Depression and anxiety in nine Chicago community areas

HEALTH SNAPSHOT NO.6

Jana L. Hirschtick, Bijou R. Hunt, and Maureen R. Benjamins

Depression and anxiety are two of the most common mental disorders in the US, affecting 17% and 29% of adults over the course of a lifetime, respectively.[1] Anxiety disorders include symptoms such as excessive worry and may limit an individual's ability to perform everyday tasks.[2] Depressive disorders, characterized by persistent depressed mood or sadness, are associated with higher rates of chronic disease, increased health care utilization, and substantial economic burden ($211 billion in 2010).[3,4] Understanding the prevalence of depression and anxiety is necessary in order to generate greater resources and target interventions to address these common conditions. This health snapshot presents depression and anxiety findings from the *Sinai Community Health Survey 2.0*, a community-driven, representative survey of nine communities in Chicago.
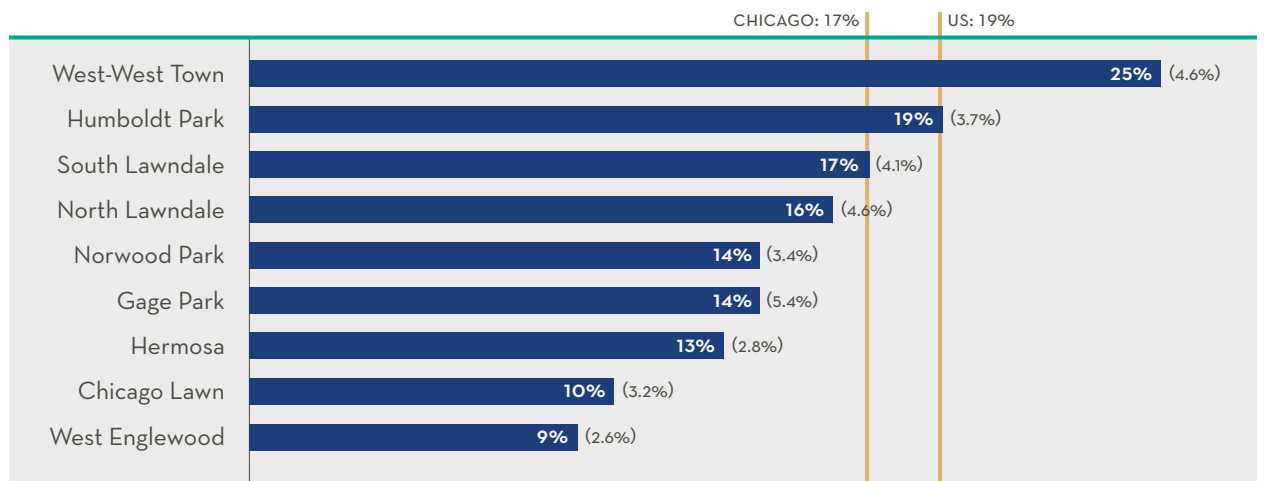
WHICH COMMUNITIES ARE MOST AFFECTED?

- One in four adults in west-West Town had ever been diagnosed with depression.

- In Humboldt Park and North Lawndale, one in six adults had current depression symptoms.

- In the neighboring communities of Humboldt Park and west-West Town, about one in five adults had current anxiety symptoms.

WHO IS MOST AFFECTED?

- Among females of Puerto Rican origin, 37% had ever been diagnosed with depression and 24% had current depression symptoms.

- About one in four adults of Puerto Rican origin had current anxiety symptoms.

FIGURE 1: Prevalence of diagnosed depression by community area

CHICAGO: 17%   US: 19%

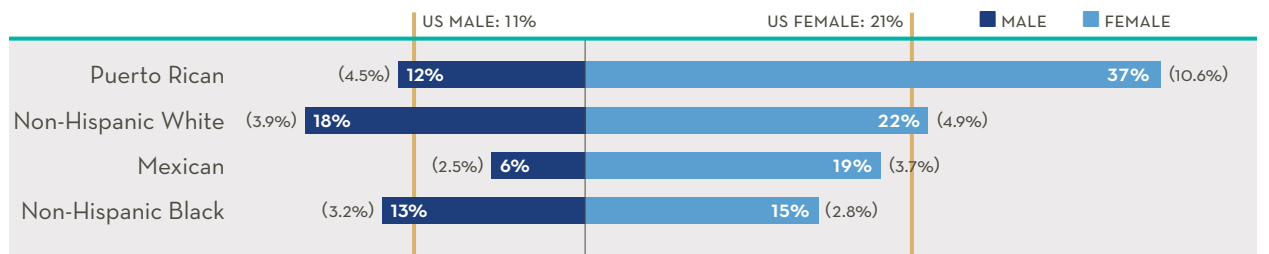| Community Area	Prevalence (Standard Error)
West-West Town	25% (4.6%)
Humboldt Park	19% (3.7%)
South Lawndale	17% (4.1%)
North Lawndale	16% (4.6%)
Norwood Park	14% (3.4%)
Gage Park	14% (5.4%)
Hermosa	13% (2.8%)
Chicago Lawn	10% (3.2%)
West Englewood	9% (2.6%)

PREVALENCE (STANDARD ERROR)

Sampled West Town community area west of Western Avenue only
US DATA SOURCE: *Behavioral Risk Factor Surveillances System, 2015*
CHICAGO DATA SOURCE: *Healthy Chicago Survey, 2014*

- In the nine communities surveyed, the prevalence of diagnosed depression ranged from a high of 25% in west-West Town to a low of 9% in West Englewood.
- In west-West Town, one in four adults had been diagnosed with depression.

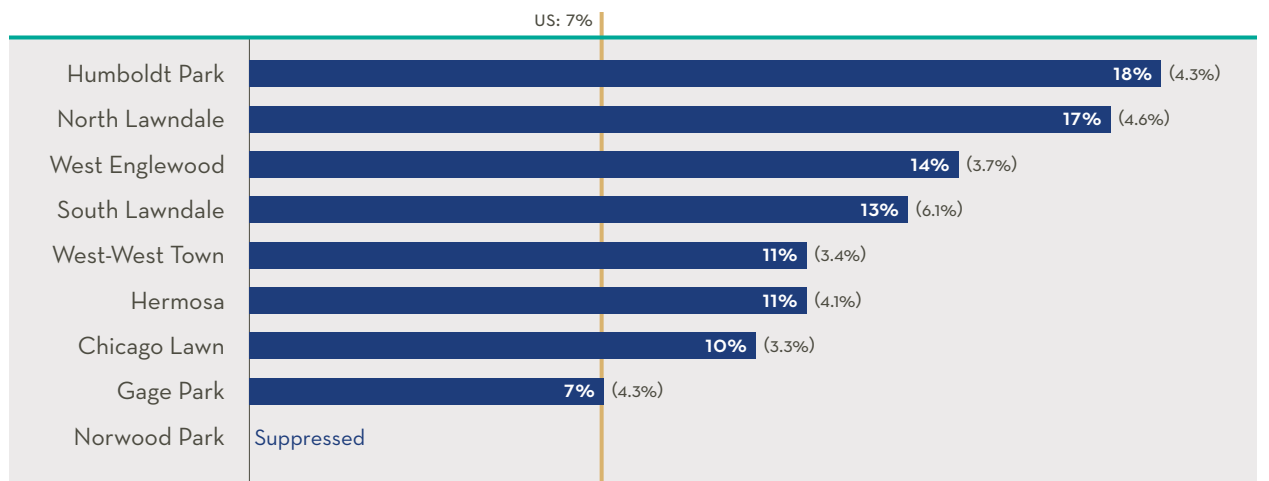## FIGURE 2: Prevalence of diagnosed depression by race/ethnicity and sex

US MALE: 11%   US FEMALE: 21%   ■ MALE   ■ FEMALE

Race/Ethnicity	Male	Female
Puerto Rican	(4.5%) 12%	37% (10.6%)
Non-Hispanic White	(3.9%) 18%	22% (4.9%)
Mexican	(2.5%) 6%	19% (3.7%)
Non-Hispanic Black	(3.2%) 13%	15% (2.8%)

PREVALENCE (STANDARD ERROR)

US DATA SOURCE: *Behavioral Risk Factor Surveillance System, 2008*
Rao-Scott Chi-Square p-value = 0.0519 (males); p = 0.0713 (females)

- Among females, the prevalence of diagnosed depression was highest for females of Puerto Rican origin (37%) and lowest for non-Hispanic Black females (15%).
- Among males, the prevalence of diagnosed depression was highest for non-Hispanic White males (18%) and lowest for males of Mexican origin (6%).
- The differences in the prevalence of diagnosed depression by race/ethnic group were not statistically significant for males or females.

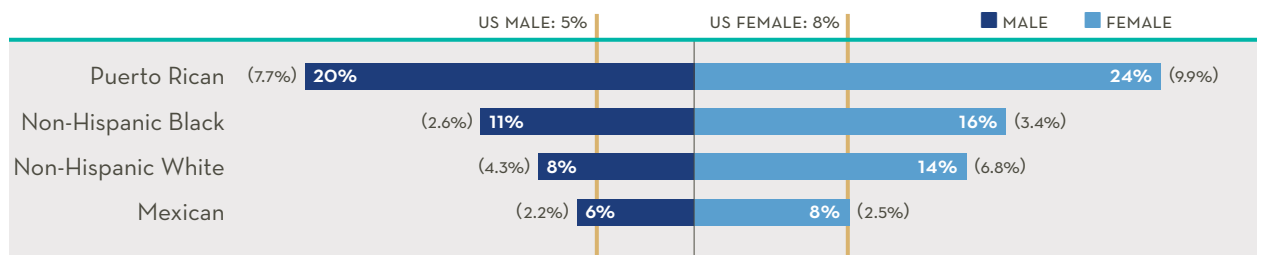FIGURE 3: **Prevalence of current depression symptoms by community area**

US: 7%

Community Area	Prevalence	(Standard Error)
Humboldt Park	18%	(4.3%)
North Lawndale	17%	(4.6%)
West Englewood	14%	(3.7%)
South Lawndale	13%	(6.1%)
West-West Town	11%	(3.4%)
Hermosa	11%	(4.1%)
Chicago Lawn	10%	(3.3%)
Gage Park	7%	(4.3%)
Norwood Park	Suppressed	

PREVALENCE (STANDARD ERROR)

Sampled West Town community area west of Western Avenue only
US DATA SOURCE: *National Health and Nutrition Examination Survey, 2005-2008*

- The prevalence of current depression symptoms ranged from a high of 18% in Humboldt Park to a low of 7% in Gage Park.
- In Humboldt Park and North Lawndale, about one in six adults had current depression symptoms.

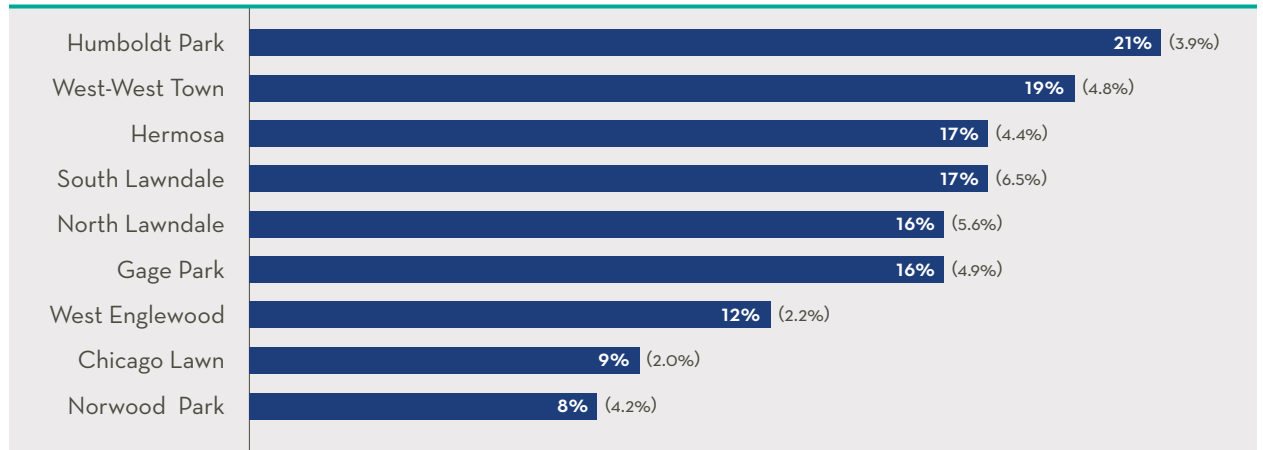FIGURE 4: **Prevalence of current depression symptoms by race/ethnicity and sex**

US MALE: 5%   US FEMALE: 8%   ■ MALE   ■ FEMALE

Race/Ethnicity	Male (SE)	Male	Female	Female (SE)
Puerto Rican	(7.7%)	20%	24%	(9.9%)
Non-Hispanic Black	(2.6%)	11%	16%	(3.4%)
Non-Hispanic White	(4.3%)	8%	14%	(6.8%)
Mexican	(2.2%)	6%	8%	(2.5%)

PREVALENCE (STANDARD ERROR)

US DATA SOURCE: *National Health and Nutrition Examination Survey, 2005-2008*
Rao-Scott Chi-Square p-value = 0.1797 (males); p = 0.1942 (females)

- Among females, the prevalence of current depression symptoms was highest for females of Puerto Rican origin (24%) and lowest for females of Mexican origin (8%).
- Among males, the prevalence of current depression symptoms was highest for males of Puerto Rican origin (20%) and lowest for males of Mexican origin (6%).
- The differences in the prevalence of current depression symptoms by race/ethnic group were not statistically significant for males or females.

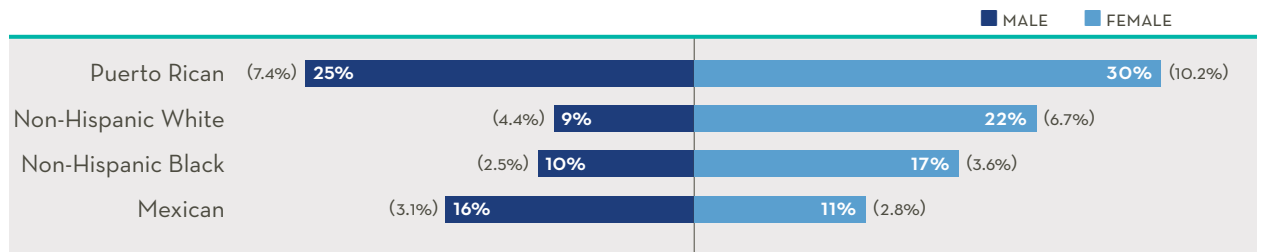FIGURE 5: **Prevalence of current anxiety symptoms by community area**

Community Area	Prevalence	(Standard Error)
Humboldt Park	21%	(3.9%)
West-West Town	19%	(4.8%)
Hermosa	17%	(4.4%)
South Lawndale	17%	(6.5%)
North Lawndale	16%	(5.6%)
Gage Park	16%	(4.9%)
West Englewood	12%	(2.2%)
Chicago Lawn	9%	(2.0%)
Norwood Park	8%	(4.2%)

PREVALENCE (STANDARD ERROR)

Sampled West Town community area west of Western Avenue only
No national comparison data available

- In the nine communities surveyed, the prevalence of current anxiety symptoms ranged from a high of 21% in Humboldt Park to a low of 8% in Norwood Park.
- In Humboldt Park and west-West Town, about one in five adults had current anxiety symptoms.

FIGURE 6: **Prevalence of current anxiety symptoms by race/ethnicity and sex**

■ MALE   ■ FEMALE

Race/Ethnicity	Male (Standard Error)	Male	Female	Female (Standard Error)
Puerto Rican	(7.4%)	25%	30%	(10.2%)
Non-Hispanic White	(4.4%)	9%	22%	(6.7%)
Non-Hispanic Black	(2.5%)	10%	17%	(3.6%)
Mexican	(3.1%)	16%	11%	(2.8%)

PREVALENCE (STANDARD ERROR)

No national comparison data available
Rao-Scott Chi-Square p-value = 0.1348 (males); p = 0.1163 (females)

- Among females, the prevalence of current anxiety symptoms was highest for females of Puerto Rican origin (30%) and lowest for females of Mexican origin (11%).
- Among males, the prevalence of current anxiety symptoms was highest for males of Puerto Rican origin (25%) and lowest for non-Hispanic White males (9%).
- The differences in the prevalence of current anxiety symptoms 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 depression was defined as having ever been told by a doctor, nurse, or other health professional that you had a depressive disorder, including depression, major depression, dysthymia, or minor depression.

The presence of *current depression symptoms* was defined as scoring at least 10 out of 27 on the nine-item Patient Health Questionnaire (PHQ-9).[5] If one scale item was missing, the mean value from the eight answered items was imputed to calculate a score. A score was not calculated for respondents with two or more missing scale items.

The presence of *current anxiety symptoms* was defined as scoring at least three out of six on the two-item Generalized Anxiety Disorder Scale (GAD-2).[6] Respondents with up to one missing scale item were included if they scored at least three on the scale.

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 and sex. Findings were suppressed when the number of observations was less than five.

REFERENCES

1. Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, Walters EE. Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Arch Gen Psychiatry*. 2005;62(6):593-602.

2. Mental health: Anxiety. Centers for Disease Control and Prevention. http://www.cdc.gov/mentalhealth/basics/mental-illness/anxiety.htm. Accessed December 20, 2016.

3. Mental health: Depression. Centers for Disease Control and Prevention. http://www.cdc.gov/mentalhealth/basics/mental-illness/depression.htm. Accessed December 20, 2016.

4. Greenberg PE, Fournier AA, Sisitsky T, Pike CT, Kessler RC. The economic burden of adults with major depressive disorder in the United States (2005 and 2010). *J Clin Psychiatry*. 2015 Feb;76(2):155-62.

5. Spitzer RL, Kroenke K, Williams JBW. Validation and utility of a self-report version of PRIME-MD: The PHQ Primary Care Study. *JAMA*. 1999;282:1737-1744.

6. Kroenke K, Spitzer RL, Williams JBW, Monahan PO, Lowe B. Anxiety disorders in primary care: Prevalence, impairment, comorbidity, and detection. *Ann Intern Med*. 2007;146:317-325.

SINAI
Sinai Health System

THE CHICAGO COMMUNITY TRUST
AND AFFILIATES