

# The Food Environment in Juvenile Justice Residential Facilities in North Carolina

Healthy Eating  
Research

Research Brief, January 2020

## The Issue

Over 48,000 youth under the age of 21 are held in juvenile justice residential facilities in the United States (less than 1 percent of the population under 21).<sup>1</sup> Males represented 85 percent of juvenile offenders in residential placement in 2015. Most youth residing in juvenile residential facilities in 2015 were 16 or 17 years old (54%) and 31 percent were 15 or younger.<sup>1</sup> While data are sparse, obesity rates appear to be elevated among youth held in these facilities, compared with their peers who are not involved in the justice system.<sup>2-5</sup> Additionally, youth in North Carolina juvenile justice residential facilities are disproportionately from low-income and minority populations.<sup>6</sup> Research has shown that lower income and race/ethnicity are associated with an increased risk for obesity and related chronic diseases such as diabetes and heart disease. Therefore, these youth are likely to benefit from access to healthy food and nutrition education.<sup>7</sup> However, little is known about the food and beverage environment in these residential placement facilities.

This research brief summarizes findings from an exploratory study of a diverse sample of juvenile justice residential facilities in North Carolina. The study examined food service operations, agency and facility level policies<sup>1</sup> and practices pertaining to nutrition, participation in federal school nutrition programs, and additional food service funding sources. The overall goal of this research was twofold. The first was to identify areas for nutrition-related policy and environmental improvements in juvenile justice settings. The second was to examine promising practices and innovative approaches to promote healthy eating in order to influence short- and long-term health outcomes of these youth and their families.



## Introduction

The most recent count of youth held in residential facilities for delinquency (i.e., criminal acts) and status offenses (e.g., violations of probation, parole, and valid court order, running away, truancy, and incorrigibility) in 2015 found that 48,043 youth were in public and private residential facilities in the United States.<sup>1</sup> This number translates to over 144,000 meals and 96,000 snacks consumed each day by this population of young people. Over half (58%) of committed juveniles (those held as part of a court-ordered disposition) reside in a juvenile facility for 90 days or longer, and 41 percent of detained juveniles (those awaiting adjudication, disposition, or placement elsewhere) stay for at least 30 days.<sup>1</sup> In North Carolina, the average daily population at juvenile residential facilities is 334 youth,<sup>1,8</sup> who are served an average of 30,060 meals a month.

<sup>1</sup> Policies refer to those developed by the North Carolina Department of Public Safety (NC DPS) and individual facilities.

Although it is not a federal requirement for juvenile justice residential facilities to participate in the United States Department of Agriculture's (USDA) nutrition assistance programs, most do, and in order to receive reimbursement they must follow the meal patterns<sup>2</sup> and nutrition standards of the School Breakfast Program (SBP), the National School Lunch Program (NSLP), and Smart Snacks. There are no federal nutrition requirements for dinner. Because juvenile justice facilities are considered residential child care institutions, they are not eligible for the Child and Adult Care Food Program (CACFP).<sup>9</sup> In addition to meeting age-appropriate calorie minimums and maximums, national nutrition standards for breakfast and lunch for children ages 5-18 include the following:

- **Fruits and vegetables:** One cup of fruits or vegetables must be offered at breakfast and larger portions of fruits and vegetables must be offered at lunch. Children are required to take at least one half-cup of fruits or vegetables with every breakfast and lunch.
- **Whole grains:** At least half of the grains offered with meals must be whole grain-rich.
- **Sodium:** Facilities must meet age-appropriate sodium limits for breakfast and lunch.
- **Unhealthy fat:** Meals cannot contain added trans-fat. No more than 10 percent of calories can come from saturated fat.
- **Milk:** One cup of fat-free or 1% milk must be offered at breakfast and lunch.
- **Water:** Free drinking water must be available during breakfast and lunch.

Although data are minimal, a few studies indicate that obesity rates for youth in these facilities are higher than national youth rates.<sup>3-5</sup> Two of these studies found a relationship between BMI and psychotropic medications, such as psycho-stimulants, antipsychotics, and antidepressants taken by these youth for conditions such as ADHD, bipolar disorder, and depression. One study also suggested insufficient physical activity and meal programs as contributing factors.<sup>3,5</sup> However, little is known about the food and beverage environment of juvenile justice facilities contributing to this issue including implementation of the SBP and NSLP standards, the quality of dinners served, youth's access to foods and beverages from facility canteens and vending machines, and the extent to which youth receive nutrition education. To address this knowledge gap, this study examined the current food and beverage environment in a diverse sample of juvenile justice facilities in North Carolina.

## Brief Methodology

RTI International conducted an exploratory study of the food environment in a diverse sample of the 12 juvenile justice residential facilities in North Carolina (4 state-operated youth development centers, 6 state-operated detention centers, and 2 county-operated detention centers). Youth in North Carolina facilities range in age from 6 to 19 with the most common ages being 14 to 18. Most of the youth are male (ranging from 50% to 100% at individual NC facilities) and African American (ranging from 50% to 97%). The juvenile justice landscape in North Carolina consists of three types of secure juvenile facilities: state-operated youth development centers (YDCs), state-operated juvenile detention centers (JDCs), and county-operated JDCs (Exhibit 1). YDCs are secure, long-term residential facilities that provide education and treatment services to youth who have been adjudicated for violent or serious offenses and often have chronic offending histories. JDCs are facilities that temporarily house youth awaiting a court hearing or another placement (e.g., group home), as well as those who are detained for violating the terms of probation. In North Carolina, the average length of stay during 2016 for YDCs was 358 days, and 17 days for detention center stays.<sup>8</sup>

We selected a purposeful sample of respondents among those responsible for nutrition policy, food procurement, menu development, or food services from the three types of facilities and sought participation from North Carolina Department of Public Safety (NC DPS) Nutrition Services staff. A total of six respondents from five facilities and NC DPS agreed to participate in a survey and interview in July 2018. Respondents included:

- one Child Nutrition Program Administrator at NC DPS,
- two Food Service Supervisors at two state-operated YDCs,
- two Food Service Supervisors at two state-operated JDCs, and
- one Director of a county-operated JDC.

Respondents had spent varying amounts of time in their current professional roles, ranging from 3 years to 17 years.

We first developed two semi structured interview guides—one for NC DPS respondents and one for facility-level respondents. The interview guides addressed topics including local wellness policies, wellness committees, food purchasing and menu planning, participation in SBP and NSLP, foods served, safe drinking water, nutrition education provided to youth, and staff training. To better focus the interviews, we also developed a survey consisting of 30 closed-ended questions (e.g., Does your facility participate in the National School Lunch Program?) that respondents were asked to complete before their interview.

2 A meal pattern is a set of food components, food items, and minimum quantities required for a breakfast, supplement (snack), and/or lunch for a specific age group of children.

**Exhibit 1**

**North Carolina Juvenile Justice Facilities and Youth Served**

Type of Facility	Total Number	Facility Capacity (Range)	Average Daily Population per Facility (Range)
State-Operated Youth Development Centers (YDCs)	4	32–128	24–97
<i>YDCs are secure, long-term residential facilities that provide education and treatment services to youth who have been adjudicated for violent or serious offenses and often have chronic offending histories.</i>			
State-Operated Juvenile Detention Centers (JDCs)	6	18–30	11–26
County-Operated Juvenile Detention Centers	2	14, 48	7, 29
<i>JDCs are facilities that temporarily house youth awaiting a court hearing or another placement (e.g., group home), as well as those who are detained for violating the terms of probation.</i>			

Source: North Carolina Department of Public Safety<sup>8</sup>

Each of the respondents completed the survey, after which two RTI staff conducted each interview (one lead and one note-taker). After the interview notes were cleaned and finalized, an analyst summarized the content of each of the interview questions by facility type to analyze potential differences between YDCs, state-run JDCs, and the county-run JDC. Respondents also were asked to provide copies of wellness policies and menus, which were reviewed to supplement information provided in the interviews. Several respondents also provided pictures of bulletin boards decorated with nutrition-focused messages posted where youth eat meals. We summarize key findings in this research brief.

**Key Findings**

**Each of the facilities interviewed are implementing innovative programming and opportunities for youth to learn about nutritious foods and healthy lifestyle choices.**

Most respondents shared that their facilities are engaging youth in innovative activities related to nutrition and health. Activities mentioned include monthly taste tests; culinary classes (in which youth participate in cooking activities); sensory garden; greenhouse; information sharing by nutritionists on fruits and vegetables and provision of food samples; informational events or fairs for youth and staff on eating healthy and stress management; “Step-tember” during which youth wear step trackers for a month; and initiatives that involve parents, such as “Healthy Breakfast/Lunch/Dinner” that involves staff showing parents what youth are eating during a family visit to the facility. One state-run JDC respondent emphasized that the facility tries to plan something each month for the youth to provide nutrition education, such as celebrating National Watermelon Day with fresh watermelon outside, playing food nutrition education games, and doing other outdoor activities. She shared, “for Black History Month, we provided okra, lamb chops, ox tail and talked about the nutrition of those things, offered children the chance to test those things, and did blind taste tests too, so children didn’t know what they were eating.

Children usually have a good time with it and try most things.” One YDC offers a food course to youth about food safety and food production, while one state-run JDC offers ServSafe training (a food and beverage safety training and certificate program administered by the National Restaurant Association) to youth. In contrast, the other YDC respondent said it is hard for the facility to do many innovative activities “because there are so many kids and [there are] safety and security issues.”

All respondents said the eating spaces have posters or bulletin boards that promote wellness and contain nutritional information. One JDC interviewee noted that youth can contribute to the bulletin boards, and another JDC interviewee noted the bulletin boards have themes on featured items such as peaches or apples. All respondents mentioned there is a poster or bulletin board with the menu that is updated regularly for youth to see.

**All juvenile justice residential facilities included in the study participate in a Wellness Committee at the NC DPS and have their own facility-level wellness committees that update wellness policies addressing food and beverages served to youth.**

The Department’s Wellness Committee convenes two to four times a year to review the NC DPS wellness policy and make revisions as needed; they also convene a Menu Committee to review and revise the menu (see example in Exhibit 2) so that it is varied each year. The facility-level wellness committees, which have their own facility-level wellness policies, work to develop, implement, and revise health and wellness policies and wellness activities. The YDC wellness committees meet once a quarter and consist of all unit staff, medical staff, and the coach. The JDC wellness committees meet every 1 or 2 months to plan health and wellness activities at the facility and consist of the director, supervisor, nurse, counselor, and a combination of teachers and other staff who work with youth. Youth do not typically participate in the wellness committees.

## Nutrition Bulletin Board at a Juvenile Detention Center



The NC DPS wellness policy provides guidance on the nutritional quality of food and beverages provided to youth at all state-run facilities; however, individual facilities can choose to establish more specific rules through their facility-level wellness policies. County-run facilities also develop their own wellness policies. At two facilities, the facility-specific policy addressed the use of food as a reward for youth who have good grades or behavior. At three facilities, the facility-specific policy addressed the use of certain foods during celebrations or special events, as well as the types of food visitors can bring to youth. For example, one state-run JDC respondent explained that visitors cannot bring outside food to youth because “the facility tries not to use food as a reward for behavior.” In contrast, a respondent from another state-run JDC said visitors sometimes get approval to bring food to youth (usually for birthdays), but healthier snacks are encouraged, such as popcorn or pretzels, and the visitor must bring enough for all the youth at the facility.

### Facility staff receive training on nutrition and are encouraged to model healthy eating to youth.

Two of the JDCs (one state-run and one county-run) and one of the YDCs train all facility staff on safe food handling and storage or require that all staff be ServSafe Certified. All the facilities provide training to staff on how to handle youth dietary restrictions, how to distribute meals in living pods<sup>3</sup> and obtain youth's signatures for federal meal reimbursement, and how to follow recipes. One of the YDCs organizes an outside speaker for the wellness committee meetings, such as

a nutritionist, family physician, health care provider, or a food distributor representative, to provide additional information to staff members.

Four of the five respondents mentioned that staff are encouraged to model healthy eating. The two state-run JDCs provide information to staff about the importance of modeling healthy eating behaviors. One includes this information in their annual wellness training. The other also promotes healthy eating by not allowing staff to leave during their workday to purchase and bring in outside food. Staff at three of the five facilities (one YDC and two JDCs) do not eat meals with youth, and one respondent specifically encourages staff to talk with youth during mealtime about healthy eating and the food served.

### The food budgets for juvenile justice residential facilities in North Carolina are appropriated through state funds, and most facilities procure foods through one distributor, US Foods.

The budget for food at each facility is allocated through state-appropriated funds that are based on the previous year's allocation. Juvenile justice facilities are considered residential child care institutions by the USDA; therefore, they do not have a direct relationship with local school districts in terms of purchasing food. However, the NC DPS cooperates as a pilot member with the local schools' co-op for food purchasing. The NC DPS uses this co-op to obtain the food needed to comply with the SBP and NSLP. The NC DPS respondent shared that

3 A pod is a self-contained housing unit for up to 8 youth. Youth participate in most activities (e.g., classes, meals) in the pod.

**Exhibit 2**

**Sample Daily Menu for NC YDCs and JDCs**

Breakfast (7:30 am)	Lunch (11:30 am)	Dinner (5:00 pm)	Evening Snack (8:00 pm)
<ul style="list-style-type: none"><li>■ Scrambled eggs with grits</li><li>■ Toast with jelly</li><li>■ Turkey sausage patty</li><li>■ Peaches</li><li>■ 100% fruit juice</li><li>■ Skim &amp; 1% milk</li></ul>	<ul style="list-style-type: none"><li>■ Cheeseburger on bun</li><li>■ Sliced tomatoes &amp; shredded lettuce</li><li>■ Spicy pinto beans</li><li>■ Broccoli with cheese sauce</li><li>■ Pineapple tidbits, fresh fruit</li><li>■ Skim &amp; 1% milk</li></ul>	<ul style="list-style-type: none"><li>■ Popcorn chicken bites with biscuit</li><li>■ French fries or potato wedges</li><li>■ Black eye peas</li><li>■ Fresh veggie cup with dip</li><li>■ Fruit crisp</li><li>■ Skim &amp; 1% milk</li></ul>	<ul style="list-style-type: none"><li>■ (2) Assorted chip variety</li><li>■ 6 fl. oz. juice</li></ul>

Source: NC Department of Public Safety, Juvenile Justice. 2018 Local Center Wellness Policy for Youth Development Centers.

this co-op has been beneficial for reducing costs while providing high-quality food products to the facilities. All of North Carolina’s state-run juvenile facilities contract with US Foods for the exclusive right to provide food items to the facilities. Because of NC DPS’ relationship with US Foods, the distributor has conducted workshops with facility directors and food service managers to develop and enhance recipes with the products they provide to the facilities. Each facility is responsible for its own purchases weekly in order to follow the menus. The county-run JDC receives some food from USDA but purchases most of its food from local grocery stores because the facility needs small quantities (the facility capacity is 14 youth; the average daily population is 7). None of the facilities in the study have contracts with beverage suppliers, participate in Farm to School, or purchase foods from local farmers. One of the state-run JDC respondents noted that she would “love to [purchase foods from local farmers], but we don’t have that relationship because we don’t have a [local farm nearby] that provides fresh foods.” The lack of connection between facilities and local farms was noted in several interviews, but none of the respondents knew what steps were needed to build those relationships.

**NC DPS requires juvenile justice residential facilities to participate in SBP and NSLP.**

North Carolina state law does not require juvenile justice facilities to participate in the USDA’s SBP and NSLP; however, NC DPS wellness policy requires all facilities under their jurisdiction to participate in these programs to save money on food costs and ensure healthy meals are provided to youth.<sup>10,11</sup> As a result of

their participation in SBP and NSLP, facilities must comply with USDA’s requirements for meal patterns and nutritional standards, and for the timing of and duration of breakfast and lunch meals. However, facilities do not participate in “offer versus serve”<sup>4</sup> because facility staff members plate and deliver the food to the youth due to physical safety and security concerns.

Most respondents reported no issues or challenges in meeting nutrition guidelines for reimbursable meals. One state-run JDC respondent said that participating in the NSLP was “rough” at first because of the smaller serving sizes for lunch compared with serving sizes the facility had been offering, but now that the youth are used to it and are receiving larger portions at dinner, it has gotten better. One YDC respondent said that the facility initially faced challenges with youth disliking the breakfasts and throwing food away after implementation of the revised nutrition standards and meal patterns based on the Healthy, Hunger Free Kids Act of 2010. That Act re-authorized federal funding for school meals and directed the USDA to update nutrition requirements for reimbursable meals. However, youth learned to eat the meals after they were educated on the reason for the changes, given opportunities for taste tests, and learned the benefits of improved nutrition. This experience parallels what happened with school meals and has important implications for any system-wide changes to nutrition policy in juvenile justice facilities. Furthermore, youth at facilities in North Carolina do not have access to commissaries, canteens, or vending machines where they can purchase food or beverage products. Vending machines are only accessible to staff and visitors.

4 “Offer versus serve” refers to the option where youth may refuse up to two items offered as part of a federally subsidized meal without the participating institution losing the federal reimbursement for the meal.

Additionally, two juvenile justice facilities (one YDC and one state-run JDC) also participated in the USDA-sponsored Team Nutrition Program, which provides resources specific to the SBP and the NSLP such as food-buying guides and menu planning assistance, as well as nutrition education materials and lesson plans. Specifically, NC DPS and facility staff use these materials to ensure foods meet meal pattern requirements, guide training workshops with food service staff, and provide nutrition education to youth.

### **Youth have access to water all day but not to canteens or vending machines to purchase additional food or beverages.**

All respondents said youth have access to water throughout the day. The two county-run facilities have one fountain in the multipurpose room, and the state-run facility has a total of eight fountains which are located throughout the facility wings and cafeteria. One YDC makes water coolers and cups available in the classroom. None of the facilities restrict youth's access to water fountains. Youth cannot purchase additional food or beverage products at any facility in North Carolina. Vending machines are only accessible to staff and visitors.

### **All facilities interviewed do not have specific nutrition requirements for food served at dinner, and they rarely offer food from outside establishments.**

The Child Nutrition Program Administrator at NC DPS is solely responsible for determining the menu for each meal (breakfast, lunch, dinner, and snacks) for the state-run facilities; youth are not involved in the process. The Department's wellness policy states that facilities must "offer a school breakfast, lunch, snack and dinner program with menus that meet the meal patterns and nutrition standards established by the USDA" and serve meals that:

- Incorporate a variety of fruits and vegetables,
- Offer only low-fat (1%) and fat free milk and nutritionally-equivalent non-dairy alternatives (to be defined by USDA); and
- Serve whole grains for at least half of the grains.

The Director at the county-run facility has worked with NC DPS and the NC Department of Public Instruction to develop meals that are served on a 3-week rotation and meet SBP and NSLP requirements.

The NC DPS allows state-run facilities some flexibility at dinner and snack time so that facilities can use unopened/uncooked food products leftover from other meals before they spoil. This flexibility allows food service supervisors to do some of their own planning as long as they do not go outside the bounds of the recipes developed by the Department.

Both JDC and YDC respondents, as well as the Child Nutrition Program Administrator at NC DPS, said that the food items served at dinner are very similar to those served at lunch, but one JDC respondent and the Department respondent noted that bigger portions are served at dinner. The items served at both lunch and dinner meet the nutrition standards for NSLP. Facilities serve fresh fruit (e.g., peaches, apples, bananas, grapes) with all meals. The county-run JDC facility alters dinner menus during holidays to serve turkey on Thanksgiving, ham on Easter, and heart-shaped cakes for Valentine's Day.

Some facilities offer food from outside establishments (i.e., restaurants), but only infrequently. The decision whether to allow outside food is made at the facility level. One YDC respondent noted that purchasing outside food is expensive. Therefore, it only happens a couple times a year for a field day or a celebration, such as for "cultural awareness" theme day, when a facility brings in ethnic food to accompany youth activities centering around another country. None of the facilities allow homemade food to be brought in by staff or visitors and served to youth.

All facility respondents reported that the facility staff keep track of what meals and foods are the most popular among the youth. One facility offers youth taste tests to determine what foods youth like and allows youth to provide comments in a comment box if they have grievances. Although respondents said that changing the menu based on youth feedback is not always feasible, it gives the youth an opportunity to voice their concerns. One respondent said, "We want to make kids feel like we're trying to cater to their needs while staying within guidelines." The Food Service Supervisor at each facility purchases foods for meals served at their facility.

### **Four of the five facilities interviewed have a garden tended by youth and serve garden produce as part of dinner meals.**

The four state-run facilities have a garden on the property, and most are tended by youth who grow plants that do not require the use of tools because of physical safety and security concerns. Youth pull weeds and plant, and they study what the plants provide and where plants grow best. One facility receives donations of materials and discounted plants from a local hardware store. Youth re-pot plants to distribute to the community and to their families to take home. The facility uses produce from the garden (tomatoes, cucumbers, peppers, watermelon, and squash) at dinner time. One YDC facility incorporates items from their garden—lettuce, cabbage, tomatoes, cucumbers, eggplant, corn, cantaloupe, strawberries, watermelon, and green beans—in dinner meals. Youth who are getting ready to graduate help in the garden. They're proud when they see that what their garden produces is on the menu." The facility recently applied for a grant to support the construction of a new greenhouse.

**All five facilities teach about healthy eating throughout the youth's stay, and four specifically include healthy eating in youth's reentry plans.**

Youth's reentry plans (an individualized plan that is developed in preparation for a youth's return to the community from the facility) include nutrition education and materials sent home with youth and their families with information about local food pantries, farmers' markets, and social services that can help them access healthy and affordable food. The NC DPS aims to encourage youth to eat nutritious food so that they do not develop medical conditions such as obesity or diabetes. One YDC respondent said that she presents the idea of healthy living to youth "from the beginning to the end of their stay." Furthermore, this YDC requires youth to complete a behavior modification module, and the facility gives youth sample menus and recipes when they leave. The facility staff try to teach youth that there are alternatives to fast or processed foods and try to teach parents to change the home food culture. Two JDC respondents and one YDC participant mentioned the importance of spreading nutrition awareness to parents and connecting with families so youth will continue to eat healthfully when they return home with the support of their families. One said, "It's important to continue to offer healthy alternatives of food for children while they're in the facility and connecting to the parents as well so there's not that disconnect when children return home with more information about nutrition – it's important to educate both the children and parents so it's an even match when the children go home."

**NC DPS and individual North Carolina facilities have received recognition for their dedication to nutrition.**

Respondents shared that the Department and individual facilities have been recognized for their dedication to nutrition over the last 8 years. For example, several juvenile justice residential facilities have earned 1st, 2nd, and 3rd place in the Golden Key Achievement Awards from the NC Department of Instruction, which recognize facilities/schools that excel in (1) providing nutrition education and nutrition activities to youth and (2) administering school food service operations. Additionally, NC DPS has been recognized at the national level for its policies and practices surrounding the food environment. In school year 2013-2014 the NC DPS JJ School Nutrition section received national honor for the Healthier US School Challenge Award at the Silver Award level for recognizing excellence in nutrition and physical activity. At the Silver Award level, each center receives a banner, certificate, national recognition on the Food and Nutrition Service website, and \$1,000 grant to use for promoting nutrition and wellness. Also, several centers have received national recognition for USDA Best Practice Awards.

**Conclusions**

This exploratory study provided an initial analysis of the food environment in a diverse sample of juvenile justice residential facilities in North Carolina. We found that staff at NC DPS and within North Carolina's state- and county-administered juvenile residential facilities are invested in the health of the youth in their care. They meet the nutrition requirements for the Child Nutrition Programs for breakfast, lunch, and dinner and feel that their role in promoting youth's health and well-being is very important. Facilities are educating their youth in areas of nutrition using gardens, culinary classes, speakers, bulletin boards, taste tests, and health fairs to pique their interest. These results are particularly noteworthy among the North Carolina's YDCs because they serve hundreds of youth who reside in these facilities for extended periods of time.

**Future Research Needs**

Because North Carolina may be an innovator among juvenile justice residential facilities, future research is needed to examine the food and beverage environment of facilities across multiple states and counties. Each state's juvenile justice system differs in organization, administration, and operation. For example, while canteens and vending machines are not accessible to youth in the North Carolina facilities, this is not the case in all states and has tremendous implications for obesity rates in facilities.<sup>12</sup> Additionally, many North Carolina facilities have gardens on property tended by youth and offer culturally-appropriate healthy foods during meals which may not be widely practiced among other states. These experiences can impact youth's perceptions of healthy eating and have the potential to help in their rehabilitation. Furthermore, despite the commitment to nutrition in North Carolina's juvenile residential facilities on the whole, food procurement practices and dinner menus vary among the study's state- and county-level facilities. Additionally, the organizational structure of juvenile justice facilities is important to understand in the context of developing nutrition programs and interventions. Facility size and the specific population of youth served may influence an individual facility's capacity to offer nutrition education activities and integrate healthy eating into youth's reentry plans. However, including nutrition education in youth's reentry plans and working with the family on the importance of this topic can encourage youth to continue eating healthy outside of the facility. Furthermore, while public facilities house the majority (69%) of juvenile offenders, future research should consider privately operated juvenile facilities. Conducting this study on a larger scale with more geographic representation would deepen our understanding of this environment where over 45,000 youth spend time each year consuming hundreds of thousands of meals and snacks. Respondents did not offer suggestions

for areas of improvement to their policies and practices, but this would be another important area of inquiry for future research. Additionally, due to the fact that youth held in juvenile justice facilities are more likely to be of color and lower socioeconomic status, two factors associated with higher risks of obesity, continued research to improve the nutrition environment could help address disparities in health behaviors and health outcomes. Future research should examine the longer-term impacts of nutrition policy implementation on health outcomes such as obesity over the course of the youths'

stays as well as after youth leave the facility. Finally, one study respondent suggested that it would be helpful to connect with other juvenile justice nutrition administrators. A larger study of multiple jurisdictions could explore interest in and mechanisms for development of a learning community for juvenile justice nutrition professionals. A learning community would provide a forum for the exchange of strategies and practices related to improving the food environment in residential facilities and influencing youth's long-term healthy eating behaviors.

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### About Healthy Eating Research

*Healthy Eating Research* (HER) is a national program of the Robert Wood Johnson Foundation. Technical assistance and direction are provided by Duke University under the direction of Mary Story PhD, RD, program director, and Megan Lott, MPH, RDN, deputy director. HER supports research to identify, analyze, and evaluate environmental and policy strategies that can promote healthy eating among children and prevent childhood obesity. Special emphasis is given to research projects that benefit children and adolescents and their families, especially in lower-income and racial and ethnic populations at highest risk for obesity. For more information, visit [www.healthyeatingresearch.org](http://www.healthyeatingresearch.org) or follow HER on Twitter at [@HERResearch](https://twitter.com/HERResearch).

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