OVERVIEW
The Department of Planning and the Johns Hopkins Center for a Livable Future collaborate to examine the Baltimore food environment through research, analysis and mapping in order to inform the work of the City’s Baltimore Food Policy Initiative (BFPI). BFPI is an interagency collaboration to address health, economic, and environmental disparities in Healthy Food Priority Areas. Please refer to Baltimore City’s Food Environment: 2018 Report for more in-depth information.

HEALTHY FOOD PRIORITY AREA
Healthy Food Priority Areas show where four food access factors overlap. The four criteria to the right determine if an area is a Healthy Food Priority Area. These areas were previously referred to as “food deserts.”

KEY FINDINGS
- In Baltimore City, 23.5% of residents live in Healthy Food Priority Areas.
- Since 2015, at least 5,000 fewer residents live in Priority Areas on account of one new supermarket.
- Food access occurs on a continuum. The graph to the right shows the percentage of the population that meets each Priority Area factor.
- Certain groups of residents are affected at disproportional rates (see graph below).
- More than 120,000 (31%) Black residents live in Priority Areas, compared to only 16,000 (8.9%) White residents.
- Children are the most likely of any age group to live in Priority Areas.

PRIORITY AREA FACTORS
1. The average Healthy Food Availability Index (HFAI) score is in the lowest tier
2. The median household income is at or below 185% of the Federal Poverty Level
3. Over 30% of households do not have a vehicle available
4. The distance to a supermarket is more than ¼ mile

HEALTHY FOOD PRIORITY AREA FACTORS BY PERCENT OF CITY POPULATION

PERCENT OF EACH POPULATION GROUP LIVING IN A HEALTHY FOOD PRIORITY AREA

<table>
<thead>
<tr>
<th>Population Group</th>
<th>City</th>
<th>Children</th>
<th>Adults</th>
<th>Seniors</th>
<th>Black</th>
<th>White</th>
<th>Asian</th>
<th>Other*</th>
<th>Hispanic**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent</td>
<td>146,077</td>
<td>37,833</td>
<td>90,538</td>
<td>17,706</td>
<td>124,521</td>
<td>16,326</td>
<td>997</td>
<td>4,233</td>
<td>2,966</td>
</tr>
</tbody>
</table>

How to read this graph (example): Of all the children living in Baltimore City, 37,833 (28.3%) 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.
FOOD ENVIRONMENT OVERVIEW

To understand the food environment beyond the Healthy Food Priority Area, BFPI analyzed food retail, food and nutrition assistance, and urban agriculture. Strategies related to each component are necessary to address health, economic, and environmental disparities. See council district and state legislative district briefs for more detail.

FOOD RETAIL

<table>
<thead>
<tr>
<th>Store Type</th>
<th>Citywide Number</th>
<th>Avg HFAI Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMALL GROCERY AND CORNER STORES</td>
<td>525</td>
<td>9.1</td>
</tr>
<tr>
<td>CONVENIENCE STORES</td>
<td>183</td>
<td>9.3</td>
</tr>
<tr>
<td>PUBLIC MARKETS</td>
<td>6</td>
<td>14.0</td>
</tr>
<tr>
<td>SUPERMARKETS</td>
<td>47</td>
<td>27.7</td>
</tr>
</tbody>
</table>

Healthy Food Availability Index (HFAI) scores show the quantity and variety of staple food groups and healthy options. Scores range from 0-28.5. HFAI awards stores points based on the presence of a market basket of staple foods and whether healthy options of common foods are available (i.e. whole grain bread).

The retail food environment includes various store types, and stores within each format can serve as sources of healthy affordable food.

**HFAI SCORE RANGE:**

- (19.1 - 28.5) **HIGH**
- (9.6 - 19) **MEDIUM**
- (0 - 9.5) **LOW**

**SMALL GROCERY AND CORNER STORES**
The 525 independently owned and operated stores vary widely in the foods they stock. The average HFAI score is 9.1, which is low enough to trigger a Healthy Food Priority Area. Corner store density varies across the city, with some neighborhoods having few stores and others an overabundance.

**CONVENIENCE STORES**
This category represents 80 Chain Convenience, 54 Discount Stores and 49 Pharmacies. The majority of stores in this category are chains or franchises, so corporate decisions influence stocking. On average, HFAI scores are low.

**PUBLIC MARKETS**
Because markets differ in size, and number and type of vendors, the HFAI scores for the six markets range from 5 to 20. The redevelopment of Lexington, Hollins, and Avenue Markets seek to increase the amount of staple healthy food and decrease the amount of processed foods.

**SUPERMARKETS**
Overall, supermarkets provide the widest variety of healthy staple foods. The 47 supermarkets are run by 22 different operators. While similar in basic stocking (leading to similar HFAI scores), stores may vary significantly in features not scored or measured by this analysis, such as quality or affordability.
FOOD AND NUTRITION ASSISTANCE

Sites

SUMMER MEALS
Summer and after school meals fill the “hunger gap” outside school hours for the 133,000 children in Baltimore. Over 1.25 million summer meals were served across 586 sites in 2016. The City outperforms the state in summer meals, however, participation peaks in July, leaving room for growth in June and August. The City updated its procurement contract to increase nutritional value and decrease waste.

AFTER SCHOOL MEALS
268 after school meals sites serve children in Baltimore. In 2017, Baltimore City Schools assumed control over after school meals at school sites and now serves three meals per day. Family League is the primary lead for afterschool meals at community-based sites.

FOOD PANTRIES AND MEAL SITES
There are 425 sites across the city that are served by the Maryland Food Bank. The majority are hosted by religious organizations and non-profits, as well as public schools.

SENIOR MEALS
Seniors on a fixed income and those with limited mobility are vulnerable to food insecurity. The 58 Eating Together sites have the capacity to serve additional seniors. The City is working on the procurement contract for Eating Together to enhance nutritional value and meal quality.

VIRTUAL SUPERMARKET
The 13 Virtual Supermarket sites provide access to online supermarket shopping, and primarily serves senior, disabled, and public housing sites.

URBAN AGRICULTURE

FARMERS MARKETS
There are 18 farmers markets across the city. Sixteen markets accept SNAP and some vendors at all markets accept WIC benefits. Nine markets accept Maryland Market Money, which matches federal nutrition benefits.

URBAN FARMS
There are 23 urban farms in Baltimore City. Both for-profit and non-profit urban farms operate in the city. The City has various programs to lease land as well as many policies to support urban agriculture and animal husbandry.

COMMUNITY GARDENS
The 83 community gardens spread throughout the city may provide opportunities for household-level food access.

RESIDENT PERSPECTIVE

“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.”

Joyce Smith
Resident Food Equity Advisor
Co-Chair 2017
MAPPING TO INFORM POLICY

To address equity in the food system, it is important to understand how certain groups of people may experience challenges to accessing food differently. BFPI and the CLF created maps and briefings for each city council and state legislative district. This analysis helps provide the context to guide policymaking and place-based solutions. BFPI and the CLF created these maps to examine issues on levels that are tangible enough for residents to also play a part in creating and implementing solutions.

COMPARING ACROSS DISTRICTS

Gaps in healthy food access that may affect the day-to-day lives of residents are more apparent when compared on a smaller scale, such as at the council district or state legislative district level. However, people do not base their decisions on how and where to obtain food by political boundaries. Residents travel outside of their districts for food and food-related resources. Therefore, providing policymakers with information about their districts in the context of the city as a whole and in relation to other districts illustrates when and where citywide, regional, and statewide policies can be successful.

PERCENTAGE OF EACH AGE GROUP LIVING IN A HEALTHY FOOD PRIORITY AREA

Residents of Healthy Food Priority Areas may have disproportionate barriers to accessing healthy food.

- The charts below show that children, seniors, or a combination of both are more likely than adults to live in Priority Areas depending on council or legislative district.

- How to read this graph: The bars show the percentage of each age group that lives in a Priority Area for each district. Ex: Of all the children living in the 1st District, 7.5% live in a Healthy Food Priority Area.
HIGHER HFAI SCORES IN STORES THAT ACCEPT SNAP AND WIC

Federal nutrition benefits are an essential driver for retailers, and this analysis found that accepting benefits is a predictor of a store carrying more healthy food. However, there remains substantial room for improvement in many stores and significant opportunity to use benefit programs as a model or leverage point.

WIC: Women, Infants and Children

- WIC is a federal nutrition program for pregnant women and children that provides specific healthy foods. Stores that accept WIC have a wider variety of healthy staple foods, and a higher HFAI score.
- 103 small grocery and corner stores (out of 525) accept WIC and SNAP benefits. Analysis shows a 41% increase in HFAI score compared to similar stores that do not accept nutrition benefits.

SNAP: Supplemental Nutrition Assistance Program (formerly food stamps)

- SNAP has fewer nutrition-based restrictions compared to WIC but requires retailers to stock specific quantities and varieties of staple foods.
- Small grocery, corner, and convenience stores that accept SNAP have an HFAI score 18% higher than stores of the same size that do not accept nutrition benefits.
- 580 (out of 708) small grocery, corner, and convenience stores accept SNAP, yet most only carry the minimum stocking requirements, and serve primarily as places for snacks and drinks.

HEALTHY FOOD ENVIRONMENT STRATEGY

BFPI is a collaboration between the Department of Planning, Office of Sustainability, Baltimore City Health Department and Baltimore Development Corporation that draws on the expertise of each to use food as a lens to examine and address the systems that perpetuate food environment disparities. Many other agencies and initiatives, both inside and out of City government, contribute to and support this work.

Food environment mapping and analysis inform and guide BFPI’s work. The 2018 food environment analysis led BFPI to update its guiding Healthy Food Environment Strategy. The following citywide strategies have applications at the state, city, and neighborhood levels. These maps and analyses are used to inform, create, and evaluate food policies. Together, BFPI agencies implement the following strategies:

- Support resident-driven processes to guide equitable food policy, programs and resources
- Improve small grocery, corner and convenience stores
- Retain and attract supermarkets
- Increase the ability of the public markets to anchor the healthy food environment
- Address transportation gaps that impact food access
- Implement supply chain solutions that support healthy food distribution and small businesses
- Maximize the impact of federal nutrition assistance and meal programs
- Support urban agriculture, emphasizing historically disenfranchised populations and geographies

FOR MORE INFORMATION

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2018 FOOD ENVIRONMENT REPORT

1. Chart displays 185% of Federal Poverty Level by count of residents adjusted for household size. Priority Area poverty calculations use household Median Income.