

Community-Driven Approaches to Addressing Food Insecurity

Key Findings from an Evaluation of the Healthy Food Alliance for Early Education Program

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Introduction

Access to food is a human right,¹ yet in the United States, an estimated 13 million children may experience food insecurity in 2021,² which means they lack consistent access to adequate and nutritious food for a healthy, active life.³ The nation's history of systemic racism, including discriminatory employment and housing practices, has kept Black families from acquiring equal wealth and access to resources (e.g., grocery stores) compared to their White counterparts.⁴ As a result, in 2019, Black households were almost two times more likely to experience food insecurity compared to the national average;² and today, in the wake of the COVID-19 pandemic, an estimated 1 in 4 Black children may be experiencing food insecurity.² Given the disproportionate rate of food insecurity within Black communities, improving food security is a necessary priority in addressing barriers to racial equity in the United States.

Food Insecurity is a Result of Racial Inequity in the U.S.

Black households are almost two times more likely to experience food insecurity compared to the national average;² and in the wake of the COVID-19 pandemic, an estimated 1 in 4 Black children experience food insecurity.²

Food insecurity negatively affects people of all ages, but nutrition disruptions early in life, starting even before birth, can have significant and long-term impacts on children's learning and development. Child food insecurity is associated with increased risk of anemia, poor overall general health, anxiety and depression, and behavioral challenges in school.⁵ While food insecurity directly impacts children's nutrition, it is also associated with less moderate and vigorous physical activity.⁶

Community supports to reduce food insecurity and improve child health outcomes are especially pivotal in low-income and communities of color hardest hit by the COVID-19 pandemic. As children spend a significant amount of time in early care and education (ECE) environments, ECE centers provide an

¹ <https://www.ohchr.org/Documents/Publications/FactSheet34en.pdf>

² https://www.feedingamerica.org/sites/default/files/2021-03/National%20Projections%20Brief_3.9.2021_0.pdf

³ <https://www.feedingamerica.org/hunger-in-america/food-insecurity>

⁴ Rothstein, R. (2017). *The Color of Law: A Forgotten History of How Our Government Segregated America*. Liveright Publishing Corporation.

⁵ <https://www.healthaffairs.org/doi/10.1377/hlthaff.2015.0645>

⁶ <https://academic.oup.com/jn/article/144/11/1797/4615281>

opportunity and critical community support to connect children, staff, and families with local and federal resources to access healthy food and education to promote healthy lifestyles.⁷

This brief highlights the results of Child Trends' evaluation of the Healthy Food Alliance for Early Education (HFAEE), a program designed to improve nutrition and health practices in ECE centers and the homes of children facing food insecurity in St. Louis, MO. We first provide a description of the program components and approach. Then, we explain the HFAEE evaluation findings, which show that—with individualized TTA—center Directors can envision wellness environments and shift wellness cultures at centers, and can reinforce that shift in families' homes by strengthening the home-to-school connection. Considerations for equitable community work, based on the HFAEE model, are also presented at the end of this brief to guide similar community efforts.

Healthy Food Alliance for Early Education

Program overview

The Healthy Food Alliance for Early Education (HFAEE) is an American Heart Association (AHA) community-driven wellness program that serves children and families based in St. Louis, MO and is supported financially by the Bayer Fund. The idea for the HFAEE program emerged in the overlap between AHA's mission to understand the impact of food insecurity and childhood obesity on long-term health and Bayer's goal to address the malnutrition in mothers and children aged 0-5 years. HFAEE was partly informed by the Civil Rights Division of the U.S. Department of Justice's Ferguson Report⁸ and the subsequent Ferguson Commission Report,⁹ which outlined underlying factors (e.g., social, historic, political, economic) that contributed to the socio-political climate in the St. Louis region. The Ferguson Commission Report, developed in partnership with the St. Louis community, was a call to action that elevated the needs, voices, and perspectives of the community. As part of the 189 policy calls to action, the Ferguson Commission Report highlighted the need to address food insecurity by removing barriers Missourians face in accessing federal food programs and mobilizing schools to support student health.

In response to this call to action, the HFAEE program was developed and designed to improve nutrition and other health practices at ECE centers serving children with the greatest food insecurity in the St. Louis region, which were predominantly Black children and families. Specifically, HFAEE is a training and technical assistance program that aims to address food insecurity and improve children's overall wellness (i.e., nutrition, physical activity, infant feeding, and screen time) through partnerships with ECE centers. It uses a community-driven approach¹⁰ and multi-layered strategies, including:

1. Helping ECE centers envision wellness environments by creating wellness policies, wellness policy posters, and action plans;
2. Providing training and technical assistance to solidify cultural shifts that support healthy lifestyles for children, families, and center staff (i.e., providing education to children, staff and families as well as implementing and monitoring center wellness policies); and
3. Encouraging community partnerships that identify and create programming to address food access gaps (by strengthening community ties, HFAEE is designed to increase the number of people vested in improving wellness in St. Louis, MO).

⁷ https://www.journals.uchicago.edu/doi/full/10.1086/679760?casa_token=q7N_JAVN7LgAAAAA:6zye1sgjVKONIEbuxq-HpP0hsvMZ9xPyYrenfo2cQMCTOFLaCHZIFrvQ_ZmvHug7lyuiJ4Mjq2m

⁸ <https://thenewpress.com/books/ferguson-report>

⁹ <https://forwardthroughferguson.org/report/executive-summary/>

¹⁰ At each phase, ECE centers control decision making and resources.

Envisioning wellness environments

HFAEE trained Child Care Specialists (CCS) to develop relationships with and offer individualized support to ECE staff in over 130 centers. After initial intake at the beginning of the school year, the CCS helped ECE program staff complete a wellness environment self-assessment—the Wellness Policy Workbook (WPW). The WPW self-assessment allows providers to assess their center’s existing wellness practices and policies as well as wellness education offered to family and staff. The WPW encourages centers to update existing policies or create new ones to meet their visions of wellness environments at the center and bridging wellness from home-to-school through family engagement. For guidance and as examples, the WPW outlines national best practice guidelines in the four main topic areas of HFAEE: (1) nutrition (e.g., meals, snacks, beverages); (2) infant feeding (e.g., breastfeeding); (3) physical activity (e.g., amount of structured and unstructured play time); and (4) screen time (e.g., amount of time for use of computers and TV). After completing the WPW, center staff chose wellness policies that met their needs and aligned with available center resources. Next, centers chose at least 10 wellness policies, which were printed as a Wellness Policy Poster (WPP) and hung at center entry ways for all (e.g., staff, families) to see the center’s commitment to those policies (see Appendix A for poster example). Centers were also encouraged to incorporate policies into staff and family handbooks. Finally, action plans were created to put wellness policies into practice.

Training and technical assistance to encourage cultural shifts

The CCS offered individualized training and technical assistance (TTA), per center staff request, via email or phone, for the remainder of the school year. TTA was offered on the four main HFAEE topics: nutrition, infant feeding, physical activity, and screen time as well as family and community engagement. The CCS also partnered with community organizations to offer TTA to center staff. CCS also encouraged center staff to monitor centers’ wellness practices so that written wellness policies could be implemented and integrated into regular routines to begin a cultural shift in centers’ wellness environments. Center staff were also encouraged to engage families through workshops, newsletters, etc., to align the home and school health environments for children.

Strengthening community ties

HFAEE helped centers make sustainable improvements by strengthening community ties and encouraging community partnerships. ECE centers can often face challenges creating ongoing partnerships given limited staff, high staff turnover, and insufficient resources. To address these needs, HFAEE offered funding, information, and overall support to centers for the purpose of building community partnerships. For example, HFAEE helped centers come together for group ordering to meet a vendor minimum for bulk discounts. Also, to support centers growing some of their own food, HFAEE introduced centers to Gateway Greening,¹¹ an organization supporting over 200 gardens in St. Louis. Initially, the standard garden sizes were too large for centers, but HFAEE negotiated down the size of the gardens, arranged for garden bed delivery (as centers could not build them), and provided TTA to center staff and families about gardening. The centers’ gardens are now part of the Gateway Greening network moving forward, thus making this wellness environment shift sustainable.

HFAEE since COVID-19

The COVID-19 pandemic affected professional (and personal) lives across the country in the 2019 – 2020 and 2020 –2021 HFAEE implementation years. Roughly three quarters of centers were operating at a decreased capacity during the pandemic with 16 percent of the centers in the first cohort mostly closed

¹¹ <https://gatewaygreening.org/>

between March 2020 and May 2021. During the 2019 – 2020 program year, TTA shifted from a mix of in-person and virtual to completely virtual. The 2020 – 2021 program year was implemented entirely virtually.

During the COVID-19 pandemic, centers were preparing food on-site that they were then delivering to families in attempt to reduce their food insecurity. HFAEE asked centers to identify what additional supports could improve access to food and water at the centers. Centers asked for appliances and kitchen tools (e.g., refrigerators, stoves, water filtration systems, cookware). No, or inadequate, access to refrigeration meant centers had to shop for food and milk frequently and in small portions, which was more expensive. Additionally, without stoves, centers were limited in the types of food they could offer. HFAEE awarded Sustainability Grants to centers to purchase these needed appliances.

Child Trends conducted an evaluation of HFAEE to understand whether the program helped centers: develop, implement, and monitor more evidence-based wellness policies; support a cultural shift by providing training to staff, children, and families; and increase their connections to community organizations and supports. From 2016 through 2021, the HFAEE program recruited a new cohort of 25 ECE centers on average each year. This means the first cohort participated in HFAEE for five years and the most recent cohort for one year. Each spring, center Directors are invited to complete an evaluation survey and report on their wellness practices before and after participating in HFAEE (see Center Director Survey in Appendix B). Survey results were used to assess center improvements during their first year in HFAEE (dark blue cells in Table 1) and whether center improvements were sustained for Cohort 1 (light blue cells in Table 1). See Appendix B for more information on evaluation methods.

Table 1. HFAEE Cohorts

	2016 – 2017	2017 – 2018	2018 – 2019	2019 - 2020	2020 - 2021
Cohort 1	I	S	S	S	S
Cohort 2		I			
Cohort 3			I		
Cohort 4				I	
Cohort 5					I

Color Shading Key
Initial Implementation (I)
Cohort 1 Sustainability (S)

HFAEE Findings

Overall and over time, centers were able to successfully:

- Envision ideal wellness environments by developing new or adapting existing wellness policies.
- Shift their centers’ culture of wellness by 1) providing education to staff and children on wellness topics as well as implementing and monitoring policies and 2) encouraging wellness in homes by providing education to families on wellness topics.
- Strengthen community ties to increase the number of people vested in wellness in St. Louis.

These statistically significant findings were achieved by the support of the HFAEE program and realized through centers’ own decision making, based on their respective strengths and needs. These improvements were also sustained over time.

The Healthy Food Alliance for Early Care and Education Reached

By the end of the fifth year, HFAEE reached **121 early care and education centers** with **1,783 staff** and an estimated **11,244 children** ages birth to five.

Note: Over the next five years, nearly 8,500 additional children could be served in centers with improved wellness policies and cultures due to participation in HFAEE.

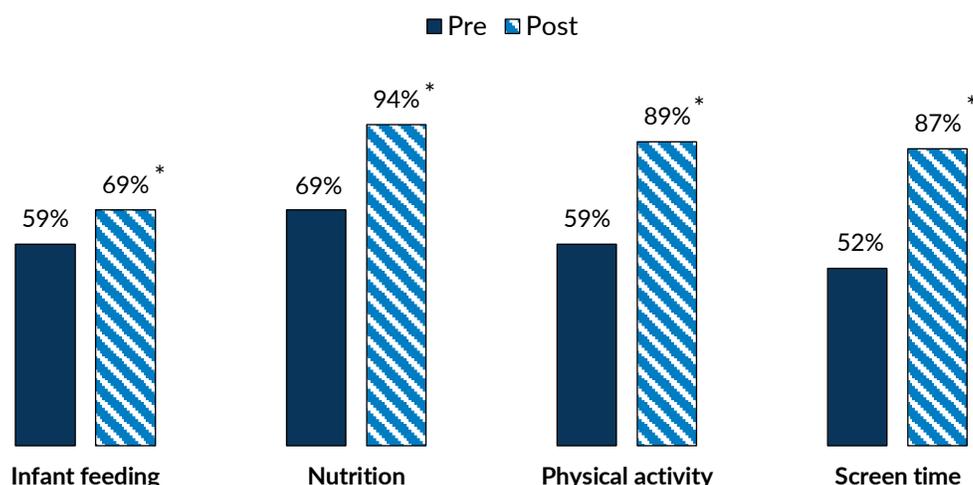
Centers' visions of wellness environments

The centers' vision of wellness environments was shaped during the process of completing the wellness policy workbook and solidified through the development of their wellness policy posters.

Wellness policies

During the first year participating in HFAEE, centers chose to focus on an average of 15 wellness policies. There were statistically significant increases in the number of wellness policies developed in infant feeding, nutrition, physical activity, and screen time in the first year of the program. See Figure 1 for breakdown by topic.

Figure 1. Percentage of centers with wellness policies before and after first year in HFAEE, All Cohorts



Source: CDS, 2016-2020

Note: *indicates a result was statistically significant, the p-value was <0.05

Top wellness policy topics

While centers could build off suggested policies in the WPW or write their own, HFAEE was designed for centers to decide which wellness policies met the balance of their available resources and families' specific needs. Wellness policies were grouped into similar categories to provide information about the most common policies selected each year. Table 2 summarizes the top five most common policies across all HFAEE centers.

Table 2. Top 5 Wellness Policies across HFAEE Centers

Rank	Wellness policy	% of centers with the policy
1	Lesson plans include learning experiences about healthy eating and physical activity	98%
2	Staff participate in professional development to support implementation of wellness policy goals	89%
3	Children are provided with active playtime	84%
4	Water is available and accessible to children throughout the day	81%
5	Providers lead and participate in active play	77%

Source: Child Trends, 2021

Action planning

Centers developed action plans, or detailed practice strategies, for an average of 86 percent of policies, though about two thirds of the time centers worked on wellness policies with no corresponding action plans. See Table 3 for a breakdown across cohorts.

Table 3. Action plans for policies worked on by cohort

Cohort	% of policies with action plans	Of policies with no action plan, % of time centers still worked on policies
Cohort 1 (2016-2017)	86%	70%
Cohort 2 (2017-2018)	86%	65%
Cohort 3 (2018-2019)	93%	90%
Cohort 4 (2019-2020)	80%	67%
Cohort 5 (2020-2021)	88%	36%

Source: CDS, 2016-2020

Training and technical assistance offered

During centers' first year of HFAEE, they received between six and eight individualized training and technical assistance supports on topics they requested. TTA was offered in the mode centers preferred during the first three years, which was almost exclusively in-person. During the COVID-19 pandemic, for the last two years of the evaluation, TTA shifted to be offered exclusively online.

Table 4. TA interactions in centers' first year of HFAEE

Cohort	Average number of TA interactions	Mode of TA interactions
Cohort 1 (2016-2017)	8	100% face-to-face
Cohort 2 (2017-2018)	6	96% face-to-face
Cohort 3 (2018-2019)	6	100% face-to-face
Cohort 4 (2019-2020)	6	76% face-to-face, 14% online, 10% by phone
Cohort 5 (2020-2021)	8	100% online

Source: Child Trends, 2016-2020

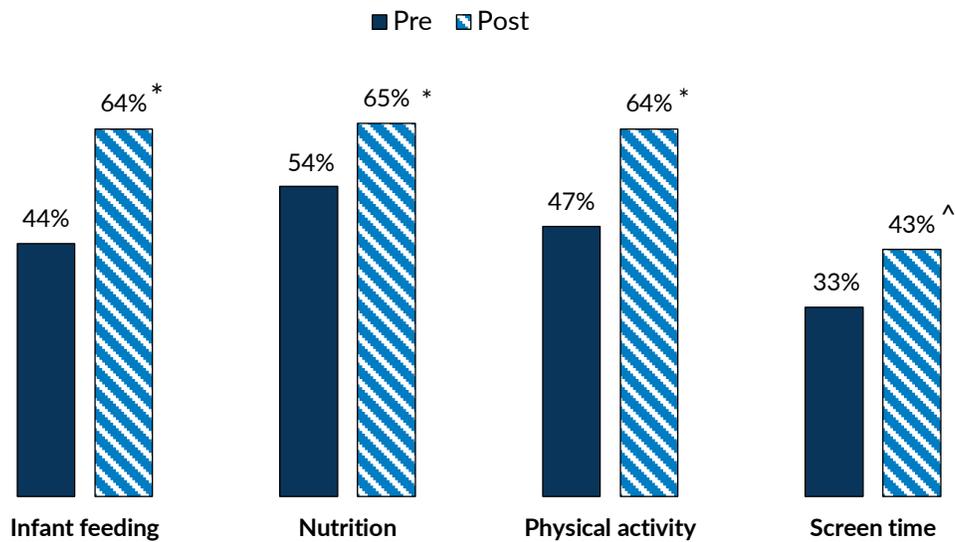
Shifts in centers' wellness cultures

Centers shifted the culture of wellness in their centers and encouraged these shifts in homes by: 1) offering education to children, staff, and families on wellness topics and 2) implementing and monitoring selected wellness policies. Center Directors complete the evaluation survey in May and are asked to compare how their center is in the spring (post) with where it was in the fall when HFAEE began (pre). See Appendix B for more information on the Center Director Survey and how it was completed.

More education was offered

During centers' first year participating in HFAEE, there were significant increases in the percentage of centers providing education to **teachers** two or more times per year.¹² These professional development opportunities focused on all four of the main HFAEE wellness areas: nutrition, infant feeding, physical activity, and screen time.

Figure 2. Percentage of centers educating teachers (2+/year)



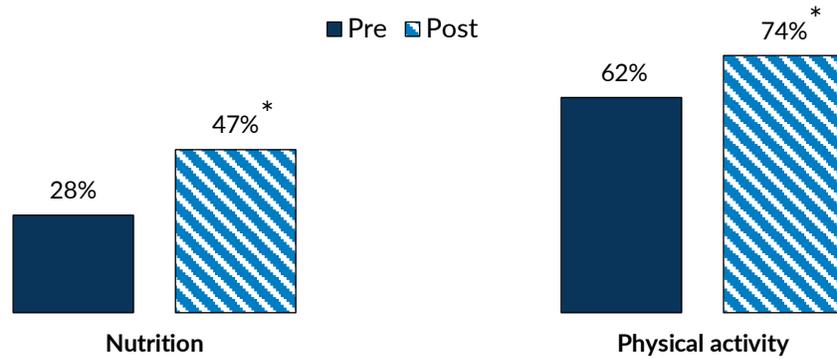
Source: CDS, 2016-2020

Notes: *indicates a result was statistically significant, the p-value was <0.05; ^ indicates a result was marginally statistically significant, the p-value was <0.10

¹² The frequency of education provided to teachers, families, and children were used as cutoffs based on national recommendations provided in the Wellness Policy Workbook.

There were also significant increases in the percentage of centers that provided education to **children** via curriculums three or more times per week. Children were taught about nutrition (e.g., different shapes and colors of food) or the benefits of movement and physical activity.

Figure 3. Percent of centers educating children (3+/week)

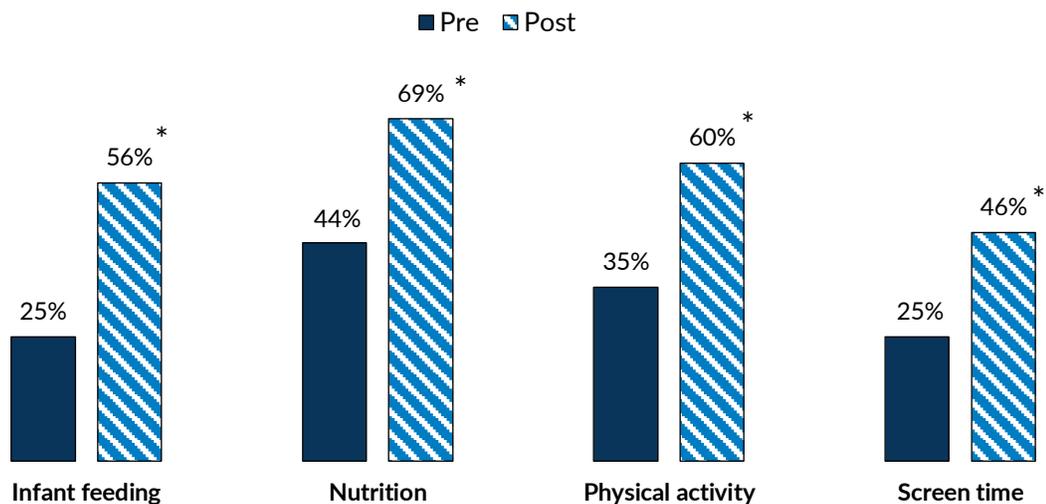


Source: CDS, 2016-2020

Note: *indicates a result was statistically significant, the p-value was <0.05

A key part of the HFAEE program was creating consistency in wellness environments for children and a main strategy to do this was to provide education to families on wellness benefits. There was a significant increase in the percentage of centers who provided education to **families** two or more times per year.

Figure 4. Percent of centers educating families 2+/year



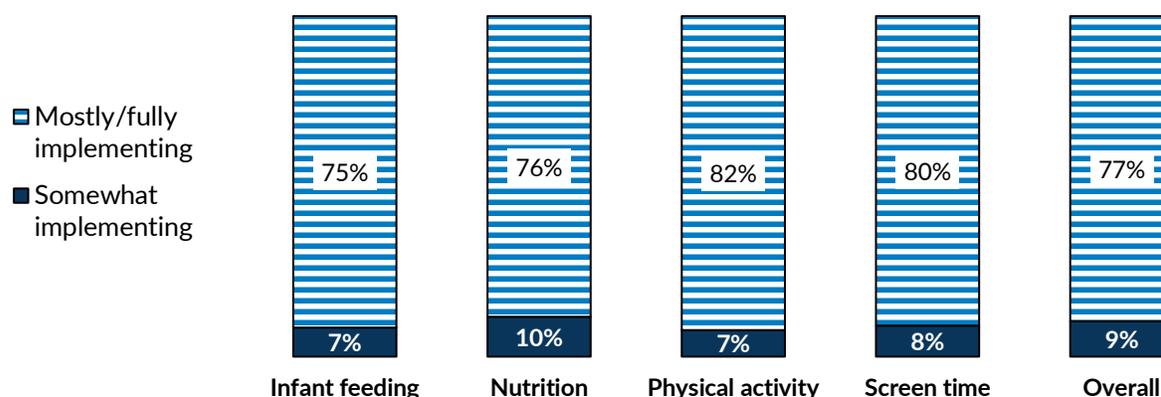
Source: CDS, 2016-2020

Note: *indicates a result was statistically significant, the p-value was <0.05

Centers implemented and monitored policies

Centers were mostly/fully implementing the vast majority of the wellness policies selected within their first year of HFAEE participation. Centers also implemented policies across all HFAEE wellness areas (i.e., infant feeding, nutrition, physical activity, and screen time).

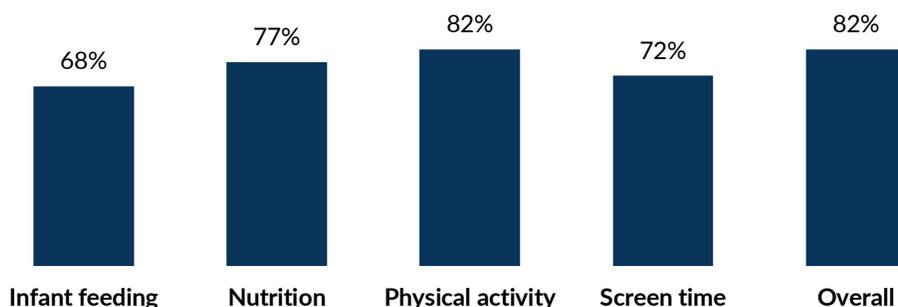
Figure 5. Average percent of policies centers implemented



Source: CDS, 2016-2020

Centers' wellness policies focused on cultural shifts at various levels, for example, at the program, classroom, or staff behavior levels. To ensure these shifts were occurring, centers were encouraged to use various techniques to monitor policy implementation (e.g., walk-throughs, check-ins with and feedback from staff, tracking feedback from parents). Within the first year of HFAEE, centers already began to monitor wellness policy implementation. In fact, centers monitored at least two thirds of the wellness policies selected across all wellness areas.

Figure 6. Average percent of policies centers monitored

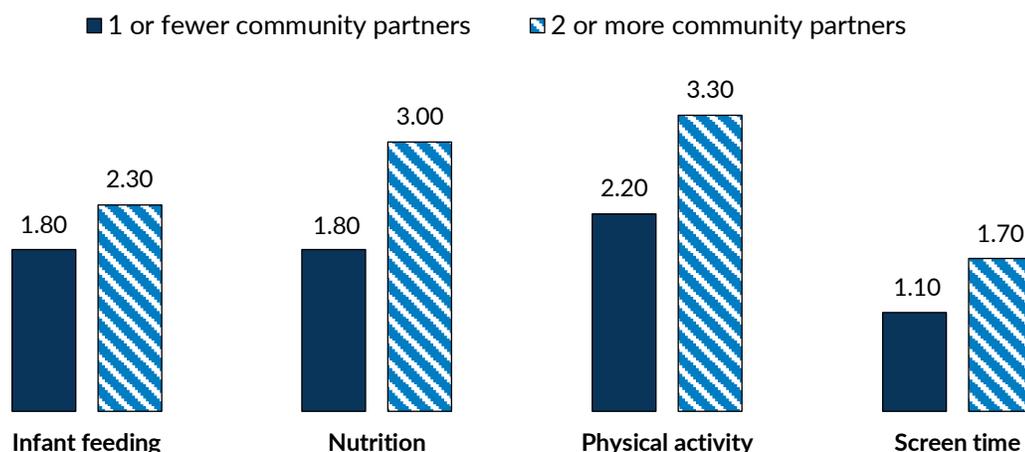


Source: CDS, 2016-2020

Stronger community ties to improve sustainability

During centers' first year participating in HFAEE,¹³ community partnerships were developed to increase the number of people vested in shifting the culture of wellness in ECE in St. Louis as well as increase sustainability of the program. Roughly 70 percent of centers in Cohort 4 were connected to one or more community organizations. The benefits of more partnerships were realized through better access to resources. Specifically, centers with more community partnerships, on average, reported greater access to resources including professional development, support staff, financial assistance, lesson plans, and many other resources.

Figure 7: Relationship between number of community partnerships and average number of center resources, Cohort 4



Source: Cohort 4 CDS, 2019

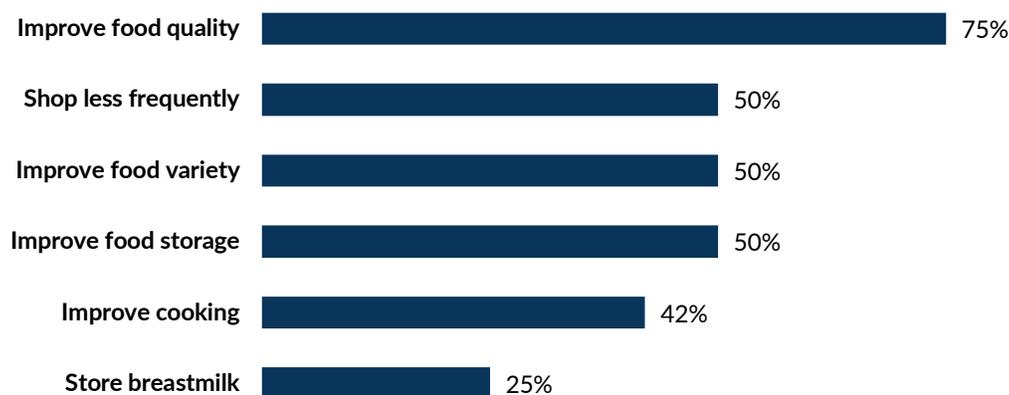
HFAEE's equitable responses to COVID-19

In addition to providing individualized TTA to centers each year, in 2020 – 2021 HFAEE offered additional funds through a Sustainability Grant to help centers better support the nutrition of the children and families they were serving, especially during the pandemic when many families were facing heightened food insecurity. HFAEE applied an equitable approach, by asking and giving centers what they needed, rather than deciding for them. Centers shared that they needed new appliances and equipment. Of the centers that received the Sustainability Grant, three-quarters reported the grant improved the quality of the food they were able to offer, and half reported the grant helped them serve a higher variety of foods, shop less frequently, and improve their ability to store food.¹⁴

¹³ Community partnerships were explored only one of the five evaluation years, that is 2019 - 2020. The data presented in this brief is offered as a snapshot and example of community partnerships in HFAEE.

¹⁴ Data on the COVID Sustainability Grant were collected and presented as a snapshot and example for Cohort 5 during their initial implementation year, though the grant was available to all cohorts.

Figure 8. Percent of centers reporting positive impacts of the Sustainability Grant on nutrition practices



Source: CDS, 2019

Study Limitations

For the evaluation, center Directors self-reported about their existing center policies and engagement in wellness best practices before and after participating in HFAEE. Self-reported information (collected through surveys in-person or online) may encourage bias to appear better; this is referred to as social desirability.¹⁵ To alleviate any concerns that the centers' Child Care Specialist would have access to the completed survey and to encourage center Directors to respond freely, researchers informed center Directors that the information would only be made available to the study team. Centers voluntarily participated in HFAEE, which could affect which centers decided to participate; it is possible that the most motivated centers self-selected into HFAEE. To better understand the effectiveness of HFAEE, it is necessary to have centers that range in awareness of and motivation around issues of child health and wellness. Additionally, due to the COVID-19 pandemic, some centers were closed, had changes in their center Directors, or had staff balancing increasing demands. These factors contributed to fewer centers completing the evaluation survey the past two years, despite extending the data collection period for both program years and offering an incentive last year. Cohort 1 had a 41 percent response rate in 2020 and a 47 percent response rate in 2021. Encouragingly, Cohort 5 had an 85 percent response rate in 2021.

Conclusion and Considerations

Overall, the findings indicate that if early care and education centers are given resources and support, they can have significant and sustained progress in improving their wellness practices at the center, as well as the wellness knowledge of their staff, children, and families. Strengths of the HFAEE model include that it was grounded in an understanding of the needs in the community and that the program supported centers driving their own changes and selecting what they most wanted to change.

¹⁵ Brenner, P. S., & DeLamater, J. (2016). Lies, damned lies, and survey self-reports? Identity as a cause of measurement bias. *Social Psychology Quarterly*, 79(4), 333–354. <https://journals.sagepub.com/doi/10.1177/0190272516628298>.

Considerations for equitable community work

Prior to engaging in community-driven work, we suggest practitioners think carefully about their specific community goals and families' needs. This includes making decisions about how to tailor work to best support communities and families. The following questions are offered to help staff at early care and education centers think through ways to design and tailor supports for their communities.

Assessing community strengths and needs

- Do I understand basic demographic and background information about the community as well as the cultures represented within it?
- Who are trusted supports in the community (people and/or organizations)? Where do people tend to congregate and feel comfortable? How can I understand the strengths they bring to the community?
- What are the immediate and longer-term community needs? What is the history and/or context about how those needs emerged and evolved over time? What are the root causes of those needs?

Partnering with the community

- Who are the key organizations and institutions in the community? What are their goals and areas of focus? Are there areas of overlap or potential partnerships?
- Are there community coalitions or partnerships to join and/or support?
- How are ECE centers connecting with one another or with another organization? Are there ways to help connect ECE centers to one another?

Considerations for shifting ECE wellness cultures

The HFAEE evaluation showed that with individualized TTA, center Directors can envision wellness environments and shift wellness cultures at centers and reinforce that shift at families' homes by strengthening the home-to-school connection. We recommend the following considerations for practitioners interested in shifting wellness cultures at their centers, or people supporting practitioners through these changes.

Strengthening the home-to-school connection

- Prior to envisioning the ideal wellness environment at your center, how can you connect with families to understand their wellness goals?
- What would children's wellness look like if centered around the strengths and needs of families?
- What supports do providers/staff need to fully support families?

Envisioning wellness environments

- What are your current (written or unwritten) wellness practices and policies at the center?
- How can you identify new policies or update existing ones to address the center and families' specific needs?
- Have you considered national best practice guidelines in wellness topical areas?

Encouraging wellness practices at centers

- What education or supports do staff, families, and children need to understand the benefits of wellness policies and how to implement them?
- How can staff, families, and children be motivated or encouraged to practice wellness?
- How can wellness policies be embedded in existing goals, requirements, or policies to encourage sustainability?

Appendix A: Example Wellness Policy Poster

ABC Child Care

Our children will learn how to make healthy choices about food and physical activity as part of their daily lives – building a foundation for a lifetime. Our staff model healthy eating and physical activity.

We strive to work with our parents to promote healthy habits for life.



To achieve these goals, Hope House STL has adopted the following policies:

Nutrition & Physical Activity Education

- Lesson plans include learning experiences about healthy eating at least once per month.
- Early childhood providers receive professional development on physical activity for children, nutrition education for children, screen time, and infant feeding and nutrition, including breastfeeding promotion and support, two or more times per year for each topic.

Food & Beverage Practices and Behaviors

- 100% juice is not provided until age 1, and early childhood programs work with parents to ensure no more than 4–6 ounces is consumed for the whole day including time in the early childhood program and at home.
- Providers gently encourage children to try fruits and vegetables and offer children unfamiliar foods, knowing that a child may need to sample a new food 10 or more times before learning to like it.
- Cultural and religious aspects of foods are discussed thoroughly with families to avoid later conflict and confusion. The preferences of families with a vegetarian diet are accommodated based on written instructions from parents or guardians on food choices.
- Safe, fresh drinking water is available and accessible for children to serve themselves at all times indoors and outdoors.
- Celebrations that have food include fruits, vegetables and other healthy snacks. Families are provided with a list of approved healthy foods and beverages as well as suggestions for non-food activities.

Physical Activity & Screen Time

- Children receive education about the health benefits of physical activity at least three or more times per year.
- Children with disabilities have appropriate opportunities for physical education and activity with other children. Structured play is designed to accommodate children's varied skill levels.
- Children have outdoor active playtime at least two times daily, weather and air quality permitting, with at least 60–90 minutes of active playtime each day for toddlers and at least 120 minutes of active playtime each day for preschoolers, with half the time structured physical activity and the other half unstructured time.
- Providers interact with children and model fun ways to move and play in both structured and unstructured physical activities, using available open space and equipment. Providers encourage all children to participate in physical activity and avoid elimination games.
- Providers encourage families to limit screen time at home to no more than one to two hours daily.

Other Activities

- The Wellness Advisory Council is made up of at least the director, a lead teacher, a parent/guardian and a community member to help with planning, implementing and evaluating the program's policies including nutrition, physical activity, screen time and infant feeding. Review of wellness policies is done once a year to determine what, if any, changes are needed.
- Education on healthy lifestyles, including encouraging play and learning through physical activities, is offered to parents at least twice yearly. Materials are written in a language and at a level the families can understand.
- Center staff is provided resources related to nutrition and physical activity, including information on individual health assessments, to encourage staff wellness.



Developed with the support of the Healthy Food Alliance for Early Education, a joint program of the American Heart Association and Nemours and made possible by a restricted grant from the Monsanto Fund.



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Children's Health System

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Appendix B: Methodology

Sample

The HFAEE program has been implemented in 121 early care and education centers over the last five years in St. Louis, Missouri. The participating ECE centers included 1,783 staff and serve approximately 11,438 children, ranging from infants to school-age children. The HFAEE program intentionally focused recruitment in neighborhoods with low social-economic standings (using Census data, Child and Adult Care Food Program participation, and childcare subsidy rates). There were five cohorts of centers in St. Louis, with new centers recruited each year. All centers participated in the evaluation for at least one year, and the first cohort of centers participated for five years. Table 5 shows the number of participating centers in each cohort.

Table 5. Number of early care and education centers by cohort

Cohort	Number of Centers
Cohort 1 (2016-2017)	32
Cohort 2 (2017-2018)	26
Cohort 3 (2018-2019)	13
Cohort 4 (2019-2020)	24
Cohort 5 (2020-2021)	26

Source: Child Trends, 2016-2020

Measures

Center Information and Demographics

During recruitment, centers completed a survey to provide basic information about staff and families served, such as number of staff, number of children and families served, and the age ranges of the children served. Overall 90 percent or more of centers serve toddlers and preschool-age children, most over half-day and full-day care, and over half are for-profit centers. See Table 6 for all center characteristics.

Table 6. Center demographics

Cohort	Number of Centers	Percent of Centers (%)
Age groups served		
Infant (0-12 months)	94	85
Toddler (13-35 months)	105	90
Preschool (36-60 months)	119	98
School-age (60+ months)	66	64

Cohort	Number of Centers	Percent of Centers (%)
Time in care		
Full day only	53	45
Half day and full day	63	53
Half day only	2	2
Type of center (check all that apply)		
Head Start/Early Head Start	28	32
Private	30	32
Non-profit	27	30
Faith-based	13	15
School-based	8	9
For-profit	57	54

Source: Child Trends, 2016-2020

Center Director Survey

Each Spring, center Directors, or other designated staff, were asked to complete the Center Director Survey (CDS) to report on center-level changes in the wellness environment. The CDS was developed by a team of researchers (including a survey design expert) on the evaluation team. It was piloted and tested (through cognitive interviews and semi-structured interviews) with the CCS as well as select center Directors in other cities prior to HFAEE implementation. The CDS assessed the ECE practices and policies before and after their first year in HFAEE on four key wellness areas including nutrition, infant feeding, physical activity, and screen time. Specifically, the CDS assessed whether the center had related written policies in each topic area; the frequency of related education or training offered to staff, families, and children (nutrition and physical activity areas only); and whether and how policies were implemented and monitored (e.g., walk-throughs, check-ins with staff, feedback from families) across each wellness area. The center director completed the survey in May and retrospectively reported on policies they had before the program started.

Analysis

Data from the CDS is used to examine changes in center policies and practices following their first year in HFAEE (e.g., increases in evidence-based wellness policies that are implemented and monitored; increases in education on those policies offered to staff, children, and families). Data from the CDS are also used to understand if center changes are sustained over time. The data are assessed descriptively and with both t-tests and McNemar tests for statistically significant differences between the pre and post values for centers.

Reach

Center information and demographics and CDS data were both used to measure HFAEE program reach, or the number of centers, staff, and children affected by the program. The number of centers reached was calculated by the total number of centers enrolled in HFAEE over 5 years. The number of staff was calculated based on information provided on the Center Information and Demographics survey. Because

the number of new staff reached by the program after the initial implementation year was not measured, no calculations were done to estimate the total number of additional staff reached each year after initial implementation. The total number of children reached by HFAEE was based on center director report on the Center Information and Demographics survey in the first year and the reported number of new children enrolled each subsequent year, as reported on the CDS. Given that the CDS was optional to complete, estimates were used to account for missing data. Number of new children enrolled was calculated by taking a center's most recently reported enrollment number and multiplying it by the average turnover rate of other centers in their cohort. In 2021, 47 percent of Cohort 1 centers and 85 percent of Cohort 5 centers completed the CDS.