



Presence Health®

# Innovations in Data, Technology and Financing

Improving Community Health and Increasing Economic Opportunity through  
programs, partnerships and policies

June 10, 2018

# By accessing large sets of seemingly disparate data, we can better answer complex questions

How does **my area** stand out on **chronic disease**, and why?

What **environmental factors** appear to drive **asthma**, and what do not?

If I care about **economic vitality**, where do I focus **my attention**?

What other places look like **my area**, when it comes to the **built environment**?

The screenshot displays the HealthViz dashboard interface. At the top, there is a navigation bar with icons for Map, Data, Scatterplot, Insights, Tools, and Admin, along with a search bar labeled 'Search HealthViz'. Below the navigation bar, the main content area is divided into several sections:

- Top Left:** A map of the United States titled 'Median household income 2011-2013'. Below the map is the text 'Open a national map'.
- Top Right:** A section titled '1 District' with a dropdown menu for 'See all Congressional Districts'. It includes a 'Highlights' section with various data points and a 'Median household income' map of Chicago, IL. Below this is the text 'Explore Chicago, IL'.
- Bottom Left:** A scatterplot titled 'Readmission rate (discharge)' on the y-axis and '% of hosp' on the x-axis. A regression line is shown. Below the plot is the text 'Look for correlations between topics across your state'.
- Bottom Right:** A grid of icons representing different data categories: Economic, Housing, Healthy Behaviors, Environmental, Community, Demographic, Jobs, and Access to. Below the grid is the text 'Open the data dictionary'.

# By accessing large sets of seemingly disparate data, we can accelerate our upstream impact by

Integrating non-medical services for patients

Creating conditions for population wellness

Supporting populations likely to become patients

The screenshot displays the HealthViz dashboard interface. At the top, there is a navigation bar with icons for Map, Data, Scatterplot, Insights, Tools, and Admin, along with a search bar labeled 'Search HealthViz'. Below the navigation bar, the main content area is divided into several sections:

- Top Left:** A map of the United States titled 'Median household income 2011-2015'. Below the map is the text 'Open a national map'.
- Top Right:** A detailed view of a '1 District' with various filters and data points. Below this view is the text 'Explore Chicago, IL'.
- Bottom Left:** A scatterplot showing 'Readmission rate (Indicator)' on the y-axis and '% of hosp' on the x-axis. Below the scatterplot is the text 'Look for correlations between topics across your state'.
- Bottom Right:** A grid of icons representing different data categories: Economic, Housing, Healthy Behaviors, Environmental, Community, Demographic, Jobs, and Access to. Below this grid is the text 'Open the data dictionary'.

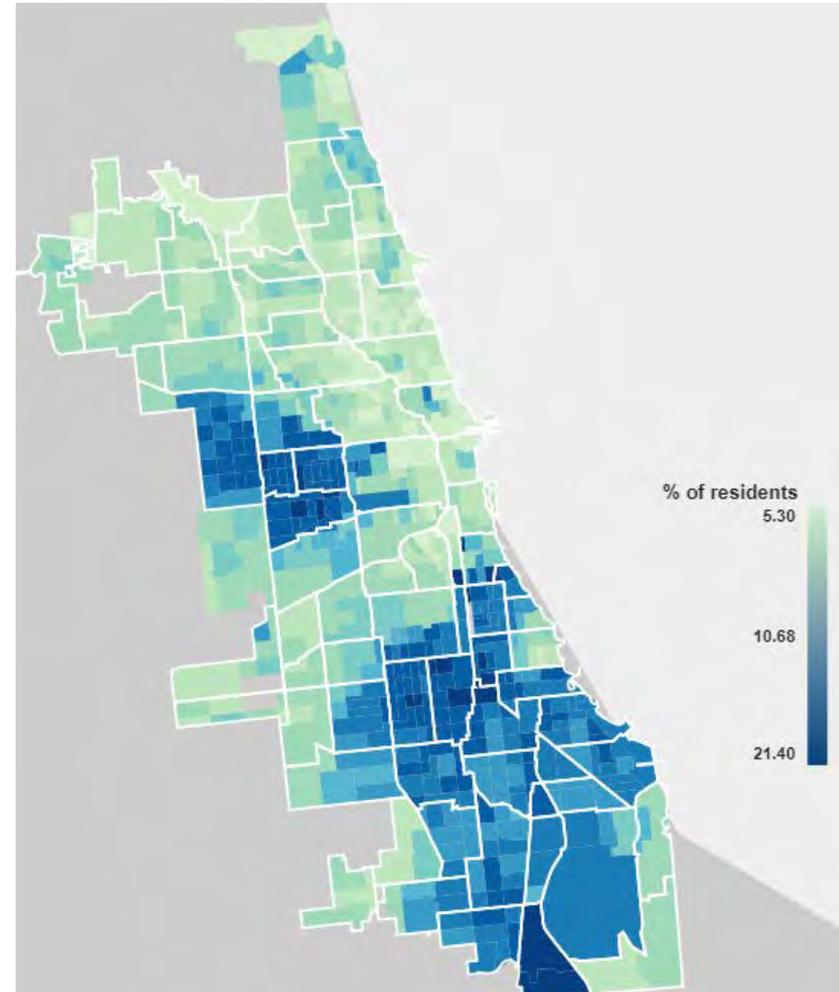
Integrating  
non-  
medical  
services for  
patients

e.g. Healthy  
Housing

# Home Remediation Asthma Project

## DEMONSTRATING PAY-FOR-SUCCESS POTENTIAL

- + Our hospital service area on the West Side has some of the highest rates of asthma prevalence in the state
- + We also notice hospitalization rates much higher than would be predicted by asthma morbidity, air quality, or even socioeconomic attributes
- + Through our data platform, we realized that neighborhoods with high asthma rates also had extremely high rates of building violations and lead poisoning, pointing to triggers within the home like mold and building issues
- + This analysis led us to flip our care model. Instead of waiting for patients to arrive at the hospital, we partnered with Elevate Energy to inspect for and remediate home conditions that exacerbate asthma



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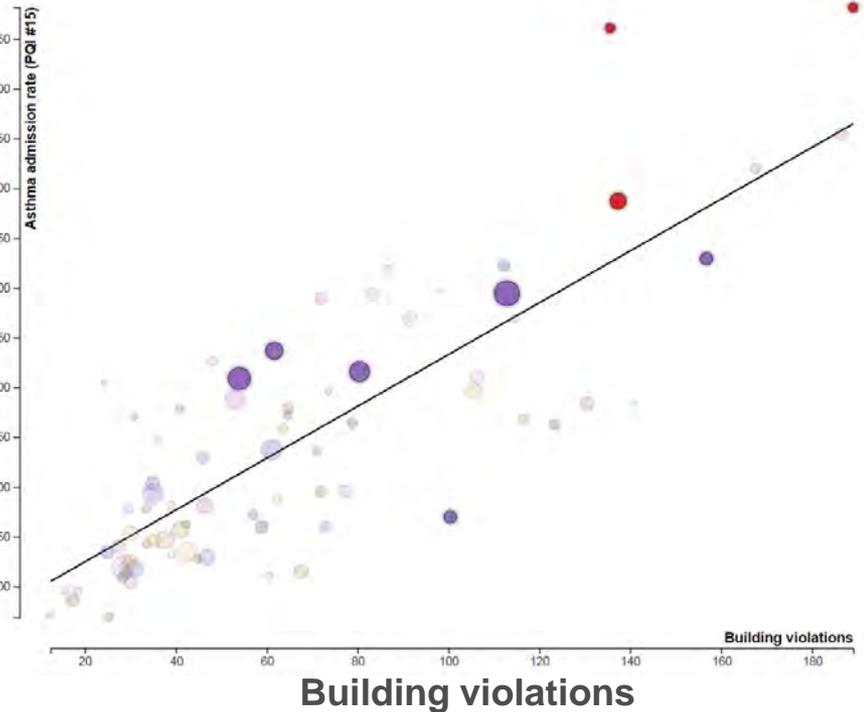
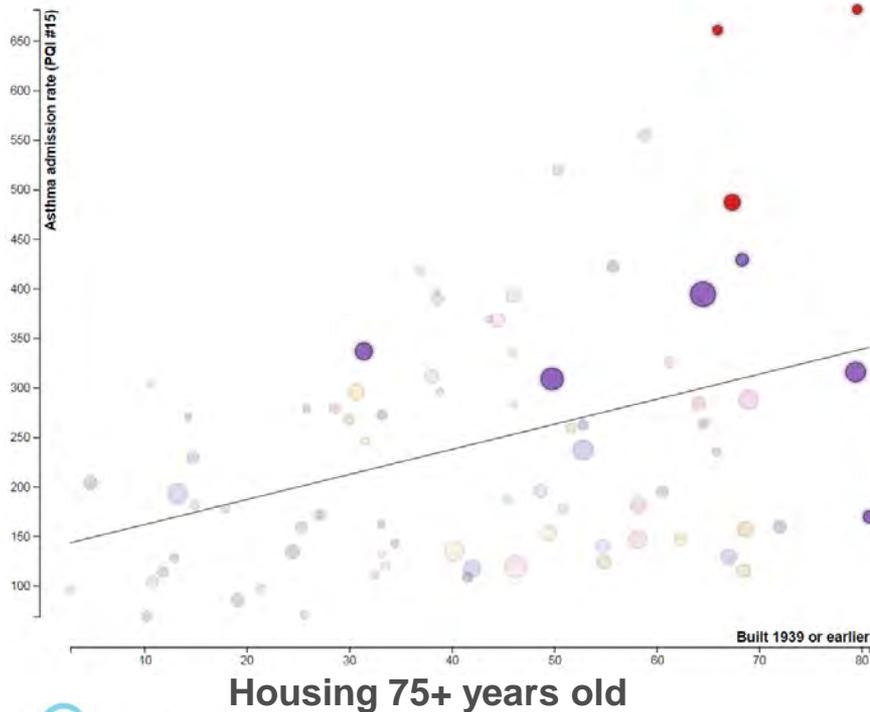
# Home Remediation Asthma Project

## DEMONSTRATING PAY-FOR-SUCCESS POTENTIAL

- + Served nearly 20 households in the pilot period with asthma education and two tiers of support—healthy supplies and remediation services
- + Tier 2 remediation services are budgeted up to \$4,000 per home and include pest management, carpet removal and mold treatment

● West Side communities  
● Focus area communities

Asthma hospitalization rate (2015)



Creating conditions for population wellness

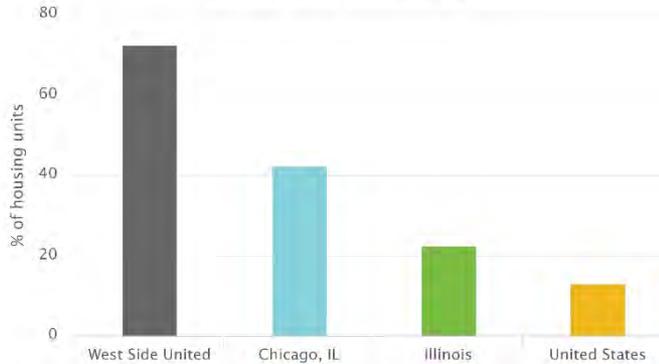
e.g. Economic Vitality

# West Side United FROM COMPETITORS TO CO-INVESTORS

Housing stock is some of the oldest, least-maintained in the nation

Built 1939 or earlier, 2011-2015

West Side United and comparison

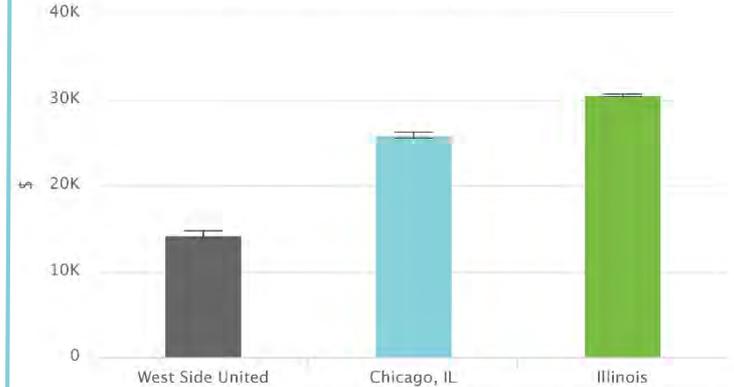


Data source: American Community Survey (Table B25031) | Created by healthViz | <https://healthviz.org>

Incomes are barely half the Chicago average

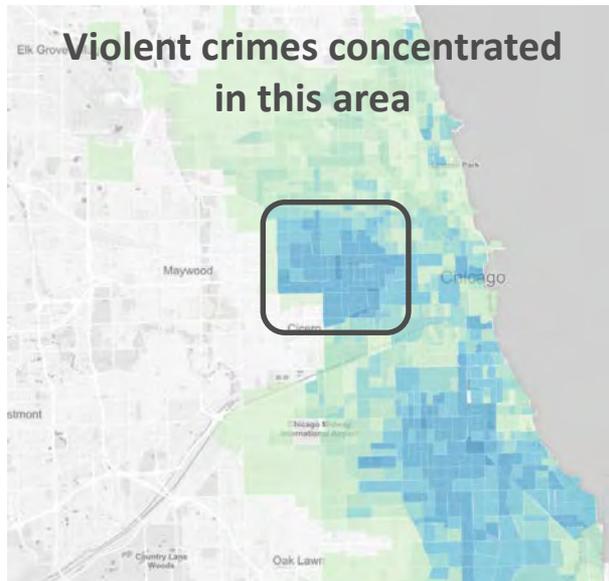
Per capita income, 2011-2015

West Side United and comparison

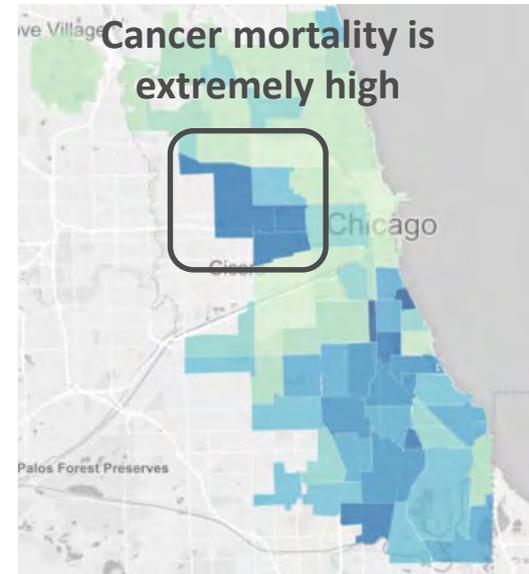


Data source: American Community Survey (Table B19301) | Created by healthViz | <https://healthviz.org>

Violent crimes concentrated in this area



Cancer mortality is extremely high



Ann & Robert H. Lurie Children's Hospital of Chicago

COOK COUNTY HEALTH & HOSPITALS SYSTEM  
CCHHS

Presence Health

RUSH

SINAI  
Sinai Health System

UI Health

Creating conditions for population wellness

e.g. Economic Vitality

# West Side United FROM COMPETITORS TO CO-INVESTORS

## How do we see this as healthcare institutions?



There is up to a 16-year gap in life expectancy between the Loop and West Side

Creating  
conditions  
for  
population  
wellness

e.g. Economic  
Vitality

# West Side United

## FROM COMPETITORS TO CO-INVESTORS

Hire locally  
and develop  
talent



- Employment preference initiative
- Career ladder development
- Skills training
- Mentoring and coaching

Buy and source  
locally



- Local purchasing program
- Local labor for capital projects
- Apprenticeship
- Diversity hiring and contracts

Invest locally



- Impact investing in local communities
- Local business incubation to fulfill sourcing needs

Community  
Development  
and  
Engagement



- Employee engagement in local communities
- Leveraging employee expertise (e.g., teaching skills class)

Supporting populations likely to become patients

e.g. Seniors

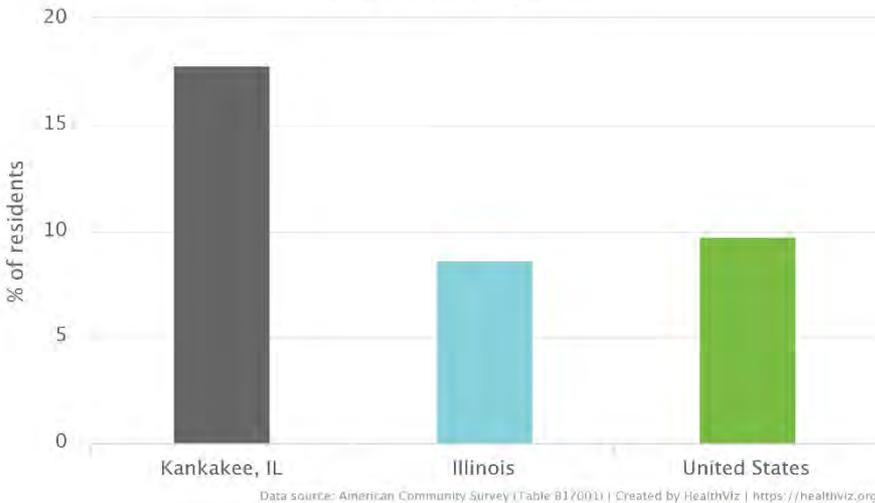
# Affordable Housing Partnership

## RIVER STATION SENIOR APARTMENTS, KANKAKEE, IL

- + The St. Mary's Hospital service area has an extremely high poverty rate among seniors as compared to the state and national averages
- + The % of dual-eligible residents in the service area is 5-7x greater than in other Presence Health service areas

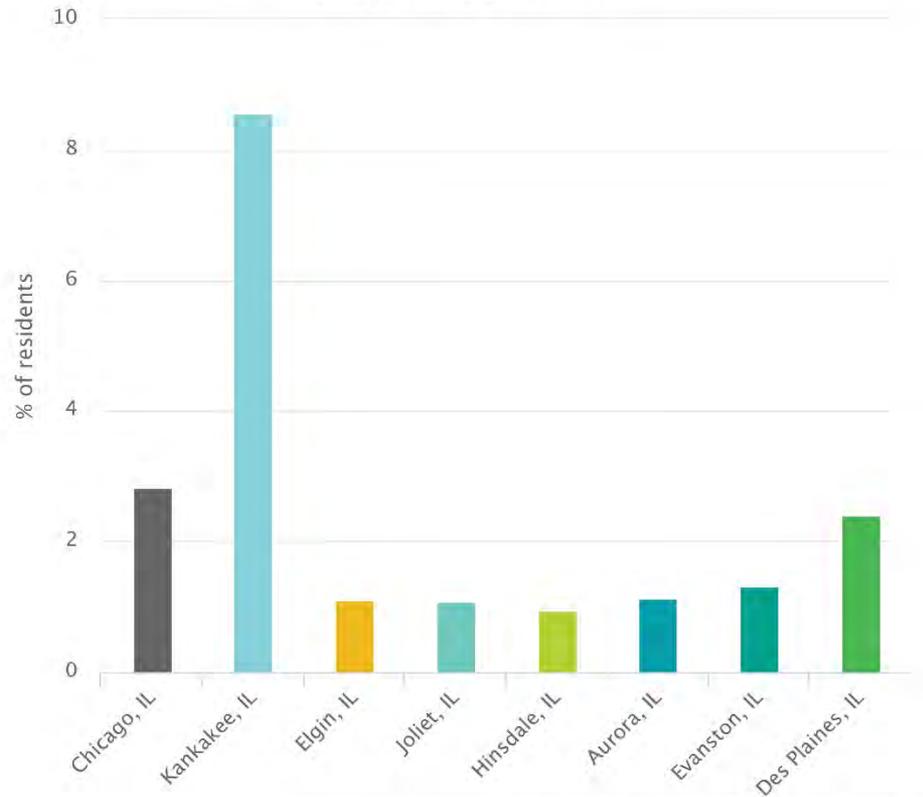
Poverty rate (Seniors (65 and older)), 2011-2015

Kankakee, IL and comparison



Dual eligible coverage, 2012-2016

Chicago, IL and comparison



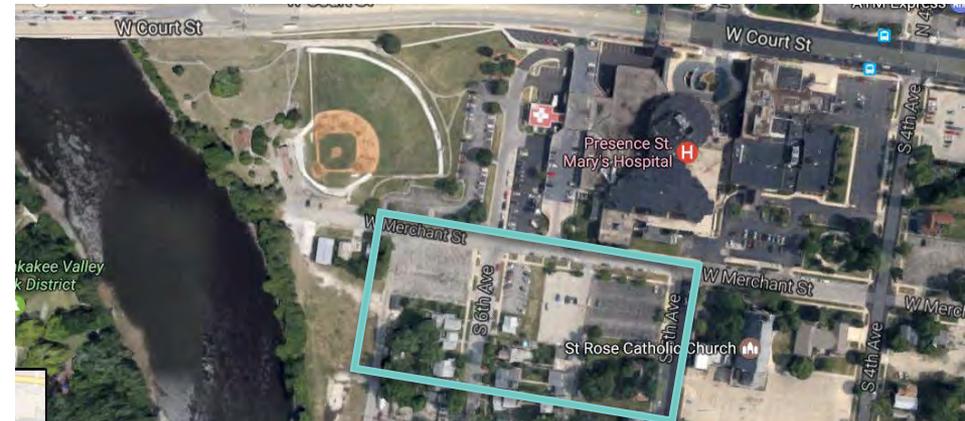
Supporting  
populations  
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e.g. Seniors

# Affordable Housing Partnership

## RIVER STATION SENIOR APARTMENTS, KANKAKEE, IL

- + An affordable living apartment building that supports seniors in healthy aging and integrates housing with supportive services
- + 70 apartments. Approximately 60% will receive rental assistance, including 14 units for people with disabilities. Remainder are available to households with incomes at or below \$24,800.
- + \$13 million construction costs funded through Community Benefit, tax credits and Mercy Housing
- + The park district and the Community Foundation are now creating that green corridor in the neighborhood surrounding the building site.
- + The city's neighborhood revitalization strategy will support the health system's vision to link healthcare and housing in close proximity to the hospital.



# Making data interactive moves us from a descriptive understanding of social factors to putting it in context

## Old World

Spreadsheet-based

Static maps

Single input → single output

Limited by staff resources

Reliant on existing knowledge of social determinants

Rate-limiting step is **identifying the hypothesis**

## New World

**Collaborative**

**Exploration**

**Multivariable, complex**

**Scalable to millions of data points**

**Can identify new correlations and triage key findings**

Rate-limiting step is **conducting the intervention**

