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Multi-State Implementation of Go NAPSACC to Support Healthy Practices in the Early Care and Education Setting

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Abstract

Childhood obesity in the United States is a serious problem that puts children at risk for poor health. Effective state-wide interventions are needed to address childhood obesity risk factors. Embedding evidence-based initiatives into state-level Early Care and Education (ECE) systems has the potential to improve health environments and promote healthy habits for the 12.5 million children attending ECE programs. Go NAPSACC, an online program that was adapted from an earlier paper version of Nutrition and Physical Activity Self-Assessment for Child Care (NAPSACC or NAP SACC), provides an evidence-based approach that aligns with national guidance from Caring for Our Children and the Centers for Disease Control and Prevention. This study describes approaches undertaken across 22 states from May 2017 to May 2022 to implement and integrate Go NAPSACC into state-level systems. This study describes challenges encountered, strategies employed, and lessons learned while implementing Go NAPSACC state-wide. To date, 22 states have successfully trained 1,324 Go NAPSACC consultants, enrolled 7,152 ECE programs, and aimed to impact 344,750 children in care. By implementing evidence-based programs, such as Go NAPSACC, ECE programs state-wide can make changes and monitor progress on meeting healthy best practice standards, increasing opportunities for all children to have a healthy start.

Keywords

early care and education; Go NAPSACC; state ECE system; healthy growth; childhood obesity; obesity prevention; nutrition; physical activity

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Obesity prevalence was 12.7% among 2- to 5-year-olds in 2017 to 2020 (Stierman et al., 2021). If current trends continue, research suggests that by 2050, most of today's youth will be living with obesity by age 35 (Z. J. Ward et al., 2017). Given obesity's health risks (Kelsey et al., 2014), children need timely, relevant opportunities that support healthy development and healthy habits. Early Care and Education (ECE) programs are prime settings for health promotion and obesity prevention initiatives due to their reach (~12.5 million children in the United States) (Cui & Natzke, 2021) and the time children spend in their care (~36 hours/week) (Laughlin, 2013). For these reasons, the Caring for Our Children national advisory committee has identified 47 high-impact standards that, when implemented in ECE settings, have the greatest potential to prevent childhood obesity (American Academy of Pediatrics et al., 2019; Centers for Disease Control and Prevention, 2021).

ECE obesity prevention initiatives should be evidence-based and employ context-specific implementation strategies. Embedding such initiatives into state-level ECE systems can help maximize reach and sustainability. The Centers for Disease Control and Prevention (CDC) provides guidance on integrating obesity prevention efforts into state-level ECE systems through the *Spectrum of Opportunities Framework*, which provides nine avenues for states to consider when targeting improvement in ECE program environments (i.e., professional development; technical assistance [TA]; recognition programs; state-wide initiatives; early learning standards; licensing regulations; Child and Adult Care Food Program [CACFP], Quality Rating and Improvement System [QRIS]; and ECE funding) (Centers for Disease Control and Prevention, 2022).

Go NAPSACC [<https://gonapsacc.org>], an online evidence-based improvement process platform (D. S. Ward et al., 2017), was an expansion of the original paper format of NAPSACC (also referenced as NAP SACC). It allows individual ECE programs to target 35 of the 47 Caring for Our Children high-impact standards and can support state-level ECE system integration of obesity prevention efforts. The objectives of this study were to present the variety of state-level approaches employed when implementing Go NAPSACC, efforts to embed it within state-level ECE systems, challenges states experienced, and strategies that supported putting Go NAPSACC into practice.

METHODS

Program Overview

Go NAPSACC provides a structured, web-based process to help ECE programs implement best practices in seven modules: child nutrition, physical activity, screen time, oral health, breastfeeding/infant feeding, farm to ECE, and outdoor play/learning. Professionals, trained as Go NAPSACC consultants, guide ECE programs through a five-step improvement process: assess practices, plan, take action, complete trainings, and assess progress (Ammerman et al., 2007). Additional details about Go NAPSACC's development and evaluation have been published previously (Alkon et al., 2014; D. S. Ward et al., 2017).

Readiness for Implementation

Most participating states supported the planning and implementation of Go NAPSACC through the CDC's State Physical Activity and Nutrition Program (SPAN) and CDC-funded Nemours Children's Health Technical Assistance Program (TAP). For SPAN and TAP states, the decision to utilize Go NAPSACC typically resulted from extensive state level planning, assessment of state readiness for ECE system level change, ability to engage partners, and potential to integrate Go NAPSACC into state action plans for SPAN and TAP states. In addition, state administrators (i.e., individuals leading state-level Go NAPSACC implementation) provided ongoing TA to help guide individual ECE programs through Go NAPSACC's five-step improvement process. States accessed the Go NAPSACC tools by contracting with the University of North Carolina (UNC), Chapel Hill.

State Adaptability and Trialability

Once contracted, identified state personnel received tailored trainings, educational webinars, and ongoing access to support from Go NAPSACC. Implementation Advisors (i.e., UNC Go NAPSACC staff) met regularly with state partners (i.e., administrators and consultants) to assess goals, provide technical support, and guide trainers on best practice implementation. In addition, Implementation Advisors and state partners worked together to identify opportunities to enhance child health at the state-level through the integration of Go NAPSACC. While receiving ongoing consultation, states were able to adapt and conduct a trial implementation of Go NAPSACC in their state.

Measures

Data were collected and maintained at UNC by the Go NAPSACC program using the Go NAPSACC platform. State administrators and individual ECE programs self-reported through the online system. State administrators provided information on key Go NAPSACC implementation factors including (1) funding support, (2) consultant and partner networks, (3) implementation, and (4) state system integration plans. Individual ECE providers participating in Go NAPSACC reported information on: (1) program type, (2) affiliation, (3) CACFP participation, (4) care type, (5) ages served, and (6) number of children enrolled. Sample state implementation and ECE program characteristics for this paper were provided by the Go NAPSACC program and summarized as descriptive statistics—medians and ranges for continuous variables and frequencies and percentages for categorical variables. Data processing was performed using SAS statistical software (v9.4, SAS Institute Inc., Cary, NC).

RESULTS

State Planning and Engagement

Across the 22 states, partners took between 5 and 11 months from contracting to enrolling their first ECE program in Go NAPSACC. Enrollment time varied based on each state's level of preparation, engagement, and desired support (Figure 1). For example, if before contracting, a state had identified partners and consultants and developed a preliminary implementation plan, ECE program enrollment could have started as quickly

as 5 months. Alternatively, if a state had not identified key components before contracting and needed assistance from the Go NAPSACC Implementation Advisor, planning took considerably longer. For states planning to participate in Go NAPSACC, this is an important consideration.

Characteristics regarding how Go NAPSACC has been embedded in each state are provided in Table 1. SPAN ($n = 9$ states) and TAP ($n = 8$ states) recipients represented 17 of the 22 contracted states. States used SPAN and TAP resources to support the Go NAPSACC licensing fee or associated implementation costs (i.e., state administrator salary, individual ECE program recruitment). State government agencies most frequently served as the lead state-level Go NAPSACC administrator (63.6%), but most states employed multiple partner agencies in the program's implementation (86.4%).

Executing Implementation

Twenty-two states have executed the Go NAPSACC intervention at the state system level. While some states focused on regional pilots (22.7%), most opened Go NAPSACC to all ECE programs in their state (77.3%) (Table 1). All 22 states chose to engage TA consultants (i.e., individuals who are Go NAPSACC certified and support ECE providers through training, technical assistance, and coaching) from a variety of networks in the implementation of Go NAPSACC. Child Care Resource and Referral staff (28.6%), SNAP-Ed/University Extension agents (26.5%), and community health educators (24.5%) were the most common TA networks involved. Across the 22 states, there were 1,324 registered technical assistant consultants. The proportion of ECE programs registered with Go NAPSACC that were connected to a TA consultant varied by state (median = 90.4%; range = 27.2% to 100.0%). Available tools within the platform allowed TA consultants to assist multiple ECE programs working on Go NAPSACC simultaneously. The median caseload for Go NAPSACC TA consultants was 17 ECE programs per consultant (range 0 to 252).

Using the CDC Spectrum of Opportunities as a guiding framework, states have embedded Go NAPSACC in various ways to enhance their existing ECE state level work. Some states used Go NAPSACC to enrich state recognition programs ($n=11$ states). Others worked closely with their state's QRIS ($n = 3$ states). While all states chose to utilize TA consultants to champion implementation of Go NAPSACC, nearly two thirds ($n = 14$ states) took the additional step of integrating Go NAPSACC into their state-wide TA networks, resulting in consultants from across the various networks within a state becoming certified Go NAPSACC consultants. The most common avenue for ECE state-level system integration was the approval of Go NAPSACC trainings for professional development credit ($n = 18$ states) for ECE providers.

ECE Program Characteristics

Table 2 summarizes characteristics of the 7,152 registered ECE programs from the 22 states participating in Go NAPSACC. Most ECE programs were center-based (52.3%), followed by family child care homes (31.7%). Eleven percent of the registered ECE programs reported a faith-based affiliation; however, most did not report any program affiliation

(85.5%). Most ECE programs were in urban areas (97.6%), had full day programs (95.4%), and participated in CACFP (65.3%). Nearly all ECE programs served children 2 to 5 years of age (96.7%), with about 65% also serving children from birth to 2 years of age. To date, enrolled programs have reported 344,750 children in their care. Using state factsheet estimates (State fact sheet: Child Care Aware of America, 2022), at least one state has already recruited approximately 15% to 20% of the ECE programs. These estimates are based on the number of licensed child care programs and total capacity (slots) as of December 2020.

DISCUSSION

Go NAPSACC provides a structured, web-based process to help individual ECE programs implement best practices that align with Caring for Our Children's high impact standards and the CDC Spectrum of Opportunities. Go NAPSACC was found by a Harvard cost effectiveness review to represent the largest return on investment among interventions focused on children under 5 years. The intervention also showed the strongest evidence for impact on early childhood obesity risk (Kenney et al., 2019). This paper demonstrates the potential to meet child health best practices across multiple states and communities through the wide-spread dissemination and strategic integration of Go NAPSACC.

While dissemination and implementation of Go NAPSACC individual programs in 22 states has been successful, administrators require assistance in planning state-level integration and need ongoing support to identify and overcome common challenges. Reported barriers include cost to support Go NAPSACC efforts, securing adequate numbers of TA consultants to support implementation, and encouraging completion of follow-up self-assessments (step 5 in Go NAPSACC's improvement process).

Innovative strategies have been used to overcome these obstacles. State administrators have partnered with organizations that oversee TA networks to enhance implementation of Go NAPSACC. Some state agencies have addressed fiscal challenges by cost-sharing the annual licensing fees. In addition, some participating states have received new grant funding (e.g., Child Care and Development Funds, SNAP-Ed, state government grants) to continue and expand Go NAPSACC. Finally, states have encouraged completion of follow-up self-assessments by offering monetary incentives, using follow-up prompts, and adding completion as a requirement of their recognition and QRIS programs. Best practices for completion of follow-up self-assessment continue to be studied and shared across state administrators. Go NAPSACC state-wide implementation efforts may also be enhanced by using the constructs from implementation science and implementation frameworks such as the *Consolidated Framework for Implementation Research* (CFIR); Keith et al., 2017). Future studies may want to consider applying the CFIR to further improve and evaluate implementation outcomes.

IMPLICATIONS FOR PRACTICE

Once fully integrated into a state-level ECE system, an unlimited number of TA consultants and ECE providers can access and benefit from Go NAPSACC tools. These tools allow

for reflection and evaluation for continuous quality improvement. While there is no right sequence for executing Go NAPSACC or integrating the program into state-level ECE systems, our experience suggests several key takeaways for state agencies wishing to embark on this initiative.

Appointing a state-level administrator helps to spear-head implementation, engage partners, and facilitate dissemination among TA networks. State administrators can also consider partnering with national organizations and ECE agencies to assist with Go NAPSACC licensing fees. These partnerships provide organization support for the program's implementation. Finally, states can identify and utilize established ECE systems. Embedding Go NAPSACC within multiple state ECE systems promotes sustainability and data from Go NAPSACC provides a benchmark for measuring and moving child health best practices forward at the state and national level. For example, Louisiana has had success in embedding Go NAPSACC into multiple state systems. The state integrated Go NAPSACC into their healthy child care recognition program, where ECE programs wishing to attain a higher level of recognition were required to complete self-assessments and implement action plans in Go NAPSACC. To date, 134 ECE programs have achieved recognition. Simultaneously, using Go NAPSACC self-assessment data, Louisiana identified Outdoor Play and Learning as an area for improvement within the state. Initially, Louisiana's TAP program administered mini grants for ECE programs to focus on outdoor play and shared their efforts and successes on this topic with colleagues at the state's Department of Education (DOE). Colleagues at DOE were able to use American Rescue Plan Act funding to support Go NAPSACC as the central pillar of an outdoor play and leaning improvement opportunity. With this funding, nearly 800 ECE programs made improvements to their outdoor spaces to promote physical activity. Participating centers were required to complete an outdoor play and learning self-assessment, implement action plans, and take Go NAPSACC trainings, which were approved for contact hours in the state. To date, over 900 ECE programs in this state have used Go NAPSACC, and more than 50 Child Care Resource & Referral coaches have been trained as Go NAPSACC consultants. As a result of their multi-system integration, Louisiana is well positioned for future projects using Go NAPSACC.

Between May 2017 and May 2022, a total of 7,152 ECE programs were enrolled across the 22 states participating in Go NAPSACC, impacting 344,750 children annually. With continued recruitment and expanded capacity, the potential reach across the 22 states is 89,587 ECE programs impacting 5,047,037 children (State Fact sheets: Child Care Aware of America, 2022). States not currently using the GO NAPSACC intervention but who are interested may consider these participation and implementation lessons. State-level support for Go NAPSACC, or a similar evidence-based program, can provide ECE settings across the country access to resources and technical support needed to implement and evaluate best practice standards, resulting in increased opportunities for all children in care settings to have a healthy start.

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Scenario	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12
A	IA Holds Introduction Call + State Admins Share General Implementation Plans with Go NAPSACC	State Admins Trained in Go NAPSACC + Consultants Trained in Go NAPSACC		State Admins Begin Outreach to ECE Programs	First ECE Program Enrolled in Go NAPSACC							
B	IA Holds Introduction Call + State Admins Share General Implementation Plans with Go NAPSACC	State Admin Trained in Go NAPSACC		Consultants Trained in Go NAPSACC	Consultants and/or State Admins Begin Outreach to ECE Programs	First ECE Program Enrolled in Go NAPSACC						
C	IA Holds Introduction Call + State Admins Share General Implementation Plans with Go NAPSACC	State Admin Trained in Go NAPSACC		Other In-State Partners Identified		Consultants Identified	Consultants Trained in Go NAPSACC	Consultants and/or State Admins Begin Outreach to ECE Programs	First ECE Program Enrolled in Go NAPSACC			
D	IA Holds Introduction Call + State Admins Share General Implementation Plans with Go NAPSACC	State Admin Trained + State Admin Refines Implementation Plans with IA		Other In-State Partners Identified		Consultants Identified	Consultants Trained in Go NAPSACC	Consultants and/or State Admins Begin Outreach to ECE Programs	First ECE Program Enrolled in Go NAPSACC			
E	IA Holds Introduction Call	State Admin Trained + State Admin Plans Implementation with IA			Other In-State Partners Identified		Consultants Identified	Consultants Trained	Consultants and/or State Admins Begin Outreach to ECE Programs	First ECE Program Enrolled in Go NAPSACC		
F	IA Holds Introduction Call	State Admin Trained + State Admin Plans Implementation with IA			Consultants Trained		Consultants Begin Outreach	First ECE Program Enrolled in Go NAPSACC				
G	IA Holds Introduction Call	State Admin Trained + State Admin Plans Implementation with IA + Consultants Trained			State Admin Begin Outreach		First ECE Program Enrolled in Go NAPSACC					

A = Implementation Advisor; ECE = Early Care and Education

FIGURE 1.
Go NAPSACC Implementation Scenarios and Timelines

State Administration, Dissemination, and Implementation Characteristics From 2017 to 2022 Among the 22 States Participating in Go NAPSACC

TABLE 1

State Characteristics	n	%
Lead state partner organization		
University/cooperative extension	4	18.2
State government	14	63.6
ECE agency/non-profit	4	18.2
States with multiple partner organizations	19	86.4
State system integration ^a		
None	2	4.1
Quality rating and improvement system	3	6.1
Recognition program	11	22.5
Professional development credit	18	36.7
Statewide TA networks	14	28.6
College courses	1	2.0
Implementation approach		
State-wide	17	77.3
Regional pilots	5	22.7
TA networks used ^a		
Child Care Resource and Referral	14	28.6
SNAP-ed/University/Extension Agents	13	26.5
Child Care Health Consultants	7	14.3
Community health educators	12	24.5
Private contractors	3	6.1

Note. NAPSACC = Nutrition and Physical Activity Self-Assessment for Child Care; ECE = early care and education; TA = technical assistance; SNAP-Ed = Supplemental Nutrition Assistance Program Education.

^aCategories are not mutually exclusive and may not equal 100%.

Characteristics of Registered Early Care and Education (ECE) Programs From 2017 to 2022 Among the 22 States Participating in Go NAPSACC (N = 7,152)

TABLE 2

Registered ECE Program Characteristics	n	%
Type of ECE programs		
Head start	791	11.1
Family child care home	2268	31.7
Center-based	3739	52.3
School-based	354	4.9
ECE programs affiliation		
Faith-based	788	11.0
Native American/Alaska Native Tribe	41	0.6
Military	61	0.9
None	6115	85.5
Multiple	26	0.4
Missing	121	1.7
ECE programs location type		
Rural	173	2.4
Urban	1873	26.2
Metro	5106	71.4
ECE programs participating in CACFP		
Yes	4672	65.3
No	2480	34.7
ECE enrollment types		
Full day	6822	95.4
Half day	330	4.6
ECE programs serve children less than 2 years		
Yes	5876	82.2
No	1276	17.8
ECE programs serve children 2–5 years		
Yes	6981	97.6

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Registered ECE Program Characteristics		
	n	%
No	171	2.4

Note: NAPSACC = Nutrition and Physical Activity Self-Assessment for Child Care; ECE = early care and education; CACFP = Child and Adult Care Food Program.