Healthy Weight 0-5

Year Two Evaluation: Summary Report

Lauren Paluta &
Dawn Anderson-Butcher

Healthy Weight 0-5 (HW0-5) is an Initiative aimed at collectively impacting the prevalence of childhood obesity in Columbus by promoting healthy behaviors and ensuring healthy environments for all children, ages birth to five. Since 2012, partnering agencies have been funded by the Cardinal Health Foundation to work in three domains identified as keenly important for the prevention of childhood obesity: child care, health care, and community programming. Learn for Life (L4L), a local backbone, intermediary agency, was funded to provide infrastructure and coordination for the Initiative. Several local agencies were funded to implement programs, provide technical assistance and training, modify policies, and work together collectively in five targeted Columbus communities. Cardinal Health also contracted the Community & Youth Collaborative Institute (CAYCI) within the College of Social Work at the Ohio State University to evaluate the Initiative.

Funded Partners

- Children's Hunger Alliance
- Community Development for All People (CD4AP)
- Columbus City Schools
- Columbus Public Health
- Learn for Life
- Local Matters
- Simple Suppers
- YMCA

In 2012-2013, the formative evaluation led by CAYCI was focused on documenting the initial progress of the Initiative during its first year of implementation. Initial successes were found in all four prioritized pathways: child care, health care, community, and infrastructure. Further, interviews with leaders from funded agencies revealed that advances were occurring at both the program- and initiative-level. Facilitators and barriers to progress also were documented. Agencies funded in year one recognized as helpful Cardinal's commitment to investing in infrastructure; however, challenges were encountered as grantees tried to navigate what it meant "to be responsible together." Complete findings of this evaluation have been summarized elsewhere (see Anderson-Butcher & Paluta, 2013).

During the second year (2013-14) of the Initiative, funded agencies continued to work towards ensuring all children in Central Ohio enter school at healthy weight. Each agency continued to implement unique strategies nested within the HW0-5 logic model that was developed during the Initiative's first year. Efforts also were made, however, to bring the distinct strategies into better alignment both with each other and with a common set of messages in order to better promote the following six target behaviors:

- Increasing consumption of fruits and vegetables
- Decreasing consumption of sweetened beverages
- Eating appropriate portion sizes
- Increasing the amount of physical activity
- Decreasing the amount of screen time
- Increasing opportunities to develop motor skills

Experiences during the first year informed the design of the second year evaluation. The approach adopted during Year Two was designed to complement and enhance efforts to align funded agencies' strategies. The remainder of this report is structured around components of the evaluation, looking at:

1) Innovations that demonstrate grantees' progress and the initiative's progress and evolution.
2) The results of local needs assessments designed and implemented in the spring of 2014.

Overall, HW0-5 continued to make a positive impact during Year Two implementation, both at the program and system level. Just as lessons learned during year-one informed important decisions during Year Two so too will the learning featured this report inform the future of the Initiative.

Grantee & Initiative Progress

During Year Two, individual grantees continued to deliver programming directly to clients. With the support of Cardinal funding, Local Matters (LM) delivered the Food Matters curriculum to seven preschool classrooms. Columbus Public Health (CPH) provided technical assistance and Healthy Children Healthy Weight (HCHW) training to staff at child-care centers, and Children's Hunger Alliance (CHA) piloted a new online training platform to give home-based providers access to these same valuable resources in addition to continuing their technical assistance offerings. Columbus City Schools (CCS) and Community Development for All People (CD4AP) brainstormed new ways to reach parents/guardians directly with education and support related to adopting healthy behaviors. To help expand HW0-5's reach to parents, two new grantees were funded during Year Two - one (Simple Suppers) to implement an intensive, evidence-based parenting curriculum in more preschools and the second (Ohio American Academy for Pediatrics (O-AAP), to develop an educational program that could be transported and adapted for broader audiences.

While this list highlights some of the main strategies undertaken by grantees, it is by no means exhaustive. Grantees documented new, innovative strategies that were adopted during Year Two using a "Process and Product Innovation Tracking Log." This tool asked respondents to reflect not only on what changed but also on the importance of new practices and processes to HW0-5 and the broader community. Taken together with survey data collected by individual grantees, these progress markers paint a picture of the work done during Year Two of HW0-5. Innovations occurred in the areas of programming, policy, partnerships, and infrastructure.

> *In the spring, [the YMCA] planted several kinds of plants. One child kept refusing to try tomatoes. In August, he had the chance to pick a tomato on his own. The next day each child was given a piece of tomato and encouraged to try just one bite. We talked about how we could eat them in different ways such as with ranch, on a cracker, or in a salsa. As the end of snack time approached, the child sat alone at the table with a small piece of tomato and a few crackers. He refused to get up and throw it away. [All of the sudden,] he shouted, 'I ate a tomato!!!!' Having a garden that children take care of gives them a reason to be excited to try vegetables. What seems like a simple program can have a lasting impact on a child, a family, and maybe even a community.*
>
> **HW0-5 Nugget Log**

Improved Programming & Evaluation

Many of the innovations that occurred during Year Two were individual program improvements and enhancements in relation to program evaluation. CCS & CD4AP programs reached parents/guardians in new ways. All CCS preschoolers were screened for weight as in Year One, but during Year Two, a CCS school provided intentional follow-up for children identified through the assessment as being of unhealthy weights. CCS also presented educational materials to 44 parents/guardians at a regularly scheduled parent advisory group. Improvements in training and technical assistance related to child care also were identified. CHA adapted their individual programming, as they aligned the home-based provider curriculum with HCHW and created an online platform to improve ease of access. Several

new providers became engaged when the online modules were launched. With the help of HW0-5 partners, Community programming also was enhanced during the second year. LM implemented their first ever "Simul-tour," hosting Cooking Matters at the Store Tours simultaneously at 14 supermarkets. Prior to this event, which engaged over 200 people in just 2 hours, LM primarily provided programming through other agencies willing to assist with recruitment. The Simul-tour made LM programming open and accessible to the public. These select examples related to health care, child care, and community programming are just some of ways in which individual grantees strengthened and expanded their approaches during Year Two. Improvements in program evaluation were also noted.

As a key example of an evaluation related innovation, three new tools were created in order to align partners to a common set of objectives: a parent/guardian survey, a child-care survey, and a post-only program satisfaction survey. An iterative process was used in the development of these tools in order to account for individual grantees' interests and needs. For example, the HW0-5 Parent Survey was blended with the evaluation tool required by United Way of Central Ohio (UWCO) for the grantee accountable to both funders. Policy questions were added to the HW0-5 Child Care survey because of CPH's interest in this indicator. The purpose for structuring the tool development process as such was to ensure the final products could be used not only in grants managements but also in future evaluation efforts of grantees and partners. For example, the three tools and process of their creation were shared with the Ohio Department of Health (ODH) to inform that agency's own tool development process.

Evaluation efforts of individual grantees were enhanced in other ways during Year Two. Cardinal Health supported CPH in the creation of a database that will streamline the process of tracking the impact of HCHW. LM explored new evaluation strategies on its own, working with Kroger to begin tracking shopping habits of Kroger Plus Card members who attend a LM Grocery Store Tour. Survey respondents participating in LM programming already reported high levels of short-term impact. On the HW0-5 Post-Only Survey designed for use after episodic interventions, all LM respondents (n=16) indicated that they agreed or strongly agreed that as a result of the session, they understood why children need to eat fruits and vegetables; why children need to be physically active; and why sugar-sweetened beverages are unhealthy for children. Their new, innovative partnership with Kroger represents an opportunity to next consider lasting behavior changes that individuals make after participating in programs. LM also reported that their participation in the collective evaluation efforts of HW0-5 was cited as a major reason for continued investment by a major individual donor. It is important to note, however, that levels of participation in the collective evaluation efforts did vary across grantees. Grantees were initially excited to adopt the tools, but ultimately, some used them more than others, reflecting varying levels of agency capacity to effectively deliver and evaluate programming. Creating a stronger infrastructure that supports grantees in this area will continue to be an important goal for HW0-5.

"[The new evaluation strategy] should allow us to determine the long-term impact of one of the HW0-5 programs in our community. [The results] will allow us to refine our programmatic offerings to increase their impact and, if the data show that the program is effective, leverage additional resources to support this work."

» HW0-5 Nugget Log «

New Partnerships

Other new partnerships were formed within and between HW0-5 grantees, as well as with agencies or people not currently involved in HW0-5. As an example of a within agency linkage, L4L created connections between its role in HW0-5 and some of its other initiatives. Home visitors that implement L4L's Supporting Parents to Assure Ready Kids (SPARK) program helped with the parent surveys described later, and healthy weight was added as a topic of discussion to L4L's kindergarten readiness conference. CAYCI made connections between its evaluation work for HW0-5 and other initiatives housed within the Institute, including the Learning in Fitness and Education through (LiFE) Sports. CAYCI began looking for ways to communicate healthy messaging to and provide healthier foods for youth involved in LiFE Sports.

As an example of new partnerships between grantees, LM worked with CPH and CHA to recruit and train child care providers in Cooking Matters. Not only was this an innovation on its own, but when LM followed up with providers, one center expressed interest in offering Food Matters. Should this opportunity pan out, these innovations together contribute to the Initiative's broader aim of reaching people and centers with multiple "doses" of programming. To a similar end, the YMCA and CHA developed the infrastructure to offer "play dates" for home-based providers. Progress was made to set the stage for the YMCA to provide nutrition education and opportunities for physical activity to the children served by home-based providers during CHA training sessions (please note barriers still exist related to the actual implementation of this new design strategy).

Still other partnerships brought in external partners and in doing so, demonstrated the progress of the Initiative as a whole. For example, the ongoing communication with partners in Cleveland was a notable example of meaningful relationship formed beyond HW0-5 as this communication led to the adoption of the HCHW program by the Cleveland Health Department. Representatives from new partners, including Ohio Health and Aetna, joined the HW0-5 Leadership Team during Year Two. A new work group was created to formulate and undertake actions steps towards the goal of finding consistent messages of which partners across Columbus might agree to use in all childhood obesity prevention efforts. This group was co-chaired by the HW0-5 project director funded at L4L and the Senior Impact Director of Health from United Way, and a leader at CPH. Focus honed in on the twelve existing messages targeted by CPH related to healthy lifestyles and behaviors. This work has set the stage for future public campaign priorities related to messaging.

Policy & Advocacy

Policy work during Year Two was aimed at making conditions more conducive to the adoption of the better practices emphasized in all grantees' programs. Grantees working in the child care pathway worked to align the programming offered to center- and home-based providers and now want the Ohio Healthy Program (OHP) designation, available only for centers, to be similarly offered to home-based providers. This official designation is meant to recognize and incentive early child care providers that adopt healthy policies, healthy menus, and family engagement strategies. Advocacy work was done at the state level to try to make OHP available for home providers. At the time this report was written, ODH had not yet extended this recognition to home providers, but the innovative work being done through HW0-5 may serve as an important pilot that moves this conversation forward in the future. Another advocacy effort reported by CPH facilitated the implementation of the existing OHP policy. Centers were struggling with the online application for the designation, so CPH arranged for an Ohio Child Care

Resource and Referral Association representative (OCCRRA; the OHP administering body) to come see the issues firsthand. As a result, OCCRRA prioritized fixing the technical issue to reduce barriers and challenges.

Finally, the continued work of the HW0-5 project director in the community helped to align the Initiative to other work being done in Columbus. For instance, when YMCA was awarded the Community Transformation Grant (CTG), the HW0-5 project director was asked to be part of the leadership team in order to facilitate consistency across childhood obesity prevention work. Staff hired to support the implementation of CTG helped with the needs assessment of the child care, an example of coordination and shared resources. The HW0-5 project director also served as the chair for the Community Healthy Collaborative (organized by the city and county health departments) as well as for the Statewide Early Childhood Health Network (part of ODH's Chronic Disease Plan). She also sits on the United Way of Central Ohio (UWCO) Nutrition and Fitness Results Committee and was a grant reviewer for UWCO. The role of this person in the community to "connect the dots" is a critical one, allowing for communication, coordination, and collaboration to be promoted across parallel projects and initiatives in the community.

Strengthening the Infrastructure

Near the end of Year Two, the project director position was moved from L4L to O-AAP, a clear indication of the evolving nature of the work. This change will support the continued development of an infrastructure capable of expanding the reach and impact of Cardinal Health funding. For example, the health care pathway of HW0-5 logic model has been the least developed of the four pathways. O-AAP's network of physicians represents a new opportunity to actualize this pathway and utilize the newly developed Good 4 Growth materials produced during Year Two. Housing the project director within O-APP will facilitate linkages between HW0-5's past work in the community and child care pathways and this new effort to incorporate pediatricians. As this and the other examples included in this section illustrate, all partners involved in this important work are together, continuing to strengthen their approaches in key impactful ways.

Needs Assessments

In addition to documenting grantee progress and innovation, the Year Two evaluation also involved the design and implementation of a local needs assessment. This was important, as collective efforts need to be informed by data not only about individual agencies' programs but also about the community in which partnering agencies work. To generate data that might serve these dual purposes, two needs assessments were conducted during Year Two. Specifically, a needs assessment was done to examine practices and policies in child care and home-based settings, as well as explore practices of parent/guardians of children in the local community. The remainder of this section describes these two needs assessment processes. Learning garnered here can be used to identify areas deserving attention as HW0-5 continues to grow and evolve.

Child Care Needs Assessment

Surveys were collected from 48 centers, 15 CCS classrooms, and 29 home-based providers in the spring of 2014. Responses questions about practices, policies, and past training experiences were used to identify areas of strength and areas consistently needing improvement across early childcare providers

(both center- and home-based) in the HW0-5 target communities. Analyses also were conducted to identify differences between providers who had received varying levels of training.

Methods: Questions for the child care assessment were taken from the Nutrition and Physical Activity Self-Assessment for Child Care tool (NAP-SACC) developed and tested by researchers from University of North Carolina (Ward et al., 2013). Policy questions from a survey developed by OSU's Prevention Research Center (PRC) were added as well (PRC, 2011). Using this tool, CPH and CCS surveyed staff in centers/classrooms recruited for participation in HCHW before they started the program. In addition, 66 centers located within the target zip codes but not currently engaged in HCHW were mailed a letter describing the project and five copies of the survey. A week later, a member of the HW0-5 surveying team called each center's director to schedule a time to pick up surveys or offer to bring new copies if necessary. The surveying team consisted of staff from CPH, L4L, CAYCI, and YMCA. Unless a center refused to participate, as three did, the team made at least three attempts to contact the director by phone or in-person visits. Centers that participated received a $50 Amazon gift card. The data collection period lasted approximately six weeks.

Through this process, surveys were collected from 45 centers. Excluding five centers which had closed or relocated out of the target area, this sample represents 73.8% of the centers originally contacted. Centers were encouraged to have as many staff and teachers complete the survey as possible, and the average number of responses per center was 5.51 (SD = 2.83; Range = 2-15). A total of 248 individuals participated in the needs assessment. Their responses were combined with pre-surveys collected by CPH and CCS to create the final database used for analysis, with totals coming to 296 individuals representing 48 centers and 15 CCS classrooms. In order to account for the unequal number of surveys from each center, a separate database was created with one score per center on each item, calculated as a mean across on respondents from that center. Both data sets were used for analyses described in this section.

The survey used with the child care centers was modified to be appropriate for home-based child care providers. The intention was to reach these individuals using the same needs assessment approach just described; however, it proved to be much more difficult with home-based providers. Only three women responded to the cold-call invitation to participate. CHA was recruiting for the first round of HCHW webinars around the same time that the needs assessment was being conducted. Fourteen previously unengaged providers signed up for this opportunity and completed a pre-survey before participating in any educational sessions. Their responses were combined with the responses of fifteen providers who had received technical assistance and training from CHA during year one, before the survey was created. It should be noted that the CHA dietician administering the intervention read the survey aloud to most of the home providers, increasing the risk of bias from social desirability. This risk was weighed against concerns about providers' literacy and was determined to be a necessary limitation to the design of the needs assessment.

Center Results: Based on CPH records, approximately 2,200 preschoolers, toddlers, and infants were enrolled across surveyed centers. It is important to understand what practices these children are exposed to in child care settings in order to best direct continued work in the area of childhood obesity prevention.

Nutrition & Feeding Practices: Continued efforts are needed to improve the menus of the centers. Amongst respondents, 58.5% of the teachers/staff reported that in their classrooms, fruit was offered twice a day, but 29.3% reported that fruit was not even offered every day. Fewer teachers/staff reported best practices in serving vegetables. Specifically, only 20.1% of teachers/staff reported that in their classrooms, a vegetable was offered twice a day (not including fried potatoes) while more (37.2%) reported that vegetables were not even offered every day. Limiting sugar-sweetened beverages was an area of strength for centers. According to teachers/staff, 74.7% of classrooms at least made water freely available inside for children, and 78.0% reported never serving sugary drinks. However, 20.1% served flavored milk each week (9.9% at least once per day).

Feeding practices were assessed as a proxy for portion size. Only 19.0% of teachers reported that meals were served family style compared to 21.7% that report that all meals and snacks came pre-plated with set portions for each youth. Decisions about how food is served may be made at a center level so it was also informative to ask about feeding practices directly employed by teachers/staff. Encouragingly, 89.7% reported that adults always or often sit with youth at meal times; 90.8% report that teachers/staff rarely or never required that children sit at the table until they clean their plates; and 69.4% always or often allowed children second servings of foods. One area for improvement is in how many teachers/staff required, encouraged, or rewarded children to eat all of the food on their plates: 21.5% reported doing so every meal time.

Physical Activity & Screen Time: Results for screen time were mixed: 47.2% of teachers/staff reported that no televisions are regularly available to children at their center, but 35.2% reported that televisions are located in every (15.2%) or some (20.0%) classrooms. Of teachers/staff in classrooms with children under two (n=168), 53.0% allowed no screen time, but there were still 10.7% that reported allowing more than 30 minutes. Note that the recommendation for children of this age is no screen time. For children over the age of two, the recommended maximum amount of screen time each day is 120 hours. While there is no recommendation for how much occurs in child care, it was good that 53.2% of teachers/staff report teaching this age group reported restricting screen time to 30 minutes or less.

The goal of HW0-5 is that all children get one hour of physical activity each day, but the National Association for Sport and Physical Education recommends that preschool children engage in one hour each of both unstructured and structured physical activity, for a total of two hours (NASPE, 2002 in McWilliams et al., 2009). The NAP-SACC survey used the NASPE recommendation as the best practice standard (McWilliams et al., 2009). Thus even though approximately 80% of teachers/staff provided at least one hour of any physical activity daily, few (14.2%) achieved the best practice. Similarly, only 20.8% reported meeting the standard of one hour of adult-led physical activity each day. Teacher-led activities are important in addition to free-play because lessons can be structured to develop motor skills. Only 39% of teachers/staff reported doing so 'each time they saw an opportunity.' In infant classrooms, physical activity takes the form of 'tummy-time.' It was encouraging that 74.1% of the teachers/staff in infant classrooms (n=143) reported offering multiple opportunities for tummy time each day, but this still left 25.9% who offered five minutes or less per day.

Policy: Changing policies and especially getting policies written down are important strategies for instigating sustainable change at child care centers. To gauge how well centers were performing in this

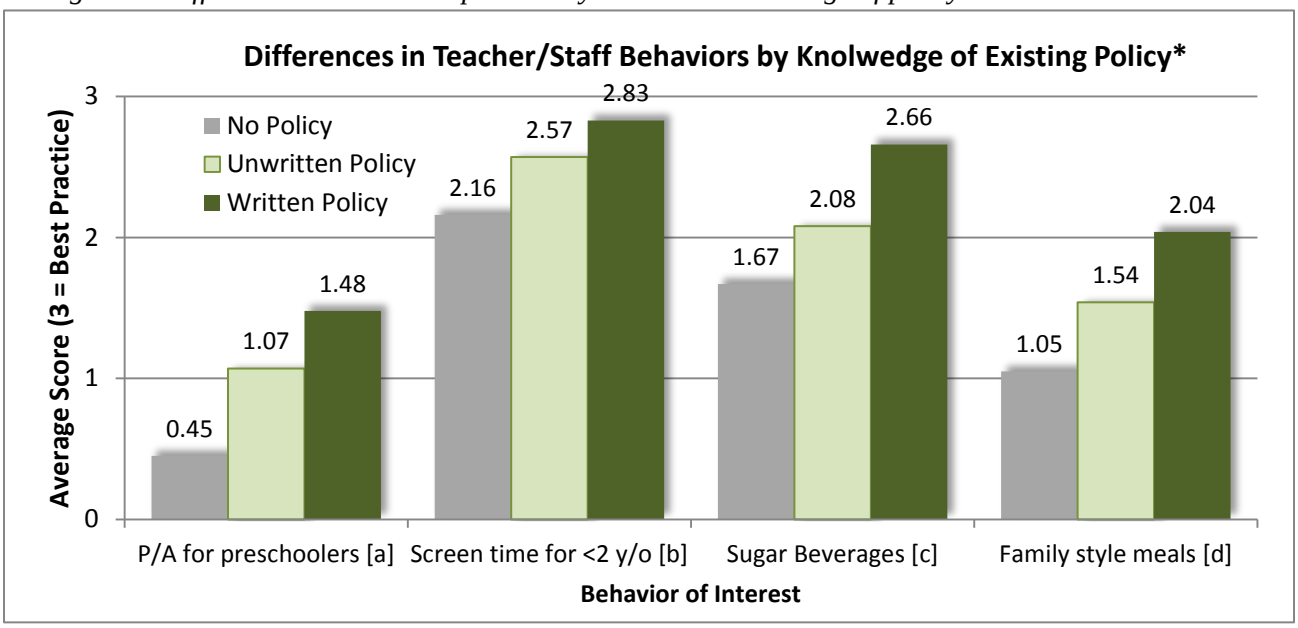
area, teachers/staff were asked whether a number of policies existed at their centers and whether they were written. While practices can vary between classrooms, policies are center-wide phenomena. The responses of all teachers from each center were therefore used to calculate the percentages who knew of any version of policy and who knew of a *written* policy. Respondents who did not know whether or not a policy existed were excluded as missing: Between approximately 3% and 12% of the teachers/staff were removed for each policy based on this criterion. The average percentages for all surveyed centers are reflected for certain policy areas in table one below.

Table 1: Average percentages of teachers/staff aware of policies at child care centers

Policy that …	n= (Centers)	Avg. % reporting any policy	Avg. % reporting a written policy
Requires at least 60 minutes of physically active free play every day for all children.	56	84.30%	62.68%
Requires at least 60 minutes of physical activity led by an adult every day for children	57	53.22%	32.05%
Limits how much time children spend on TV, videogames, and/or computer use	56	82.58%	37.11%
Bans TV, videogames, and computer time for children under 24 months of age	48	65.84%	26.93%
Only milk, water, and 100% fruit juice are served to children	55	98.14%	72.91%
Children 12 months of age and older are served less than 6 ounces of 100% fruit juice per day	55	83.07%	52.15%
Requires staff to receive training on how to help children be physically active	56	66.00%	34.93%
All meals are served family-style	56	54.28%	34.66%
Staff cannot give food or drinks as a reward or incentive	55	78.21%	54.49%
Staff must allow children to decide how much to eat	56	87.69%	44.16%

Looking again at the individual teacher/staff data, there were data which suggested that teachers/staff who knew of a policy reported more favorable behaviors. A series of ANOVAs were conducted comparing the mean behavior scores of the three groups (no policy, policy but not written, and written policy) generated from responses about a relevant policy. For example, when comparing across the three policy levels for "My center has a policy that only milk, water, and 100% fruit juice are served to children," those respondents who knew of a written policy reported significantly more favorable behaviors on the question "our program offers sugar drinks" than those who reported an unwritten policy. Both of these groups reported significantly better practice than teachers/staff who reported that their centers did not have such a policy. Additional examples are reflected in figure one.

Figure 1: Differences in individual practice by individual knowledge of policy



*Compared by individual teacher/staff responses to "My center has a policy that" [a] "requires at least 60 minutes of physically active free play every day for all children" [b] "bans TV, videogames, and computer time for children under 24 months of age." [c] "only milk, water, and 100% fruit juice are served to children." [d] "all meals are served family-style."

Impact of Training: Using CPH records, it was possible to supplement the needs assessment data to investigate the impact of involvement in HCHW. This training addresses many of the areas of need identified during the needs assessment, and while a cross sectional study design is not the ideal way to assess the impact of a program, it was informative to consider how this training has been and can continue to close gaps between real and best practices in the community.

The seven levels of engagement identified by CPH were collapsed to allow for more comparable sample sizes in analysis. Centers currently engaged in HCHW in some capacity were labeled "Currently Engaged." Centers that had participated in HCHW but not within past six months were grouped as "Previously Engaged." The final category, "Dis- or Not Yet Engaged" included the centers that had never been engaged as well as those that had initiated the process but actively refused to continue. One-way ANOVAs were run to compare the average response of staff at each center in these three groups on questions related to the six HW0-5 target behaviors. The results of these analyses can be found in table three in Appendix A. Scores for one item representing each of the six behaviors are graphically depicted in figures two and three. Scores that are closer to three represent closer adherence to best practices. In many, but not all areas, teachers at dis- or not engaged centers reported worse practices compared to those at currently and/or previously engaged centers.

To try to understand the influence of other variables on these patterns, subsets of the sample were isolated and re-examined. First, the same set of analyses was conducted with individuals who reported that 60% or more of the children in their center received subsidized childcare from ODJFS. In this population, teachers/staff from currently engaged centers more frequently reported best practices on

questions related to fruit and vegetable consumptions, and teachers/staff from previously and currently engaged centers were more likely to report feeding practices that allow children to regulate their own portion sizes. However, teachers at dis- and not engaged centers reported comparable or slightly better practices in minimizing screen time. In a third set of analyses, responses from four centers known by HW0-5 leadership to have access to resources uncommon for the target zip codes (e.g. OSU's Schoenbaum Center) were removed from the overall data set. The patterns of results did not change.

In order to triangulate these results, two other classification systems were used, one based on self-report and a second based on CPH records of HCHW completion. First, respondents were asked if they had personally participated in HCHW training in the past year. A one-way ANOVA was run using this self-report question as the grouping variable, with the three groups being, "I have participated," "I have not, but someone else from my center has participated," and "nobody from my center has participated." Across questions related to the HW0-5 target behaviors, excluding screen time and sugar-sweetened beverages, individuals who directly participated in HCHW reported, on average, better practices than those who had been indirectly exposed to HCHW. Both groups reported, on average, better practices than teachers who knew of nobody from their center that had engaged in HCHW. Finally, independent t-tests were run to examine individual responses from centers that had completed the HCHW program versus responses from those centers that had partially completed the program, according to CPH records. Results can be found in in table four in Appendix A. While mean scores are generally higher amongst teachers at centers that have completed HCHW, only eight centers fell within this category, resulting in a small sample size for comparison.

Figure 2: Average teacher/staff responses about six representative practices

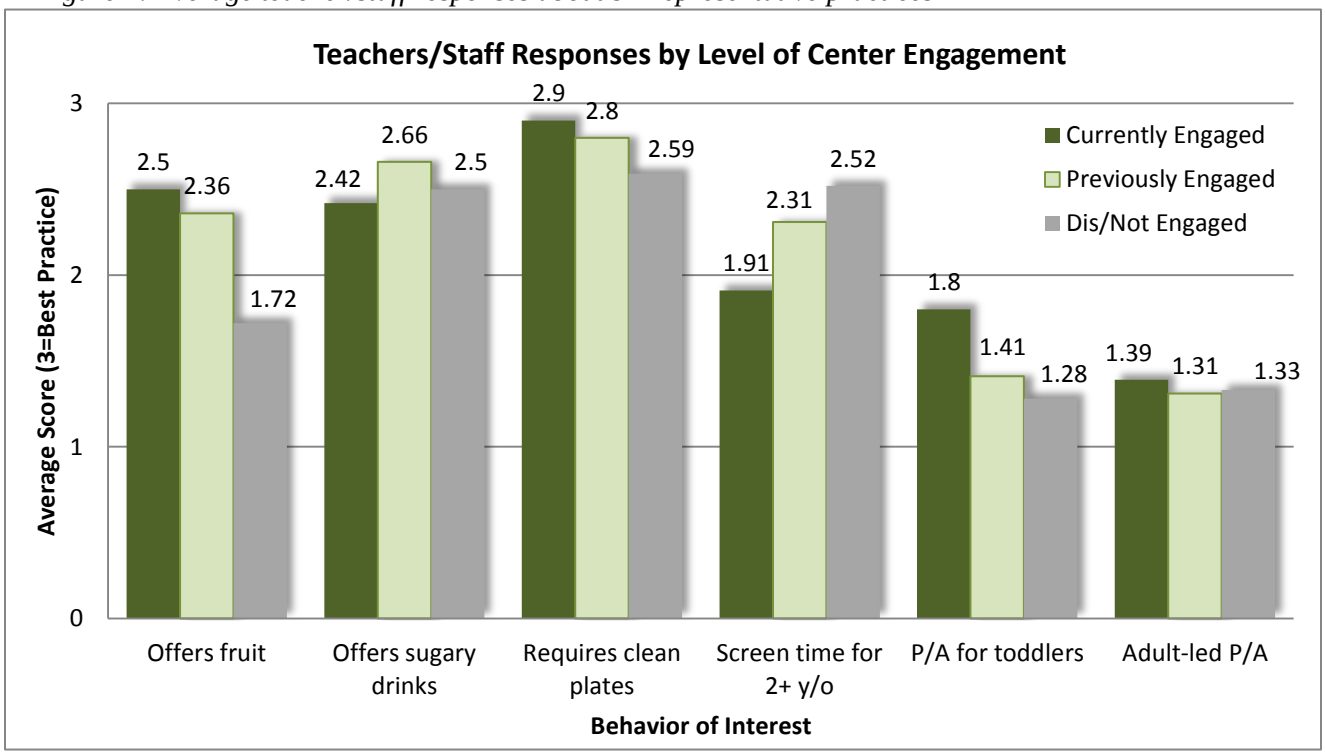
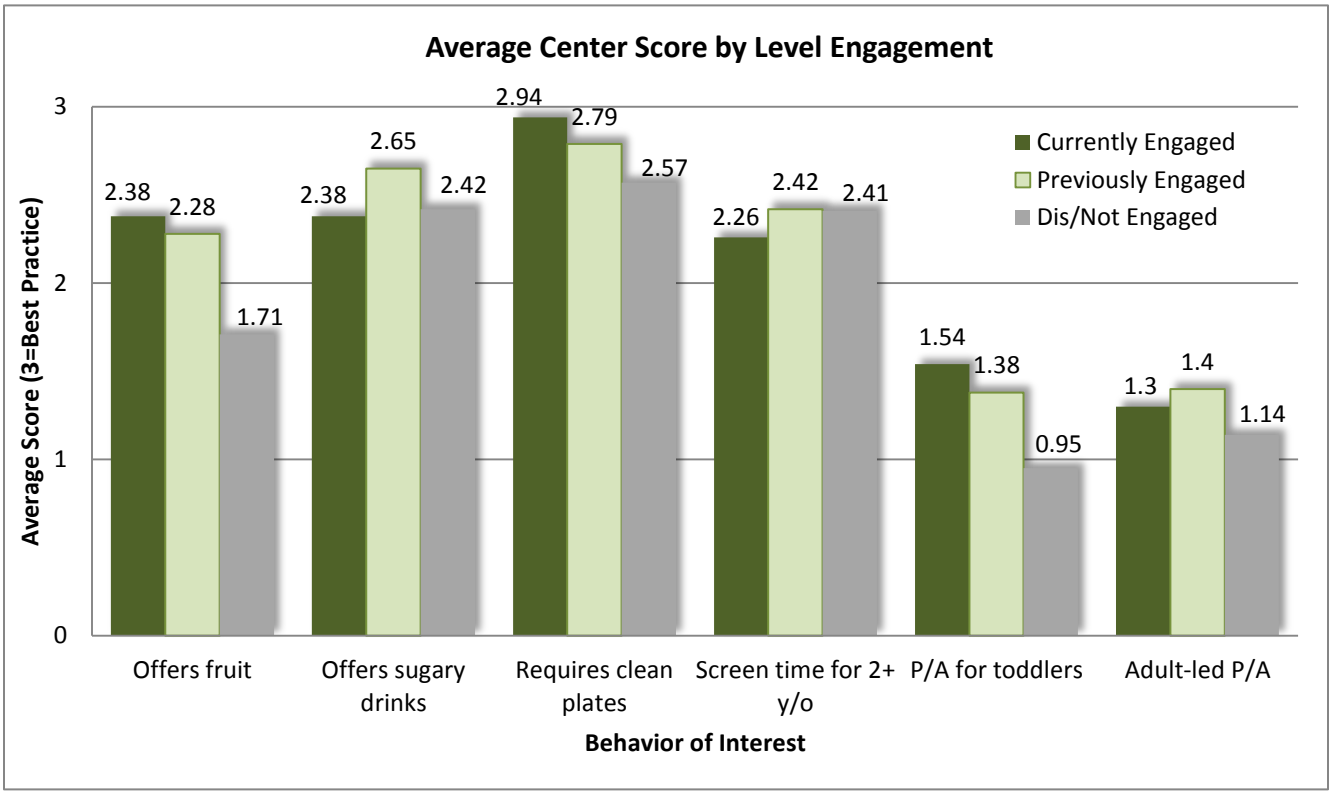


Figure 3: Average of centers' mean scores for six representative practices



Home-Based Results: Many children in Columbus are not enrolled at child care centers but rather spend the day in the care of home-based providers. CHA leads the HW0-5 effort to ensure that these children too have access to environments which support healthy behaviors and weight. For this reason and as described in detail previously, 29 home-based providers were surveyed during the needs assessment, including 15 which had previously been received technical assistance through CHA. Results of the needs assessment are presented in this section along with a comparison between those with and without prior exposure to training.

Nutrition. Of the 29 providers that completed surveys, 93.1% reported serving fruits twice a day, but fewer (69.1%) reported serving vegetables at this same frequency. While not a HW0-5 target behavior, a question was asked about fried foods. With 62.1% reporting that they serve fried foods one to two times weekly, the importance of limiting fried foods may be an important to emphasize in future trainings. Limiting sugar-sweetened beverages was an area of strength: 82.8% reported that water is freely available both indoors and outdoors, and 75.9% never served sugary drinks. As with the centers, there was a slight discrepancy between the latter percentage and the percentage that served flavored milk at least once daily.

Feeding practices also were mostly positive. For instance, 82.8% always sit with children at meal times; 79.3% confirm that the child is full before they remove their plate; and 96.4% rarely or never require children to clean their plates. There were two behaviors that had slightly less favorable responses and may deserve more attention in future trainings. Specifically, 20.7% of the providers say that they

always eat foods around the children that the children are not allowed to have, and only 7.4% allow children to serve themselves all foods.

Physical Activity and Screen Time: In contrast to nutrition, screen time was an area in which responses were less than favorable. Of the 27 providers who cared for infants, 44.4% reported that children under the age of two engage in an hour or more of screen time each day while only 14.8% adhered to the recommendation of no screen time for this age group. For children older than two, 39.3% of all 29 respondents allowed more than 1.5 hours of screen time each day.

While these answers suggested that children were in front of screens too often in many homes, the children were still participating in high levels of physical activity according to providers. For instance:

- 93.1% reported that preschoolers get at least one hour of physical activity each day, though only 31.0% met the best practice for this age group (at least two hours).
- 89.7% reported that toddlers get at least one hour of physical activity each day, though only 51.7% met the best practice for this age group (at least 1.5 hours).

Providers might benefit from additional training about structuring this physical activity. 62.1% reported incorporating physical activity into lessons each time they see an opportunity; however, only 27.6% of providers led the recommended hour of physical activity. More training may help them recognize more opportunities that together add up to an hour. For infants, only five providers responded to the question about tummy-time, with four reporting that two or more opportunities were provided each day.

Policy: With respect to policy, home-based providers were asked to consider what policies were included in their parent handbooks. Home-based providers reported very few written policies though in most cases have unofficially adopted health promoting policies as reflected in table two. As with center-based teachers/staff, providers that report having a policy, even if unwritten, tend to report more favorable practices in related target behaviors.

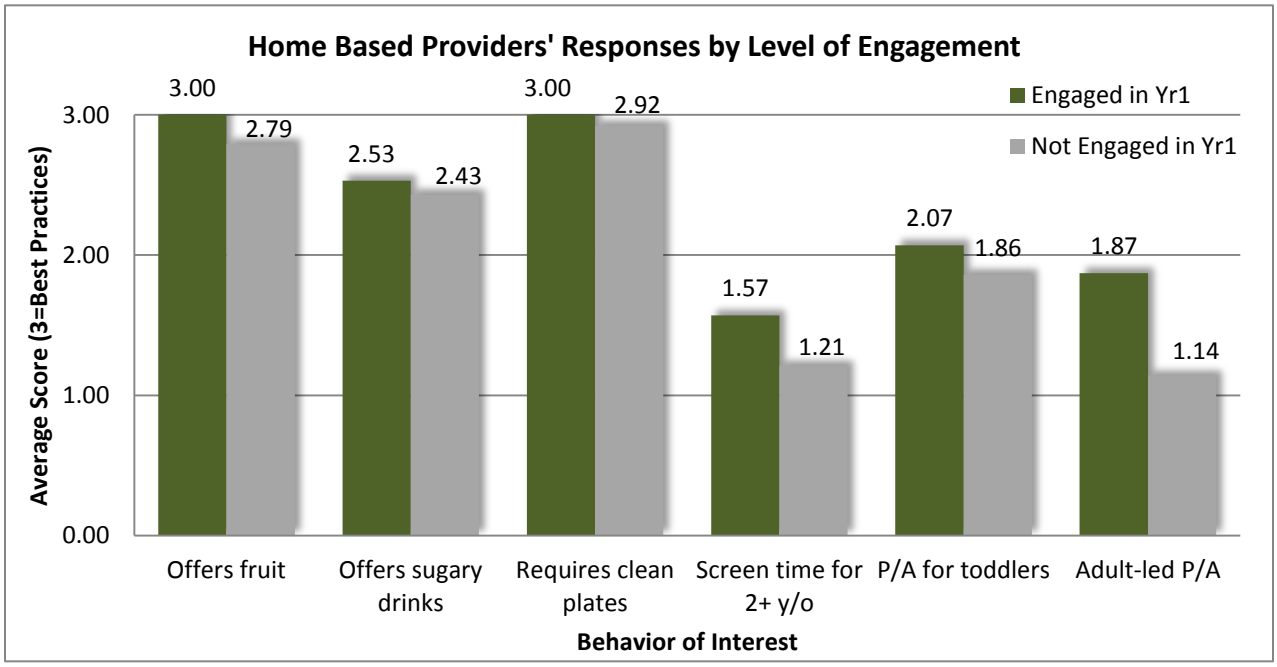
Table 2: Average percentages of home-providers reporting policy in their home

I have a policy that …	n=	% No Policy	% Unwritten Policy	% Written Policy
Requires at least 60 minutes of physically active free play every day for all children.	20	0%	75.0%	25.0%
Requires at least 60 minutes of physical activity led by an adult every day for children	20	35.0%	60.0%	5.0%
Limits how much time children spend on TV, videogames, and/or computer use	20	15.0%	85.0%	0.0%
Bans TV, videogames, and computer time for children under 24 months of age	20	50.0%	50.0%	0.0%
Only milk, water, and 100% fruit juice are served to children	20	15.0%	65.0%	20.0%

I have a policy that …	n=	% No Policy	% Unwritten Policy	% Written Policy
Children 12 months of age and older are served less than 6 ounces of 100% fruit juice per day	20	25.0%	65.0%	10.0%
All meals are served family-style	20	60.0%	40.0%	0.0%
Staff cannot give food or drinks as a reward or incentive	19	15.8%	73.7%	10.5%
Staff must allow children to decide how much to eat	19	5.3%	94.7%	0.0%

Impact of Training: As with centers, there are some areas in which engaged providers report better practices. Complete results can be found in table five in Appendix B. Even though sample size was small and responses trended very positive, differences between engaged and unengaged providers still emerged. Scores on representative items for each of the six behaviors are depicted in figure four: engaged home providers reported better practices on each of the six questions and in fact on most items on the survey. Engaged providers were significantly better on three of the fours questions related to incorporating physical activity into different parts of the day. No such pattern emerged to suggest specific areas in which engaged providers might be systematically behind unengaged providers. Trends in both groups mirrored the results of the overall needs assessment, with less favorable behaviors reported in the areas of screen time and physical activity and more favorable responses to nutrition related questions.

Figure 4: Average of home-based providers' mean scores for six representative practices



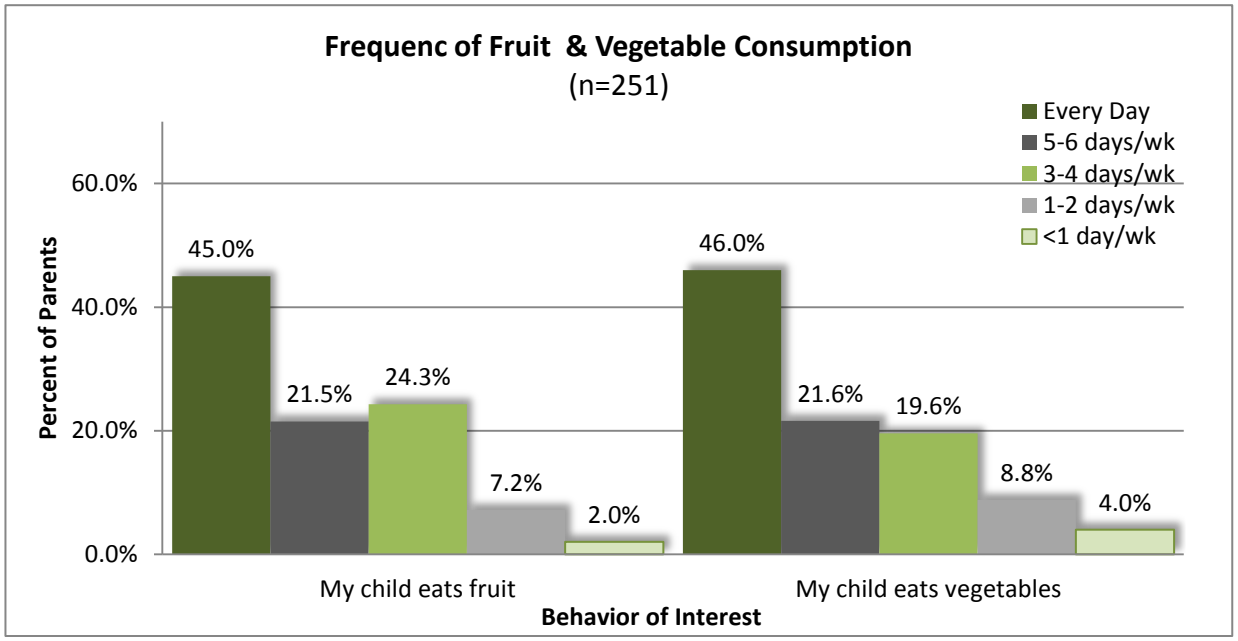
Parent/Guardian Needs Assessment

The second needs assessment conducted during Year Two of HW0-5 looked to understand patterns of parent/guardians and child behaviors. The importance of involving parents/guardians in childhood obesity prevention efforts is well documented (Institute of Medicine, 2011; Golan & Crow, 2004; Jurkowski et al., 2013; Skouteris et al., 2011). Several HW0-5 grantees were implementing programming that sought to directly or indirectly influence behavior of children and parents in the home. The goal the parent/guardian needs assessment was to data that might reveal which healthy behaviors were common within the target communities and which needed further attention from HW0-5 grantees and partnering organizations.

Methods: LM, CD4AP, and CCS all piloted the use of the newly developed HW0-5 Parent Survey, which was comprised of scales adapted from the Family Health Behavior Scale (Moreno et al., 2011), the Healthy Children, Healthy Families Checklist (Dicken et al., 2012), and the Child Feeding Questionnaire (Birch et al., 2001). As with child care centers, surveys collected by grantees were combined with those collected as part of a broader needs assessment. As briefly described earlier this report, Learn4Life runs a parent literacy program called SPARK in approximately the same neighborhoods targeted by HW0-5. The volunteers that implement SPARK took the survey on home visits during the spring of 2014. Across these collection strategies, a total of 251 parents completed surveys.

Results: *Nutrition:* Based on recommendations, both adults and children should eat five servings of fruits and vegetables each day. However, more than 50% of parents report that their children are not even eating from these food groups every day, as reflected in figure five. On a more positive note, 66% of parents do report that fruits are available in their homes "almost always." Child behavior was strongly related to parental behavior. Similarly, fruit consumption was related to vegetable consumption for both adults and children.

Figure 5: Parent report of child behavior



While there are many types of sugar-sweetened beverages, the survey asked only about soda. Of the surveyed parents/guardians, 57% reported consuming non-diet soda less than one day each week, and 76% reported that children drink soda at this frequency. Looking at the opposite end of the spectrum, 17% of parents/guardians reported that they drink soda at least once each day, and 6% reported as such for their children. There was a significant relationship between the amount of soda consumed by parents/guardians and their children (ρ=0.490, p=.000); however, there is some evidence that parents restrict children to less soda than they themselves drink.

Physical Activity & Screen Time: Of the parents/guardians surveyed, 56.2% reported being physically active for 30 minutes at least 5 days each week. The same percentage reported that their child was physically active for 60 minutes at least five days each week. Parents/guardians that reported that high levels of personal physical activity also reported that their child(ren) participated in high levels of physical activity (ρ=.500, p=.000). Similarly, parents/guardians that reported more often participating in physical activity with their children had children that engaged in more exercise (ρ=.332, p=.000). However, only 63% of parents report "often" or "nearly always" participating in physical activity with their child.

Of those surveyed, 48.4% reported that their child watches television, plays on a computer, and/or plays video games for more than 2 hours each day. Of this subset of parents/guardians, 20% report their child engages in at least two of these three behaviors for more than 2 hours each day each, which suggests that these children are in front of a screen a minimum of four hours each day.

Concern & Support: The parent/guardian survey did not include questions about portion size or motor-skill development. Instead, questions were asked to ascertain awareness of and concern for weight as an issue affecting their children. Because most grantees are engaging in primary prevention strategies, parents completing the survey had children of all weights. Only 8% of parents/guardians reported feeling "worried," "fairly worried," or "very worried" about their child's weight. CCS was the only grantee specifically targeting the families of children identified as having a high BMI; still, 73% of these parents/guardians (n=11) reported that they were "not worried" about their child's weight. This same percentage of CCS parents reported that they had not discussed their child's weight with a pediatrician. Anecdotally, the CCS school nurse reported that parents who had not discussed the matter with their child's doctor were less interested in having that conversation with the nurse. Across the entire sample of parents/guardians, 56% reported never having this discussion with their child's doctor. This suggests that more awareness building is needed not only in parents but also across professionals that may be in the position to identify children and link families.

Discussion & Implications

There are limitations that must be taken into account when interpreting any of the results presented in this report. With respect to the innovations presented in the first section, some grantees participated in logging innovations more than others. The trends reported may not be representative of all grantees' experiences during Year Two. However, effort was made to supplement the documented innovations with knowledge gained through participation in Initiative-wide meetings, leadership team meetings, and other relevant forums. With respect to the needs assessments, both the parent/guardian and child care data were gathered through cross-sectional surveying of a convenience sample. It may be that highly motivated individuals or centers are more likely to seek out trainings like HCHW or programs like SPARK.

Repeated, pre/post surveying would be needed to demonstrate that child care trainings and parent engagement strategies improve behaviors; however, grantees had varying success in carrying out this evaluation strategy.

Still, the innovations documented during Year Two demonstrated the continued growth and evolution in programming and evaluation, the creation of new partnerships, the policy and advocacy efforts, and the infrastructure of the Initiative. While individually, some grantees were more successful with grant accountabilities than others, HW0-5 as a whole continued to progress in relation to programming, policy, and partnerships.

The child care and parent/guardian needs assessments conducted during Year Two provided baseline information which can inform the continued progress and work on individual grantees and the initiative. For both center- and home-based providers, some of the most favorable practices were in the area of sugar sweetened beverages, and more providers reported written policies in this area than in any other. There was inconsistency, however, between the frequencies reported for sugary beverages overall and those reported specifically for flavored milk. The duplication of this pattern in both provider populations reinforced the need to emphasis in trainings that the definition of sugary beverages includes flavored milk. Parent/guardian responses on question about soda consumption also suggested that child's consumption at home is limited, making this an overall area of strength for the HW0-5 communities. Further research into parent/guardian and child behavior at home should examine types of sugary beverages beyond soda.

Practices around fruit and vegetable consumption were mostly favorable by inconsistent. For home providers, especially, this was an area of strength; however, of the survey respondents that worked at child care centers, 29% reported that fruit was not offered every day. Both center- and home-based providers reported serving fruits more frequently than vegetables, suggesting the latter as an area especially in need of continued reinforcement. New partnerships and programs were created to target this area in new ways during Year Two (e.g. Cooking Matters for child care providers; webinars for home-providers). Further, providers that had been engaged in training reported more favorable practices. As the new training opportunities are expanded in tandem with the continuation of HCHW trainings, the nutritional practices in child care will hopefully continue to improve. Improving the offerings at child cares is especially important given that half of the parents surveyed reported that their children were not eating fruits and/or vegetables on a daily basis. More research and work is needed to understand and address the barriers that parents encounter when trying to increase fruits and vegetable consumption.

The final HW0-5 target behavior related to nutrition was limiting portion size. Child care providers, both center- and home-based, mostly reported implementing the types of feeding practices that would allow children to regulate how much they ate. One practice that was relatively less frequent in both child care populations was allowing children to serve themselves all foods. While an area of common need, it is likely that different barriers will exist in trying to get home- and center-based providers to serve family style meals. More attention is needed to promote this practice even as those healthy practices already adopted should be reinforced and applauded.

On the surface, PA scores for both center- and home-based providers appeared low; however, the lack of adult-led PA was particularly notable and may account for a significant portion of the gap between

actual practice and the standards set by NASPE. Not only did practices tend to be less favorable on questions about adult-led versus unstructured PA, but fewer teachers/staff and home-providers were aware of policies mandating adult-led PA. Further research is needed to understand the relationships between and frequencies of the different types of PA that occur in child care settings. In the meantime, however, providers would likely benefit from more training on how to incorporate PA into daily routines not only so that they provide more opportunities for PA but also for motor skill development. Parents' responses on PA-related questions revealed that children are also not getting the recommended level of PA at home. Continued work is needed to improve child care practices and find ways to support parents in promote PA.

While different grantees will champion different portions of this effort within HW0-5, the efforts in Year Two to adopt consistent messaging are relevant to this discussion. Child care centers must offer family engagement opportunities in order to qualify for OHP and in these offerings could be supported to communicate the same messages about PA (and other healthy behaviors) that parents encounter in the community. OHP is not yet available to home-providers despite ongoing advocacy work; however, home providers still have relationships with parents that could be leveraged. The relatively low percentage of parents/guardians who had spoken with a pediatrician about their child's weight also reinforced the need to empower professionals that may be in the position to identify children and link families. Future evaluation efforts could examine the quality and impact of strategies that span across the HW0-5 pathways, including the adoption of consistent messaging.

Based on needs assessments, the final area in need of attention is screen-time related practice. The parent/guardian data would suggest that approximately one in every two children exceeded the recommended amount of screen time, and one in every ten children consumed more than twice the recommended amount of screen time. Home-providers' responses suggested that children also were consuming a high level of screen time in this setting, with the amount watched by children under two being especially alarming. Results at centers were more mixed, with some favorable practices reported. As with home providers, however, the policies and practices around the youngest age group were the furthest from the recommended standard.

While the above discussion calls attention to areas in need of continued focus, it is important to remember that the child care needs assessments also produced initial evidence that the trainings and technical assistance provided by grantee are associated with improved practices and policies in most areas. Certainly longitudinal surveys would allow for a more detailed analysis of the impact of HW0-5, and future evaluation efforts should build the Initiative's capacity to utilize this method. However, the results of the present evaluation demonstrate that HW0-5 is impacting its community and importantly, is continuing to find innovative ways to do so.

Moving forward, the new partnership with O-AAP and infrastructure created around Good4Growth can help to integrate the three pathways of HW0-5: Community (parent) engagement, Child care, and Health care. The continued alignment of efforts across these domains will likely increase the Initiative's impact overall. The partnership with O-AAP also represents important evolution in the infrastructure of the Initiative. Cardinal Health, along with its grantees and partners, has provided key leadership and commitment to addressing childhood obesity in Columbus. Collaborative efforts in the future can be informed by progress in the HW0-5 Initiative as efforts continue into the future.

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Appendix A

Table 3: All Items by Level of HCHW Engagement

Item	Scale	Individual Responses by Level of Engagement			Aggregate Center Means by Level of Engagement		
		Currently	Previously	Dis/Not	Currently	Previously	Dis/Not
Our program offers fruit … (not including fruit juice)	0=3 times / wk or less 3=2 times/day or more	2.50[a] (n=98)	2.36[b] (n=121)	1.72[a,b] (n=39)	2.38 (n=28)	2.28 (n=19)	1.71 (n=8)
Our program offers vegetables… (not including fried potatoes)	0=3 times / wk or less 3=2 times/day or more	1.88 (n=97)	1.84 (n=122)	1.68 (n=41)	1.71 (n=28)	1.77 (n=19)	1.71 (n=8)
Drinking water is available	0=Only when children ask 3=Always available	1.97[c] (n=94)	2.34[c] (n=117)	2.24 (n=41)	1.86 (n=28)	2.33 (n=19)	2.06 (n=8)
Our program offers sugar drinks	0=1 time per month or more 3=Never	2.42 (n=96)	2.66 (n=122)	2.50 (n=44)	2.38 (n=28)	2.65 (n=19)	2.42 (n=9)
Our program offers flavored milk	0=1 time per day or more 3=Less than 1 time per week or never	2.49[d] (n=90)	2.84[d,e] (n=120)	2.27[e] (n=44)	1.93[1] (n=26)	2.84[1] (n=19)	2.29 (n=9)
Staff drink sugary drinks in front of children	3= Rarely or never 0= Always	2.46[f] (n=90)	2.66[f] (n=122)	2.68 (n=44)	2.45 (n=26)	2.65 (n=19)	2.63 (n=9)
Meals and snacks are served to preschool children by	0= Meals & snacks come to classrooms pre-plated with set portions of each food 3= Children choose and serve all food themselves	.97[g] (n=87)	1.92[g,h] (n=104)	1.34[h] (n=44)	1.09[2] (n=28)	1.88[2] (n=19)	1.15 (n=9)
When children eat less than half of a meal or snack, teachers/staff ask them if they are full before removing their plates	0= Rarely or never 3= Always	2.48 (n=98)	2.50 (n=114)	2.38 (n=42)	2.24 (n=28)	2.50 (n=19)	2.50 (n=9)
Adults sit with children at mealtimes	0= Rarely or never 3= Always	2.54[i] (n=91)	2.87[i] (n=118)	2.63 (n=43)	2.42[3] (n=26)	2.88[3] (n=19)	2.58 (n=9)

Appendix A

Item	Scale	Individual Responses by Level of Engagement			Aggregate Center Means by Level of Engagement		
		Currently	Previously	Dis/Not	Currently	Previously	Dis/Not
Children are allowed second servings of food they are offered	0=Rarely or never 3=Always	2.13[j] (n=91)	2.49[j,k] (n=117)	1.84[k] (n=43)	1.57[4] (n=26)	2.43[4] (n=19)	1.73 (n=9)
While children are present, teachers/staff eats food that children are not allowed to have	3= Rarely or never 0= Always	2.38[l] (n=89)	2.77[m] (n=118)	2.95[l,m] (n=43)	1.62[5,6] (n=26)	2.77[5] (n=19)	2.94[6] (n=9)
Teachers/staff require that children sit at the table until they clean their plates	0= Every meal or snack time 3= Rarely or never	2.90[n] (n=94)	2.80 (n=118)	2.59[n] (n=41)	2.94 (n=28)	2.79 (n=19)	2.57 (n=9)
Teachers/staff ask children if they are full before removing their plates	3= Every meal or snack time 0= Rarely or never	2.22 (n=91)	2.38 (n=107)	2.29 (n=41)	1.70 (n=26)	2.32 (n=19)	2.38 (n=9)
Teachers/staff require, encourage, or reward children to eat all of the food on their plate	0= Every meal or snack time 3= Rarely or never	1.91 (n=89)	2.03 (n=111)	1.70 (n=37)	2.19 (n=26)	2.04 (n=19)	1.33 (n=9)
In my center (not just classroom) televisions are	0= Located in every classroom 3= No televisions are regularly available to children	1.40[o,p] (n=98)	2.48[o] (n=119)	2.30[p] (n=43)	1.44[7] (n=28)	2.41[7] (n=19)	2.20 (n=9)
For children 2 years of age and older, the amount of screen time allowed in our program each week is	0= 90 minutes or more 3= Less than 30 minutes	1.91[q] (n=69)	2.31 (n=52)	2.52[q] (n=31)	2.26 (n=23)	2.42 (n=15)	2.41 (n=9)
The amount of time provided to toddlers for indoor and outdoor physical activity each day is	0= Less than 60 minutes 3= 90 minutes or more	1.80[r] (n=59)	1.41 (n=83)	1.28[r] (n=39)	1.54 (n=17)	1.38 (n=16)	0.95 (n=9)

Appendix A

Item	Scale	Individual Responses by Level of Engagement			Aggregate Center Means by Level of Engagement		
		Currently	Previously	Dis/Not	Currently	Previously	Dis/Not
For Children under 2 years of age, the amount of screen time allowed in our program each week is	0= 60 minutes or more 3= No screen time is allowed	1.96 (n=50)	2.60 (n=70)	2.32 (n=31	2.15[8] (n=17)	2.66[8] (n=16)	2.36 (n=9)
The amount of time provided to preschool children for indoor and outdoor physical activity each day is	0= Less than 60 minutes 3= 120 minutes or more	1.43 (n=79)	1.32 (n=98)	.98 (n=42)	1.19 (n=28)	1.40 (n=19)	.90 (n=9)
Our program offers at least 3-5 minutes of tummy-time to infants	0= 2 times per week or less 3= 2 times per day or more	2.61 (n=41)	2.67 (n=58)	2.32 (n=37)	2.64 (n=13)	2.59 (n=11)	2.39 (n=8)
The amount of adult-led physical activity our program provides to preschool children each day is	0= Less than 30 minutes 3= 60 minutes or more	1.39 (n=82)	1.31 (n=97)	1.33 (n=40)	1.30 (n=28)	1.40 (n=19)	1.14 (n=9)
During tummy time and other activities, teachers/staff interact with infants to help them build motor skills	0= Rarely or never 3= Always	2.65 (n=46)	2.73 (n=59)	2.69 (n=39)	2.71 (n=13)	2.74 (n=11)	2.72 (n=8)
Teachers/staff incorporate physical activity into classroom routines and transitions	0= Rarely or never 3= Each time they see an opportunity	2.22 (n=99)	2.42[s] (n=118)	2.07[s] (n=44)	2.23 (n=28)	2.46 (n=19)	2.11 (n=9)
Opportunities for physical activity are incorporated into lessons	0= Rarely or never 3= Each time they see an opportunity	2.19[t] (n=90)	2.46[t,u] (n=119)	2.12[u] (n=42)	2.18 (n=26)	2.48 (n=19)	2.04 (n=9)
Classroom teachers/staff provide short physical activity breaks between lessons or activities	0= Rarely or never 3= Each time they see an opportunity	2.00 (n=87)	2.10 (n=119)	1.93 (n=43)	2.11 (n=26)	2.13 (n=19)	1.90 (n=9)
Teachers/staff lead planned lessons	0= Rarely or never	2.89	2.81	2.92	2.90	2.86	2.95

Appendix A

Item	Scale	Individual Responses by Level of Engagement			Aggregate Center Means by Level of Engagement		
		Currently	Previously	Dis/Not	Currently	Previously	Dis/Not
to build preschool children's and toddlers' motor skills	3= 1 time per week or more	(n=90)	(n=85)	(n=38)	(n=27)	(n=16)	(n=9)
Our program offers a different whole fruit	0=Never 4=5+ times / wk	2.99[v] (n=29)	2.75[w] (n=117)	2.21[v,w] (n=42)	2.82 (n=25)	2.67 (n=19)	2.27 (n=9)
Our program offers a different non-fried veggie (not juice)	0=Never 4=5+ times / wk	2.74[x] (n=85)	2.58[y] (n=113)	2.06[x,y] (n=36)	2.63 (n=25)	2.53 (n=19)	2.27 (n=9)
Whole grains are offered	0=Never 4=5+ times / wk	2.67 (n=89)	2.93[z] (n=123)	2.41[z] (n=41)	2.47 (n=25)	2.86 (n=19)	2.60 (n=9)
Friend foods are offered to toddlers & preschoolers	0=Never 4=5+ times / wk *Lower scores are better*	0.93[aa] (n=81)	0.56[aa] (n=109)	0.63 (n=40)	0.81 (n=25)	0.36 (n=19)	0.66 (n=9)

[a,b,c…aa] indicate pairs of means with differences that are statistically significant ($p \leq 0.05$) between groups of individuals

[1,2,3…8] indicate pairs of means with differences that are statistically significant ($p \leq 0.05$) between groups of centers

Appendix A

Table 4: All Items by Level of HCHW Completion

Item	Scale	Individual Responses by Level of Completion		Aggregate Center Means by Level of Completion	
		Completed	Partially	Completed	Partially
Our program offers fruit … (not including fruit juice)	0=3 times / wk or less 3=2 times/day or more	2.36 (n=50)	2.33 (n=156)	2.36 (n=8)	2.27 (n=38)
Our program offers vegetables… (not including fried potatoes)	0=3 times / wk or less 3=2 times/day or more	1.86 (n=50)	1.78 (n=158)	1.92 (n=8)	1.68 (n=39)
Drinking water is available	0=Only when children ask 3=Always available	2.39[a] (n=49)	2.03[a] (n=150)	2.46 (n=8)	1.90 (n=39)
Our program offers sugar drinks	0=1 time per month or more 3=Never	2.92[b] (n=49)	2.61[b] (n=158)	2.88 (n=8)	2.53 (n=39)
Our program offers flavored milk	0=1 time per day or more 3=Less than 1 time per week or never	2.94[c] (n=48)	2.60[c] (n=151)	2.96[1] (n=8)	2.19[1] (n=37)
Staff drink sugary drinks in front of children	3= Rarely or never 0= Always	2.78[d] (n=50)	2.54[d] (n=150)	2.76 (n=8)	2.51 (n=37)
Meals and snacks are served to preschool children by	0= Meals & snacks come to classrooms pre-plated with set portions of each food 3= Children choose and serve all food themselves	1.44 (n=43)	1.44 (n=144)	1.34 (n=8)	1.35 (n=39)
When children eat less than half of a meal or snack, teachers/staff ask them if they are full before removing their plates	0= Rarely or never 3= Always	2.29[e] (n=45)	2.64[e] (n=156)	2.29 (n=8)	2.43 (n=39)
Adults sit with children at mealtimes	0= Rarely or never 3= Always	2.82 (n=50)	2.70 (n=148)	2.83 (n=8)	2.57 (n=37)
Children are allowed second servings of food they are offered	0=Rarely or never 3=Always	2.61[f] (n=49)	2.11[f] (n=149)	2.58[2] (n=8)	1.69[2] (n=37)
While children are present,	3= Rarely or never	2.86[g]	2.58[g]	2.80	2.01

Appendix A

Item	Scale	Individual Responses by Level of Completion		Aggregate Center Means by Level of Completion	
		Completed	Partially	Completed	Partially
teachers/staff eats food that children are not allowed to have	0= Always	(n=49)	(n=148)	(n=8)	(n=37)
Teachers/staff require that children sit at the table until they clean their plates	0= Every meal or snack time 3= Rarely or never	2.78 (n=46)	2.86 (n=155)	2.82 (n=8)	2.90 (n=39)
Teachers/staff ask children if they are full before removing their plates	3= Every meal or snack time 0= Rarely or never	2.26 (n=42)	2.37 (n=145)	2.24 (n=8)	1.95 (n=37)
Teachers/staff require, encourage, or reward children to eat all of the food on their plate	0= Every meal or snack time 3= Rarely or never	2.15 (n=46)	1.75 (n=141)	2.06 (n=8)	1.97 (n=37)
In my center (not just classroom) televisions are	0= Located in every classroom 3= No televisions are regularly available to children	2.46[h] (n=50)	1.90[h] (n=156)	2.23 (n=8)	1.78 (n=39)
For children 2 years of age and older, the amount of screen time allowed in our program each week is	0= 90 minutes or more 3= Less than 30 minutes	2.50 (n=16)	2.05 (n=104)	2.60 (n=5)	2.29 (n=34)
For children under 2 years of age, the amount of screen time allowed in our program each week is	0= 60 minutes or more 3= No screen time is allowed	2.73[i] (n=26)	2.20[i] (n=80)	2.64 (n=7)	2.34 (n=26)
The amount of time provided to toddlers for indoor and outdoor physical activity each day is	0= Less than 60 minutes 3= 90 minutes or more	1.59 (n=39)	1.29 (n=93)	1.62 (n=8)	1.18 (n=25)
The amount of time provided to preschool children for indoor and outdoor physical activity each day is	0= Less than 60 minutes 3= 120 minutes or more	1.29 (n=41)	1.23 (n=132)	1.36 (n=8)	1.11 (n=39)
Our program offers at least 3-5	0= 2 times per week or less	2.56	2.61	2.52	2.59

Appendix A

Item	Scale	Individual Responses by Level of Completion		Aggregate Center Means by Level of Completion	
		Completed	Partially	Completed	Partially
minutes of tummy-time to infants	3= 2 times per day or more	(n=16)	(n=79)	(n=4)	(n=20)
The amount of adult-led physical activity our program provides to preschool children each day is	0= Less than 30 minutes 3= 60 minutes or more	1.17 (n=41)	1.30 (n=131)	1.33 (n=8)	1.27 (n=39)
During tummy time and other activities, teachers/staff interact with infants to help them build motor skills	0= Rarely or never 3= Always	2.47 (n=17)	2.74 (n=84)	2.44 (n=4)	2.76 (n=20)
Teachers/staff incorporate physical activity into classroom routines and transitions	0= Rarely or never 3= Each time they see an opportunity	2.26 (n=50)	2.35 (n=156)	2.32 (n=8)	2.32 (n=39)
Opportunities for physical activity are incorporated into lessons	0= Rarely or never 3= Each time they see an opportunity	2.28 (n=50)	2.36 (n=148)	2.35 (n=8)	2.28 (n=37)
Classroom teachers/staff provide short physical activity breaks between lessons or activities	0= Rarely or never 3= Each time they see an opportunity	1.80[j] (n=49)	2.15[j] (n=146)	1.97 (n=8)	2.15 (n=37)
Teachers/staff lead planned lessons to build preschool children's and toddlers' motor skills	0= Rarely or never 3= 1 time per week or more	2.76 (n=41)	2.87 (n=123)	2.85 (n=8)	2.89 (n=35)
Our program offers a different whole fruit	0=Never 4=5+ times / wk	2.63 (n=49)	2.79 (n=146)	2.66 (n=8)	2.71 (n=36)
Our program offers a different non-fried veggie (not juice)	0=Never 4=5+ times / wk	2.65 (n=48)	2.60 (n=136)	2.77 (n=8)	2.54 (n=36)
Whole grains are offered	0=Never 4=5+ times / wk	2.94 (n=50)	2.66 9n=151)	2.83 (n=8)	2.55 (n=36)
Friend foods are offered to toddlers & preschoolers	0=Never 4=5+ times / wk	0.47 (n=45)	0.64 (n=133)	0.45 (n=8)	0.67 (n=36)

Appendix A

Item	Scale	Individual Responses by Level of Completion			Aggregate Center Means by Level of Completion	
		Completed	Partially		Completed	Partially
	Lower scores are better					

[a,b,c…i] indicate pairs of means with differences that are statistically significant ($p \leq 0.05$) between groups of individuals

[1,2] indicate pairs of means with differences that are statistically significant ($p \leq 0.05$) between groups of centers

Appendix B

Table 5: All Items by Level of Engagement with Children's Hunger Alliance

Item	Scale	Home Provider Responses by Level of Engagement	
		Engaged in Year 1	Unengaged
My program offers fruit … (not including fruit juice)	0=3 times / wk or less 3=2 times/day or more	3.00 (n=15)	2.79 (n=14)
My program offers vegetables… (not including fried potatoes)	0=3 times / wk or less 3=2 times/day or more	2.73 (n=15)	2.43 (n=14)
Drinking water is available	0=Only when children ask 3=Always available	3.00[a] (n=15)	2.21[a] (n=14)
My program offers sugar drinks	0=1 time per month or more 3=Never	2.53 (n=15)	2.43 (n=14)
My program offers flavored milk	0=1 time per day or more 3=Less than 1 time per week or never	2.60 (n=15)	2.36 (n=14)
Adults drink sugary drinks in front of children	3= Rarely or never 0= Always	2.73 (n=15)	2.71 (n=14)
Meals and snacks are served to preschool children by	0= Meals & snacks come to classrooms pre-plated with set portions of each food 3= Children choose and serve all food themselves	2.00[b] (n=14)	1.31[b] (n=13)
When children eat less than half of a meal or snack, I ask them if they are full before removing their plates	0= Rarely or never 3= Always	3.00 (n=15)	2.67 (n=14)
Adults sit with children at mealtimes	0= Rarely or never 3= Always	2.67 (n=15)	2.71 (n=14)
Children are allowed second servings of food they are offered	0=Rarely or never 3=Always	2.73 (n=15)	2.86 (n=14)
While children are present, adults eat food that children are not allowed to have	3= Rarely or never 0= Always	2.40 (n=15)	1.93 (n=14)
I require that children sit at the table until they clean their plates	0= Every meal or snack time 3= Rarely or never	3.00 (n=15)	2.92 (n=14)

Appendix B

Item	Scale	Home Provider Responses by Level of Engagement	
		Engaged in Year 1	Unengaged
I ask children if they are full before removing their plates	3= Every meal or snack time 0= Rarely or never	2.80 (n=15)	2.64 (n=14)
I require, encourage, or reward children to eat all of the food on their plate	0= Every meal or snack time 3= Rarely or never	3.00[c] (n=15)	2.43[c] (n=14)
In my home, televisions are	0= Located in every classroom 3= No televisions are regularly available to children	0.73 (n=15)	1.21 (n=14)
For children 2 years of age and older, the amount of screen time allowed in my program each week is	0= 90 minutes or more 3= Less than 30 minutes	1.57 (n=14)	1.21 (n=14)
For children under 2 years of age, the amount of screen time allowed in my program each week is	0= 60 minutes or more 3= No screen time is allowed	1.00 (n=14)	0.92 (n=13)
The amount of time provided to toddlers for indoor and outdoor physical activity each day is	0= Less than 60 minutes 3= 90 minutes or more	2.07 (n=15)	1.86 (n=14)
The amount of time provided to preschool children for indoor and outdoor physical activity each day is	0= Less than 60 minutes 3= 120 minutes or more	1.93 (n=15)	1.64 (n=14)
My program offers at least 3-5 minutes of tummy-time to infants	0= 2 times per week or less 3= 2 times per day or more	2.67 (n=3)	3.00 (n=2)
The amount of adult-led physical activity my program provides to preschool children each day is	0= Less than 30 minutes 3= 60 minutes or more	1.87 (n=15)	1.14 (n=14)
During tummy time and other activities, I interact with infants to help them build motor skills	0= Rarely or never 3= Always	3.00 (n=3)	3.00 (n=3)
I incorporate physical activity into classroom routines and transitions	0= Rarely or never 3= Each time they see an opportunity	2.87[d] (n=15)	2.07[d] (n=14)
Opportunities for physical activity are incorporated into lessons	0= Rarely or never 3= Each time they see an opportunity	2.73[e] (n=15)	1.86[e] (n=14)
I provide short physical activity breaks between lessons or activities	0= Rarely or never 3= Each time they see an opportunity	2.73[f] (n=15)	1.93[f] (n=14)

Appendix B

Item	Scale	Home Provider Responses by Level of Engagement	
		Engaged in Year 1	Unengaged
I lead planned lessons to build preschool children's and toddlers' motor skills	0= Rarely or never 3= 1 time per week or more	2.93 (n=14)	3.00 (n=14)
My program offers a different whole fruit	0=Never 4=5+ times / wk	3.87 (n=15)	3.93 (n=14)
My program offers a different non-fried veggie (not juice)	0=Never 4=5+ times / wk	4.00[g] (n=15)	3.36[g] (n=14)
Whole grains are offered	0=Never 4=5+ times / wk	2.87 (n=15)	3.07 (n=14)
Friend foods are offered to toddlers & preschoolers	0=Never 4=5+ times / wk *Lower scores are better*	1.27 (n=15)	1.86 (n=14)

[a,b,c…g] indicate pairs of means with differences that are statistically significant ($p \leq 0.05$) between groups of individuals