes and its burden in the United States, 2014. In: Services USDoHaH, ed. Atlanta, GA. 2014.
2. Menke A, Casagrande S, Geiss L, Cowie CC. Prevalence of and trends in diabetes among adults in the United States, 1988-2012. *JAMA*. 2015;314(10):1021-1029.
3. American Diabetes Association. Economic costs of diabetes in the US in 2012. *Diabetes Care*. 2013;36(4):1033-1046.

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