



**2022 Lake County Community  
Health Needs Assessment  
Deep Dive 2: Adults who Experienced a Stroke**



**Lake County  
General Health District**  
**Public Health**  
Prevent. Promote. Protect.

# 2022 Lake County Community Health Needs Assessment

## Deep Dive 2:

### Adults who Experienced a Stroke

This Deep Dive is the second in a series of Lake County General Health District's further investigation of health disparities identified in the 2022 Lake County Community Health Needs Assessment (CHNA).

Secondary data collected in the process of conducting the 2022 CHNA indicated that based on most recent available data from 2015-2019 that Lake County has a five-year average rate of death due to cerebrovascular disease (stroke) of 35.8 per 100,000 population. The 2022 CHNA also indicated that, according to 2018 data, 4.0% of Medicare Fee-for-Service beneficiaries had a history of stroke. This was a higher percentage of the Medicare population with a history of stroke than the state and national level, as well as two demographically-similar comparison counties in Ohio.<sup>1</sup>

According to the Centers for Disease Control and Prevention (CDC), from 2018-2020 for ages 35+, Ohio had a stroke death rate of 84.2 per 100,000 persons, which was above the national rate of 73.1 per 100,000. Lake County had a stroke death rate of 73.6 per 100,000, also above the national rate.<sup>2</sup>

#### Methods and Results

In order to better understand stroke in adults in Lake County, the Lake County General Health District (LCGHD) used the Healthy Northeast Ohio (NEO) platform ([www.healthyneo.org](http://www.healthyneo.org)) and U.S. Census data ([www.data.census.gov](http://www.data.census.gov)) to explore percentages at the census tract level to determine whether specific areas in Lake County had percentages of adults who have ever been told by a health care provider that they had a stroke. This information was then used to determine what, if anything, is different about the population in those areas that could provide additional context. When exploring Adults who Experienced a Stroke data at the census tract level for years 2018, 2019, and 2020, one census tract, 2013, was identified as having the highest percentages in Lake County, which were 0.4 to 0.5 percentage points higher than the other remaining census tracts with the top five percentages. Rates for 2018, 2019, and 2020 were 4.5%, 4.7%, and 4.4% respectively, with the next highest census tract having percentages of 4.0%, 4.2%, and 4.0% respectively.<sup>3</sup>

Census tract 2013 is located in Willoughby and inside of ZIP code 44094. This census tract's northern boundary is Euclid Avenue (Rt. 20) and has a southern boundary by I-90. The southern boundary runs through the Gully Brook Park. The western border is SOM Center Road (SR-91). The eastern border consists of Shankland Road, Ridge Road (Rt. 84), and River Road (SR-174) that runs around Gully

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<sup>1</sup> Conduent Healthy Communities Institute. (2022). 2022 Lake County Health Needs Assessment. Available Online: [https://www.lcghd.org/wp-content/uploads/2022/10/FINAL-2022-Lake-County-Ohio-CHNA-Report\\_09\\_30\\_22.pdf](https://www.lcghd.org/wp-content/uploads/2022/10/FINAL-2022-Lake-County-Ohio-CHNA-Report_09_30_22.pdf)

<sup>2</sup> Centers for Disease Control and Prevention (2022). Interactive Atlas of Heart Disease and Stroke. <https://nccd.cdc.gov/DHDSPAtlas/Default.aspx?state=OH>

<sup>3</sup> The Center for Health Affairs. (2022). Healthy Northeast Ohio: Adults who Experienced a Stroke. <https://www.healthyneo.org/indicators/index/view?indicatorId=2820&localeTypeId=4&periodId=227&localeFilterId=2137>

Brook Park. Basic demographics for the population living in this census tract and all of Lake County, including income, age, race, ethnicity, education, housing, disability status, household size, and marital status were then reviewed and compared using 2020 U.S. Census data. Results are summarized in the following table.

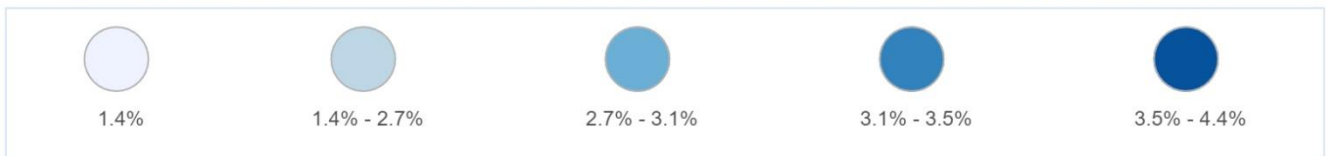
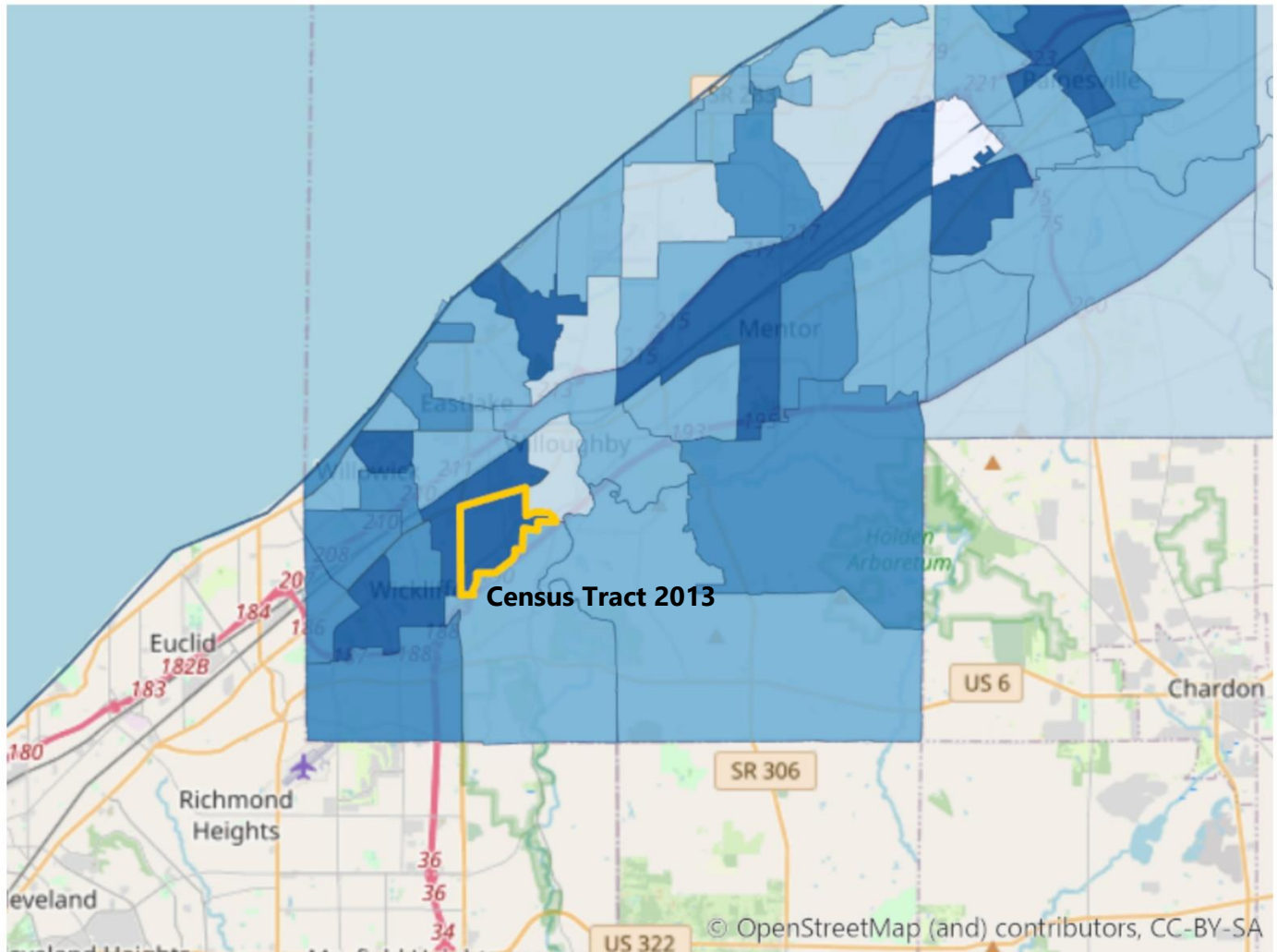
### Adults who Experienced a Stroke

Census Tract: 39085201300

39085201300 Value for 2020: 4.4%

Measurement Period: 2020

Data Source: CDC - PLACES



June 29, 2023

www.healthynco.org

Adults who Experienced a Stroke Comparison <sup>4</sup>		
Demographic Categories	Lake County	Census Tract 2013
<b>Income</b>		
Median Household Income in Lake County	\$74,273	\$67,237
<b>Age</b>		
Median age in Lake County	44.2 years	55.3 years
<b>Race</b>		
American Indian and Alaska Native	0.2%	0.1%
Asian	1.4%	2.1%
Black or African American	4.7%	5.8%
Native Hawaiian and Pacific Islander	0.0%	0.1%
Some Other Race	2.4%	0.1%
Two or More Races	5.5%	2.6%
White	85.7%	87.9%
<b>Ethnicity</b>		
Hispanic or Latino	5.0%	1.4%
Non-Hispanic or Latino	91.0%	98.6%
<b>Education</b>		
High school or equivalent degree	31.3%	32.9%
Some college, no degree	22.8%	22.2%
Associate's degree	10.1%	6.0%
Bachelor's degree	18.6%	24.3%
Graduate or professional degree	10.2%	10.7%
<b>Housing</b>		
<u>Home Ownership Rate</u>	78.1%	N/A
<u>Housing Value</u>		
Less than \$50,000	4.0%	2.1%
\$50,000 to \$99,999	12.2%	9.3%
\$100,00 to \$149,999	25.5%	26.4%
\$150,000 to \$199,999	21.4%	26.0%
\$200,000 to \$299,999	22.6%	24.4%
\$300,000 to \$499,999	11.1%	11.1%
\$500,000 to \$999,999	2.8%	0.6%
\$1,000,000 or more	0.4%	0.0%
<u>Housing Occupancy</u>		
Occupied Housing Units	99,590	1,952
Vacant Housing Units	5,725	106

<sup>4</sup> U.S. Census Bureau. (2020). Tables P1 Race, DP05 ACS Demographic and Housing Estimates, S0101 Age and Sex.

Adults who Experienced a Stroke Comparison <sup>3</sup>		
Demographic Categories	Lake County	Census Tract 2013
<b>Health</b>		
Disabled population	12.7%	23.5%
<b>Families and Living Arrangement</b>		
<u>Family and Household Character</u>		
Average Family Size	2.89 persons	2.51 persons
<u>Marital Status</u>		
Now Married (except separated)	50.0%	48.3%
Widowed	6.4%	18.3%
Divorced	12.5%	8.8%
Separated	1.3%	0.4%
Never married	29.8%	24.2%

When compared with Lake County’s population, the population of census tract 2013 had a median household income of \$67,237, which is about \$7,000 lower than the county median. The median age is about 11 years higher than the county median. The ethnic composition of census tract 2013 includes a higher percentage of non-Hispanic or Latino (98.6%) than Lake County as a whole (91.0%). Additionally, the disabled population of this specific census tract (23.5%) is almost double that of Lake County (12.7%).

## Conclusions

Even though these demographic comparisons are compelling, this is no clear indication as to why census tract 2013 is an outlier for adults that have experienced a stroke. One considerable statistic is the median age of 55.3 years for census tract 2013. In Ohio, 31.8% of patients treated for stroke were age 46-65.<sup>5</sup> It should be noted that there are multiple long-term care and senior facilities in census tract 2013. This could potentially lead to the higher median age as well as disability status. Another telling statistic presented in the comparison is the higher percentage of the disabled population that census tract 2013 has compared to Lake County. This may be a contributing factor leading to more strokes but cannot be concluded with the current information. The following table shows that there are overall more disabilities in census tract 2013.<sup>6</sup> The higher percentage of the population with an ambulatory disability could be significant because this may impact the ability for this population to participate in physical activity.

<sup>5</sup> Ohio Department of Health. (2020). Coverdell Stroke Program Benchmark Report for 2019.

[https://odh.ohio.gov/wps/wcm/connect/gov/efc49317-3a8d-4ced-aa3c-f15db6c2a9ff/2019+Programwide+Annual+Benchmark+Report.pdf?MOD=AJPERES&CONVERT\\_TO=url&CACHEID=ROOTWORKSPACE.Z18\\_K9I401S01H7F40QBNJU3SO1F56-efc49317-3a8d-4ced-aa3c-f15db6c2a9ff-nkE1PoK](https://odh.ohio.gov/wps/wcm/connect/gov/efc49317-3a8d-4ced-aa3c-f15db6c2a9ff/2019+Programwide+Annual+Benchmark+Report.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=ROOTWORKSPACE.Z18_K9I401S01H7F40QBNJU3SO1F56-efc49317-3a8d-4ced-aa3c-f15db6c2a9ff-nkE1PoK)

<sup>6</sup> U.S. Census Bureau. (2021). Table S1810 Disability Characteristics.

<https://data.census.gov/table?q=44094&t=Disability&g=1400000US39085201300&tid=ACSST5Y2021.S1810&moe=false>

<b>Disability Type</b>	<b>Lake County</b>	<b>Census Tract 2013</b>
Hearing Difficulty	4.1%	10.7%
Vision Difficulty	2.2%	6.3%
Cognitive Difficulty	5.0%	7.7%
Ambulatory Difficulty	6.9%	13.7%
Self-Care Difficulty	2.5%	3.8%
Independent Living Difficulty	5.8%	8.6%

The data presented in this deep dive could potentially be useful to target this census tract for prevention and/or educational strategies to reduce the number of adults having strokes. These prevention strategies could target those with high blood pressure, high cholesterol, smoking, obesity, and diabetes. According to the CDC, 1 in 3 adults has at least one of the said conditions or habits.<sup>7</sup>

<sup>7</sup> Centers for Disease Control and Prevention. (2023). Stroke Facts. <https://www.cdc.gov/stroke/facts.htm>