Baltimore City's Food Environment: 2018 Report

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Authors:

Caitlin Misiaszek, Program Officer,
Johns Hopkins Center for a Livable Future

Sarah Buzogany, Food Resilience Planner,
City of Baltimore

Holly Freishtat, Baltimore City Food Policy Director

Contributors:
Karen Bassarab, Senior Program Officer, Johns Hopkins Center for a Livable Future

Carrie Burns, Senior Project Coordinator, Johns Hopkins Center for a Livable Future*

Michael Galdi, GIS Analyst, City of Baltimore

Jamie Harding, GIS Specialist, Johns Hopkins Center for a Livable Future

Alice Huang, Food Access Planner, City of Baltimore

Anton Kvit, Research Assistant, Johns Hopkins Center for a Livable Future*

Anne Palmer, Program Director, Johns Hopkins Center for a Livable Future

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**Affiliation at time of project contribution*

Copy editing by Christine Grillo, Johns Hopkins Center for a Livable Future

Report layout and design by Michael Milli, Johns Hopkins Center for a Livable Future

About the Johns Hopkins Center for Livable Future and this report:

The Johns Hopkins Center for a Livable Future is based within the Department of Environmental Health and Engineering at the Bloomberg School of Public Health. Since 1996, the Center has been addressing some of the most pressing issues in the food system while advancing public health and protecting the environment.

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"I have seen my family through times of unemployment by growing beans, greens and squash. I have rented plots through the city in parks. I've grown in my own yard, friends, family and neighbors' yards and vacant lots."

— Resident Food Equity Advisor, Clayton Williams, District 7

INTRODUCTION

Ensuring that all Baltimore City residents have adequate access to healthy food can help support an equitable food environment. A food environment can be defined as a set of factors — physical, economic and social — that influence where an individual shops for food and what kinds of foods they purchase and eat. Some of these factors include proximity to food, affordability of food, available food options, services that provide food, marketing and advertising, social networks, government policies, cultural norms and market forces. An equitable food environment is one that is inclusive and supportive of all people.

As is the case in many U.S. cities, disparities in the food environment exist across Baltimore City. Currently, according to Feeding America, about 23% of Baltimoreans (144,300 people), including more than 30,000 children, experience food insecurity — that is, they lack access, at times, to enough food for an active, healthy life for all household members, and limited or uncertain availability of nutritionally adequate foods.[1] The lack of access to healthy foods in the food environment is one factor that can contribute to a household's food insecurity.

Households experiencing food insecurity are oftentimes burdened by other inequities, including poverty and poor health outcomes. For example, Baltimore City has the highest poverty rate of any jurisdiction in Maryland.[2] In addition, Baltimore City fares worse than the state average in overall health status and diet-related health outcomes that include diabetes, obesity and high blood pressure. These outcomes also vary significantly by neighborhood, highlighting disparities across Baltimore City.[3] Increasing access to healthy food is one way to ease the burden on families and might contribute to forging a healthier and more equitable food environment and reducing food insecurity.

Since 2012, the Johns Hopkins Center for a Livable Future (CLF) and the Baltimore Food Policy Initiative (BFPI) have collaborated to examine the physical food environment in Baltimore City to identify gaps and opportunities in healthy food access. This research and report build upon the 2015 report: Mapping Baltimore City's Food Environment[4] by providing an update on the Baltimore City food retail environment, including an in-depth analysis that identifies geographic areas that should be prioritized for healthy food policy and programmatic activities, and strategies and opportunities to address healthy food access. In addition, this report specifically highlights various elements of the physical food environment, from retail outlets to urban agriculture to nutrition assistance, to provide a more focused look at each component. The report also features quotes from Resident Food Equity Advisors — a resident group that informs Baltimore City food policymaking — to provide context of lived experiences related to the data presented on the food environment.

Developing this Food Environment Report is a key step toward understanding Baltimore City's healthy food access challenges. But to address challenges and influence the food environment across Baltimore City, it is critical to recognize the impact of systemic issues such as structural racism and economic disinvestment on communities. Long-term solutions must be integrated across systems and sectors using a broad base of policies and programmatic activities to create lasting change and promote health and equity for all Baltimore City residents.

PROJECT PARTNERS

BFPI is an interagency collaboration between the Department of Planning, Baltimore City Health Department and the Baltimore Development Corporation, and was founded in 2010 to "address health, economic, and environmental disparities by increasing access to healthy affordable food in Baltimore City."

The CLF is an interdisciplinary academic research center based within the Department of Environmental Health and Engineering at the Bloomberg School of Public Health. The CLF conducts and promotes research on the most pressing issues in the food system while advancing public health and protecting the environment.

This unique partnership between government and academia has enabled research to be translated into applied solutions and evidence-based policy change.

PROJECT HISTORY

This research on the Baltimore food environment started with the 2009 Food Policy Task Force recommendation[5] to support continued research on food deserts and to collaborate with policymakers and the Baltimore Sustainability Plan's[6] Greening Goal #2, Strategy F, which was to compile local and regional data on various components of the food system. These recommendations aimed to "establish Baltimore as a leader in sustainable local food systems."

The most recent report published by the CLF and BFPI was in 2015: Mapping Baltimore City's Food Environment. It is important to note that this report and the accompanying maps are similar, but some aspects are not directly comparable to the 2015 report or previous maps for the purpose of drawing conclusions about change over time; this is because of changes in the methodology used for the analyses.

"As a teacher and a former community organizer, I have seen how lack of access to quality food can affect a student's performance or self-confidence, or an adult's health and employability."

— Resident Food Equity Advisor, 14th District

BALTIMORE'S FOOD ENVIRONMENT

The food environment comprises both physical and social elements that can influence a population's eating patterns. There are many tools and measures used in research and program evaluation to examine the food environment.[7] In this research, the CLF and BFPI examine food retail locations and the availability of healthy foods within food retail stores. The primary focus is on food retailers, as they represent for residents the most prevalent and sustainable source of staple foods, or common foods that make up a nutritionally complete diet such as fruits, vegetables, grains, dairy and protein. Supermarkets are often used as a proxy for healthy food access in research and policy; however, in this research, smaller format stores — convenience, small grocery and corner stores, and public markets — are included and measured to better understand their role in healthy food access.

Food retail is one component of the physical food environment, but residents also rely to varying degrees on other sources for food, such as farmers markets, nutrition assistance programs or urban agriculture activities. These alternative outlets are not measured and included in this research in the same way as food retail as they may only operate during limited hours or days of the week, offer their services and food to a specific population, or are seasonal in operation and therefore do not provide the same level of accessibility as food retail stores. Nonetheless, it is important to consider the role of alternative options to illustrate the complex and rich nature of the food system in Baltimore and how they may supplement access to food; these alternative options are described and locations are mapped starting on page 30.

MEASURING THE FOOD RETAIL ENVIRONMENT

Retail Types and Locations

Proximity to and type of food retail stores may influence an individual's ability to purchase healthy foods. In order to examine food store types and locations, food store data were compiled, categorized, and verified across Baltimore City. A list of food stores was developed using data from the Baltimore City Health Department, U.S. Department of Agriculture Supplemental Nutrition Assistance Program (SNAP) Retail Locator,[8] and previous CLF and other Johns Hopkins University Bloomberg School of Public Health food retail research. The locations of 871 food retail stores were physically visited and verified as open and operating across the city, including all 47 supermarkets. The table below shows the types and number of stores included in this research.

Store type	Definition	Total verified	Total surveyed
Supermarket	Large format grocery stores with all food departments present, including produce, meats, seafood, canned, frozen and packaged goods. Usually chain stores, they typically have annual food sales of $2 million or more and have three or more cash registers.	47	47
Small Grocery and Corner Store	Small format grocery stores that are typically independently owned and operated. They typically have annual food sales of less than $2 million, and have limited to no food departments.	633	525
Convenience Store	A variety of stores that sell food products but place a significant focus on non-food items. The majority of sales may be made up from prepared foods, cigarettes, pharmacy items, home goods, etc. This retail category includes chain convenience stores, drug stores or pharmacies, and discount/ dollar stores.±	185	183
Public Market	Historic City-owned indoor markets that feature diverse vendors selling a variety of food (including prepared) and non-food products.	6	6
Total Stores		**871**	**761**

Table 1: Definitions and Number of Store Types in Baltimore City

± Stand-alone gas stations were previously included as a type of convenience store in the 2015 report but are no longer represented because the majority of sales come from gas, and because of the overall lack of staple food items. Chain convenience stores that have a gas station attached, such as a 7-Eleven or Royal Farms, are still included in the convenience store category.

Healthy Food Availability

The availability of healthy foods in food retail stores is one aspect of food access. The CLF created the Healthy Food Availability Index (HFAI) tool, derived from the Nutrition Environment Measures Survey for Stores (NEMS – S)[9], to measure and assess healthy foods in stores. The HFAI tool awards points to stores based on the presence of a market basket of basic staple food items, as well as whether there are healthy options available including lean protein, whole wheat grains, low-fat dairy, and produce. Scores can range from 0 to 28.5, with a higher score indicating a greater presence of healthy foods. The table below displays all food items that were assessed and scored.

Trained data collectors went into the field in pairs to verify locations and survey stores during June-December, 2016. A total of 761 food retail stores were surveyed. A store may have been verified as operational but not surveyed because stock was not completely visible, the store was closed during time of visit or surveyor was asked to leave by the store manager or an employee.

Vegetables: fresh, canned, frozen	Bread: any variety, 100% whole wheat
Fruits: fresh, canned, frozen, juice	Corn tortillas
Dried beans	Low-sugar cereal
Milk: any fat content, skim or 1%	Rice
Ground beef: any fat content, lean	Pasta
Chicken	Healthy frozen meals
Fish	Low-sodium soup

Table 2: Healthy Food Availability Index Scored Items

FINDINGS: BALTIMORE CITY FOOD RETAIL ENVIRONMENT

Overall

As expected, supermarkets have the highest average HFAI score of all food retail categories, indicating a greater presence of healthy foods. Small grocery and corner stores are the most common type of food retail store, with over 500 locations surveyed across the city, and have the widest range of HFAI scores. Therefore, this food retail category represents an opportunity to increase healthy foods in Baltimore. The majority of convenience stores have similar HFAI scores. Most convenience stores are national chains and stocking decisions likely happen at a corporate level and individual stores may have less flexibility in what they offer. The historic public markets vary in size and offerings. Most public markets tend to have a larger proportion of carryout stalls to staple food items (i.e. fruit, vegetable, grains, etc) for sale. More information on each food store category is described in detail including definitions and key findings from surveyed stores starting on page 21.

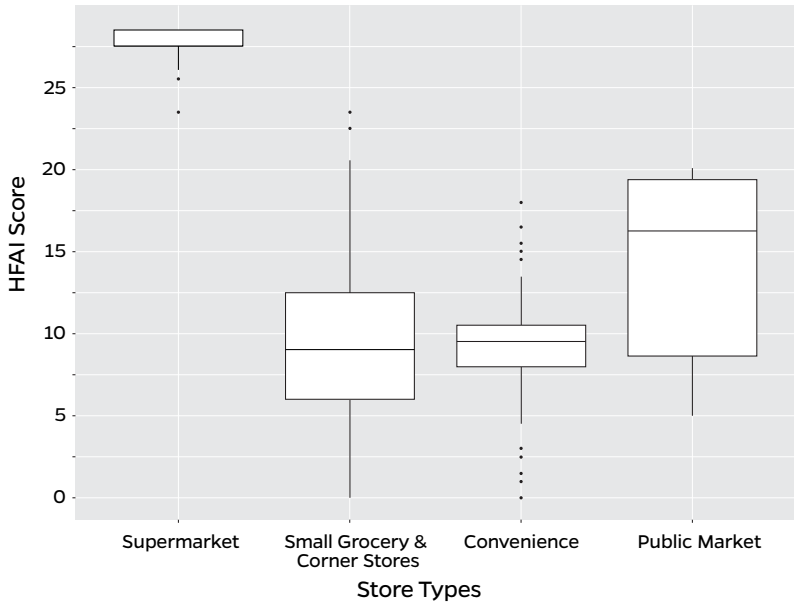


Figure 1: **HFAI Score and Store Type Box and Whisker Plot**

Figure 1 is a "box and whisker" plot that shows the distribution of HFAI scores by store type. The bold line inside each box represents the median. The dots outside of the whiskers are the few outliers. Fifty percent of the scores fall within the box, and the size of the box and whiskers together indicates the spread of scores. Supermarkets tend to score similarly and therefore the box is small and concentrated at the top of the graph. Small grocery and corner stores have a wide spread of stores with a few outliers scoring high.

Food Retail and Federal Nutrition Assistance Programs

Two federal nutrition assistance programs, SNAP and Women, Infants and Children (WIC), are important predictors of healthy food availability in stores. Within each store type surveyed, stores that accept SNAP and WIC tend to have higher HFAI scores than stores that do not accept nutrition assistance program benefits (see chart below). SNAP requires authorized retailers to carry a certain amount of staple foods while WIC requires authorized stores to carry specific types and amounts of foods. Stores that accept WIC must also accept SNAP. Stores accepting federal benefits are an economic driver of food retail in Baltimore due to the number of Baltimore City residents participating in SNAP (188,675 people, 30% of population) and WIC (about 27,900 women and children each month).[10] These stores may play a prominent role in increasing healthy food access across the city.

Key Findings:

- Over 75% of stores surveyed accept SNAP and 18% accept WIC.
- All but one supermarket accept SNAP and 75% of supermarkets accept WIC.
- Over 75% of small grocery and corner stores accept SNAP but fewer than 25% accept WIC.
- Stores in every category that accept WIC and SNAP or SNAP only have a higher average HFAI score than stores that do not.
- Small grocery and corner stores that accept WIC and SNAP have a 40.8% increase in HFAI score over those that do not.

Store Type	Number Surveyed	HFAI Score Range	HFAI Score Average	HFAI Score Median	% SNAP	% WIC
Supermarkets	47	23.5-28.5	27.7	27.5	97.9%	74.5%
Small Grocery and Corner Stores	525	0-23.5	9.0	9.0	78.1%	19.6%
Convenience Stores	183	0-18	9.3	9.5	93.4%	1.0%
Public Markets	6	5-20	14.0	16.25	83.3%	0.0%
Overall	761				78.2%	15.9%

Table 3: Healthy Food Availability Index Findings

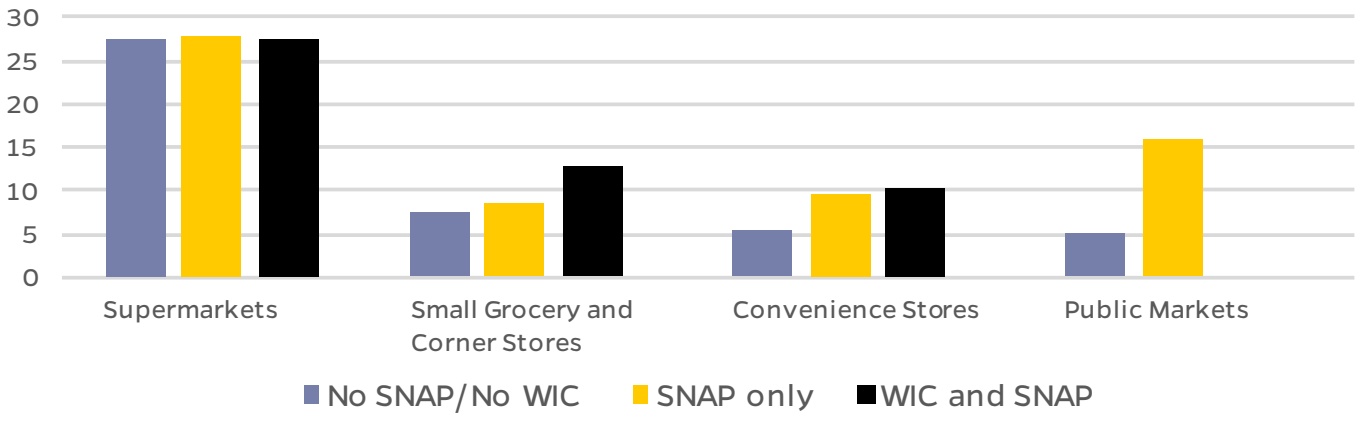


Figure 2: Average HFAI Score by Store Type and Federal Benefits Accepted

"Access to good transportation is something that impacts Baltimore as a city. I don't think the transportation is utilized to connect to food as it should."

— Resident Food Equity Advisor Co-chair, Joyce Smith

HEALTHY FOOD PRIORITY AREA ANALYSIS

WHAT IS A HEALTHY FOOD PRIORITY AREA?

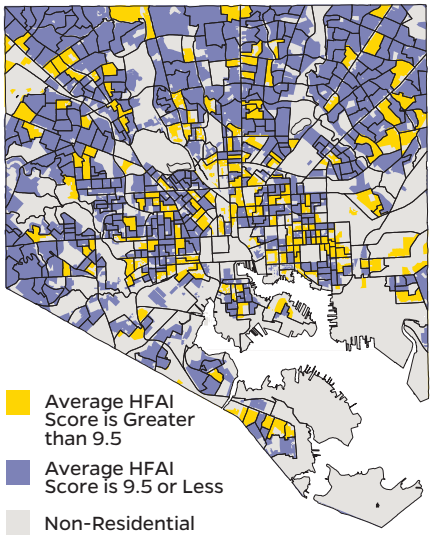
Food retail locations and HFAI scores are analyzed with household level economic indicators to identify areas where Baltimore City residents may have challenges accessing healthy foods. In the past, these areas have been referred to as "food deserts." Conversations with Baltimore City community groups, residents and national leaders revealed that the term "food desert" was often met with critique or disapproval. For some, the term has negative connotations and it implies that low healthy food access is a naturally occurring phenomenon, rather than the result of underlying structural inequities. For others, it connotes a pejorative status when some of these areas are home to vibrant communities with passionate and resilient residents and programs on the ground. In addition, there may be many food outlets available, but healthy foods may be hard to find. The terminology was changed to better characterize what is being measured, recognizing that there is a suite of structural elements shaping Baltimore's food system. What were formerly referred to as "food deserts" are now called **Healthy Food Priority Areas ,** or Priority Areas for short. The following criteria — the same used in 2015 — are used to determine if an area is a Healthy Food Priority Area and highlight it on the map. It is in these areas where policy and programmatic activities should be prioritized.

A **Healthy Food Priority Area** is an area where...

- The average Healthy Food Availability Index (HFAI) score for all food stores is low (0-9.5),
- The median household income is at or below 185 percent of the Federal Poverty Level,
- Over 30 percent of households have no vehicle available, and
- The distance to a supermarket is more than a quarter of a mile.

MEASURING HEALTHY FOOD PRIORITY AREAS

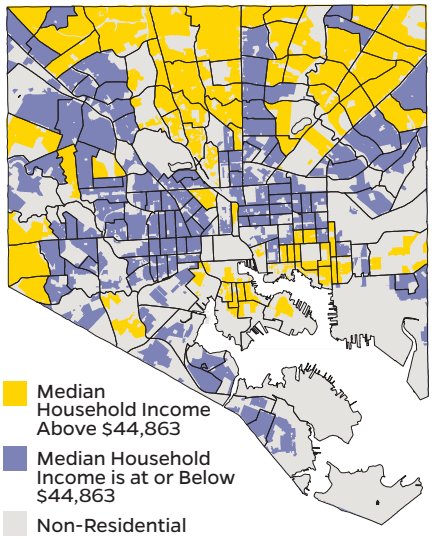
Each factor used to identify Healthy Food Priority Areas is described in detail below. The maps show each factor individually. Areas that meet all four factors are considered Healthy Food Priority Areas.



Map 1

1) Supply of Healthy Food: Stores other than supermarkets can offer healthy food options and play a role in the food retail environment. To more accurately characterize the healthy food retail environment across all food retail, the CLF assessed the availability of healthy foods in food stores across Baltimore City using the HFAI tool. HFAI scores can range from 0 to 28.5, with a higher score indicating a greater presence of healthy foods. Scores for all stores were averaged across block groups. Block groups with average scores in the lowest third, 0 to 9.5, meet one factor in the Priority Area analysis.These data cannot be compared with 2015 due to a change in store categorization. Gas stations are no longer included as a store type in the convenience store category.

Data source: Johns Hopkins Center for a Livable Future, 2016



Map 2

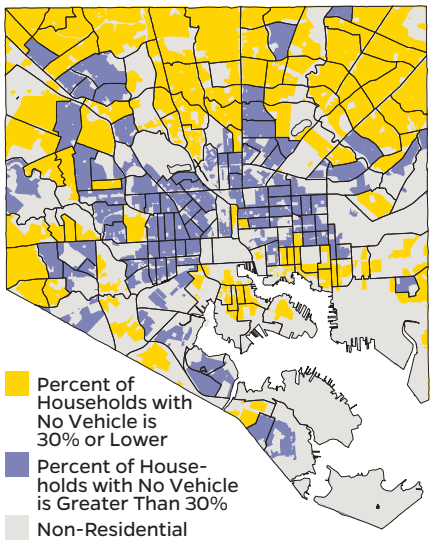
2) Household Income: The amount of income a household generates will impact its ability to afford healthy food options. For this analysis, low-income areas are identified by comparing median household income at the census tract level to an income threshold. This threshold is set at 185 percent of the Federal Poverty Level or below for a family of four, which was $44,862.50 in 2015†. This threshold, 185 percent of the Federal Poverty Level for a household, is one of the factors used in determining eligibility for some of the federal nutrition assistance programs. Census tracts with a median household income at or below $44,862.50 meet one factor in the Priority Area analysis. Compared to data used in the 2015 report, 5% more households are living in census tracts identified as low-income.

Data source: 2011–2015 Multi-Year American Community Survey 5-year Estimates

† The Federal Poverty Level for a family of four in 2015 was $24,250 and 185 percent was $44,862.50.

3) Vehicle Availability: Transportation plays an important role in how and where individuals and their families can access healthy food options. Residents without a personal vehicle are forced to find another means of transportation — such as public or private transportation or walking — to reach food stores, often requiring more time. Vehicle availability is defined by whether a vehicle kept at home is available for use by household members. Areas with low vehicle availability are identified using the city average as the threshold. On average in Baltimore City, 30 percent of households are without access to a vehicle and, therefore, census tracts where 30 percent or more of households do not have access to a vehicle meet one factor in the Priority Area analysis. Compared to data used in the 2015 report, 4% more households are living in census tracts identified as having low vehicle availability.

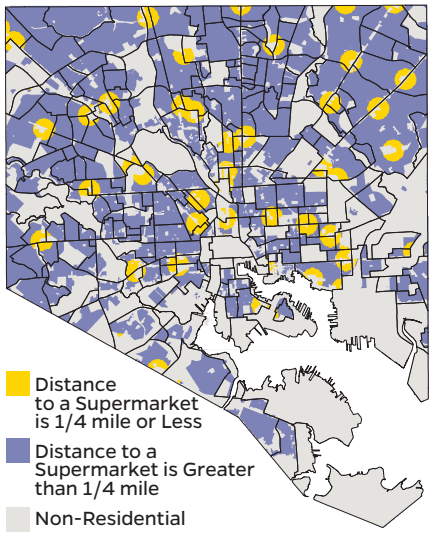
Data source: 2011 – 2015 Multi-Year American Community Survey 5-year Estimates



Map 3

4) Distance to Supermarket ‡**:** On average, supermarkets carry the largest amount and variety of food options. Therefore, their presence is one indicator of residents' access to healthy foods. For this analysis, proximity is defined by a quarter-mile radius from a supermarket. Research[11,12,13] suggests that people should not be expected to walk further than a quarter of a mile or a 5-minute walk in an urban area, especially when carrying groceries. This measurement is an "as the crow flies" walking distance measure. Areas outside of this quarter-mile radius meet one factor in the Priority Area analysis. Compared to data used in the 2015 report, four supermarkets closed and six new supermarkets opened.

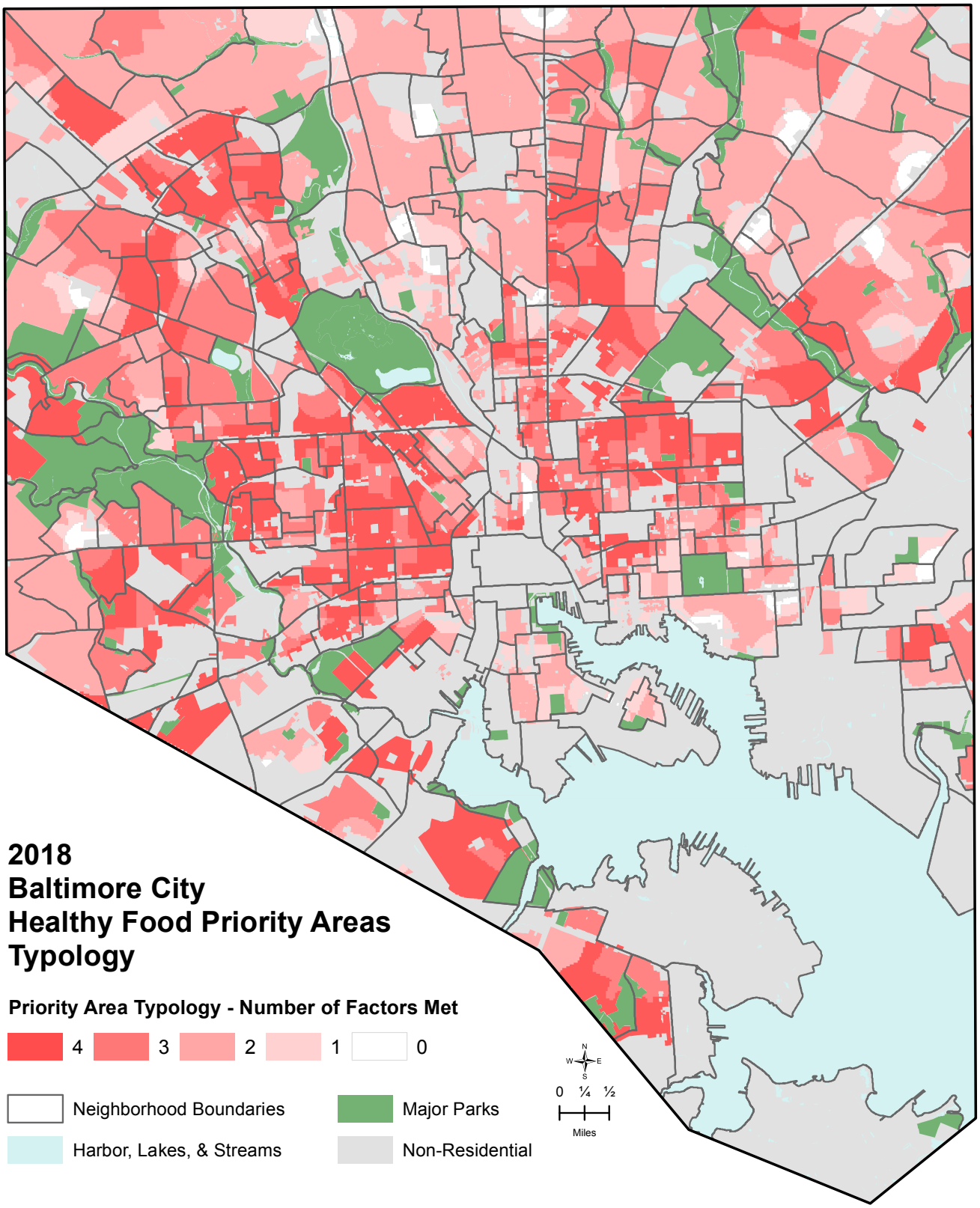
Data source: Baltimore City Health Department, 2016; USDA Food and Nutrition Services SNAP Retailer Locator, 2016; Johns Hopkins Center for a Livable Future, 2016



Map 4

‡ The "supermarket alternative" category — previously defined as small grocery stores, corner stores, and public markets with an HFAI score of 25 or higher — is no longer a feature of the 2017 analysis. This category was added to the 2015 analysis after researchers observed that small or medium sized food outlets in Baltimore may be able to offer a market basket of healthy foods equivalent to a supermarket. However, because no stores qualified as a "supermarket alternative" in 2015 and the threshold was not fully grounded in the data, the team suspended the concept from the 2017 definition.

Map 5



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CATHERINE E. PUGH
MAYOR

BALTIMORE
CITY HEALTH
DEPARTMENT

Baltimore
Development Corporation

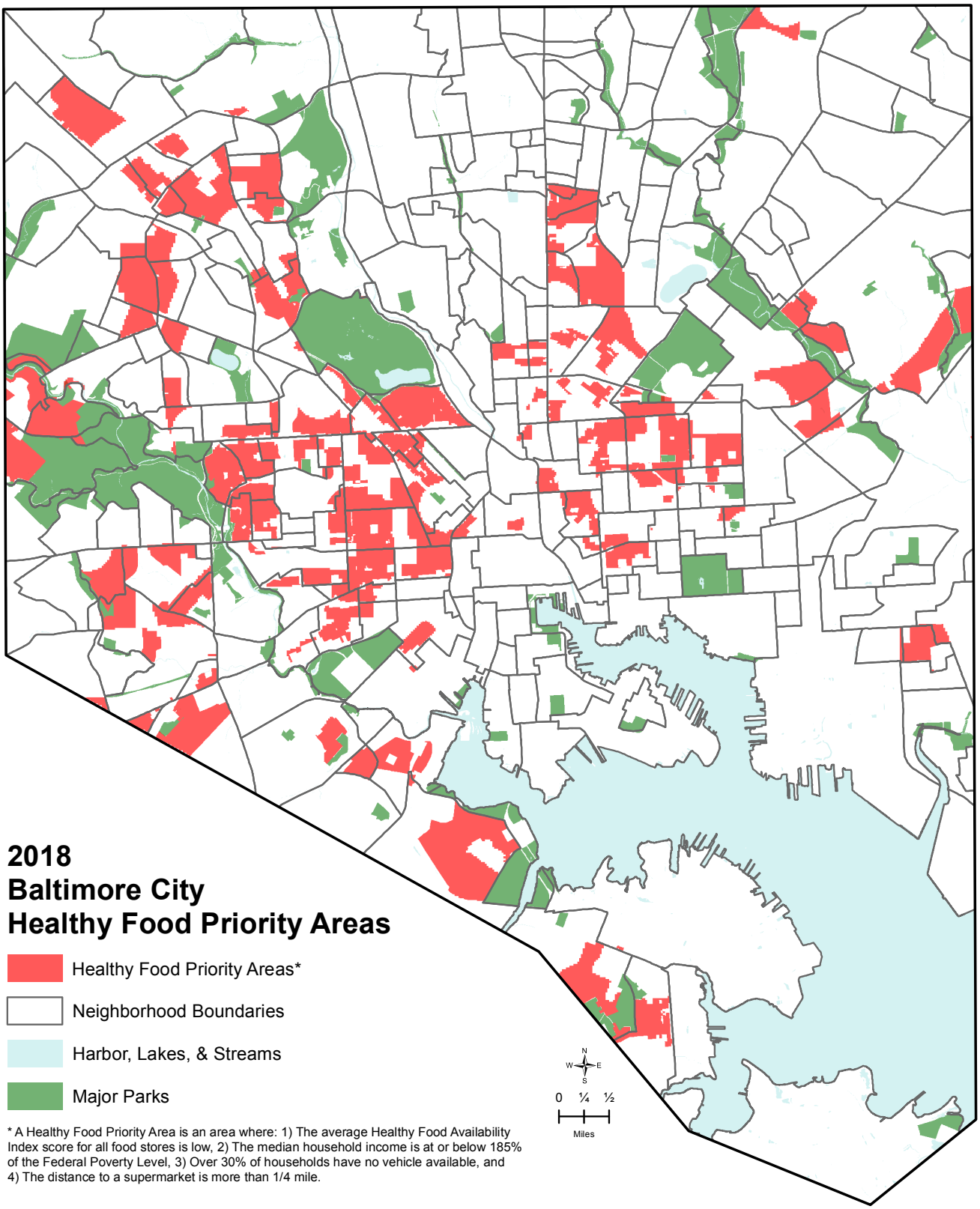
ANALYSIS

The data for the four factors were available at different geographies (i.e. census tract, census block group) so the data were combined and analyzed in grid cells in Esri's ArcGIS Desktop. A grid cell must meet all four factors to be categorized as a Healthy Food Priority Area. The Baltimore City zoning code, Transform Baltimore, was added to the analysis to focus on areas zoned as residential.

The Typology map on the previous page shows where areas fall across the spectrum of the four factors in this analysis. Areas that score a four qualify as a Healthy Food Priority Area, as they meet all four factors. The areas that do not meet any of the factors score a zero. As seen on the map, there are many areas across the city that may not meet all four factors, but meet the criteria for two or three factors.This map can be used to better understand areas that may not be considered Priority Areas but may still have residents experiencing barriers in accessing healthy foods.

The Healthy Food Priority Areas are analyzed with demographic data from the 2010 U.S. Census. Data on age and race and ethnicity were included to identify populations that may be living in Priority Areas and begin to measure and address inequities in the Baltimore City food environment.

Map 6



* A Healthy Food Priority Area is an area where: 1) The average Healthy Food Availability Index score for all food stores is low, 2) The median household income is at or below 185% of the Federal Poverty Level, 3) Over 30% of households have no vehicle available, and 4) The distance to a supermarket is more than 1/4 mile.

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MAYOR

BALTIMORE
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FINDINGS

Of the approximately 621,000 people living in Baltimore City, 23.5% live in areas identified as Healthy Food Priority Areas. While not directly comparable to the 2015 analysis, it has been determined that the opening of a new supermarket has contributed to a lower percentage of residents living in Priority Areas. While many people across the city may experience barriers accessing healthy foods, certain groups are affected disproportionately. The chart below shows how groups based on age and race and ethnicity maybe more likely to live in Healthy Food Priority Areas. The table below shows HFAI scores for stores located in and outside of Healthy Food Priority Areas.

	Stores located in Healthy Food Priority Areas		Stores located outside of Healthy Food Priority Areas	
	Number	Average HFAI	Number	Average HFAI
Supermarkets	N/A	N/A	47	27.7
Small Grocery and Corner Stores	103	7.5	422	9.5
Convenience Stores	6	8.8	177	9.3
Public Markets	0	0	6	14.0

Table 4: Store Types Located Inside and Outside of Healthy Food Priority Areas

Key Findings

- About 146,000 people live in Healthy Food Priority Areas (23.5%).
- Since 2015, about 5,000 fewer residents live in Healthy Food Priority Areas on account of a new supermarket opening.
- Children are the most likely of any age group to live in a Priority Area (28.3%).
- Black residents are the most likely of any racial or ethnic group to live in a Priority Area (31.5%). In comparison, only 8.9% of white residents live in Priority Areas.
- The average HFAI increases by 21.1% for small grocery and corner stores located outside of Healthy Food Priority Areas.

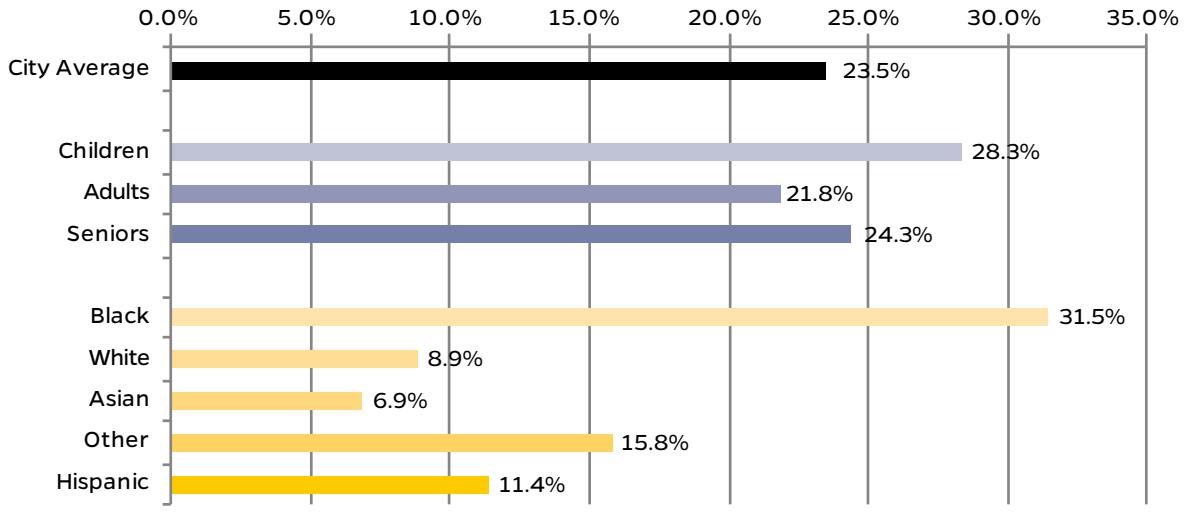


Figure 3: Percent of Each Population Group Living in a Healthy Food Priority Area

How to read this graph (example): *Of all the children living in Baltimore, 28.3% (37,833) live in a Healthy Food Priority Area.*

**Per US Census categories, "Other" is a combination of American Indian, other, Hawaiian/ Pacific Islander, and "Two or More."*

***Hispanic is an ethnic classification that includes all races. There may be overlap between Hispanic and other racial categories.*

MAPPING LIMITATIONS AND CONSIDERATIONS

Geographic Area-based Analysis

The Healthy Food Priority Area analysis uses geographic measures and identifies people living in areas that may experience challenges accessing healthy foods. Therefore, designating an entire geographic area as a Priority Area inherently assumes that all individuals within that area have the same level of access.[14]

Food access occurs on a continuum and individual residents must navigate different challenges based on the combinations of constraints they face. Living in a Priority Area does not necessarily mean that people cannot access healthy food at all, but it does indicate that they may face more barriers; they may travel further to reach healthy food outlets or may not have the economic means to afford healthy food options. Alternatively, living in an area that is not designated as a Priority Area does not guarantee easy access to healthy food. People frequently do not shop at the closest food retail store in their community, and may travel long distances to get to a supermarket. Many factors contribute to where a person does the bulk of their food shopping including price, store quality, where they are traveling from (e.g., work, place of worship, or other activities), or the availability of culturally appropriate food.

This analysis focuses on quantitative data. BFPI will continue to engage with residents and more qualitative studies will be conducted to better understand the realities of residents' lived experiences in the food environment. This information will supplement the analysis and further the understanding of food access in Baltimore City. Community engagement around these issues should acknowledge that maps and data are a starting point for conversation and should not be assumed to stand in for resident voices and experiences.

Cross Sectional Analysis

The Baltimore City food environment research uses a cross-sectional design to provide a snapshot in time for the variables assessed by CLF researchers. There are limitations to consider when analyzing data collected during one specific point in time. Stores, especially small and independently owned stores, change ownership or go in and out of business frequently. In addition, HFAI surveys were completed for each store in one point in time and, therefore, do not account for day-to-day fluctuations in stocking of items. Resources and programs included on additional maps, such as summer meal sites and food pantries, can shift from year to year based on funding or programming. This type of study can identify associations and distribution of variables but cannot be used to understand cause and effect.

Zoning and Land Use

Land use and zoning are used by cities to designate how the land across a jurisdiction may be used — residential, commercial, industrial, etc. The Healthy Food Priority Area analysis uses the new Baltimore City zoning code, Transform Baltimore, to identify areas zoned as residential. A map of Transform can be found in the appendix. This allows the results to focus on the food environment around where people live. Parks and industrial areas are excluded from the analysis because people do not live in those areas.

The use of zoning maps alone to identify residential areas has limitations. Commercial areas are also excluded from the Priority Area determination, but in certain commercial zones, apartment buildings or other housing units may be built on top of commercial or retail space. People living in these areas are concealed from this analysis and map due to the zoning classification. Furthermore, by definition, the development of a new supermarket or other type of retail store in areas that are zoned for residential use and classified as a Healthy Food Priority Area may not be appropriate or an allowable use under the current zoning classification.

"While I am not a big fan of corner stores, the one near my home is exceptional. They provide good customer service, some food choices and grocery items in addition to their regular snacks. Their prices are reasonable and the food presentation and cleanliness is maintained. My experience is not a typical one."

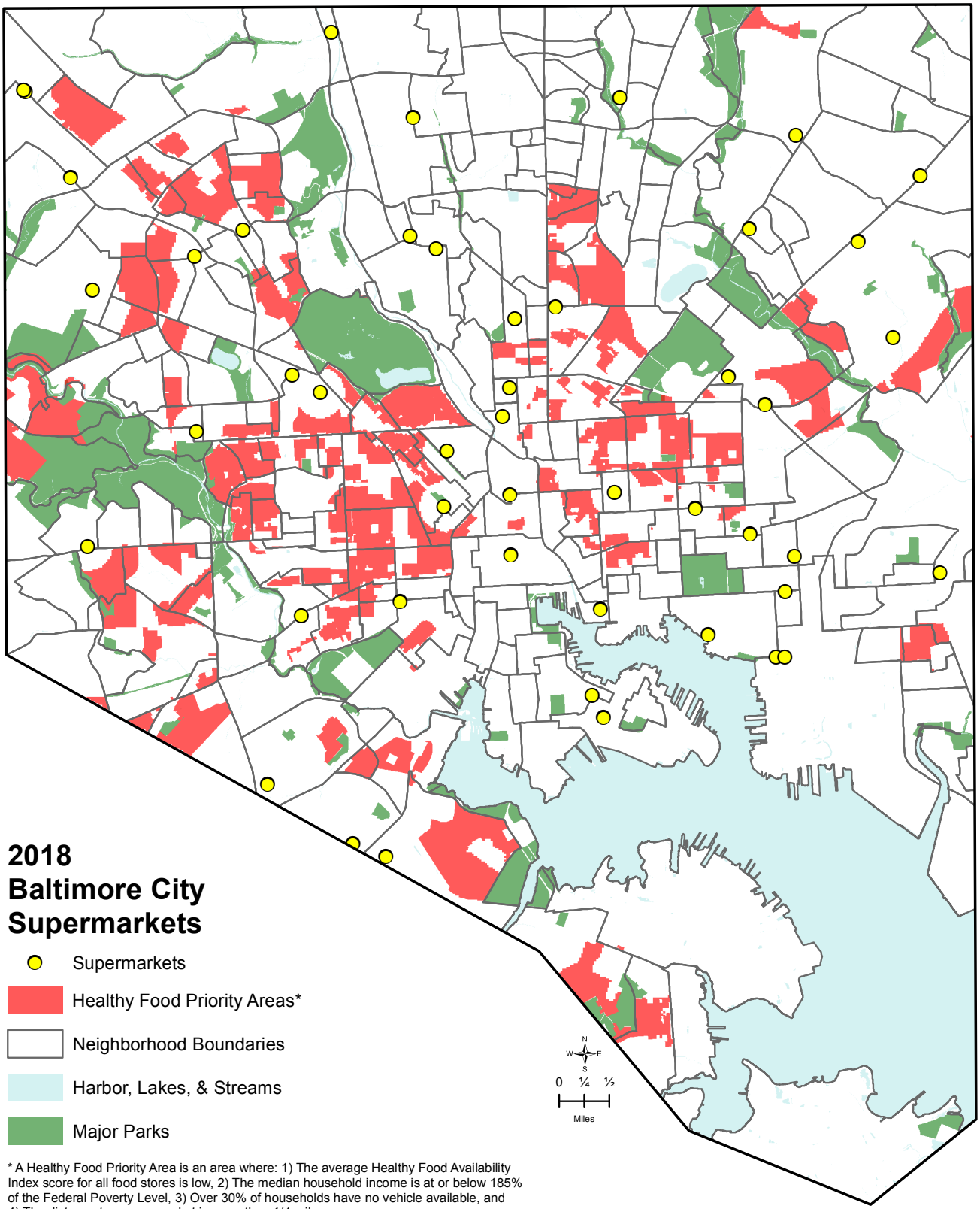
— Resident Food Equity Advisor, Maya Brooks, 12th District

ELEMENTS OF THE FOOD ENVIRONMENT

There are many ways residents may access healthy food in their communities. Food retail, highlighted throughout this report and in the Healthy Food Priority Area analysis, is one component of the physical food environment but residents also rely to varying degrees on other outlets for food. This section highlights each food retail element measured in the Healthy Food Priority Area Analysis in more depth — supermarkets, small grocery and corner stores, convenience stores and public markets — in addition to describing food assistance sites such as summer meals and food pantries and urban agriculture sites such as community gardens. These additional outlets were not measured or included in the Healthy Food Priority Area Analysis as they may only operate limited hours or provide services and food to a limited population, but are included in this section to emphasize and describe other points of access to healthy food for many Baltimoreans.

Each element includes a map of locations with Healthy Food Priority Areas highlighted, descriptions of programs, and key statistics to inform future planning and growth and the relationship to the food environment. It is important to consider there are many additional activities not outlined in this section focused on increasing healthy food access and promoting health across the City. Each program and community based project or activity can play a role in creating a more equitable food environment. Working across sectors with multiple actors can lead to integrated solutions and promote health and equity for all Baltimore City residents.

Map 7



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SUPERMARKETS

Supermarkets are defined as large format grocery stores with all food departments present, including produce, meats, seafood, and canned, frozen and packaged goods. Supermarkets tend to carry the largest variety of food options, including healthy and unhealthy foods. Usually chain stores (about 75% in Baltimore City are chain stores), they typically have annual food sales of $2 million or more and have three or more cash registers. All 47 Baltimore City supermarkets were surveyed and have similar HFAI scores. However, supermarkets may differ in other factors that were not assessed in this analysis, including price, quality, and availability of culturally available foods.

	All Supermarkets	Stores accepting...		
		No SNAP/ No WIC	SNAP only	WIC & SNAP*
Number surveyed	47	1	11	35
Average HFAI score	27.7	27.5	27.9	27.6
Median HFAI score	27.5	27.5	28.5	27.5
Range HFAI score	23.5-28.5	27.5	26-28.5	23.5-28.5

*Stores that accept WIC must also accept SNAP

Table 5: Supermarket HFAI Scores

Key Findings:

STORE CHARACTERISTICS

- Supermarkets are the largest store type in terms of size; the average number of aisles is 10.9 and the average number of registers is 8.7.
- All but one supermarket accepts SNAP and 74.5% of supermarkets accept WIC.
- 44 of the 47 supermarkets have parking available.

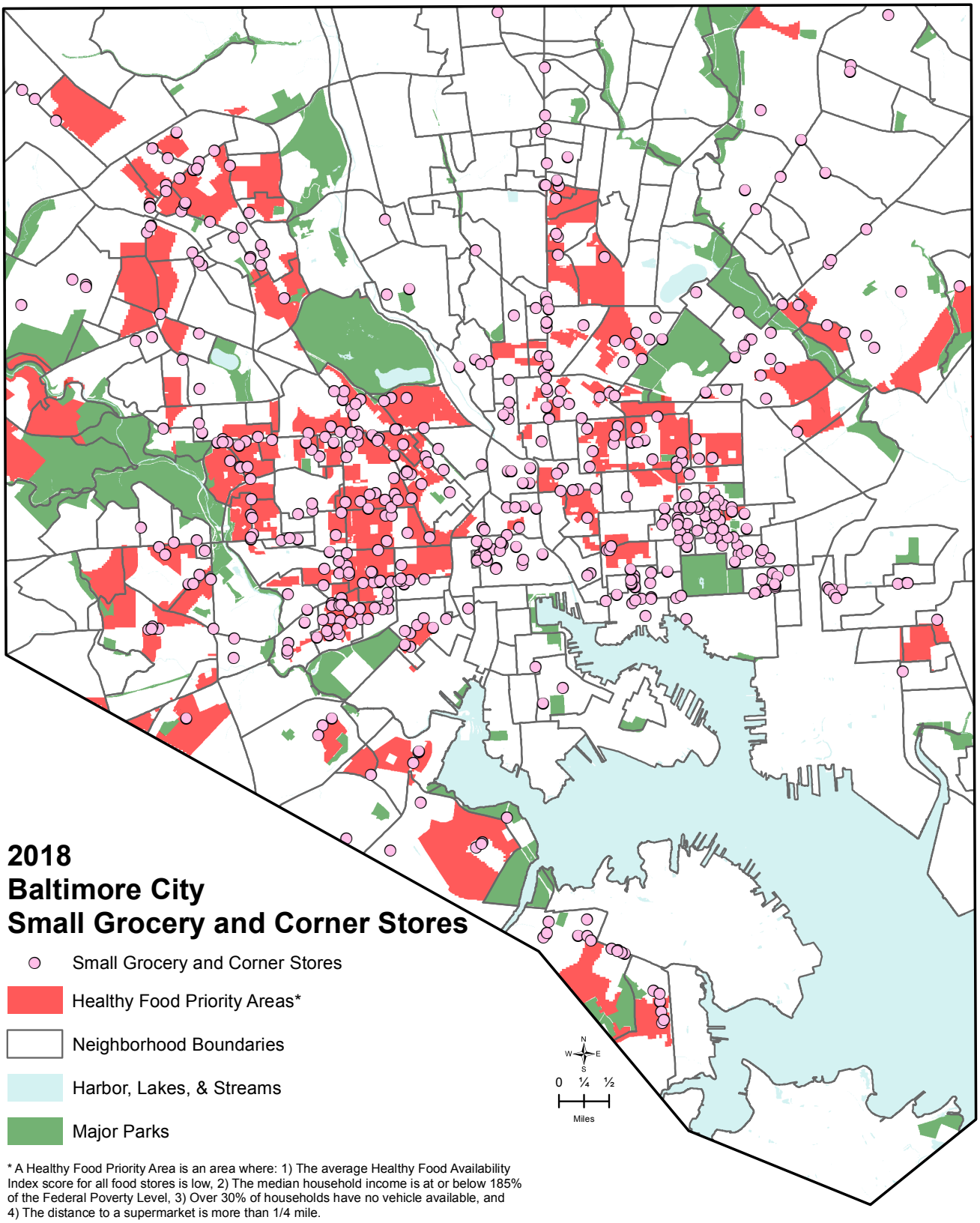
HEALTHY FOOD AVAILABILITY

- Supermarkets have the highest HFAI score of any store type; the average score for the 47 supermarkets is 27.7 with a range of 23.5 to 28.5.
- All supermarkets surveyed have more than 25 varieties of fresh vegetables available and more than 25 varieties of fresh fruits available.
- Supermarkets that scored lower than 28.5 tended to lose points for not having the healthy option of certain items, like healthy frozen meals or low-sodium soup.

IMPACT ON HEALTHY FOOD PRIORITY AREAS

- By definition, there are no supermarkets located in Priority Areas. However, 24 of the supermarkets are located in areas that would become a Priority Area without their presence.

Map 8



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SMALL GROCERY AND CORNER STORES

Small grocery and corner stores are defined as small format grocery stores that are usually independently owned and operated. They typically have annual food sales of less than $2 million, and have limited or no distinct food departments. In 2016, there were 633 small grocery and corner store locations verified and 525 were surveyed. Small grocery and corner stores are the most common food store type in Baltimore and have the greatest range of HFAI scores of any store type. These small and independently owned stores may have unique challenges to consider. Small business owners do not have the same financial flexibility as large companies to make changes to the number and type of items stocked. Interventions targeting stores in this category need to be developed with both the small business owners and their customers in mind.

	All small grocery and corner stores	Stores accepting...		
		No SNAP/ No WIC	SNAP only	WIC & SNAP*
Number surveyed	525	115	307	103
Average HFAI score	9.1	7.5	8.5	12.7
Median HFAI score	9.0	7.0	8.0	12.5
Range HFAI score	0-23.5	0-23.5	1-22.5	3-20

*Stores that accept WIC must also accept SNAP

Table 6: Small Grocery and Corner Stores HFAI Scores

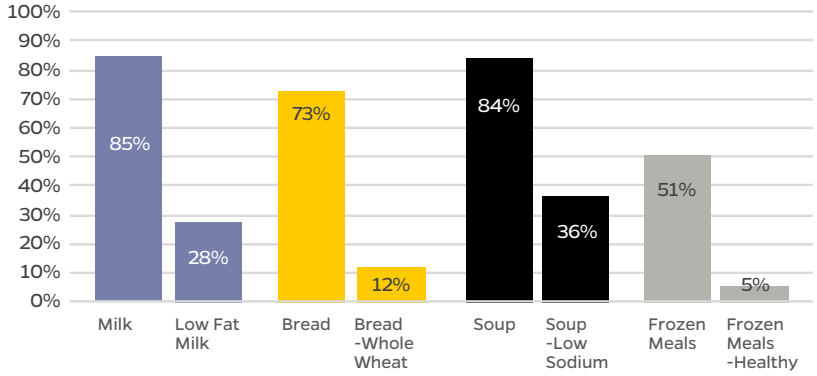


Figure 4: Food Available and Their Healthy Alternatives in Small Grocery and Corner Stores

Key Findings

STORE CHARACTERISTICS

- Small grocery and corner stores average 1.1 registers and 2.4 aisles.
- Only 58 of the 525 surveyed stores in this category have dedicated parking available.

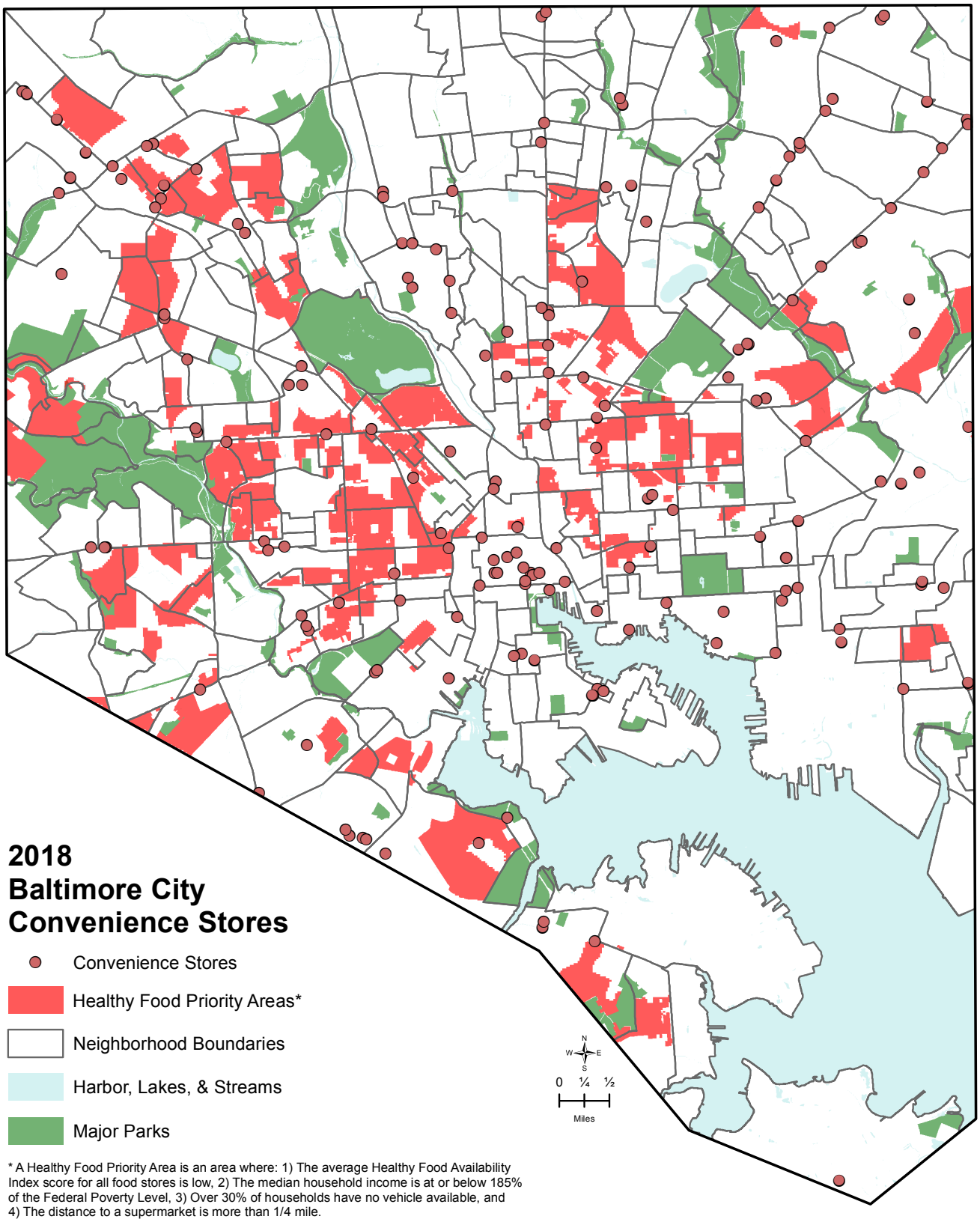
HEALTHY FOOD AVAILABILITY

- The average HFAI score for small grocery and corner stores is 9.1. The average score increases to 12.7 for stores that accept both SNAP and WIC.
- 67.2% of small grocery and corner stores have five or fewer fresh fruit and vegetable varieties available. 93.9% have canned fruits or vegetables available and 31.2% have frozen fruits or vegetables available.
- Small grocery and corner stores consistently have fewer healthier alternatives available for the items included in the HFAI market basket as seen in the chart to the left.

IMPACT ON HEALTHY FOOD PRIORITY AREAS

- About 20% of all small grocery and corner stores are located in Healthy Food Priority Areas. However, this store category accounts for 94% of all stores located in Priority Areas. This may be due in part to zoning regulations.

Map 9



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CONVENIENCE STORES

Convenience stores are defined as retail outlets that sell food products but may place a significant focus on non-food items. The majority of sales may come from prepared foods, cigarettes, pharmacy items, home goods, etc. This category includes chain convenience stores, drug stores or pharmacies, and discount or dollar stores. In 2016, a total of 185 convenience store locations were verified and 183 were surveyed. Convenience stores tend to have similar HFAI scores. Stores in this category are typically part of a national chain and may have similar inventory. Stocking decisions, including changes made to healthy food offerings, likely happen at a corporate level and individual stores may have less flexibility in what they offer.

	All convenience stores	Stores accepting...		
		No SNAP/ No Wic	SNAP only	WIC & SNAP*
Number surveyed	183	12	169	2
Average HFAI score	9.3	5.4	9.6	10.3
Median HFAI score	9.5	2.8	9.5	10.3
Range HFAI score	0-18	0-13	1-18	8-12.5

*Stores that accept WIC must also accept SNAP

Table 7: Convenience Stores HFAI Scores

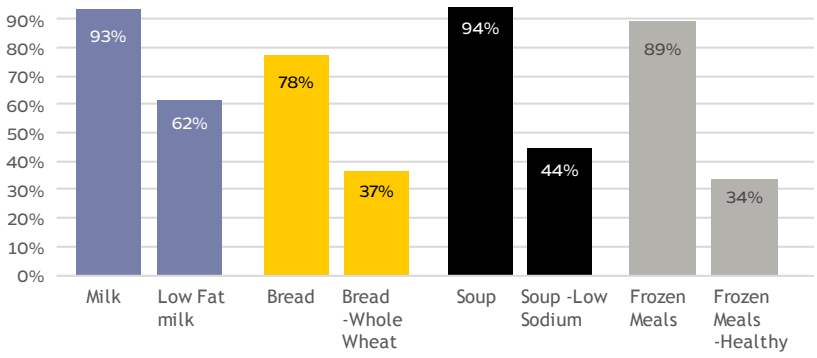


Figure 4: Food Available and their Healthy Alternative in Convenience Stores

Key Findings:

A total of 49 pharmacies, 80 chain convenience stores and 54 discount stores were surveyed. Findings for those stores include:

STORE CHARACTERISTICS

- Convenience stores have an average of 2.5 registers and 3.7 aisles.
- About 93.4% of convenience stores accept SNAP while only 2 stores accept both SNAP and WIC.
- About 21% of convenience stores have parking available.

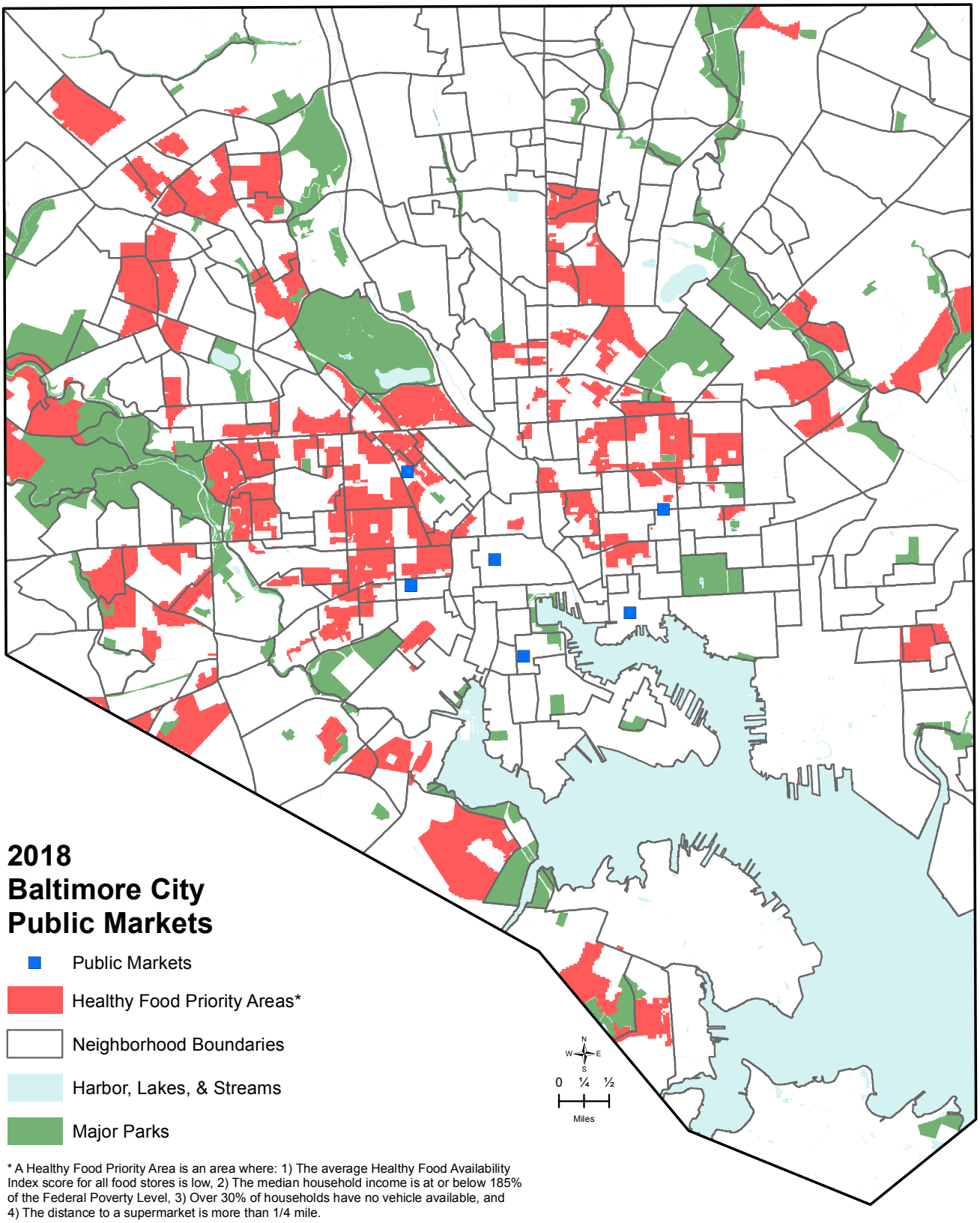
HEALTHY FOOD AVAILABILITY

- The average HFAI score for convenience stores is 9.3.
- 59.0% of convenience stores have five or fewer vegetables available. 94.0% have canned fruits or vegetables available and 18.0% have frozen fruit or vegetables available.
- Convenience stores consistently have fewer healthier alternatives available for the items included in the HFAI market basket as seen in the chart to the left.

IMPACT ON HEALTHY FOOD PRIORITY AREAS

- 2.6% of all convenience stores are located in Priority Areas. However, 95% of convenience stores are located within non-residential zones.

Map 10



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PUBLIC MARKETS

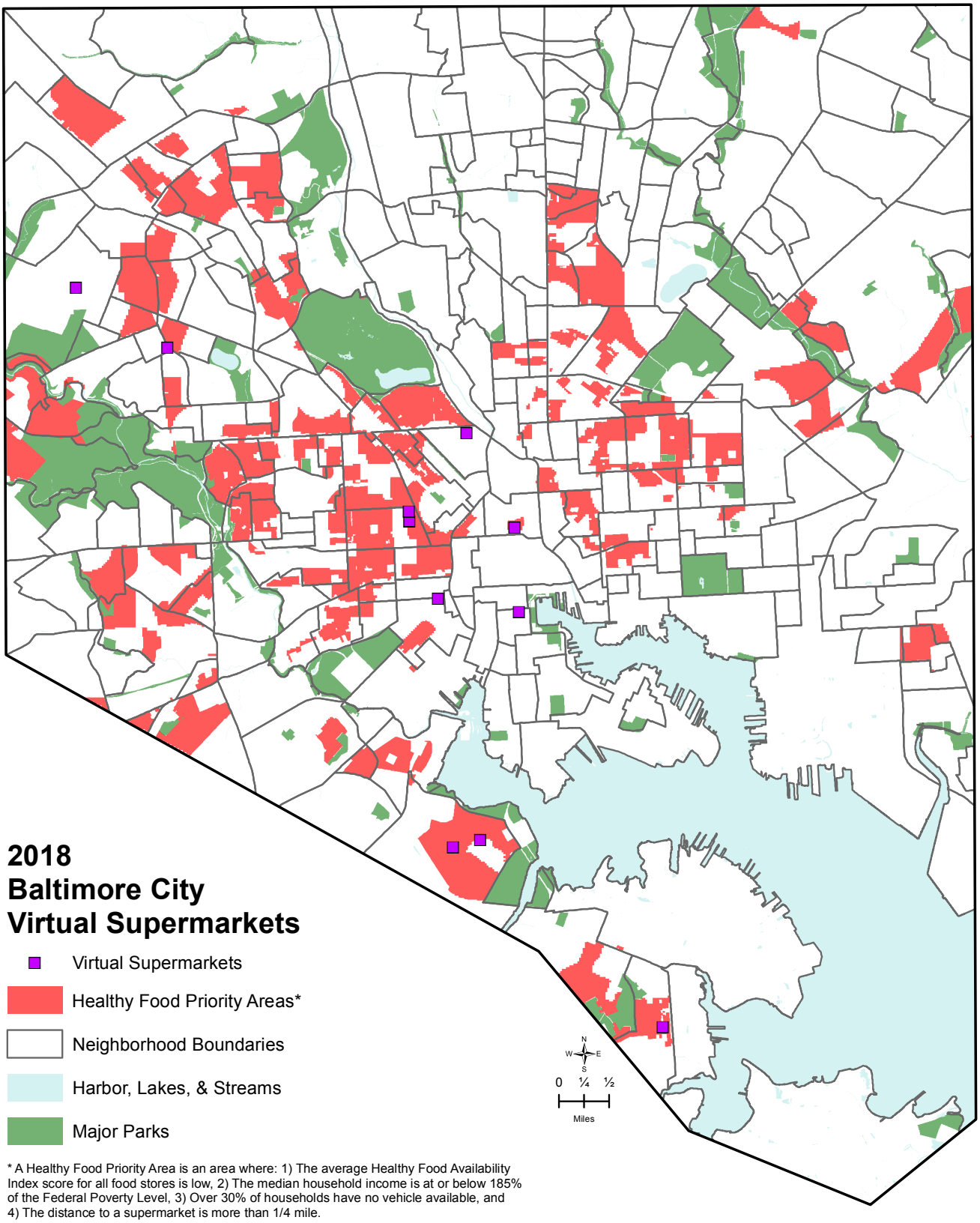
Public Markets are defined as historic City-owned indoor markets that feature diverse vendors selling a variety of food (mostly prepared) and non-food products. There are six public markets across Baltimore City, varying in size and types of vendors. Many public market stalls carry a narrow product line — only produce, only seafood, only meat, etc. Shoppers have to visit multiple stalls to get a full "market basket" of foods. Markets are given one aggregate score despite multiple stalls and vendors. The six public markets ranged widely in their score (5-20) with an average of 14 and a median of 16.3. Markets also ranged in the proportion of prepared food stalls to staple foods (see table below).

	Stall Type							
Market Name	**Produce**	**Meat & Seafood**	**Bakery**	**Deli**	**Carry-Out**	**Merchandise**	**Services**	**Total**
Northeast Market	1	6	2	7	13	6	2	37
Hollins Market	1	3	0	1	3	3	1	12
Cross Street Market	1	3	1	2	8	2	1	18
Broadway Market	0	1	0	1	3	0	0	5
Avenue Market	2	0	1	1	4	3	2	13
Lexington Market	4	12	8	11	41	16	6	98
Total	9	25	12	23	72	30	12	183

Table 8: Baltimore City Public Markets and Stall Types

Photo Credit: K. Kendall, Lexington Market, Baltimore, Flickr, CC BY 2.0

Map 11



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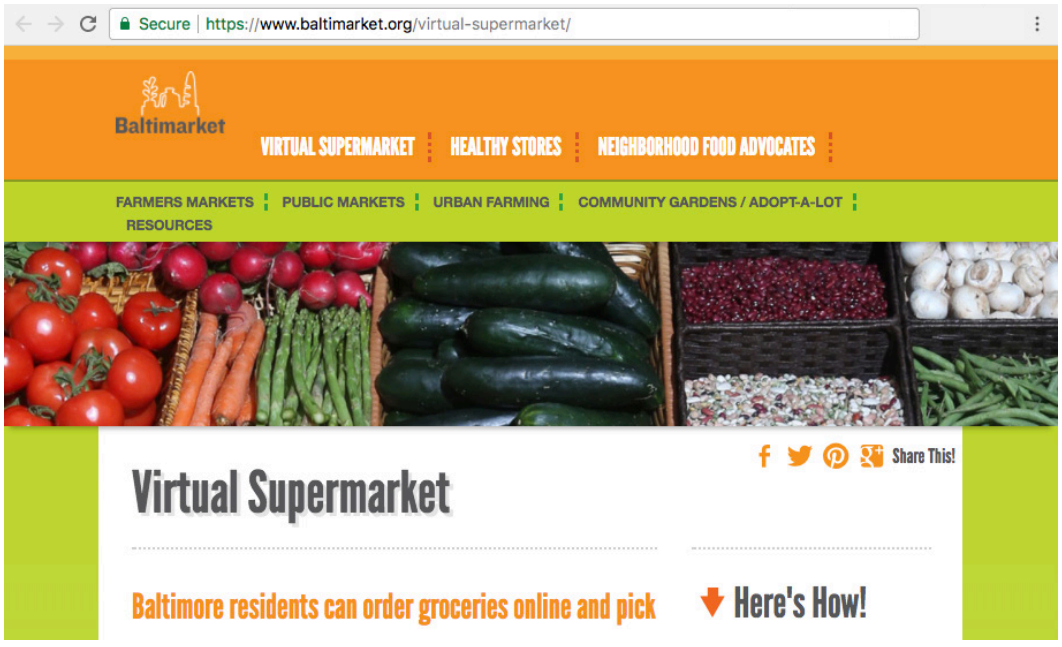
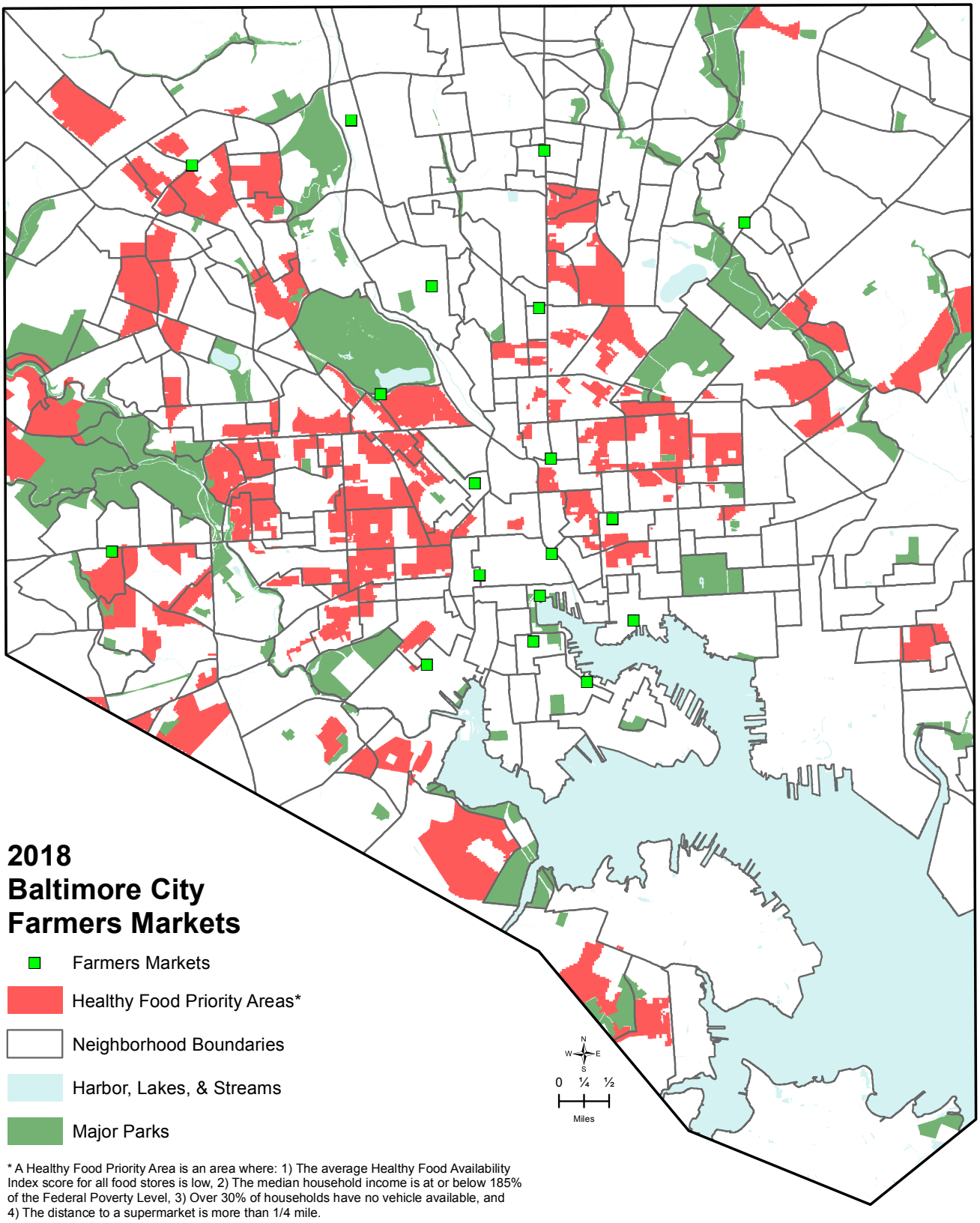
VIRTUAL SUPERMARKET

The Baltimore City Health Department's Baltimarket Virtual Supermarket Program is a novel approach to address healthy food access that uses online grocery ordering and delivery to bring food to neighborhoods with low vehicle ownership and inadequate access to healthy foods, specifically targeted for seniors.

This and other e-commerce models stand to increase access to healthy, affordable foods through partnerships with existing brick-and-mortar retailers or food warehouses. Program participants have access to all of the healthy food available in the partner grocery store. Because program sites are often at public housing or low-income senior housing, most sites are only open to residents of these buildings. There are over 530 households that participate in the Virtual Supermarket. Since data collection, two new sites have been added, bringing the total to 13 Virtual Supermarket sites, five of which are located in Healthy Food Priority Areas.



Map 12



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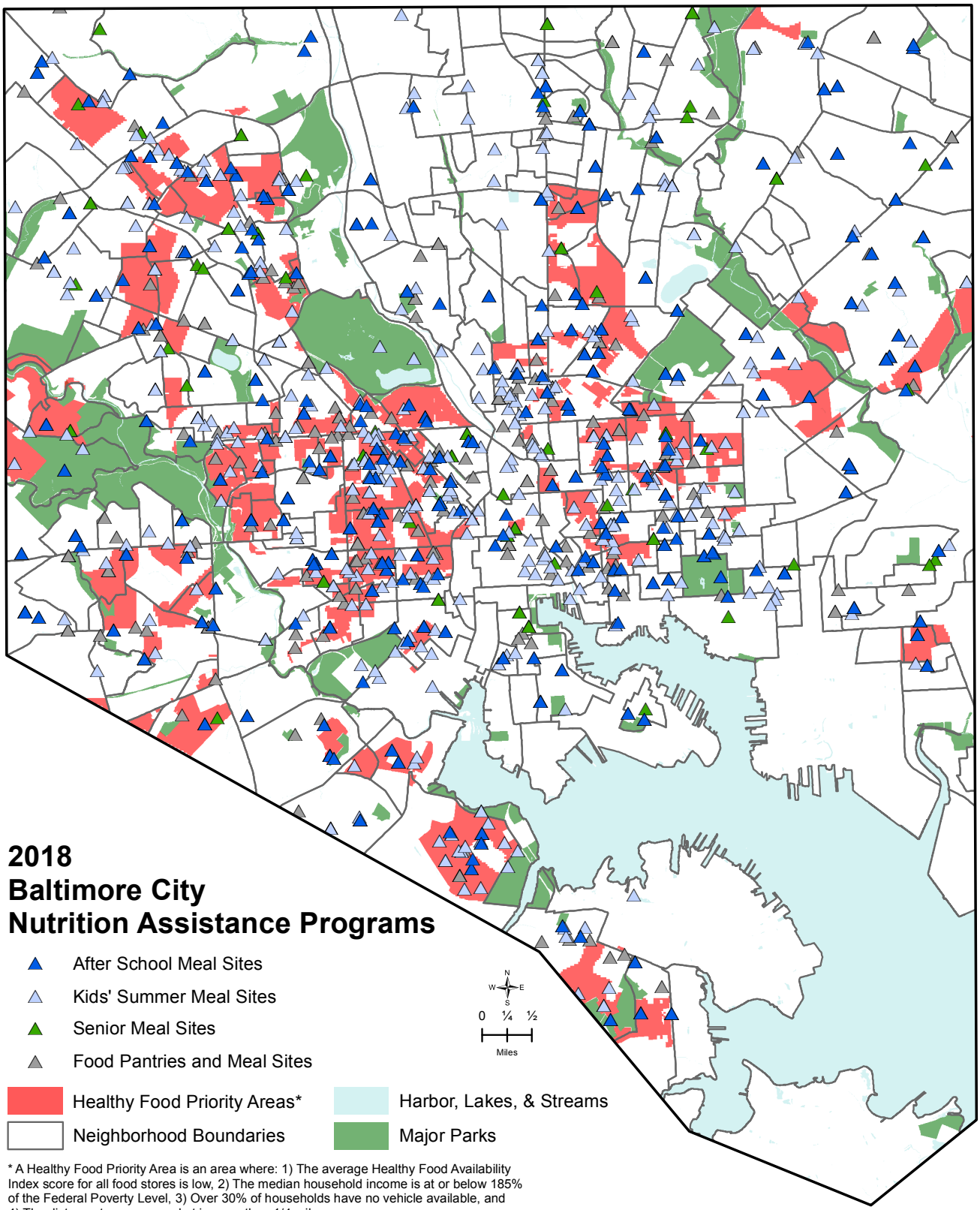
FARMERS MARKETS

For permitting purposes, the City of Baltimore defines a farmers market as "a recurring event on designated dates and times consisting primarily of agricultural producers selling their products directly to the public. At least 50 percent of vendors must sell agricultural or food products as designated by the State of Maryland's definition for 'Farmers Market.'" Because farmers markets place a focus on staple food items, they are increasingly being cited as part of the solution to improve access to healthy food in underserved neighborhoods.[16] Innovative strategies, such as Maryland Market Money, which provides a dollar for dollar match up to $5.00 for purchases made with federal nutrition benefits at farmers markets, allow low-income households to increase their purchases of healthy foods.[17] There are 18 farmers markets throughout the city and 11 accept SNAP and 11 participate in the Maryland Market Money program. One farmers market is located in a Healthy Food Priority Area.

Map 13



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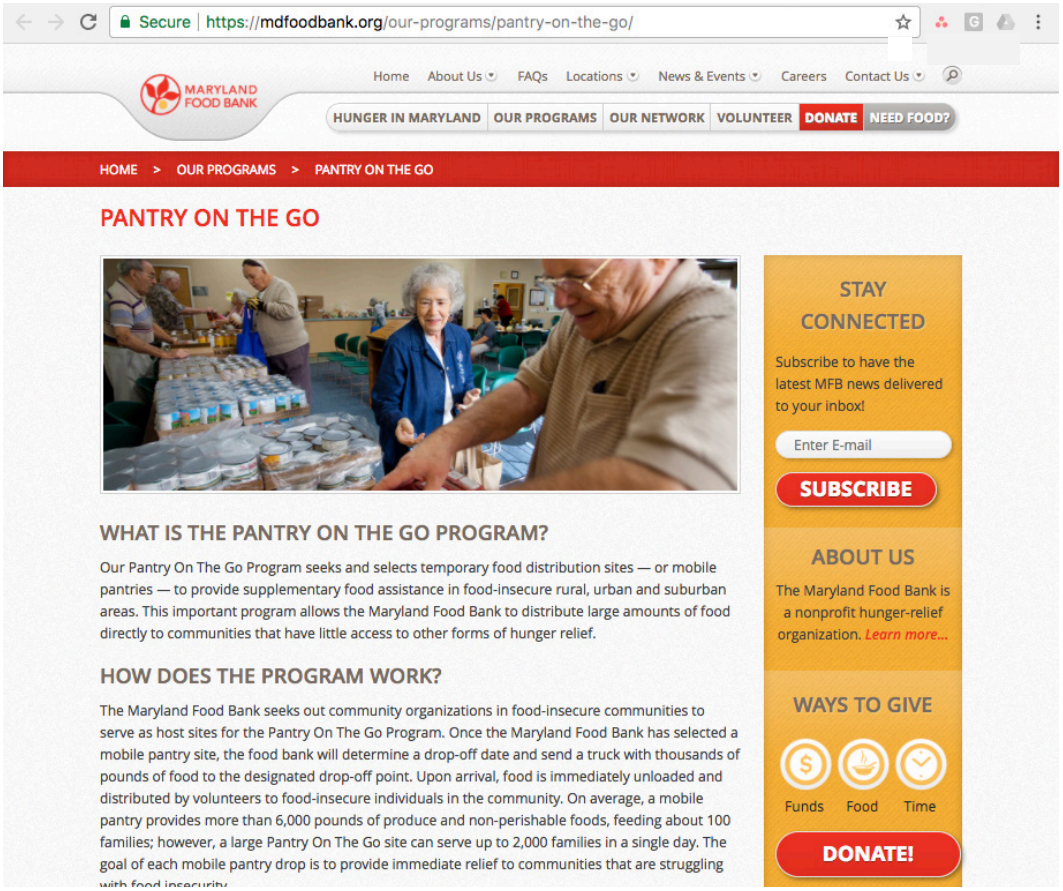
NUTRITION ASSISTANCE PROGRAMS

Nutrition assistance programs are an important source of food for people and families with low-income. Some programs are federally funded, such as the summer meals program and the senior meal program, while others are run by non-profit and community organizations. These programs provide an additional safety net for individuals facing financial hardship, helping them meet their nutritional needs. Some programs are targeted at a specific age group, like school-age children or seniors, while others are open to anyone in need. Nutrition assistance program sites are not included in the Healthy Food Priority Area analysis, but they are an essential component of Baltimore City's food environment because of the high number of children, seniors and adults who participate and utilize the programs.



After School Meal Sites

After school meal sites, typically operated by non-profit organizations, churches and schools, are funded through the USDA's Child and Adult Care Food Program to serve free meals to children. Meals must meet federal nutrition standards and are provided to all children 18 years old and under in areas with significant concentrations of low-income children. There were 268 sites participating in the program in 2016 and 74 sites (28%) are located in Healthy Food Priority Areas.

Source: Maryland State Department of Education, 2015

Summer Meal Sites

The Summer Food Service Program (SFSP) is a federally-funded, state administered program to assist public and private nonprofit organizations in serving free, nutritious meals to children and teens during summer months.

The SFSP provides reimbursement to organizations for meals and snacks served to children in areas where at least 50 percent of the children qualify for free or reduced-price meals under the National School Lunch Program or when 50 percent of the children enrolled in the program qualify for free or reduced-price meals. Meals must meet federal nutrition guidelines and be available to children 18 years old and under.

Summer meal sites vary on number of meals offered throughout a day and the length of programming throughout the summer. A total of 1.3 million meals were served to over 30,000 children and teens during summer 2016. There were over 300 sites providing meals during the summer months of 2016 and 156 sites located in Healthy Food Priority Areas.

Source: Baltimore Partnership to End Childhood Hunger, 2016

Senior Meal Sites

Senior meal sites are a part of the Eating Together in Baltimore City Program, a federally funded, congregate nutrition program established under the Older Americans Act in 1972. The program's goal is to promote health, reduce isolation and provide a nutritious meal in a congregate dining setting. The sites are run through the Baltimore City Health Department Division of Aging and CARE Services. There were 58 sites providing meals during 2016 and 13 sites located in Healthy Food Priority Areas.

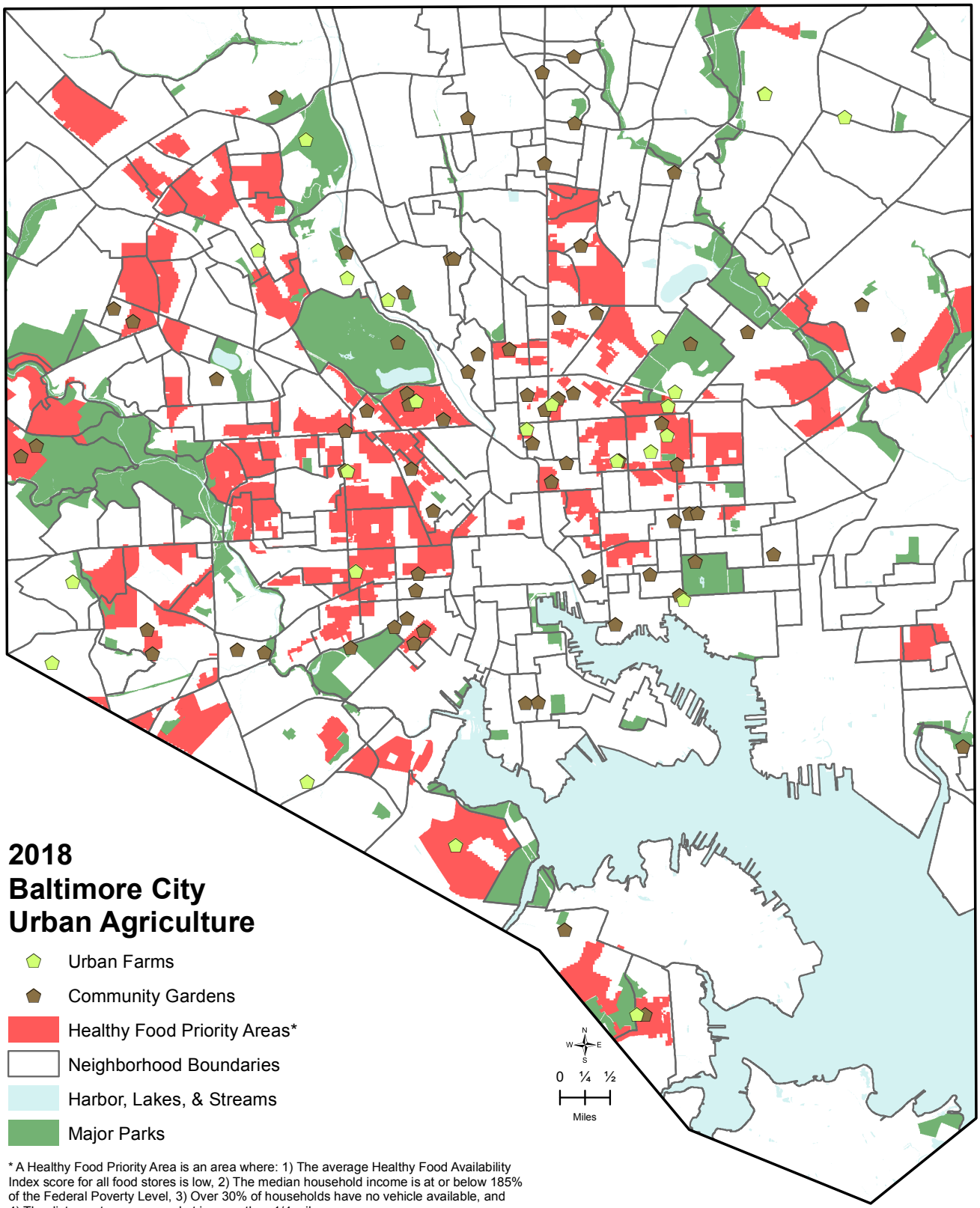
Source: Baltimore City Health Department, 2016

Food Pantry and Meal Sites

Food pantry and hot meal sites include a variety of locations that provide a prepared meal or food — either fresh, frozen or shelf stable items — to people in need. Locations may be homeless shelters, emergency pantries, schools or churches. These food assistance programs are open to the community free of charge. The food pantry and meal sites included on the map are affiliated with the Maryland Food Bank. There may be additional food pantries operating independently and not captured on the map. There were 425 sites operating during 2016 and 149 sites (34%) are located in Healthy Food Priority Areas.

Source: Maryland Food Bank, 2016

Map 14



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URBAN AGRICULTURE

Urban agriculture can range from urban farms occupying multiple acres of land to smaller community garden plots available to community members to garden. While many urban agriculture projects (both community gardens and farms) are not intended to replace traditional food retail and may not be able to feed a significant number of people, they are part of the solution by augmenting household access to a variety of fresh food, contributing to community well-being, and providing educational and job training opportunities and environmental benefits by creating urban green space.[18]

Urban Farms

Homegrown Baltimore, an initiative of the City of Baltimore to increase production, distribution, sales, and consumption of locally grown food within the city, classifies urban farms as large plots with a primary emphasis on income-generating agricultural activity. There are 24 urban farms throughout Baltimore City with nine located in Healthy Food Priority Areas. The urban farms range in model, size and products grown. Many farms sell produce through on-farm stands and at Baltimore City farmers markets, and some urban farms have mobile sites.

Data source: Johns Hopkins Center for a Livable Future, 2016

Community Gardens

Community gardens are typically a single site, which may or may not be broken into individual plots, gardened by multiple people. There are about 100 community gardens in Baltimore City with about 17 located in Healthy Food Priority Areas. Community gardens differ from urban farms in that food grown at these locations is typically used for home consumption or shared, though a change to the zoning code in 2017 now allows community gardens to set up farm stands and sell their produce. Baltimore residents can become members of community gardens to grow their own fruit, vegetables or flowers on a small plot of land.

Data source: Baltimore City Department of Recreation & Parks 2017, Johns Hopkins Center for a Livable Future, 2016

"Last year my car was stolen so I had to walk to the grocery store. The closest store is a mile and a half away. It was challenging to carry the bags, especially during inclement weather. Public transportation was equally as frustrating because the only available bus took a route that was twenty minutes out of the way."

— Resident Food Equity Advisor, Anthony Francis, District 9

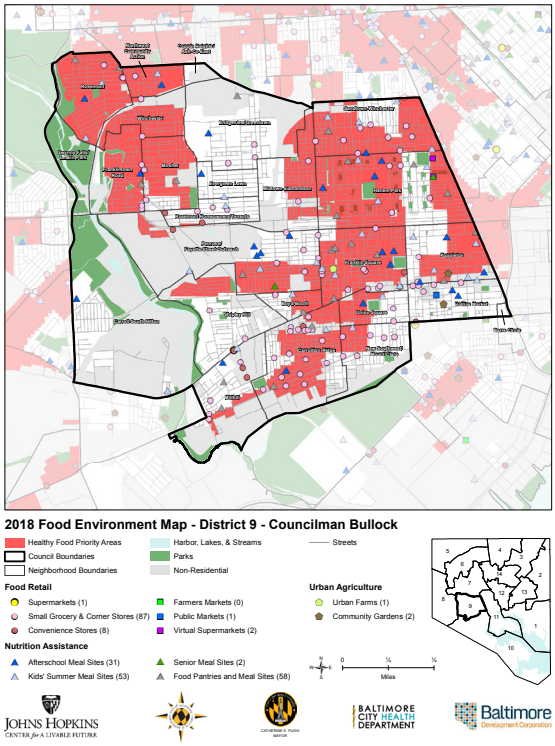
APPLYING FOOD ENVIRONMENT MAPPING IN PRACTICE

This report and accompanying maps were created as policy and planning tools to guide and assess strategies and opportunities in healthy food access. As an interagency collaboration, BFPI's citywide policy and programmatic strategies to increase access to healthy affordable food are detailed in various plans, including the forthcoming Baltimore City Sustainability Plan, Urban Agriculture Plan[19], and the State of Health in Baltimore[20]. BFPI's Healthy Food Environment Strategy brings together the goals and actions from various plans into a comprehensive roadmap for all agencies working to increase access to healthy affordable food. Food environment mapping and analysis can identify priority areas, inform those strategies and citywide goals, and guide implementation on a neighborhood or project-based level.

FOOD ENVIRONMENT MAPPING AND POLICYMAKING

The citywide Healthy Food Priority Area map shows areas across Baltimore where residents may experience challenges in accessing healthy food. The variation and reasons for some of these challenges can be more apparent when viewed on a smaller scale, like by city council district. To address equity in the food system, it is important to understand how certain groups of people may experience food access differently, even in close geographic proximity to one another. Mapping and analysis of smaller geographies provides further information about the discrepancies in access to healthy food by different age groups and races and ethnicities.

Map 15

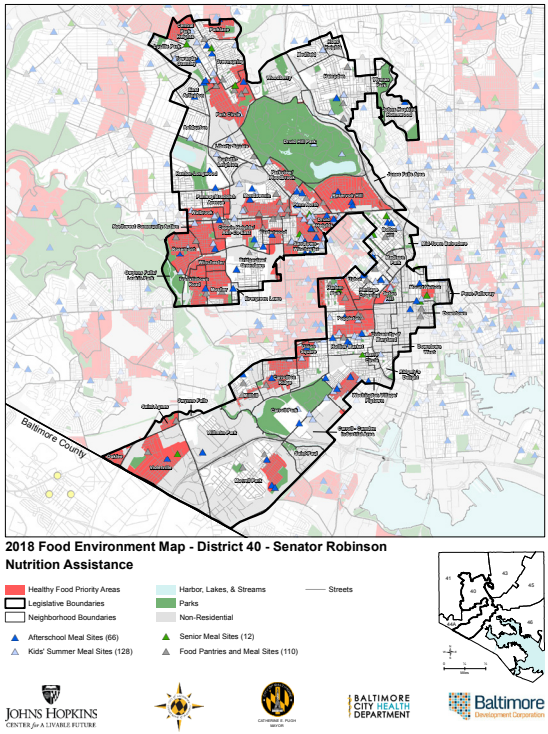


To help decision-makers understand the food environment in their region, this project created food environment maps with a brief description of the findings from this study relevant to each city council and for the state legislative districts that cover Baltimore City. These briefs include information on food assistance and urban agriculture sites in addition to food retail, to underscore the notion that retail is not the only point of access to healthy food for

many Baltimoreans. The maps include farmers markets, emergency food sites such as food pantries, summer and afterschool meal sites for children, senior meal sites, and urban farms, and community gardens.

The council district maps and accompanying key statistics were created for the first time in 2015 to inform council members about the challenges in healthy food access in their districts and assist in policymaking. The focus was on the impact to residents living in what were then termed "food deserts." BFPI briefed each council member on his or her map and discussed possible solutions to ensure a healthy food environment in each district. This approach proved successful and led to the creation and passage of the Personal Property Tax Credit for Supermarkets.

Map 16



Building from this model, for 2018, BFPI created maps for each state legislative district that intersects Baltimore City, as well as more detailed briefing packets that move beyond focusing on impact to explain the context necessary for policymakers to better understand how the food environment as a whole relates to specific strategies or potential policies. In addition, BFPI incorporated quotes from the Resident Food Equity Advisors[21] (RFEAs), a group of residents formed in 2017 to advise BFPI on possible food policy solutions. RFEAs offer a wealth of personal experience and reflection that provide a perspective BFPI cannot offer alone. The quotes help to ground the technical nature of the briefing in the reality of Baltimore City neighborhoods and help translate the impact of the food environment on resident's lived experience. In 2018, RFEAs will have the opportunity to meet with city council members and state legislators to further elevate the resident voice and leadership on food issues.

BFPI will continue to adapt the maps to various geographies, such as neighborhoods or specific target areas, in order to inform place-based strategies and planning processes.

HEALTHY FOOD ENVIRONMENT STRATEGY

Across Baltimore City, noteworthy accomplishments in food access have been made by residents, government, non-governmental organizations, academia and the private sector. Yet, there remains significant work to do to ensure all residents have equitable access to healthy affordable food. Building on accomplishments since 2015 and incorporating additional priorities, BFPI has adapted the Food Desert Retail Strategy to be a more comprehensive and inclusive strategy, now called the Healthy Food Environment Strategy. The Healthy Food Environment Strategy addresses aspects of food access beyond food retail including food assistance and food production, as well as the processes necessary to engage stakeholders across the food system. Below are the eight priorities of the Healthy Food Environment Strategy:

1) **Support resident-driven processes to guide equitable food policy, priorities and resources:** Understanding that truly equitable solutions are established by the people most affected by any problem, BFPI seeks to increase and create additional pathways for resident-driven processes, dialogue and critique.
   - Engage Resident Food Equity Advisors in policymaking
   - Bolster networks through the Food Policy Action Coalition (Food PAC)
   - Support non-governmental and grassroots efforts

2) **Improve small grocery, corner and convenience stores:** Small stores are already prevalent at the neighborhood level. Building on the work of the Baltimarket Healthy Corner Store Program, BFPI seeks solutions to turn more of these stores into healthy food assets.
   - Increase HFAI scores
   - Use federal nutrition assistance programs as a framework for increasing healthy food at stores
   - Support innovative retail models that generate wealth in historically marginalized communities

ACCOMPLISHMENTS SINCE 2015

The 2015 Food Environment Report listed several key policy and programmatic goals or benchmarks. The list below details goals of the 2015 Food Desert Retail Strategy that have been fully realized, and includes several other accomplishments since that time that contribute to improving healthy food access:

1) **Retain and attract supermarkets:** Passed and implemented the Personal Property Tax Credit for Supermarkets and created the Grocery Incentive Area. The Baltimore Development Corporation implements this key legislation, which was passed in 2016. It has resulted in the construction of one new supermarket, which serves East Baltimore, including 5,000 residents who live within the quarter mile radius of the store, which was previously considered a Healthy Food Priority Area.
2) **Improve non-traditional grocery retail options:** Engaged 17 stores to stock and sell fruits, vegetables, whole grain foods, low-fat milk and dairy and healthy snacks and drinks as a part of the Baltimore City Health Department Baltimarket Healthy Stores Program.
3) **Improve HFAI in the public markets**: Supported Avenue Market in the USDA Local Foods, Local Places planning process, which informed an RFP for a new market operator to help the market thrive as a place for healthy food and build the local food economy.

4) **Expand Homegrown Baltimore to serve food desert neighborhoods:** Passed an Urban Agriculture Tax Credit for farmers in Baltimore City to provide a 90 percent credit on property taxes, as long as the parcel is used for urban agriculture for five years and produces a minimum value threshold.

5) **Address transportation gaps that impact food access:** Partnered with the Central Maryland Transit Alliance to conduct an analysis on the impact of the new BaltimoreLink bus system on food access. Advocated for improvements to bus routes based on these findings.

Additional accomplishments:

- **Procurement and the local food economy:** Increased City procurement infrastructure, capacity and buy-in to change food procurement practices to increase nutrition standards, encourage locally grown products and support local businesses, starting with the summer meals program.
- **Maximize the impact of federal nutrition assistance:** Extended the disbursement period for SNAP benefits from 10 to 20 days to even out a highly concentrated business cycle. The change has resulted in steadier sales throughout the month and more consistency in stocking, pricing, and staffing for grocery stores.
- **Create resident-driven processes to formulate and guide equitable solutions:** Incorporated an equity lens to better acknowledge and address the disproportionate impacts and structural barriers of the food environment on certain populations, namely Black residents of Baltimore City. Created a Resident Food Equity Advisor group to inform policy from a resident perspective.

3) **Retain and attract supermarkets:** BFPI works to ensure that existing supermarkets and grocery stores continue to serve Baltimore residents, and works to attract stores to underserved areas.

- Develop funding, incentives and tax credits in Grocery Incentive Areas
- Provide technical assistance to new and existing stores

4) **Increase the ability of the public markets to anchor the healthy food environment:** Public markets provide a wide variety of food, physical infrastructure and social capital, and anchor the food environment in several neighborhoods without supermarkets.

- Increase the availability and sales of staple foods and healthy prepared food
- Leverage public markets to support small food business

5) **Implement supply chain solutions that support healthy food distribution and small businesses:** Supply chain practices favor large retailers over small ones because of purchase power differences. BFPI seeks to support scaling up of locally owned businesses and locally produced food, and reduce waste.

- Create structural change in supply chain and distribution
- Adopt Good Food Procurement standards across city government
- Increase food recovery to reduce both food waste and food insecurity

6) **Maximize the impact of nutrition assistance and meal programs:** Nutrition assistance programs are both a social safety net and economic drivers for food retail in Baltimore City. There are often gaps in the number of residents who are eligible for federal nutrition programs and those who participate, leaving potential funds underutilized, and residents unnecessarily hungry. BFPI works to increase participation and maximize the effectiveness of these programs.

- Increase the impact of SNAP and WIC
- Increase participation in federal meal programs
- Increase impact of food pantries

7) **Support urban agriculture, emphasizing historically disenfranchised populations and geographies:** With large tracts of vacant and underutilized land, Baltimore incorporates food production into the urban environment. Emphasis should be placed on expanding opportunities for communities of color who have historically experienced discriminatory land-use policies and been excluded from land ownership. Urban farmers need long-term land tenure in terms of decades rather than years.

   - Protect and prioritize appropriate parcels of land for agricultural purposes and create a policy environment that encourages food and farm production
   - Create better-defined and supported pathways to long-term land tenure and/or ownership of agricultural spaces
   - Increase opportunities for growing, buying and selling locally grown and produced products

8) **Address transportation gaps that impact food access:** Based on national data and qualitative interviews, the majority of Baltimoreans prefer to do the bulk of their grocery shopping at full-service supermarkets. By definition, Healthy Food Priority Areas are in residential areas and not all communities are able to support a full-service supermarket. BFPI has developed transportation strategies to bring people to food and to bring food to people.

   - Support the pilot and implementation of Online SNAP benefits
   - Make public transit more conducive to food shopping
   - Support innovative strategies and organizations creating transit-related solutions

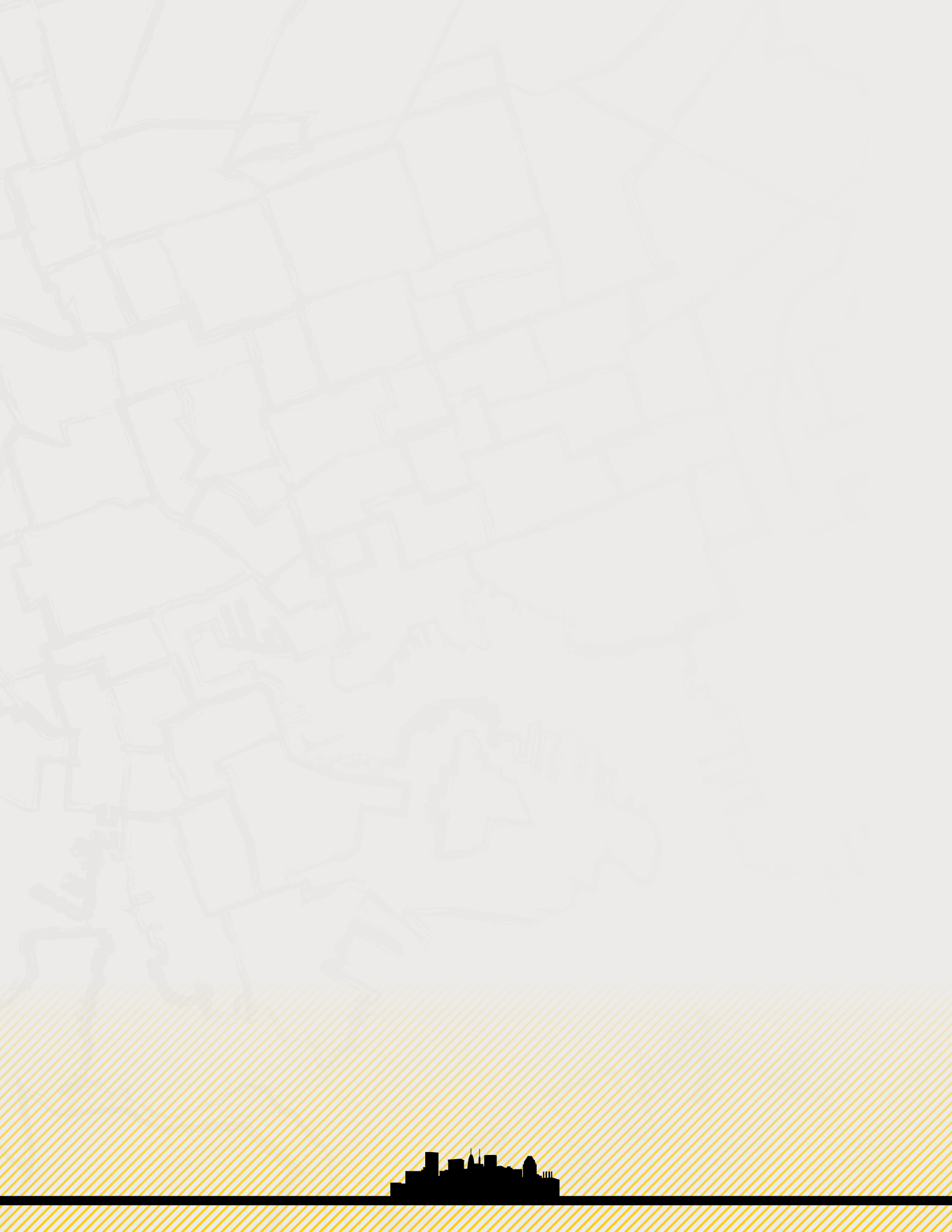
"The supermarkets that hear from the community do a lot better. I think that's a sign of a good supermarket serving a need. I think now with supermarkets coming in to the community … they need to have a conversation with community residents to make sure they're getting the right supermarket… I think [a specific supermarket] did a good job and I see that another supermarket is adjusting their stores to meet the need of the community because all communities are not the same."

— Resident Food Equity Advisor Co-chair, Joyce Smith

CONCLUSION

The 2018 Baltimore City Food Environment Map and Report are strategic policy and planning tools that identify gaps and opportunities in healthy food access. The goal of this report and set of maps is to translate research into practical information to influence planning and targeted policy and program solutions to increase access to healthy affordable food for all Baltimore City residents.

Moving forward, Baltimore City will capitalize on this research as well as existing programs and policies to continue to work toward lasting outcomes in improving healthy food access. Each program and community based project or activity can play a role in creating a more equitable food environment. In addition, each resident experiences access to healthy food differently, and the BFPI will continue to work to ensure that the Baltimore City food environment can meet the healthy food needs of all Baltimoreans.



APPENDIX

DEFINITIONS AND SOURCES

Food Retail

Supermarkets: Large format grocery stores with all food departments present, including produce, meats, seafood, canned goods and packaged goods. Usually chain stores, they typically have annual food sales of $2 million or more and have three or more cash registers.

Source: Baltimore City Health Department, 2016; USDA Food and Nutrition Services SNAP Retailer Locator, 2016; Johns Hopkins Center for a Livable Future, 2016

Small Grocery and Corner Stores: Small format grocery stores that are typically independently owned and operated. They typically have annual food sales of less than $2 million, and have limited to no food departments.

Source: Baltimore City Health Department, 2016; USDA Food and Nutrition Services SNAP Retailer Locator, 2016; Johns Hopkins Center for a Livable Future, 2016

Convenience Stores: A variety of stores that sell food products but place a significant focus on non-food items. The majority of sales may be made up from prepared foods, cigarettes, pharmacy items, home goods, etc. This retail category includes chain convenience stores, drug stores or pharmacies, and discount/dollar stores.

Source: Baltimore City Health Department, 2016; USDA Food and Nutrition Services SNAP Retailer Locator, 2016; Johns Hopkins Center for a Livable Future, 2016

Public Markets: Historic City-owned indoor markets that feature diverse vendors selling a variety of food (including prepared) and non-food products.

Source: Baltimore City Health Department, 2016

Virtual Supermarkets: Operated by the Baltimore City Health Department, this program is located at certain libraries and senior, disabled and public housing, and allows residents to order groceries online through a designated supermarket partner, with delivery to a central location with no delivery fee to the customer.

Source: Baltimore City Health Department, 2017

Farmers Markets: Outdoor farmers markets with varying numbers of vendors stalls. Farmers markets feature produce, meat, dairy and/or honey vendors and may or may not include prepared food and non-food vendors.

Source: Maryland Farmers Market Association, 2016

Urban Agriculture

Urban Farms: Green houses, high tunnels or plots in an urban area with a primary emphasis on income-generating agricultural activity.

Source: Johns Hopkins Center for a Livable Future, 2016

Community Gardens: A single piece of land that is typically gardened by a group of people. Community gardens utilize either individual or shared plots on private or public land while producing fruit, vegetables, and/or ornamental plants.

Source: Baltimore City Department of Recreation & Parks 2017, Johns Hopkins Center for a Livable Future, 2016

Nutrition Assistance

After School Meal Sites: Schools that have an eligible afterschool program serving meals through the USDA's Child and Adult Care Food Program. Meals must meet Federal nutrition guidelines are provided to all children 18 years old and under in areas with significant concentrations of low-income children.

Source: Maryland State Department of Education, 2016

Kids' Summer Meal Sites: Sites that provide children 18 years old and under free meals when school is out of session. Meals must meet Federal nutrition guidelines are provided to all children 18 years old and under in areas with significant concentrations of low-income children.

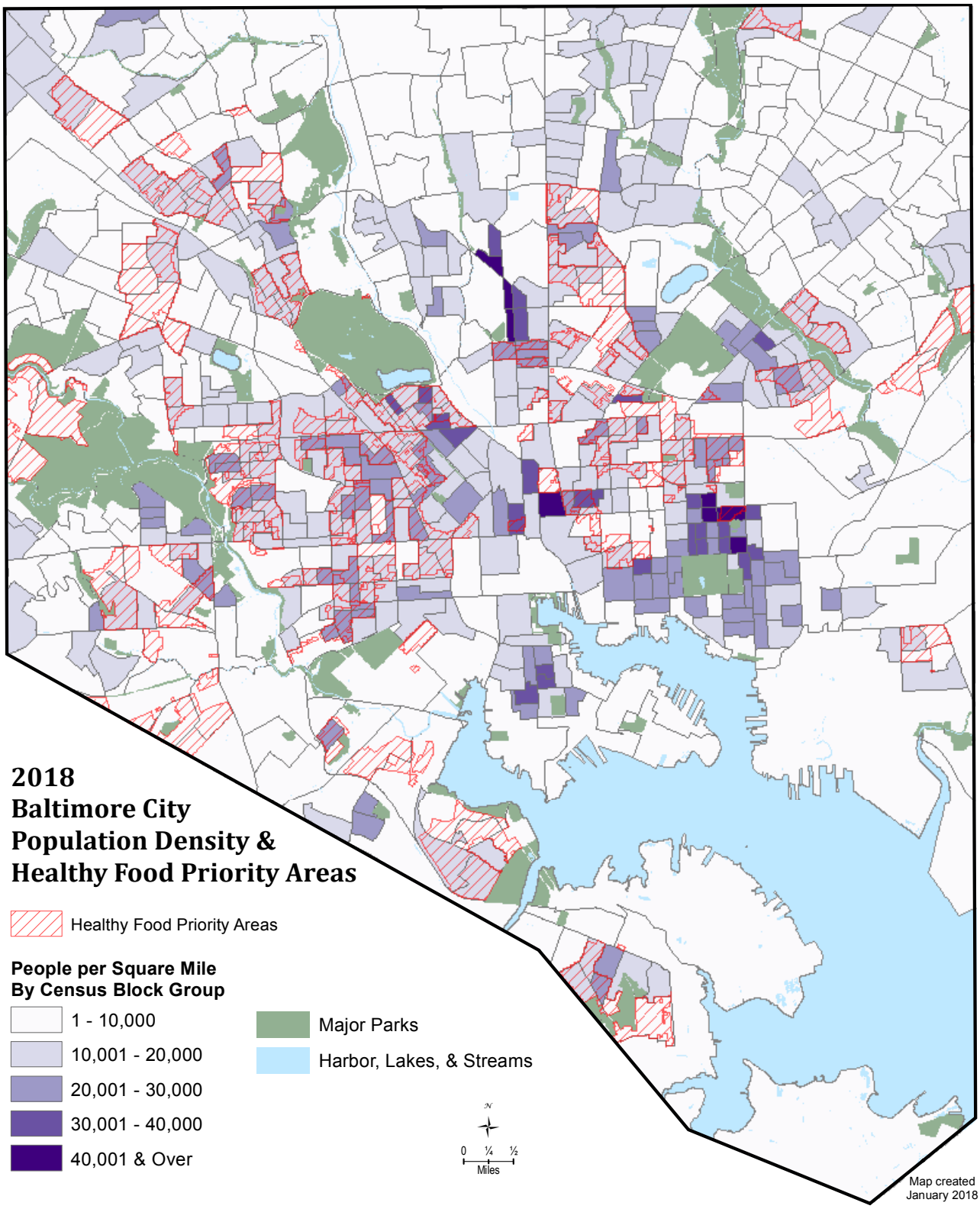
Source: Baltimore Partnership to End Childhood Hunger, 2016

Senior Meal Sites: Places where older adults can come together for services and activities that meet their social, physical, emotional, and intellectual needs.

Source: Baltimore City Health Department, 2017

Food Pantries and Meal Sites: Homeless shelters, emergency pantries, schools or hot meal programs that provide food — either fresh, frozen or shelf stable food items or prepared meals — to people in need. All food assistance programs are open to the community free of charge.

Source: Maryland Food Bank, 2016

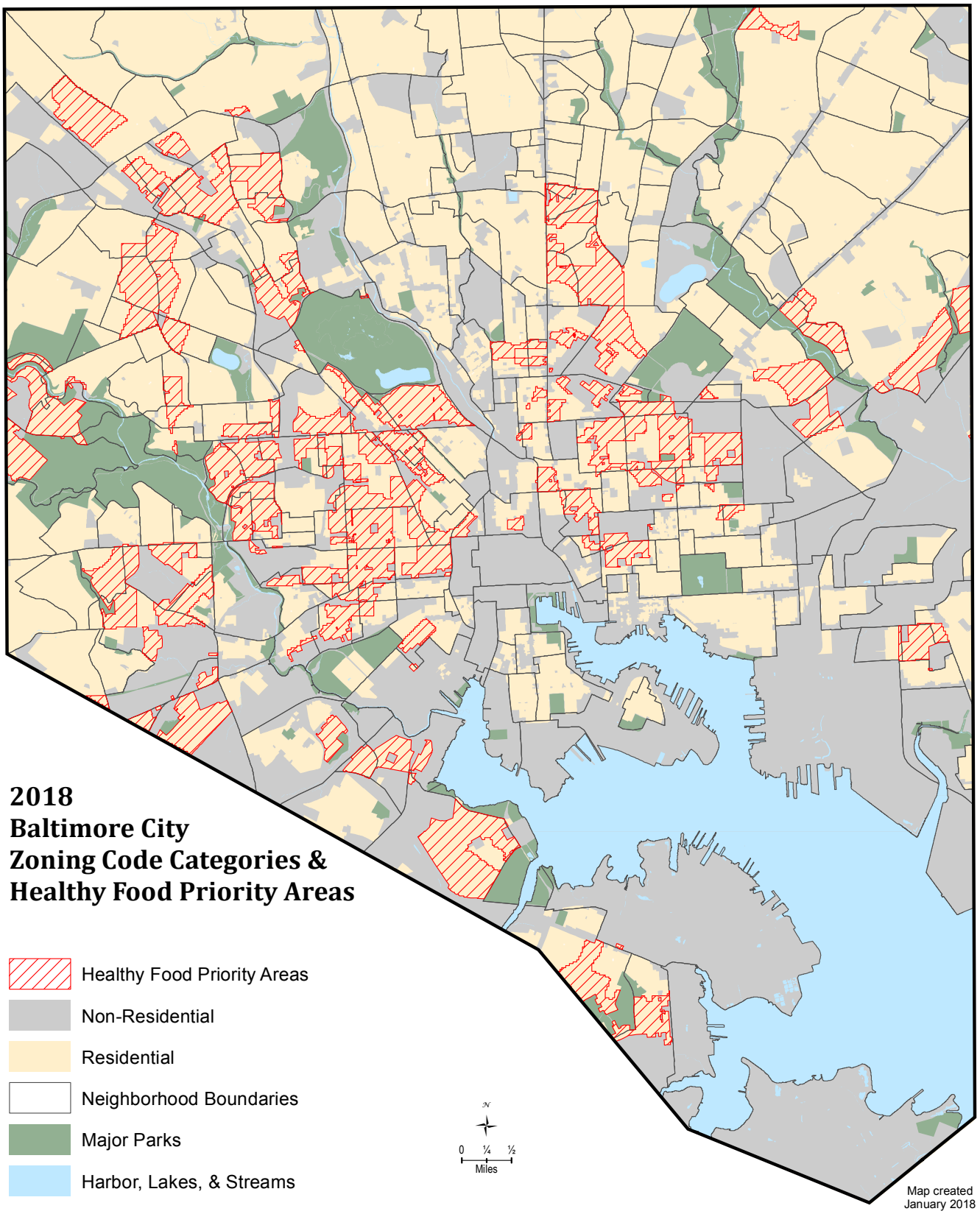


JOHNS HOPKINS
CENTER *for* A LIVABLE FUTURE

CATHERINE E. PUGH
MAYOR

BALTIMORE
CITY HEALTH
DEPARTMENT

Baltimore
Development Corporation


2018
Baltimore City
Zoning Code Categories &
Healthy Food Priority Areas
Healthy Food Priority Areas
Non-Residential
Residential
Neighborhood Boundaries
Major Parks
Harbor, Lakes, & Streams
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January 2018
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CATHERINE E. PUGH
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