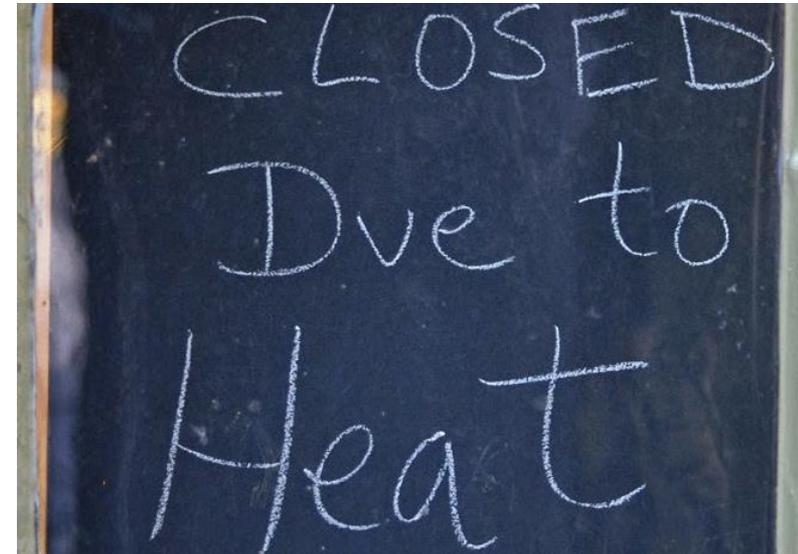
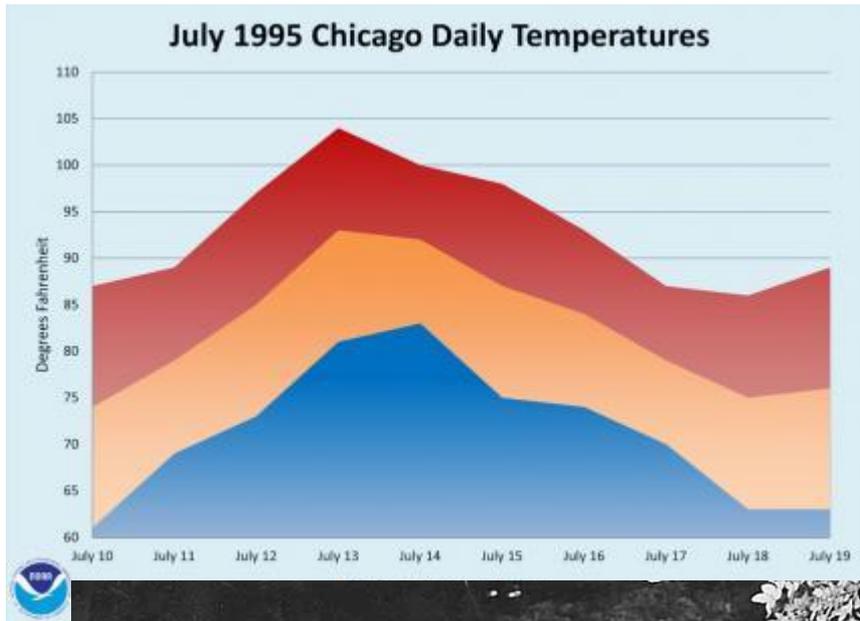




Measuring the Health of Chicago: Being an Epidemiologist

Nikhil Prachand
Director of Epidemiology
Chicago Department of Public Health
June 4, 2021

Becoming an Epidemiologist - 1995



Becoming an Epidemiologist - 1995

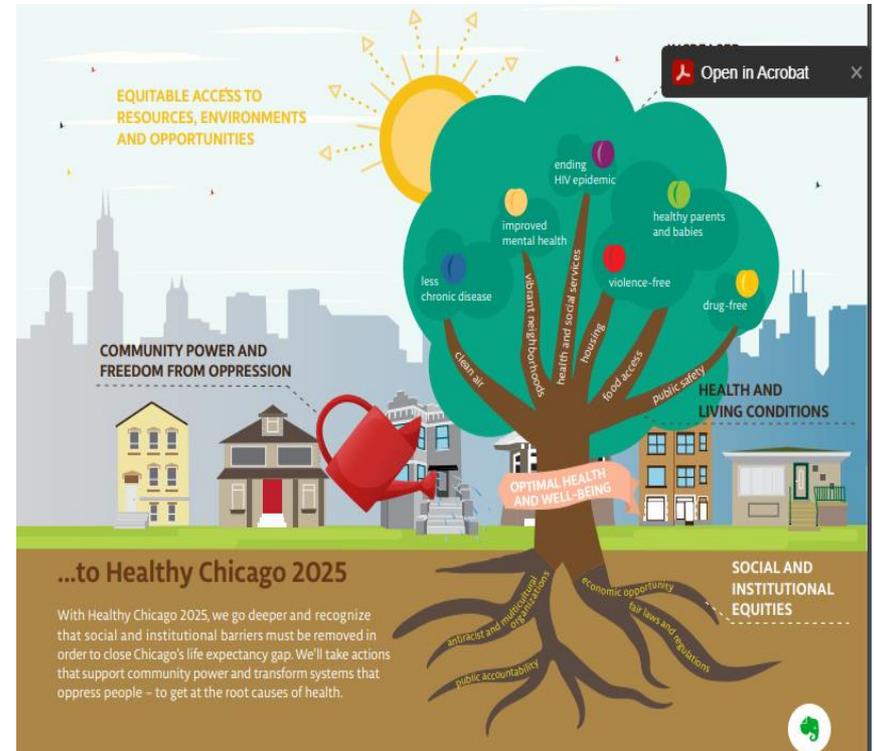
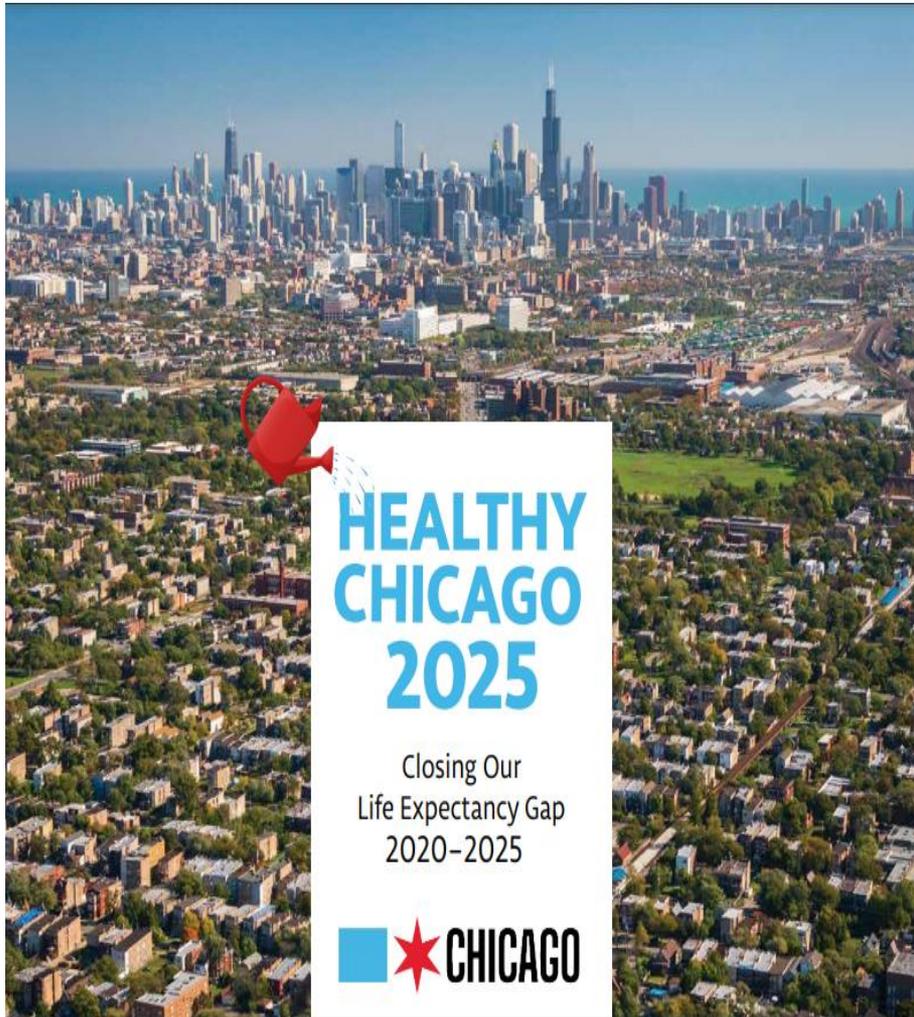


Living alone with little social support; neighborhood safety and miseducation about effects of extreme heat were strong predictors of death during the heat wave!

Becoming an Epidemiologist 1995 - 2014



Becoming an Epidemiologist 1995 - today





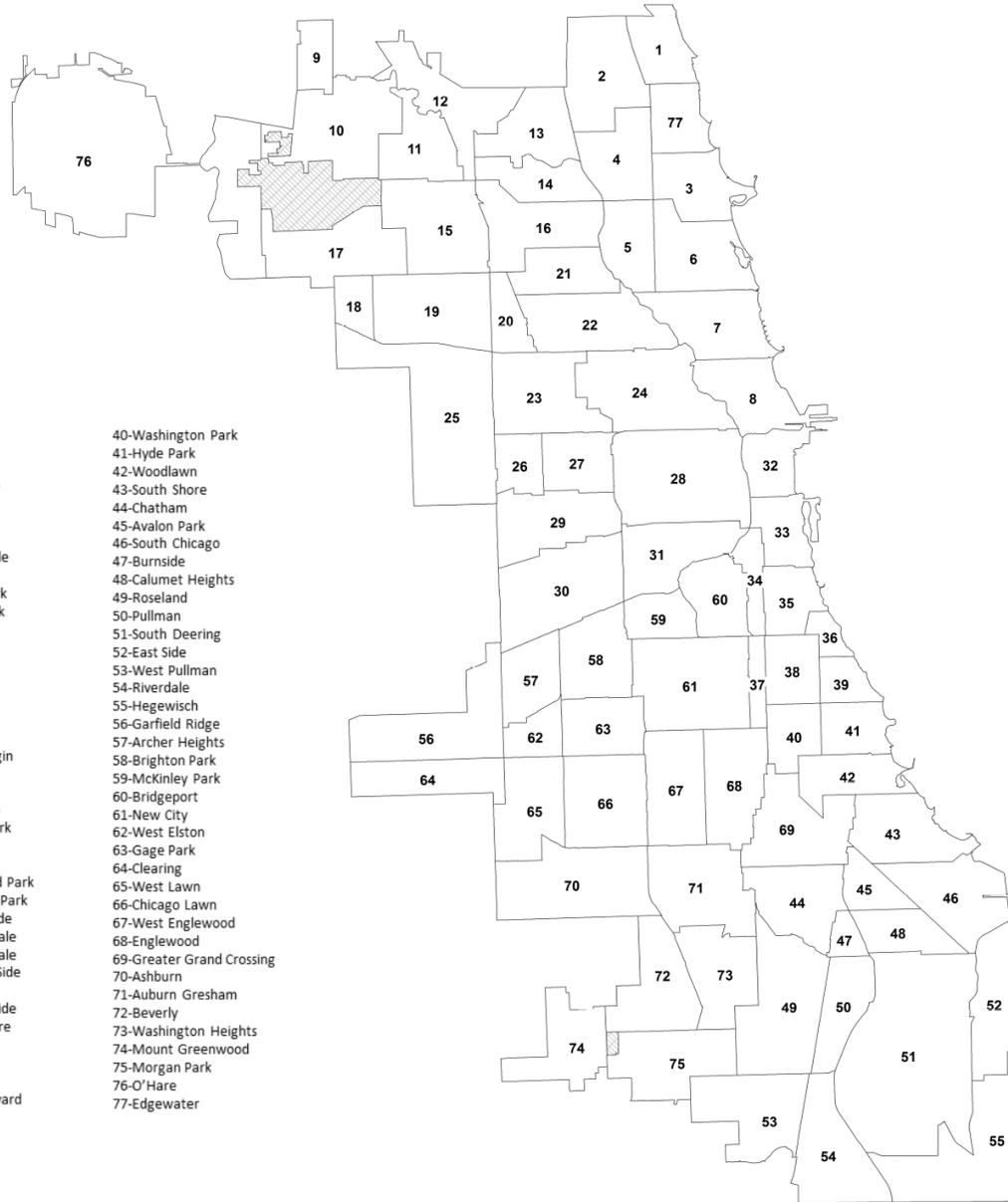
Data is an epidemiologist's most powerful tool

27.4	31.0	34.2	28.9	25.7	37.1	24.8	34.9	27.5	25.9
23.5	30.9	27.4	25.9	22.3	21.3	37.8	28.8	28.8	23.4
21.9	30.2	24.7	36.6	25.4	21.3	22.9	24.2	27.1	23.1
28.6	27.3	22.7	22.7	27.3	23.1	22.3	32.6	29.5	38.8
21.9	24.3	26.5	30.1	27.4	24.5	22.8	24.3	30.9	28.7
22.4	35.9	30.0	26.2	27.4	24.1	19.8	26.9	23.3	28.4
20.8	26.5	28.2	18.3	30.8	27.6	21.5	33.6	24.8	28.3
25.0	35.8	25.4	27.3	23.0	25.7	22.3	35.5	29.8	27.4
31.3	24.0	25.8	21.1	21.1	29.3	24.0	22.5	32.8	38.2
27.3	19.2	26.6	30.3	31.6	25.4	34.8	24.7	25.6	28.3
26.5	28.3	35.0	20.2	37.5	25.8	27.5	28.8	31.1	28.7
24.1	24.0	20.7	24.6	21.1	21.9	30.8	24.6	33.2	31.6

Source: Adapted from the National Center for Health Statistics (2000). Data File Documentation, National Health Interview Survey, 1998 (machine readable data file and documentation, CD-ROM Series 10, No 13A), National Center for Health Statistics, Hyattsville, Maryland.

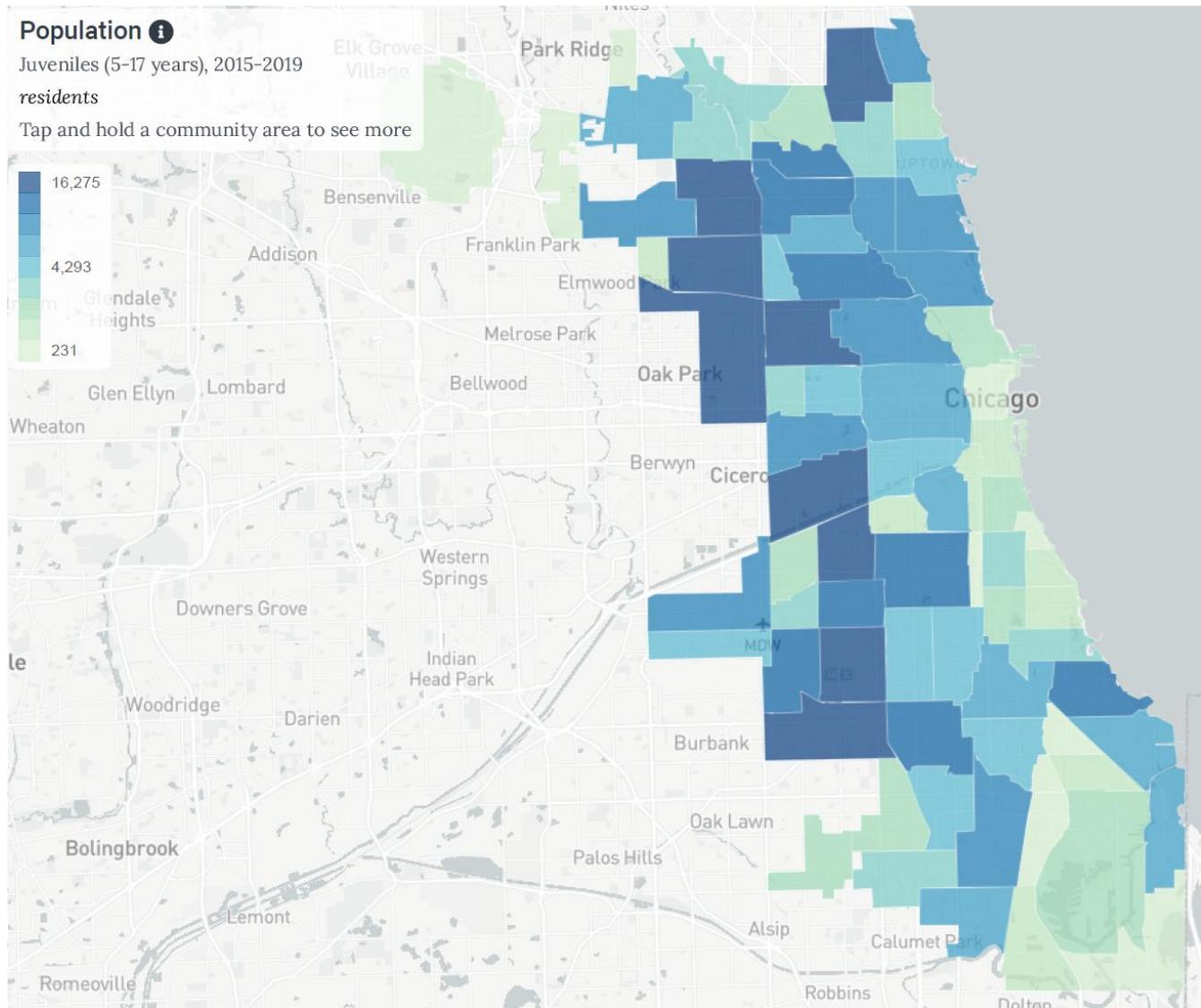
But data needs to be turned into useful information for communities

NEIGHBORHOODS OF CHICAGO



- | | |
|-----------------------|---------------------------|
| 1-Rogers Park | 40-Washington Park |
| 2-West Ridge | 41-Hyde Park |
| 3-Uptown | 42-Woodlawn |
| 4-Lincoln Square | 43-South Shore |
| 5-North Center | 44-Chatham |
| 6-Lake View | 45-Avalon Park |
| 7-Lincoln Park | 46-South Chicago |
| 8-Near North Side | 47-Burnside |
| 9-Edison Park | 48-Calumet Heights |
| 10-Norwood Park | 49-Roseland |
| 11-Jefferson Park | 50-Pullman |
| 12-Forest Glen | 51-South Deering |
| 13-North Park | 52-East Side |
| 14-Albany Park | 53-West Pullman |
| 15-Portage Park | 54-Riverdale |
| 16-Irving Park | 55-Hegewisch |
| 17-Dunning | 56-Garfield Ridge |
| 18-Montclare | 57-Archer Heights |
| 19-Belmont Cragin | 58-Brighton Park |
| 20-Hermosa | 59-McKinley Park |
| 21-Avondale | 60-Bridgeport |
| 22-Logan Square | 61-New City |
| 23-Humboldt Park | 62-West Elston |
| 24-West Town | 63-Gage Park |
| 25-Austin | 64-Clearing |
| 26-West Garfield Park | 65-West Lawn |
| 27-East Garfield Park | 66-Chicago Lawn |
| 28-Near West Side | 67-West Englewood |
| 29-North Lawndale | 68-Englewood |
| 30-South Lawndale | 69-Greater Grand Crossing |
| 31-Lower West Side | 70-Ashburn |
| 32-Loop | 71-Auburn Gresham |
| 33-Near South Side | 72-Beverly |
| 34-Armour Square | 73-Washington Heights |
| 35-Douglas | 74-Mount Greenwood |
| 36-Oakland | 75-Morgan Park |
| 37-Fuller Park | 76-O'Hare |
| 38-Grand Boulevard | 77-Edgewater |
| 39-Kenwood | |

Choropleth Map - example



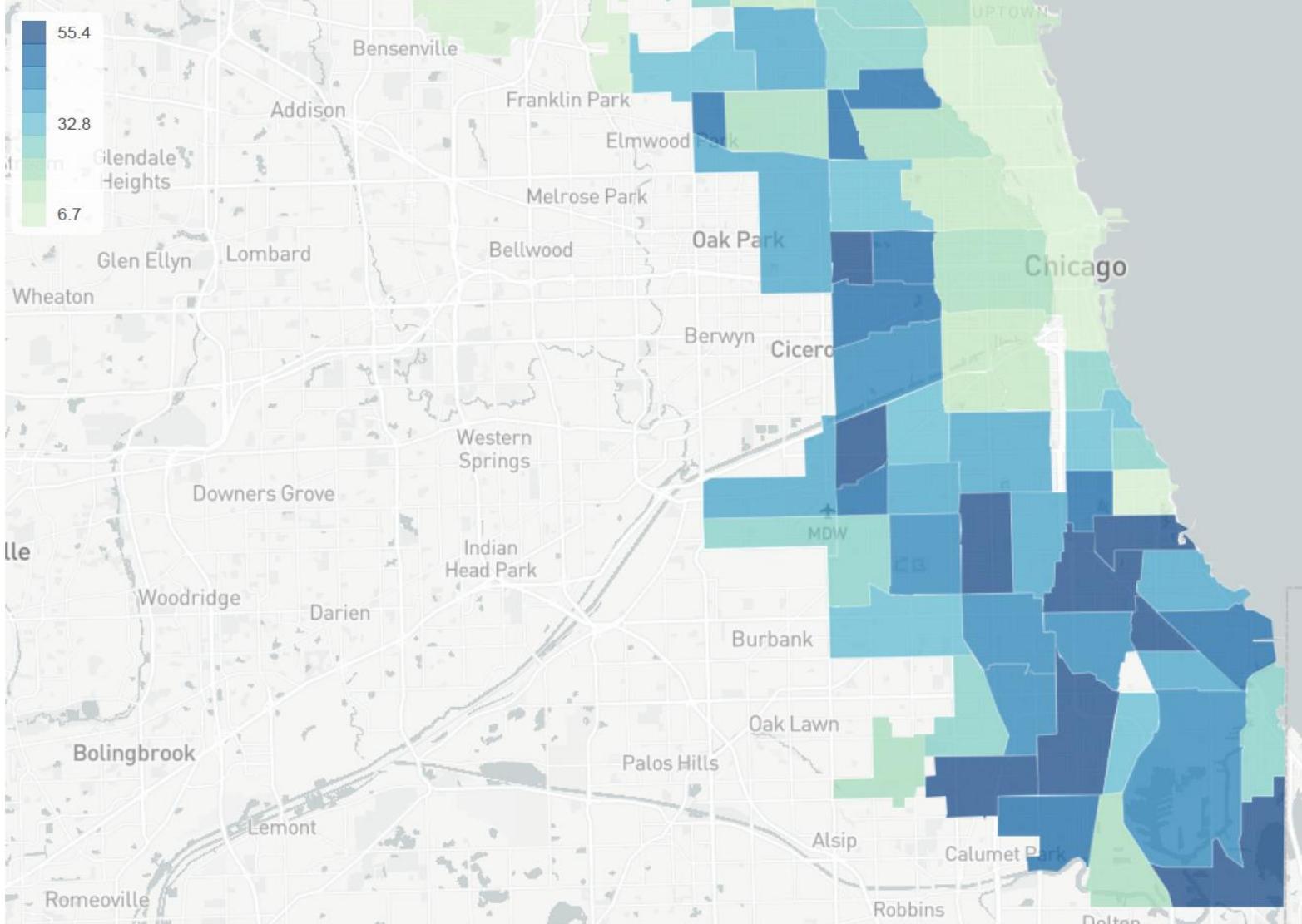
Obesity in Chicago: Interactive Exercise

Adult obesity rate

2016-2018

% of adults

Tap and hold a community area to see more



What leads to obesity?

- **Little or no physical activity**
- **Eating junk food frequently**
- **Drinking soda daily**

How can your neighborhood help prevent obesity?

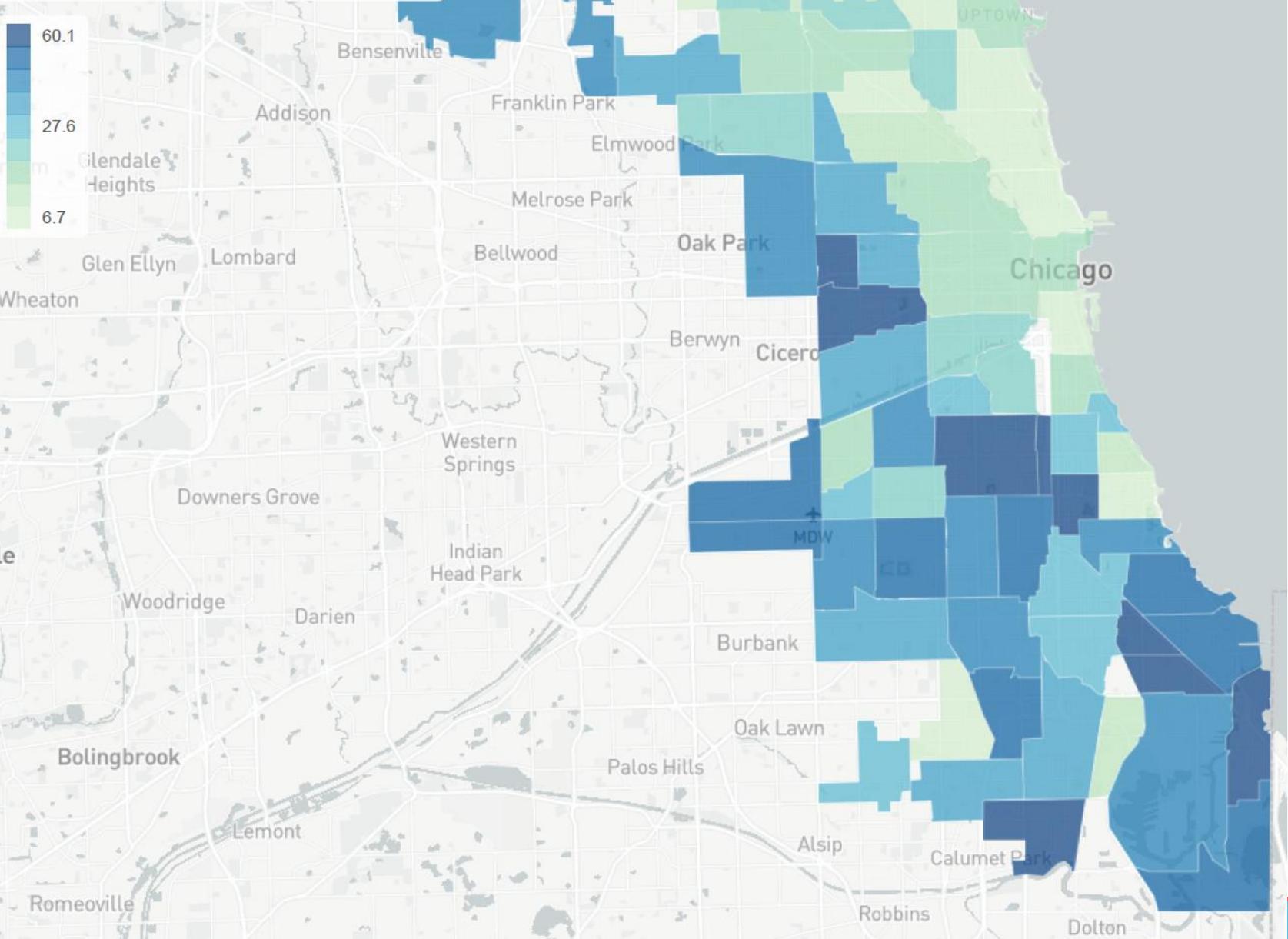
- **Stores that sell fresh fruit and vegetables**
- **Walkable sidewalks and safe streets**
- **Accessible parks**
- **Feeling safe**

Adult soda consumption rate

2016-2018

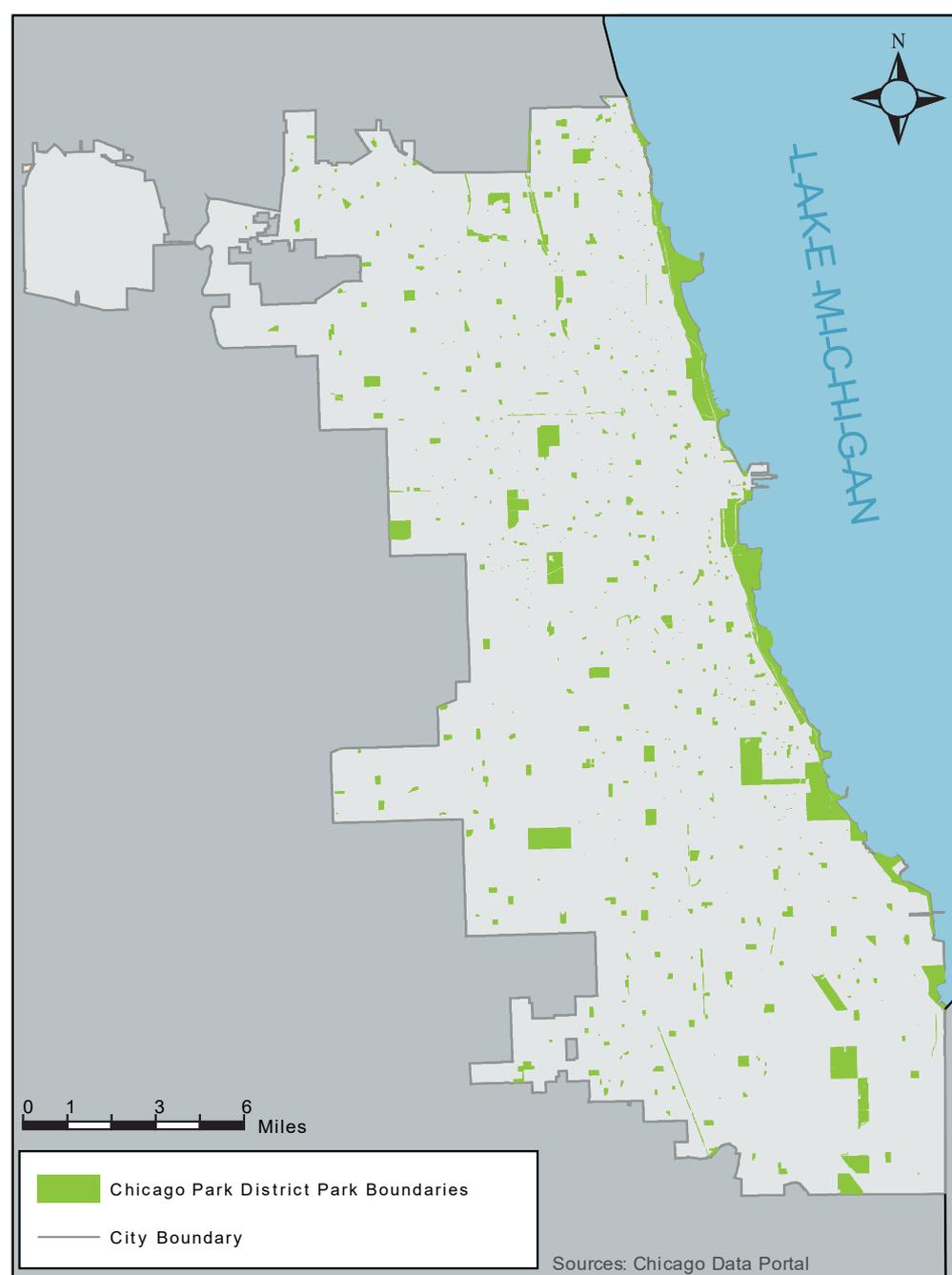
% of adults

Tap and hold a community area to see more

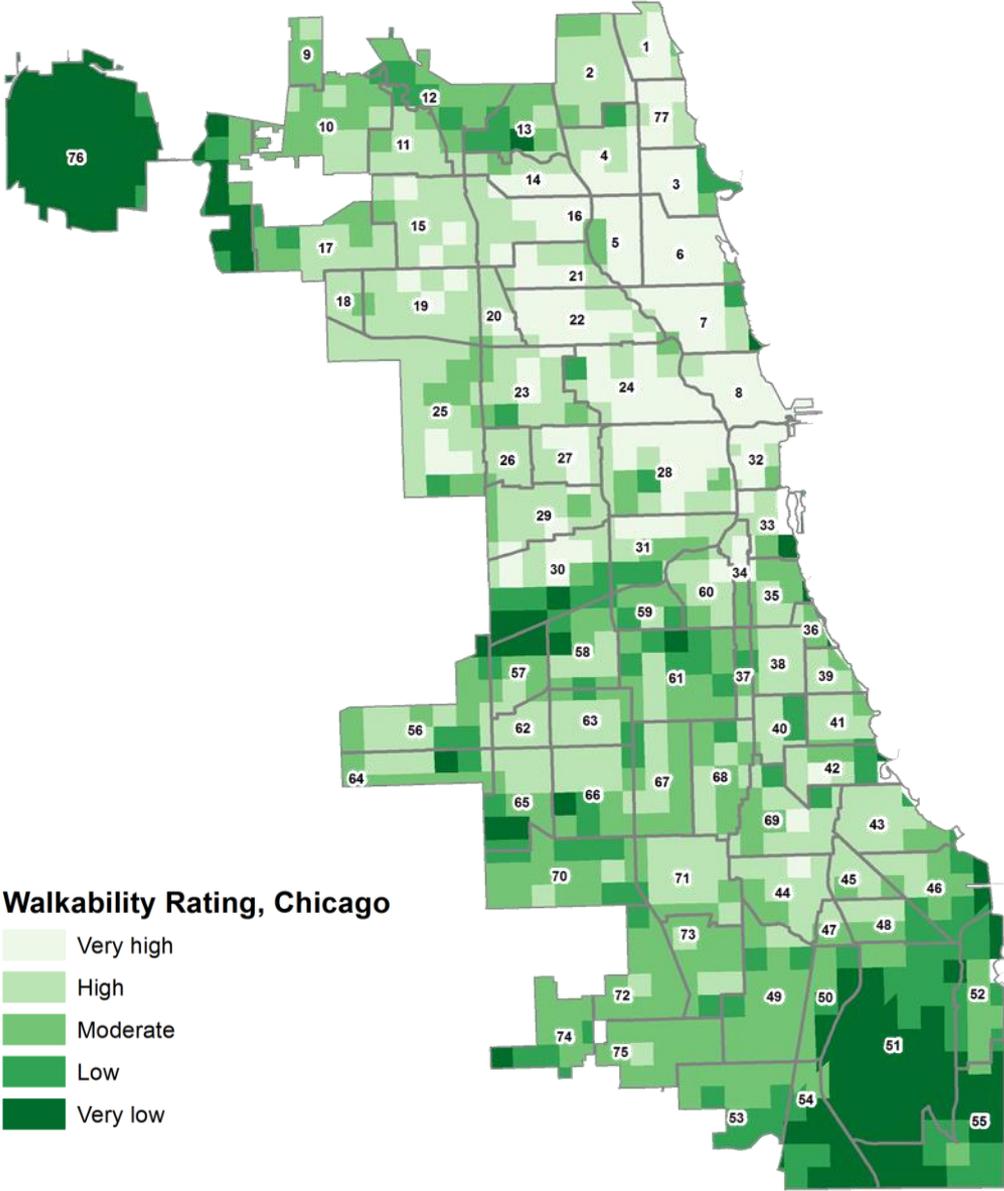


Parks are everywhere in Chicago

- Are they safe?
- Do they have activities for all ages?



How walkable is your neighborhood?

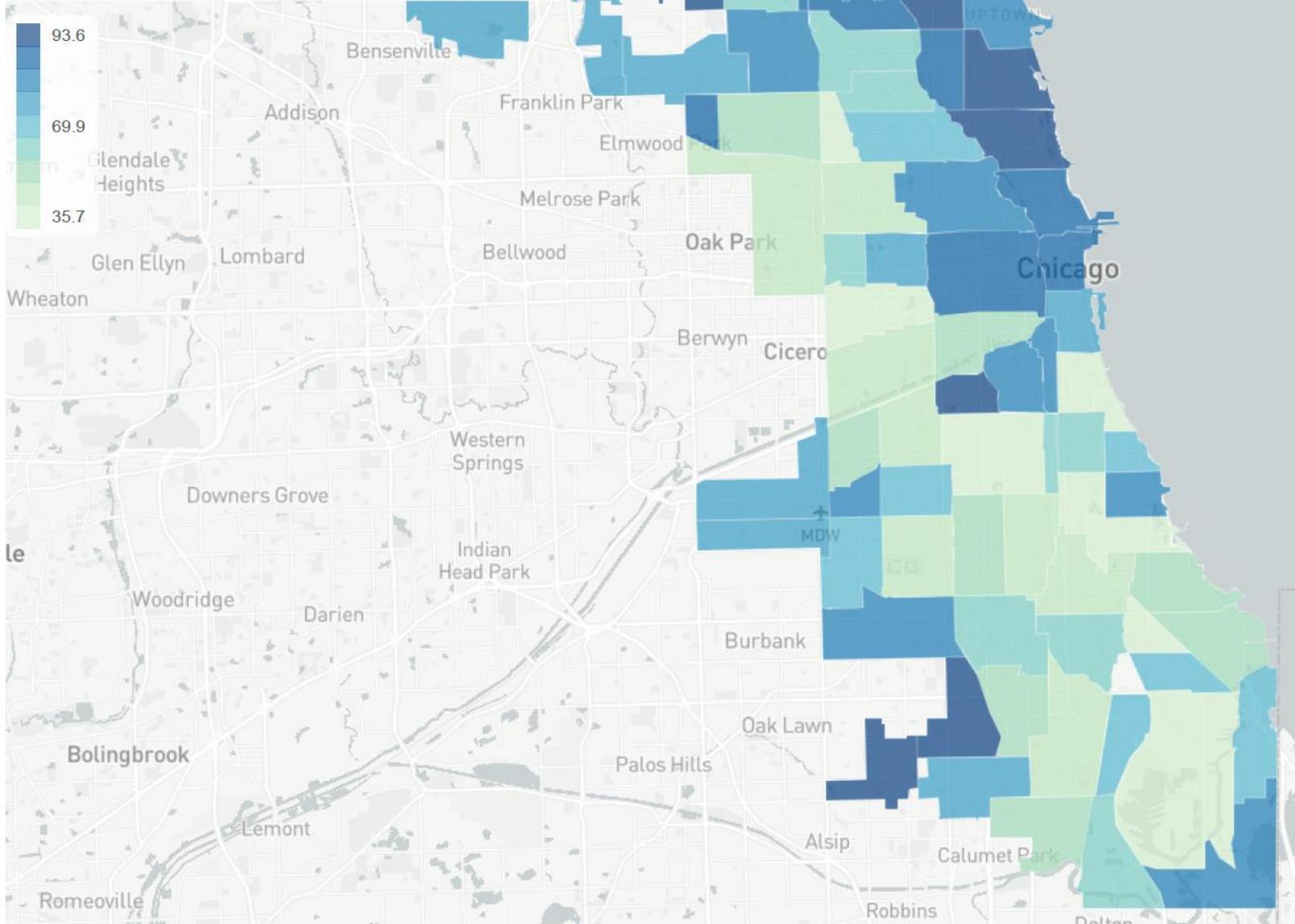


Easy access to fruits and vegetables rate

2016-2018

% of adults

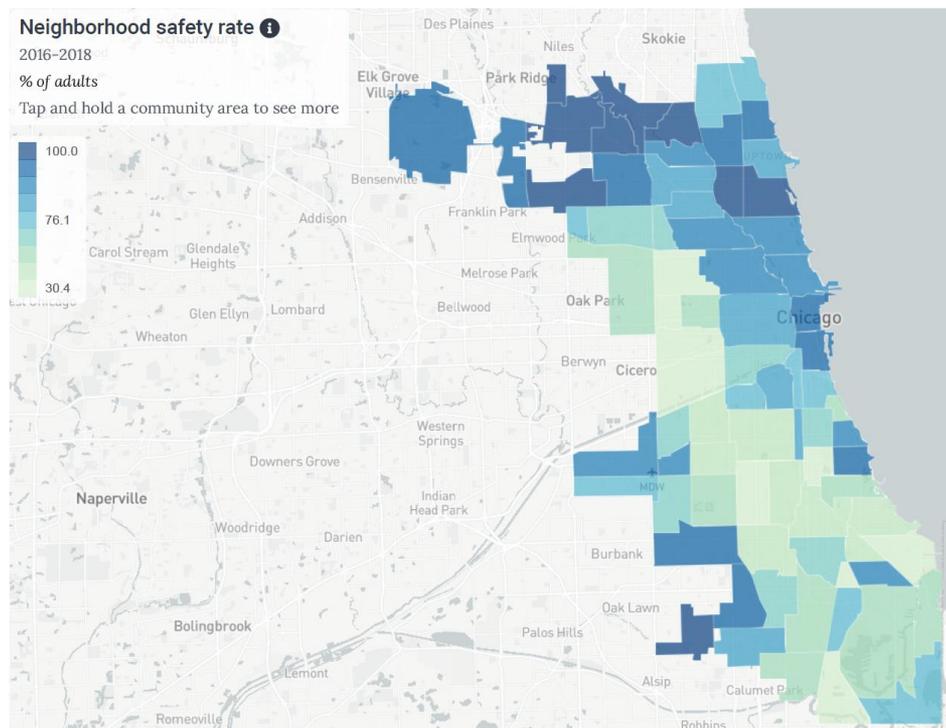
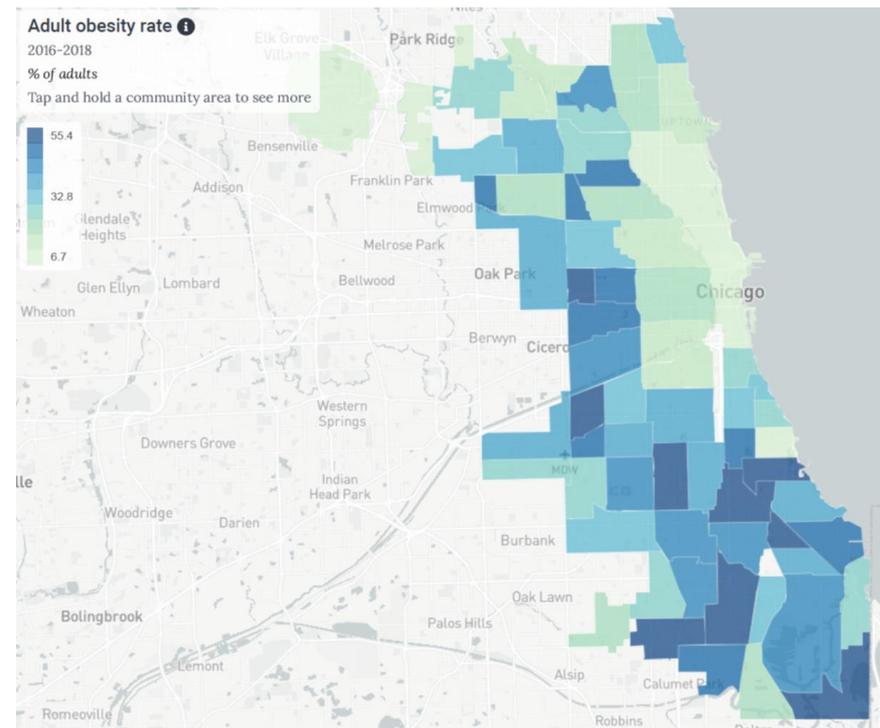
Tap and hold a community area to see more



Making inferences with data

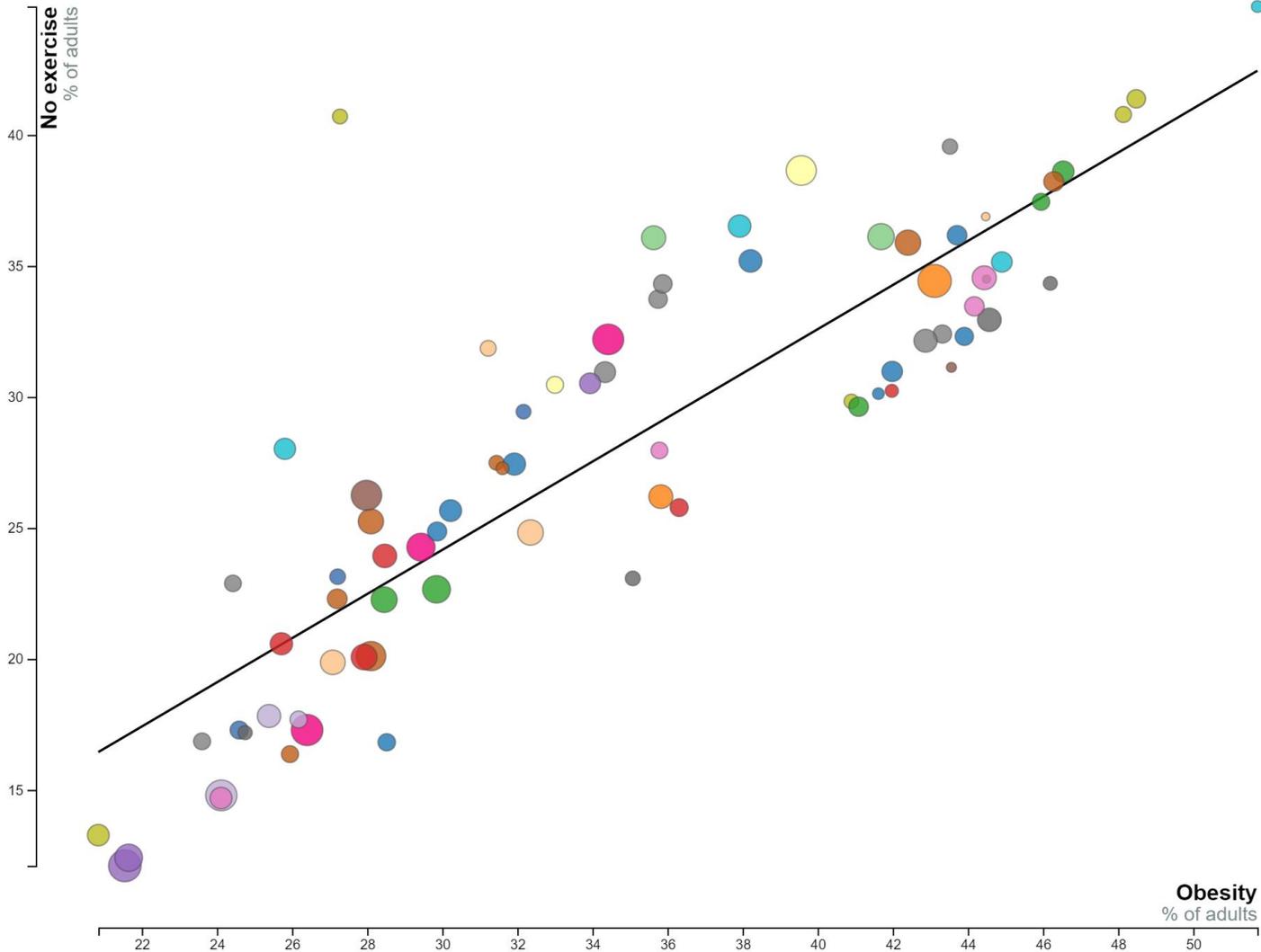
Side-by-side comparison: Safety and Obesity

Are the same neighborhoods that feel unsafe the same ones with high obesity?

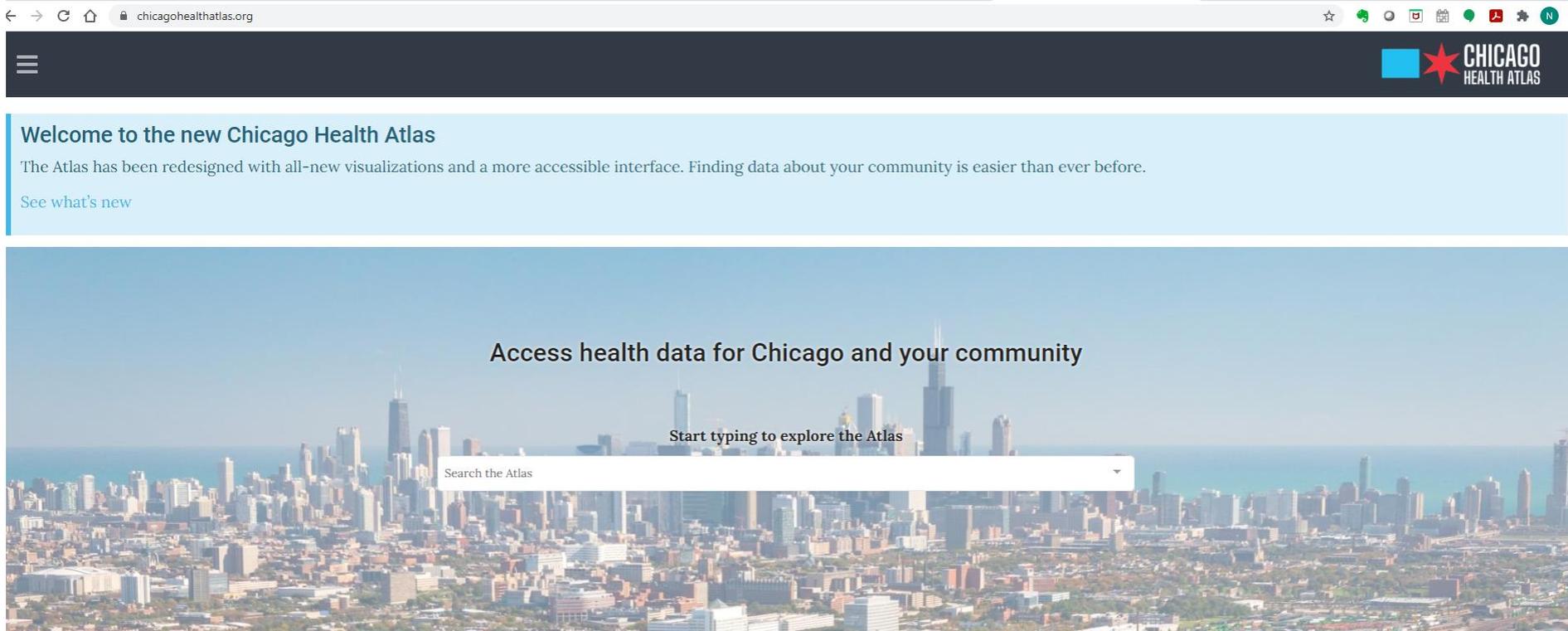


Scatterplot comparison of neighborhoods:

The higher the level of physical inactivity; the higher the level of obesity



Chicagohealthatlas.org



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