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Dolores Acevedo-Garcia, Nancy McArdle, Erin F. Hardy, Unda Ioana Crisan, Bethany Romano, David Norris, Mikyung Baek and Jason Reece

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By Dolores Acevedo-Garcia, Nancy McArdle, Erin F. Hardy, Unda Ioana Crisan, Bethany Romano, David Norris, Mikyung Baek, and Jason Reece

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# The Child Opportunity Index: Improving Collaboration Between Community Development And Public Health

**Dolores Acevedo-Garcia** (dacevedo@brandeis.edu) is the Samuel F. and Rose B. Gingold Professor of Human Development and Social Policy and director of the Institute for Child, Youth, and Family Policy at the Heller School for Social Policy and Management, Brandeis University, in Waltham, Massachusetts.

**Nancy McArdle** is a senior research consultant at the Heller School for Social Policy and Management, Brandeis University.

**Erin F. Hardy** is research director of diversitydatakids.org and a fellow at the Heller School for Social Policy and Management, Brandeis University.

**Unda Ioana Crisan** is a research associate at the Heller School for Social Policy and Management, Brandeis University.

**Bethany Romano** is senior department coordinator for the Institute for Child, Youth, and Family Policy at the Heller School for Social Policy and Management, Brandeis University.

**David Norris** is a senior researcher at the Kirwan Institute for the Study of Race and Ethnicity, Ohio State University, in Columbus.

**Mikyung Baek** is a research and technical associate at the Kirwan Institute for the Study of Race and Ethnicity, Ohio State University.

**ABSTRACT** Improving neighborhood environments for children through community development and other interventions may help improve children's health and reduce inequities in health. A first step is to develop a population-level surveillance system of children's neighborhood environments. This article presents the newly developed Child Opportunity Index for the 100 largest US metropolitan areas. The index examines the extent of racial/ethnic inequity in the distribution of children across levels of neighborhood opportunity. We found that high concentrations of black and Hispanic children in the lowest-opportunity neighborhoods are pervasive across US metropolitan areas. We also found that 40 percent of black and 32 percent of Hispanic children live in very low-opportunity neighborhoods within their metropolitan area, compared to 9 percent of white children. This inequity is greater in some metropolitan areas, especially those with high levels of residential segregation. The Child Opportunity Index provides perspectives on child opportunity at the neighborhood and regional levels and can inform place-based community development interventions and non-place-based interventions that address inequities across a region. The index can also be used to meet new community data reporting requirements under the Affordable Care Act.

Socioeconomic factors and the environments where children live, learn, and play—that is, their homes, neighborhoods, and schools—affect a variety of important child health outcomes, such as birthweight, mental health, and language development.<sup>1–4</sup> Residential segregation, a factor associated with racial/ethnic inequities in neighborhood environments, may help explain persistent racial/ethnic inequities in child health.<sup>5–10</sup>

Community development and other interventions to improve neighborhood environments may help reduce child health inequities. However, most of the research on the places where

children live and children's health has examined a single attribute of place—neighborhood poverty—and has ignored information about the broader set of neighborhood-based opportunities that may matter for children's health.

This article presents the newly developed Child Opportunity Index for the 100 largest US metropolitan areas. The index fills information gaps by offering a population-level surveillance system of child *neighborhood opportunity*, which we define as neighborhood-based conditions and resources conducive to healthy child development.<sup>11–16</sup> We analyze the extent of racial/ethnic inequities in child neighborhood opportunity and show how the index provides perspec-

tives on children's opportunity at the neighborhood and the metropolitan area levels. We also discuss how health policy makers can use the index to identify and address community needs and monitor inequities across regions.

## Community Development And Indicators Of Neighborhood Environment

By design, community development initiatives focus on neighborhoods that tend to be highly economically disadvantaged and disproportionately inhabited by members of racial/ethnic minority groups. High levels of residential segregation create stark racial/ethnic inequities in the distribution of children across levels of neighborhood opportunity.

A large body of research shows that racial/ethnic inequities in neighborhood environments are manifest across metropolitan areas and are driven by regionally defined housing and labor markets. These markets operate differentially along racial/ethnic lines, which results in an unequal geography of opportunity.<sup>7,17-20</sup> To understand inequities in children's neighborhood environments, it is necessary to consider not only highly disadvantaged neighborhoods but also the distribution of opportunity across an entire region, examining where children of different racial/ethnic groups live in relation to opportunity.

Indices that capture the geography of opportunity across regions are gaining acceptance among policy makers and researchers. The Department of Housing and Urban Development (HUD) has incorporated opportunity indices in its Sustainable Communities Initiative<sup>9</sup> and uses a national system of regional and neighborhood indicators to assess regional fair housing opportunities.<sup>21</sup>

Despite increased interest in geography of opportunity indices in the housing field, the public health field focuses primarily on community development efforts in highly disadvantaged neighborhoods without considering the regional distribution of neighborhood conditions. Some experts argue that to address health inequities, both community development and regional strategies to ameliorate segregation are needed.<sup>6,22</sup> The Child Opportunity Index described in this article is a measurement tool that can help guide both place-based and broader regional interventions.

## The Child Opportunity Index

The Child Opportunity Index depicts relative child neighborhood opportunity. The index is

unique for four reasons.

First, it focuses specifically on a broad range of neighborhood factors that are expected to affect healthy child development. Other indices do not describe neighborhood conditions that specifically matter for children. Second, the Child Opportunity Index includes specially collected and developed indicators, such as the proximity to early childhood education centers, which are unavailable elsewhere. Third, it provides comprehensive geographic coverage for the 100 largest US metropolitan areas. Previous indices have been calculated for only one or a few areas. And fourth, the index is available to a wide audience through a user-friendly online interface.<sup>23</sup> This gives policy makers, researchers, and community members easy access to neighborhood opportunity maps for the areas in which they are interested.

Policy makers must decide on criteria to guide the location of neighborhood resources such as affordable housing and early childhood education and health services. The aggregate nature of the overall Child Opportunity Index means that it cannot guide specific funding and locational decisions. However, it can help map existing neighborhood resources across an area and highlight inequities in the geographic distribution of children in relation to opportunity. The overall index can also be used to detect areas of very low opportunity, while the component domain indices can help identify trade-offs between different dimensions of opportunity. Single indicators used in the index offer detailed data to inform policy more specifically.

We first discuss the value of a multidimensional index. Then we describe the construction of the Child Opportunity Index and illustrate the use of its maps with the example of the Milwaukee, Wisconsin, metropolitan area. Next, we incorporate summary measures of the child population distribution by race/ethnicity across neighborhood opportunity levels to estimate population-level racial/ethnic inequities. Finally, we discuss how health policy makers can use the index to better understand the influence of neighborhood environments on health inequities and to strengthen collaboration with leaders of community development and non-place-based programs.

## Study Data And Methods

**THE VALUE OF A MULTIDIMENSIONAL INDEX** As explained above, child neighborhood opportunity describes the context of neighborhood-based conditions and resources that influence healthy child development.<sup>16</sup> Informed by typologies of neighborhood environment in social epidemiol-

**Jason Reece** is director of research at the Kirwan Institute for the Study of Race and Ethnicity, Ohio State University.

## EXHIBIT 1

## Opportunity Indicators In The Child Opportunity Index

## Category/indicator

## EDUCATIONAL OPPORTUNITIES

School poverty rate (eligibility for free or reduced-price lunch)  
 Student math proficiency level  
 Student reading proficiency level  
 Proximity to licensed early childhood education centers  
 Proximity to high-quality early childhood education centers  
 Early childhood education participation  
 High school graduation rate  
 Adult educational attainment

## HEALTH AND ENVIRONMENTAL OPPORTUNITIES

Proximity to health care facilities  
 Retail healthy food environment index  
 Proximity to toxic waste release sites  
 Volume of nearby toxic waste release  
 Proximity to parks and open spaces  
 Housing vacancy rate

## SOCIAL AND ECONOMIC OPPORTUNITIES

Foreclosure rate  
 Poverty rate  
 Unemployment rate  
 Public assistance rate  
 Proximity to employment

**SOURCE** Child Opportunity Index, available from [diversitydatakids.org](http://diversitydatakids.org) (see Note 23 in text).

ogy, the Child Opportunity Index incorporates nineteen individual indicators into three domains of opportunities: educational, health and environmental, and social and economic (Exhibit 1).<sup>24,25</sup> Online Appendix A describes the index's methodology.<sup>26</sup>

The chief assumption underlying a composite index such as the Child Opportunity Index is that multiple neighborhood factors—as opposed to a single factor, such as the neighborhood poverty rate—have a combined influence on children. Some characteristics (for example, poverty and a lack of healthy food choices) have detrimental effects, while others (for example, access to health care and high-quality early childhood education) are advantageous. The Child Opportunity Index reflects the combined contributions of these positive and negative factors.

The index's multidimensionality is an improvement over indices that focus on a single dimension—such as concentrated socioeconomic disadvantage—because children's neighborhood environments are better characterized by a wide range of resources and risk factors. Aggregating this information into an index obscures information about any one specific domain or indicator. However, a multidimensional index has the advantage of summarizing information into a single metric, which is useful in initiating discussions about a substantive is-

sue such as inequitable neighborhood-based opportunity.

For example, the simplicity of the widely used Human Development Index (which also aggregates information across three domains) allows for easy comparison of a country's overall health, education, and standard of living with its per capita gross domestic product. This helps shift attention from purely economic indicators to human development.<sup>27</sup>

**CONSTRUCTION AND USE OF THE INDEX** The Child Opportunity Index and its three component opportunity domains are calculated for all neighborhoods—that is, census tracts—in the 100 largest US metropolitan areas. Each census tract contains about 4,000 people and 1,600 housing units. Each metropolitan area contains a core urban area with a population of more than 50,000 and includes adjacent counties that have a high degree of social and economic integration with the urban core.<sup>28</sup>

All of the Child Opportunity Index indicators have been vetted for their relevance to child development based on empirical literature on neighborhood effects, conceptual frameworks of neighborhood influences on children, or both. The selection of the indicators was also guided by data availability. Certain factors, such as crime rates, were not included because consistent neighborhood-level data were not available across metropolitan areas.

Characterizing opportunity in neighborhoods requires the inclusion of factors that may impede opportunity (such as high neighborhood poverty) or facilitate it (such as the presence of healthy food outlets). These opportunity indicators for a given neighborhood are analyzed relative to the indicators for other neighborhoods in the region through the use of z-scores. This approach allows neighborhood data to be measured based on their relative distance from the averages for the region.

The z-scores for indicators are first averaged to create opportunity indices for each of the three domains, and the domain indices are then averaged to form the final overall opportunity index. The corresponding level of opportunity (very low, low, moderate, high, or very high) is determined by sorting all neighborhoods into quintiles based on their opportunity index scores. In other words, very high-opportunity neighborhoods represent the top 20 percent of opportunity scores within the metropolitan area, and so on.

The Child Opportunity Index is a measure of relative opportunity across all neighborhoods in a metropolitan area. As is the case with other small-area indices, each neighborhood in the Child Opportunity Index is assessed relative to

the distribution of opportunity in the metropolitan area overall.<sup>29</sup>

## Study Results

### INTERPRETING A CHILD OPPORTUNITY INDEX MAP

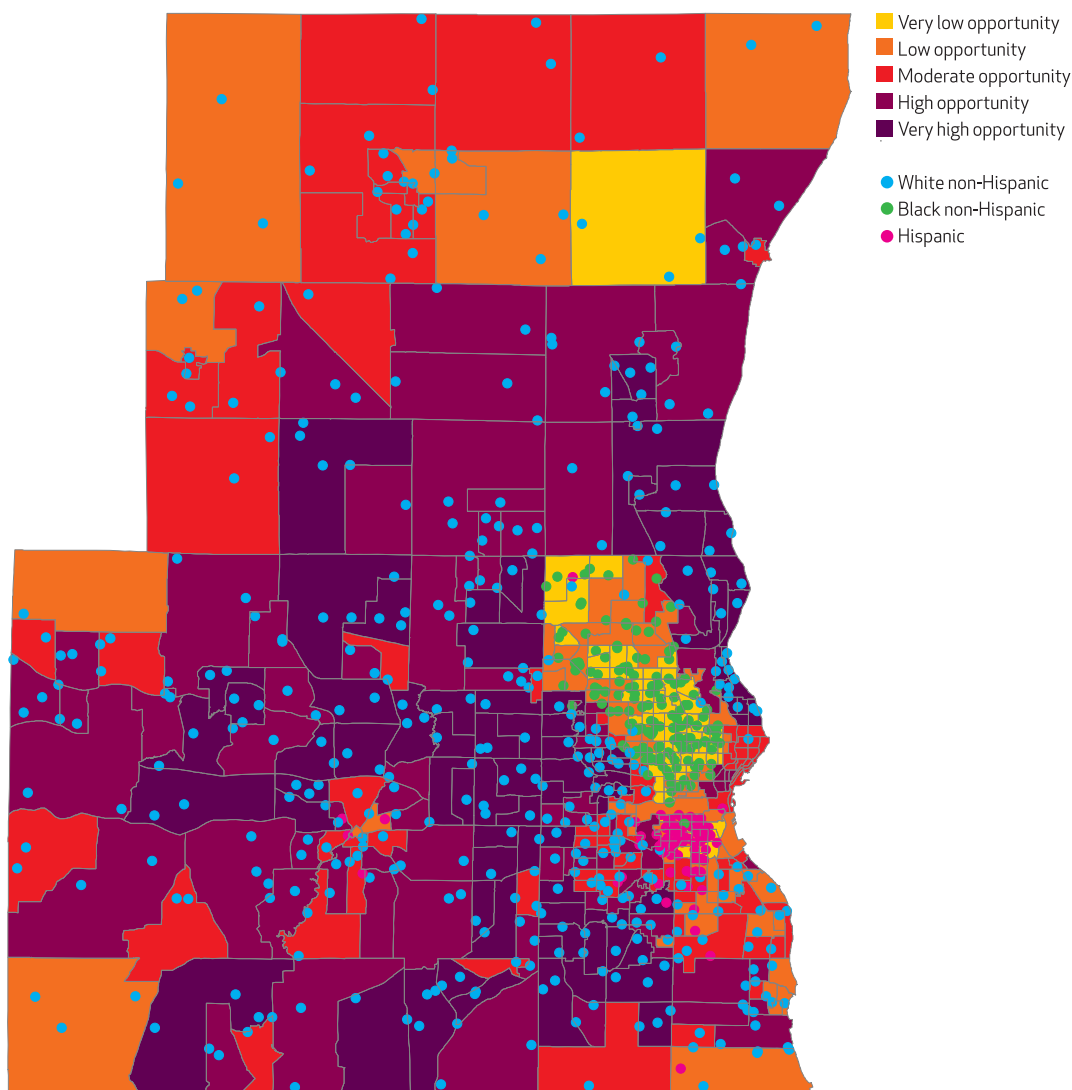
We used Milwaukee as an example to illustrate the use of Child Opportunity Index maps (Exhibit 2) because the Milwaukee metropolitan area has one of the highest levels of racial/ethnic inequity in child neighborhood opportunity among large metropolitan areas. However, inequities in neighborhood opportunity are substantial across all metropolitan areas.

**OVERLAYING THE CHILD POPULATION BY RACE/ETHNICITY** The Child Opportunity Index is race-neutral—that is, it includes no measures of racial/ethnic composition. To understand racial/ethnic inequities in neighborhood environments, we must overlay the child population by race/ethnicity onto the index map for a given metropolitan area. Racial/ethnic groups include Hispanics and non-Hispanic whites, blacks, and Asians or Pacific Islanders.

Exhibit 2 shows that non-Hispanic white children are scattered across the Milwaukee metropolitan area, but very few of them live in low- and very low-opportunity neighborhoods. In

### EXHIBIT 2

Map Of Milwaukee, Wisconsin, Metropolitan Area Child Opportunity Index, With Overlay Of Populations Of White, Black, And Hispanic Children



**SOURCE** Authors' analysis of the Child Opportunity Index, available from [diversitydatakids.org](http://diversitydatakids.org) (see Note 23 in text). **NOTES** One dot represents 500 children. Dot placement is random within census tracts and does not identify the exact location of child populations. White and black children are non-Hispanic. Hispanic children may be of any race.

contrast, non-Hispanic black children and, to a somewhat lesser degree, Hispanic children are concentrated in the lowest-opportunity neighborhoods.<sup>23</sup>

**SUMMARIZING INEQUITIES IN CHILD NEIGHBORHOOD OPPORTUNITY** In addition to maps, we summarize the location of children by race/ethnicity across neighborhoods with different opportunity levels through the use of statistical measures (for an explanation of the measures, see online Appendix B).<sup>26</sup> We present two equity measures.

The first is the proportion of children living in very low-opportunity neighborhoods by race/ethnicity. For example, a figure of 40 percent for Hispanic children on this measure indicates that within a given metropolitan area, 40 percent of Hispanic children live in the 20 percent of neighborhoods with the lowest opportunity scores.

The second equity measure is the ratio of the proportion of minority to white children living in very low-opportunity neighborhoods. For example, a ratio of 2.6 for Hispanic children shows that within a given metropolitan area, the proportion of Hispanic children living in very low-opportunity neighborhoods is 2.6 times larger than the corresponding proportion of white children.

Exhibit 3 shows significant racial/ethnic inequities in the distribution of children across levels of neighborhood opportunity in the 100 largest US metropolitan areas combined. Small proportions of white (9 percent) and Asian or Pacific Islander (12 percent) children live in very low-opportunity neighborhoods, compared to

much larger proportions of Hispanic (32 percent) and black (40 percent) children. In contrast, small proportions of black and Hispanic children, but large proportions of white and Asian or Pacific Islander children, live in very high-opportunity neighborhoods.

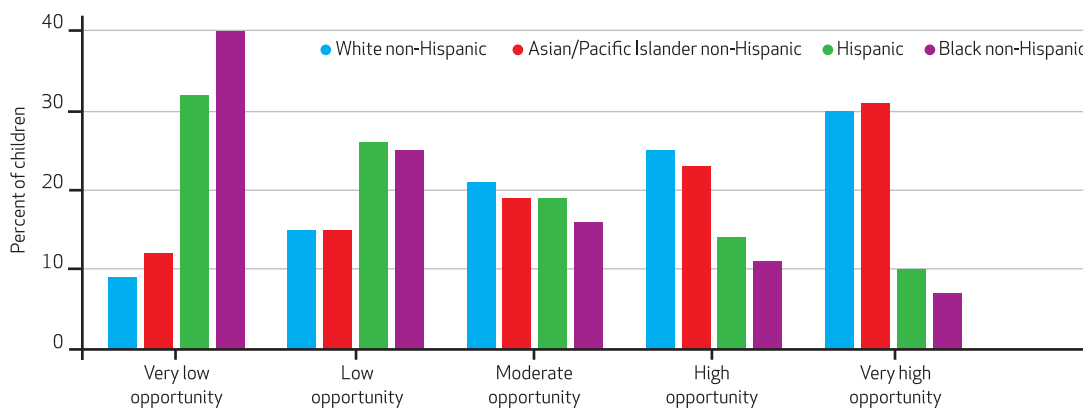
When we examined the index domains—of educational, health and environmental, and social and economic opportunities—separately, we found inequities across all three domains. However, inequities were far more pronounced in socioeconomic and educational opportunities than they were in health and environmental opportunities (for data on inequities for each opportunity domain of the index, see online Appendix B.1).<sup>26</sup> The ratio of black to white children living in neighborhoods with very low socioeconomic opportunity and educational opportunity was 4.9 and 4.3, respectively, but the ratio in neighborhoods with very low health opportunity was 1.5.

Our initial analysis suggested that the higher number of health care facilities and parks in socioeconomically disadvantaged neighborhoods in the urban core explain this result. In turn, this suggests that proximity to these beneficial health resources could help mitigate socioeconomic disadvantage, such as poverty (for data on the distribution of children by race/ethnicity across levels of neighborhood opportunity for poverty, proximity to health care facilities, and proximity to parks and open spaces in the Boston, Massachusetts, and Milwaukee, Wisconsin, metropolitan areas, see online Appendix D).<sup>26</sup>

**METROPOLITAN AREA RANKINGS BY CONCEN-**

**EXHIBIT 3**

**Percentages Of Children, By Race/Ethnicity, Living In Each Neighborhood Opportunity Category In The 100 Largest US Metropolitan Areas Combined**



**SOURCE** Authors' analysis of the Child Opportunity Index, available from diversitydatakids.org (see Note 23 in text). **NOTES** Quintiles of opportunity are displayed in this exhibit; see text for details. For data on the distribution of children by race/ethnicity across opportunity levels for each of the three opportunity domains, see online Appendix B.1 (see Note 26 in text).

**TRATION OF CHILDREN IN VERY LOW-OPPORTUNITY NEIGHBORHOODS** Metropolitan areas vary greatly in the extent of racial/ethnic inequities in child neighborhood opportunity. We ranked the 100 largest US metropolitan areas according to the proportion of children by race/ethnicity in a given area who live in very low-opportunity neighborhoods. Exhibit 4 shows the six worst (and best) metropolitan areas—those with the highest (and lowest) proportion of children in very low-opportunity areas by race/ethnicity—and the corresponding race/ethnicity ratio. Online Appendix C<sup>26</sup> shows the ten worst (and best) metropolitan areas based on child concentration in very low-opportunity (and very high-opportunity) neighborhoods.

It is important to remember that the Child Opportunity Index is a measure of relative neighborhood opportunity within a metropolitan area, not of opportunity between metropolitan areas. Neighborhoods in an economically strong metropolitan area may have higher absolute levels of opportunity than neighborhoods in an economically weak metropolitan area.

For example, very low-opportunity neighborhoods in economically strong Boston (where the median household income for the metropolitan area in 2013 was \$72,907)<sup>30</sup> had a median poverty rate of 20.3 percent.<sup>31</sup> In contrast, in economically weaker Milwaukee (where the median household income was \$51,957),<sup>30</sup> the median poverty rate in very low-opportunity neighborhoods was 40.6 percent—double that of Boston.<sup>31</sup>

It is not appropriate to use the index to compare absolute levels of neighborhood opportunity between metropolitan areas. Nonetheless, it is appropriate and useful to compare the racial/ethnic concentration of children in very low-opportunity neighborhoods between metropolitan areas.

Both Boston and Milwaukee rank among the areas with the highest concentration of black children (about 60 percent) living in very low-opportunity neighborhoods (Exhibit 4). However, black children in Milwaukee are thirty times more concentrated in very low-opportunity neighborhoods than white children (60 percent versus 2 percent; data not shown), com-

#### EXHIBIT 4

**Percentages Of Children, By Race/Ethnicity, Living In Very Low-Opportunity Neighborhoods In The Six Worst And Six Best Of The 100 Largest US Metropolitan Areas**

Six worst metropolitan areas for:	Percent of children living in very low-opportunity neighborhood	Ratio <sup>a</sup>	Six best metropolitan areas for:	Percent of children living in very low-opportunity neighborhood	Ratio <sup>a</sup>
<b>WHITE NON-HISPANIC CHILDREN</b>					
Honolulu, HI	23.0%	— <sup>b</sup>	Chicago, IL-IN-WI	2.0%	— <sup>b</sup>
North Port, FL	21.0	— <sup>b</sup>	Milwaukee, WI	2.0	— <sup>b</sup>
Cape Coral, FL	19.6	— <sup>b</sup>	Jackson, MS	3.5	— <sup>b</sup>
Provo, UT	18.6	— <sup>b</sup>	Cleveland, OH	3.7	— <sup>b</sup>
Palm Bay, FL	18.4	— <sup>b</sup>	Detroit, MI	3.8	— <sup>b</sup>
Knoxville, TN	17.5	— <sup>b</sup>	Oxnard, CA	3.9	— <sup>b</sup>
All six combined	19.2	— <sup>b</sup>	All six combined	2.8	— <sup>b</sup>
<b>BLACK NON-HISPANIC CHILDREN</b>					
Albany, NY	60.3	5.8	McAllen, TX	7.6	0.6
Milwaukee, WI	60.0	30.0	Boise City, ID	9.2	0.8
Omaha, NE-IA	59.7	6.9	Modesto, CA	15.0	1.8
Springfield, MA	58.4	6.9	El Paso, TX	15.5	1.2
Youngstown, OH-PA	58.2	9.4	Albuquerque, NM	16.3	1.3
Boston, MA-NH	57.8	6.4	Ogden, UT	18.0	1.8
All six combined	59.1	7.6	All six combined	14.9	1.4
<b>HISPANIC CHILDREN</b>					
Boston, MA-NH	57.6	6.3	New Orleans, LA	9.9	1.7
Lancaster, PA	57.3	9.1	Baton Rouge, LA	10.3	2.2
Providence, RI-MA	56.4	5.9	Birmingham, AL	11.8	1.7
Allentown, PA-NJ	51.7	4.1	Jacksonville, FL	12.6	1.4
Springfield, MA	50.4	5.9	Columbia, SC	13.2	1.2
Denver, CO	50.0	6.3	Virginia Beach, VA-NC	13.5	1.8
All six combined	53.2	5.9	All six combined	12.1	1.6

**SOURCE** Authors' analysis of the Child Opportunity Index, available from diversitydatakids.org (see Note 23 in text). **NOTE** For an explanation of this analysis, see online Appendix B.2 (see Note 26 in text). <sup>a</sup>Ratio of the percentage of minority children in very low-opportunity neighborhoods to the percentage of non-Hispanic white children in very low-opportunity neighborhoods. <sup>b</sup>Not applicable because non-Hispanic whites are the reference group for the ratio.

40%

**Of black children**

Across large US metropolitan areas, 40 percent of black children and 32 percent of Hispanic children live in very low-opportunity neighborhoods, compared to 9 percent of white children.

pared to six times more concentrated in Boston (58 percent versus 9 percent; data not shown).

**RESIDENTIAL SEGREGATION AND NEIGHBORHOOD OPPORTUNITY** Based on previous research, we hypothesized that inequitable exposure to very low-opportunity neighborhoods (for example, the ratio of the proportion of Hispanic children to white children living in very low-opportunity neighborhoods) would be larger in metropolitan areas with higher levels of residential segregation, compared to areas with lower levels.<sup>10,11,32</sup> We categorized the 100 largest US metropolitan areas as having low, moderate, or high levels of child residential segregation according to the commonly used dissimilarity index, which ranges from 0 (no segregation) to 1 (complete segregation). Values of less than 0.3 are generally considered low, those of 0.3–0.6 moderate, and those of more than 0.6 high.<sup>17</sup>

Exhibit 5 shows that across metropolitan areas, the higher the level of residential segregation, the greater the minority-white inequity in the concentration of children in very low-opportunity neighborhoods. In low-segregation areas, 10.3 percent of white children live in very low-opportunity neighborhoods, compared to 17.5 percent of Hispanic children. Thus, the ratio between Hispanic and white children in these neighborhoods is 1.7. In other words, the proportion of Hispanic children living in very low-opportunity neighborhoods is 70 percent larger than the proportion of white children living in those neighborhoods. The ratio, and thus the inequity, is larger in moderate-segregation areas (3.1) and even larger in high-segregation areas (7.2). The same pattern was apparent when we compared black children to white children.

**Discussion**

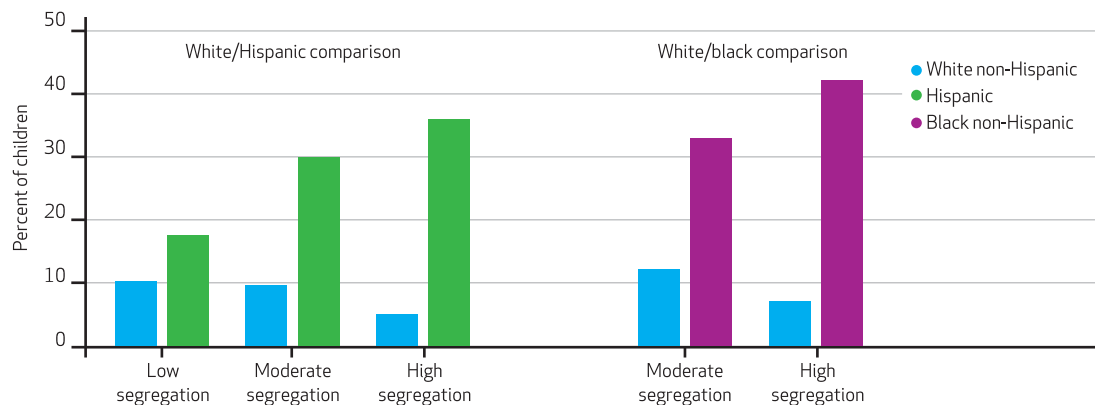
Policy makers increasingly recognize the concept of neighborhood opportunity in the development of housing for low-income families. This is shown in Low Income Housing Tax Credit Qualified Allocation Plans in such states as Massachusetts, Texas, and Louisiana. For example, the Massachusetts Department of Housing and Community Development’s scoring system for reviewing low-income housing development proposals allocates 14 out of 182 points based on the development’s location in a high-opportunity neighborhood. The definition of *opportunity* is multifaceted, including the poverty rate; the strength of the public school system; and access to employment, higher education, and health care. Similarly, HUD has used opportunity indices in its Sustainable Communities Initiative.<sup>9</sup>

Through its web-based mapping system and database, the Child Opportunity Index offers a valuable new tool to the housing and community development fields that is unique both in its focus on children and in its ability to facilitate analyses of racial/ethnic inequities.

**HEALTH APPLICATIONS OF THE INDEX** Among its possible applications, the Child Opportunity Index can be used as a tool to monitor health equity—for example, to comply with new community data requirements under the Affordable Care Act (ACA). Some health departments are beginning to use opportunity indices to address health issues. The Virginia Department of Health has produced a neighborhood-level health opportunity index for the state and has examined its association with health indicators such as life expectancy. The department envisions that the

**EXHIBIT 5**

**Percentages Of Children Living In Very Low-Opportunity Neighborhoods, By Segregation Level Of Metropolitan Area**



**SOURCE** Authors’ analysis of the Child Opportunity Index, available from diversitydatakids.org (see Note 23 in text). **NOTES** For an explanation of this analysis, see online Appendix B.3 (see Note 26 in text). The white/black comparison is not presented for the category “low segregation” because there are not any low-segregation areas for black children.



# The Child Opportunity Index is a valuable tool for identifying neighborhoods that are disadvantaged across multiple dimensions.

index will help identify social determinants of health that are amenable to state and local legislative initiatives.<sup>33</sup>

To show evidence that they provide community benefits, the ACA requires nonprofit hospitals to conduct community health needs assessments and address community needs.<sup>34</sup> The ACA also expands the role of community health centers, including “community-centered health homes” that will identify and address social and environmental conditions that affect community health outcomes.<sup>35</sup>

These new demands on hospitals and community health centers require them to analyze data about their service areas. However, an expert panel convened by the Centers for Disease Control and Prevention (CDC) suggested a larger geographic focus for community data reporting requirements, employing US census, health care utilization, and spatial data to show the geographic distribution and correlation between poverty-related metrics and high rates of preventable conditions. The CDC panel also stressed the importance of analyzing social determinants to focus attention on causes of persistent health problems and to address health inequities.<sup>34</sup>

Indices such as the Child Opportunity Index may help both hospitals and community health centers meet data requirements and understand regional patterns of neighborhood-level social determinants and health outcomes. Additionally, the index can be broken down into specific indicators (such as access to healthy food retail outlets) that may be particularly important for specific health outcomes (such as obesity rates).

Because the index was developed for the 100 largest US metropolitan areas, national data coverage and comparability were important considerations in determining which indicators to include. However, when the index is used for a specific area, it would be desirable to supplement

it with data specific to that region.

For example, the Kirwan Institute for the Study of Race and Ethnicity conducted an analysis of infant mortality “hot spots” in Franklin County, Ohio, that examined the spatial overlap of the hot spots with markers of community-level social determinants of health and community assets.<sup>36</sup> And in Austin, Texas, Children’s Optimal Health and its community partners used neighborhood-level data on social determinants and health to examine geographic and racial/ethnic inequities in obesity, low birthweight, and children’s injuries by motor vehicles.<sup>37</sup>

**IMPLICATIONS FOR IMPROVING CROSS-SECTORAL COLLABORATION** Our analysis of the Child Opportunity Index demonstrates a striking new way to illustrate differences in neighborhood risk and protective factors for children in the United States. The high concentration of black and Hispanic children in the lowest-opportunity neighborhoods is pervasive across all metropolitan areas, and it is more pronounced in areas with higher levels of residential segregation.

Health policy makers increasingly recognize that intersectoral collaborations could result in better neighborhood interventions and policies to improve population health. However, the attention of the public health community is primarily directed toward community development interventions that are aimed at improving conditions in individual neighborhoods and thus cannot address regional patterns of segregation that drive large inequities in neighborhood environment.<sup>6</sup> The Child Opportunity Index identifies specific neighborhoods that are disadvantaged across multiple dimensions and examines patterns of inequity across an entire region.

For example, a fair-housing perspective suggests that concentrating affordable housing in areas that are rich in services for low-income families (such as community health centers) may not maximize other dimensions of opportunity (such as access to high-performing schools) and may exacerbate patterns of racial/ethnic segregation. Furthermore, the suburbanization of poverty demands that all sectors, including health, direct resources to neighborhoods that have not traditionally been associated with poverty.<sup>38</sup>

In addition to using regional data such as those from the Child Opportunity Index, health policy makers should expand their collaborations to include interventions that correct patterns of segregation. For instance, HUD developed a data system to help funding recipients examine and systematically address patterns of residential segregation, racially/ethnically concentrated areas of poverty, and disparities in access to com-

munity assets.<sup>21</sup> Health policy makers could benefit from the use of these data, and they could also gain by collaborating with other professionals who are involved in programs that address segregation.

Place-based initiatives such as community development strive to improve disadvantaged neighborhoods. However, there are also interventions that improve housing opportunities for low-income families in neighborhoods that are already high opportunity. Programs to promote desegregation are limited, but research suggests some promising practices. For instance, an ongoing quasi-experimental evaluation of inclusionary zoning (the use of a local ordinance that can require new housing developments to set aside a percentage of housing units for low- or moderate-income residents) in Montgomery County, Maryland, has shown encouraging effects on educational outcomes.<sup>39</sup>

## Conclusion

Across large metropolitan areas in the United States, 40 percent of black and 32 percent of

Hispanic children live in very low-opportunity neighborhoods within their metropolitan area, compared to 9 percent of white children. This inequity is greater in some metropolitan areas, especially those with high levels of residential segregation. Like other indices, the Child Opportunity Index aggregates information into a single number and thus should not be used to guide investment or locational decisions for specific programs. However, it is a valuable tool for identifying neighborhoods that are disadvantaged across multiple dimensions and that are appropriate sites for community development and other place-based interventions.

The Child Opportunity Index can also help examine and contextualize neighborhood opportunity and health equity across a region, which can inform collaborations between the health sector and programs to improve neighborhood quality, especially for low-income families. Going forward, health policy makers should use the index to expand their tool kit and guide collaborations that consider regional perspectives to complement place-based efforts. ■

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## NOTES

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