earl ears is important for short- and long-term de elop-ment across ph sical, mental, emotional, social, and aca-demic domains (UNICEF 2013; Williams et al. 2002). Indeed, it is ell established that consuming nutritious foods, engaging in regular pla , and reducing screen time are all associated ith positi e de elopmental outcomes (Center on the De eloping Child 2010; Kat mar k et al. 2009; Kenne and Gortmaker 2017; Sun et al 2015), hile poor health practices increase the risk for acute and chronic disease, such as obesit , diabetes, h pertension, and cardio- ascular disease (Eid 1970; Willers et al. 2012). Gi en that children in en ironments ith fe economic resources and more stressors are at e en greater risk for disparate health and ellness (Benjamin-Neelon 2018; Bro n et al. 2015; Center on the De eloping Child 2010), children s ECE en i-ronments, particularl childcare programs, can be a pi otal mechanism in bridging the gap and shaping life-long health beha iors for children and their families.

Role of Early Care and Education (ECE) in Wellness Promotion

Appro imatel 36% of children under si   ears of age spend time in center-based care, ith children spending an a erage of 30 h per eek in these arrangements (U.S. Department of Education, 2016). Gi en the number of families reached and the e tent of time children spend in non-parental care, ECE settings are an opportune en ironment to target children s health and ellness and support positi e practices in the home. Best practices guidance for ECE programs emphasi e pre ention of childhood obesit and target the areas of nutri-tion (e.g., consumption of minimall -processed foods and o ering ater regularl), infant feeding (e.g., encouraging breastfeeding, follo ing health bottle-feeding practices), ph sical acti it (e.g., limiting seated acti ities and o er-ing outdoor pla opportunities), and screen time (e.g., limit-ing media ie ing and access to screen media) (American Academ of Pediatrics, American Public Health Associa-tion, and National Resource Center for Health and Safet in Child Care and Earl Education 2012; Institute of Medicine 2011).

Despite this guidance, barriers such as cost, time, kno ledge, training, and eather constraints all pose challenges to best practice implementation in ECE cent-

Summary

Gi en that building habits for lifelong health starts in earl childhood, ECE settings present a unique opportunit to address children s health, particularl in communities at greater risk for poor health outcomes. Despite the role that ECE programs pla in meeting children s health needs, centers still face man challenges in implementing best practices around health. Research suggests that de eloping ritten ellness policies helps ECE centers o ercome implementation barriers, and that technical assistance and training for ellness polic inter entions is helpful in supporting programs through the time-consuming and o er helming process of riting policies. As polic de elopment is important to ensure policies are tailored to center needs and ma instill greater o nership (Norton et al. 2012), more research is needed to understand ho technical assistance around polic de elopment supports centers implementation of best practices. In addition to polic de elopment, education pro ided to program sta , children, and families, and the monitoring of polic implementation are all integral factors in creating and sustaining ellness impro ements in ECE en ironments.

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centers to reflect on new or updated policies. For guidance and as examples, the WPW outlines national best practice guidelines for the education, standards, and environment in the areas of nutrition (e.g., meals, snacks, beverages), infant feeding (e.g., breastfeeding), physical activity (e.g., amount of structured and unstructured play time), and screen time (e.g., amount of time for use of computers and TV). After the WPW was completed, center directors chose wellness policies that meet the needs of, and align with, the available resources of their centers. Next, centers chose from a wide range of best practice guidelines to apply as center policies and were encouraged to adopt at least 10 policies; these policies were finalized and a Wellness Policy Poster (WPP) was created and hung at the entryway of centers for all (e.g., staff, families) to be aware of the center's commitment to those policies. During technical assistance, center staff were encouraged to engage families (e.g., workshops, newsletters, etc.) to align the home-school health environments for children. Centers were also encouraged to incorporate policies into staff and family handbooks. Action plans were then created to align and support the selected wellness policies into practice at the center and in the classroom.

Throughout the process of developing a WPP and for the remainder of the school year, technical assistance was individualized and provided at the request of the center staff. The CCS provided trainings to center staff, with some training provided in collaboration with local partners to aid in sustainability post-CCS involvement. The resources, tools, and technical assistance provided by CCS helped centers develop policies, as well as identify visible and measurable markers of progress with policy implementation and support sustainability for policy implementation. Providing health and wellness education to the ECE community that consistently and strategically monitors the center's wellness practices are central to moving from a written wellness policy to a sustained culture shift in the center's wellness environment; and this is a core idea of the HWTG.

Measures

Center Information and Demographics

During initial recruitment, centers completed a survey to provide basic information about staff and families served, such as number of staff, age range, and number of children and families served. See Table 2 for center characteristics.
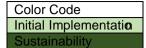
Center Wellness Environment

A self-report survey (i.e., Center Director Survey, CDS) was developed for center directors, or other designated staff, to report center-level changes in the wellness environments. 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 a select few cohort 1 center directors before full implementation of the survey. The CDS assessed the ECE practices and policies 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 o eIt cal.8 (ors 7.7 (t)-10 (a(atio7, t)15.7 (8ildr)2 ((e funt)-r)-18.8 (t)-in and)2 -
cal an1Hea23.3 (t)-7 Asso03an, inf9a; e pr

Table 3 Initial implementation and sustainability years by cohort

	2013–2014	2014–2015	2015–2016	2016–2017	2017–2018
Cohort 1	Initial Implementation	Sustainability	Sustainability	Sustainability	Sustainability
Cohort 2		Initial Implementation			
Cohort 3			Initial Implementation		
Cohort 4				Initial Implementation	
Cohort 5					Initial Implementation

Color Code
Initial Implementation
Sustainability

recruitment process, centers learned that the program was being evaluated by an independent research organization.

Prior to initiating work on the WPW, center directors completed the CDS survey in the fall of their first program year reflecting on the prior year. They also completed the survey in the spring following completion of the workbook and support from the CCS reflecting on the current academic year that they participated in the HWTG program. The survey was completed primarily via an online survey platform, though options for hard copy or phone interview formats were also available. There was a total of five cohort of centers, and center directors were asked to complete the survey again every subsequent spring. The first cohort of centers was followed over a 5-year period to determine if program outcomes were sustained over time.

Results

The results are presented separately for initial implementation and sustainability analyses (see Table 3 for breakdown by cohort, across years). Data from each cohort's initial implementation year were combined. Three main results are shared for each analysis: (1) centers' written wellness policies, (2) the education provided to teachers, children, and families, (3) and center directors' monitoring of wellness policies. Throughout the results section, the sample of centers used is the same across all measures, except for infant feeding. For measures related to infant feeding, only centers that served infants were included in the sample.

Initial Implementation

The initial implementation analysis results show the change in center outcomes from the fall to the spring of their first year of implementation, for all five cohorts.

Creation of wellness policies

The number of wellness policies that centers chose remained largely consistent for all five cohorts, with the average number of policies ranging from 15 to 20 each year (Table 4).

Selected policies covered the areas of nutrition, infant feeding, physical activity, screen time, or strategies to attain wellness. In cohort 5, the last cohort to choose wellness policies, the top 10 most popular policy topics were related to physical activity, nutrition, and center and community stakeholder engagement; specific policies that were selected most often are shown in Table 5.

Across all cohorts, the percentage of centers with written policies in a given topic significantly increased from the fall to the spring of their first year, across all topics (Fig. 1). The largest increase was for written policies on screen time; while 58% of centers had written policies on screen time in the fall, this increased to 84% of centers by the spring of their first year.

Education Provided

From fall to spring of their first year of implementation, the percentage of centers that provided education on HWTG topics to teachers, children, and families significantly increased across all five cohorts (Fig. 2). The threshold for education frequency was at least two times per year for teachers and

Table 4 Number of wellness policies chosen in first year, by cohort

Cohort	Average and range of number of wellness policies
1	15 (9–30)
2	15 (9–30)
3	20 (11–47)
4	15 (10–22)
5	15 (9–23)

families and at least three times per week for children (i.e., recommendation from the WPW and research). The topic with the largest increases in the percent of centers offering education on it from fall to spring for both teachers and

Discussion

This stud e amined hether Health Wa to Gro (HWTG), a training and technical assistance inter ention, could help ECE center directors de elop and implement

nding is not surprising gi en that states often lack guidelines around screen time. While all states ha e ECE licensing requirements or Qualit Rating and Impro ement S stem (QRIS) standards around health eating and ph sical acti it , onl 29 states ha e guidelines around screen time (Warren et al.

center. Educating families on   ellness polic   topic areas

di cult to pinpoint hat aspects of technical assistance are most e ecti e. Nonetheless, the HWTG program prioriti es meeting the speci c needs of a center and its students, sta , and families, rather than ha ing one set approach to technical assistance that might obscure and fail to attend to a center s unique characteristics and needs.

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