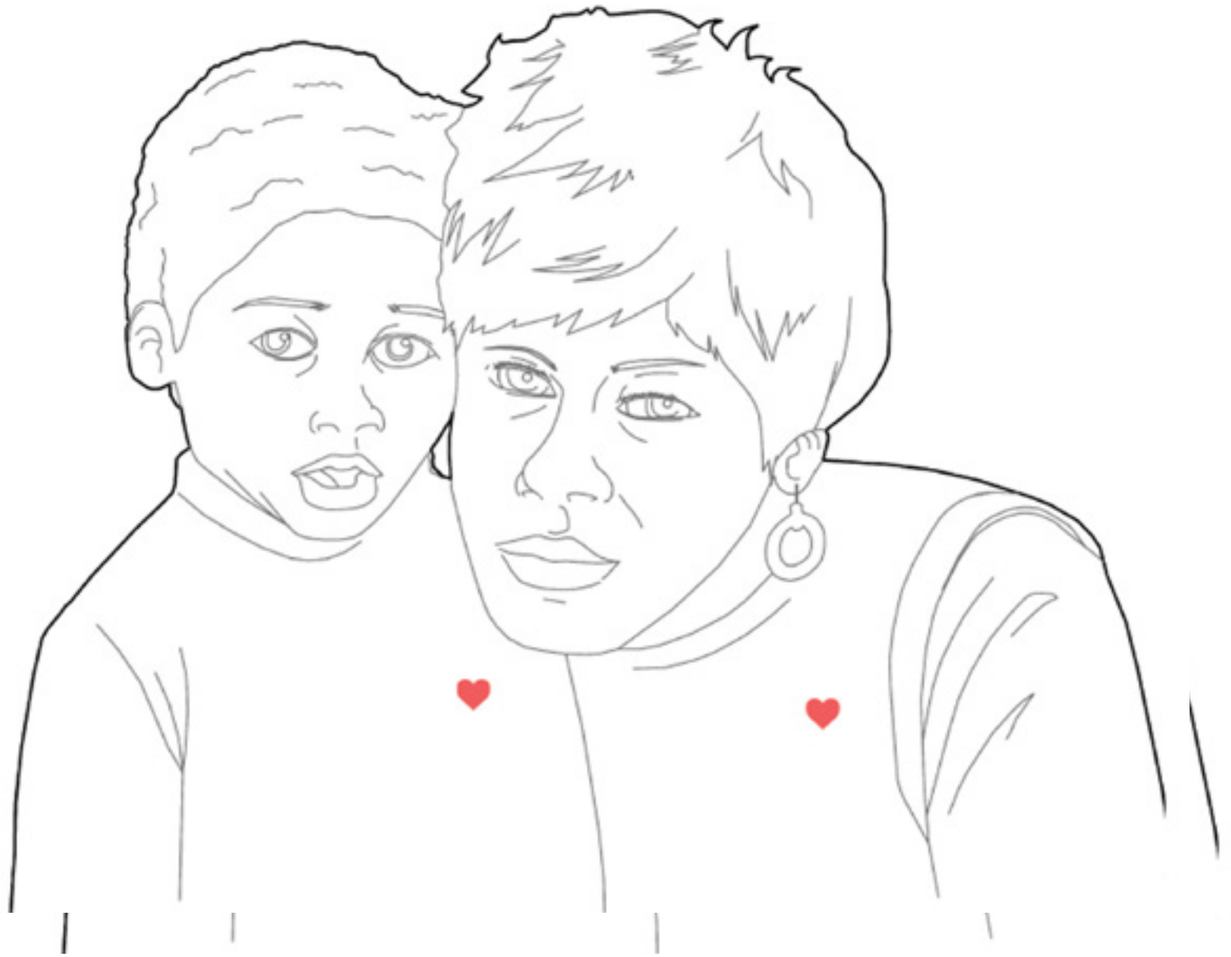
COMMUNITY ACHIEVEMENT RACIAL EQUITY

(C.A.R.E.) FRAMEWORK



Author

R. Taft Cleveland

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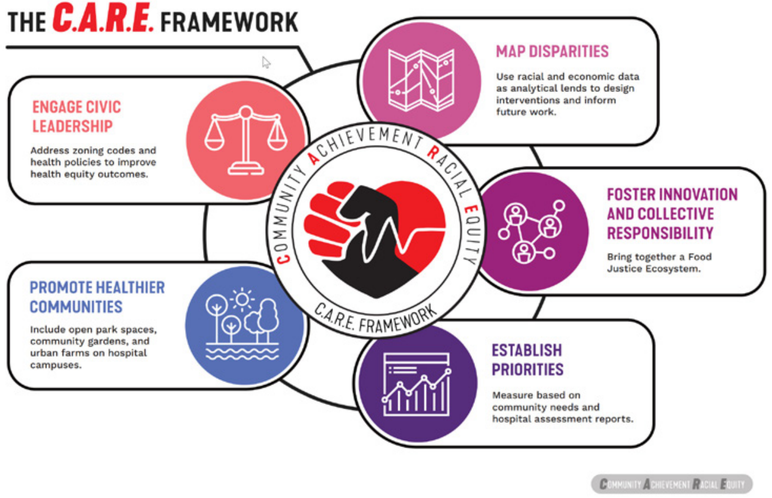
PREFACE

As a child in Detroit, I experienced asthma attacks. My mother and I would leave the neighborhood hospital and go to expensive neighborhood grocery stores that reeked from food spoilage. The other choice was a dollar meal from a fast-food restaurant consisting of a greasy burger and fries accompanied by a high calorie beverage. This is commonplace in poverty-stricken communities.

Millions of poor families are discharged from healthcare facilities and exit those doors hungry, and not 100 feet away they access FAST food chains, gas stations, and liquor and convenient stores that carry products loaded with fat, sugar, salt and other non-nutritious ingredients. These communities are experiencing food apartheid, a term coined by food justice advocate Karen Washington that correlates to a lack of affordable, fresh groceries with perpetual and structural racial injustices, geographic disparities, and economic inequalities. As a result of this, generations of people revolve in and out of hospitals with obesity, diabetes, hypertension, kidney disease, heart disease and cancer.[1]

As a healthcare planner, I personally understand how urban planning and design impacts health equity. I considered this a matter of life and death, and so I designed the Community Achievement Racial Equity framework known as C.A.R.E.

1 Brones, Food Apartheid.



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EXECUTIVE SUMMARY

Health inequity is a matter of life and death! Historically, hospitals in under-served communities are surrounded by social inequalities and food apartheid. For almost two years, the COVID-19 pandemic has exacerbated the barriers to racial health disproportionately amongst the Black community. A Brookings Institution report took a deep dive into how COVID-19 affected Detroit, a predominantly Black city. Not only were Blacks more likely to contract and die from COVID-19, but the COVID-19 spillovers further exposed structurally embedded racial inequities.[2]

An estimated 20% of a person's health status is predicted by one's accessibility into a healthcare environment and the other 80% is determined by what happens in one's life outside of the hospital. Instead of focusing on the typical 20% of clinical care within hospitals, we will radically fuse historically disenfranchised neighborhoods surrounding the healthcare facilities of Detroit's Henry Ford and Sinai Hospitals with the 80% factors and map the existing ecosystem of health and wellness resources within each radius as a means of evaluating and reducing disparity gaps in disadvantaged communities. The 80% determinants consist of socioeconomic issues such as food apartheid and health behaviors.

To balance the 80%, we must engage both public and private sectors to care and service the community with dignity. By underscoring the highest racial disparities in our cities, we will incorporate justice and equity in our practice to vitalize and ensure a sustainable future that empowers the entire community.

The local food environment influences dietary patterns and food choices. The lack of access to healthy food within this environment may result in unhealthy food choices which could lead to obesity, hypertension, diabetes, kidney disease and most cancers.

Evidence suggests these outcomes are the result of limited food choices and the proximity of the overabundance of gas stations, liquor convenient stores and fast-food restaurants to DMC Sinai Grace and Henry Ford Hospital respectively. Research shows there is a link between food insecurity, chronic diseases, transportation options, graduation rates and lack of open spaces.

2 Ray and Gostin, What Are the Health Consequences of Systemic Racism.

As a result, communities surrounding hospitals may have unhealthy food environments, therefore, preventing residents from making healthy food choices and finding themselves back in the hospital for chronic diseases

The C.A.R.E. framework will identify existing conditions; offer recommendations based on my research and engagement efforts; create a food justice ecosystem of stakeholders to develop their own rating systems to close the gap on racial health equity found in apartheid and collaborate with hospital goals and mission to be good neighbors to the community they serve.

The exploration grant highlights the internal and external environments surrounding hospitals that can impact health outcomes for patients striving for healing and wellness. The framework is a tool to monitor health services, empower communities and improve the accountability of service providers and community stakeholders. It will encompass a framework, based on the DMC Sinai Grace and Henry Ford Hospital catchment areas and a 5 minute and 15-minute walkable radius surrounding two Detroit hospitals.

This document seeks to articulate an equitable vision for Detroit's future, and recommends specific actions for reaching that future. The vision resulted from a nine month-long process that drew upon interactions among Detroit residents and civic leaders from both the nonprofit and for-profit sectors.

Together, they formed an ecosystem for my research of experts in nutrition, food advocacy, community leadership of individuals from within Detroit. Their knowledge of civic engagement, nonprofit community work, and key areas such as food apartheid, land use, economic development, and the city itself were of deep value. I also shared my research publicly at the Detroit Food Policy Council annual October meeting and shaped my findings in response to evolving information and community feedback throughout the process.

Using the term "apartheid" focuses my examination on the intersectional root causes that created low-income and low food access areas less than a mile from hospitals, and importantly, creates a pathway towards working for structural change to address why there are higher rates of obesity and diabetes due to systemic limitation to healthy affordable food.[3]

To begin to root out and address all the unjust practices and structures within racial health disparities, it is my desire to focus first on the issue of food apartheid and system disparities in food access and availability.

3 Seligman, Laraia, and Kushel, Food Insecurity Is Associated with Chronic Disease among Low-Income NHANES Participants.

03
METHODOLOGY

INTRODUCTION

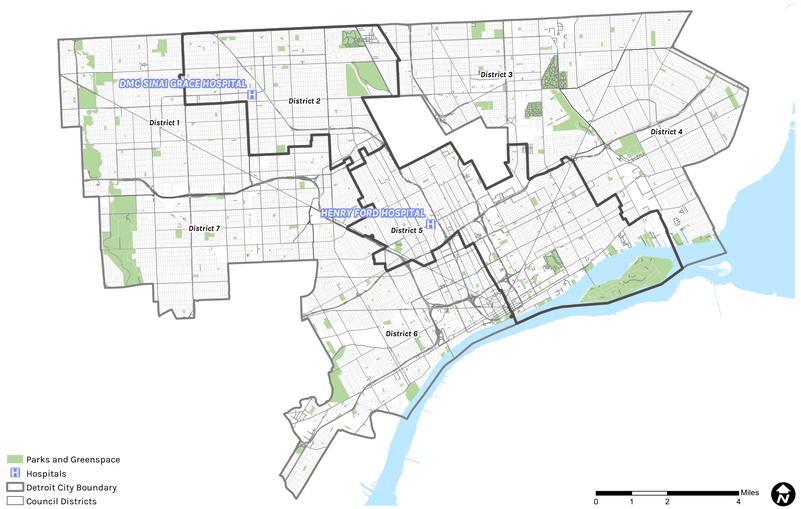
As a healthcare planner focused on health environments and urban planning, I experienced what under-resourced communities suffer from food apartheid and disparities in access to healthcare. I designed the Community Achievement Racial Equity framework (C.A.R.E.) was designed specifically to combat food apartheid and end racism in healthcare.

The C.A.R.E. framework identifies existing site conditions based on a 15-minute walkable radius around a hospital, offers recommendations based on research and engagement efforts, creates a food justice ecosystem of stakeholders to develop their own rating systems, and identifies criteria like access to healthy food, public transportation, and healthy and safe recreation. The vision is to break down socio-economic barriers, create a healthier community, and provide recommendations for change to hospitals, their facilities and the surrounding community.

This framework has four goals. The first goal is to gather current and viable statistics and indicators on various healthcare issues in the service area. The second goal is to obtain an understanding of opinions and perceptions of community healthcare needs from residents, community stakeholders, academia, and nonprofits. The third goal is to identify food apartheid, food oases and racial disparities surrounding two major hospitals in Detroit, DMC Sinai and Henry Ford Hospital, using GIS mapping. The fourth goal is to share this data with a food justice ecosystem composed of city leadership, advocacy groups, policy makers, community residents and stakeholders, urban planners, economic developers, and hospitals.

In addition, the C.A.R.E. Framework will map disparities surrounding hospitals, foster innovation and collective responsibility within the ecosystem, establish priorities based on the needs of the community, promote healthier communities and engage civic leadership to improve health equity outcomes. (See page 4)

As a result, this collaboration will be equipped to develop equitable strategies that will close the racial disparity gaps found in food apartheid and identify the kind of good neighbor a hospital should be.



Detroit Base Map: Courtesy of Caeley Hynes

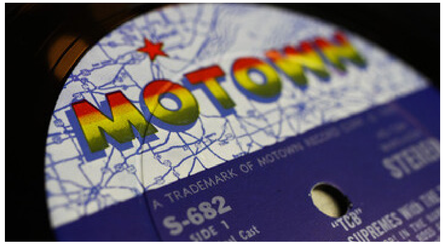
I AM DETROIT

We honor the land and recognize the indigenous people as traditional stewards of this land. Detroit is located on native land of indigenous tribes: Anishinabe, Haudenosauneega, Miami, Odawa, Peoria and Potawatomi.

Detroit, Michigan is the largest city by size and population in the state of Michigan. With a population of 637,601, it is the 23rd most populous city in the United States.

The D, home of Joe Louis, the Motown Sound or Motown, Techno music and the Motor City, the motor capital of the world. Detroit is regarded as a major cultural center and known for its international contributions to music, art, architecture and design, resilience, creativity, hard work and ingenuity with a deep rich culture, a rich history and beautiful neighborhoods.

The City of Detroit anchors the second-largest regional economy in the Midwest, behind Chicago. It has 142 sq miles. That is large enough to fit Boston, Manhattan and San Francisco within its borders. (See Detroit Base Map)



REDLINING

The federal government redlined Detroit on June 1, 1939. According to the government Underwriting Manual, the redlining intentionally by design targeted Black residents, deeming their neighborhoods as "hazardous" to investment because they had Black residents or were located near Black residents.

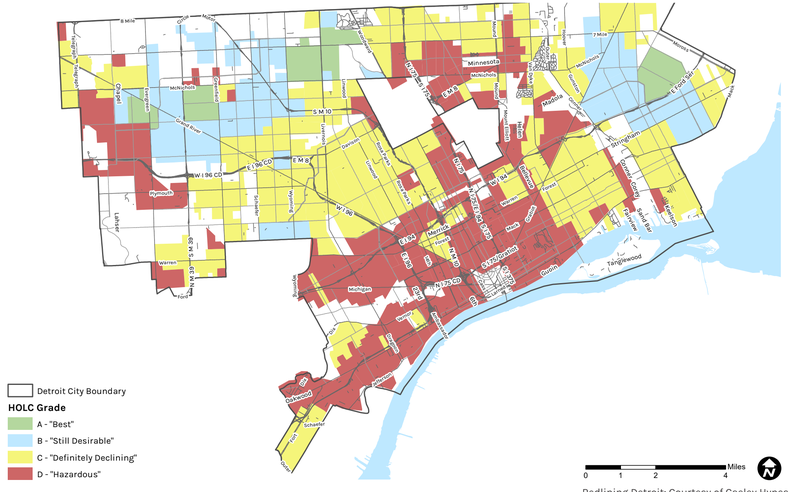
Under the New Deal post-depression era, the Home Owner's Loan Corporation (HOLC) was created to jump start the economy and provide loans. However, the loans were purposely withheld from African Americans. This allowed the HOLC to create a shading system, known as "redlining", where neighborhoods were graded with a combination grade and color scale. Communities with a heavy concentration of Blacks received a 'Grade D' ranking and were effectively colored red for hazardous. The redlining map (see map) overlays the original HOLC boundaries on Detroit's current District Map.

Detroit is still one of the most racially segregated cities in the country. While black people moved to Detroit from the 40s through the 70s to escape Jim Crow laws elsewhere, they encountered exclusion from white areas, sometimes through economic discrimination, redlining including restricted covenants or even violence. The traditional boundary between white and black regions of the city is Eight Mile Road.

Even now, the racist policies of the past including redlining continues to produce high levels of social vulnerability throughout Detroit neighborhoods resulting in housing instability, wealth inequality and food insecurity that produce health inequities.[4]

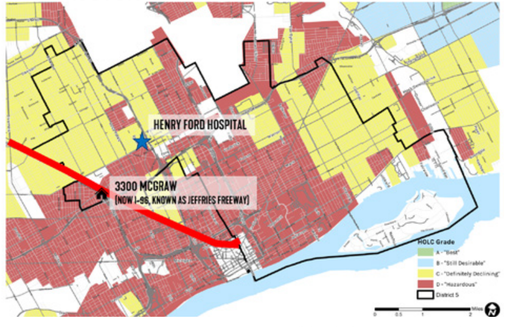
The redlining mapping also illustrates a potential increase in social vulnerability to these neighborhoods due to foreclosures, educational disparities and food apartheid.

4 McClure et al., The Legacy of Redlining in the Effect of Foreclosures on Detroit Residents' Self-Rated Health.



Redlining Detroit: Courtesy of Caeley Hynes

REDLINING BY DISTRICT

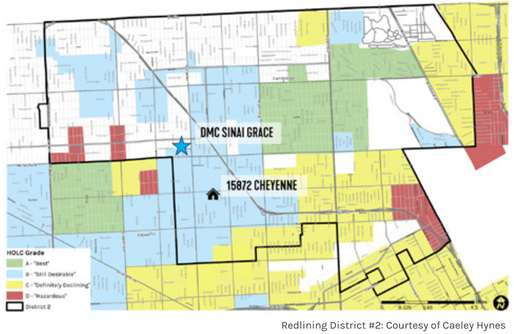


Redlining District #5: Courtesy of Caeley Hynes

Paradise Valley, known as Black Bottom, was overcrowded because Black families were not allowed to live or buy homes anywhere else. This overcrowding often led to disease and concentration of poverty. Families like mine migrated to the Westside neighborhood to get away from the overcrowding.

A decade later, my mom grew up on 3300 McGraw in the Westside neighborhood. She experienced the racist redlining practices in Detroit when she watched in horror the construction of the Jeffries Freeway that displaced them and destroyed their home and the entire fabric of the Black Community. Paradise Valley (Black Bottom), a predominately Black neighborhood targeted for urban renewal was demolished for redevelopment in the late 1950s to early 1960s and replaced with Chrysler Freeway and the Lafayette Park residential district designed by famous architect Mies Van der Rohe. (Redlining District #5)

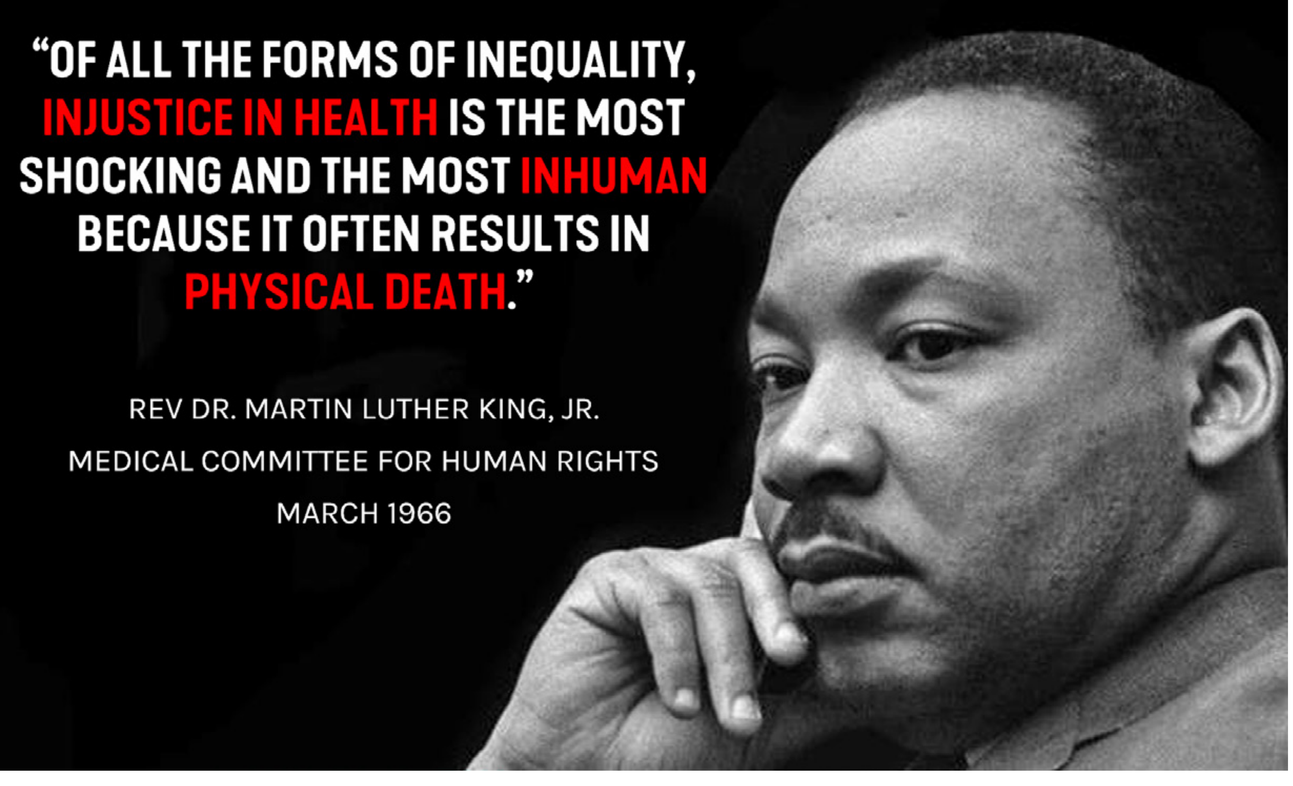
During this time Black families were not admitted to Henry Ford Hospital. One of the few hospitals that accepted Black families was Contagious Hospital, that focused on treating contagious diseases and prevention. Contagious Hospital was renamed to Herman Kiefer.



Redlining District #2: Courtesy of Caeley Hynes

The 1939 Detroit redlining map shows vacant land, that 20 years later would become Mount Carmel Mercy Hospital and its surrounding neighborhoods with racially restrictive covenants. In the 1960s, Mount Carmel Mercy Hospital was constructed on the vacant land to serve Northwest Detroit. Mount Carmel merged with Grace Hospital, a neighborhood hospital and then consolidated with Sinai Hospital, becoming DMC Sinai-Grace. (Redlining District #2)

Four generations later, these findings support historical influence of structural discrimination based on current neighborhood characteristics, demographics and health equity. The redlining mapping also illustrates a potential increase in vulnerability to these neighborhoods due to foreclosures, community disinvestment, segregated schools and food apartheid.



A DAY IN THE LIFE OF A FOOD APARTHEID COMMUNITY

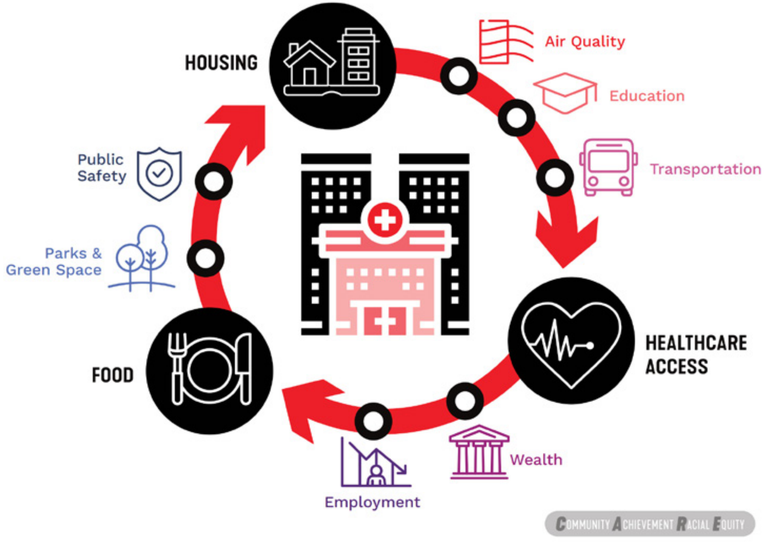
Racial health inequity is a matter of life and death! 56 years ago, Dr. Martin Luther King Jr. said, "injustices in health is the most shocking and the most inhuman because it often results in physical death." In other words Black lives end because of the injustice of poverty, racism, insufficient education and housing, now called social determinants of health.

For the purpose of this study, I drew on my personal story as a child growing up in Northwest Detroit with asthma attacks. My mother and I would leave the neighborhood hospital and go to expensive neighborhood grocery stores that reeked from food spoilage. The other choice was a dollar meal from a fast-food restaurant consisting of a greasy burger and fries accompanied by a high calorie beverage. This is commonplace in poverty-stricken communities.

Millions of poor families in similar households are discharged from healthcare facilities and exit those doors hungry, and not 100 feet away they access FAST food chains, gas stations, and liquor and convenient stores that carry products loaded with fat, sugar, salt and other non-nutritious ingredients.

Struggling parents who have to make ends meet, despite hard work, find themselves on this endless merry-go-round of living in a physical environment with housing insecurity; little to no affordable healthy food; low graduation rates; limited resources to purchase a car or traveling over a mile to find an affordable grocery store; enormous medical bills; high wealth gaps compared to white families; high unemployment rates; high concentration of alcohol and fast food restaurants in a small area surround hospitals; no outdoor spaces to play or trees to reduce heat islands and public safety and health concerns for families. This chronic lack of access to affordable healthy quality food produces generations of people who revolve in and out of hospitals with obesity, diabetes, hypertension, kidney disease, heart disease and cancer.

The C.A.R.E. Framework provides a way to ascertain the cause of food apartheid in the physical environment and develop solutions to help communities end food insecurity.



INFLUENCE MAP

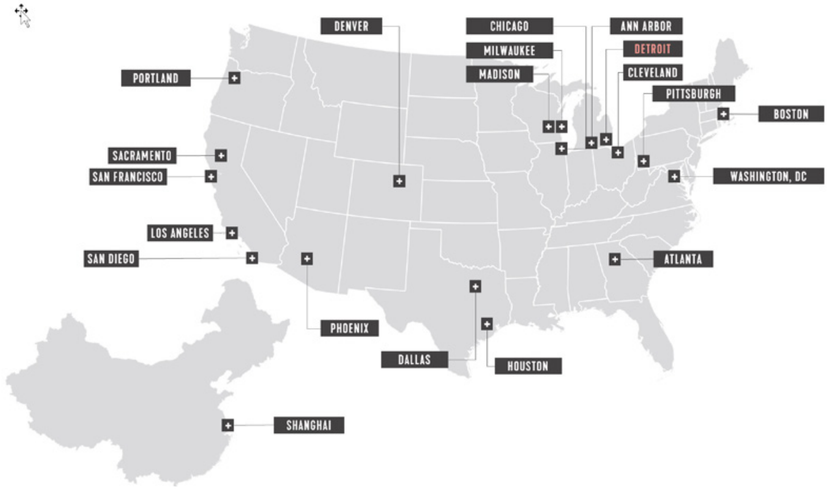
The strategic framework known as C.A.R.E. provides a structure to addressing food apartheid and other racial disparities in Detroit and will continue to intentionally develop racial health equity solutions in every SmithGroup location where we live, work and play.

Using the C.A.R.E. Framework, this influence map of SmithGroup offices will identify hospitals serving zip codes in each city that contain high racial health disparities and food insecurities.

This study begins in Detroit, my hometown and the birthplace of SmithGroup in 1853.

As leaders in the healthcare industry, we have a social and moral responsibility to raise our conscience as a practice to advocate for social justice and end injustices in health.

We begin this journey by first elevating the awareness amongst ourselves, our clients, and the communities for which we design better futures.



REIMAGINING A HEALTHY PHYSICAL ENVIRONMENT

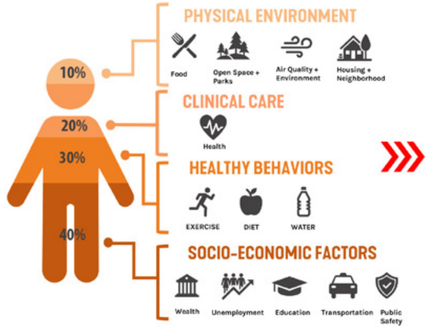
Social determinants of health (SDOH) are conditions in the places where people live, learn, work, worship and play that affect a wide range of health and quality-of life-risks and outcomes.

According to the 2018 Health Equity Report on social determinants of health, 40% of an individual's health is determined by socio-economic factors such as education, occupation, or income. 30% is determined by health behaviors such as diet, exercise, or substance use. 10% is determined by one's physical environment, such as their community, house, or workplace. Finally, only 20% is determined by their access to healthcare and the quality of that care.

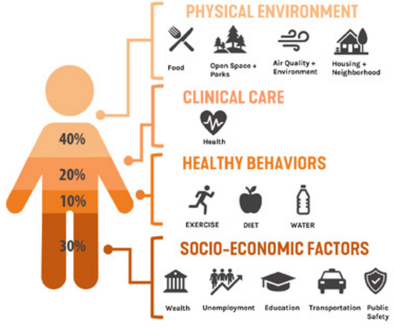
However, my research on food apartheid surrounding DMC Sinai Grace and Henry Ford Hospital illustrates that the physical environment has a major impact on other SDOH and well being of communities.

What if we re-imagined a health equity report on social determinants of health that focused on improving healthy physical environments, starting with food insecurity and then expanding to other SDOH?

By offering more healthy affordable food and open spaces for exercising, and reducing the high concentration of fast food restaurants and liquor stores in close proximity to hospitals, a community can reinvest in its physical environment (10% to 40%) to better address food insecurity. This could reduce reliance on healthy behaviors (30% to 10%) because the community would have access to affordable healthy foods, parks and open spaces for exercise, and less concentration of liquor stores that mainly sell liquor, tobacco and overpriced products full of sugar, salt and carbohydrates. This will also mitigate economic factors (40%to 30%) by reducing risks for obesity, diabetes and heart disease. The clinical care (20%) will remain for health maintenance and preventative care.



Source: DC 2018-Health Equity Report



Recommended C.A.R.E. Rating Racial Health Equity Report

LIFE EXPECTANCY (YEARS)

According to the Detroit Health Department and University of Michigan Detroit Metropolitan Area Community Study (DMACS), the City of Detroit average life expectancy is 72 years old. That is 6 years less than the average life expectancy of 78 years old for the state of Michigan.

For communities surrounding DMC Sinai Grace Hospital in District #2 and Henry Ford Hospital in District #5, their top quality of life concerns are grocery stores, education, transportation, jobs and parks. The top priority is affordable healthy food and grocery stores.

The USDA identifies these two areas - in district 2 and 5 as a "food desert" - meaning the community lacks grocery stores and farmers markets within a convenient distance. Food deserts are heavy on convenience stores that sell mostly processed foods high in calories and low in nutrients.[5]

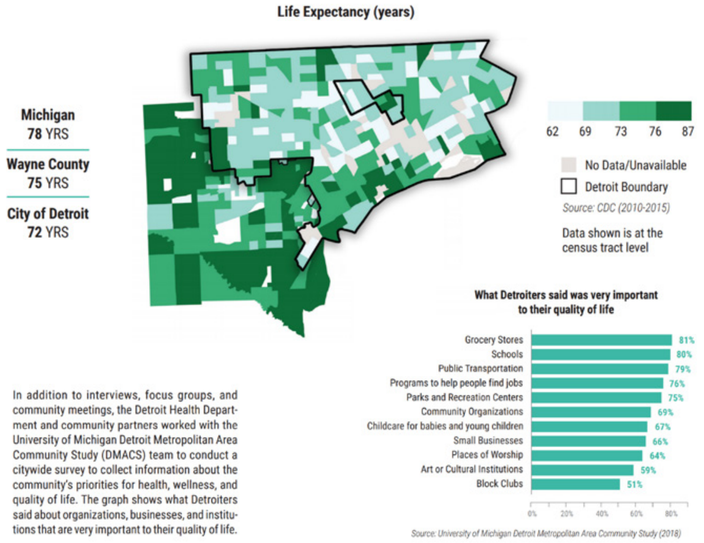
This study identifies these areas as "food apartheid" because of the historic systematic disinvestment in these communities and acknowledging the lack of community and backyard gardens, farmer's markets, food business and other food sharing activities.

This lack of access to quality, healthy and affordable food are some of many factors contributing to Detroit's lower life expectancy numbers in every neighborhood. Residents and food activists say the community is dying because of the lack of affordable healthy food contributing to the area's poor health.

The social impact assessment mapping the data of high concentration of liquor and convenience stores, gas stations and fast food restaurants in close proximity to hospitals validates the 18-year gap found when comparing Detroit's lowest life expectancy of 69 years to West Bloomfield's (near West Bloomfield Henry Ford Hospital) average life expectancy of 87 years.

That is **18 fewer birthdays** because of a number of contributing risk factors such as heart disease, obesity, diabetes and cancer that link to communities lacking access to affordable healthy food.

5 Christiansen, REFRAMING 'FOOD DESERTS.'



In addition to interviews, focus groups, and community meetings, the Detroit Health Department and community partners worked with the University of Michigan Detroit Metropolitan Area Community Study (DMACS) team to conduct a citywide survey to collect information about the community's priorities for health, wellness, and quality of life. The graph shows what Detroiters said about organizations, businesses, and institutions that are very important to their quality of life.

Courtesy of 2018 Detroit Community Health Assessment: Detroit Health Department

18 FEWER BIRTHDAYS

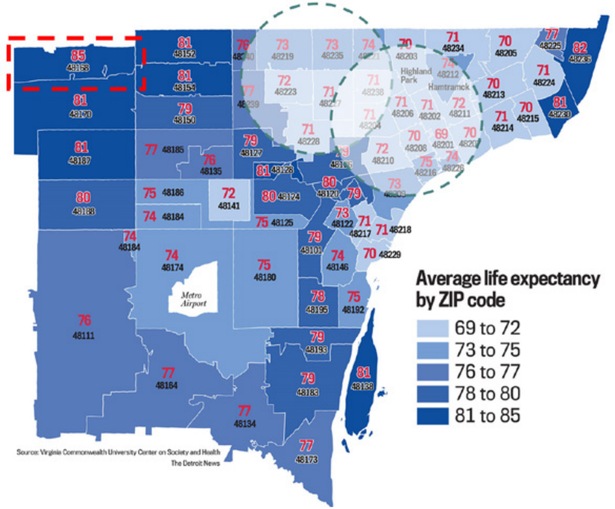
DMC SINAI GRACE

- 73 - 48219
- **73 - 48235** (HOSPITAL LOCATION)
- 74 - 48221
- 71 - 48227
- 71 - 48238
- 72 - 48223

HENRY FORD HOSPITAL-DETROIT

- 69 - 48201
- **71 - 48202** (HOSPITAL LOCATION)
- 71 - 48204
- 71 - 48228
- 70 - 48208
- 70 - 48203
- 71 - 48206

In West Bloomfield, a baby born today is expected to live to age 86.6, while 30 miles away, life expectancy in Detroit's Cass Corridor is as low as 69 years, a **18-year gap**.



INFANT MORTALITY RATE

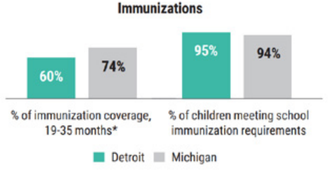
Black infants are **3.8 times** more likely to die from low birth weight complications, and Black mothers are more likely than White mothers to receive late or no prenatal care. During pregnancy the mother's health environment affects the outcome of the pregnancy and the infant's health.

Many Black families in District #2 and District #5 are living with high rates of housing insecurity, food apartheid and other health and safety risks.

DMC Sinai Grace and Henry Ford Hospitals are located in areas where the infant mortality rate is between 12-18 deaths per 100,000 births. There are many programs that give mothers access to preventative care. For example, in Detroit, the Make Your Date program seeks to educate the community about the risks of preterm birth and encourages women to undergo a sonogram test to screen for cervical shortening.

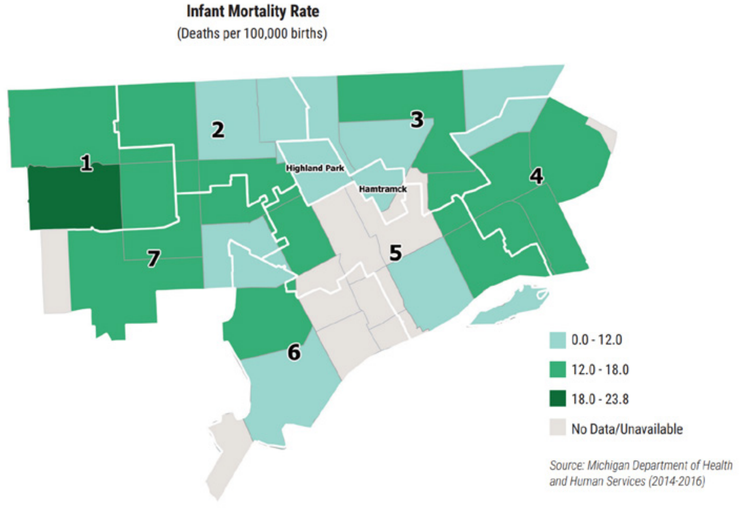
However, there is a disconnect with the high concentration and proximity of these fast foods, liquor party stores and gas stations to hospitals, and the challenges this presents for pregnant mothers who don't have access to baby essentials and healthy affordable food.

The C.A.R.E. Framework seeks to connect the entire community to improve access to healthy affordable food and daily necessities to enhance the quality of life.



Source: Michigan Department of Health and Human Services (2017- 2108)

**4313314 coverage*



Courtesy of 2018 Detroit Community Health Assessment: Detroit Health Department

STATE OF DETROIT RACIAL HEALTH EQUITY

The Detroit Health Department (DHD) developed a wonderful community health assessment for the City of Detroit.

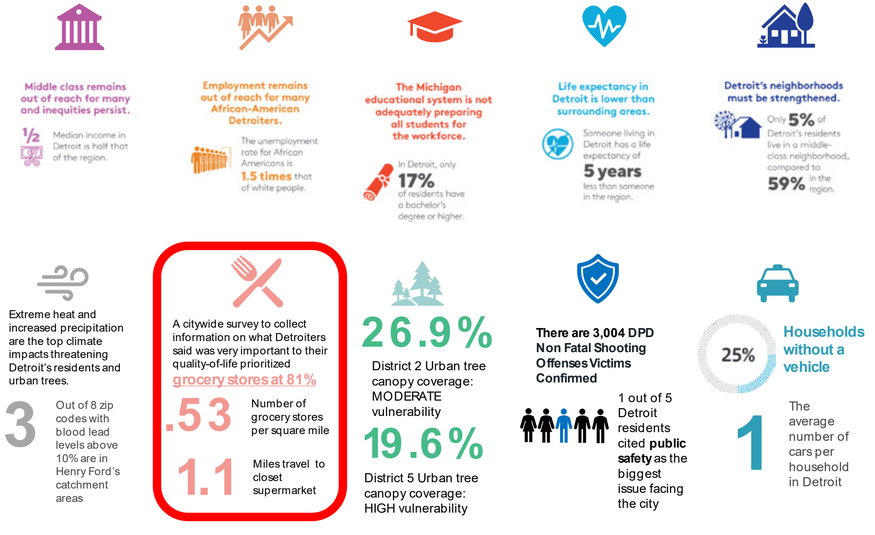
The DHD looked at the following social determinants of health (SDOH): wealth, employment, education, health, housing, the environment, food, open and green spaces, public safety, and transportation.

This study will focus on food insecurity. According to the DHD, there are .53 grocery stores per square mile. Detroit is 142 square miles. The lack of grocery stores means families have to travel over an hour for food. Many are left to shop in the neighborhood's corner liquor party stores with over-priced foods full of sugar, sodium and carbohydrates because it is in walking distance.

This also means the average household has to travel over 1.1 miles to the closet supermarket where they can find healthy affordable food and the types of food they desire under one roof. Although 25% of Detroit households do not have a vehicle, many families take multiple buses to different supermarkets to purchase affordable healthy foods their family wants.

When I researched District #2 and District #5, I found similar demographic characteristics. Many residents want grocery stores and access to healthy food. They experience the same disparities and needs.

After identifying the issues and stating goals to eliminate food apartheid near hospitals, I started collecting data to develop the C.A.R.E. Framework.



Courtesy of 2018 Detroit Community Health Assessment: Detroit Health Department

FRAMEWORK PLANNING PROCESS

An stimated 20% of a person's health is determined by their access to healthcare while 80% is shaped by what happens outside of the hospital: the urban condition of the surrounding neighborhood, socioeconomic status and access to healthy food and wellness activities.

In 2021, the Community Achievement Racial Equity framework (C.A.R.E.) was designed to first identify and combat socioeconomic factors that are barriers to accessible healthcare. The C.A.R.E. Framework identifies existing conditions based on a 15-minute walkable radius around a hospital, including transportation, food choices, accessibility to recreation and other factors. The framework offers recommendations based on research and creates an ecosystem of stakeholders to take action. The goal is to break down socioeconomic barriers, create a healthier community and provide recommendations for change to hospitals, their facilities and the surrounding community.

First, I researched hospital community health need assessments; Detroit Health Department community assessment report and National Association of Health Services Executives (NAHSE) seminars with healthcare advocates and hospital leadership to research topics on racial health disparities and case studies on hospitals in Black and Brown communities.

I collected and interpreted datasets attributed to Alex B. Hill, Detroit Food Map Initiative 2011-2021 of grocery stores, fast food and gas stations; City of Detroit Open Data Portal on health data, liquor stores, local grown foods, food pantries and parks; patient origin zip codes according to the hospital catchment areas with the most patients based on The American Hospital Directory data, statistics and analytics; Michigan Department of Agriculture database of food outlets in Detroit; Detroit Health Department; ESRI Community Analyst of searched articles and topics on race, health and food apartheid on Google Scholar. I also interviewed nutrition experts from the University IL-Chicago, Loyola University Chicago, Cornell University, Wayne State University Center of Urban Studies, the Detroit Black Community Food Security Network, and the Detroit Food Policy Council. I attended multiple virtual NAHSE seminars on health equity. I used ArcGIS to analyze and map the data.

I also interviewed the following persons who are doing powerful work to build a sustainable and just local food system in Detroit: Jane Fran Morgan, President/ CEO and Jason Gapa from JFM Consulting; Winona Bynum, Executive Director, Detroit Food Policy Council; Dr. Angela Odoms-Young, Associate Professor at Cornell University; Dr. Lena Hatchett, Associate Professor at Loyola University Chicago; Alex B. Hill, GIS Director, Center for Translational Science and Clinical Research Innovation at Wayne State University, and Malik Yakini, Executive Director, Detroit Black Community Food Security Network.

For example, the Detroit Food Policy Council (DFPC) has been tracking a set of 12 metrics for the food system since 2017. They also looked at how those indicators have changed year-to-year.

According to the DFPC report, nearly half of the city falls under this category.

Here's a breakdown of the metric report:

- 30,000 people do not have access to a full-line grocer.
- 39 % of households are food insecure.
- 40 % of households enrolled in SNAP (Supplemental Nutrition Assistance Program, most referred to as food stamps) and 18% of SNAP-eligible households are not enrolled.
- 19 % of Detroit children are enrolled in WIC (Women, Infants, and Children) meaning 1 in 5 children are fed through the government assistance program.
- 48 % of WIC stores are liquor stores.

Programs such as Detroit Black Community Food Security Network, Michigan Farming Initiative and Keep Growing Detroit help create community centered farms in impoverished neighborhoods throughout the city. These urban farms provide employment to the residents of the community and often sell produce at wholesale prices.

My research analyzes the location of 2,010 food access in Detroit, 1,062 healthier food options and 948 traditionally less-healthy food options.

- Healthier Food Options (Includes: Grocery, convenience stores, supermarkets (350) , urban farms, community gardens (44), local deli's (30), sit down restaurants (638)
    - **Total Ratio: 1,062/2,010**

Of the healthier food options, approximately 70 are grocery stores/ supermarkets. The remaining 280 are a combination of mini mart/ liquor convenience stores

- Traditionally less-healthy food options (Includes: Bars (90), Fast Food, coffee shop/quick snacks (283), gas stations (292), liquor stores (234), pizza spots(49))
    - **Total Ratio: 948/2,010**
- Total count of both options throughout the city (2,010)

Inflation in food prices is caused by a shortage of grocery stores. 35% of the city's residents live in an area of concentrated poverty. Unjust policies and structural and systemic racism are listed as factors to the city's lack of economic equity.

This effect of structural and institutional racism is found in the overabundance of liquor/convenience stores, fast food eateries and gas stations near hospitals that contain outdated meat, inadequate fruits and vegetables, and foods high in sugar, sodium, and carbohydrates. It also forces families in disadvantaged communities to purchase food at liquor/convenience stores or settle from inexpensive fast food.

Children who live in disinvested neighborhoods too often land in emergency departments with conditions like asthma, uncontrolled diabetes and obesity that could be effectively prevented with better access to routine medical care, safe and affordable housing and healthier foods.

To understand the needs of each community, every Critical Access Hospital (CAH) must conduct a Community Health Needs Assessment (CHNA) once every three years, as mandated by the Affordable Care Act. The CHNA identifies key health needs and issues through systemic, comprehensive data collection and analysis. I researched both DMC Sinai Grace and Henry Ford Hospital 2019 CHNA report and community health improvement plans. Each assessment covers these 5 steps:

.• Step 1: Plan for a community needs assessment. • Identify and assemble a diverse community team.

- Step 2: Conduct the needs assessment.
- Step 3: Review and rate the data.
- Step 4: Record and review consolidated data.
- Step 5: Develop a community action plan.

According to the Centers for Disease Control, a community health assessment gives organizations comprehensive information about the community's current health status, needs, and issues. This information can help develop a community health improvement plan by justifying how and where resources should be allocated to best meet community needs. Benefit examples include:

- Improved organizational and community coordination and collaboration
- Increased knowledge about public health and the interconnectedness of activities
- Strengthened partnerships within state and local public health systems
- Identified strengths and weaknesses to address in quality improvement efforts
- Baselines on performance to use in preparing for accreditation
- Benchmarks for public health practice improvements

My study also included city-wide financial institution location ratios of banks and check cashing locations. Many of the check cashing businesses are located in areas with high racial health disparities, housing instability, food insecurity and wealth inequity. This data can help understand why some families don't have access to financial literacy and wealth when so many are forced to choose how they spend money for affordable food in addition to housing, medical bills and transportation.

City-Wide Financial Institution Locations:

- Check Cashing Locations: 29/132 total
- Banks: 103/132 total

Catchment Area_Mapping

I provided an analysis examining the catchment areas of the highest number of inpatients based on their zip code origins for Detroit Medical Center (DMC) Sinai Grace, Henry Ford Hospital in Detroit, and West Bloomfield Henry Ford Hospital in West Bloomfield MI. Accessing the American Hospital Directory data allows me ot find data on every hospital in America.

Patient origin zip codes with the most patients identified hospital catchment areas based on the American Hospital Directory data, statistics, and analytics I overlayed these catchment areas with the food access data created by Alex B. Hill and other mapping data.

For example, according to DMC Sinai Grace catchment areas in Detroit's District #2, there are 7 grocery stores; 132 Liquor Party Stores/Bar and Grills; 96 Fast food restaurants; 12 Urban farms; 10 dialysis centers and 43 gas stations. District #5 Henry Ford catchment area contains 13 grocery stores; 181 Liquor Party Stores/ Bar and Grills; 183 fast food restaurants; 24 Urban farms; 3 dialysis centers and 9 gas stations.

After my consultation with the Detroit Food Policy Council, I was asked to compare the two Detroit hospitals with an affluent catchment area surrounding a hospital.

I chose to analyze the catchment areas for West Bloomfield Henry Ford Hospital. My findings included 20 grocery stores; 15 Liquor Party Stores/Bars and Grills; 64 fast food restaurants; 1 urban farm; 1 dialysis center and 12 gas stations. The DMC Sinai Grace and Henry Ford Catchment area is 1.6x larger than West Bloomfield Hospital catchment area and yet have the same number of grocery stores (20). In addition, there is a combined 20:1 ratio of fast-food restaurants in catchment areas surrounding DMC Sinai-Grace and Henry Ford compared to West Bloomfield. (See page 57)

Applying the community health needs assessment to the C.A.R.E Framework was pivotal to examining the needs of the community and developing strategies to strengthen hospital partnerships within the community. As a result, communities can reimagine the role hospitals play in the built environment that limits them from reducing obesity and diabetes rates due to the oversupply of liquor convenience stores, gas stations and fast food outside their front door.

Next, I used GIS mapping to identify food apartheid, food oases and racial disparities surrounding DMC Sinai and Henry Ford Hospital. I mapped the following data and research:

- CDC Social vulnerability index map from 2016.
- On the basis of built environment data summarized within ¼ mile radius (5 min walk); ½ mile radius (10 min walk) and 1 mile radius (15-20 min walk) buffers around hospitals to list number of grocery stores, gas stations, fast food restaurants, liquor convenience stores and parks.
- American Hospital Directory provides zip codes where the highest number of patients originate based on their home address for each hospital using ArcGIS.
- Fast Food Restaurant Proximity and density representing the distance in ¼ mile and ½ mile radius buffer around each hospital (DMC Sinai Grace in District 2) and (Henry Ford Hospital in District 5) using ArcGIS.

FRAMEWORK PLANNING MAPS

The following mapping systems were created to help hospitals and stakeholders locate what services currently exist in the communities and prioritize what services are necessary to help reduce disparities surrounding the hospital and how best to treat social health determinants with justice and equity design. Some maps were also based on data analysis and hospital catchment areas for original patient zip codes:

- Broad Detroit concept maps (parks, roads, city boundary, district boundary, hospital location and existing conditions such as: gas stations, liquor stores, grocery stores, restaurants, etc.)
- Unemployment (not available on UBF)
- Education
- Redlining
- Social Vulnerability
- Food Access Research Atlas
- Environmental Health Index
- Zoomed in maps of District #2 and District #5
- Food Access
- Locations of parks, community gardens and urban farms
- Location of check cashing places and banks
- Hospital locations + Main Corridors + bus routes/stops
- (1, 5, 10, mi radius) showing overlap of patients
- Hospital locations, main corridors, and food locations (employees trying to grab lunch)
- Location of grocery stores and liquor-party-convenience stores (separated liquor from grocery stores)

Here is the list of data sources used for the following maps:

- ESRI Community Analyst and NAICS Code for: Restaurants and bars
- Grocery and Specialty sources include ESRI Community Analyst and NACIS codes for: liquor-convenient stores, grocery stores, specialty food stores
- Healthcare combined source is ESRI Community Analyst

Food Access Research Atlas (2018) sources

- Symbolizing "low access, low-income population at ½ mile": Share of tract population that are low income individuals beyond ½ mile from a supermarket
- Economic Research Service, U.S. Department of Agriculture: https://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data.aspx
- Data info: The Food Access Research Atlas maps food access indicators census tracts using 1/2-mile and 1-mile demarcations to the nearest supermarket for urban areas, 10-mile and 20-mile demarcations to the nearest supermarket for rural areas, and vehicle availability for all tracts. Users of the Atlas an view census tracts by food access indicators using these different measures to see how the map changes as the distance demarcation or inclusion of vehicle access changes. The map includes updated estimates using 2015 data and allows users to compare these new estimates with those from 2010
- Data Source: https://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data.aspx

Social Vulnerability (2018)

- Symbolizing Social Vulnerability Index Rank
- Centers for Disease Control and Prevention: https://svi.cdc.gov/index.html
- Data Info: uses census data to determine social vulnerability of every census tract. Index ranks each tract on 15 social factors – including poverty, lack of vehicle access, and crowded housing, grouping them into 4 related themes. SVI rank shows overall percentile ranking.
- Data Source: https://svi.cdc.gov/index.html

HOLC Redlining Areas (2017)

- Symbolizing HOLC grade classifications as part of the New Deal America produced in 1935-1940.
- Source: University of Virginia – Digital Scholarship Lab: https://dsl.richmond.edu/panorama/redlining/#loc=4/36.71/-96.93&opacity=0.8
- Data Info: More than a half-century of research has shown housing to be for the twentieth century what slavery was to the antebellum period, namely the broad foundation of both American prosperity and racial inequality. Through offering a digital library of the state's role in housing development, Mapping Inequality illustrates vividly the interplay between racism, administrative culture, economics, and the built environment
- Data Source: https://dsl.richmond.edu/panorama/redlining/#loc=4/36.71/-96.93&opacity=0.8

Chronic Disease + Health Promotion Data + Indicators (2018)

- Data includes options to symbolize: (crude prevalence), Current lack of health care insurance, arthritis, binge drinking, high blood pressure, cancer, asthma, heart disease, visits to doctor, cholesterol screening, colonoscopy, pulmonary disease, no physical activity/leisure time, mental health quality, obesity, high cholesterol, sleeping less than 7 hours, stroke, etc.
- Data Source: Centers for Disease Control and Prevention https://chronicdata.cdc.gov/500-Cities/500-Cities-Census-Tract-level-Data-GIS-Friendly-Fo/k86t-wghb/data

Environmental Health Index:

- Symbolizes Environmental Health Index: values ranging from 0-100, the higher the index value, the less exposure to toxins harmful to human health. The higher the value, the better the environmental quality of a neighborhood
- Source: US Department of Housing and Urban Development https://www.arcgis.com/home/item.html?id=c7e2c62560bd4a999f0e0b2f4cee2494

Next I will share this data with a food justice ecosystem composed of city leadership, advocacy groups, policy makers, community residents and stakeholders, urban planners, economic developers, and hospitals. The food justice metrics within the framework will be decided in a collaborative process by the community partners and encourage hospitals to be good neighbors to the entire community.

SOCIAL VULNERABILITY INDEX

This is a map of the CDC's social vulnerability rate from 2016. This data is calculated using external stresses that have an impact on human health. These stresses could include things like poverty, unemployment, and lack of access to food. If an area is more vulnerable, it means they more likely live in lower socioeconomic statuses and are more likely to suffer from health conditions such as obesity, diabetes, and heart disease.

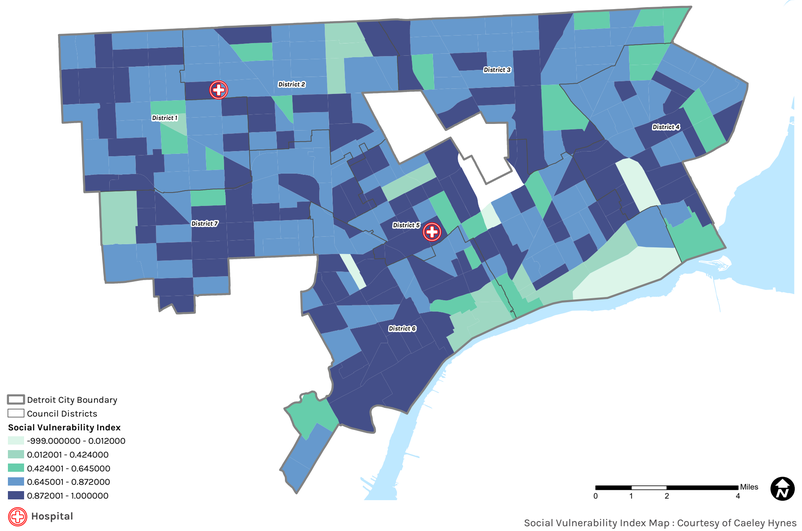
The area in District #2 near DMC Sinai Grace has an index near **.645 - 1.00**. This illustrates that families are more likely to suffer from obesity, diabetes and heart disease because of food insecurity.

The area in District #5 near Henry Ford Hospital has an index near **.8720 - 1.00**. This illustrates that families are more likely to suffer from obesity, diabetes and heart disease because of food insecurity.

Both hospital community needs health assessments focused on lifestyle factors such as alcohol, lack of physical activity, poor nutrition, and obesity, and preventive practices such as regular health screenings and physicals to positively impact these health outcomes. Yet, residents in a 15 minute walking distance from the hospital have no access to healthy affordable food, only liquor convenience stores, gas stations and fast food restaurants. The average household has one car and for residents who rely on transportation will have to take multiple bus routes to affordable healthy foods in supermarkets over one mile away

The map illustrates that these vulnerable communities are dying at a higher rate because there are no affordable healthy options. This tool should change how we plan and design for equity and justice.

The C.A.R.E. Framework will develop programs in partnership with hospitals, community stakeholders, City leadership, policy makers, institutions and business community to implement zoning recommendations; emphasize economic diversity; bring awareness to the common disparities and prepare measures to help end food apartheid and positively impact these racial health equity outcomes.



Social Vulnerability Index Map : Courtesy of Caeley Hynes

ASTHMA

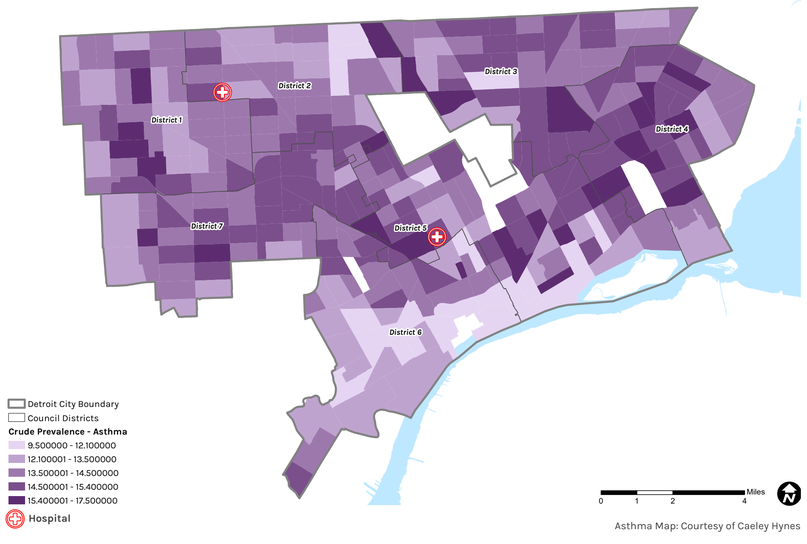
My story begins with having asthma and living in a food apartheid community near DMC Sinai Grace and experiencing first hand the economic and health burdens asthma has on millions of families, particularly children.

The burden of asthma in the United States falls disproportionately on Black, Hispanic and American Indian/Alaska Native people. These groups have the highest asthma rates, deaths and hospitalizations.

The rate of asthma and the prevalence of asthma episodes is highest among Black Americans.[1] Black children are three times as likely to have asthma compared to white children. Compared to white Americans, Black Americans are five times more likely to visit the emergency department due to asthma.[6] The most vulnerable communities have the highest asthma rates and food insecurity. These are highly connected with poverty,housing insecurity, city air quality, indoor allergens, lack of education and poor health care.

The crude prevalence asthma map shows both DMC Sinai Grace and Henry Ford Hospital range from **13.5 - 17.5**. This indicates these neighborhoods are theoretically at risk for adverse asthma outcomes, such as asthma emergency room visits or hospitalizations.

This adds another burden to hospital emergency departments that are already treating food insecure communities with obesity, diabetes, hypertension, kidney disease, heart disease and cancer.



Asthma Map: Courtesy of Caeley Hynes

[1] Centers for Disease Control and Prevention. (2020). 2019 National Health Interview Survey data. U.S. Department of Health & Human Services. Retrieved from: https://www.cdc.gov/asthma/nhis/2019/data.htm

[6] National Center for Health Statistics. (2019). National Hospital Ambulatory Medical Care Survey (2010-2018). U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Retrieved from: https://www.cdc.gov/asthma/national-surveillance-data/healthcare-use.htm

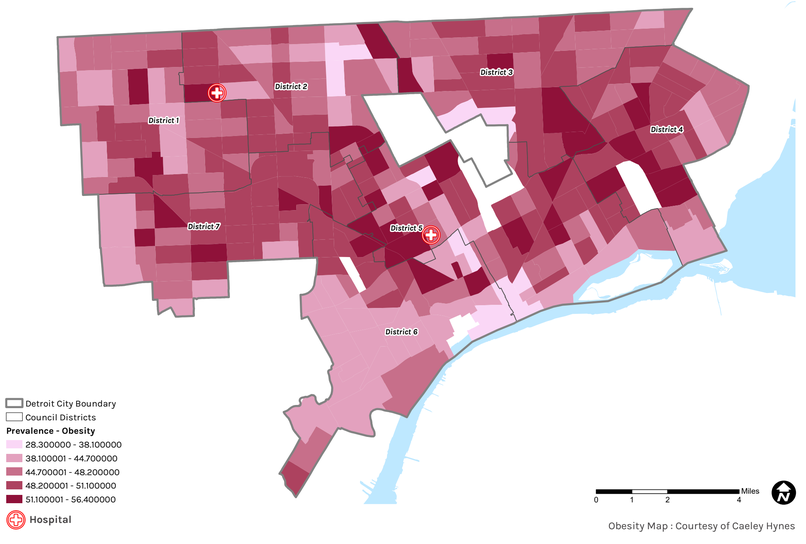
OBESITY

Obesity and a high-fat diet are two of the major causes of breast cancer. There's strong evidence to show that high consumption of fast food increases the risk of obesity and chronic disease, such as heart disease, diabetes and range of cancers. The lack of access to healthy food within this environment may result in unhealthy food choices which could lead to obesity, hypertension, diabetes, kidney disease and most cancers.

Detroiters said grocery stores are very important to their quality of life. With 37% of Detroit adults considered obese, it is crucial that Detroiters have access to healthy food. New report reveals 30,000 Detroiters do not have access to healthy food | News Hits (metrotimes.com)

According to the map, residents living near DMC Sinai Grace and Henry Ford Hospital have the highest prevalence of obesity **(51.1 - 56.4)** in the City of Detroit. When looking at Detroit's health data, they have the second highest prevalence of obesity of any city in Michigan at 31.8% according to the CDC.

Providing safe open green spaces for residents to exercise and healthy affordable food will begin to reduce these obesity percentages.



Obesity Map : Courtesy of Caeley Hynes

DIABETES

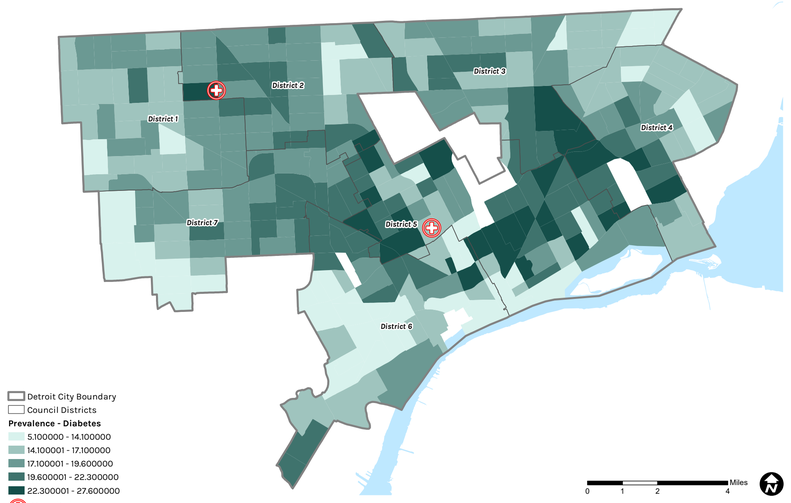
In Detroit, 13.1% of residents have ever been told they have diabetes compared to a state average of 10.8%. The Diabetes death rate in Detroit is 27.6, the 6th leading cause of death in the city. Hospitals can provide healthier food choices in addition to a more holistic, integrative approach to creating a facility that would bring together the wellness program, counseling and food advocacy to enhance patient overall care and could reduce these percentages. Detroiters said grocery stores are very important to their quality of life. It is crucial that Detroiters have access to healthy food.

According to the map, residents living near DMC Sinai Grace has the highest prevalence of diabetes **(22.3 - 27.6)** in the City of Detroit and near Henry Ford Hospital prevalence of diabetes ranges from **(14.1 - 27.6)**.

Providing more healthy affordable foods, education and outdoor spaces to empower residents to exercise and learn how to cook foods will begin to reduce these diabetes percentages.

Diabetes accounts for many preventable hospitalizations in Detroit – it is the third leading cause of preventable hospitalizations in the city, compared to the fourth-leading cause in the state of Michigan. The existing current environment near hospitals doesn't provide spaces for physical activity. There are liquor convenience stores on corners that sell mainly liquor and tobacco, gas stations that act as a secondary convenient store for snacks and fast-food restaurants that outnumber healthy affordable grocery stores. Creating a public/private nonprofit partnership to leverage vacant and abandoned properties owned by the City of Detroit could help add open park spaces to current hospital campuses, and provide temporary or permanent locations for healthier affordable food. This partnership could also support wellness centers to address behaviors such as lack of physical activity, poor nutrition, stress and tobacco use, so patients are not readmitted from developing these chronic diseases and illnesses.

Often, people of color face significant struggles due to the social determinants of health because of the unequal distribution of power and resources across populations. Addressing both the social determinants of health and racial inequities are vital to improving the health of communities. We know that the Black community and lower income populations often experience more barriers to healthy lifestyles and as a result.



Diabetes Map: Courtesy of Caeley Hynes

CANCER

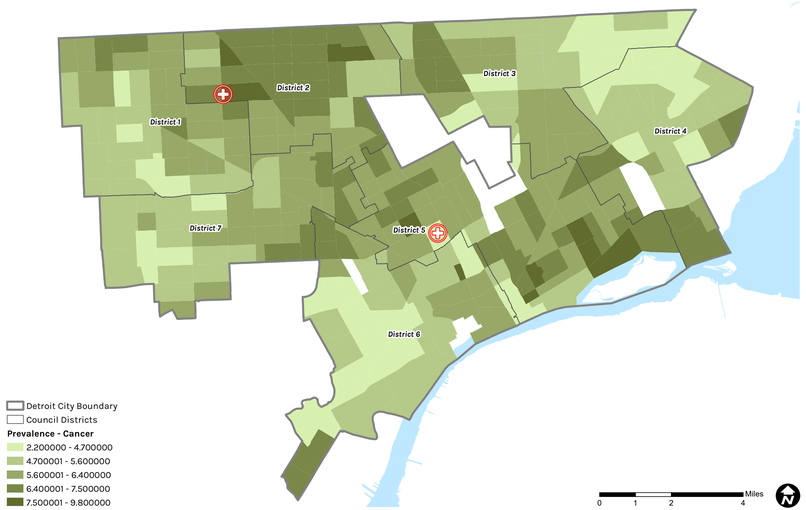
According to the map, residents living near DMC Sinai Grace have the highest prevalence of cancer (7.5 - 9.8) in the City of Detroit and near Henry Ford Hospital prevalence of diabetes ranges from (2.2 - 4.7).

According to researchers at the University of Texas MD Anderson Cancer Center, African American adults living closer to a fast food restaurant had a higher BMI than those who lived further away from fast food.

DMC Sinai Grace and Henry Ford Hospital are both located in food insecure neighborhoods. DMC Sinai Grace has a KFC, Burger King, Coney Island, liquor stores, gas stations, a hookah lounge and bars adjacent to the hospital campus. Henry Ford Hospital has liquor store and a KFC next to the Henry Ford Cancer Institute.

The lack of access to healthy affordable food is an important driver of racial health disparities in diet quality. The physical environments in District #2 and District #5 have the highest risk for unhealthy diets, obesity and obesity-related diseases and cancer.

The new Henry Ford Hospital Cancer Institute is addressing these disparities by offering innovative treatment options for 14 different types of cancer. However, if we don't advance policies to improve the physical environment, then we will continue to perpetuate racial health disparities and food insecurity.



Cancer Map: Courtesy of Caeley Hynes

HEART DISEASE

Heart disease is the leading cause of death for men and women in the United States. In Detroit, heart disease mortality is twice the national rate, especially in African American and low-income urban areas

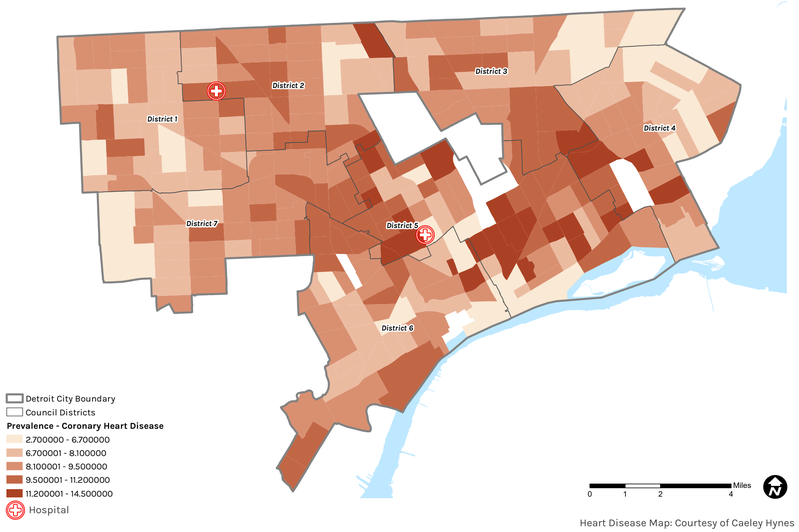
DMC Sinai Grace in District #2 and Henry Ford Hospital in District #5 have a prevalence of coronary heart disease range of **11.2 - 14.5**, the highest prevalence of heart disease in the City of Detroit.

Although both hospitals have programs, outreach education and treatments available to patients in the hospital catchment areas, this study focuses on the impacts caused by the high concentration of liquor convenience stores, gas stations and fast food restaurants that carry products loaded with fat, sugar, salt and other non-nutritious ingredients, liquor, tobacco and greasy burgers, fries and high calorie pop. The lack of access to affordable healthy food options and the results of high blood pressure, high blood cholesterol and smoking are key risk factors for heart disease.

Several other medical conditions and lifestyle choices can also put people at a higher risk for heart disease, including: diabetes, obesity, unhealthy diet, physical inactivity and excessive alcohol use.

If the physical environment surrounding two of the largest healthcare systems in Detroit creates food apartheid and contributes to 18 fewer birthdays for residents, what hope does the community have with data showing they can access health care in the hospital but not have health once they are discharged and can't find healthy affordable food? This perpetuates the revolving door of racial health disparities that is killing Black communities.

The C.A.R.E. Framework seeks to overlap these disparities and connect the dots so hospitals, city leadership, policy makers, planners, economic developers, designers, community stakeholders and food advocacy organizations can develop partnerships and strategies for parks, urban gardens, healthy food stores and education within a 15-minute walking distance from the hospital. By bringing everyone to the table with financial resources and addressing the systemic structures we can achieve racial health equity by ending food apartheid.



Heart Disease Map: Courtesy of Caeley Hynes

FOOD ACCESS RESEARCH ATLAS MAP

The Food Access Research Atlas maps food access indicators for census tracts using ½-mile and 1-mile demarcations to the nearest supermarket for urban areas, 10-mile and 20-mile demarcations to the nearest supermarket for rural areas, and vehicle availability for all tracts. Users of the Atlas can view census tracts by food access indicators using these different measures to see how the map changes as the distance demarcation or inclusion of vehicle access changes. The map includes updated estimates using 2015 data and allows users to compare these new estimates with those from 2010.

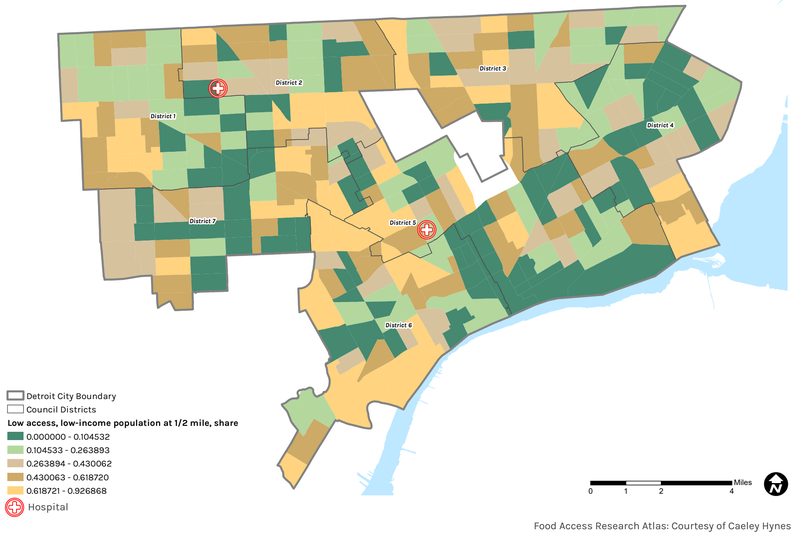
Data Source: https://www.ers.usda.gov/data-products/food-access-research-atlas/download-the-data.aspx

According to USDA, a low-income tract with at least 500 people, or 33 percent of the population, living more than one-half mile (urban areas) or more than 10 miles (rural areas) from the nearest supermarket, supercenter, or large grocery store constitutes a low-access food area.

The higher the income, the higher the access to food and the lower the income, the lesser the access to food.

The neighborhood surrounding DMC Sinai Grace has a low access, low-income population at 1/2 mile of **(0.0 - .10)**. This means, they have lesser access to food.

Henry Ford Hospital has a low access, low-income population of **(.43 - .61)**. The lower the percentage the higher the income has access to food. This means, they have higher access to food.



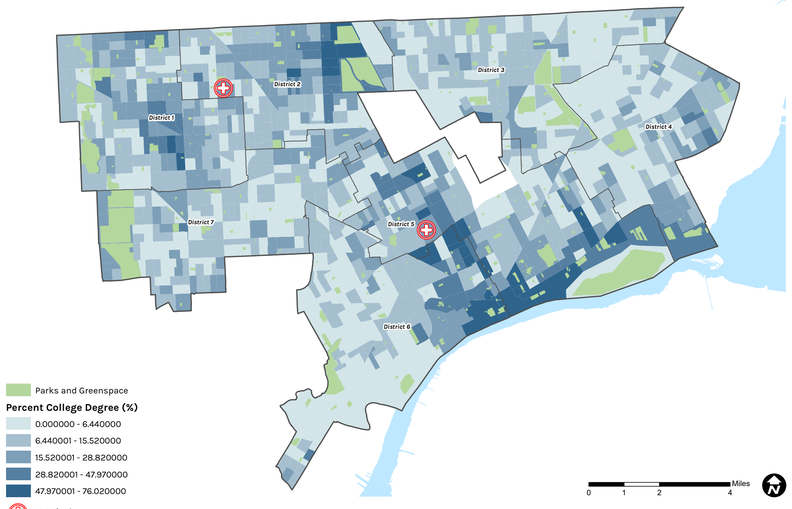
Food Access Research Atlas: Courtesy of Caeley Hynes

COLLEGE DEGREE PERCENTAGES

Detroiter's living near DMC Sinai Grace and Henry Ford Hospital have a college graduation rate between **6.44 - 15.52%**. Detroit overall has a Bachelors Degree or higher of 15%.

Higher educated individuals earn more, giving them more resources to buy food and better access to nutritious foods. The lower graduation rates speaks to a larger problem in food insecure neighborhoods where there are no grocery stores, high levels of racial health disparities and high unemployments.

Adding more focus on education and jobs are drivers that will also reduce food insecurity, especially if there are more grocery stores, urban farms and gardens and healthier food options.



College Degrees: Courtesy of Caeley Hynes

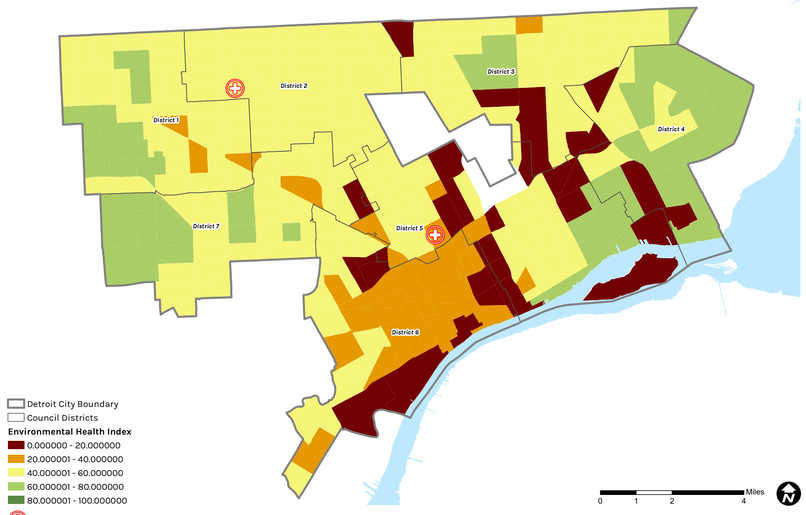
ENVIRONMENTAL HEALTH INDEX

Environmental Health Index: values ranging from 0-100, the higher the index value, the less exposure to toxins harmful to human health. The higher the value, the better the environmental quality of a neighborhood (census block-group).

Source: US Department of Housing and Urban Development https://www.arcgis.com/home/item.html?id=c7e2c62560bd4a999f0e0b2f4cee2494

DMC Sinai Grace has an index value ranging from **40-60** and Henry Ford Hospital has an index value **20-40**. The environmental quality surrounding Henry Ford Hospital is lower than DMC Sinai Grace. This means both communities have more exposure to toxins harmful to human health.

Because of toxins and food apartheid, resident of these communities are subject to asthma, cancer and other racial health disparities.



Environmental Health Index Map: Courtesy of Caeley Hynes

WALKABILITY UNHEALTHY FOOD MAP

This map of Detroit highlights the locations of unhealthy food (fast food restaurants, gas stations, liquor convenient stores, and bars) available for Detroit residents within a 10-minute walk (.5-miles), 20-minute walk (1-mile) of DMC Sinai Grace Hospital and Henry Ford Hospital and beyond.

My research analyzes the location of 2,010 food access in Detroit, 1,062 healthier food options and 948 traditionally less-healthy food options.

- Traditionally less-healthy food options (Includes: Bars (90), Fast Food, coffee shop/quick snacks (283), gas stations (292), liquor stores (234), pizza spots(49))
- Total Ratio: 948/2,010
- Total count of both options throughout the city (2,010)

Hospital Walkability Unhealthy Food Base Map: Courtesy of Caeley Hynes

WALKABILITY HEALTHY FOOD MAP

This map of Detroit highlights the locations of healthy food (fast food restaurants, gas stations, liquor convenient stores, and bars available for Detroit residents within a 10-minute walk (.5-miles), 20-minute walk (1-mile) of DMC Sinai Grace Hospital and Henry Ford Hospital and beyond.

My research analyzes the location of 2,010 food access in Detroit, 1,062 healthier food options and 948 traditionally less-healthy food options.

- Healthier Food Options (Includes: Grocery, convenience stores, supermarkets (350) , urban farms, community gardens (44), local deli's (30), sit down restaurants (638)
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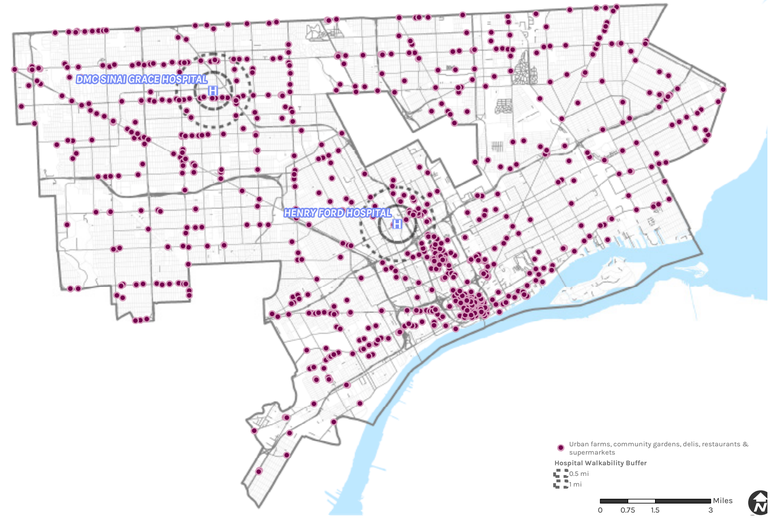
- Of the healthier food options, approximately 70 are grocery stores/ supermarkets. The remaining 280 are a combination of mini mart/ liquor convenient stores



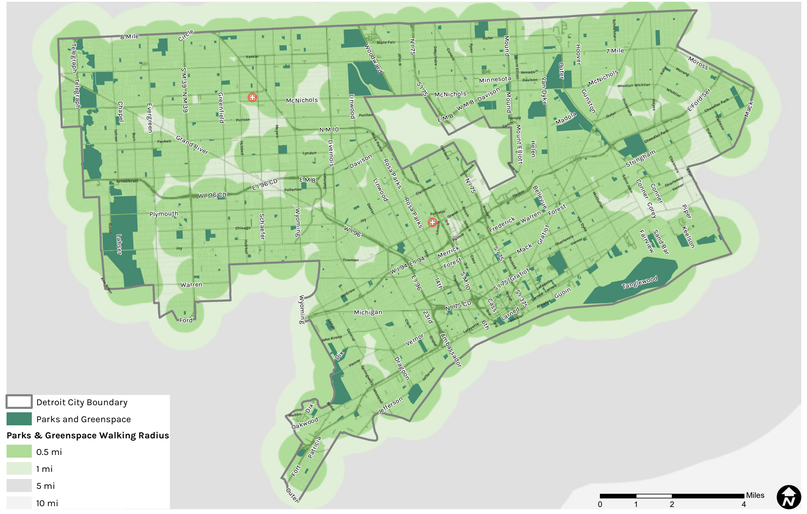
Hospital Walkability Healthy Food Base Map: Courtesy of Caeley Hynes

.5 - 1 MILE PARKS AND GREENSPACE WALKING RADIUS

Detroit has a total of 308 official city parks, play fields, greenways and plazas that offer services and amenities to residents and visitors. This map shows the many walkable distances to parks and greenspaces throughout to city.

For example, a .5 mi radius is a 5 minute walk centered on various park sizes. The mapping doesn't identify the square feet of park spaces, only the park locations. This is why a lot of advocates are pushing for a metric that accounts for population density and acreage of accessible park and open space per person vs. just a straight "you can physically walk there in 5 minutes."

DMC Sinai Grace Hospital and Henry Ford Hospital are within ½ mile walking to park and greenspace and within a 1 mile walking to park. The park sizes are for smaller gatherings only such as playscapes for kids, areas to have lunch or exercise.



.5-10 mile Parks & Greenspace Walking Radius Base Map: Courtesy of Caeley Hynes

.25 - 1 MILE PARKS AND GREENSPACE WALKING RADIUS

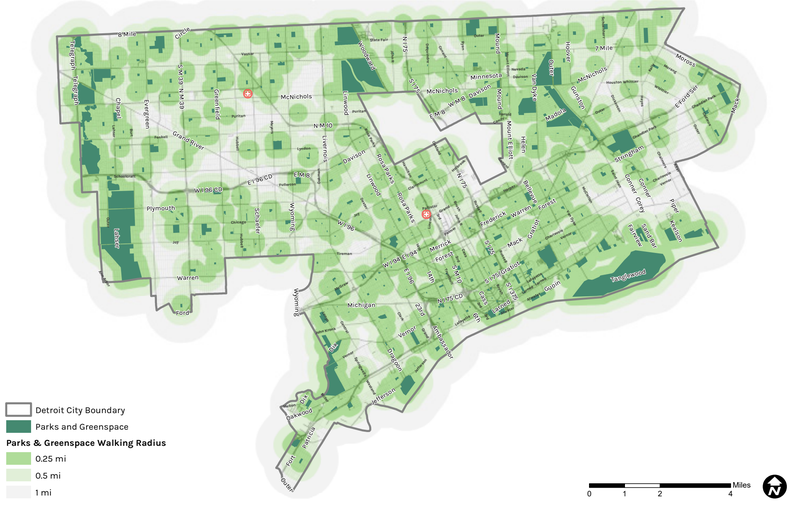
DMC Sinai Grace Hospital and Henry Ford Hospital are within ½ mile walking radius to park and greenspace and within a 1 mile walking to park. The park sizes are for smaller gatherings only such as playscapes for kids, areas to have lunch or exercise.

This map illustrates the opportunities for parks and greenspace within a 3 minute walk from DMC Sinai Grace and Henry Ford. There is a .25 mile walking radius outside both DMC Sinai Grace and Henry Ford Hospital.

Outer Drive, located on the north side of DMC Sinai Grace campus, is a boulevard known as "great pleasure boulevard" that includes travel through beautiful subdivisions, school sites, and park areas.

For residents, patients and hospital staff that lack open green spaces within a 5 minute walking distance from DMC Sinai Grace, partnering with local government, policy makers, planners and community organizations could potentially create an Outer Drive Greenway that extends from Livernois Ave, pass DMC Sinai Grace at Outer Drive and Schaefer all the way to the Detroit River.

Henry Ford Hospital is located within a 1/2 mile walking radius from nearby parks. For residents who need more open green space for exercise improved access could reduce obesity and other disparities.



.25-1 mile Parks & Greenspace Walking Radius Base Map: Courtesy of Caeley Hynes

FINANCE BANKING WALKABILITY

In the United States, access to capital for individuals and business owners is uneven based on race. The racial wealth gap remains significant, especially when the median income in Detroit is half that of the region.

The middle class remains out of reach for many families living in food insecure neighborhoods that lack access to banks, healthy affordable food and open park spaces.

Although both DMC Sinai Grace and Henry Ford Hospital are located in high racial health disparity zip codes, there are more banks than cash checking stores within a 15-minute walk from the hospital.

More studies will be needed to research how banks can partner with the collective leadership to develop strategies for reinvestment in communities adjacent to each hospital.

Finance Banking Walkability Buffer Base Map: Courtesy of Caeley Hynes

FINANCE CHECK CASHING WALKABILITY

Throughout urban America, in Black and lower-income neighborhoods, you will see more check cashing stores compared to financial banks. Some of the top reasons given why there are less banks in these communities is because of check account minimum balance requirements, mistrust and fees.

Many of these check cashing stores are adjacent to liquor convenient stores and fast food restaurants. The first contact with a smiling teller are often behind a bulletproof glass that charge exorbitant service fees for every transaction.

There are renewed criticisms from advocates for lower-income residents and from bank officials who say the check cashing industry takes advantage of those who have no other options.

This argument sounds familiar with food insecurity communities.

However, when we try to understand the common threads between poverty, unemployment, food apartheid, housing insecurity, lack of access to healthcare, limited open space, education and financial illiteracy, one can recognize how residents feel taken advantage of by the systems in place that impact their quality of life.

This study shows that more research is needed to create a holistic community that addresses all of these disparities.

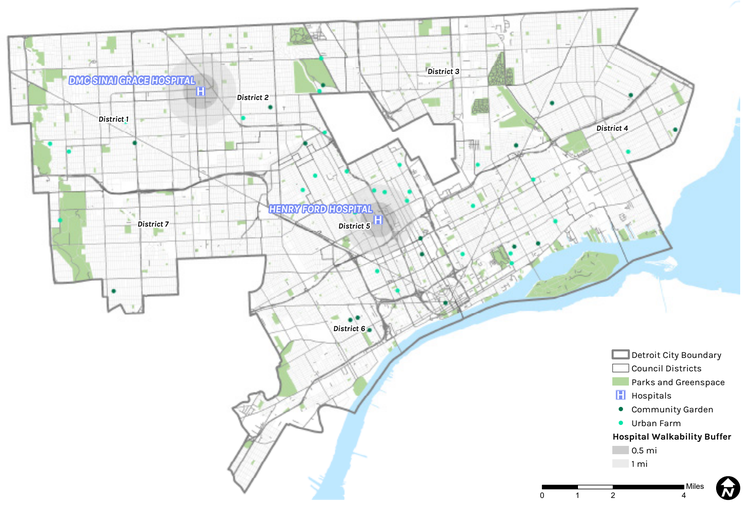
Finance Check Cashing Walkability Buffer Base Map: Courtesy of Caeley Hynes

URBAN FARM_COMMUNITY GARDEN

Detroit has a number of urban farms and community gardens providing access to healthy affordable food throughout the city.

DMC Sinai Grace and Henry Ford Hospital have nutrition programs that partner with a number of community gardens and urban farms.

The C.A.R.E. Framework seeks to connect more urban farms and community gardens to partner with hospitals, local government, policy makers, residents and community stakeholders to end food apartheid and racial health disparities.



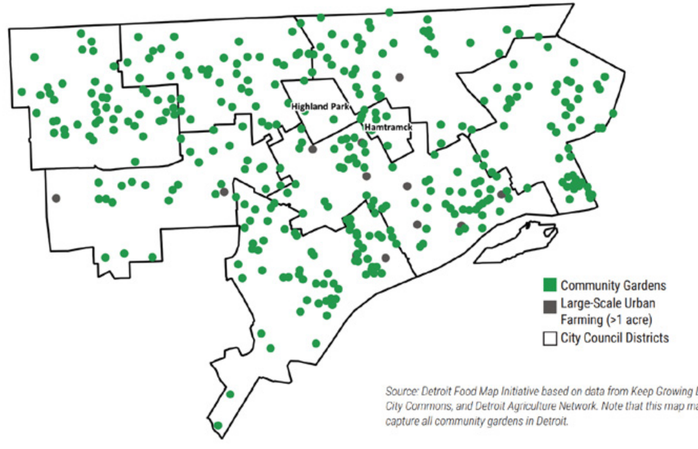
Urban Farm_Community Garden Buffer Map: Courtesy of Caeley Hynes

COMMUNITY GARDENS

Detroit's food ecosystem is doing a great job in creating urban gardens and green spaces in areas that lack supermarkets. There is a hunger among residents and grassroots organizations that desire to know where their food comes from, having access to healthy affordable fresh food and changing the mindset of residents to reimagine food transforming Detroit into a healthy neighborhood and a sustainable food industry.

Community Gardens

Creating gardens and green spaces where our community can engage with nature adds to a healthy neighborhood.



Source: Detroit Food Map Initiative based on data from Keep Growing Detroit, City Commons, and Detroit Agriculture Network. Note that this map may not capture all community gardens in Detroit.

CONCLUSION

This study serves as a call to action to fix the social inequities caused by structural racism that continue to plague vulnerable, at-risk patients and families with asthma, cancer, heart disease, obesity and limited access to housing, parks, food, employment, transportation, education, banks and community gardens.[6]

According to the research, no matter what district you live in, the top priority is more affordable healthy food and grocery stores.

All districts also have the same social determinants and a lack of affordable healthy food. The high percentages of obesity, cancer, heart disease and asthma can all be traced back to the high concentration of liquor/convenience stores, gas stations and fast food restaurants within walking distances to the hospital Emergency Department front door. Each of these business carry non-nutrition products high in sodium, sugar and carbohydrates.

There are few green spaces and parks for exercising and residents have to travel over one mile to a healthy affordable grocery store via public transportation.

The lack of grocery stores, open spaces, high concentrations of fast food restaurants, corner liquor stores that primarily sell liquor and tobacco and bars fall under the definition coined by Karen Washington known as food apartheid. This landscape is not accidental, but shares its roots going back to racist policies such as redlining and housing discrimination.

Social determinants and structural inequities largely drive disparities in food apartheid. To solve this, I created the C.A.R.E Framework to map the racial health disparities found in food apartheid and develop partnerships with patients/families, health care professionals, researchers, biotech and pharmaceutical companies, educators, schools, community leaders, philanthropists, government agencies, health care systems, health care payers, employers, food advocates, policymakers/legislators and the media.

Next, we will study District #2 where DMC Sinai Grace is located and District #5 where Henry Ford Hospital and compare lessons learned.

6 Odoms-Young, Examining the Impact of Structural Racism on Food Insecurity: Implications for Addressing Racial/Ethnic Disparities.

Courtesy of SmithGroup

A BEACON OF HOPE: DMC SINAI GRACE HOSPITAL

DMC Sinai-Grace is doing great work in the Northwest Detroit community found in District #2. For more than 150 years the Detroit Medical Center has been a part of the fabric of the Detroit community by providing care to the under-served and low-income families.

Sinai Grace Hospital has a relationship with the Sinai-Grace Guild Community Development Corporation (SGGCDC), a nonprofit dedicated to the revitalization and sustainability of Northwest Detroit. Currently, Sinai-Grace Hospital and SGGCDC are collaborating with other NW Detroit businesses in launching a new housing incentive program - Live Local. This program is designed to support new homeownership, encourage residential growth, and spur new local investment in NW Detroit because of housing insecurity.

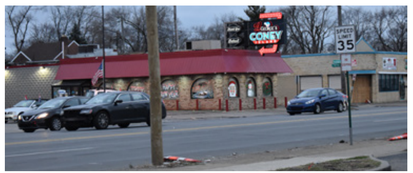
Other initiatives include improving open space and parks and enhancing the quality-of-life for Northwest Detroit residents near Sinai-Grace. Sinai-Grace Hospital, originally built in the 1930s, had renovated several times to improve its emergency department. Still, a major overhaul was needed to support the large patient volumes that this urban hospital handles.

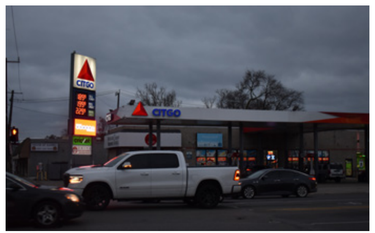
An overarching goal for the renovation and addition was to provide an under-served population better access to healthcare. Accommodating needed growth and adding new technology and enhanced security, DMC Sinai-Grace hired SmithGroup to design an emergency department, intensive care unit and radiology expansion. This project included a 135,000-square-foot addition delivering a new, enlarged ED; a 40-bed ICU; expanded clinical laboratory and radiology space; and a new, distinctive main entrance and lobby.

The conceptual underpinnings for the project focus on showcasing the hospital as a "beacon of hope" in the community.

However, DMC Sinai Grace still is located in a food apartheid community. There are fast food restaurants, gas stations and liquor convenient stores in walking distance from the main entry. Without addressing the physical environment, many patients will continue to be revolve in and out with heart disease, obesity and diabetes.

The C.A.R.E. Framework includes a root cause analysis and social impact assessment that compliments the DMC community health assessment with strategies to reduce food insecurities.

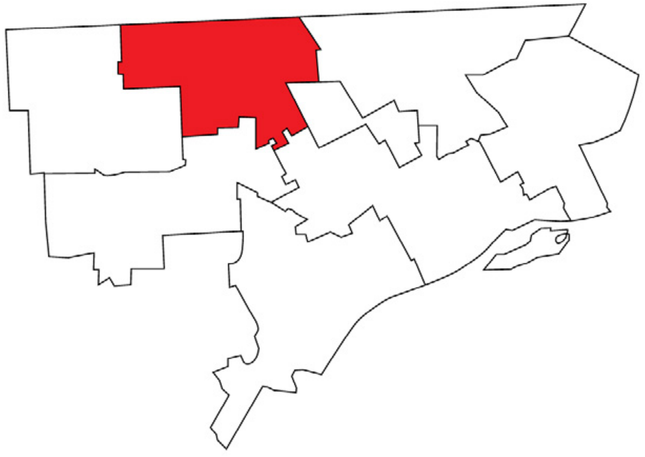


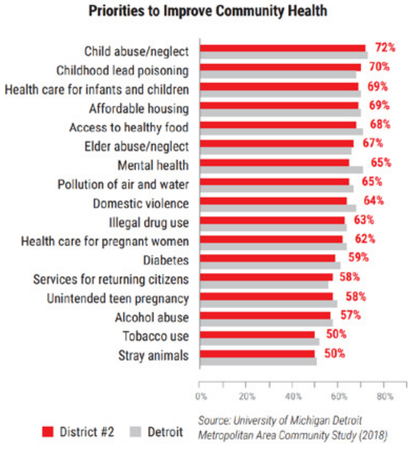


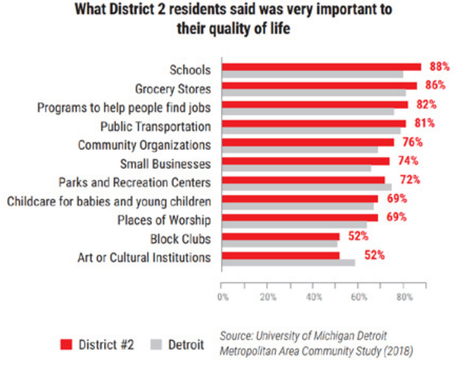
DISTRICT #2

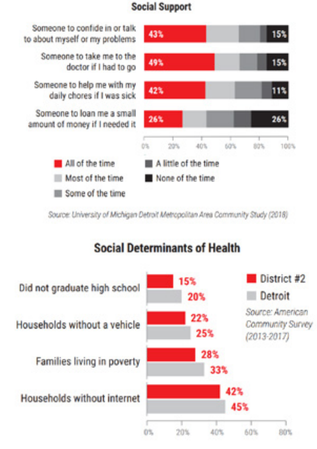
One of the top priorities to improve the quality of life for District 2 residents are grocery stores. With almost a third of District 2 Residents (28%) living below the poverty line, one out of four don't have a car to drive to the nearest grocery store.

Locating a grocery store in District 2 alone won't help residents gain access to healthy quality affordable foods, if there is no focus on education, access to jobs via the internet or providing access programs to help residents find jobs via public transportation.









WALKABILITY TO FAST FOOD VS HEALTHY FOOD FROM HOSPITAL

Hospital Walkability Unhealthy Food Buffer Map_DMC Sinai Grace: Courtesy of Caeley Hynes

Residents walking within .5-mile radius (10-minute walk) near the hospital have 9 unhealthy options out of 16. For options within a 1 mile radius (20-minute walk) near the hospital, residents can patronize 21 unhealthy out of 40. Overall there are 30/46 businesses within a 15-minute walk from DMC Sinai Grace that sell unhealthy food. This contributes to the revolving door of racial health disparities such as obesity, diabetes, heart disease and cancer.

Hospital Walkability Healthy Food Buffer Map_DMC Sinai Grace: Courtesy of Caeley Hynes

Residents walking within .5-mile radius (10-minute walk) near the hospital have 7 healthy options out of 16. For options within a 1 mile radius (20-minute walk) near the hospital, residents can patronize 19 healthy out of 40. Overall there are 26/45 businesses within a 15-minute walk from DMC Sinai Grace that sell healthy foods. This contributes to the revolving door of racial health disparities such as obesity, diabetes, heart disease and cancer.

FINANCE WALKABILITY NEAR HOSPITAL

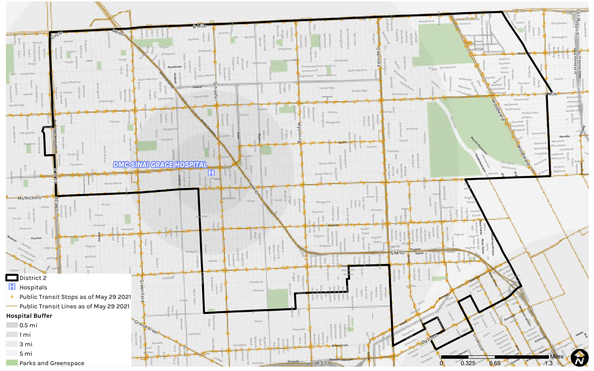
Finance Walkability Banks Buffer Map_DMC Sinai Grace: Courtesy of Caeley Hynes

Residents walking within a one mile radius (15-20 minute walk) near the hospital can select 3 banking institutions. With so many high racial health disparities in this district and limited grocery stores, there could be opportunities to develop public private partnerships with banking institutions, DMC Sinai Grace and collective leaders from local government to community residents to reduce food apartheid and create healthier communities.

Finance Walkability Check Cashing Buffer Map_DMC Sinai Grace: Courtesy of Caeley Hynes

Up and down the blocks of lower-income neighborhoods in urban cities like Detroit, you're guaranteed to see one specific type of storefront: check cashing centers. Residents living within 1-mile (15-20 minutes) of the hospital can select one check cashing center down the street from DMC Sinai Grace. Many of these check cashing stores are adjacent to liquor convenient stores and gas stations. There are renewed criticisms from advocates for lower-income residents and from bank officials who say the check chasing industry takes advantage of those who have no other options. In order to reinvest in District #2 to end food insecurity, we will need the entire community to partner and work together to end food insecurity, especially near hospitals.

TRANSPORTATION



Transportation Buffer Map_District #2: Courtesy of Caeley Hynes

Transportation Buffer Map_DMC Sinai Grace: Courtesy of Caeley Hynes

DMC Sinai Grace Hospital has a number of public transit stops along 6 Mile and Schaefer. This map indicates the hospital buffers (.5-mile - 5-minute walk); (1-mile - 15-minute walk); 3-mile and 5-mile. DMC Sinai has one small park within a 5-minute walk and three parks within a 15-minute walk. Patients arrive to the hospital via McNichols (known as 6 Mile Road); Schaefer and Outer Drive.

Patients arriving to DMC Sinai Grace within the .5 mile radius (10-minute walk) to the front door of the Emergency Department from bus stops along 6 Mile Road. The following public transit lines have routes that pass near DMC Sinai Grace: Bus lines 16, 32 and 41. The closest bus stop from the hospital to the corner of Outer Drive and Schaefer is a 2-minute walk and the bus stop on 6 Mile and Schaefer is a 6-minute walk from bus stop to Emergency Department entrance.

DMC SINAI GRACE CATCHMENT AREA

Patient Origin

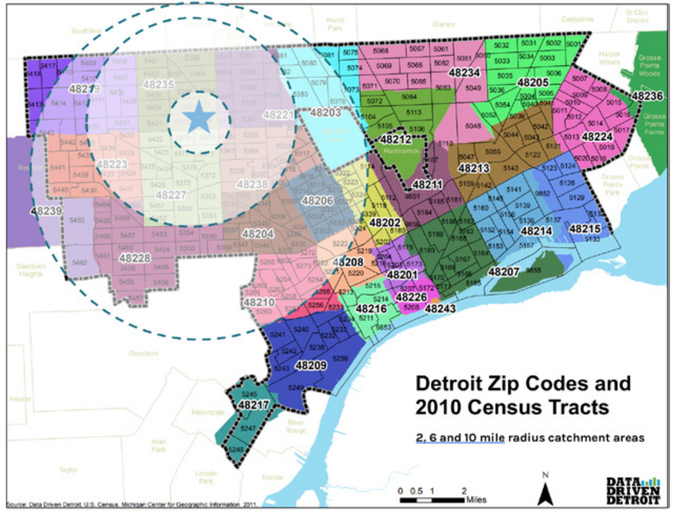
Medicare Hospital Market Service Area file for calendar year ending 12/31/2019 / Definitions

ZIP Code of Residence	Discharges	Days of Care	Charges	Discharges Inc/(Dec)	Market Share	Market Share 5-years prior
48235	1,360	7,194	68,535,818	-2.0%	34.1%	35.2%
48227	1,123	6,185	59,782,040	-6.9%	35.3%	36.4%
48221	1,033	5,456	53,886,781	-1.1%	33.1%	33.1%
48219	885	4,699	46,016,736	10.1%	24.9%	24.0%
48238	593	3,036	28,410,743	0.3%	28.6%	27.7%
48228	514	2,888	25,946,559	-3.6%	15.2%	17.8%
48223	407	2,233	22,461,388	11.2%	27.5%	22.2%
48204	245	1,419	13,478,248	-2.8%	14.3%	16.6%
48203	207	1,046	10,944,591	16.3%	9.9%	11.2%
48180	91	497	4,707,412	12.3%	1.7%	0.4%
All other ZIP Codes	1,216	10,497	66,523,367			
Total	7,674	45,150	400,693,683	-8.1%		

According to the American Hospital Directory, patients in DMC Sinai Grace catchment area came from the following zip codes: 48235, 48227, 48221, 48219, 48238, 48228, 48223, 48204, 48203 and 48180.

DMC Sinai Grace Hospital is located in District #2. The catchment area extends to a 10-mile radius from the hospital. This study focuses on a 5-15 minute walkable radius from each hospital to address food insecurities.

The C.A.R.E. Rating System will include an ecosystem map to help communities prioritize what services are needed to close the disparity gaps and help service providers, local government, developers, and stakeholders evaluate strategies.



CONCLUSION

DISTRICT #2

One of the top priorities to improve the quality of life for District 2 residents are grocery stores. With almost a third of District 2 Residents (28%) living below the poverty line, one out of four don't have a car to drive to the nearest grocery store.

The treemap for areas surrounding DMC Sinai Grace in District #2 is a great visual tool for displaying hierarchical data that uses nested rectangles to represent the branches of a tree diagram. Each rectangles has an area proportional to the amount of data it represents. The larger the rectangle, the higher the numeric value.

This treemap allows for quick perception that liquor convenient stores, fast food restaurants and gas stations are the large contributors to food apartheid. There are more gas stations than `grocery stores.

As a result, you can identify the relationship between liquor stores and fast food restaurants and compare them to hospital community health needs assessment reports, USDA mapping and census data on social determinant of health outcomes such as obesity, diabetes, heart disease and cancer.

This accurate display of ratios could question the high concentration of places that create life and death circumstances near hospitals and institutions whose sole mission is to save lives and improve the quality of life for its community. It can also offer an opportunity to reimagine the community with more healthy options that transcend food insecurity and begin to design strategies that end obesity and other racial health disparities.

I also learned that locating a grocery store in District 2 alone won't help resident gain access to healthy quality affordable foods, if there is no focus on education, access to jobs via the internet or providing access programs to help residents find jobs via public transportation.

Treemap District #2 near DMC Sinai Grace Hospital

THEY'RE CREATING HOPE: HENRY FORD HOSPITAL

Henry Ford continues to do great work in District #5. They partner with Eastern Market and other organizations to provide access to food and access to food assistance programs such as Bridge Card SNAP program that provides support to families and individuals in need; Double up food bucks (DUFB) run by Fair Food Network that doubles the value of Bridge Card dollars spent at farmers markets per day; Senior Market FRESH that provides people over 60 years old and have a total household income of 185% of poverty or less with access to unprocessed, Michigan grown products fresh prescription.[7] Participants are referred to the Fresh Prescription program by their primary care physician. The clinician gives the participants a "prescription" to eat more fruits and vegetables.

According to Henry Ford's community needs assessment, Henry Ford Hospital is currently building the infrastructure to stratify patient and health outcomes data by demographic characteristics, to better understand and address the barriers vulnerable populations face to achieving optimal health. Lifestyle factors such as alcohol and drug use, smoking cigarettes, lack of physical activity, poor nutrition, and obesity are known to greatly impact onset of disease and chronic illness. These lifestyle factors and people's ability to partake in preventative health practices are greatly dependent on the social determinants of health.[8]

Social determinants of health include access to housing, transportation, education and food. Due to time limitations, I am focusing on food apartheid; however, you can't address food in a vacuum because food apartheid is strongly interconnected with housing, education, transportation and wealth gaps in which people are born, grow, live, work and age.

Communities oppressed by food apartheid are shaped by the inequitable policies and lack of investment. These circumstances can be solved with redistribution of money, community empowerment and resources at global, national and local levels.

One example is the new Brigitte Harris Cancer Pavilion designed by SmithGroup. The new pavilion, located across the street from Henry Ford's flagship hospital, brings innovation and progressive design solutions to this state-of-the-art, patient centered healing environment for ambulatory cancer treatment, precision medicine, clinical trials, research, and enhanced support services for cancer patients.

7 (https://www.detroitmarkets.org/food-assistance)
8 https://www.henryford.com/about/community-health/needs-assessment

Courtesy of SmithGroup

DISTRICT #5

One of the top priorities to improve the quality of life for District 5 residents is access to healthy food. With a third of District 5 residents (34%) living below the poverty line, one out of four don't have a car to drive to the nearest grocery store.

Locating a grocery store in District 5 alone won't help residents gain access to healthy quality affordable foods, if there is no focus on affordable housing, access to jobs via internet or providing access programs to help residents find jobs via public transportation.

District 5 residents want to improve the overall health of the community by better addressing mental health, healthcare for women and children and chronic diseases.

These images are hundreds of feet away from the main hospital entrance. Approaching Henry Ford Hospital, there is a small strip mall that includes a liquor convenient store, check cashing center, fast food restaurant and a donut shop.

Across the street next to the new Cancer Institute is a KFC. The unhealthy choices and no grocery stores with affordable healthy foods for residents, patients and hospital staff exemplify food apartheid, especially when you revisit the history of redlining, lack of access to financial banks and residents traveling multiple bus routes just to get quality affordable healthy food.

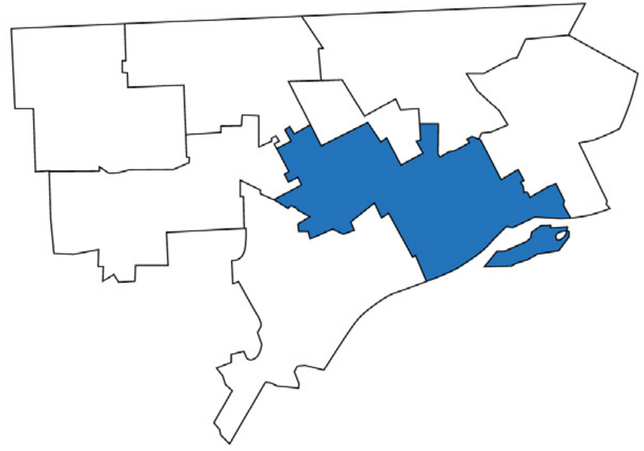
In addition, this area adjacent to Henry Ford has some of the highest obesity, diabetes, liver disease, heart disease and cancer rates in the city.

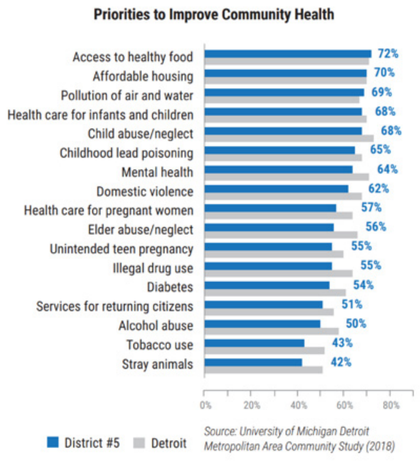
Until we shift the focus to the physical environment and address the systemic injustices by reinvesting in the community with healthy food options, more policies, and collaboration between community stakeholders, nonprofits and hospital leadership, we will continue to see disparities in health outcomes.

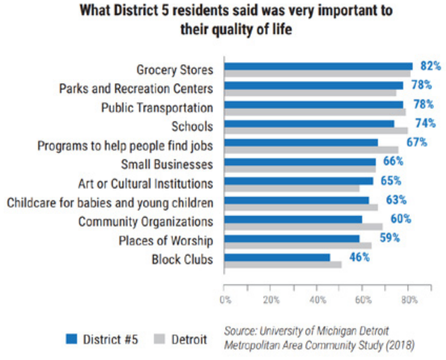
Courtesy of SmithGroup

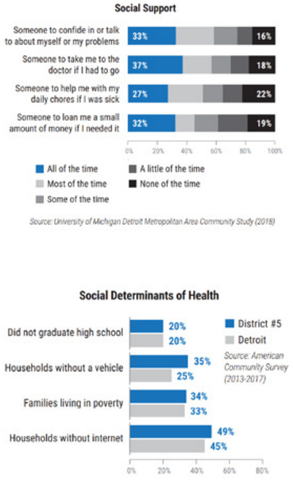
One of the top priorities to improve the quality of life for District 5 residents is access to healthy food. With a third of District 5 Residents (34%) living below the poverty line, one out of four don't have a car to drive to the nearest grocery store.

Locating a grocery store in District 5 alone won't help residents gain access to healthy quality affordable foods, if there is no focus on affordable housing, access to jobs via internet or providing access programs to help residents find jobs via public transportation.

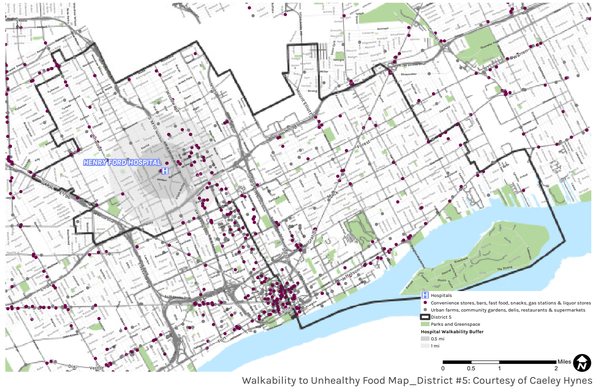




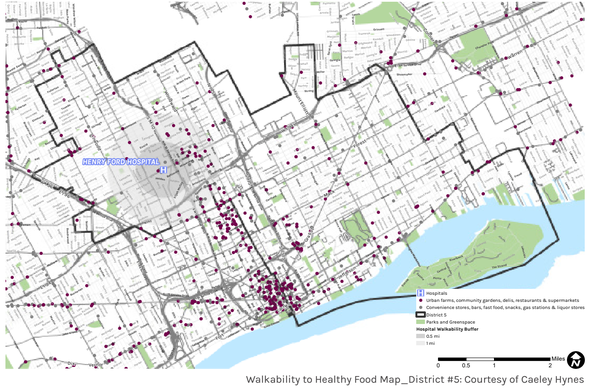




WALKABILITY TO UNHEALTHY VS HEALTHY FOOD FROM HOSPITAL



Walkability to Unhealthy Food Map_District #5: Courtesy of Caeley Hynes



Walkability to Healthy Food Map_District #5: Courtesy of Caeley Hynes

Residents walking within .5 mile radius (10 minute walk) near the hospital have 6 unhealthy options out of 10. For options within a 1 mile radius (20 minute walk) near the hospital, residents can patronize 26 unhealthy out of 45. Overall there are 32/55 businesses within a 15 minute walk from Henry Ford Hospital that sell unhealthy food. This contributes to the revolving door of racial health disparities such as obesity, diabetes, heart disease and cancer.

Residents walking within .5 mile radius (10 minute walk) near the hospital have 4 healthy options out of 10. For options within a 1 mile radius (20 minute walk) near the hospital, residents can patronize 19 healthy out of 45. Overall there are 23/55 businesses within a 15 minute walk from Henry Ford Hospital that sell healthy foods. This contributes to the revolving door of racial health disparities such as obesity, diabetes, heart disease and cancer.

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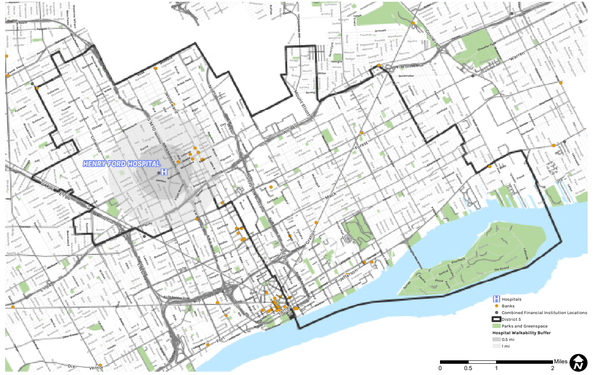
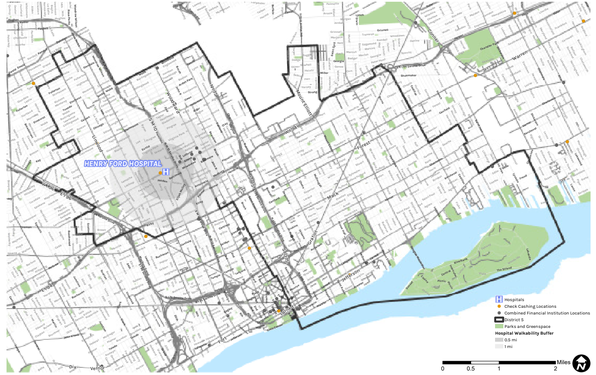
FINANCE WALKABILITY NEAR HOSPITAL



Finance Walkability Bank_District #5: Courtesy of Caeley Hynes

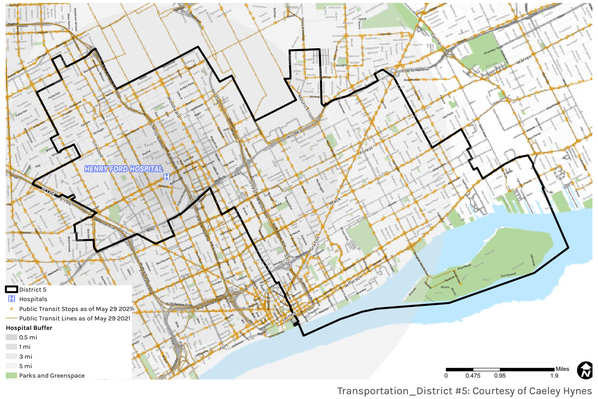
Residents walking within a .5-mile radius (10-minute walk) near the hospital can select only one banking institution. Residents walking withing a 1-mile radius (20-minute walk) near the hospital can select six banking institutions. With so many high racial health disparities in this district and limited grocery stores, there could be opportunities to develop public/private partnerships with banking institutions, Henry Ford Hospital and collective leaders from local government to community residents to reduce food apartheid and create healthier communities.



Finance Walkability Check Cashing_District #5: Courtesy of Caeley Hynes

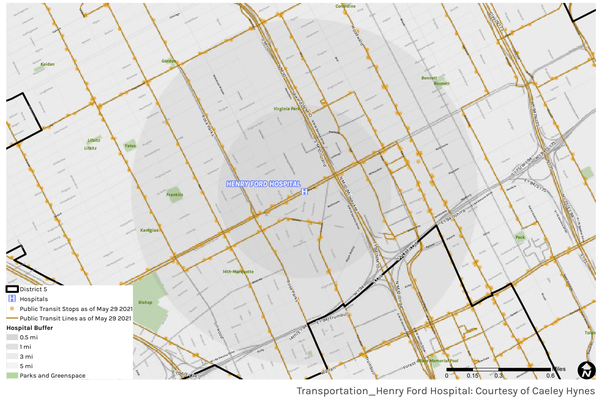
Residents walking within a .25-mile radius (10-minute walk) near the hospital can select one check cashing center. With so many high racial health disparities in this district and limited grocery stores, there could be opportunities to develop public/private partnerships with the six banking institutions within a one mile radius (20-minute, near Henry Ford Hospital and collective leaders from local government to community residents to reduce food apartheid and create healthier communities.

TRANSPORTATION



Transportation_District #5: Courtesy of Caeley Hynes

Henry Ford Hospital has a number of public transit stops along W. Grand Blvd and Lodge Freeway. This map indicates the hospital buffers (.5-mile - 10-minute walk); (1-mile - 20-minute walk); 3 mile and 5 mile. Henry Ford Hospital has no park within a 5-minute walk and one park within a 15-minute walk. Patients arrive to the hospital by taking Jefferies Fwy to W. Grand Blvd or Lodge Fwy to W. Grand Blvd.



Transportation_Henry Ford Hospital: Courtesy of Caeley Hynes

Patients arriving to Henry Ford Hospital within the .5-mile radius (10-minute walk) to the front door of the Emergency Department from bus stops along Grand Blvd. The following public transit lines have routes that pass near Henry Ford Hospital: Bus lines 16, 18, 23, 42 and 851. The closest bus stop from the hospital to the corner of W. Grand Blvd and Lodge Fwy service drive is a 6-minute walk and the bus stop on W. Grand Blvd and Poe is a 6-minute walk from bus stop to hospital.

HENRY FORD HOSPITAL CATCHMENT AREA

Patient Origin

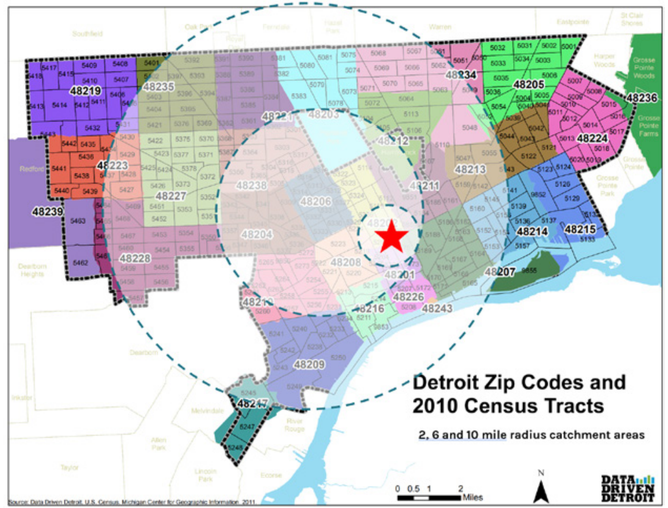
Medicare Hospital Market Service Area file for calendar year ending 12/31/2019 / Definitions

ZIP Code of Residence	Discharges	Days of Care	Charges	Discharges Inc/(Dec)	Market Share	Market Share 5-years prior
48204	652	3,497	29,977,595	-5.9%	38.1%	33.0%
48203	572	3,066	26,129,738	-10.9%	27.4%	24.7%
48228	538	2,767	22,311,391	8.9%	15.9%	13.1%
48206	519	2,905	25,590,943	-9.9%	48.2%	46.2%
48238	496	2,497	20,842,230	-20.1%	23.9%	22.9%
48227	421	2,156	16,251,493	5.8%	13.2%	12.3%
48234	394	2,106	17,019,159	4.2%	16.4%	15.4%
48202	380	2,146	17,326,988	9.2%	39.3%	32.4%
48210	359	1,967	16,855,527	-6.0%	36.0%	34.0%
48235	342	1,902	17,398,796	-10.5%	8.6%	8.2%
All other ZIP Codes	11,484	80,981	721,120,231			
Total	16,157	105,990	930,824,091	-9.4%		

According to the American Hospital Directory, patients in Henry Ford Hospital catchment area came from the following zip codes: 48204, 48203, 48228, 48206, 48238, 48227, 48234, 48202, 48210, 48235.

Henry Ford Hospital is located in District #5. The catchment area extends to a 10-mile radius from the hospital. This study focuses on a 20-minute walkable radius from each hospital to address food insecurities.

The C.A.R.E. Framework will include an ecosystem map to help communities prioritize what services are needed to close the disparity gaps and help service providers, local government, developers, and stakeholders evaluate strategies.



CONCLUSION

DISTRICT #5

One of the top priorities to improve the quality of life for District 5 residents is grocery stores. With over a third of District 5 residents (34%) living below the poverty line, one out of four don't have a car to drive to the nearest grocery store.

The treemap for areas surrounding Henry Ford Hospital in District #5 is a great visual tool for displaying hierarchical data that uses nested rectangles to represent the branches of a tree diagram. Each rectangle has an area proportional to the amount of data it represents. The larger the rectangle, the higher the numeric value.

This treemap allows for quick perception that liquor convenient stores, fast food restaurants and gas stations are the main contributors to food apartheid. There are as many gas stations as grocery stores. Because of the limited number of grocery stores, there are more urban farms for healthier food options. There are more social clubs and more parks than grocery stores.

As a result, one can identify the relationship between liquor stores and fast food restaurants and compare them to hospital community health needs assessment reports, USDA mapping and census data on SDOH outcomes such as obesity, diabetes, heart disease and cancer.

This accurate display of ratios brings into question the high concentration of places that create life and death circumstances near hospitals and institutions whose sole mission is to save lives and improve the quality of life for its community. It can also offer an opportunity to reimagine the community with more healthy options that transcend food insecurity and begin to design strategies that end obesity and other racial health disparities.

Treemap District #5 near Henry Ford Hospital

FOOD JUSTICE

To my surprise, the portrayal of the City of Detroit as a "food desert" is misleading, even as my research finds that Detroit has areas that lack food outlets.[9]

However, after conversations with food experts, they said food desert doesn't address the structural barriers the way food justice does. Food justice is more than looking at the available resources of nutritious foods; it also looks at land ownership and the connectedness with environmental justice.

"Food justice seeks to ensure that the benefits and risks of where, what and how food is grown, produced, transported, distributed, accessed and eaten are shared fairly. Food justice represents a transformation of the current food system, including but not limited to eliminating disparities and inequities."

This data will be shared with a food justice ecosystem composed of city leadership, advocacy groups, policy makers, community residents and stakeholders, urban planners, economic developers, and hospitals.

According to DMC Sinai Grace catchment areas in Detroit's District #2, there are 7 grocery stores; 132 Liquor Party Stores/Bar and Grills; 96 Fast food restaurants; 12 Urban farms; 10 dialysis centers and 43 gas stations. District #5 Henry Ford catchment area contains 13 grocery stores; 181 Liquor Party Stores/Bar and Grills; 183 fast food restaurants; 24 Urban farms; 3 dialysis centers and 9 gas stations.

After my consultation with the Detroit Food Policy Council, I was asked to compare the two Detroit hospitals with an affluent catchment area surrounding a hospital. I chose to analyze the catchment areas for West Bloomfield Henry Ford Hospital. My findings included 20 grocery stores; 15 Liquor Party Stores/ Bars and Grills; 64 fast food restaurants; 1 urban farm; 1 dialysis center and 12 gas stations. The DMC Sinai Grace and Henry Ford Catchment area are 1.6x larger than West Bloomfield Hospital catchment area and yet have the same number of grocery stores (20). In addition, there is a combined 20:1 ratio of fast-food restaurants in catchment areas surrounding DMC Sinai-Grace and Henry Ford compared to West Bloomfield. (See Figure Chart on page 55)

This chart illustrates health inequality is a matter of life and death! You can understand why the life expectancy rates are higher in West Bloomfield whereas the other two communities have 18 fewer birthdays alone based on the access to quality affordable healthy foods.

9 Hill, Critical Inquiry into Detroit's 'Food Desert' Metaphor.

FOOD METRIC COMPARISONS

Categories	District #2: DMC Sinai 48235, 48227, 48221	District #5 : Henry Ford 48202, 48204, 48203, 48228	West Bloomfield: WB Henry Ford 48322, 48331, 48334 48323
Population	105,748	97,279	65,610
Per Capital	22,495	19,287	44,885
18 & Over	80,135	76,497	13,778
Black	99,744	86,614	8,267
White	2,674	6,539	49,273
Hispanic	942	1,118	1,050
Square miles	17.1	26.1	27
Grocery Stores (includes the few major chain stores)*	7	13	20
Liquor_Party Stores/Bar & Grills/Liquor Licenses**	132	181	15
Fast Foods/Restaurants**	96	183	64
Parks	5	12	12
Gas Stations/Convenient Store**	43	9	12
Urban Farms/Food Distribution/Food Organizations*	12	24	1
Dialysis Centers	10	3	1
Drug Stores	2	3	11
General Stores/Family Dollar	11	8	2
Colleges/Universities	3	3	1

Healthy Foods* Processed Foods**

FOOD ACCESS

Studies show most adults living in food-insecure households report being unable to afford balanced meals, worrying about the adequacy of their food supply, running out of food, and cutting the size of meals or skipping meals. The dietary changes associated with food insecurity may persist over extended periods, because food-insecure households often experience repeated food budget shortages. This is particularly challenging when families near DMC Sinai-Grace in District #2 and Henry Ford Hospital in District #5 have to travel more than a mile to a grocery store with healthy affordable food.

According to the 2020 Census, the main reasons for food insufficiency centered on stores that didn't have desired food items and families couldn't afford to buy more food. Almost 53% had enough food but not the always the types of food wanted because the stores didn't have them. 66% of families had just enough to eat and 77% didn't have enough to eat because they couldn't afford to buy more food.

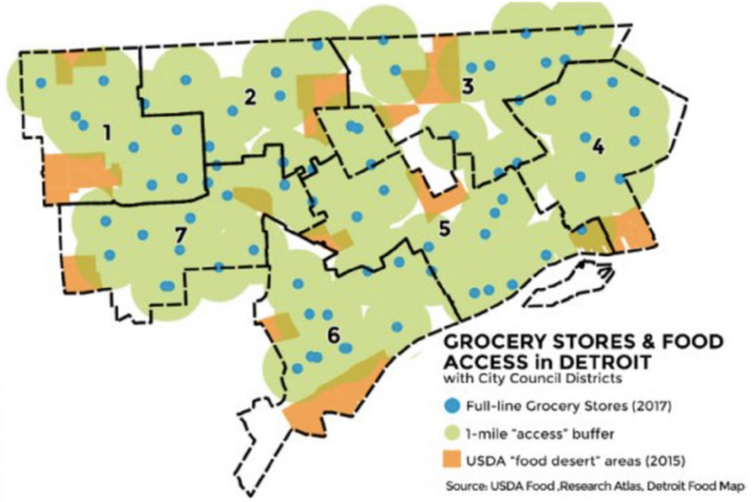
Families have to settle for high price unhealthy foods at liquor convenient stores and gas stations that are less than a mile near their hospital because they couldn't afford to buy more food. In addition, less than 25% of Detroiters own a car. This makes it even more inequitable for families to find healthy affordable food without taking multiple bus routes to various stores because they didn't have the desired food in one location.

Providing a framework to connect families with the ecosystem of nutritionists, food advocacy organizations and hospitals is the first step in creating a healthier community.

Reasons for Recent Food Insufficiency

	Enough Food, But Not Always the Types Wanted	Sometimes Not Enough to Eat	Often Not Enough to Eat
Couldn't afford to buy more food	25.2%	**66.2%**	**77.0%**
Couldn't get out to buy food	10.5%	16.5%	4.6%
Afraid to or didn't want to go out to buy food	18.4%	7.0%	0
Couldn't get food delivered to me	10.6%	7.9%	0
The stores didn't have desired food items	**52.9%**	35.1%	11.3%
Did not report	3.9%	0.3%	9.9%

SOURCE: Data from www.census.gov/hhp/urbanpulse/data as of 6/29/2020



Source: Alex B. Hill; Detroit Food Policy Council

FOOD INSECURITY DURING COVID-19

Health inequality is a matter of life and death! There are longstanding systemic forces that have created health disparities throughout the history of our nation. Covid-19 and the senseless death of George Floyd, Breonna Taylor and Ahmaud Arbery in 2020 have served to highlight the impact of structural racism and its profound role in exacerbating the effects of chronic diseases on Black Americans resulting in shorter life expectancies and a compromised standard of life.

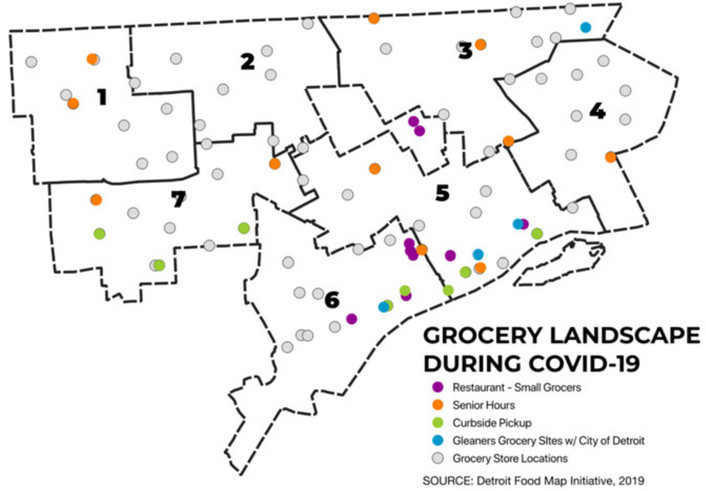
For almost two years, the COVID-19 pandemic has exacerbated the barriers to racial health disproportionately amongst the Black community. A Brookings Institution report took a deep dive into how COVID-19 affected Detroit, a predominantly Black city. Not only were Blacks more likely to contract and die from COVID-19, but the COVID-19 spillovers further exposed structurally embedded racial inequities.[10]

Detroit, one of the most segregated cities in America, has a history of systemic racism that factors in the city's lack of access to healthy food. The City of Detroit's residents are predominately Black, (83% Black and 14% White) and any effort to improve the health of the people of Detroit must also be an effort to improve the social determinants of health at play in communities overwhelmed with food insecurity. [11]

2020 Census data shows that 40% of families didn't have enough food because the stores didn't have desired food choices and 31% couldn't afford to buy more food. These reasons were intensified during Covid-19. Families living within a 15 minute walkable distance to Henry Ford Hospital and DMC Sinai Grace didn't have access to restaurants-small grocers, senior hours, curbside pickup, grocery stores or Gleaners community food bank grocery store.

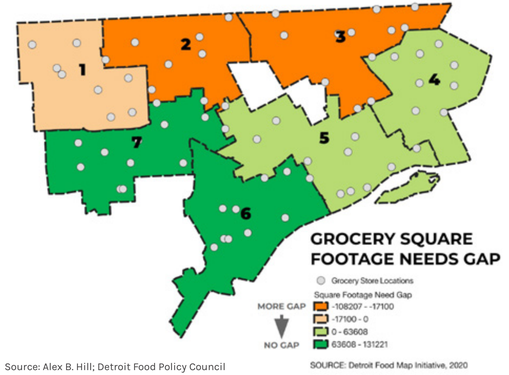
Physical environments in the places like District #2 and #5 where people live, learn, work, play, and worship affect a wide range of underlying conditions that affect access to healthy food and health care, and health risks and outcomes, such as COVID-19 infection, severe illness, and death. These conditions are known as SDOH. Long-standing systemic health and social inequities have caused Black people to die from COVID-19 at a rate 2.4 times greater than it is for white people.

10 Ray and Gostin, What Are the Health Consequences of Systemic Racism.
11 Scott et al., Structural Racism in the Built Environment.



Source: Alex B. Hill; Detroit Food Policy Council

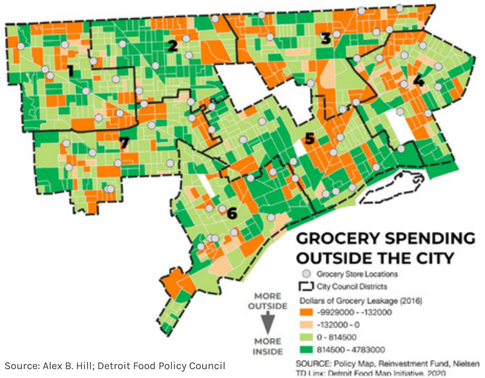
GROCERY STORE ASSESSMENTS



Source: Alex B. Hill; Detroit Food Policy Council

District #2 has the greatest grocery store square footage needs gap in all of Detroit. Black families and lower-income families have access to fewer supermarkets and other healthy food retail outlets that provide a wide selection of affordable, healthy foods. Studies show, families spend more on groceries inside the City of Detroit on the high concentration of liquor convenient stores, gas stations and overpriced single retail stores. Similarly, the limited healthy food choices near DMC Sinai-Grace Hospital is a risk to families who develop obesity, diabetes and heart disease.

District #5 has grocery store square footage needs. Families spend more on groceries outside of the City of Detroit. Due to the limited number of grocery stores in proximity of Henry Ford Hospital, many residents are forced to travel outside their community to find healthy, affordable food.



Source: Alex B. Hill; Detroit Food Policy Council

Residents living near DMC Sinai Grace in District #2 spend more on groceries inside the city. Data shows residents travel over one mile to purchase healthy food from grocery store. Most food purchased are found in liquor convenient stores, gas stations and ma & pa stores.

Residents living near Henry Ford Hospital in District #5 spend more on groceries outside of the city. Data shows residents travel over one mile to purchase healthy food from grocery store. 25% of residents don't own a car, so they travel on multiple buses to purchase affordable healthy food at various grocery stores based on what they like.

GROCERY STORE & HEALTHY FOOD PRIORITIES

The Detroit Food Policy Council 2019 report identifies grocery store and healthy food a priority for Detroit residents. According to the Detroit Health Department Community Health Assessment, every district prefer grocery stores over healthy foods.

District #2

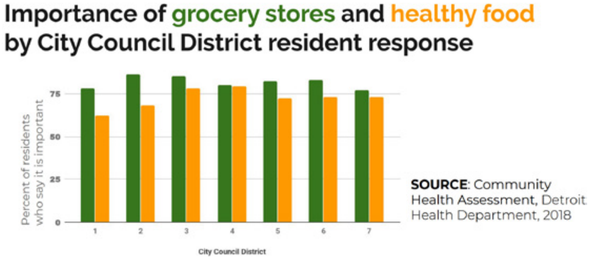
This over 80% of District #2 residents want grocery stores and 70% want healthy foods. Out of a scale of 1-10, grocery stores are ranked #1 and healthy food ranked #5.

District #5

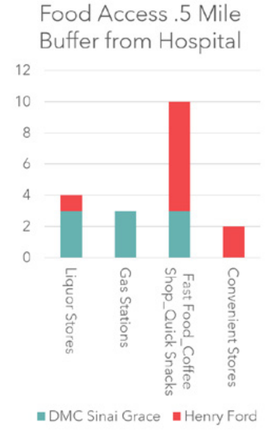
Over 75% of District #5 residents want grocery stores and 73% want healthy foods. Out of a scale of 1-10, grocery stores are ranked #1 and healthy food ranked #10.

Although Detroiter's in District #2 and #5 desire grocery stores and access to healthy food, mapping data shows that there are no grocery stores and healthy food options within a 5-15 minute walking distance from hospital. Residents currently patronize liquor convenient stores, gas stations or fast food restaurants. Studies also show that families travel over a mile to grocery stores and for households without cars, travel on multiple bus lines just to find affordable healthy foods at different stores because there is no grocery store near their hospital.

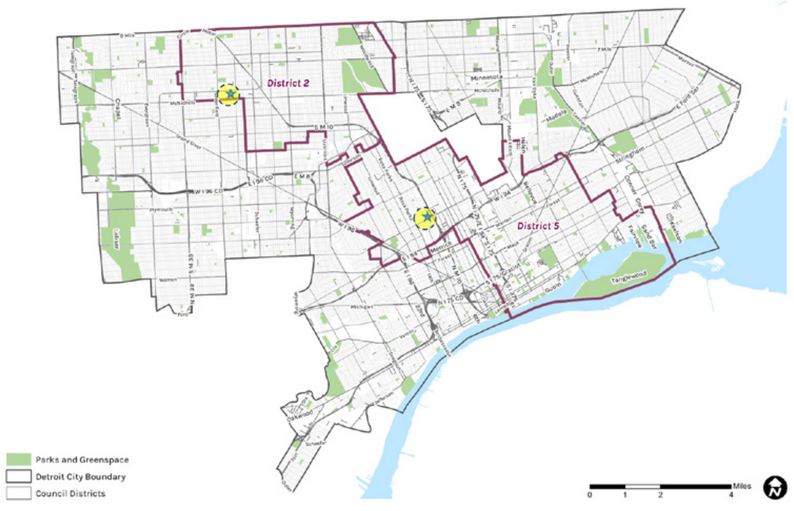
This study introduces strategies and case studies that Detroit can implement to eliminate food apartheid.



FOOD ACCESS RATE .5 MILE BUFFER NEAR HOSPITAL



Sinai Grace: 9 locations liquor stores, Gas Stations, Fast Food; 0 convenient stores
Henry Ford: 8 locations liquor stores, Gas Stations, Fast Food; 2 Convenient Stores



Courtesy of Caeley Hynes

FOOD ACCESS RATE NEAR DMC SINAI GRACE

1.8

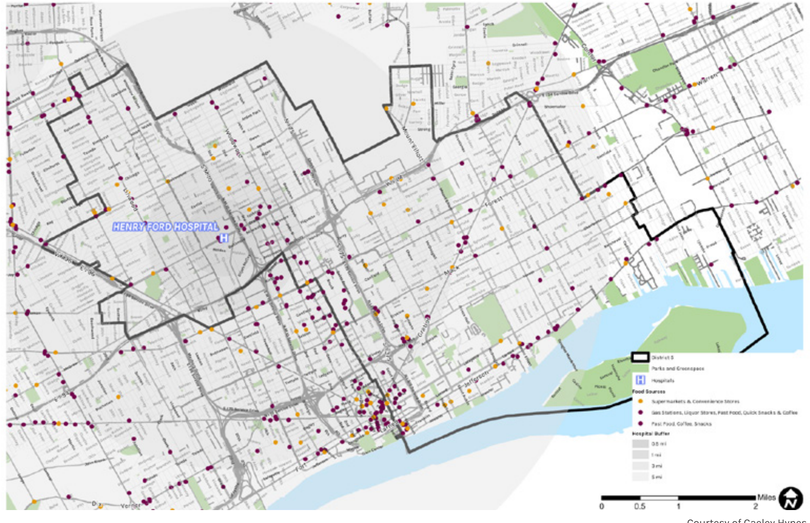
For every 4 convenient stores, there is a total of 31 (liquor stores, fast food and gas stations) for residents to chose quality, affordable and healthy food

Courtesy of Caeley Hynes

FOOD ACCESS RATE NEAR HENRY FORD

1.6

For every 4 convenient stores, there is a total of 24 (liquor stores, fast food and gas stations) for residents to chose quality, affordable and healthy food



Courtesy of Caeley Hynes

FOOD ACCESS RATE SUMMARY

The 13th Congressional District in Detroit, where Henry Ford Hospital is located, has the highest project food insecurity rate in the nation at 29.3%

The maps found on pages 62-64, illustrate that for every convenience store (CVS, etc.), there are 6-8 liquor stores in a 5-minute walking distance from the hospital. Not only families are impacted by food apartheid, but so are the hospital staff who can't find quality affordable healthy food for lunch.

The food insecurity is compounded by high number of liquor stores and fast food restaurants, and the lack of public open green spaces has greatly interrupted many households access to quality food. This also increases their risk of severe illness and disease such as obesity, kidney disease and heart disease.

The C.A.R.E. Framework will influence legislatures and policymakers to improve laws and regulations and help protect food apartheid communities surrounding hospitals.

	State		County		Congressional District	
Highest Projected:	**Overall**	**Children**	**Overall**	**Children**	**Overall**	**Children**
Food insecurity rate	Mississippi (22.6%)	Nevada/ Louisiana (32.3%)	Jefferson County, MS (36.8%)	Kusilvak Census Area, Alaska (56.9%)	Michigan's 13th District (29.3%)	New York's 15th District (43.9%)
Increase to the number of people in food insecure households	California (1.9 million)	California (864,100)	Los Angeles County, CA (614,760)	Los Angeles County, CA (271,290)	Nevada's 3rd District (61,720)	Nevada's 4th District (26,890)
Total number of people in food insecure households	California (6.2 million)	California (2.2 million)	Los Angeles County, CA (1.8 million)	Los Angeles County, CA (613,540)	New York's 15th District (215,690)	New York's 15th District (88,270)
Percent increase in the food insecurity rate	Massachusetts (59%)	Massachusetts (102%)	Kendall County, IL (93%)	Norfolk County, MA (163%)	New York's 3rd District (96%)	Michigan's 11th District (183%)

Feeding America: The Impact of the Coronavirus on Food Insecurity in 2020

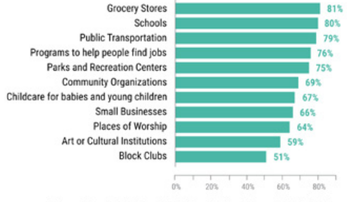
WHY IS THERE SO MUCH FAST FOOD NEAR HOSPITALS IN POOR URBAN AREAS?

Studies show fast food restaurants near schools is associated with higher obesity risk among students in urban schools and increased fast food purchases and obesity rates among teenagers are associated with fast food proximity to schools. If this is true with schools, why is there so much fast food in and near hospitals?

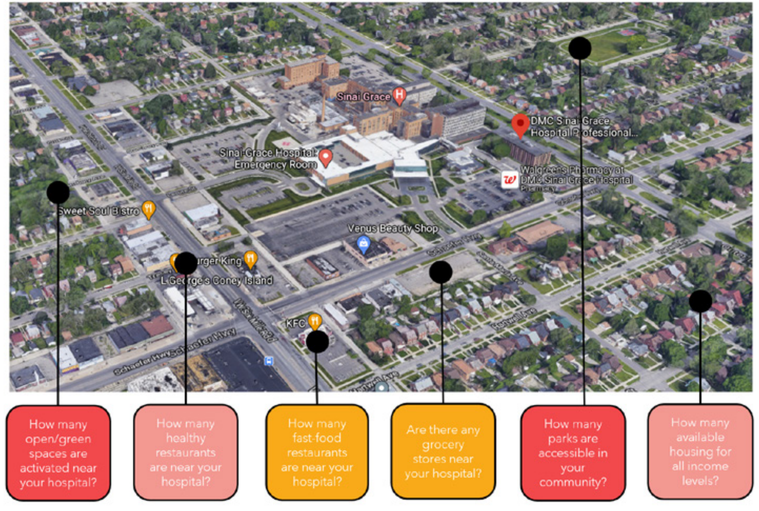
In cases near DMC Sinai- Grace and Henry Ford Hospital, liquor convenient stores and fast food are within walking distance from the front door. Some hospitals still serve greasy food and fast food and yet, patients are discharged only to find themselves back in the hospital with obesity and high-fat diet which causes cancer. DMC Sinai Grace has prevention programs and Henry Ford Hospital recently opened their cancer pavilion to address various forms of cancer.

"There's strong evidence to show that high consumption of fast food increases the risk of obesity and chronic disease, such as heart disease, diabetes and range of cancers."

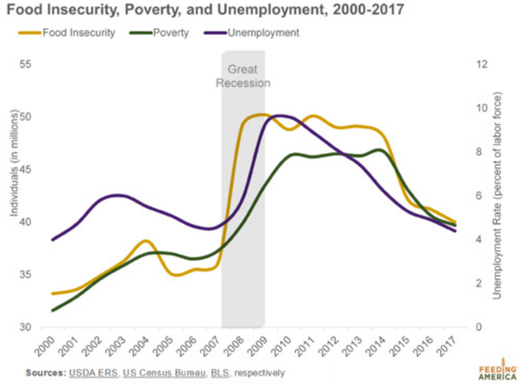
This study will provide strategies to reduce food apartheid and mention other drivers such as housing insecurity, more open parks and greenways, grocery stores, healthy affordable food options, and less fast food restaurants.



Source: University of Michigan Detroit Metropolitan Area Community Study (2018)



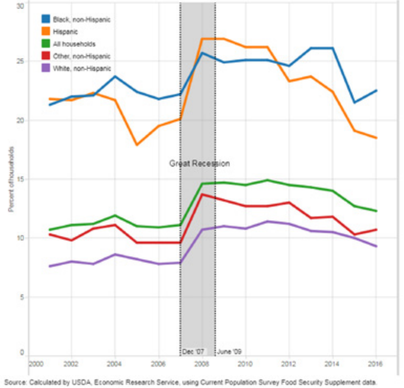
FOOD INSECURITY AND THE GREAT RECESSION



Both poverty and unemployment are driving factors of this induced food insecurity. According to Feeding America, food insecurity, poverty and unemployment rates are at there lowest since the Great Recession.

Though food insecurity, which increased sharply during the Great Recession, has declined, it still hasn't returned to pre-recession levels. One can argue that cities with high levels of food insecurity, almost 1/3 of children live in a food-insecure household.

For Black families living in Detroit it was worst because many lost their homes and employment during the Great Recession. This chart shows that food insecurity has impacted all races. However, Black families are the most impacted with the highest rates of food insecurity.



Source: Calculated by USDA, Economic Research Service, using Current Population Survey Food Security Supplement data.

Food insecurity and hunger have long-lasting health and development consequences, particularly for children. Hunger impairs emotional and intellectual development. For Detroiters, this makes sense when unemployment for African Americans is 1.5x that of white people; 17% of residents have a bachelor's degree or higher and the average household travels over a mile to purchase healthy food from a grocery store and the median income in Detroit is half that of the region.

There are evidence-based solutions to food insecurity: SNAP, supplemental summer nutrition benefits, food pantries, hospital programs with Easter Market and other urban farms and school meal programs. However, many of the food advocates I interviewed said it's time for Detroit leadership to take food apartheid and food justice serious as a new industry and as a pathway to feed thousand of struggling families.

WHERE ARE WE GOING?

"The Spirit of Detroit" is a Detroit icon, synonymous with the city itself and the dedication of those who love the Motor City.

The a 26-foot sculpture designed by Marshall Fredericks is located at the Coleman A. Young Municipal Center on Woodward Avenue in downtown Detroit. The statue's left hand grips a gilded sphere emanating rays that symbolizes divinity, while its right hand holds a family, which symbolizes all human relationships.

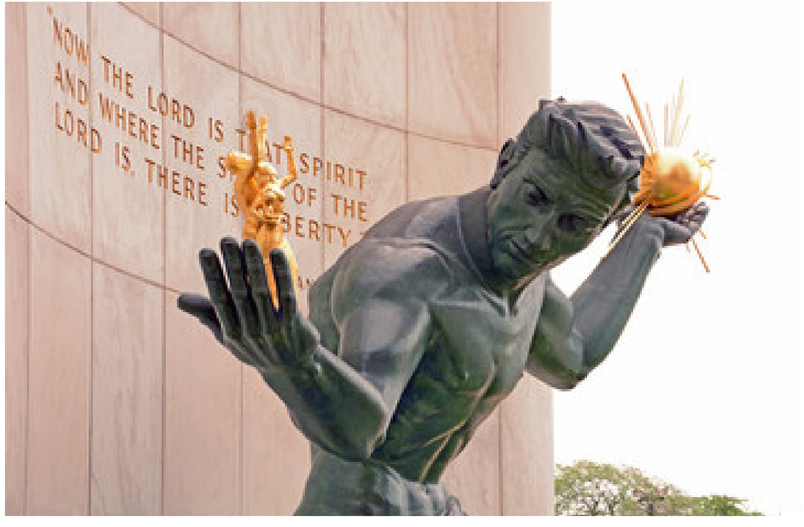
Ending food insecurity and racial health disparities is a human right.

This symbol of families and human relationships working together in the sight of God represents the spirit of collaboration that is needed if we are truly going to tackle racial health disparities found in food apartheid.

Any effort to improve the health of the people of Detroit must also be an effort to improve the SDOH at play in communities overwhelmed with food insecurity.[12]

It is going to take the entire community on one accord addressing SDOH and food apartheid in creative ways that partners planners, developers, researchers, policy makers, Legislatures, business, residents, nonprofits and stakeholders together.

12 Scott et al., Structural Racism in the Built Environment.



CONNECTING THE DOTS FOR A BETTER HEALTHCARE ECOSYSTEM

The following healthcare systems and facilities are located in cities where SmithGroup has an office. Out of the 14 cities where we have offices, SmithGroup has designed hospitals in 12 cities. Some SmithGroup hospitals are located near zip codes with high food inequalities.

In order to connect the dots for a better healthcare ecosystem, designers must ask focus on helping hospitals develop strategies to address the food apartheid in the communities they serve.

Many of the hospitals listed and others rely on ratings and hospital rankings based on safety, marketing, patient experience and social determinants of health. These competitive rankings and scores often times have conflicts with the most popular ratings systems for hospital quality that potentially confuses patients.

However, these rankings don't address the 80% that occur outside hospitals that severely impact Blacks more than any other population.

Before the murder of George Floyd in 2020 that started a movement for hospital anti-racism campaigns, there was Dr. Martin Luther King in 1966 demanding more racial health equity for Black communities.

Today, there are equity metrics being explored by Bloomberg/Johns Hopkins and Fortune/IBM Watson. Yet, there are no direct or overt measures of health equity built into the ranking system. [13]

The C.A.R.E. Framework establishes the need to share mapping data and compare with hospital community health needs assessments that focus on equity and justice to create an ecosystem of hospital leadership, researchers, food experts, legislatures, planners, designers, nonprofits and community stakeholders to develop equity/justice rating criteria to end food apartheid.

This partnership will then rank hospitals based on how good of a neighbor they are to the community based on rating how well you're addressing those critical issues vs. how you score competitively compared to your peers.

13 Peeler et al., Equity Metrics Should Be An Essential Component Of Hospital Rankings.

ORGANIZING PARTICIPATION

Many websites now rate hospitals. Residents want to know which hospital is best and nearest to you. Unfortunately, these web sites are not perfect. They can help patients make informed choices, but every rating system is different, so its not comparing apples to apples.

Some sites use different types to date in their rankings such as: patient experience measures based on surveys about the care they received and their overall hospital experience; process measures on patient recommended care for their condition; outcome measures on how well patients do after they receive treatment; patient safety measures on how often patients suffer from hospital errors and cost measures based on cost of care for specific services.

Hospital ratings are based on data from government sources such as CMS, the Institute of Medicine, The Joint Commission, HCAHPS surveys and other trusted sources.

For example, HealthGrades.com are rated in three categories and each category is rated in a different way:

- Patient safety measures are rated as worse than average, better than average (based on Centers for Medicare and Medicaid Services (CMS)
- Outcome measures or clinical quality are rated with 1 star = worse than expected, 3 stars = as expected, 5 stars = better than expected (based on outcomes for 31 common procedures and conditions using Medicare discharge data)
- Patient experience measures satisfaction scores showing how hospitals rate compared to national average (based on Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) surveys, administered by CMS)

LeapFrogGroup.org provide top hospital ratings each year for top overall hospital, rural hospital, children's hospital and teaching hospital. Ratings are presented as a bar graph ranging from one to four bars. The Leap Frog Group is a non-profit funded by large employers and other purchasers with the goal of improving transparency and allowing both employers and consumers to make informed decisions. The focus is on patient safety. Publicly available data from the Center for Medicare and Medicaid Services, Agency for Healthcare Research and Quality, and CDC as well as the Leap Frog Group's own hospital survey, are used to develop the ratings.

Adapted from Sherry Arnstein 1969 Ladder of Citizen Participation[14]

14 Ladder of Citizen Participation.

ORGANIZING PARTICIPATION

There are other hospital ratings like CMS, Crains Notable in healthcare, US News Best Hospitals, Hospital Safety Score and Becker's Hospital Review.

However, hospital evaluation systems and recognition programs have not kept up with these changes, leaving hospitals' efforts and innovations in the areas of community health and equity unrecognized. Only a few specialized ranking systems, such as the Lown Institute Hospitals Index and Foster McGaw Prize, incorporate community health into their evaluations. Currently, none of the major hospital performance methodologies comprehensively evaluate hospitals' impact on community health or equity.[15]

C.A.R.E. Framework seeks to evaluate hospitals impact on racial health equity found in food apartheid. The framework brings an ecosystem of planners, economic developers with a food advocacy collaboration of broad cross-sector coordination coming together to share experience and knowledge to confront food apartheid surrounding hospitals

It could be argued that these hospital ratings have a top-down approach to assessing health. The C.A.R.E. Framework uses a bottom-up approach to assessing health based on Sherry Arnstein's 1969 Ladder of Participation theory. The more you engage the community and address their needs, the higher the partnership, collective leadership, and citizen influence. The ideal is to empower the community to take ownership and hold its partners accountable.

As a result, hospitals can be trusted as good neighbors and active partners in promoting racial health equity to a historically disenfranchised community that has a history of mistrust with the healthcare system. This also avoids how communities are used as tokens or manipulated into thinking they have a say in their own community, only to be controlled with no voice. (See Ladder of Citizen Participation on Page 68)

The C.A.R.E. Framework is based on research not on arbitrary ratings based on the number of stars and grades based on patient safety that compares apples to oranges.

Instead of hospitals and health systems receiving a US News Best Hospital ranking and receiving a lower grade based on another criteria that gives way to confusion and disputes. Most hospitals ranked as top performers by one system weren't ranked as top performers by another. In fact, studies found that in several cases, hospitals that were named as high performers under one system were considered low performers under another.[16]

As hospitals and health systems commit to promoting and practicing equity, they must also be judged, through ranking systems, on their success in achieving equity.[17] Organizations such as Lown Institute are now pushing hospitals to start thinking about equity in their rankings.

The Lown Institute Hospitals Index is the first ranking to evaluate hospital social responsibility of more than 3,000 U.S. hospitals. Their social responsibility ranking is based on 54 metrics across three main categories: equity, value and outcomes.

I hope to find common ground and goals where researchers, clinicians, policymakers and hospital leadership would have dialogue and share data findings that creates an ecosystem of learning and partnering to develop strategies that eliminates racial health equity found in food apartheid.

15 Plott et al., New Hospital Rankings Assess Hospitals' Contributions to Community Health with a Focus on Equity.

16 Lenzer, 'Best' Hospitals in US Get Poor Marks in New Rating System.

17 Peeler et al., Equity Metrics Should Be An Essential Component Of Hospital Rankings.

PARTNERING WITH INTENTIONALITY

It is my goal that this first attempt at assessing hospital contributions as good neighbors with a focus on racial health equity in food apartheid will advance conversations to compassion in action that partners with the entire community.

One way to achieve this is to partner with intentionality. Dr. Kimberlydawn Wisdom, Sr. VP of Community Health & Equity and Chief Wellness & Diversity Officer at Henry Ford Health System said, "we need to partner in a very deliberate, intentional, and systematic way with public health [departments], with our urban planners, and with our economic developers. We need to partner in ways that traditionally we haven't if we're truly going to address social determinants of health."

-

ECOSYSTEM

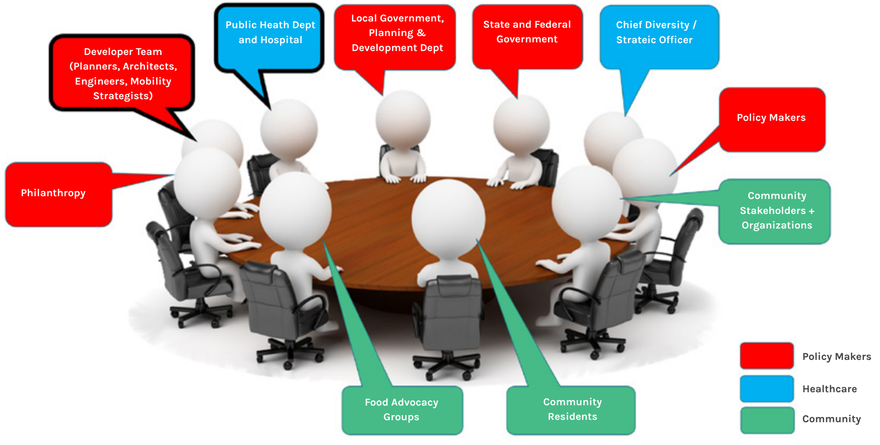
The C.A.R.E. Framework will create an ecosystem of stakeholders committed to addressing a racial health disparity found in food apartheid. Detroiter's have voiced their concerns that food insecurity, housing instability and wealth inequality. Detroit has a history of great organizations, churches and food advocacy groups working toward food justice. However, many are working in silos and C.A.R.E. strives to bring everyone together in a structured way to achieve racial health equity in food apartheid.

This framework will be used in collaboration of community partners, human service agencies, economic developers, urban planners, policy makers, health care systems and local governmental education to set priorities, common goals and target resources.

Developing policies and defining actions to target efforts solve food apartheid is crucial!! My interviews with college professors, healthcare institutions and nutritionists all said that policies are the key to promoting health.

"Food justice seeks to ensure that the benefits and risks of where, what and how food is grown, produced, transported, distributed, accessed and eaten are shared fairly. Food justice represents a transformation of the current food system, including but not limited to eliminating disparities and inequities."

This data will be shared with a food justice ecosystem composed of city leadership, advocacy groups, policy makers, community residents and stakeholders, urban planners, economic developers, and hospitals..



COLLECTIVE IMPACT MODEL

The collective impact model was first described in an article published in the Stanford Social Innovation Review (Winter 2011) by John Kania and Mark Kramer. The model was used to describe cross-sector collaborations that were already taking place in the U.S. to solve seemingly intractable problems by creating a centralized infrastructure with a structured process and dedicated staff. [18]

Because so many organizations are working in isolation from one another, Collective impact brings people together in a structured way to achieve social change.

It starts with a common agenda, then establishes a shared measurement to foster mutually reinforcing activities.. Afterwards, the team builds trust with continuous communication and participating as a team.

This model is used all over the world. For example, the leading organization in Canada that is working on ending poverty from a holistic perspective is the Tamarack Institute.

This is a good case study for the C.A.R.E. Framework that is working to close the racial disparity gaps found in food apartheid

Collective Impact Graphic courtesy of Clear Impact

18 Collective Impact Forum | What Is Collective Impact?

WHERE DO WE GO FROM HERE?

The C.A.R.E. Framework's ecosystem of collective leaders will collaborate together to solve the same issue of food insecurity surrounding DMC Sinai Grace and Henry Ford Hospital. They will also discuss benefits for the community and beneficiary groups throughout the process.

This is the starting point to track the success of bringing everyone together using tools such as the collective impact collaboration. Establishing an agreement with hospitals, business, government, researchers, investors, economic developers, policymakers, non-profits and community stakeholders can give a credibility boost in the eyes of the general public and the overall community.

Each organization will be able to discuss and agree on standard metrics that will address food insecurity. The partners under the framework will gain leverage to increase opportunities for government and funding.

My interviews with food experts addressed the power to lobbying for beneficiary legislation (Certificate of Need and other programs) by demonstrating hospitals, businesses and nonprofits working together to improve racial health disparities and food insecurity.

As a result of these organizations working together under the C.A.R.E. Framework can best demonstrate meaningful and effective measures to track the progress of food apartheid and related disparities such as education, housing insecurity, employment, access to outdoor green spaces and access to healthy food.

Leveraging the C.A.R.E. Framework as a way to take a hospital's existing internal leapfrog surveying/feedback process outside the institution is a new holistic approach that focuses on continuous learning and improvement of key outcomes.

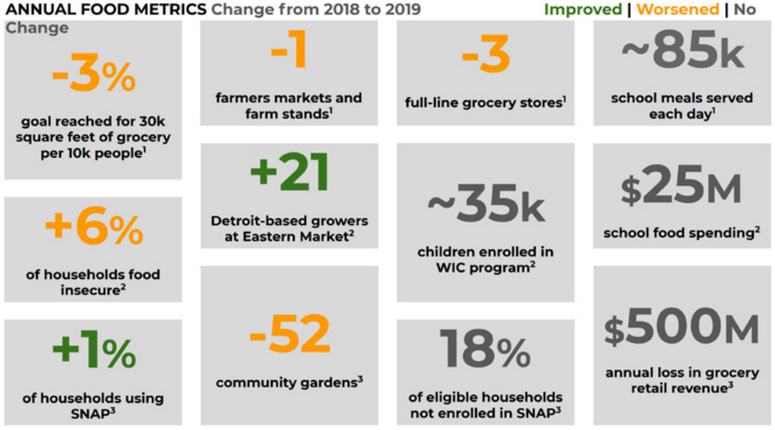
ANNUAL FOOD METRICS

One example of custom metrics is the food metric system developed by the Detroit Food Policy Council (DFPC). Every year, the Detroit Food Policy Council produces and disseminates City of Detroit food system reports that assess the state of the city's food system. This includes activities in production, distribution, consumption, waste generation and composting, nutrition and food assistance program participation and innovative food system programs. They also collaborate with other non-profits, urban farmers, planners, community garden organizations on programs, reports and conferences to reduce food apartheid.

This chart illustrates the various metrics such as household food insecure, Detroit based growers at Eastern Market, farmers markets and farm stands, full line grocery stores and a host of nutrition programs.

The DFPC tracks these metrics to see if there are any improvements. Metrics that worsened over the year period will become priorities to engage partners for the following year and beyond.

As a result, metrics like this are designed around ending food apartheid and improving access to healthy affordable food.



Credit: Detroit Food Policy Council

EVALUATING METRICS

After establishing the collective leadership and developing standard meaningful and effective measures to solve food apartheid, the team can focus on evaluating the metrics to identify priorities based on community needs and hospital assessment reports.

Using tools such as Power BI, the team can evaluate data and mapping to determine locations for healthy affordable food and reinvestment opportunities.

This evaluation process include tools such as collective impact forums to complement the C.A.R.E. Framework and give leverage to the holistic community to fight food insecurity with equitable policies and laws that will reduce racial health disparities.

This chart could be an example for each participant to identify metrics that are important to food insecurity from their perspective and knowledge. A nutritionist, researcher and food policy council metric will be different than a hospital or developer, but reviewing shared common goals and data will offer strategies that could link metrics and racial health disparities..

Becoming trusted partners that hold each other accountable to one another is the key to bringing everyone together by listening and evaluating metrics based on a common goal and vision.

	NOT MEETING 1	APPROACHING 2	MEETING 3	EXCEEDING 4
Access to healthy affordable and nutritious foods		x		
Partnership with local food advocates, non-profit organizations and anchor institutions in catchment areas				x
Reduce racial wealth gap (recruiting & upward mobility opportunities)	x			
Support Black owned business and Black farmers			x	
Partner with stakeholders to build a grocery store near campus		x		
Farmers markets and farm stands on campus			x	
Open green space & Community gardens		x		
Monitor Community Health Needs Assessment goals and outcome/process	x			
Reduce household food insecurity		x		
Increase purchasing power to minority owned businesses with programs like (1 product, 1 %, 1 contract) to address food apartheid	x			
Readmission Rates		x		
Include community benefit requirements in their hospital licensing programs	x			
Onsite food pantry		x		

C.A.R.E. FRAMEWORK SWOT ANALYSIS

S STRENGTHS	W WEAKNESSES	O OPPORTUNITIES	T THREATS
• Hospitals provide a Community Health Needs Assessment once every three years according to the Affordable Care Act • Organizations are doing great work • Existing food advocacy in Detroit • Hospitals have outreach programs and community assessments to address social determinants of health and needs of community • We have access to lots of data on food apartheid; social determinants of health and racial health disparities to assist organizations	• Not enough healthy food outlets • Health inequities are killing people • Lack of access to health, affordable foods • High levels of stress, anxiety and depression • More liquor store, fast food and gas station concentrations than grocery stores • Obesity, cancer, kidney disease, diabetes impact community • Fewer opportunities for physical activity • Lack of parks and open green spaces	• Vacant city parcels and existing buildings with infrastructure can be used to close racial health disparities in food apartheid • Create more open space for physical activity • To partner with planners, economic developers, food advocacy groups, stakeholders, community residents, hospitals and local government • Influence policy makers at all levels of government to address hospital certificate of need based on health disparities and connect the dots	• Wealth inequalities • Lack of affordable and fresh produce • Inadequate access to transportation • Community disinvestment • Limited access to health care • Disconnect between food advocacy, hospitals and community • Hospitals perceived not a "good neighbor" based on high numbers of fast food, liquor convenient stores and gas stations near hospital • Patients revolve in and out of hospitals with obesity, diabetes, kidney disease, heart disease and cancer due to lack of food options

SWOT Analysis

LENS OF JUSTICE

The food justice metrics within the framework will be decided in a collaborative process by the community partners and identify SWOT (strengths, weaknesses, opportunities and threats) analysis that exist in the community to improve the health equity and food justice surrounding hospitals.

This framework will provide the holistic community with tools such as the SWOT analysis to highlight such strengths for collective leadership impacts based on hospital programs and community health needs assessments. Weaknesses include but are not limited to lack of healthy food options in proximity to the hospital, high health inequities and healthy food ratios to liquor stores, fast food and gas stations within a 5-15 minute walk from the hospital.

Opportunities include hospitals becoming a trusted advisor for community health, partnering with planners and other stakeholders to reduce food insecurity and influence lawmakers to create healthy communities. Threats include wealth gaps, patients revolving in and out of hospital doors with chronic diseases due to food insecurities.

Each collective leader will be charged with developing a rating score that will educate and help hospitals be a better neighbor by reducing food insecurity in their community.

This lens of justice begins with legislatures, designers, planners, economic developers, hospital leadership, non profits, community stakeholders and residents impacted by policies and systemic forces that perpetuates food apartheid.

Furthermore, this study suggests the need to re-examine urban food inequalities through the lens of justice, racism, capital, and policy, and to reimagine the role of government in protecting the rights of citizens, especially in food insecure communities known as food apartheid in hospital catchment areas.

While food desert addresses the need for supermarkets in neighborhoods where people have limited access to healthy affordable food, it begs the question are we solving the right problem when we ignore the historical injustices that plague Black communities with liquor stores, fast food restaurants and no access to healthy foods near their neighborhood hospital.

The "food desert" decline narrative is used to promote supermarket reinvestment policies aimed at improving health and spurring urban economic development; such a policy ignores the role of racism in creating inequalities and therefore cannot address root causes of unequal food access.[19]

The C.A.R.E. Framework creates an ecosystem that brings the collective leadership together that addresses the structural barriers, while advocating and designing for the health and wellbeing of the community through the lens of justice.

Lastly, the data can and should change how we plan and design for equity and justice. This can be accomplished by using the following metrics: Detroit life expectancy by zip code, food desert data, GIS data layers to support your research on social determinants of health, etc..

19 Lakhani, "The Food System Is Racist."

GOOD NEIGHBOR

The greatest storyteller told a story of a man, stripped of dignity, who fell on hard times and was left for dead on a road called Jericho. Those who had the power to help had no compassion and passed by him. A stranger despite being a different race had compassion, stopped, saw his condition, met his immediate health needs, gave him access to quality care and provided financial resources for sustainable care. He was called a good neighbor because he had compassion with action. This artwork by Norman Rockwell entitled "The Golden Rule", illustrates the importance of dignity, equity and justice. It's also a gentle reminder that being a good neighbor requires ALL of us to go beyond service to solving inequities within our systems.

Dr. Martin Luther King Jr said in his "I've been to the mountain top sermon", "I think the Good Samaritan is a great individual. I of course, like and respect the Good Samaritan... but I don't want to be a Good Samaritan....you see, I am tired of picking up people along the Jericho Road. I am tired of seeing people battered and bruised and bloody, injured and jumped on, along the Jericho Roads of life. This road is dangerous. I don't want to pick up anyone else, along this Jericho Road; I want to fix... the Jericho Road. I want to pave the Jericho Road, add street lights to the Jericho Road; make the Jericho Road safe (for passage) by everybody.[20]

As a healthcare planner, I see parallels between providing care for everyone who lack access to affordable and healthy food along the road and fixing the Jericho Road (root causes of food apartheid) to make it equitable for everyone.

The metaphor of Jericho Road is useful for describing the levels at which racism operates. The road represents root causes and acts of racism, such as the high racial health disparities found in Black and lower income communities jam-packed with liquor convenient stores, gas stations and fast-food restaurants just hundreds of feet away from the hospital front door, that is easily seen. However, the urban design, systems, institutional policies, redlining and racial displacement represents structural racism. This is more difficult to eliminate. Only addressing the things, we see, doesn't impact the structural systems that continues to perpetuate racial inequalities.

By fixing the road or pathway to racial health equity in food apartheid, there will be fewer sufferers. Fixing the road toward design justice means, rather than focusing solely on designing hospitals, let's add to our design for the entire community, a lens of justice and food equity that begins to eliminate these root causes.

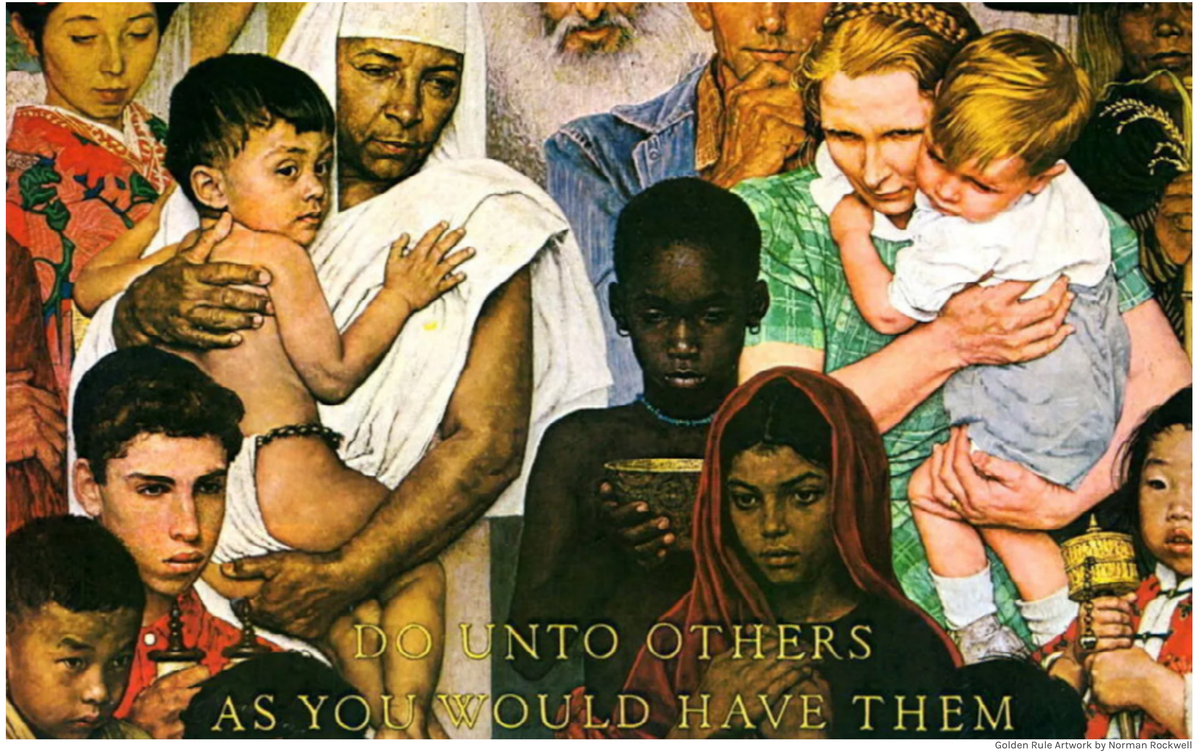
To be good neighbors, we must have a deep design approach that addresses root causes: poverty, racism, unequal access to resources and food apartheid. Only then can our designs be safe for everybody.

20 Rosteck, Narrative in Martin Luther King's I've Been to the Mountaintop.

"These are issues of the 21st Century that are now on our collective watch. And the question is, what are we going to do about it?"

Bernard Tyson
Fmr Chairman & CEO
Kaiser Permanente

1959-2019



Golden Rule Artwork by Norman Rockwell

04
CASE STUDY

.Detroit Food Policy Council is an education, advocacy and policy organization led by Detroiters committed to creating a sustainable, local food system that promotes food security, food justice and food sovereignty in the city of Detroit. The Detroit Food Policy Council regularly produces and disseminates City of Detroit Food System Reports that assesses the state of the city's food system, including activities in production, distribution, consumption, waste generation and composting, nutrition and food assistance program participation and innovative food system programs.

The **AMA** outlines five strategic approaches to begin tackling racial justice and advancing health equity:

-Embed equity and racial justice throughout the AMA

-Build alliances with marginalized physicians and other stakeholders t

-Push upstream to address all determinants of health and root causes of inequities

-Ensure equitable structures and opportunities in innovation

-Foster pathways for truth, racial healing, reconciliation, and transformation for AMA's past

The **Detroit People's Food Co-op** is an African American led, community-owned grocery cooperative. The co-op's purpose is to provide improved access to healthy food and food education to Detroit residents.

The complex where the Detroit People's Food Co-op will be located has been deemed The Detroit Food Commons. It's being built in partnership with DBCFSN and Develop Detroit and will include incubator kitchens, meeting spaces, offices and outdoor vendor booths in the warmer months

Why Health-Care Systems Are Funding (Or Building) Grocery Stores

Access to healthy food can support not only personal health but neighborhood health. **Promedica** healthcare system now owns and operates a grocery store in the UpTown neighborhood in Toledo.

Today the 6,500-square-foot **Market on Green**, which is owned and operated by ProMedica, is part of a much larger $50 million community investment as part of the ProMedica Ebeid Neighborhood Promise for place-based investment

The collective impact model was first described in an article published in the Stanford Social Innovation Review (Winter 2011) by John Kania and Mark Kramer. The model was used to describe cross-sector collaborations that were already taking place in the U.S. to solve seemingly intractable problems by creating a centralized infrastructure with a structured process and dedicated staff.

The Cleveland planning commission approves apartment project that includes brining supermarket to East Side food desert. The City of Cleveland, **Cleveland Clinic**, Meijer, Fairfax Renaissance Development Corporation and Fairmount Properties broke ground today on a new grocery market and 196 apartment units in the **Fairfax neighborhood of Cleveland**. The idea of bringing a grocery market to the Fairfax neighborhood originated when the Cleveland Clinic CEO and with Cleveland City Council President-Elect hosted a community conversation with residents and leaders to better understand the community needs and how Cleveland Clinic could contribute.

Lawndale's only Black-Owed Grocery Store. The North Lawndale Fresh Meat & Produce Market will open by spring 2022, bringing fresh food to an area that has few grocery options.

"We don't have fresh food. We don't have a Black-owned coffee shop," Person said. "These are the things that our community is supposed to have, also. We shouldn't have to go to another neighborhood to sit down and have a nice cup of coffee. Our community deserves those same benefits."

(blockclubchicago.org)

Virginia Commonwealth University and Health Systems is locating its "health hub" next door to a new grocery store in East Richmond. The **Market@25th**, is part of a larger $40 million development that includes a Virginia Commonwealth University-sponsored health hub, 54 affordable apartments, a Boys and Girls Club, and the Kitchens at Reynolds, a culinary school housed at the nearby community college.

"You can't just can't plop a grocery store in a food desert and expect people to change behavior," said Pennywell. "You need a more comprehensive approach."

The **Tamarack Institute** is the leading organization in Canada that is working on addressing poverty from a holistic perspective. Here is their link to Communities Ending Poverty: https://www.tamarackcommunity.ca/communitiesendingpoverty.

Founded in 2001, the Tamarack Institute develops and supports learning communities to help people collaborate and to co-generate knowledge to solve complex community challenges. Tamarack offers the latest thinking, resources, and interactive online practices to help leaders and practitioners grow their knowledge, expand their networks, and inspire innovation and collaboration. -sector approach to solve complex community challenges. www.tamarackcci.ca

The Campus Transformation: The MetroHealth System, Cleveland, Ohio managed by Walter Jones, AIA.

A Reimagined Campus: More than 25 acres of green space; much of it accessible to the public, healing gardens in park-like settings, and walkways, connectors and a path to the Towpath Trail.

A Stronger Neighborhood: The world's first hospital-led EcoDistrict; new, affordable housing on and near our campus; partnerships with public, private, nonprofit and civic entities, and housing incentive program to help our employees move into our neighborhood.

In 2020, the team, in partnership with Hope Clinic – a locally-based, federally qualified health center – began working in Alief, an underserved community in South Western Houston and apply a **healthy foodscapes approach to Southwest Houston**. The health clinic depends on data to drive programs and ensure impact of the initiatives they run. The Gehl team helped Hope Clinic gain new insights into the power of collecting local stories and data to support future intervention concepts.

"**The MOWA program** is one example of how Eskenazi Health works with local partners to promote community health. Another is a food pantry at Eskenazi Health Center Pecar, which is located in one of the most disadvantaged sections of Indianapolis. It is a food desert that is home to a large concentration of immigrant families. The pantry is housed at the health center and staffed by members of nearby St. Luke's United Methodist Church. Most of the food is provided by Gleaners, the area food bank. The largest funder is Dow AgroSciences, whose global headquarters is located in the county."

05
CONCLUSION

In 2021, the Community Achievement Racial Equity Framework (C.A.R.E.) was designed to combat food apartheid. The C.A.R.E. Framework identifies existing site conditions based on a 15-minute walkable radius around a hospital, offers recommendations based on research and engagement efforts, creates a food justice ecosystem of stakeholders to develop their own rating systems, and identifies criteria like access to healthy food, public transportation, and healthy and safe recreation. The vision is to break down socio-economic barriers, create a healthier community and provide recommendations for change to hospitals, their facilities and the surrounding community.

This framework has four goals. The first goal is to gather current and viable statistics and indicators on various healthcare issues in the service area. The second goal is to obtain an understanding of opinions and perceptions of community healthcare needs from residents, community stakeholders, academia, and nonprofits. The third goal is to identify food apartheid, food oases and racial disparities surrounding DMC Sinai and Henry Ford Hospital using GIS mapping. The fourth goal is to share this data with a food justice ecosystem composed of city leadership, advocacy groups, policy makers, community residents and stakeholders, urban planners, economic developers, and hospitals.

As I started researching the social determinants of health, the high levels of health disparities (obesity, cancer, diabetes, heart disease) and no healthy food in a 15 minute walkable radius from hospitals, to my surprise, the portrayal of the City of Detroit as a "food desert" is misleading, even as my research finds that Detroit has areas that lack food outlets.

However, after conversations with food experts, they said food desert doesn't address the structural barriers the way food justice and food apartheid does. Food justice is more than looking at the available resources of nutritious foods; it also looks at land ownership and the connectedness with environmental justice.

According to the research, no matter what district you live in, the top priority is more affordable healthy food and grocery stores. This was also true for District #2 and District #5. District #2 and District #5 have the highest obesity, diabetes, heart disease, cancer and other chronic disease percentages in Detroit.

Here are some data summaries:

- There is also a link between housing instability and food insecurity. Housing instability and food insecurity are associated with poor access to ambulatory care and high rates of acute care. These competing life demands may lead to delays in seeking care and predispose to acute care.[21]
- There is a link between food insecurity, chronic diseases, transportation, open spaces and education. Because there is a high concentration of liquor stores, gas stations and fast food restaurants, no open parks, a high percentage of obesity, diabetes, heart disease and cancer, 25% of households without a car, low college graduation rates and no healthy foods, its no wonder residents are making more trips to the emergency room and life expectancy by zip codes that equate to 18 less birthdays. This food desert data, redlining maps, life expectancy and mapping overlaps can become GIS data layers to support the research that District #2 and District #5 are food apartheid communities.
- Over half the food options are from liquor convenient stores and fast food restaurants. There needs to be a balance with more healthy options and the framework can help organize collective leaders and hospitals to invest healthy foods and grocery stores, open parks and programs for the community.
- The relevant C.A.R.E. base mapping layer could apply to other Detroit projects and could extend to urban planning, higher ed and campus planning.
- SmithGroup should be able to map racial and economic disparities and environmental injustice in every city we have an office in (15 in U.S.), and be able to use that city-scale data as an analytical lens to inform all our work there.
- Future work should address how primary care clinicians, planners and community stakeholders can most effectively assist patients with food insecurity to make healthy dietary changes. Patients can research where they are receiving their food and which hospitals are partnering with food pantries or food co-ops near their hospital of choice. Patients will also identify and comment on which hospitals in their community have food apartheid programs in place such as summer healthy cooking classes, recreation opportunities, farm stands on campus, education and social work consultation or a grocery delivery program for patients without a car.
- Leveraging the C.A.R.E. Framework as a way to take a hospital's existing internal leapfrog surveying/feedback process outside the institution is a new holistic approach that focuses on continuous learning and improvement of key outcomes.
- Even though good hospital ratings/score is also a PR opportunity – and hospitals are no different than most organizations in that they want to be recognized for succeeding at doing the right thing. They want ratings to improve their brand and their reputation. Some hospitals are starting to explore equity as another metric component of hospital rankings. External partnerships such as the C.A.R.E. Framework and media mentions of initiatives addressing equity could potentially be a motivating metric for hospitals. It's about rating how well you're addressing those critical issues vs. how you score competitively compared to your peers.
- This study will assist healthcare planners and designers address the 80% (physical environment, social economic factors and behaviors). This are of design doesn't get that much attention in our traditional planning and design process. This will change how we plan and design for equity and justice. Healthcare facilities must be justice driven to move the needle toward racial health equity.
- Once the collective leadership of hospitals, food and hospital advocates, city leadership, policy makers, economic developers, planners, and the community stakeholders are in place, Detroiters will be able to empower itself and do the following: Patients will be able to search online which hospitals adopt the C.A.R.E. Framework that support and promote equity, diverse leadership, urban farmers and local food justice ecosystem that creates a pathway for the holistic community to improve their quality of life.

These metrics and others will be discussed and confirmed by the ecosystem of advocates, policymakers, community residents and stakeholders, economic developers, planners, institutions, hospital leadership and local government leadership. This partnership will bring accountability to everyone in the community and encourage hospitals to be a good neighbor by being socially responsible.

21 Kushel et al., Housing Instability and Food Insecurity as Barriers to Health Care among Low-Income Americans.

06
RECOMMENDATIONS

Developing the Community Achievement Racial Equity (C.A.R.E) Framework is the first step of many to achieve racial justice in the field of medicine. Due to time restrictions and limited resources, the rubric for the mapping ecosystem will not at this time include clinics, mental health facilities or other specialized treatment centers; however, this research will focus on hospitals in under-served communities, thus becoming a living document to investigate cyclical systemic barriers that takes advantage of suffering Black communities.

By focusing on zip codes with the highest racial disparities in the cities we work, play, learn and live, I will develop the C.A.R.E Framework for an ecosystem of collective leadership to develop their own score card/rating system rating system based on food metrics and that first takes inventory on what services exist while simultaneously documenting what's missing.

Research data and mapping for all 15 zip codes where SmithGroup has an office and hospitals have the highest racial health disparities to equip the national SmithGroup health practice to engage the entire community and hospital leadership with strategies to achieve racial health equity in food apartheid and other disparities.

Here are some strategies of engagement for ending food insecurity:

-We must engage public health agencies and link shared strategy to health outcomes.

-We must embrace a social justice and human rights-based approach.

-Work toward collective leadership and build a movement for change

Legislature & Policies

After interviewing many hospital and food advocates, they all recommended engaging elected officials, local, state and federal on laws and policies that negatively impact food apartheid. Henry Ford Hospital is in the City of Detroit District #5 where Detroit City Council President Mary Sheffield who is prioritizing inclusion and equity for Detroiters through city expenditures and currently in the 13th congressional district of Michigan, where Rashida Tlaib serves as Congresswoman and her issues include equity, environmental justice and economic justice.

The food industry is the largest sector of the global economy. Many food advocates throughout Detroit believe that until the city leadership takes food apartheid seriously and realizes the food industry as another source of investment and jobs, we will continue to see lower life expectancies among Black and brown residents and unhealthy communities.

Reimagine food as a sustainable industry for creating jobs and healthy communities . Detroit contains the infrastructure and hundreds of abandoned and vacant manufacturing plants adjacent to railroads that could transport many things relevant to farming and various foods. This new sustainable industry model would connect food to vulnerable neighborhoods, enable trade, add to Detroit's tax base and create opportunities for struggling communities.

Empowering local leaders to address food justice and food policy issues. Municipal and regional governments are ready to engage in food apartheid reduction and mayors can play a powerful role in championing issues and change. Many of the stories in this framework provide great examples. As a starting point, Council can set policies to increase access to affordable, healthy food. Council can make zoning changes to assist nonprofits and institutions to reduce racial healthy equity found in food apartheid near hospitals

Create a C.A.R.E. Framework task force to assess current Certificate of Need laws and identify ways to modernize their program regarding food apartheid surrounding hospitals. According to the National Conference of State Legislatures, Certificate of Need (CON) laws are state regulatory mechanisms for approving major capital expenditures and projects for certain health care facilities.

In a state with a CON program, a state health planning agency or other entity must review and approve projects like establishing a new health care facility or expanding a facility's health service capacity in a specified area.

CON programs primarily aim to control health care costs by restricting duplicative services and determining whether new capital expenditures meet a community need. (Legislative News, Studies and Analysis | National Conference of State Legislatures (ncsl.org)

This advisory board can advise elected officials to make recommended changes to its CON laws regarding the number of capital expenditures requiring CON approval based on community assessment health need improvements and food apartheid reductions. These changes could help hospitals reduce chronic disease percentages in communities they serve by allocating programs and financial resources to determine ways to control health care costs and rethink purchasing initiatives with Black and brown vendors to reduce wealth gaps in the communities they serve.

Create a health enterprise zone within hospital catchment area. The community in a food desert and health enterprise zone created a farmers' market and food hub located in Prince George's County, Maryland. Although facing significant political and economic challenges, residents have organized to create a profitable farmers' market that supports 25 African American-owned businesses. [22]

Develop program on hospital campus to address racial health disparities found in food insecurity. Build a multipurpose health and wellness center on campus that has mixed use development for social work, cooking classes, education, exercising, a sit down space for healthy food, coffee shop, clinic space and a food pantry or food co-op that partners with local food distribution centers or a food bank-healthcare partnership similar to Feed America, that addresses food insecurity in health care settings, addresses health at food distribution sites and addresses health care coverage needs. The program also includes outdoor spaces for yoga, exercising, walking, a park and open green space, an urban community garden that is open to the community, staff and patients.

Zoning

Build racial health equity into rezoning decisions. Zoning regulations can be used to create healthy equity districts by restricting the density of fast food outlets and offering more healthier choices near hospitals. This includes regulating distances between fast food outlets and hospitals because the frequent consumption of food from fast food chain restaurants may contribute to cardiovascular disease, type 2 diabetes, and obesity.

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RECOMMENDATIONS

Zoning can also assist hospitals with on-site sale of produce, designated areas for food trucks to offer food options and properties that can function as agriculture community spaces. Increasing food security is an interdisciplinary endeavor, and local land-use laws can play a key role. Zoning ordinances can allow as an incentive, a range of food sources in or near food deserts by using flexible food purveyor definitions and pop-up eating facilities and food trucks. But one of the most significant ways planners can advance food security for their communities is by promoting local food production.

Create an W. Outer Drive Greenway that extends from Livernois to DMC Sinai Grace at Outer Drive & Schaefer, to River Rouge Park and connect to W. Outer Drive Greenway in Dearborn and Ecorse, Michigan and connect to the Detroit River. W. Outer Drive is wide enough to add a bike lane. With DMC Sinai Grace located on W. Outer Drive, this will encourage the community, staff and patients to have access to parks, open spaces and greenways.

The greenway could also be introduced near Henry Ford Hospital along W. Grand Blvd and connect E. Grand Blvd to Belle Isle.

Next Steps

Develop a ridership program similar to Jitneys. Decades before Uber and Lyft, taxis that operated outside municipal regulations were called jitneys. In the Black community, they provided jobs and a ridership program at grocery stores that made it affordable and accessible for lower income families. This partnership with hospital systems could also introduce autonomous vehicle on hospital campuses. Hospitals like Mayo Clinic are starting to use this to deliver supplies.

Since nearly a third of Detroit households don't own a car, many families travel over a mile on multiple bus rides to get to one grocery store with quality, affordable, healthy food and the city has the lower per capita incomes of any urban area, there is a great need to provide a rider partnership program that will address food apartheid, poverty and generate wealth for families living in poverty.

There is also a link between housing instability and food insecurity. DMC Sinai Grace and Henry Ford Hospital can address the need for affordable housing and affordable healthy foods. Cleveland Clinic is a great case study on how hospitals met with the community and base on their needs of affordable housing and affordable and healthy food, broke ground on a new grocery market and apartment units.

In 2022 research continues for the C.A.R.E. framework by **applying the framework** to new sites and conversation with community groups focused on enhancing health outcomes

07
ACKNOWLEDGMENTS

The start of this extensive research could not have been possible without the funding and support of SmithGroup and the contributions of many SmithGroup colleagues. Thank you to the exploration grant committee for selecting my grant and to the following individuals who provided meaningful feedback and encouragement:

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I would like to express my special gratitude to the following individuals and organizations for their guidance, wisdom, advice and counsel. You took the time to offer suggestions, research topics, connect me to other advocates and you allowed me in your spaces to share my research grant.

Winona Bynum, Executive Director, Detroit Food Policy Council

Jane Fran Morgan, President/CEO, JFM Consulting

Jason Gapa, JFM Consulting

Dr. Angela Odoms-Young, Associate Professor at Cornell University

Dr. Lena Hatchett, Associate Professor at Loyola University Chicago

Alex B. Hill, GIS Director, Center for Translational Science and Clinical Research Innovation at Wayne State University

Malik Yakini, Executive Director, Detroit Black Community Food Security Network

Pat Soares, Director of Clinical Services at Advantage Health Centers

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Dr. Tammy Thompson, President, Institute for Patient-Centered Design and Director of Experience Engagement, Education & Design, ECU Health

Naomi Berkove, Learning and Development Strategist

Thank you to my cohorts for your encouragement and support. I appreciate the journey and your friendship:

Brian Powers, Victor Braciszewski, Elizabeth Donoff and Matt Fogarty

Special thanks to my wife Sue for your love and support. Thank you for being my sounding board and encouraging me throughout this journey.

To my mom, I love you and I thank you for teaching me the beauty of ¨yet I¨ and so many life long lessons on faith, justice, work ethic, giving back to others and humility. This study wouldn't have been possible without your, stories, sacrifice and unconditional love.

Lastly, I thank my Lord and Savior Jesus Christ for giving me the strength to serve others and to fight the good fight.

08
GLOSSARY

Food Security - access to healthful, affordable and culturally appropriate foods at all times

Food Access – Includes both geographic/physical access and economic access

"Food Desert" or Low-Income/Low-Access (LILA) Area – a low-income census tract where either a substantial number or share of residents has low access to a supermarket or large grocery store. In 2015, over 83 million Americans (27%) lived in a LILA area. The USDA (Department of Agriculture) defines a food desert as "neighborhoods that lack healthy food sources."

Foodshed – the geographic area from which a population center draws its food

Food Apartheid – Karen Washington, a NY based community activist and urban farmer coined the term "food apartheid" to describe the structural inequalities in America's food system. It's by design not accident, she argues, that people of color are denied access to nutritious affordable food, farmland and business opportunities in the food industry.

Race – System of categorizing people that arises to differentiate groups of people in hierarchies to advantage some and disadvantage others. Stated another way, race is a social construct or "a symbolic category (actively created and recreated... rather than pre-given), based on phenotype or ancestry and constructed to specific racial and historical contexts, that is misrecognized as a natural category."

Ethnicity – a complex construct that includes biology, history, cultural orientation and practice, language, religion, and lifestyle.

Racism – As defined by Camara Jones, "racism is a system of structuring opportunity and assigning value based on phenotype ('race'), that unfairly disadvantages some individuals the whole society through the waste of human resources."

Structural determinants such as systemic racism, segregation and discriminatory policies

Social determinants such as socioeconomic status, education, neighborhood and physical environment, employment, social support networks and access to health care

Biological determinants such as genes and ancestry

Behavioral determinants such as tobacco use and adherence to medicines

Structural Racism – As defined by Zinzi Bailey et al, structural racism "refers to the totality of ways in which societies foster racial discrimination through mutually reinforcing systems of housing, education, employment, earnings, benefits, credit, media, health care, and criminal justice. These patterns and practices in turn reinforce discriminatory beliefs, values, and distribution of resources.

Institutional Racism – Discriminatory treatment, unfair policies and practices, and inequitable opportunities and impacts within organizations and institutions, based on race.

Interpersonal Racism – expression of racism between individuals. These are interactions occurring between individuals that often take place in the form of harassing, racial slurs, or racial jokes

Internalized Racism – Acceptance by members of stigmatized races of negative messages about their own abilities and intrinsic worth

Prejudice – An unfavorable opinion or feeling formed beforehand or without knowledge, thought, or reason.

Health inequity - systematic differences in the health status of different population groups.

Food insecurity - defines the ongoing socio-economic crisis between the community and the lack of physical or financial access to safe and nutritious food every day.

The Food Abundance Index (FAI) - provides a useful method for measuring the level of food insecurity, and especially to determine whether a 'food desert' may exist within a specific community or neighborhood area. It attempts to combine the strengths of existing measures of food access and availability and examines food insecurity across multiple dimensions: access, diversity, quality, density, and affordability.

Bias – A form of prejudice in favor of or against one person or group compared with another usually in a way that's considered to be unfair to one group. Biases may be held by an individual, group, or institutions and can have negative or positive consequences and oftentimes are learned behaviors or habitual thoughts. Biases often emerge in relation to race/ethnicity, gender, socioeconomic status, ability status, LGBTQ+ identity, literacy, amongst other groupings. There are two main types of biases discussed in scholarly research and in medicine that inhibit progress towards multiculturalism and equity in our society:

1. **Explicit or Conscious bias** – This refers to the attitudes and beliefs we have about a person or group on a conscious level, that is we are aware and accepting of these beliefs, and they are usually expressed in the form of discrimination, hate speech or other overt expressions.

2. **Implicit or Unconscious bias** - This refers to the unconscious mental process that stimulates negative attitudes about people outside one's own 'in group'. For example, implicit racial bias leads to discrimination against people not of one's own group. Extensive research supports the notion that we all hold unconscious beliefs about various social and identity groups, and these biases stem from one's tendency to organize social worlds by categorizing and are influenced by power dynamics in a society

Health inequity - systematic differences in the health status of different population groups.

The Food Justice Movement is a grassroots initiative emerging from communities in response to food insecurity and economic pressures that prevent access to healthy, nutritious, and culturally appropriate foods.

Food injustice is a structural problem. It is about corporate consolidation of power that has monopolized the agricultural industry and encroached on our food consumption.

09
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"When you mention the word "hospital," most people probably think first of doctors, nurses and patients. After all, the principal mission of all hospitals is to provide the highest quality care to those in need. What few realize is how much property hospitals own and manage, the large transportation infrastructures they operate or the amount of waste they produce. **But to those who live nearby, the kind of neighbor a hospital is — and the quality of life it supports — may be more important than the quality of care it provides.**"

~Public Relations Society of America Inc. article 2008 on Good Hospitals