

Child Opportunity Index 2.0: Addressing Equitable Access

April 29, 2020



Welcome

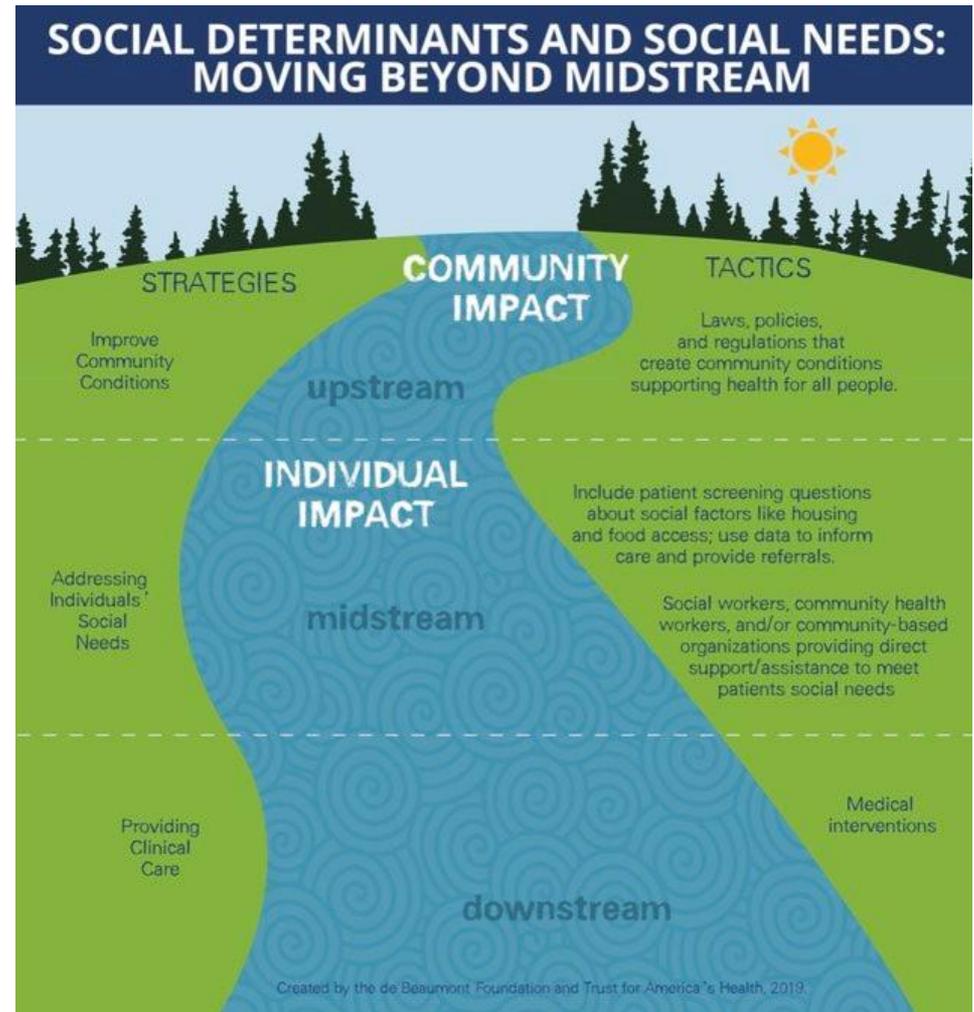
Alexandra Rothenburger, MPA

**Manager, Strategic and Policy Analytics
Children's Hospital Association**



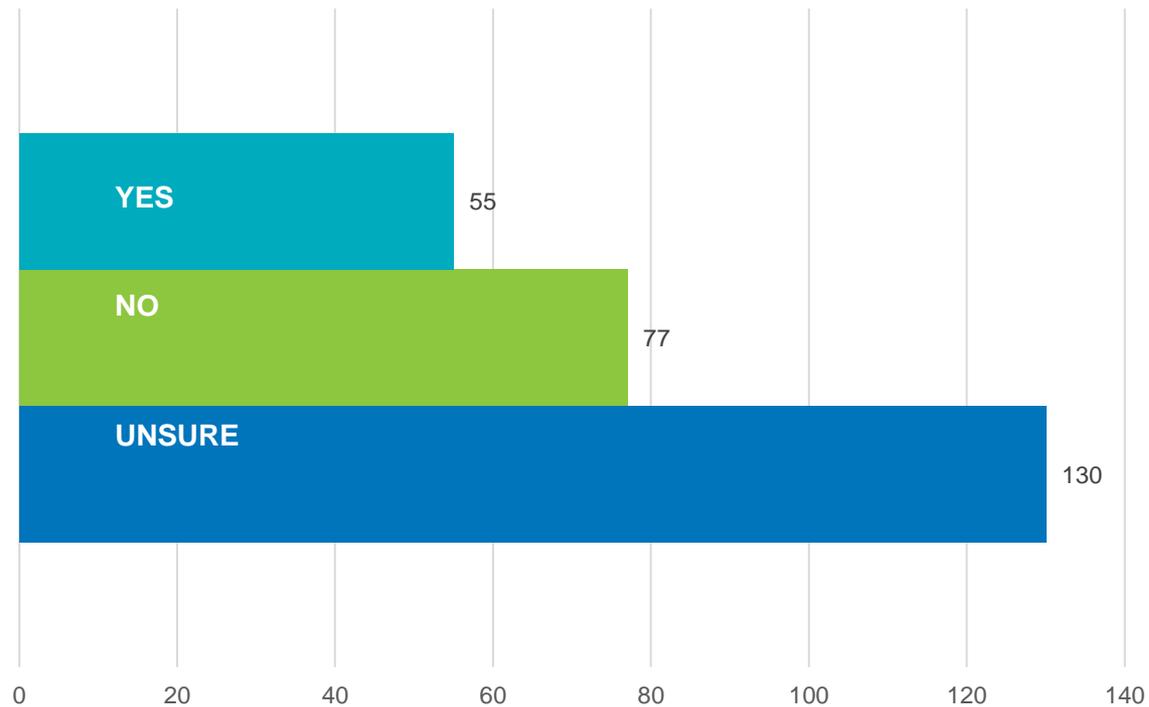
Children's Hospitals: Creating Health

- Disaffection with the US health care investment compared to health/health status of populations
- Motivation to understand specific populations and what drives cost and health
- Health care reform is a key driver to provide clinical care into appropriate, low-acuity settings.
- Community-based settings can better address access, inequity and individual social needs.



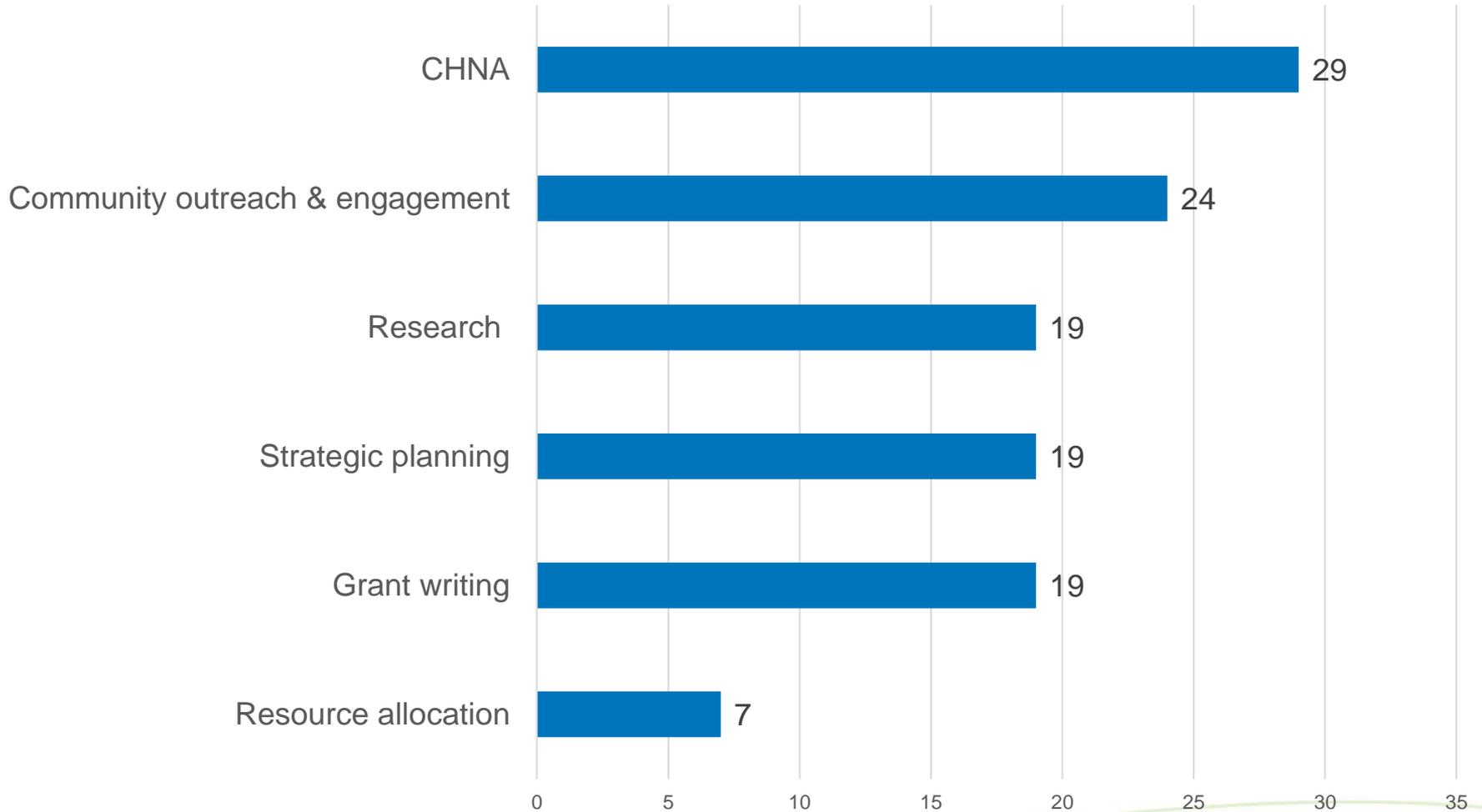
Registration Question Responses

Have you used the Child Opportunity Index at your institution?



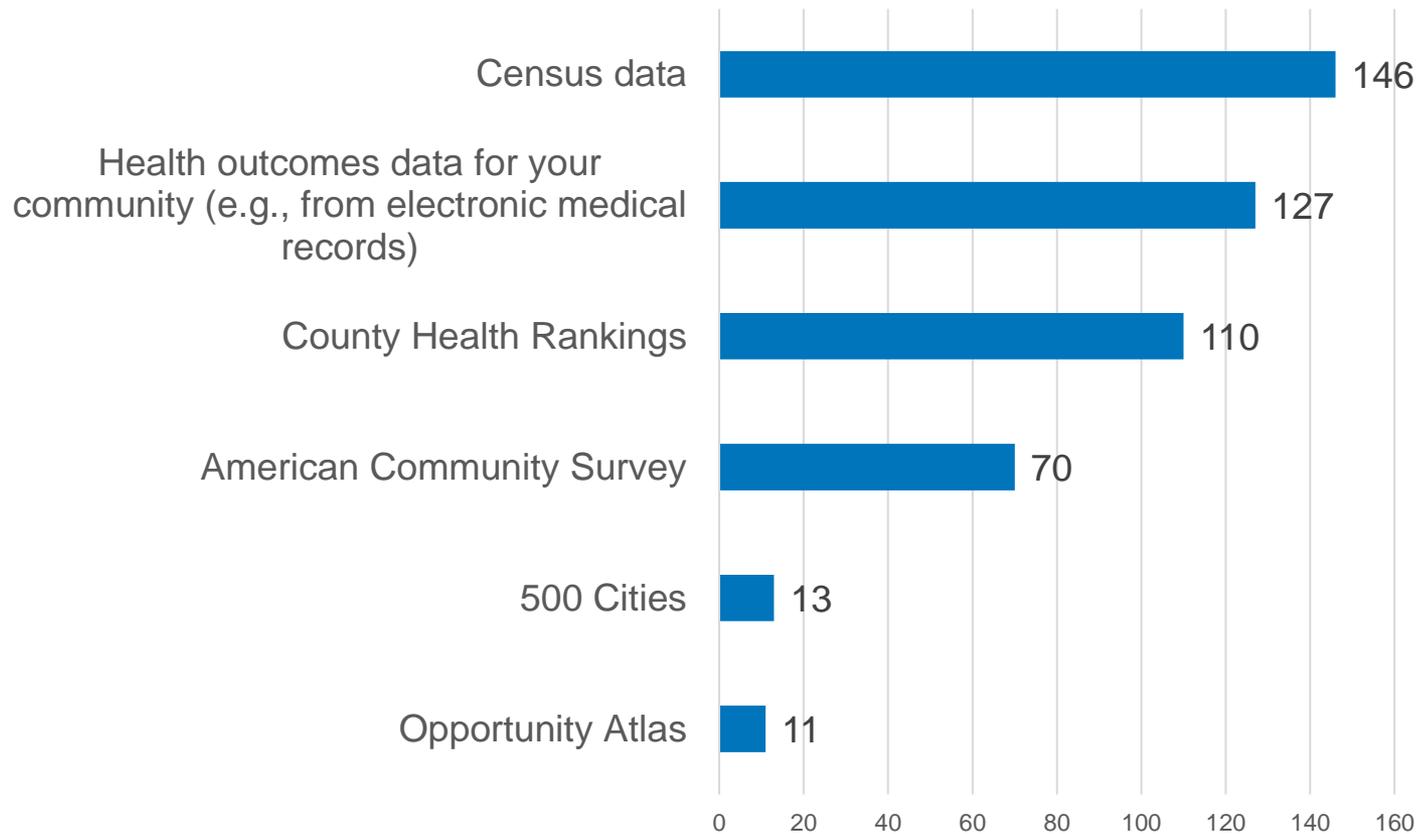
Registration Question Responses

If yes, please indicate where the COI data has been helpful to you:
(check all that apply)



Registration Question Responses

What other sources of neighborhood data do you use in your work?



Kellie C. Day

Director of Operations, Healthy
Communities

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



Tracie Smith, MPH
Director, Population Health
Analytics

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



Molly Krager, MD

Pediatric Hospitalist

Associate Professor of Pediatrics at
University of Missouri-Kansas City
School of Medicine

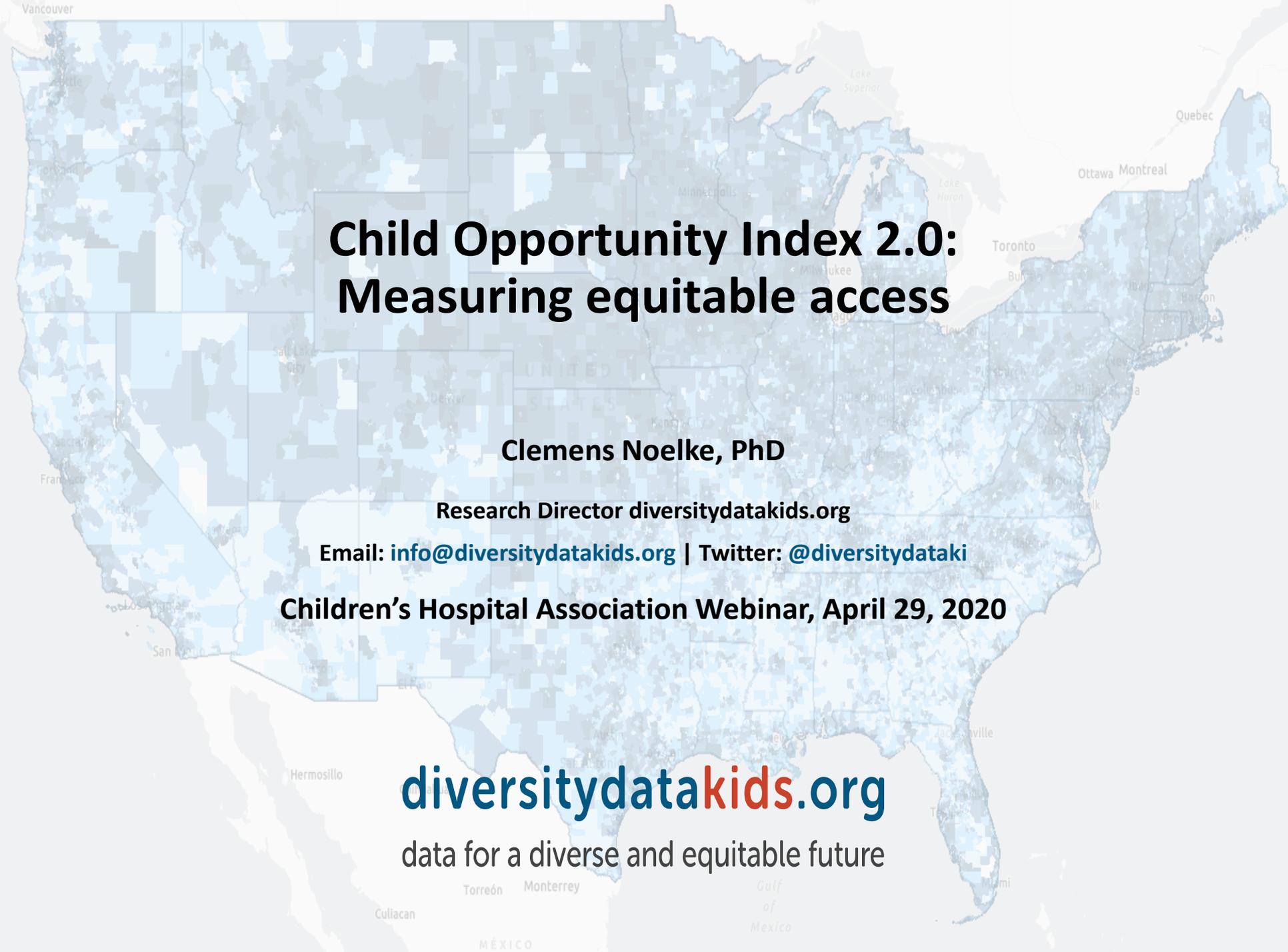
Children's Mercy Kansas City



Clemens Noelke, PhD
Research Director
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Child Opportunity Index 2.0: Measuring equitable access

Clemens Noelke, PhD

Research Director diversitydatakids.org

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Children's Hospital Association Webinar, April 29, 2020

diversitydatakids.org

data for a diverse and equitable future

Team, partners and funders

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Brandeis

THE HELLER SCHOOL
FOR SOCIAL POLICY
AND MANAGEMENT
Institute for
Child, Youth and
Family Policy

 **THE OHIO STATE UNIVERSITY**
KIRWAN INSTITUTE FOR THE
STUDY OF RACE AND ETHNICITY

 **W.K. KELLOGG
FOUNDATION**


Robert Wood Johnson Foundation

Current focus of our work

Better understand COI users and uses

Better understand what helps COI users achieve impacts

Facilitate more impactful uses

Develop and disseminate exemplary stories

Focus on health sector, and Children's Hospitals in particular

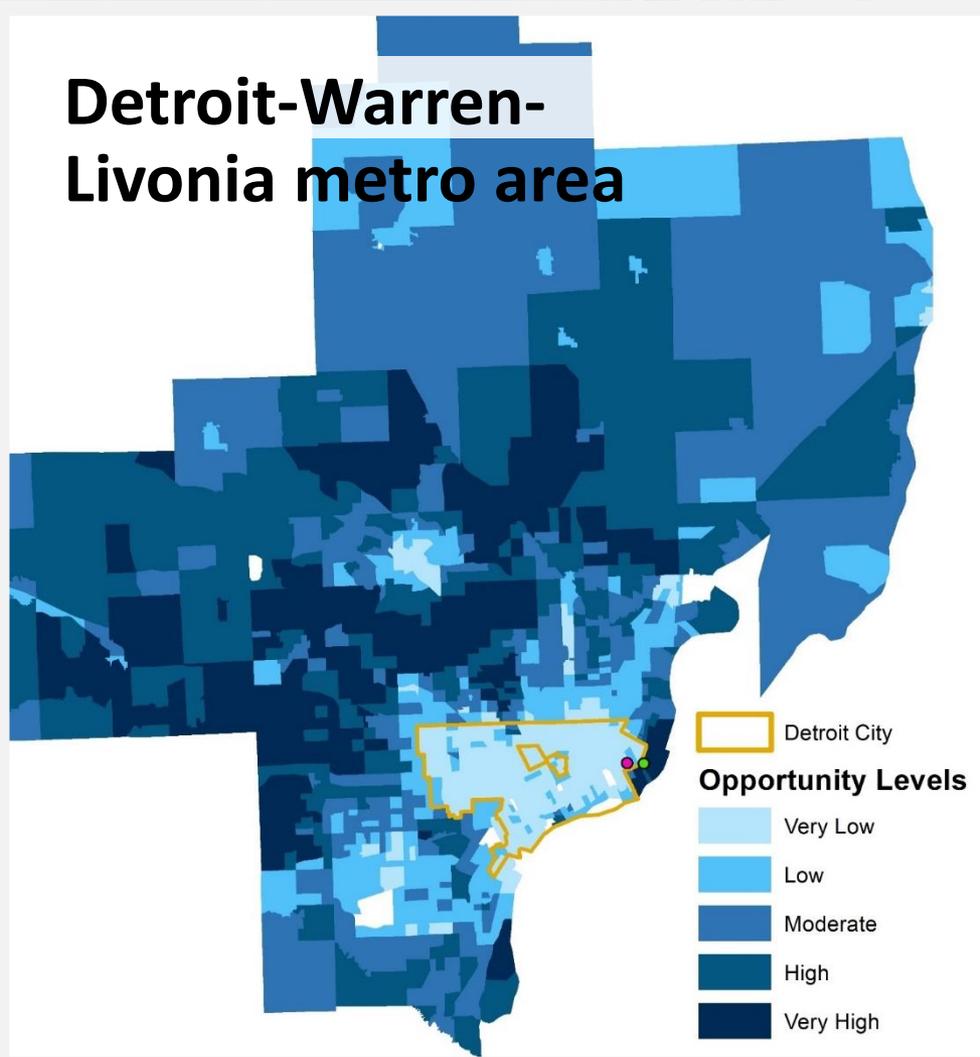
Questions?

Email us

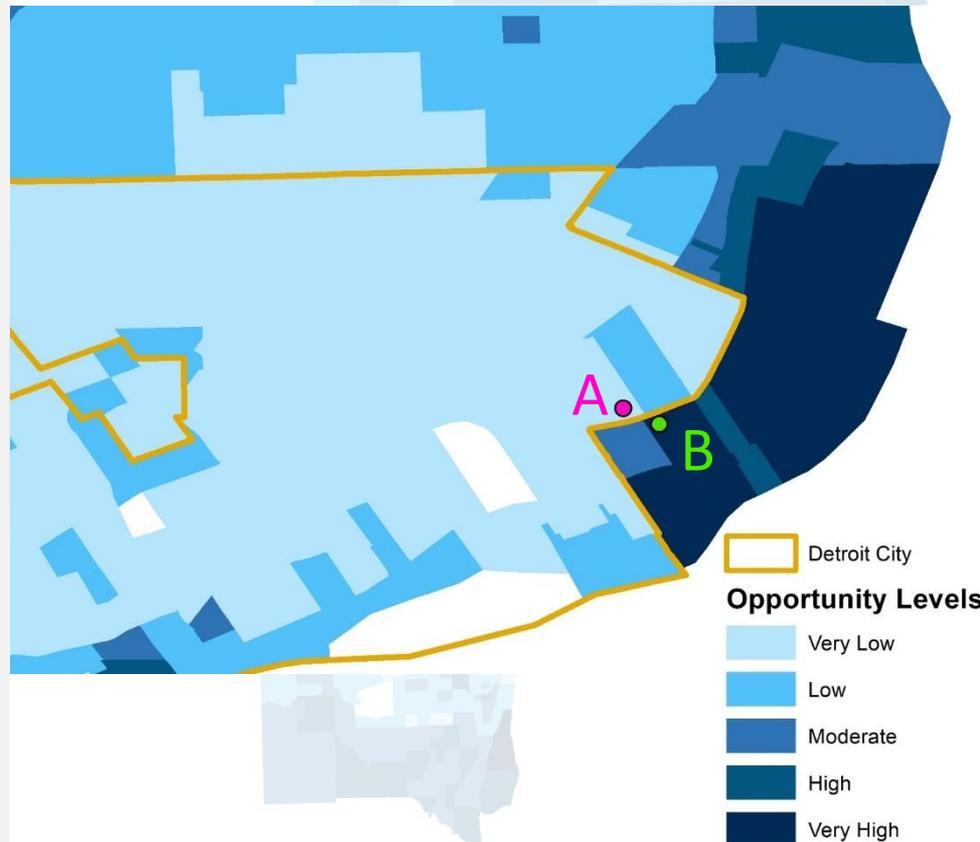
diversitydatakids.org/contact-us

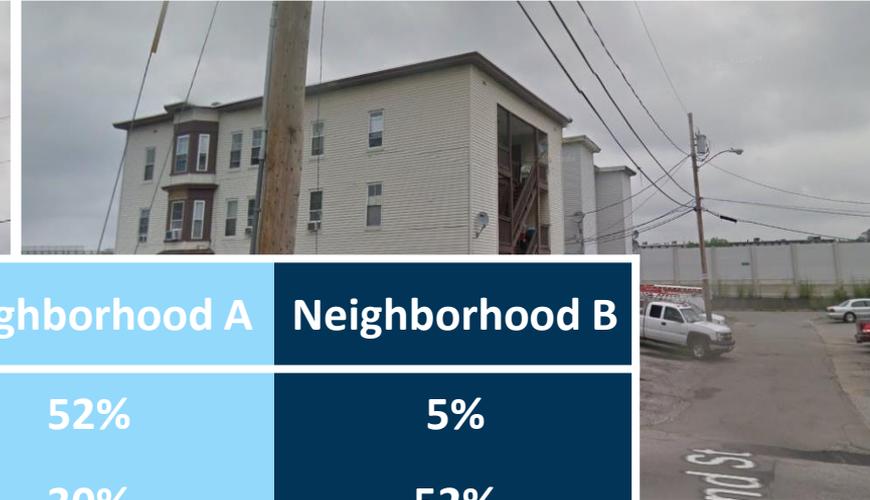
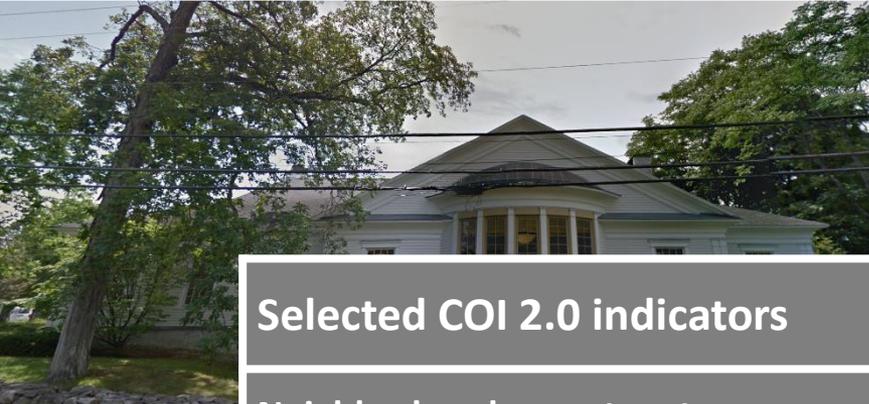
info@diversitydatakids.org

Detroit-Warren-Livonia metro area

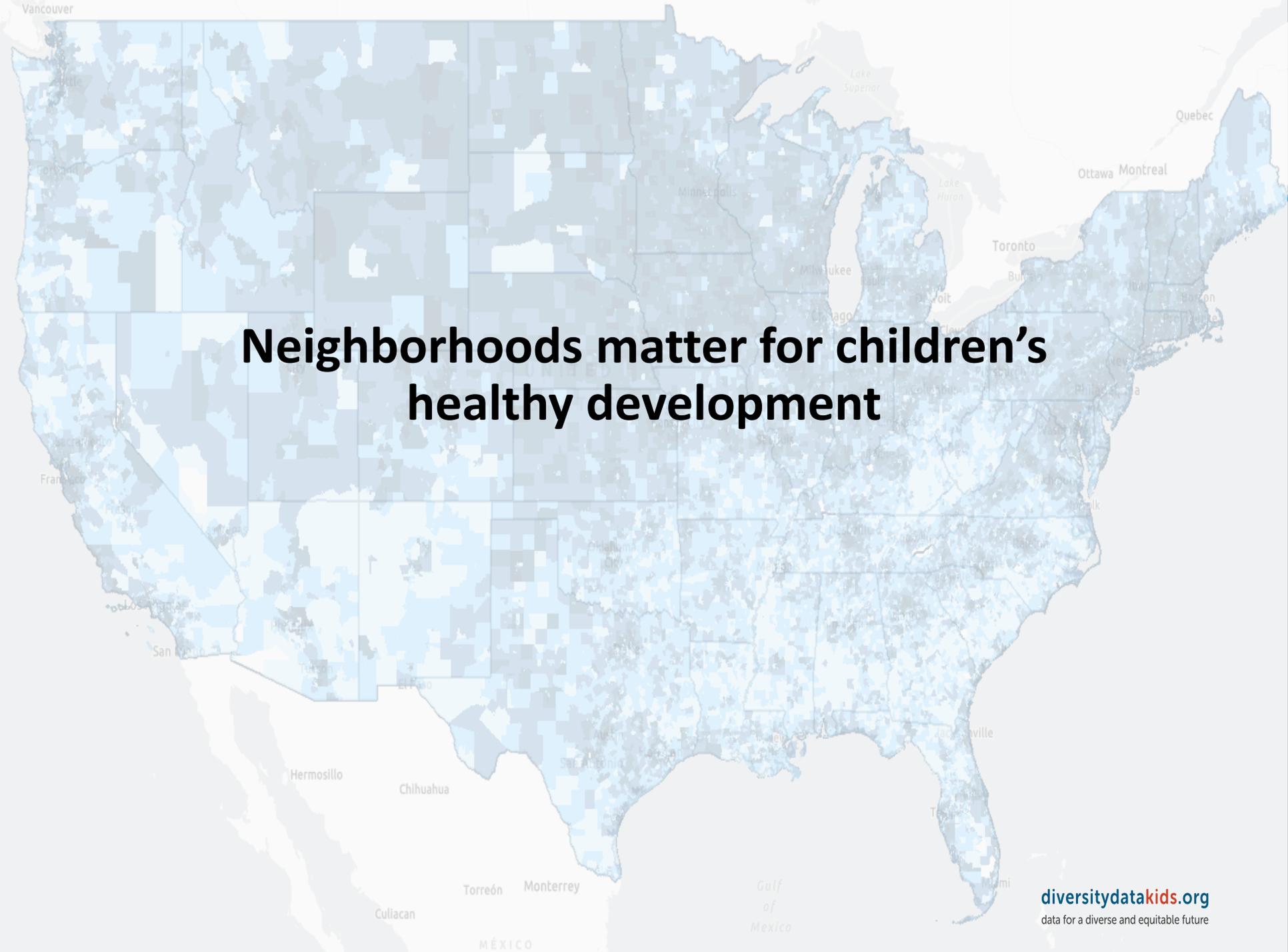


Detroit-Warren-Livonia metro area





Selected COI 2.0 indicators	Neighborhood A	Neighborhood B
Neighborhood poverty rate	52%	5%
Enrollment in early childhood education	30%	52%
Lack of green space	60%	39%
Limited proximity to healthy food	11%	0.2%
Housing vacancy rate	28%	0.3%



Neighborhoods matter for children's healthy development

Neighborhoods influence children's health and education

Green space and playgrounds

Early childhood education

Schools



Neighborhoods influence children's health and education

Air quality

Access to healthy food

Walkability

School quality



Neighborhoods influence children's norms and expectations for the future

High school graduation

College aspirations

Employment prospects



Neighborhoods influence children's long-term outcomes

Educational attainment

Adult income

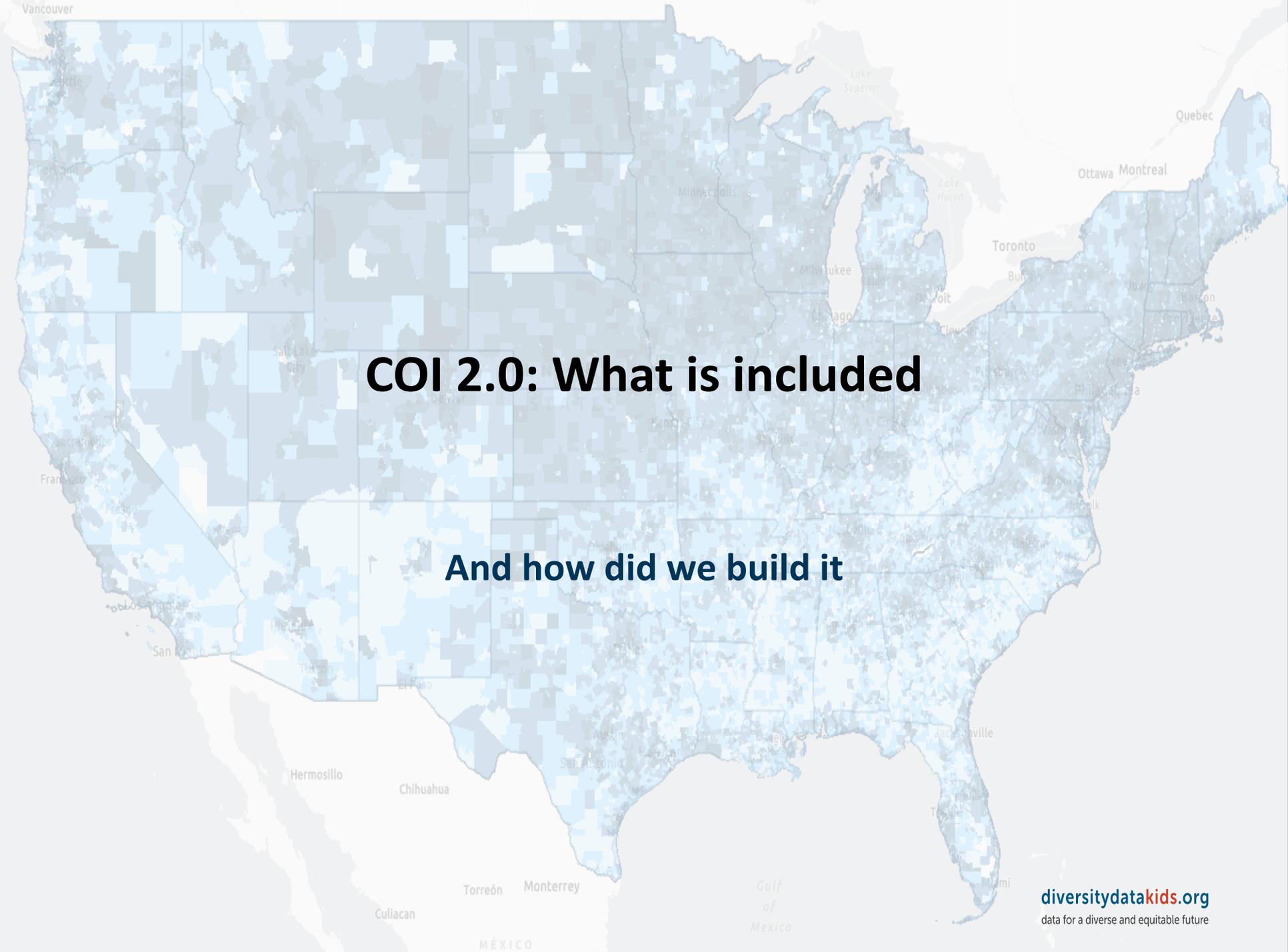
Adult health

Life expectancy



COI 2.0: A metric of child opportunity for all U.S. neighborhoods

- Multi-sectoral: 29 indicators capturing three domains of opportunity
- Focus on neighborhood features that matter for children today
- Captures important social determinants of health
- Granular data on nearly all US neighborhoods (72,000 census tracts)
- Data comparable across neighborhoods and over time (2010, 2015)
- Good predictive validity compared to similar metrics
- Users from academia, media, health, housing, and early childhood education sectors, including Children's Hospitals



COI 2.0: What is included

And how did we build it

Education

Early childhood education (ECE)

ECE centers within five miles
High quality ECE centers within five miles
ECE enrollment

Primary school

Third grade reading proficiency
Third grade math proficiency

Secondary and post-secondary

High school graduation rates
AP enrollment
College access/enrollment

Resources

School poverty
Teacher experience
Adult educational attainment

Health & Environment

Healthy environments

Access to healthy food
Access to green space
Walkability
Housing vacancy rates

Toxic exposures

Superfund sites
Industrial pollutants
Microparticles
Ozone
Heat

Health care access

Health insurance coverage

Social and Economic

Economic opportunities

Employment rate
Commute duration

Economic resource index

Poverty rate, public assistance rate, high skill employment, median household income, home ownership

Family structure

Single parenthood

How we built the index

Indicators standardized (converted to z-scores) so that they are on a common scale

Standardized indicators averaged into three domain scores

Weights capture how strongly each indicator predicts four different health and socio-economic outcomes

Domain scores averaged into one overall score

Scores converted into two easily interpretable metrics

COI 2.0 metrics

Child Opportunity Scores

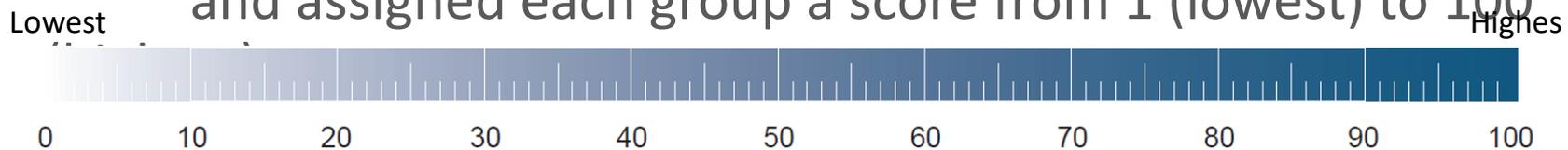
Vary from 1 to 100

To construct them,

we ranked all neighborhoods on domain and overall scores,

grouped neighborhoods into 100 groups containing 1% of the child population each,

and assigned each group a score from 1 (lowest) to 100 (highest)



COI 2.0 metrics

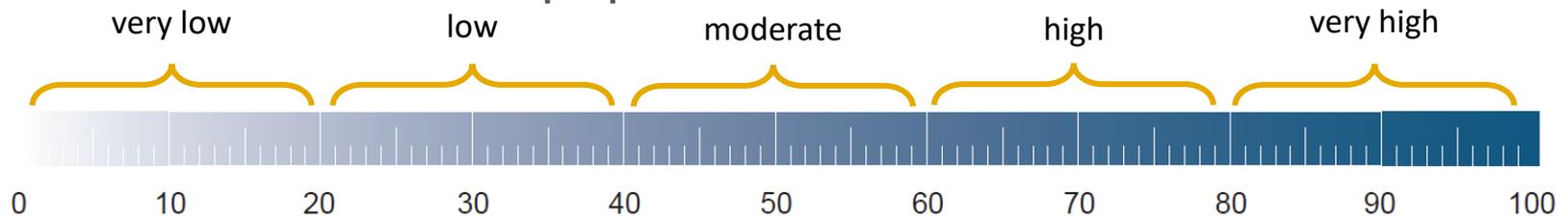
Child Opportunity Levels

5 categories: very low, low, moderate, high, very high

To construct them,

we ranked all neighborhoods on domain average or overall average z-scores

and grouped neighborhoods into 5 categories containing 20% of the child population each



COI 2.0 metrics

Metro-, state- and nationally normed opportunity scores and levels

To compare neighborhoods within one metro area, use metro normed metrics

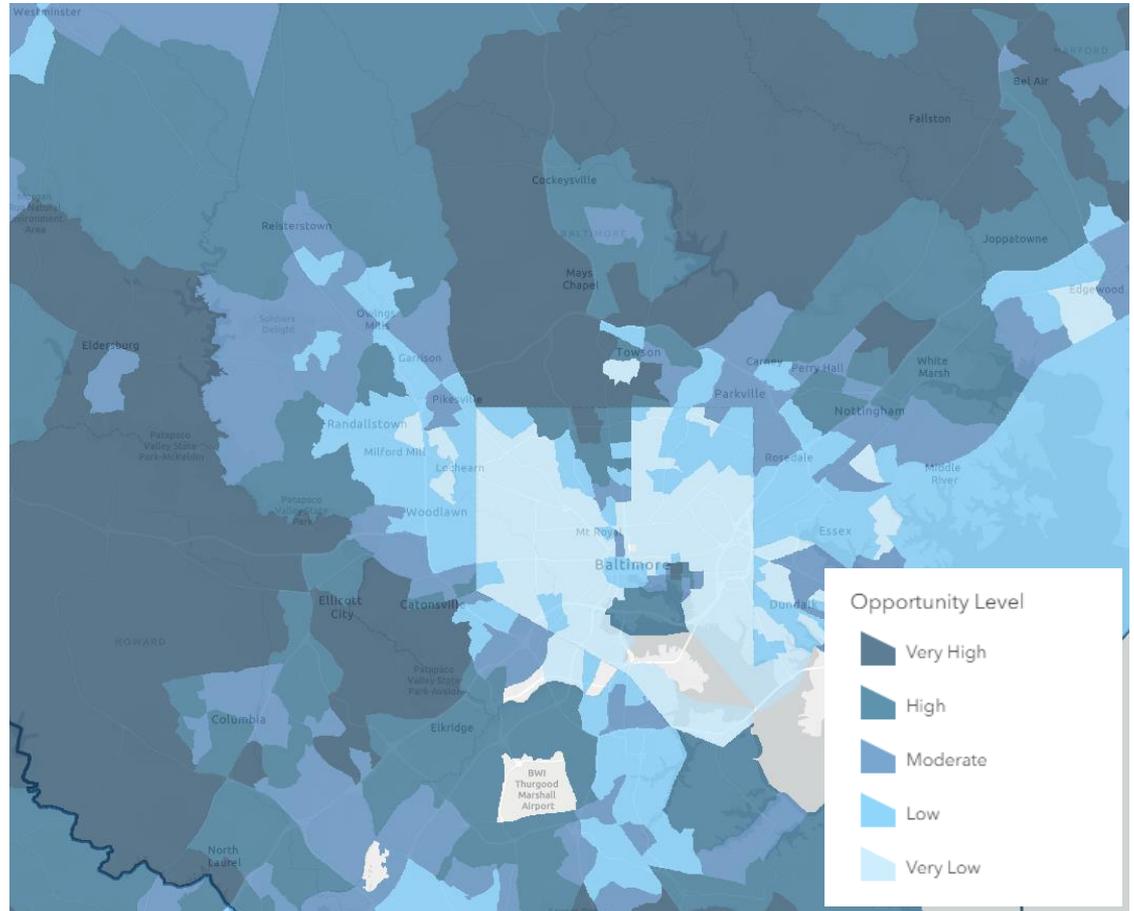
To compare neighborhoods within one state, use state normed metrics

For all other use cases, use nationally normed metrics

BALTIMORE-COLUMBIA-TOWSON
METRO AREA

Child Opportunity Levels

Metro normed



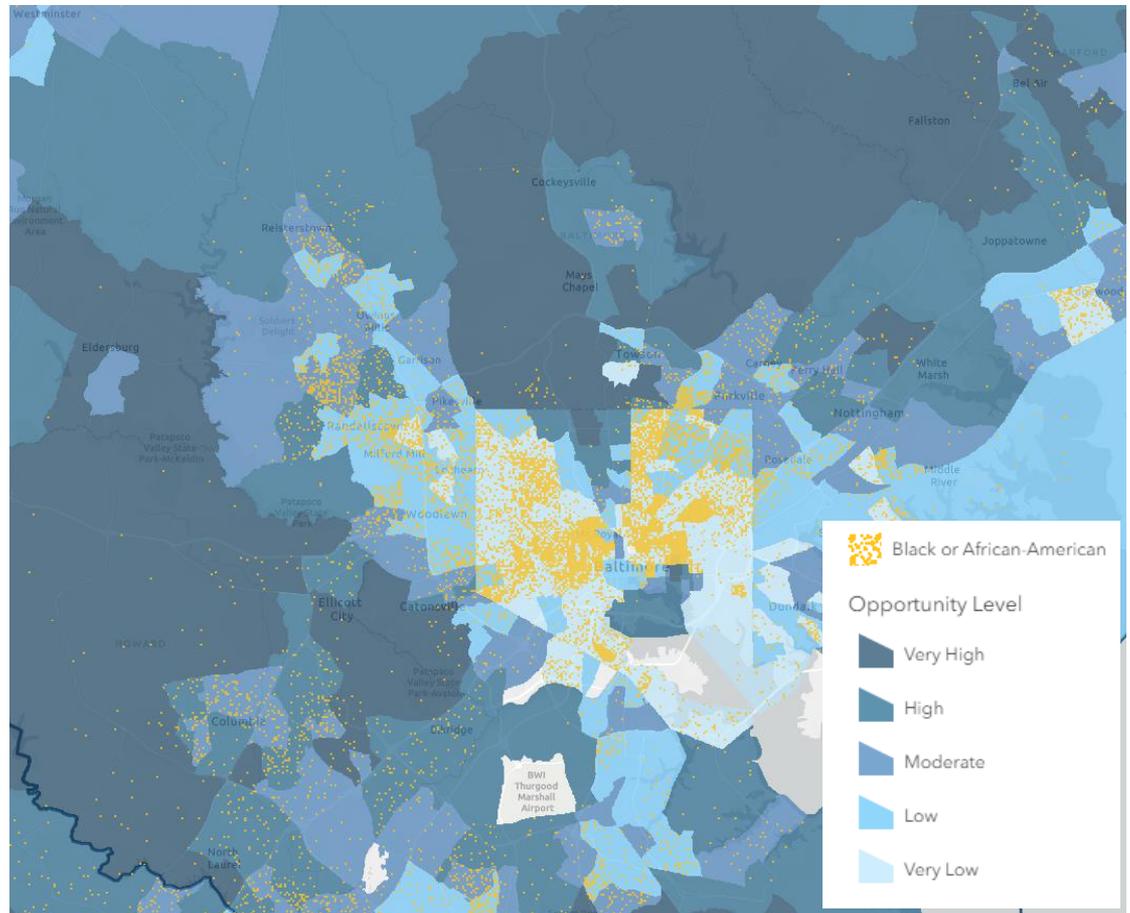
Source: diversitydatakids.org. Child Opportunity Index 2.0 Database.

BALTIMORE-COLUMBIA-TOWSON METRO AREA

Black children's access to neighborhood opportunity

Child Opportunity Levels
(metro normed)

1 Dot = 20 children aged 0-17 years

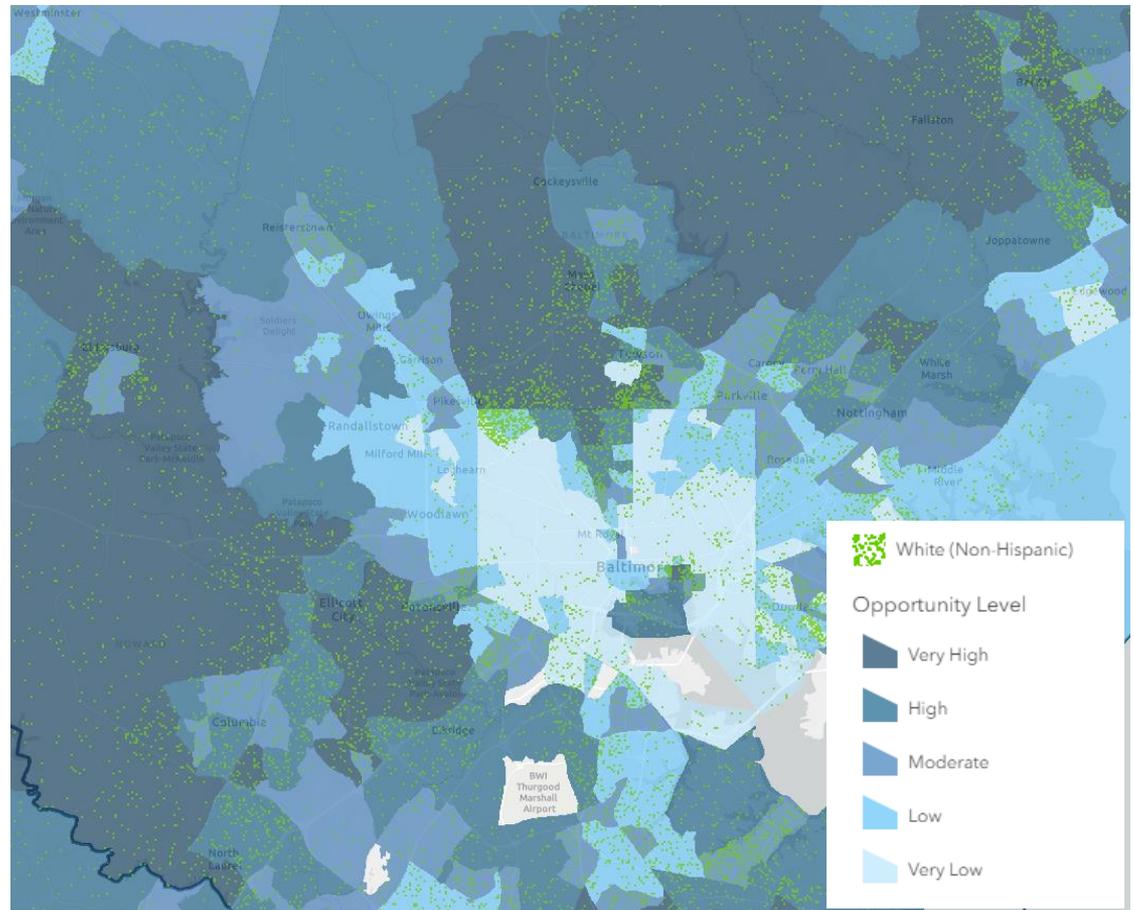


Source: diversitydatakids.org. Child Opportunity Index 2.0 Database. Population data from American Community Survey 5-Year Summary Files.

White children's access to neighbor- hood opportunity

Child Opportunity Levels
(metro normed)

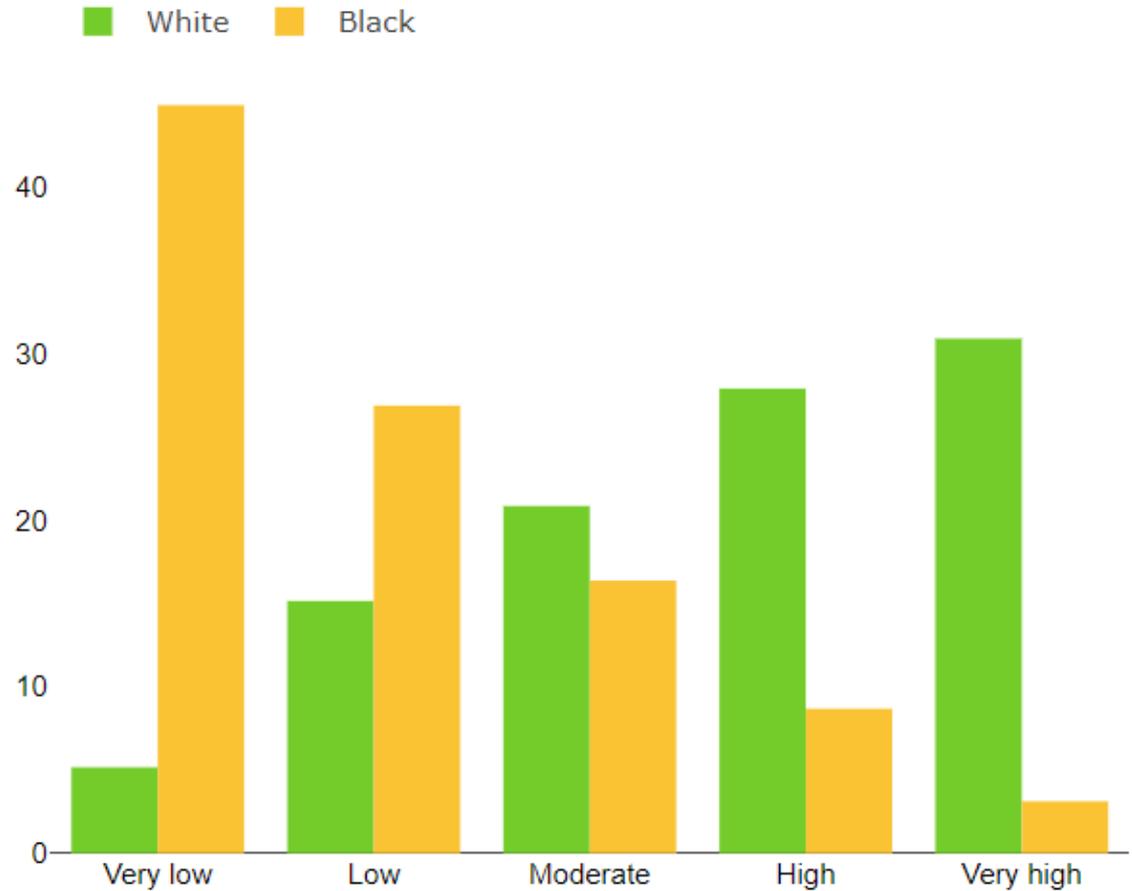
1 Dot = 20 children aged 0-17
years



Percent of children by Child Opportunity Level

Child Opportunity Levels
(metro normed)

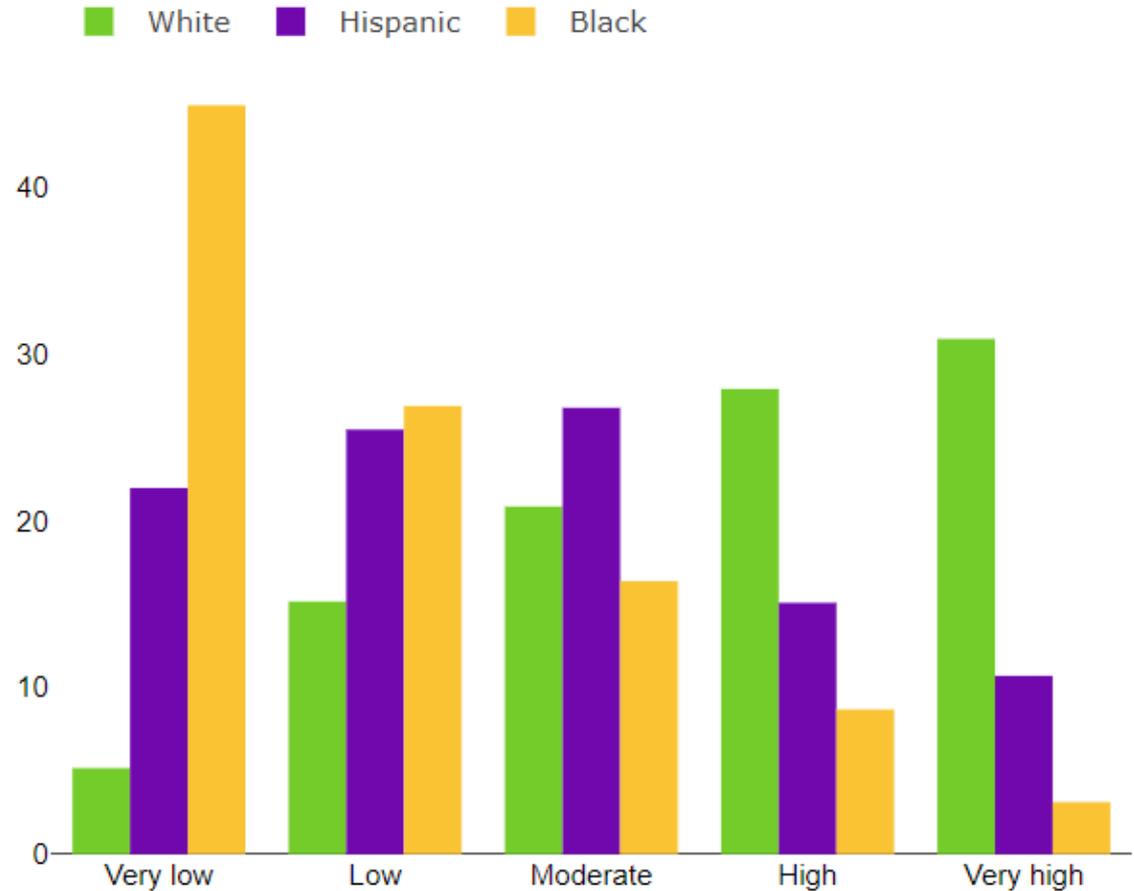
Children aged 0-17 years



Percent of children by Child Opportunity Level

Child Opportunity Levels
(metro normed)

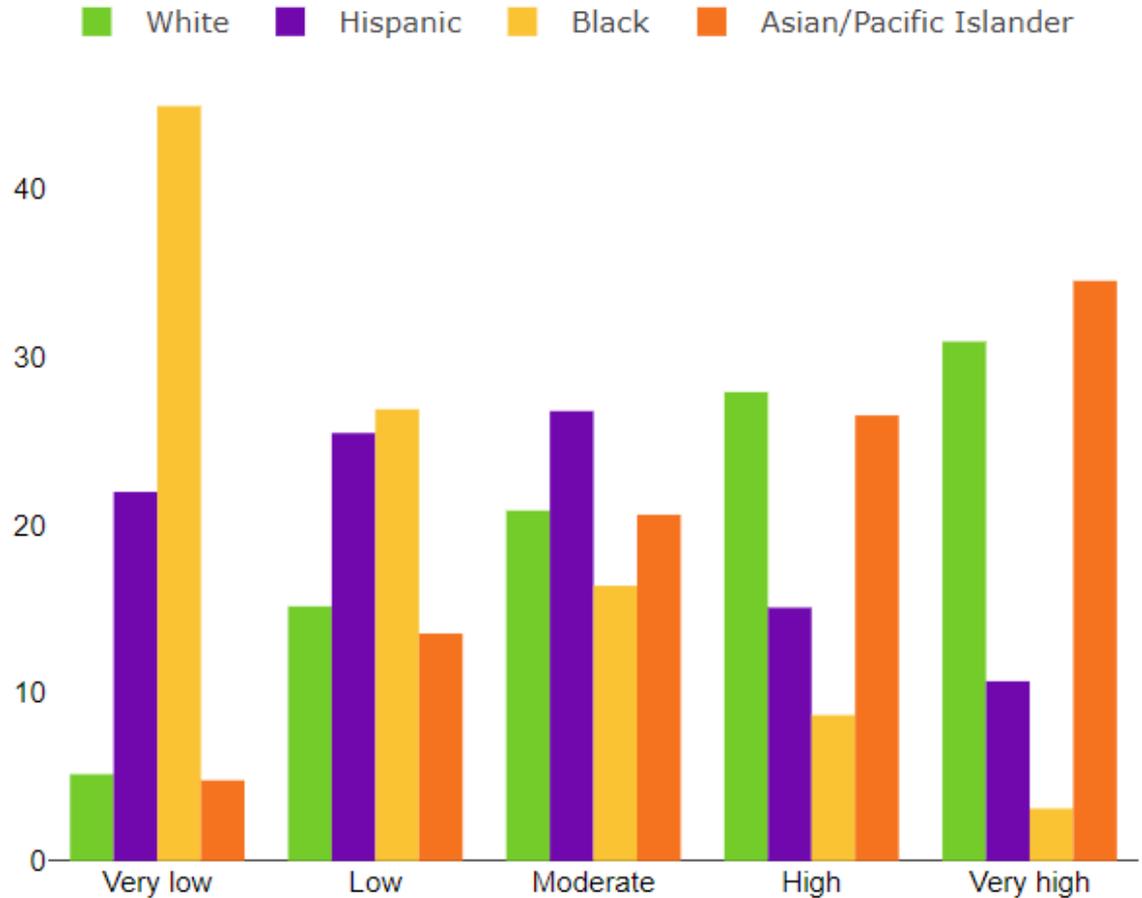
Children aged 0-17 years



Percent of children by Child Opportunity Level

Child Opportunity Levels
(metro normed)

Children aged 0-17 years

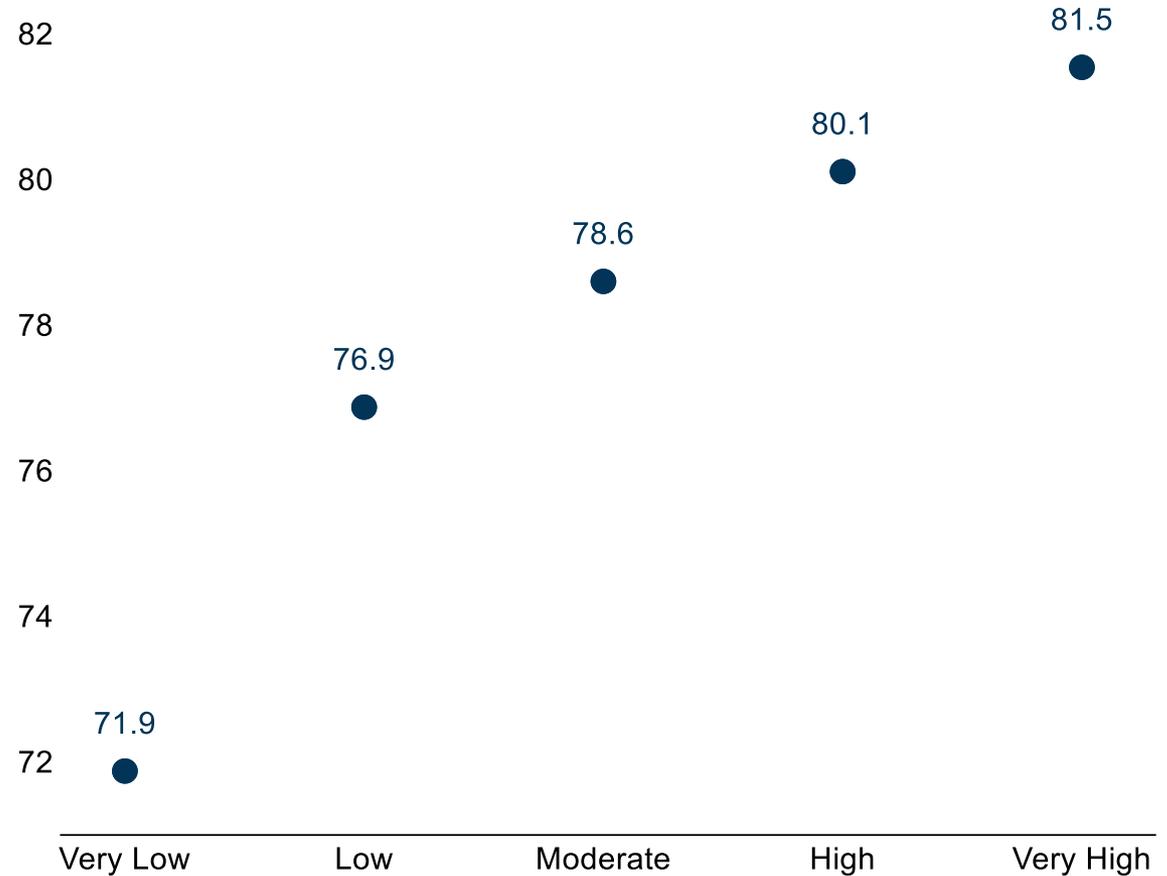


BALTIMORE-COLUMBIA-TOWSON
METRO AREA

Life expectancy by Child Opportunity Level

The average number of years a
person can be expected to live
at birth

Child Opportunity Levels (metro
normed)

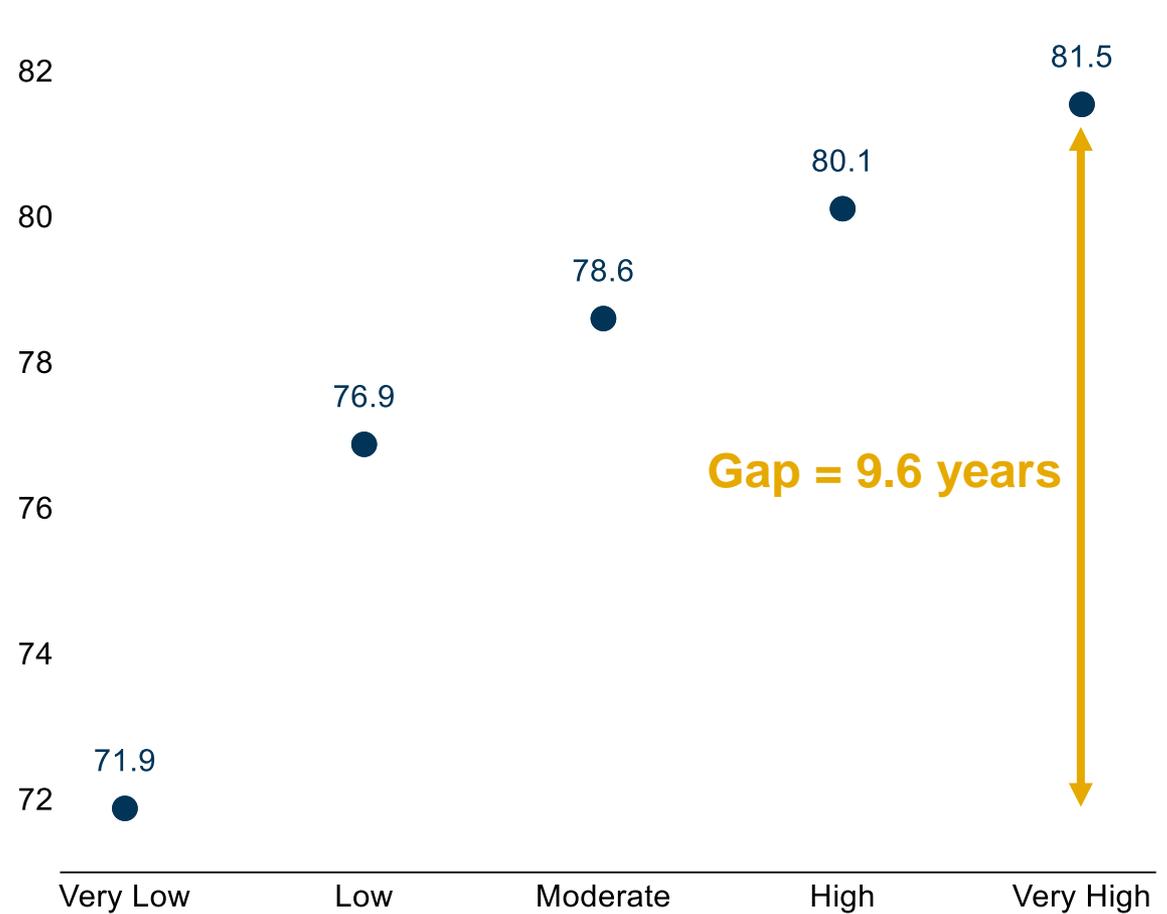


Sources: diversitydatakids.org, Child Opportunity Index 2.0 Database; National Center for Health Statistics, United States Small-area Life Expectancy Estimates Project (USALEEP).

Life expectancy by Child Opportunity Level

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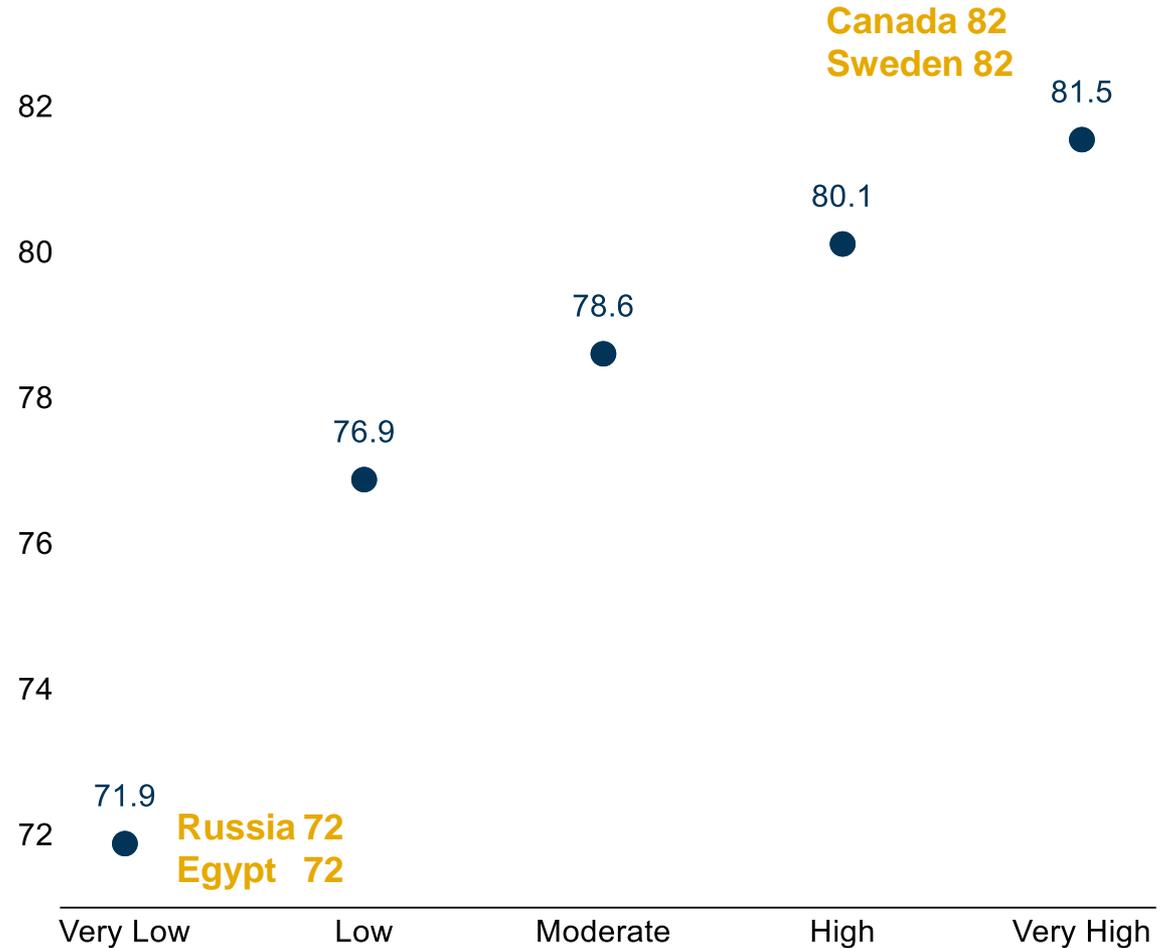
Child Opportunity Levels
(metro normed)



Life expectancy by Child Opportunity Level

The average number of years a
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Child Opportunity Levels
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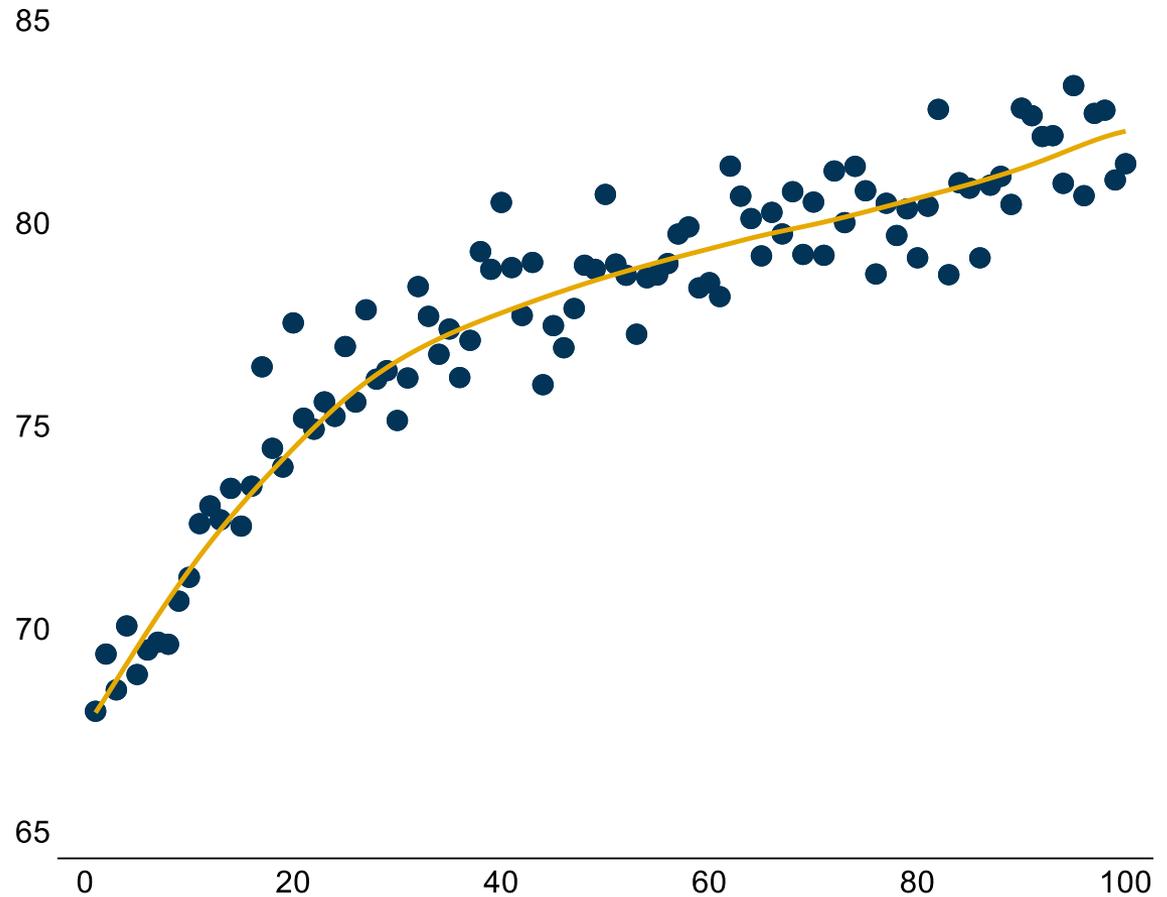


BALTIMORE-COLUMBIA-TOWSON
METRO AREA

Life expectancy by Child Opportunity Score

The average number of years a
person can be expected to live
at birth

Child Opportunity Scores
(metro-normed)



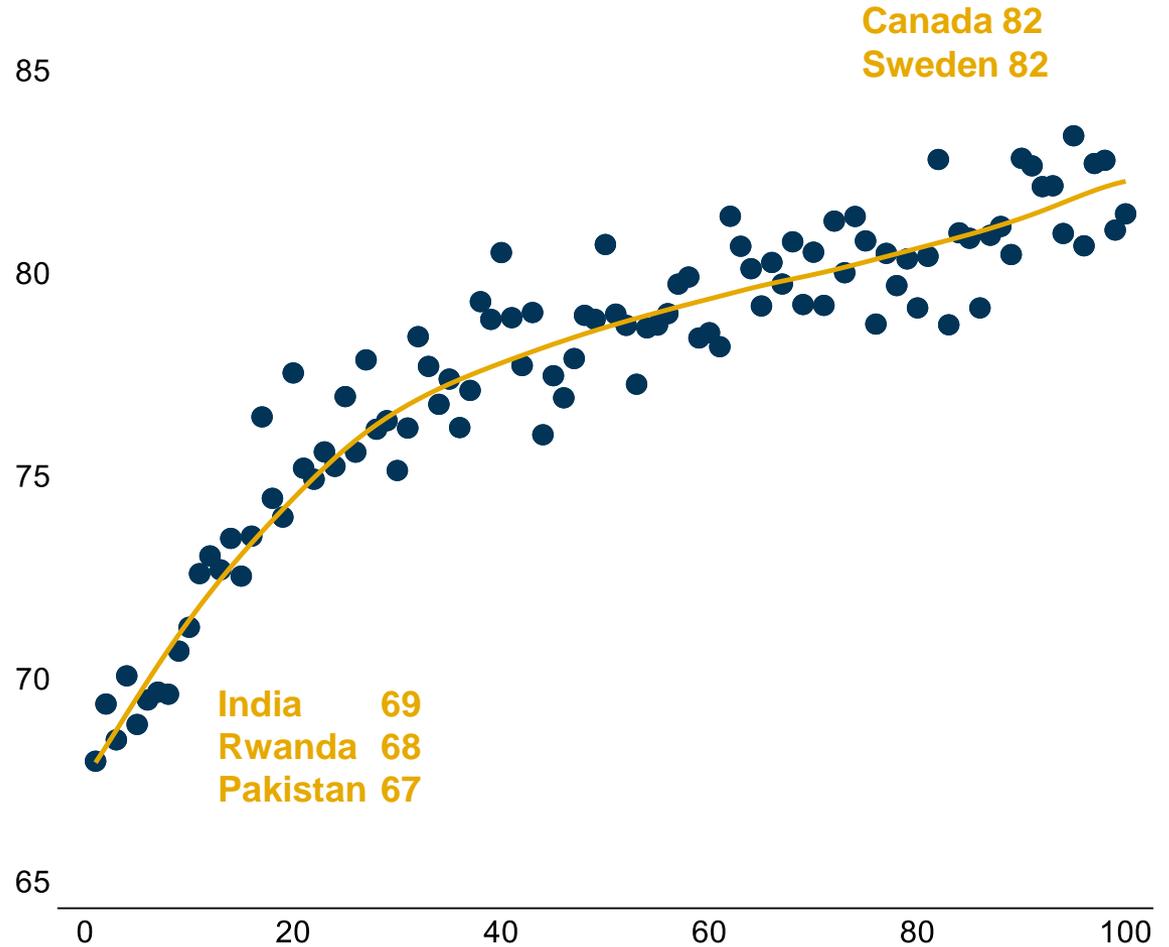
Sources: diversitydatakids.org, Child Opportunity Index 2.0 Database; National Center for Health Statistics, United States Small-area Life Expectancy Estimates Project (USALEEP).

BALTIMORE-COLUMBIA-TOWSON
METRO AREA

Life expectancy by Child Opportunity Score

The average number of years a
person can be expected to live
at birth

Child Opportunity Scores
(metro-normed)



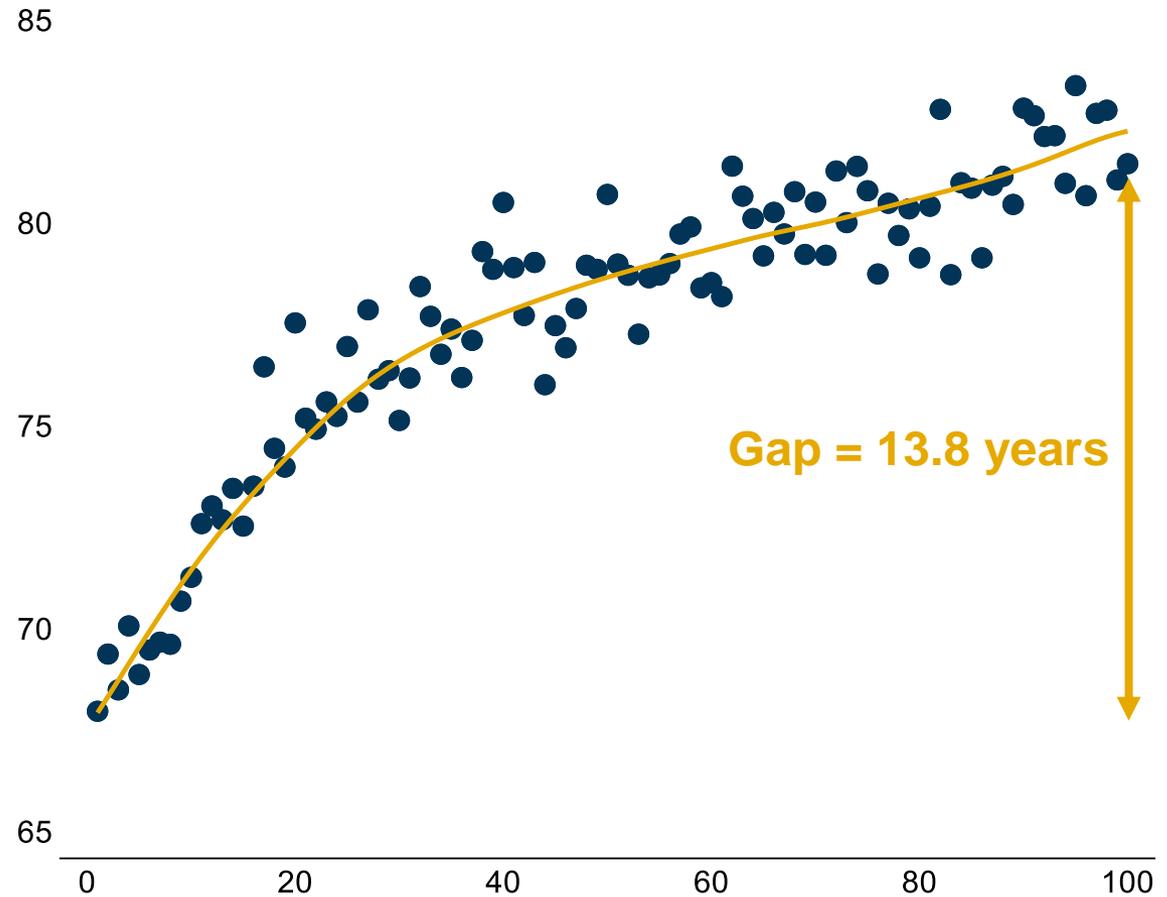
Sources: diversitydatakids.org, Child Opportunity Index 2.0 Database; National Center for Health Statistics, United States Small-area Life Expectancy Estimates Project (USALEEP), World Bank.

BALTIMORE-COLUMBIA-TOWSON
METRO AREA

Life expectancy by Child Opportunity Score

The average number of years a
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at birth

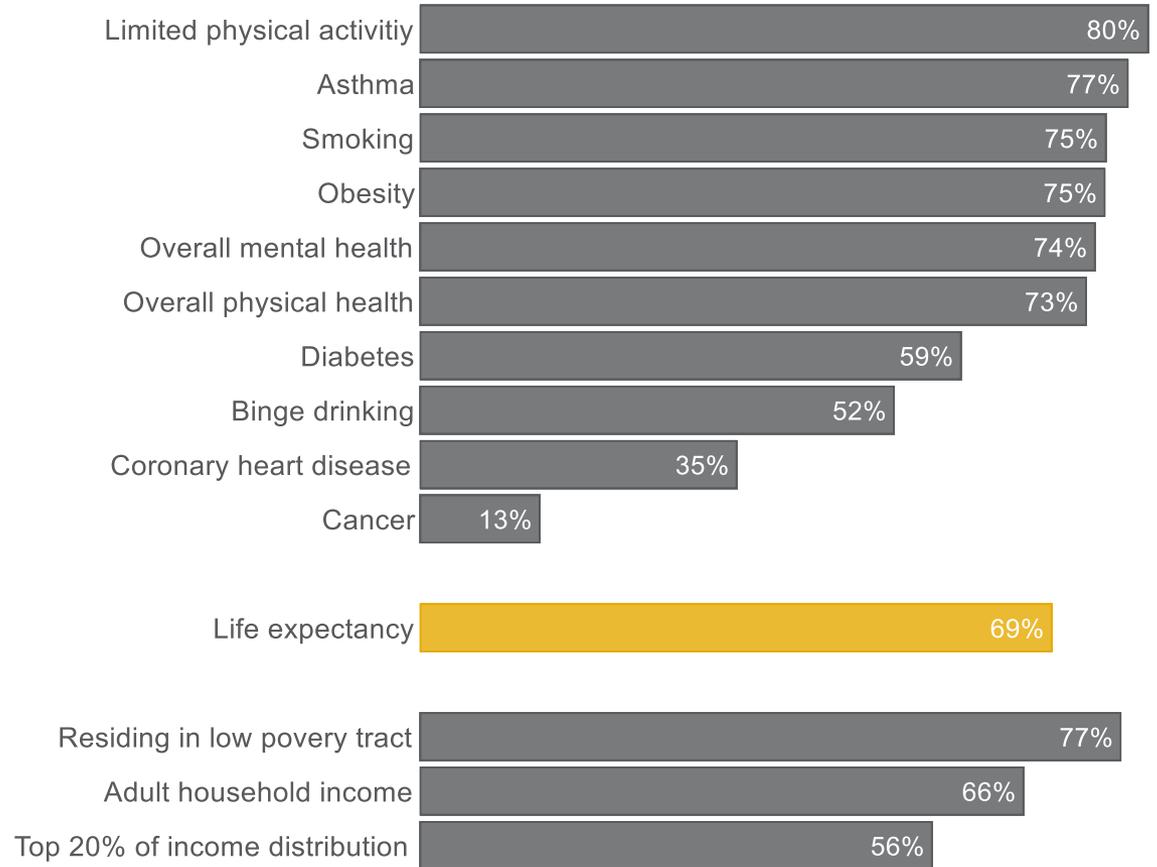
Child Opportunity Scores
(metro-normed)



Sources: diversitydatakids.org, Child Opportunity Index 2.0 Database; National Center for Health Statistics, United States Small-area Life Expectancy Estimates Project (USALEEP).

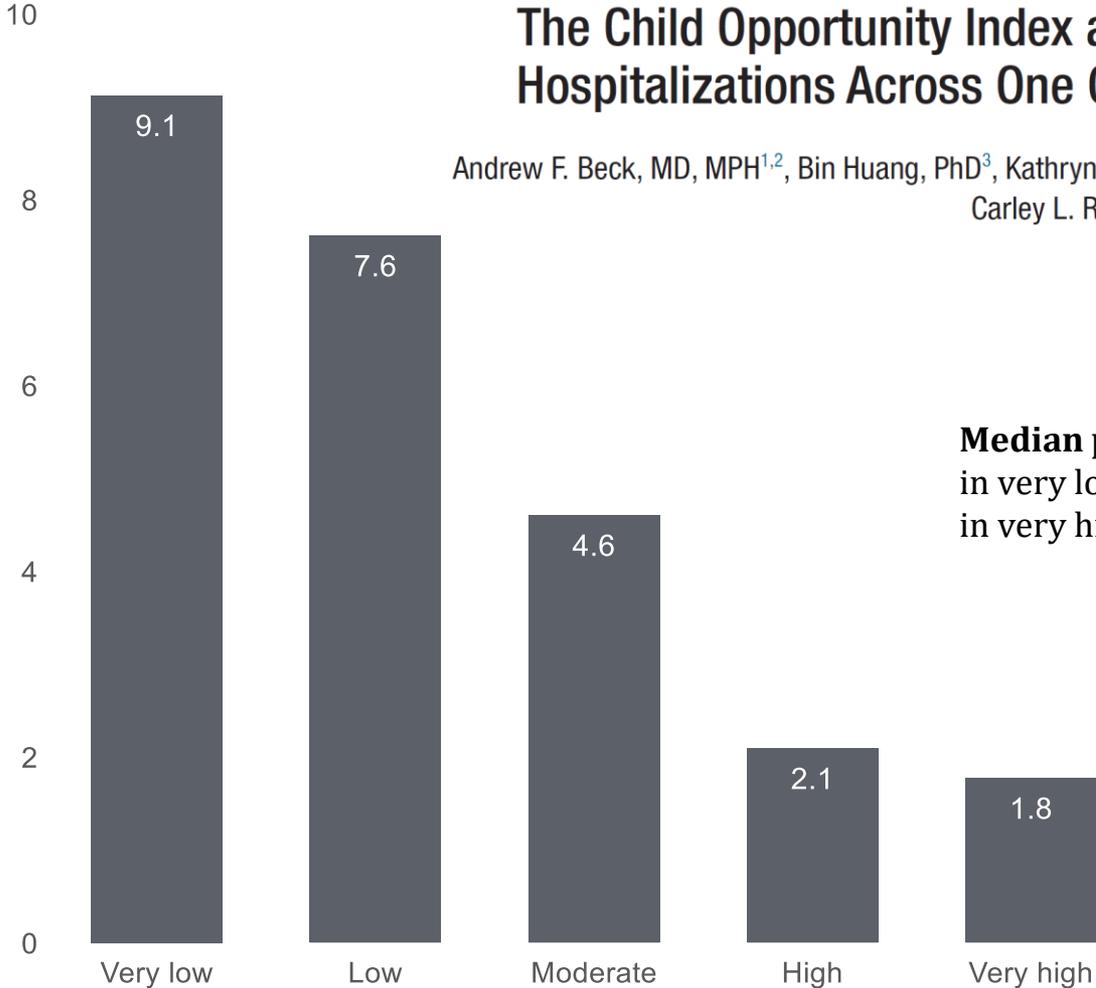
Percent variance explained across adult outcomes

R² statistics from regressions of 14 health and socio-economic adult outcomes on COI 2.0 overall average z-score



The Child Opportunity Index and Disparities in Pediatric Asthma Hospitalizations Across One Ohio Metropolitan Area, 2011-2013

Andrew F. Beck, MD, MPH^{1,2}, Bin Huang, PhD³, Kathryn Wheeler⁴, Nikki R. Lawson, BS⁵, Robert S. Kahn, MD, MPH¹, and Carley L. Riley, MD, MPP, MHS⁶

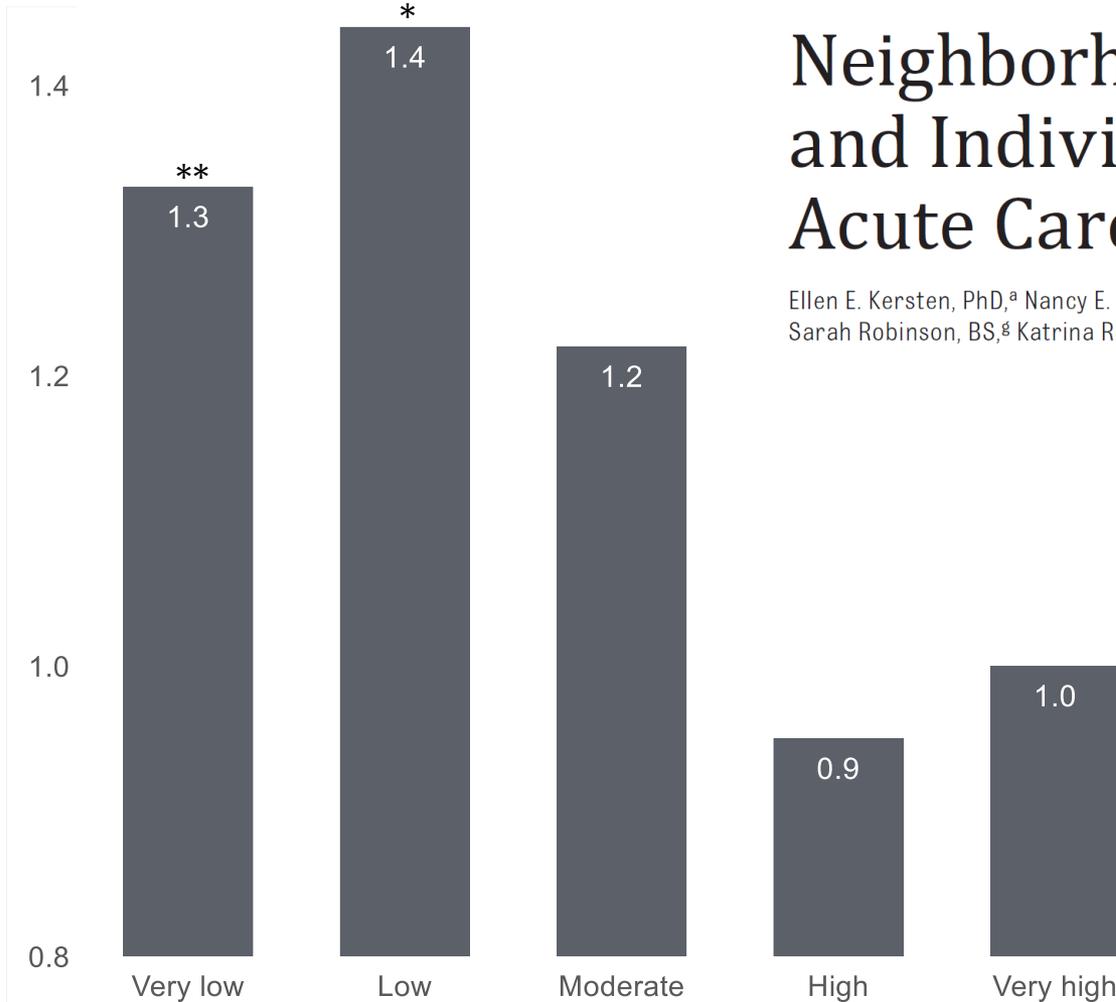


Median pediatric asthma hospitalizations
in very low opportunity tracts = 9.1 per 1000 children
in very high opportunity tracts = 1.8 per 1000 children

Journal of Pediatrics 2017, 190:200-6

Neighborhood Child Opportunity and Individual-Level Pediatric Acute Care Use and Diagnoses

Ellen E. Kersten, PhD,^a Nancy E. Adler, PhD,^{a,b,c} Laura Gottlieb, MD, MPH,^{c,d} Douglas P. Jutte, MD, MPH,^{e,f} Sarah Robinson, BS,^g Katrina Roundfield, PhD,^a Kaja Z. LeWinn, ScD^{a,c}



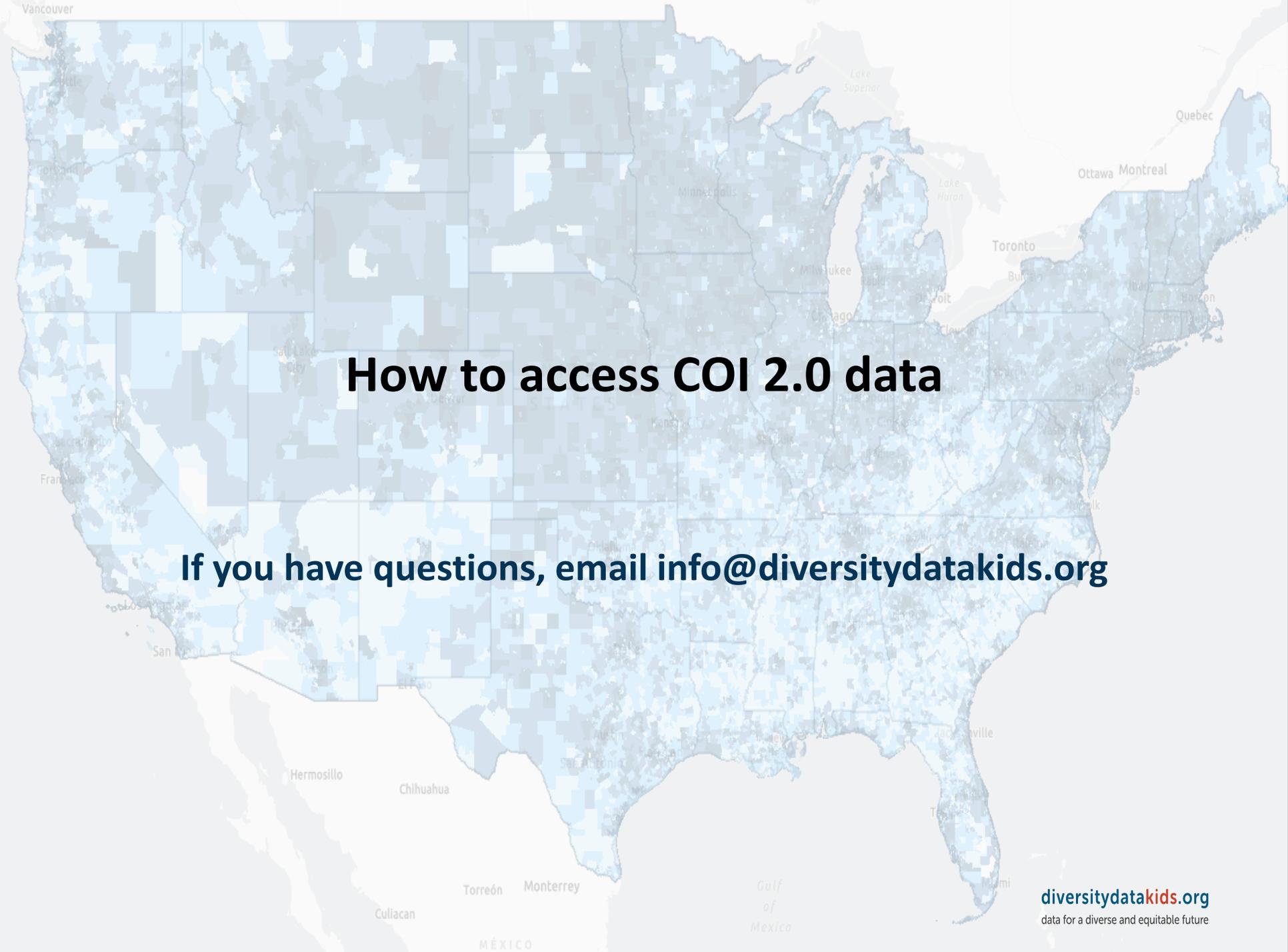
Adjusted odd ratios of having 4 or more acute care visits within one year, relative to children in very high opportunity neighborhoods

Children in low (very low) opportunity neighborhoods had 40% (30%) greater odds of acute care admissions than children in very high opportunity neighborhoods

Pediatrics. 2018, 141(5):e20172309

COI 2.0: Actionable neighborhood data

- Multi-sectoral, child-focused, granular, contemporary
- Data for all US neighborhoods
- Strongly correlated with adult outcomes
- Clear and compelling visualization of spatial, racial/ethnic, and health inequalities
- Users from academia, media, health, housing, and early childhood education sectors, including Children's Hospitals

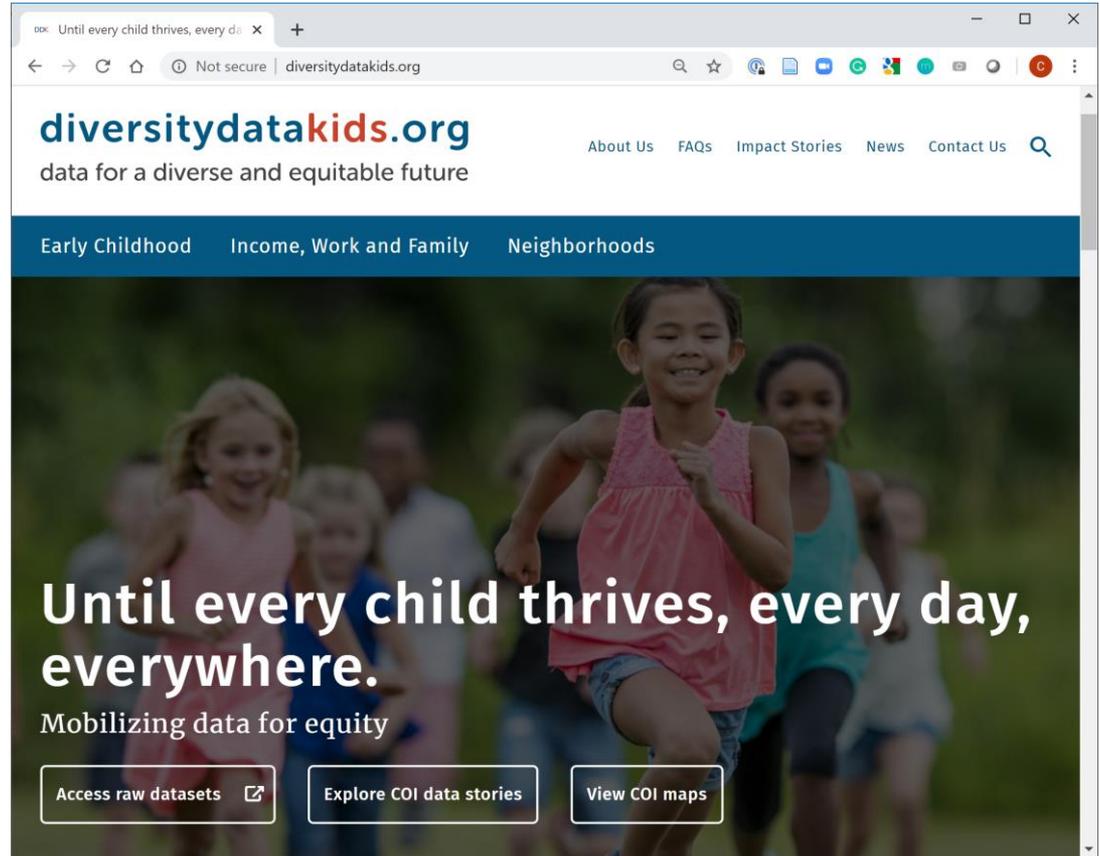
A map of North America, including the United States and parts of Canada and Mexico, overlaid with a grid of blue squares. The squares vary in opacity, representing COI 2.0 data. Major cities and geographical features are labeled. The text 'How to access COI 2.0 data' is centered on the map.

How to access COI 2.0 data

If you have questions, email info@diversitydatakids.org

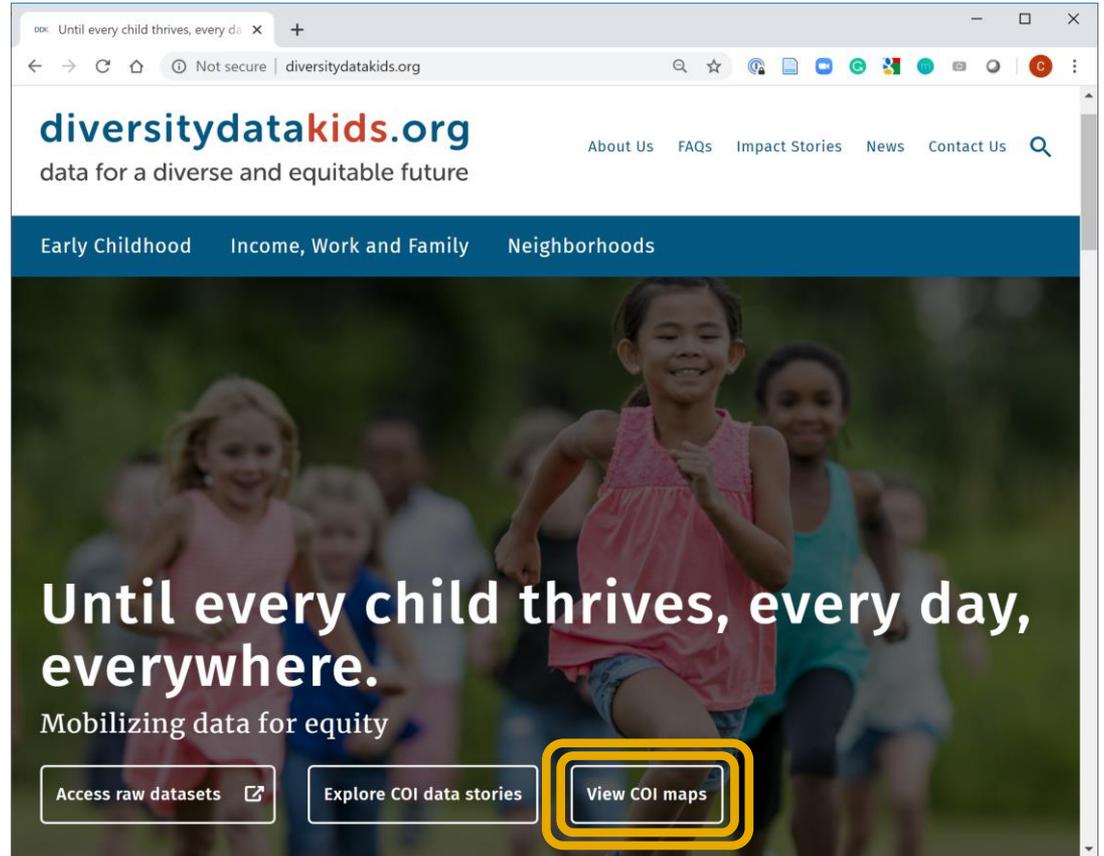
HOW TO ACCESS COI 2.0 DATA

- ✓ Go to diversitydatakids.org
- ✓ Click “Access raw datasets”
- ✓ Click “Child Opportunity Index 2.0 database”
- ✓ Preview/download dataset



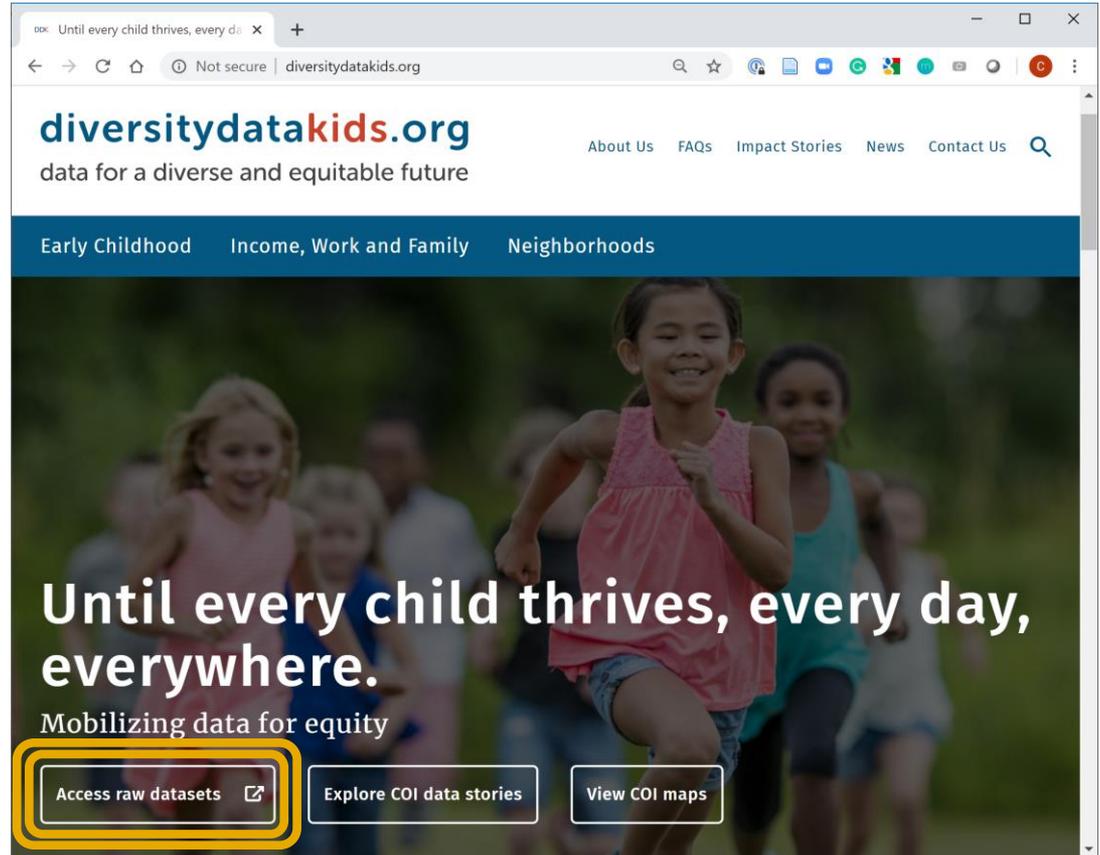
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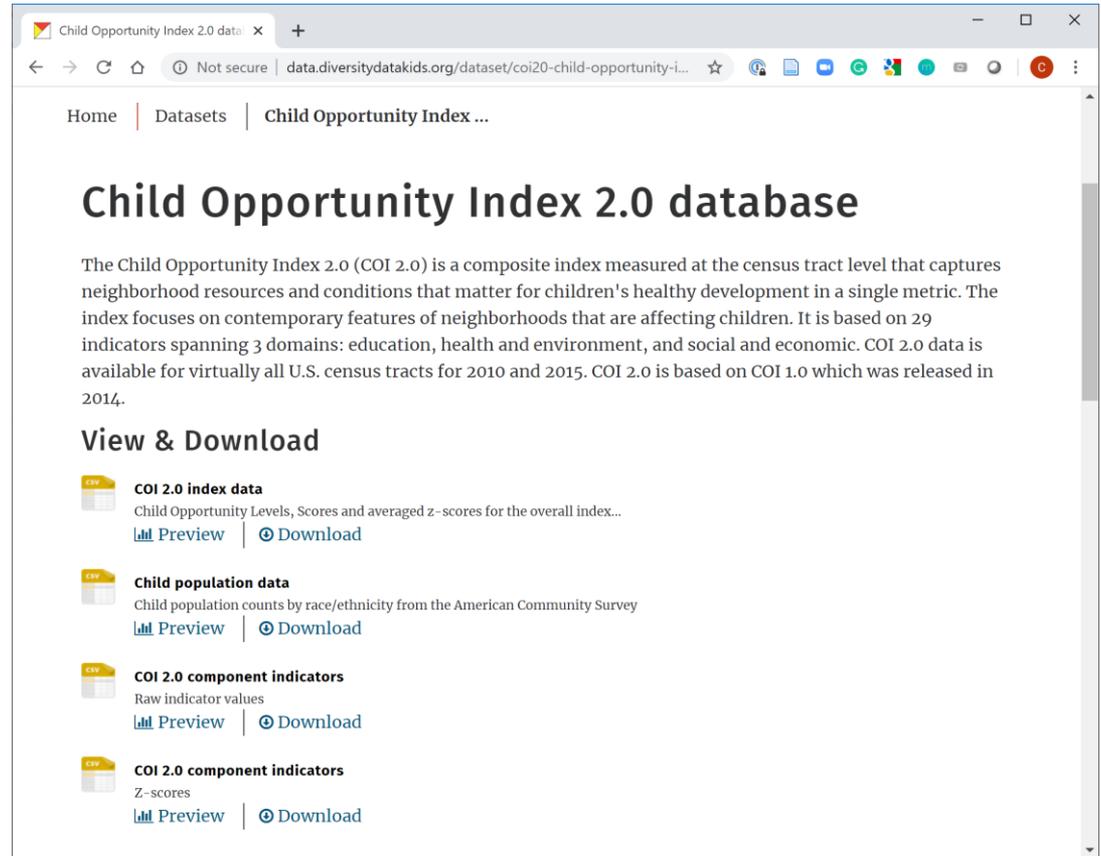
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The screenshot shows a web browser window displaying the 'Datasets' page on diversitydatakids.org. The browser's address bar shows the URL 'data.diversitydatakids.org/dataset'. The website's navigation menu includes 'Datasets', 'Child Opportunity Index', and 'Policy Equity Assessments'. The main header features the logo 'diversitydatakids.org' and the tagline 'data for a diverse and equitable future'. Below the header, there are navigation tabs for 'Demographics', 'Early Childhood', 'Health', 'Income, Work & Family', and 'Neighborhoods'. The 'Datasets' section is active, showing a search bar with the text 'Search datasets...' and a search icon. Below the search bar, it indicates '323 datasets found' and 'Order by: Relevance'. The 'Child Opportunity Index 2.0 database' is highlighted with a yellow box. The description for this database states: 'The Child Opportunity Index 2.0 (COI 2.0) is a composite index measured at the census tract level that captures neighborhood resources and conditions that matter for children's... Year(s): Data available for 2010 & 2015.' Below this, another dataset is visible: 'Children aged 0-17 with a disability (percent) by race/ethnicity' with the description 'The number of children aged 0-17 years with at least one of the following:'. On the left side of the page, there is a list of 'Topic' categories with counts: Child Opportunity Index (1), Demographics (193), Early childhood (16), Education (38), Family (16), Health (9), Housing (49), Income (65), Neighborhoods (103), and Work (50). Below the topics, there is a 'Subtopic' section with counts: Adults (47), Age structure (4), and American origin (2).

HOW TO ACCESS COI 2.0 DATA

- ✓ Go to diversitydatakids.org
- ✓ Click “Access raw datasets”
- ✓ Click “Child Opportunity Index 2.0 database”
- ✓ Preview/download dataset



The screenshot shows a web browser window displaying the 'Child Opportunity Index 2.0 database' page. The browser's address bar shows the URL 'data.diversitydatakids.org/dataset/coi20-child-opportunity-i...'. The page has a navigation menu with 'Home', 'Datasets', and 'Child Opportunity Index ...'. The main heading is 'Child Opportunity Index 2.0 database'. Below the heading is a paragraph describing the index: 'The Child Opportunity Index 2.0 (COI 2.0) is a composite index measured at the census tract level that captures neighborhood resources and conditions that matter for children's healthy development in a single metric. The index focuses on contemporary features of neighborhoods that are affecting children. It is based on 29 indicators spanning 3 domains: education, health and environment, and social and economic. COI 2.0 data is available for virtually all U.S. census tracts for 2010 and 2015. COI 2.0 is based on COI 1.0 which was released in 2014.' Below this text is a section titled 'View & Download' which lists four data options, each with a 'Preview' and 'Download' link:

- COI 2.0 index data**
Child Opportunity Levels, Scores and averaged z-scores for the overall index...
[Preview](#) | [Download](#)
- Child population data**
Child population counts by race/ethnicity from the American Community Survey
[Preview](#) | [Download](#)
- COI 2.0 component indicators**
Raw indicator values
[Preview](#) | [Download](#)
- COI 2.0 component indicators**
Z-scores
[Preview](#) | [Download](#)

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Child Opportunity Index 2.0 database

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View & Download

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COI 2.0 Metrics

- Scores and Levels
- Metro, state, and nationally normed

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Child Opportunity Index 2.0 database

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[Preview](#) | [Download](#)

Number of children aged 0-17 years

- by race/ethnicity
- From 2012 and 2017 5-Year ACS

HOW TO ACCESS COI 2.0 DATA

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- ✓ Click “Child Opportunity Index 2.0 database”
- ✓ Preview/download dataset

Child Opportunity Index 2.0 data | x +

Not secure | data.diversitydatakids.org/dataset/coi20-child-opportunity-i...

Home | Datasets | Child Opportunity Index ...

Child Opportunity Index 2.0 database

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View & Download

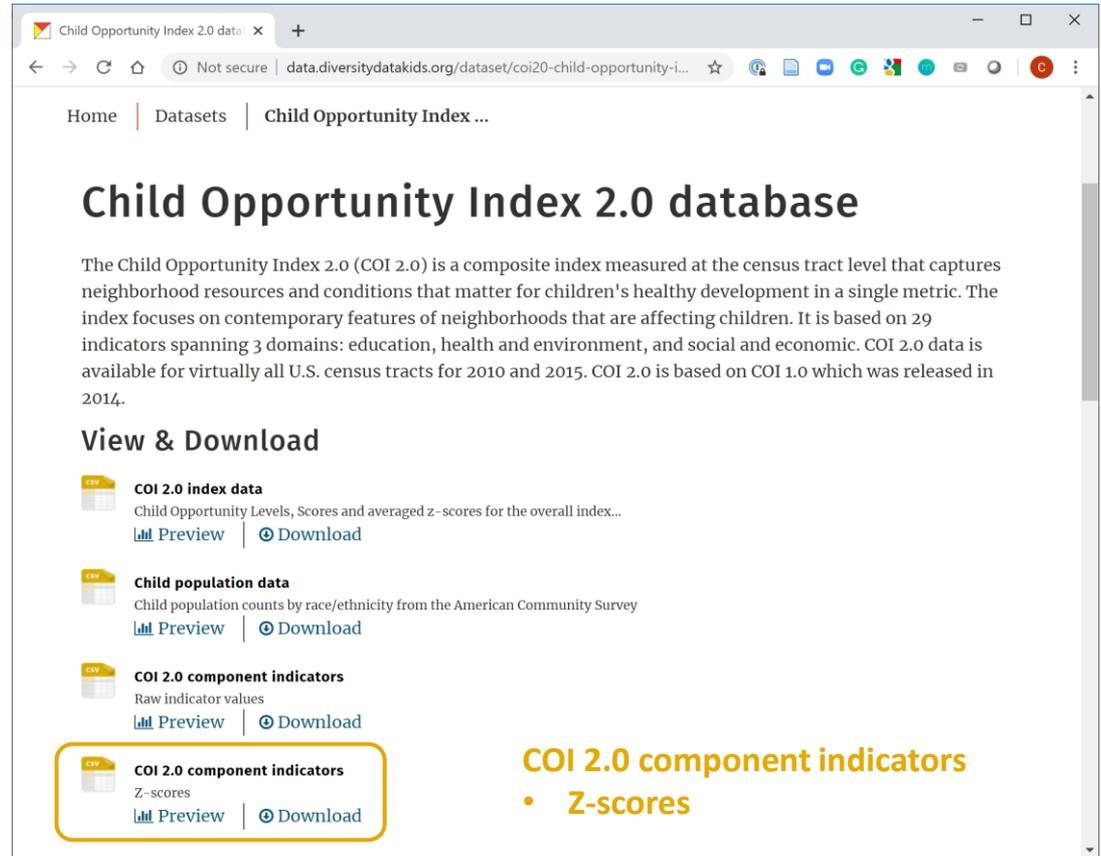
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- COI 2.0 component indicators**
Z-scores
[Preview](#) | [Download](#)

COI 2.0 component indicators

- **Untransformed data**

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- ✓ Preview/download dataset



Child Opportunity Index 2.0 data | +

Not secure | data.diversitydatakids.org/dataset/coi20-child-opportunity-i...

Home | Datasets | Child Opportunity Index ...

Child Opportunity Index 2.0 database

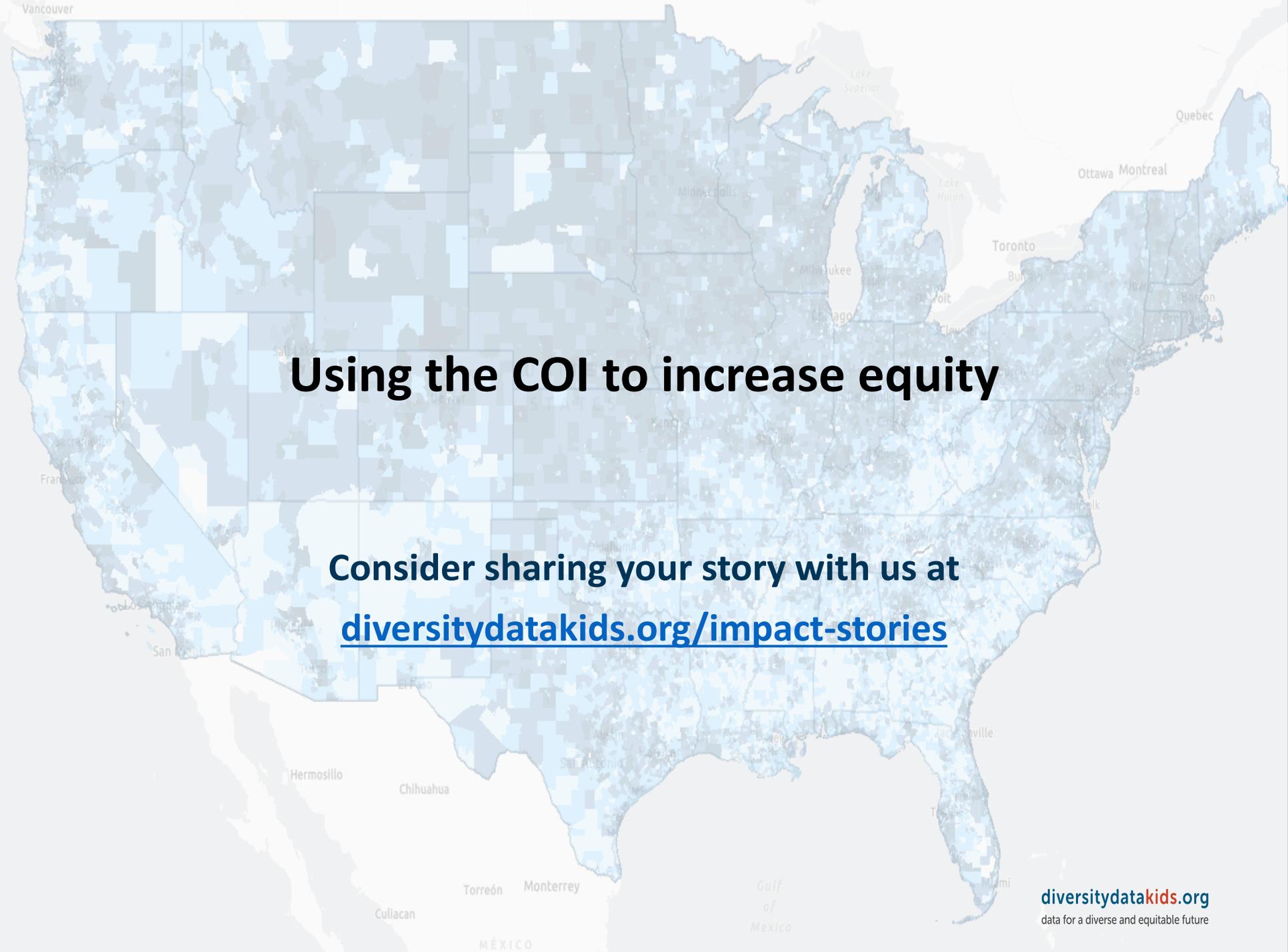
The Child Opportunity Index 2.0 (COI 2.0) is a composite index measured at the census tract level that captures neighborhood resources and conditions that matter for children's healthy development in a single metric. The index focuses on contemporary features of neighborhoods that are affecting children. It is based on 29 indicators spanning 3 domains: education, health and environment, and social and economic. COI 2.0 data is available for virtually all U.S. census tracts for 2010 and 2015. COI 2.0 is based on COI 1.0 which was released in 2014.

View & Download

- COI 2.0 index data**
Child Opportunity Levels, Scores and averaged z-scores for the overall index...
[Preview](#) | [Download](#)
- Child population data**
Child population counts by race/ethnicity from the American Community Survey
[Preview](#) | [Download](#)
- COI 2.0 component indicators**
Raw indicator values
[Preview](#) | [Download](#)
- COI 2.0 component indicators**
Z-scores
[Preview](#) | [Download](#)

COI 2.0 component indicators

- Z-scores



Using the COI to increase equity

Consider sharing your story with us at
diversitydatakids.org/impact-stories



NATIONAL

In Nearly Every U.S. Metro Area, New Data Show Opportunity Lags For Kids Of Color

December 18, 2019 · 3:18 PM ET



How healthy is your neighborhood for your child? Take a look by Sandee LaMotte, CNN

Heller School · News

Opportunity Knocks Across the Nation

California cities rank among country's best and worst places to raise kids, study says



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Riverside is one of the worst places in the United States to raise children, while San Jose ranks among the best, according to a new Brandeis study.

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TIME



DATA

We Tried to Find the Most Equal Place in America. It Got Complicated



The Washington Post

Democracy Dies in Darkness



Economy

What shapes a kid's opportunities? Researchers say look to the neighborhood.

A Brandeis University study finds stark divides along racial and ethnic lines, and glaring 'opportunity gaps'



Childhood Opportunity Varies Dramatically by Neighborhood

A new report shows stark inequities in neighborhood conditions for children across the country, holding serious implications for later in life.

AXIOS

Jan 22, 2020

America's hardest places to grow up

Moving Data to Action in Chicago

Department of Public Health published community health improvement plan in 2015

Subsequent collaboration around and uses of the COI

- “Hyper-local” view of neighborhood context and inequality
- Award of community seed grants
- Targeting for place-based interventions
- Community health needs assessments



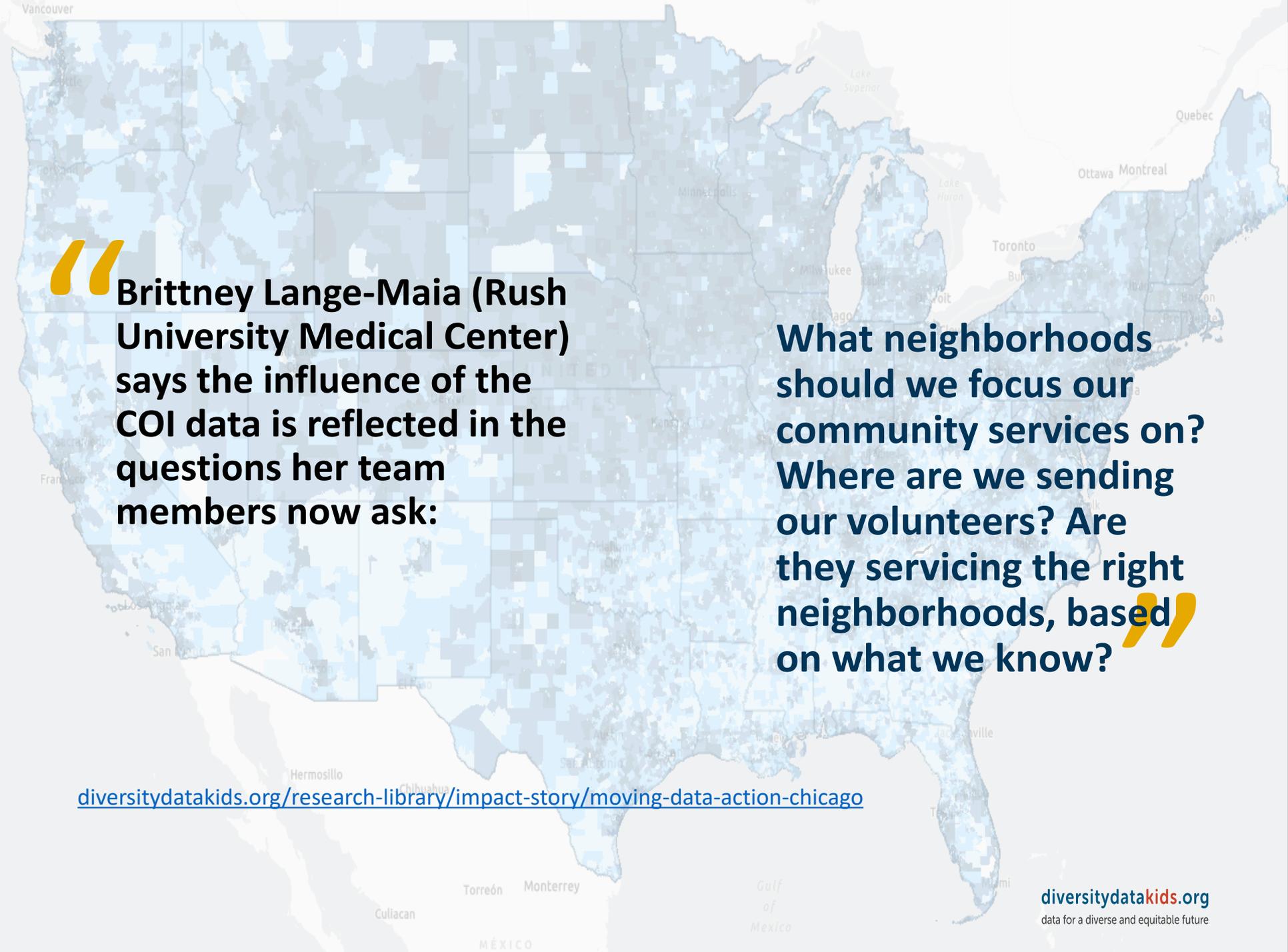
HEALTHY CHICAGO 2.0

PARTNERING TO IMPROVE HEALTH EQUITY

2016 - 2020



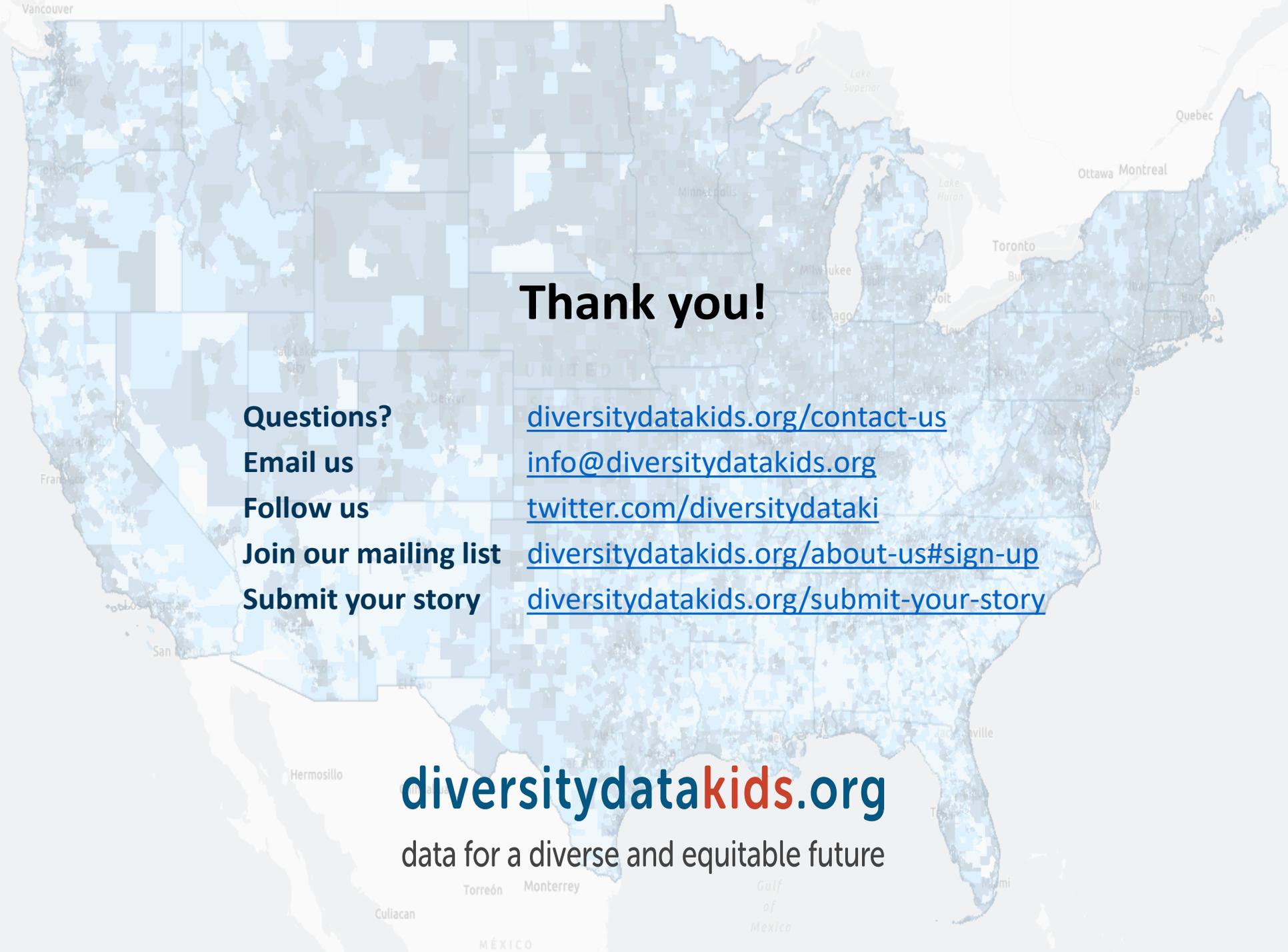
diversitydatakids.org/research-library/impact-story/moving-data-action-chicago



“Brittney Lange-Maia (Rush University Medical Center) says the influence of the COI data is reflected in the questions her team members now ask:

What neighborhoods should we focus our community services on? Where are we sending our volunteers? Are they servicing the right neighborhoods, based on what we know?”

diversitydatakids.org/research-library/impact-story/moving-data-action-chicago



Thank you!

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data for a diverse and equitable future

COI 2.0 & Health Outcomes

Molly Krager, MD

CHA Webinar

April 29, 2020

Long-standing inequities have become even more obvious...

Hy-Vee, DoorDash failed to serve KC families east of Troost Avenue

BY THE KANSAS CITY STAR EDITORIAL BOARD

When Kansas City resident Taryn Hodison attempted to have groceries delivered this week from the Hy-Vee grocery store in Prairie Village to her parents' home near 75th Street and Prospect Avenue, she came up empty.

Hodison was greeted with an automated message that read: "We can't deliver to your location. We apologize for the inconvenience. Please try a different address or change your order to pickup."

But her parents' house is well within the store's five-mile service area. Surely the fact that they live east of Troost Avenue — Kansas City's not-so-invisible dividing line — was not the problem, right?

Hy-Vee and DoorDash, which was providing the delivery service, have offered multiple explanations that didn't quite add up.

Hodison, a licensed therapist, was understandably alarmed by the lack of options for grocery delivery in neighborhoods east of Troost. Her parents are in their 70s. They are shut in amid the coronavirus outbreak that has prompted stay-at-home orders from state and local governments.

COVID-19 has claimed more than



Hy-Vee grocery store in Prairie Village didn't deliver to a home at 75th Street and Prospect Avenue, well under five miles away.

FOR TOO LONG, KANSAS CITY HAS GIVEN SHORT SHRIFT TO THESE NEIGHBORHOODS, AND FAMILIES WHO MAKE THEIR HOMES EAST OF TROOST AVENUE HAVE HAD PAINFULLY FEW OPTIONS FOR BASIC LIFE NECESSITIES.

Plaza neighborhood is a little over four miles away from the Prairie Village at 75th Street and Prospect Avenue. Grocery delivery is the issue, she said.

"What message are we sending? Are we going to cut off families because of where they live? We're not going to deliver groceries."

Decades ago, redlining, discriminatory housing practices, and segregation kept black families in Kansas City's east side. Generations later, the effects of inequality and structural racism are still prevalent.

Life expectancy is much shorter in many Kansas City neighborhoods east of Troost. For example, a black man living in the 64128 zip code can expect to live to be 68 years old, while a white woman living near the Country Club Plaza has a life expectancy of 85 years.

Several socioeconomic indicators contribute to the discrepancy including social, economic and environmental factors. The dearth of quality food sources in many neighborhoods contributes to health issues.

Amid the coronavirus outbreak, eliminating barriers to a healthy lifestyle must be a priority, said Qianna Thomason, president and CEO of the Health Forward Foundation, formerly the Health Care Foundation of Greater Kansas City.

News

With Schools Canceled By COVID-19, Kansas City's Digital Divide Could Get Wider

By Noah Taborda

Published March 18, 2020 at 5:00 AM CDT



SHORT TERM
Increased COVID-related morbidity and mortality

LONG TERM
Impact on kids for years to come

Objective

- Measure the association between COI 2.0 and hospitalization rates for pediatric ambulatory care sensitive conditions across 2 metropolitan areas

ACSCs

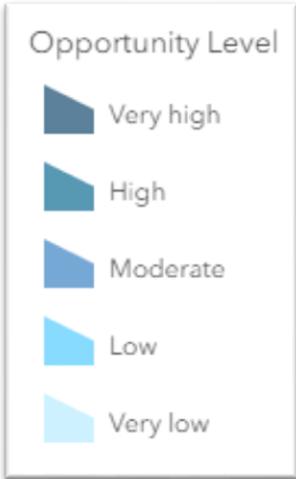
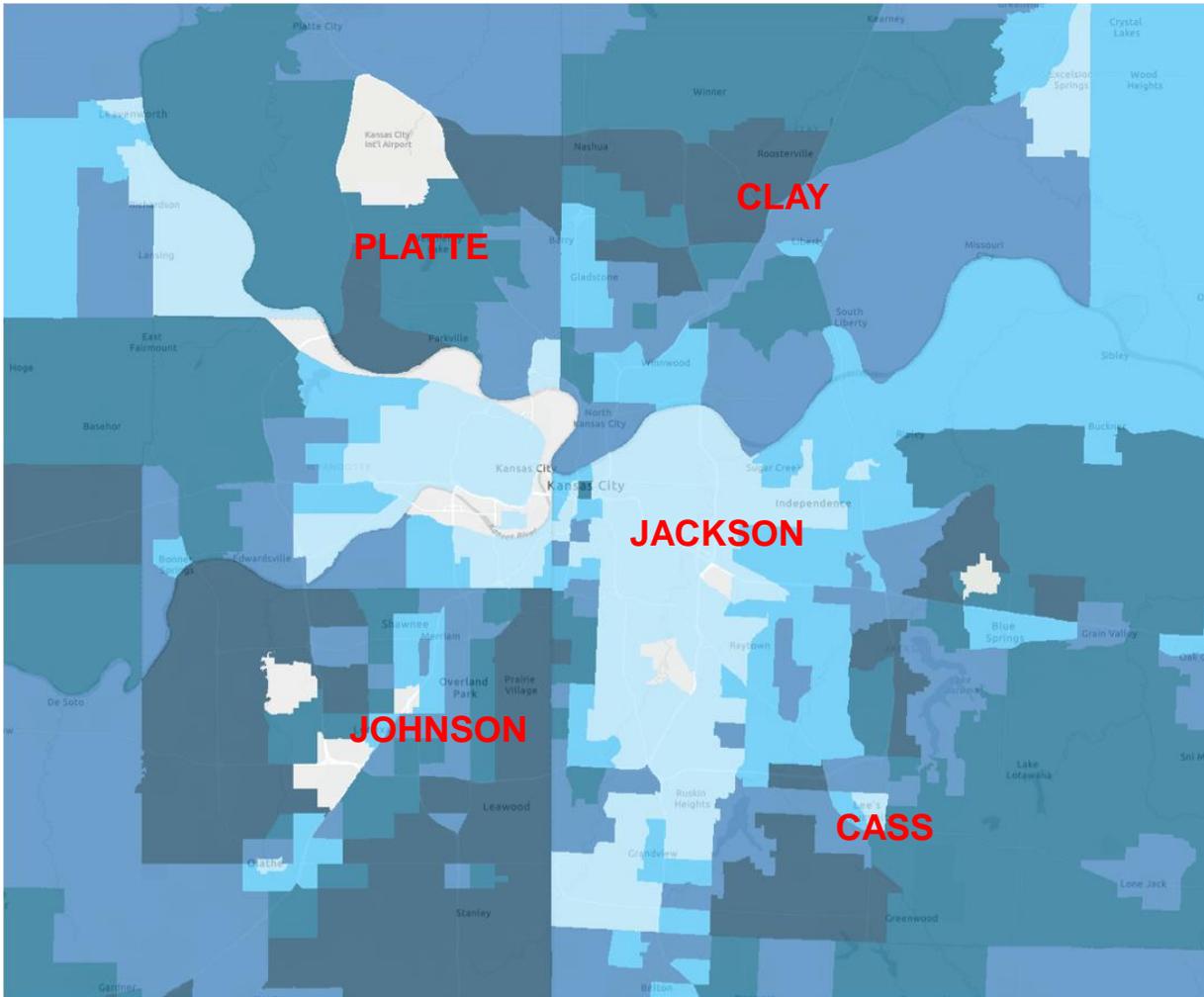
Responsible for
potentially preventable hospitalizations—
thought to be avoidable
with timely access to
high quality primary care

- Asthma
- Bacterial pneumonia
- Bronchiolitis
- Urinary tract infection
- Cellulitis
- Gastroenteritis/ dehydration
- Seizure
- Diabetes mellitus with complication

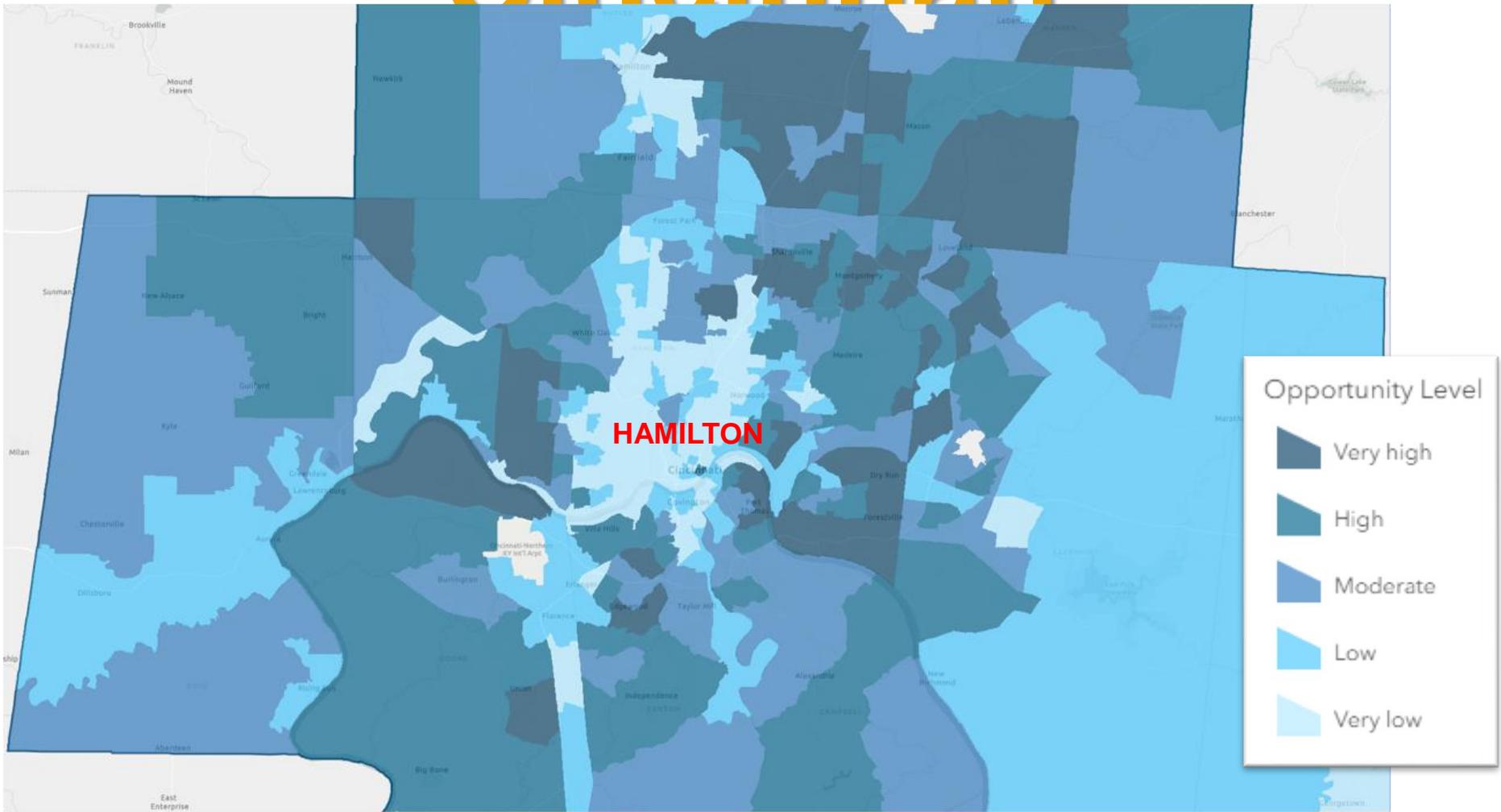
Kansas City & Cincinnati

- Midwestern
- Population of ~2M
- Majority white
- Similar degree of residential segregation

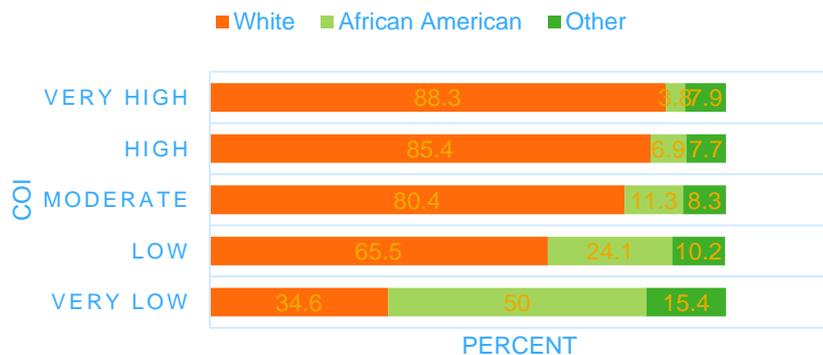




Cincinnati



KANSAS CITY DEMOGRAPHIC DATA RACE BY COI



CINCINNATI DEMOGRAPHIC DATA RACE BY COI



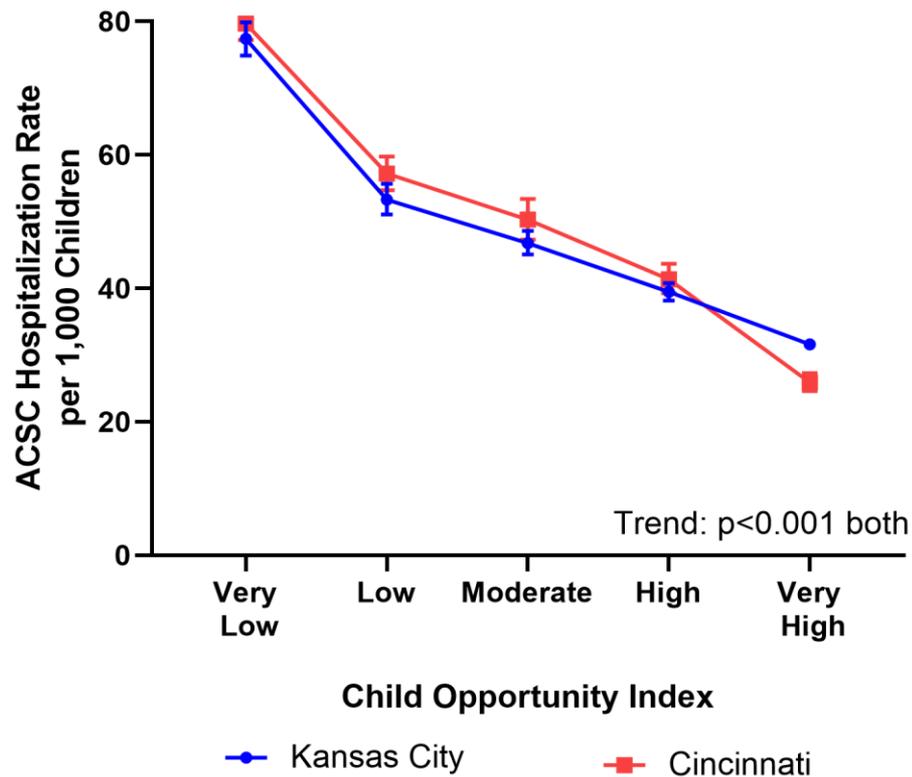
White = ~90% of very high COI

Black/Other = ~60-70% of very low COI

Methods

- ~27K pediatric hospitalizations for ACSCs from 2013-17
- Geocoded to census tract and applied COI level, then analyzed in aggregate

COI 2.0 and ACSCs



Results

- Morbidity from ACSCs felt disproportionately within low opportunity areas
 - Hospitalization rate for asthma >5x higher in very low opportunity census tracts
 - Similar trend when each domain (social/economic, health/environment, education) was isolated
- Relationship persists across metro areas

Research Applications of COI 2.0

- Like COI 1.0...
 - Measure of neighborhood context that is comprehensive yet easily digestible
 - Highlights inequities within metro areas
 - Can help healthcare systems and policy makers target interventions to achieve better, more equitable outcomes

Research Applications of COI 2.0

- Added ability to make comparisons between metropolitan areas and over time allow us to...
 - Increase scale
 - More completely quantify and track health inequities
 - Illustrate the differences between metropolitan areas and their consequences

Challenges and Opportunities

- Evolving definition of what neighborhoods and populations are at highest risk for poor health outcomes
- Possible applications at the patient level as well as the population level
- Collaboration across cities, academic institutions, and sectors = collective impact

Thank you!

Questions?

mkkrager@cmh.edu

@MollyKrager



Applications in Community Health

Tracie Smith, MPH

Director of Population Health
and Research Analytics
Data Analytics and Reporting

Kelli C. Day, MPH

Director of Operations
Healthy Communities



How we use COI

- To understand data and provide community context
- To target prevention efforts and interventions
- To prioritize and allocate resources

COI & 2016 CHNA

- Chicago Department of Public Health (CDPH) used COI in Healthy Chicago needs assessment
- Lurie Children's followed suit with 2016 Community Health Needs Assessment
 - Focused on health equity
 - Rates of each priority area by COI
- Lurie Children's Health Communities formed

Lurie Children's Healthy Communities

- Lurie Children's mission to improve child health extends well beyond our hospital walls
- Healthy Communities team serves as hub to align and support clinical and community health programs
- 2025 Strategic Vision: Identify, monitor and improve child health outcomes in communities with a low or very low Childhood Opportunity Index



2019 CHNA

- **Community Health Goals**

- Improve health and wellbeing of children and adolescents
- Advance health equity for youth and families

- **Community Health Priorities**

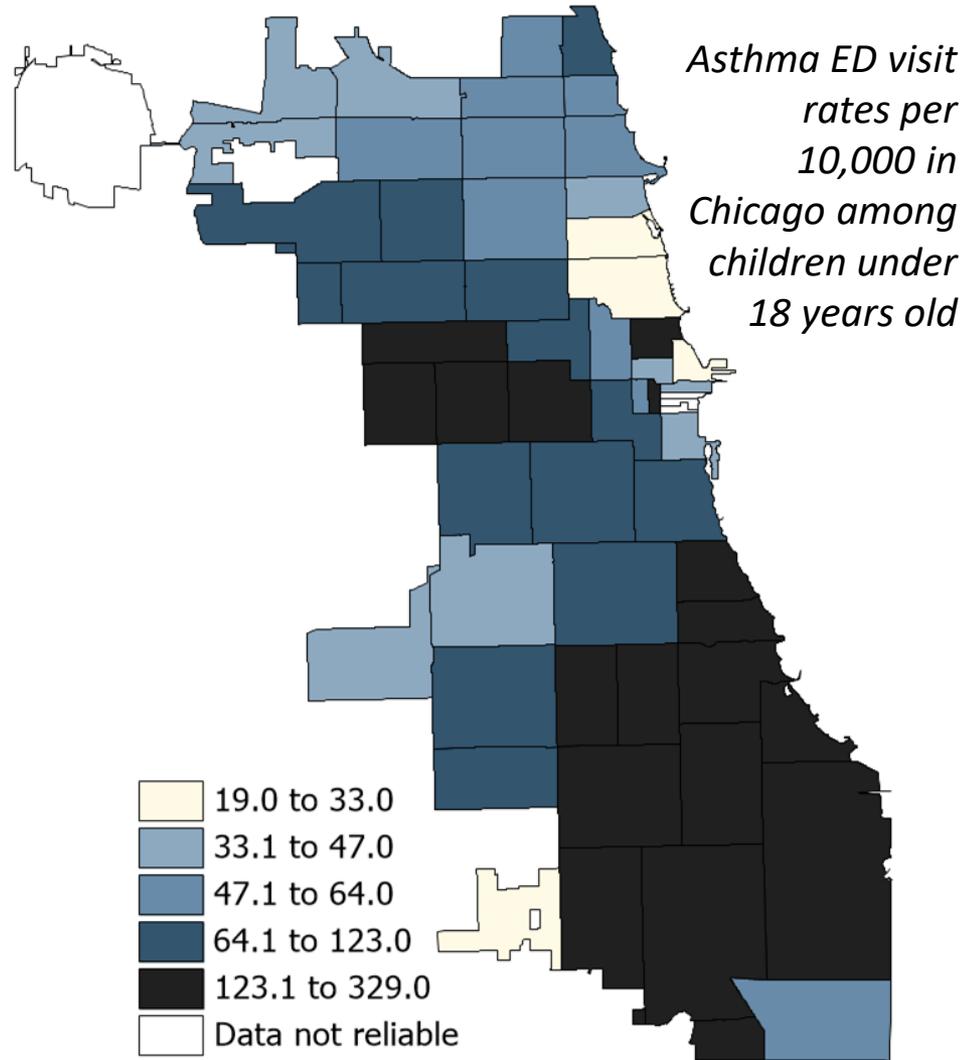
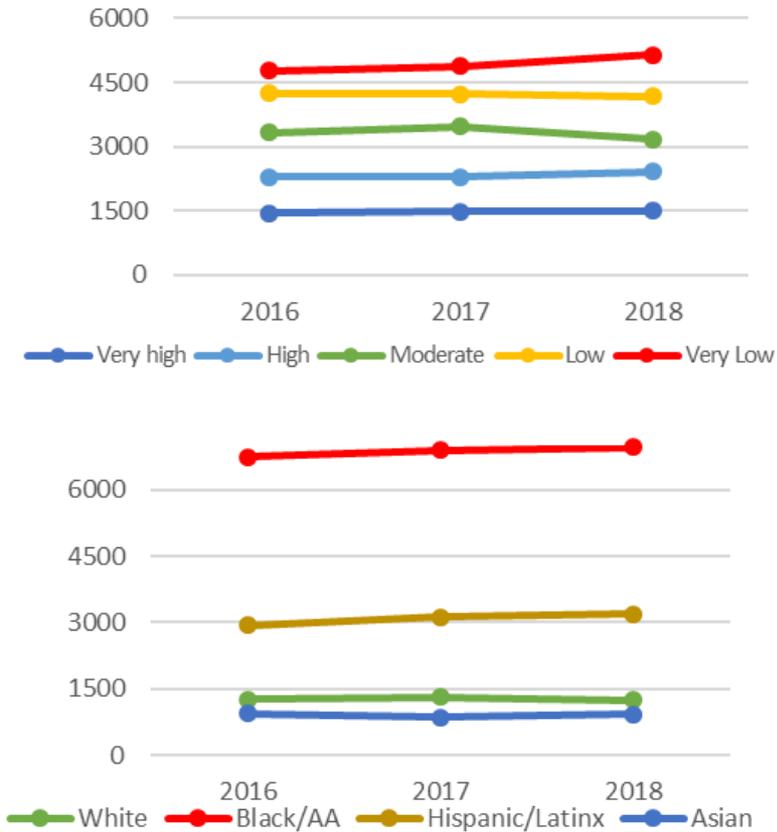
- Social Determinants/ Influencers of Health
- Access to Care
- Chronic Health Conditions
- Mental and Behavioral Health
- Unintentional Injury and Violence



Full report online at
luriechildrens.org/community

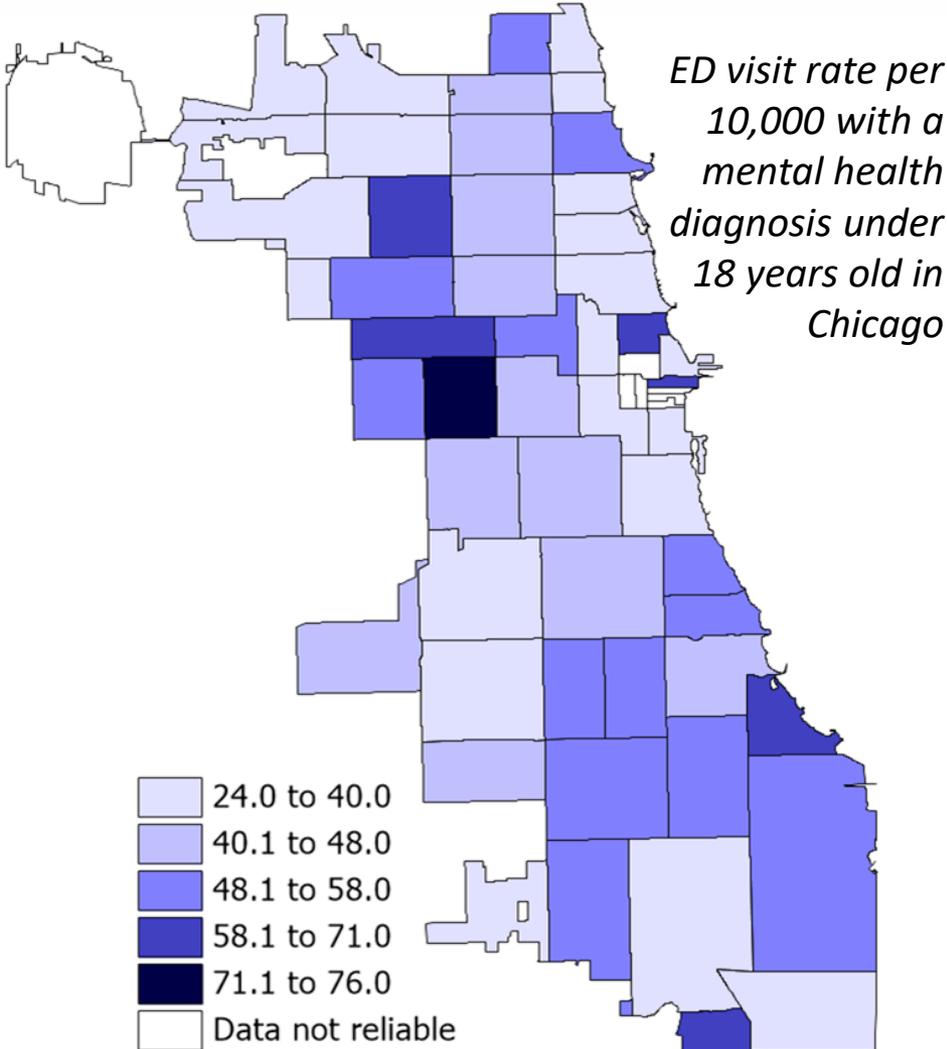
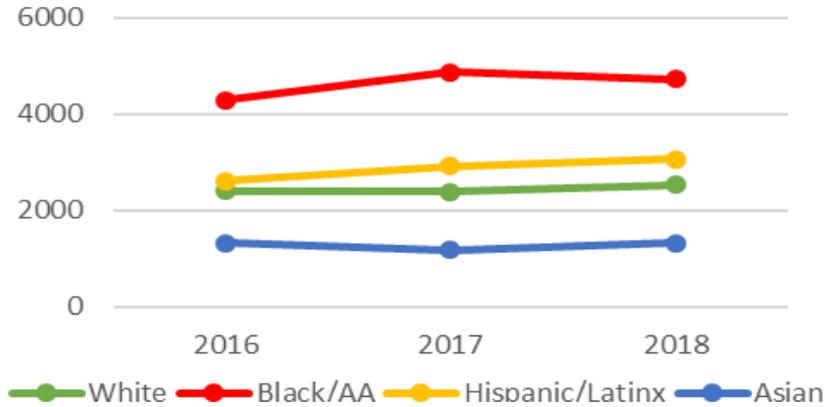
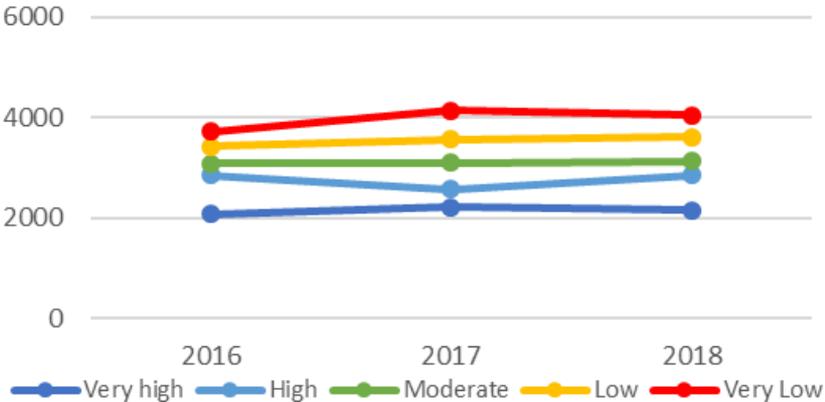
Chronic Health Conditions

ED visits and hospitalization rates per 100,000 with asthma diagnosis 0-19 years old in Chicago by COI (top) and by race/ethnicity (bottom)



Mental and Behavioral Health

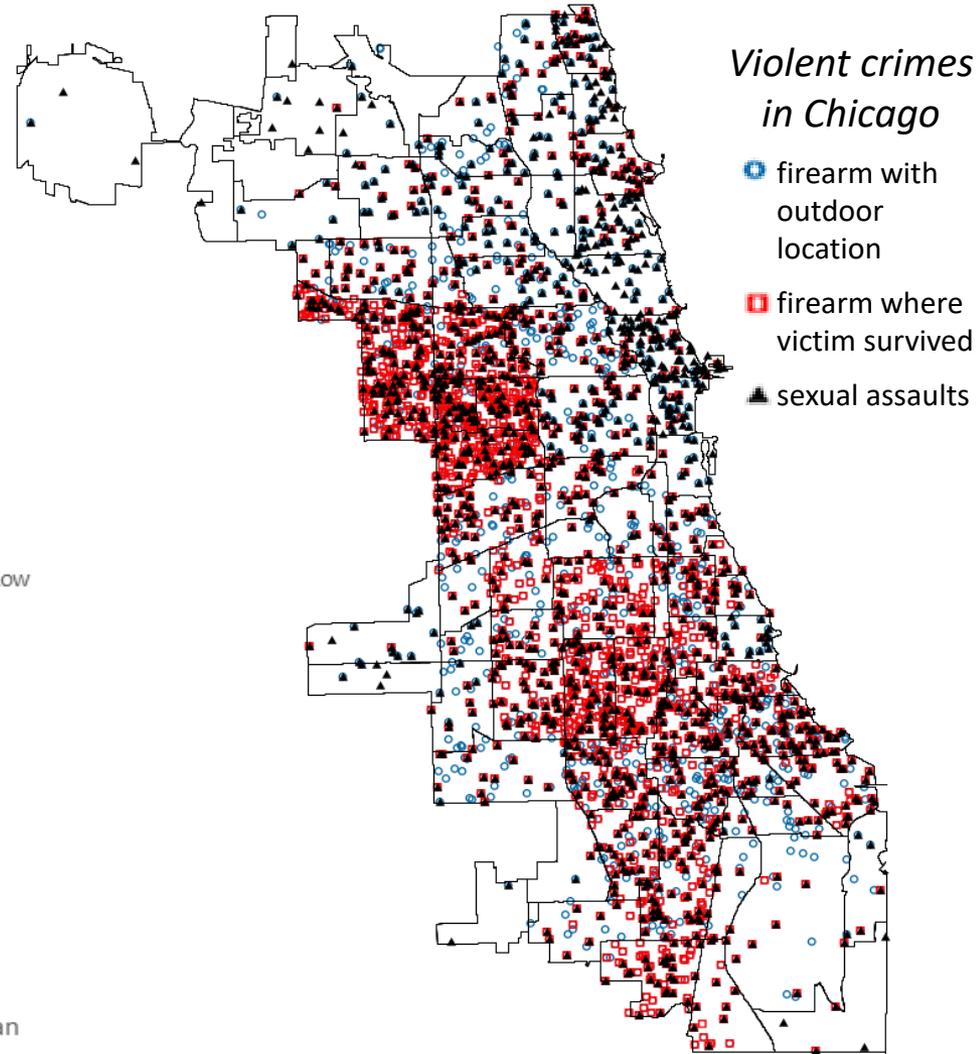
ED visits and hospitalization rates per 100,000 with mental health diagnosis 0-19 years old in Chicago by COI (top) and by race/ethnicity (bottom)



Source: Illinois COMPdata, 2016-2018

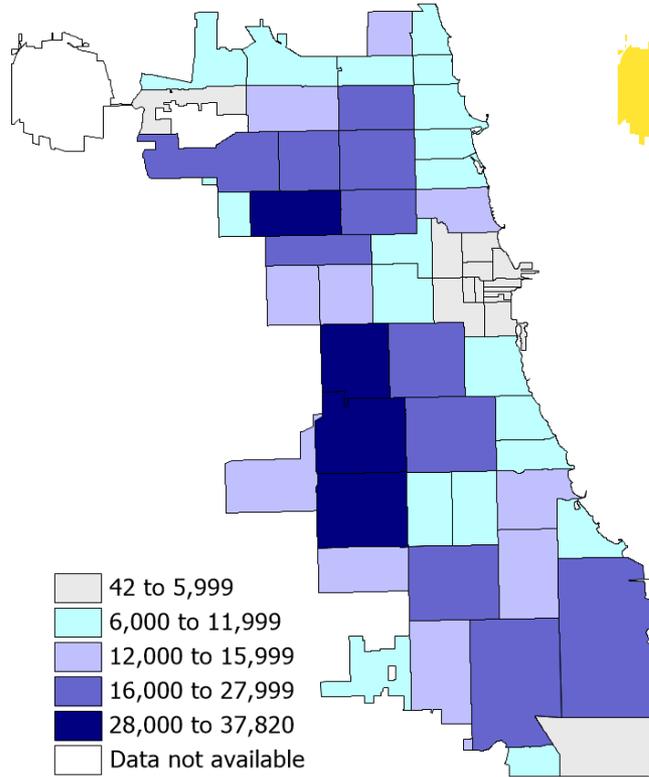
Unintentional Injury and Violence

ED visits and hospitalization rates per 100,000 with violence-related injury diagnosis 0-19 years old in Chicago by COI (top) and by race/ethnicity (bottom)

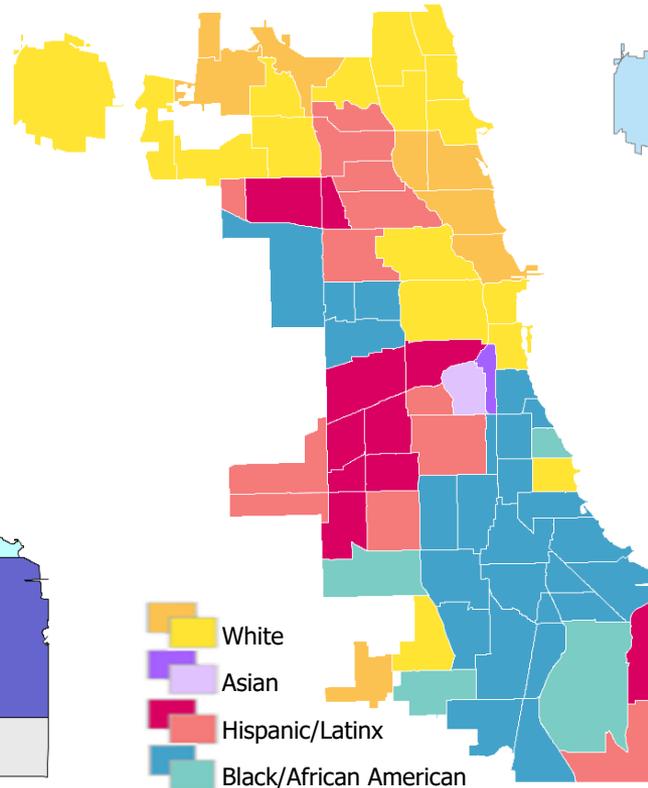


Child Population, Race/Ethnicity and Child Opportunity Index

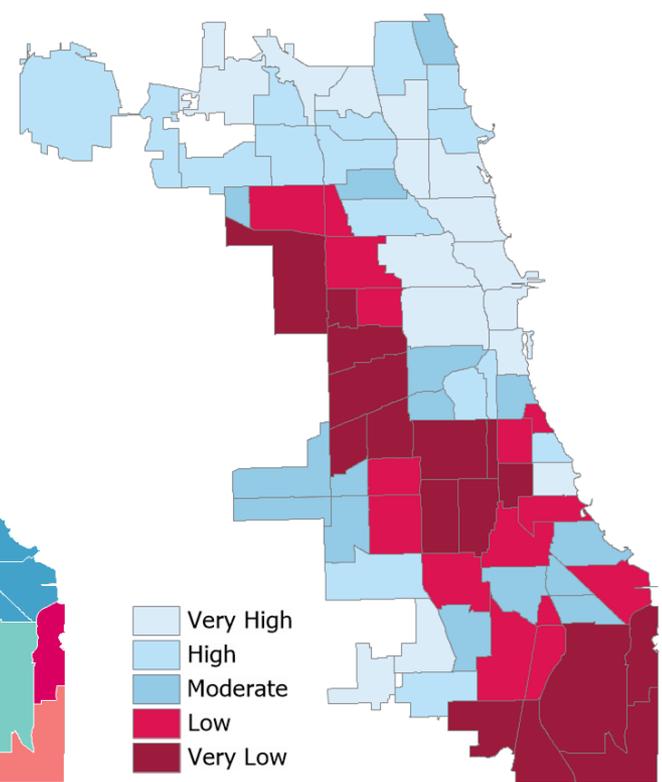
Pediatric population density, Chicago, 0-19 years old



Predominant racial and ethnic groups in Chicago by community area



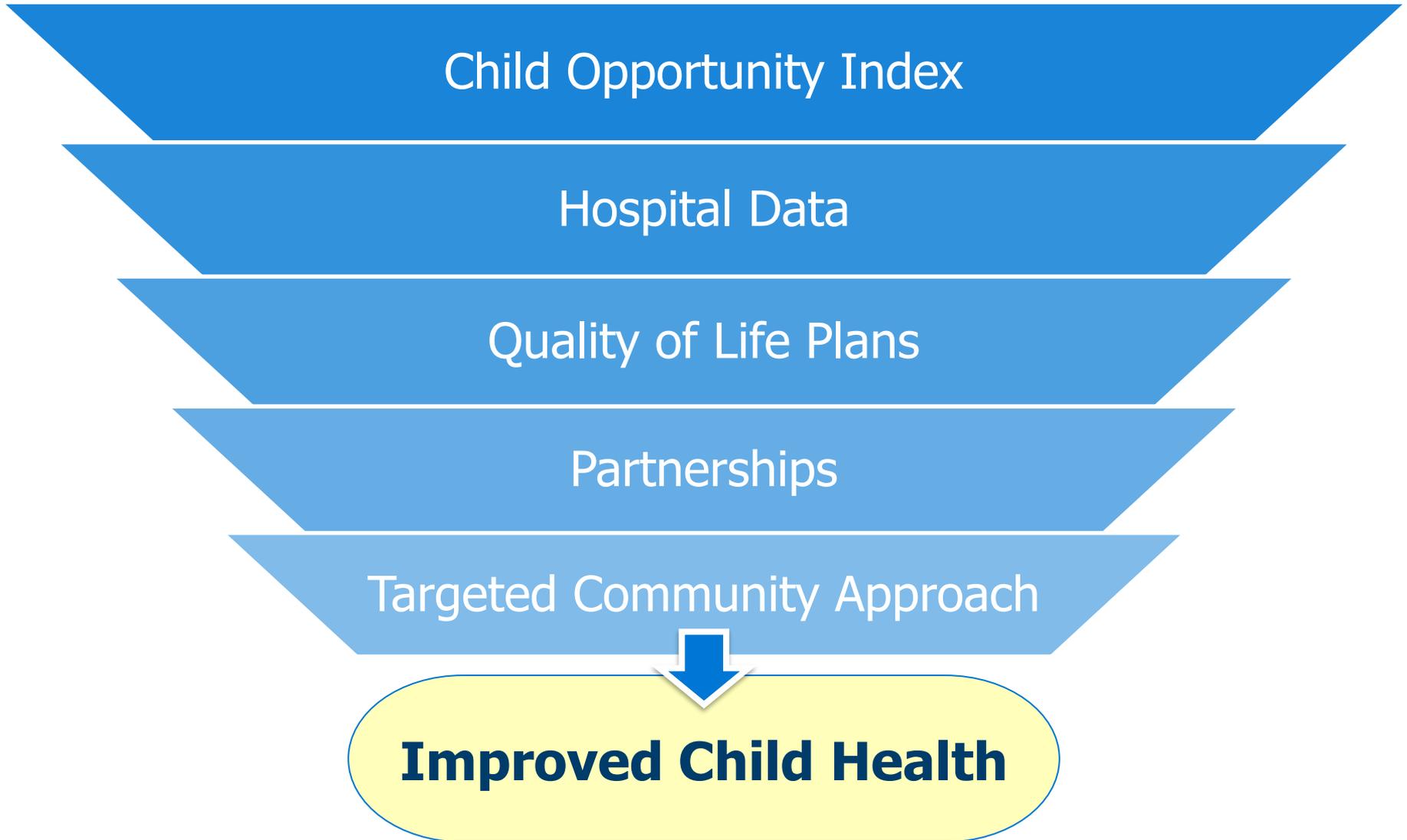
Child Opportunity Index (COI) by Chicago community area



Neighborhood-Based Initiative (NBI)

- **Goal:** Move the needle on child health
- **Objective:** Partner with community leaders and residents in one Chicago neighborhood intensively to address issues impacting child health in a comprehensive manner
- **Challenge:** Which community(ities) do we target?

Data & Collaboration Model

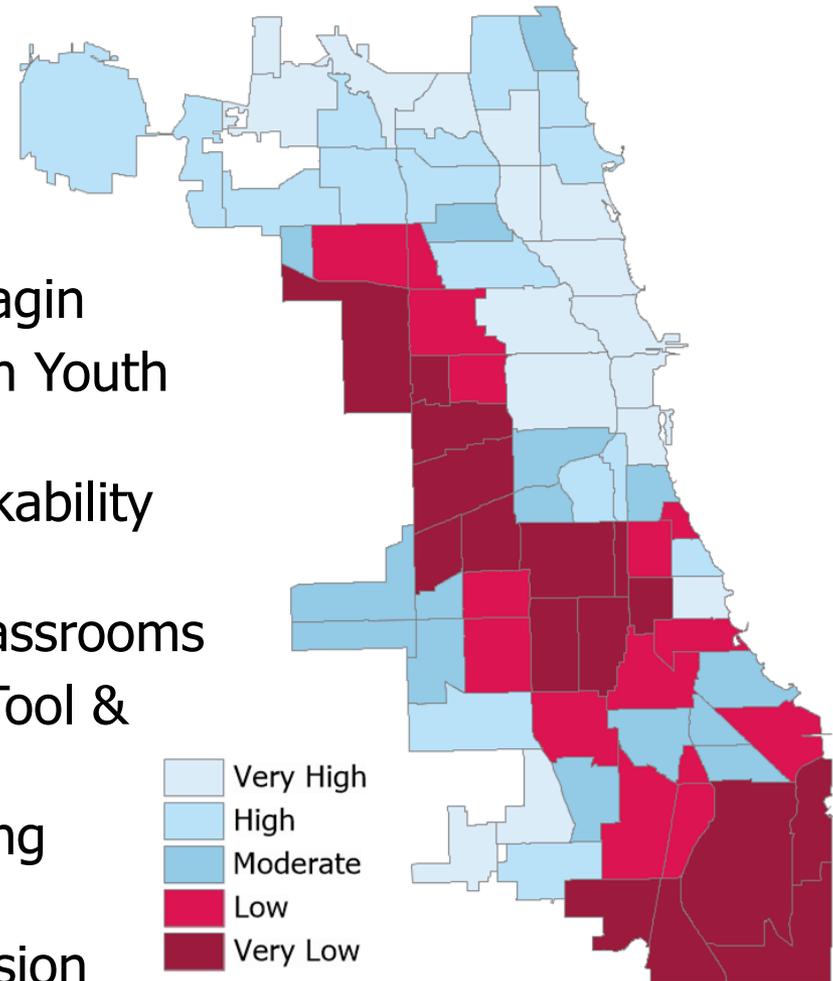


NBI to InCK

- Launched in 2019, includes programming and partnerships focused on a variety of child health issues and initiatives in four specific areas:
 - Healthcare
 - Health promotion and education
 - Advocacy
 - Evaluation
- Integrated Care for Kids (InCK) – December 2019
 - One of only eight federal innovation grants from the Center for Medicare and Medicaid Services
 - Develop an alternative payment model that connects clinical and community services in the Belmont Cragin neighborhood

Community Health Grants

- Funded 28 projects
 - Addressing ACEs & Expanding Positive Emotion Interventions to Chicago's South and West
 - Grief and Loss Groups in Belmont Cragin
 - Bilingual Health Education focused on Youth Substance Use & Sexual Health
 - Enhancements to Neighborhood Walkability and Accessibility Assessment Tool
 - Trauma Informed Early Childhood Classrooms
 - Psychosocial Assessment Screening Tool & Trainings
 - Buckle Up Program – car seats training and distribution
 - Juvenile Justice Collaborative – diversion program for justice-involved youth



Clinically Integrated Network- SDOH

- Payor requiring a plan to address Social Determinants of Health in the network
- Geocode member addresses and assign COI 2.0
- Report quality measures by COI

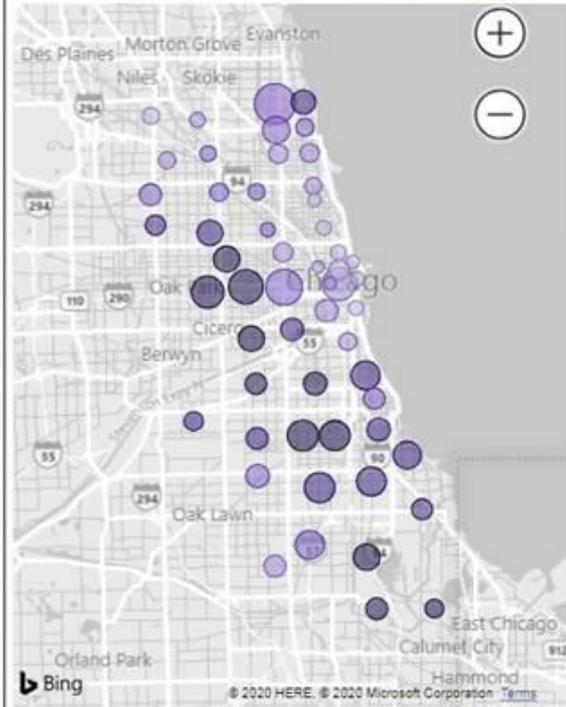
COVID Tracking

COVID-19 Rate and Child Opportunity Index

Date Last Refreshed: 4/19/2020

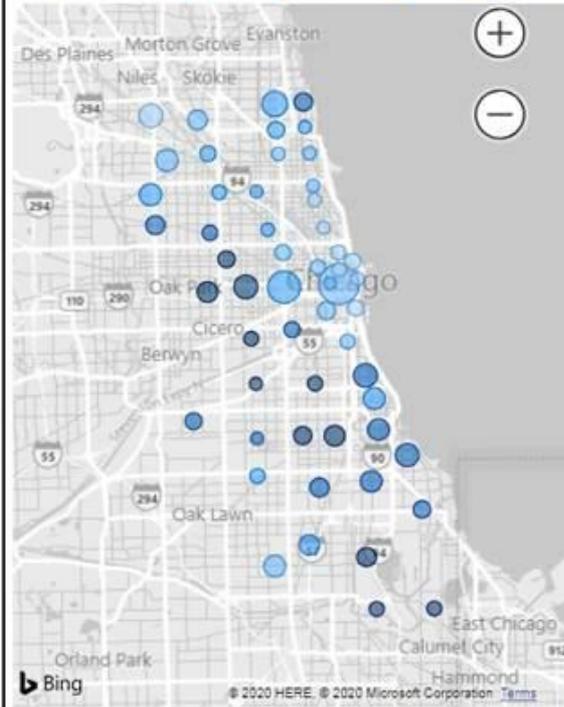
COVID-19 case rate per 1000 by zip code and Child Opportunity Index (COI)

COI ● Very High ● High ● Moderate ● Low ● Very Low



Testing rate per 1000 by zip code and Child Opportunity Index (COI)

COI ● Very High ● High ● Moderate ● Low ● Very Low



Crude rate of COVID-19 confirmed cases* for Chicago zip codes by Child Opportunity Index

In order to get accurate rates, please select only one day:

Cases as of
4/19/20

Zip Code
All

zip code	COI	Cases as of	COVID cases	Rate per 1,000	Testing rate per 1,000	Deaths
60645	Moderate	4/19/20	468	9.80	27.91	N/A
60612	Moderate	4/19/20	295	8.60	35.62	N/A
60624	Very Low	4/19/20	292	8.08	25.61	N/A
60606	High	4/19/20	24	7.74	45.79	N/A
60644	Very Low	4/19/20	357	7.48	21.73	N/A
60636	Very Low	4/19/20	230	7.14	18.72	N/A
60620	Low	4/19/20	475	6.98	19.99	N/A
60621	Very Low	4/19/20	202	6.96	22.04	N/A
60619	Low	4/19/20	410	6.69	22.76	N/A
60653	Low	4/19/20	210	6.57	25.68	N/A

*Data represent confirmed cases of COVID-19 and do not represent total burden of disease. Larger bubbles represent higher rates in the zip code. Zip code is zip code of residence, which may not be the location of exposure.

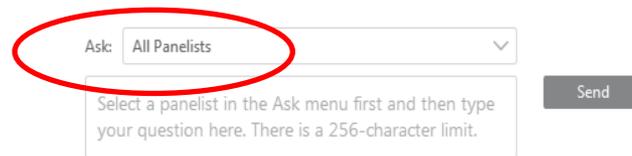
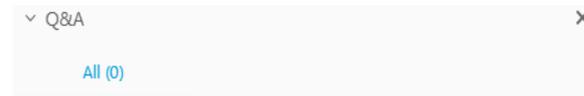
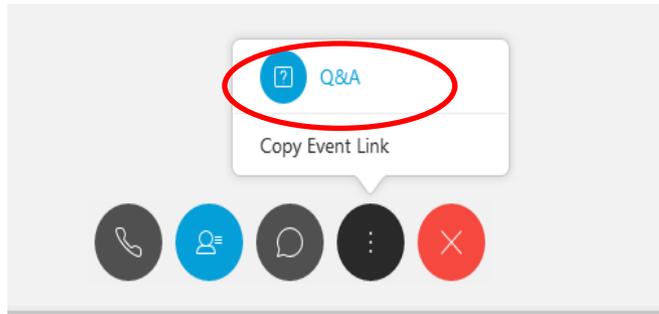
Data source: Illinois Department of Public Health (<http://www.dph.illinois.gov/covid19/covid19-statistics>)

Key Takeaways

- Presenting clinical and public health data by COI can highlight geographic disparities in community health needs assessments
- As hospitals and health systems focus more on social determinants/influencers of health, COI is an important proxy to provide context for child and adolescents health measures
- Many opportunities for integrating COI into strategic planning
- Tool to integrate into emerging health issues and response

Discussion

Have a question? Use the Q&A feature to ask our panelists!





Creating Health



Learn from your professional peers about value-based care, community health, and behavioral health to support population health strategies.

[Childrenshospitals.org/populationhealth](https://childrenshospitals.org/populationhealth)

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- It's brief!
- When you exit the webinar, the survey will launch on your screen.
- Please take a few minutes to give us feedback.



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