

Progress Update to the 2013 Task Force on Early Childhood Obesity Prevention

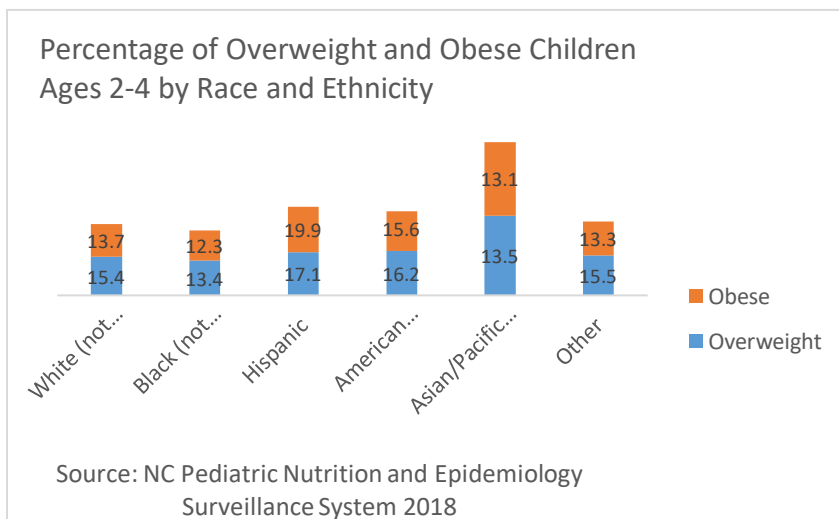
Over recent decades, obesity has become an issue of increasing complexity. Obesity can complicate existing health problems and create increased risks for certain chronic health conditions. Early childhood obesity prevention can help promote child health and reduce risk factors that contribute to chronic illnesses among adults.

Obesity in North Carolina

In 2018, 34% of the adult population in North Carolina was obese, and an additional 35.6% of people were overweight. Obesity is not a health condition limited to adults or older children. In fact, the national prevalence of obesity among children aged 2–5 years was 13.4% in 2017–2018.^a

The North Carolina Pediatric Nutrition and Epidemiology Surveillance Survey, which collects state data on low-income children aged 0–5 years, has illustrated the effect of the obesity epidemic on the youngest individuals in our state. The percentage of overweight children aged 2–4 years in North Carolina has increased over the past 30 years, from 11.7% in 1981 to 15% in 2018. North Carolina Pediatric Nutrition and Epidemiology Surveillance Survey data from 2018 show that a greater percentage of Hispanic children aged 2–4 years are obese (19.9%) compared to White children (13.7%) and Black children (12.3%).^b

Figure 1: Percentage of Low-Income Overweight and Obese Children Aged 2–4 by Race and Ethnicity



^a Childhood obesity facts. Centers for Disease Control and Prevention website.

<https://www.cdc.gov/obesity/data/childhood.html>. Published April 5, 2021. Accessed May 12, 2022.

^b Nutrition, physical activity, and obesity: Data, trends, and maps. Centers for Disease Control and Prevention website.

https://nccd.cdc.gov/dnpao_dtm/rdPage.aspx?rdReport=DNPAO_DTM.ExploreByLocation&rdRequestForwarding=Form. Published March 2, 2022. Accessed May 12, 2022.

One caveat to these data is that they are from children in low-income families who receive benefits through the Women, Infants, and Children Program. There are no state-level data available for obesity prevalence among children of higher incomes. Using data from the National Health and Nutrition Examination Survey, cross-sectional analyses of children aged 2–5 years of all incomes showed that a greater percentage of Black children were obese (18.9% versus 16.2% of Hispanic children and 9.2% of White children in 2009–2010). These data indicate that, on a national level, both Black and Hispanic children aged 2–5 years are at greater risk of being obese (Figure 1.1).

Preventing Early Childhood Obesity

Obesity is a multifactorial health outcome influenced by factors such as lifestyle, family history, community and environment, and genetics. As such, there is no one way to prevent obesity. However, there are many interventions that have been proven effective in reducing a young child’s risk, such as increasing physical activity, improving nutrition practices, reducing screen time, and improving sleep duration. While these are simple interventions in and of themselves, individuals’ actual practice of these behaviors is often stymied by environments and communities that are not conducive to healthy behaviors. Other barriers to healthy weight in children aged 0–5 years include but are not limited to inadequate screening and treatment for unhealthy weight in the clinical setting, lack of access to safe opportunities for physical activity, and good nutrition among caregivers. Finally, data development is needed for this age group to measure the full extent of the problem of obesity as well as its risk factors, as well as progress (or lack thereof) in reducing obesity.

NCIOM Task Force on Early Childhood Obesity Prevention

At the request of the Blue Cross and Blue Shield of North Carolina Foundation (BCBSNC Foundation), in 2013 the North Carolina Institute of Medicine (NCIOM) convened a task force to develop a multifaceted plan to prevent and reduce early childhood obesity in North Carolina. The NCIOM Task Force on Early Childhood Obesity Prevention (ECOP) was a collaborative effort between the BCBSNC Foundation, the North Carolina Partnership for Children (NCPC), and the NCIOM.

The Task Force on Early Childhood Obesity Prevention was charged with:

- 1) Examining evidence-based and evidence-informed strategies from prior North Carolina and national task forces that focus on reducing childhood obesity.
- 2) Developing a blueprint to prevent or reduce early childhood obesity in North Carolina.

This blueprint for action identified lead organizations and partners needed to implement the strategies identified, necessary funding and resources, and performance measures for evaluation. The blueprint is intended to serve as a common guide to focus the work of child care professionals; private and public health professionals; state and local policymakers; nonprofits; and funders at the state, local, and, when appropriate, national level who are interested in promoting healthy weight among young children in North Carolina.

The task force recognized that no single intervention can “solve” the problem of early childhood overweight and obesity. Rather, multilevel interventions are needed at the clinical, community,

environment, and policy levels. To ensure that the ECOP Task Force included a broad cross-section of stakeholders and experts, it consisted of four different workgroups. One workgroup, referred to as the “core group,” consisted of 19 members who were asked to attend all topic group meetings. This smaller core group included representatives of the BCBSNC Foundation and NCPC as well as other key stakeholders, including representatives of state and local agencies, health professional associations, foundations, and consumer groups. NCIOM also invited other stakeholders and content experts to participate in three other workgroups that focused on either clinical, community and environment, or public policy strategies.

The ECOP Task Force was co-chaired by Kathy Higgins, president of the Blue Cross and Blue Shield of North Carolina Foundation, and Olson Huff, MD, former chair of the Board of Directors of the North Carolina Partnership for Children, Inc., and chair of the Board of Directors of the North Carolina Early Childhood Foundation. They were joined by more than 70 other ECOP Task Force members including core group members and clinical, community/environment, and policy workgroup members. The ECOP Task Force met 14 times between September 2011 and May 2013 and developed a total of 15 strategies in the clinical, community/environment, and policy areas.

The following document describes the progress on the recommendations of the ECOP Task Force to date alongside the original recommendations in bold.

Acknowledgements

The NCIOM would like to thank the following people and organizations for providing information for the 2022 update to the NCIOM Task Force on Early Childhood Obesity Prevention Report. These individuals provided information and resources regarding the implementation of recommendations to NCIOM staff between 2019 and 2022.

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Clinical Recommendation 1:

Increase and enhance the education of health professionals while in training (pre-service) or in residency programs.

- a) **North Carolina and national funders should fund an inter-educational council to develop a systematic and ongoing plan focused on increasing the education and skills of health professional students and post-graduate trainees in North Carolina around obesity prevention and treatment. The council should include representation from the North Carolina Area Health Education Centers Program (AHEC); public and private schools of nursing, medicine, pharmacy, nutrition, public health, behavioral health, and allied health; and clinicians from across North Carolina. The council should review existing educational curricula and identify gaps or opportunities to strengthen health professional education and clinical training opportunities around early childhood obesity. The council needs to be broadly representative of health disciplines, geography, race/ ethnicity, and gender. This education should include, but not be limited to:**
- 1) The importance of charting the child’s weight on a regular basis using the World Health Organization (WHO) Child Growth Standards for children aged 0-23 months, and CDC growth charts for ages 2-5 years during each well-child check; and information about measurement techniques and best practices, including the best way to communicate results of weight for height percentile and BMI percentile results (the use of color-coded charts is one example of an effective communication tool).**
 - 2) Information about the role of family health history/behaviors, especially obesity and obesity-related diseases, on children’s risk of obesity and its consequences.**
 - 3) Available obesity prevention clinical tools such as “5-3-2-1-Almost None.”**
 - 4) The importance of healthy weight gain during pregnancy and the benefits of breastfeeding.**
 - 5) Culturally sensitive information to support and educate new mothers in breastfeeding and exclusive breastfeeding.**
 - 6) Motivational interviewing.**
 - 7) Evidence-based prevention, assessment, and treatment options.**

In the absence of dedicated funding to support these goals, there was no formation of an inter-educational council focused on increasing the education and skills of health professional students and post-graduate trainees in North Carolina around obesity prevention and treatment. However, NC AHEC has long been committed to early childhood obesity prevention and has continued its work to develop continuing education programs for health professionals in training. As more attention has been focused on early childhood obesity, NC AHEC has incorporated available obesity prevention tools and offers a variety of resources, webinars, and trainings related to childhood obesity.

In addition, North Carolina stakeholders have been implementing various aspects of the educational components above. Some examples include:

- The NC Early Childhood Action Plan lays out the required components of a well-child visit, which include “assessment of nutritional status (including risks or concerns for being underweight, overweight or obese)”. The overall 2025 target of the Preventive Health Service goal is to increase the percentage of Medicaid- or Health Choice-insured children receiving regular well-child visits. While this goal does not explicitly target the education of health professionals, it reiterates the importance and expectations of well-child visits.^{c d}
- Most practices in North Carolina have incorporated obesity prevention tools, particularly those offered by the state and those published in the Eat Smart, Move More online catalogue. Many hospitals, including UNC Health Care, have explicitly expressed commitment to using these tools, and residents trained and working at UNC Health Care are familiarized with the tools and how they can be used.
- The North Carolina Breastfeeding Coalition provides resources for providers on the importance of breastfeeding as the best nutritional start for children’s health, research on ways that breastfeeding may protect a child from illness, and the significance of breastfeeding in helping provide a foundation for good health for children.^e

b) Health professionals should receive information to share with parents and caregivers about healthy weight at different stages of the child’s life, satiety cues, healthy eating and nutrition, appropriate sleep durations, the importance of eliminating or limiting screen time (including televisions, computers, and other digital media devices), and strategies to increase physical activity.

The American Academy of Pediatrics developed the Healthy Active Living for Families (HALF) Program, which incorporates parents’ perspectives along with evidence-informed practices to target early childhood obesity. The HALF Program includes online materials and resources for health care providers and parents, including information on the following:

- Understanding hunger and satiety cues
- Exclusive breastfeeding
- Limited screen time
- Modeling healthy living
- Daily physical activity

^c Perrin, Eliana. Former Division Chief, Primary Care Pediatrics. Written (email) communication. July 2019. Duke University Medical Center. Personal (phone) communication. July 2019.

^d Ibid.

^e Resources for parents, professionals, and advocates. North Carolina Breastfeeding Coalition website. <https://www.ncbfc.org/for-parents>. Published 2021. Accessed May 12, 2022.

- Regular healthy sleep schedules^f

The North Carolina Pediatric Society has shared the American Academy of Pediatrics parent resources with its members.^g

Clinical Recommendation 2:

Expand education for practicing health professionals, which could be met through enhanced continuing education opportunities.

- a) North Carolina and national funders should provide funding to the Area Health Education Centers Program (AHEC) and to Community Care of North Carolina (CCNC) to strengthen and expand the work of quality improvement consultants working with pediatric, family medicine, and obstetric practices to incorporate obesity prevention and treatment into clinical practice and systems (e.g., BMI coding and pediatric obesity prevention, assessments, and treatment). AHEC and CCNC should continue to develop a module for Maintenance of Certification (MOC) on early childhood obesity assessment, prevention, and treatment. Education should occur through learning collaboratives and through work with individual practices. The core curriculum of this educational program should be developed into a high-quality online continuing education (CE) course, which can be used by health professionals through one of the AHECs. To the extent possible, AHEC and CCNC should help practices gain continuing education and MOC credits. The practice-level goals should include, but not be limited to: education, skills, use of evidence-based or evidence-informed tools, improving workflow, toolkits, innovative delivery models, reimbursement options, and system changes (practice redesign) necessary to support practitioners in providing evidence-based or evidence-informed prevention, assessment, and treatment. This includes:**
- 1) Educating women of childbearing age and pregnant women about healthy weight gain during pregnancy and the health benefits of breastfeeding.**
 - 2) Encouraging pregnant women and new mothers to breastfeed and helping women understand infant satiety cues.**
 - 3) Performing universal screening and understanding the importance of charting the child's weight on a regular basis using the World Health Organization (WHO) Child Growth Standards for children aged 0-23 months and CDC Growth Charts for children aged 2-5 years during each well-child check (and using color-coded BMI charts).**
 - 4) Educating parents and caregivers about healthy weight at different stages of a child's life; healthy eating; appropriate sleep durations; the importance of eliminating or limiting screen time including televisions, computers, and other digital media devices; and strategies to increase physical activity.**

^f Healthy Active Living for Families. [Healthychildren.org. https://www.healthychildren.org/English/healthy-living/nutrition/Pages/Healthy-Active-Living-for-Families.aspx](https://www.healthychildren.org/English/healthy-living/nutrition/Pages/Healthy-Active-Living-for-Families.aspx) Published August 27, 2020. Accessed July 5, 2022.

^g Hudgins, Elizabeth. North Carolina Pediatric Society. Written (email) communication. July 2019.

5) Providing evidence-based/evidence-informed prevention, assessment, and treatment options.

6) Using motivational interviewing.

In 2014, through the Children’s Health Insurance Program Reauthorization Act (CHIPRA) grant, Community Care of North Carolina, in conjunction with the American Board of Pediatricians, developed a module for Maintenance of Certification (MOC). This module was created in collaboration with 100 physicians and used a motivational interviewing model to promote healthy weight among children. The module included materials for primary care clinicians (PCCs) to engage families in behavior change and promoting healthy weight. Materials included tools for goal setting around reducing consumption of sugary beverages, identifying healthy snacks, strategies for healthy grocery shopping, and increasing physical activity.^{h,i}

b) In addition, CCNC should ensure that prompts for regular BMI screening and BMI or weight-for-length percentiles are built into the pediatric electronic health records (EHR).

CCNC and NC Medicaid have published updated guidance for practices on measuring BMI percentile, appropriate coding, and how to document for well-visit claims. Guidance also addresses nutrition and physical activity counseling based on a child’s BMI percentile (measurement of which is a meaningful use core measure).^{j,k}

NC Medicaid has also incorporated BMI measurement into its Quality Strategy under Medicaid Transformation to managed care, which launched in 2021. Under this strategy, providers must submit data on a number of quality measures, including “Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents” (the total of all ages for each of the three rates), a composite measure that includes BMI measurement.^l

^h Healthy weight and physical activity: Family engagement tools. Community Care of North Carolina website. <https://www.communitycarenc.org/what-we-do/clinical-programs/pediatrics/tools/healthy-weight-and-physical-activity/family-engagement-tools>. Published 2021. Accessed May 12, 2022.

ⁱ Earls, Marian. Independent consultant. Written (email) communication. July 2019.

^j Community Care of North Carolina. CCNC Pediatrics: Coding for BMI percentile. https://www.communitycarenc.org/sites/default/files/2018-09/obesity-bmi-percentile-codes_2018_one-pager.pdf. Published August 2018. Accessed May 12, 2022.

^k Earls, Marian. Independent consultant. Written (email) communication. July 2019.

^l North Carolina Department of Health and Human Services. North Carolina’s Medicaid Managed Care Quality Strategy. June 16, 2021. <https://medicaid.ncdhhs.gov/media/9968/download?attachment> Accessed January 15, 2022.

Clinical Recommendation 3:

Ensure adherence of insurers/ payers to the Affordable Care Act requirements for coverage of the prevention, diagnosis, and treatment of obesity (and as outlined in the American Academy of Pediatrics' Bright Futures guidelines).

- a) All payers should review their coverage policies to ensure that pediatric obesity prevention and treatment can be delivered by the most appropriate and qualified professionals in pediatric, family, OB/GYN, and specialty practices. Coverage policies should cover individual and group visits, and adequate time to assess, educate, diagnose, counsel, and/or treat parents or caregivers about breastfeeding, healthy weight gain, nutrition, exercise, sleep, and reduced screen time; lactation counseling from a trained lactation consultant; and nutritional counseling visits, when medically necessary, from a registered dietitian.**
- b) In addition, all members of the North Carolina Association of Health Plans, as well as public insurers, should design payment models that allow providers to treat patients effectively and efficiently for obesity prevention, diagnosis, and treatment.**
- c) Insurers should evaluate benefit design and work with employers and others to encourage members to take advantage of healthy lifestyle programs and covered benefits.**

Prevention Partners did not conduct an analysis of health plan services related to early childhood obesity prevention and treatment, nor create an interactive web-based application and database for the collection of preventive health information, as was outlined in the original task force recommendation.

Eat Smart, Move More NC provides many resources for providers on billing procedures and best practices in obesity prevention and counseling. Under the North Carolina State Health Plan (provided by Blue Cross Blue Shield), adult and child (aged 6+) nutrition and weight management services are included under the Affordable Care Act's preventive services. They are covered at 100% for members and can be delivered in an in-network office, urgent care, or outpatient facility. Services include nutritional screening, obesity screening, and behavioral intervention services.^m State health plan beneficiaries are also eligible to receive free Eat Smart, Move More, Weigh Less sessions, including 15 weekly online sessions delivered by a live registered dietitian nutritionist.

While many insurers have begun to offer wellness incentives through employer-based programs, recent research has shown that these programs may have limited benefits in preventing or treating obesity and related health issues.ⁿ

^mYour health and wellness resources. North Carolina State Health Plan website.

<https://www.shpnc.org/wellness/your-health-wellness-resources#nutrition-and-weight-management>. Accessed May 12, 2022.

ⁿ Wellness programs show modest benefits, as efforts pivot to 'well-being'. SHRM website.

<https://www.shrm.org/resourcesandtools/hr-topics/benefits/pages/wellness-programs-show-modest-benefits-as-efforts-pivot-to-well-being.aspx>. Published June 22, 2022. Accessed May 12, 2022.

Clinical Recommendation 4:

Convene a group to identify and catalog core statewide and local services, resources, and supports for health professionals to refer families and children for additional support or intervention to enhance clinical recommendations.

Local Health Departments should collaborate with the appropriate partners to identify core services, resources, and supports available statewide. These should include, but not be limited to, organizations that provide evidence-based and evidence-informed nutrition and physical activity services, resources, and supports including parenting education to help prevent and reduce young childhood obesity. Examples include Women, Infants, and Children (WIC) program services; North Carolina Cooperative Extension services; information from Eat Smart, Move More North Carolina; and YMCAs/YWCAs.

The North Carolina Association of Local Health Directors in collaboration with the North Carolina Partnership for Children, North Carolina Childcare Resource and Referral Council, Community Care of North Carolina, and Eat Smart, Move More should work together to create a template to identify the various local services, resources, and supports that are available at the county level to prevent or reduce early childhood obesity. Together, they should develop a method that enables health professionals to connect families and children with the identified services, resources, and supports.

Local health directors, the NC Partnership for Children, the Division of Child Development and Early Education, the Natural Learning Initiative, and others participate in and support the Eat Smart, Move More NC (ESMMNC) obesity prevention movement and regularly contribute resources and promote services and best practices through EatsmartmovemoreNC.com and Myeatsmartmovemore.com. Statewide ESMMNC holds statewide meetings three to four times a year. The meetings are open to the public and allow participants to share current research and best practices related to obesity prevention, nutrition, and physical activity for all ages, including early childhood.^o ESMMNC has an expansive resource bank for various stakeholders in promoting North Carolinians' health. The ESMMNC website has a section of curated resources and tools for promoting healthy eating and active living in early childhood settings.^p

In addition, many local health departments and community partners have continued to identify obesity, food security, and improved access to exercise opportunities as priorities for their communities. Some examples include:

- Durham's Innovative Nutrition Education, designed and implemented by the Durham County Department of Public Health, provides nutrition education and services throughout the Durham

^o Gardner, Dave. North Carolina Center for Health and Wellness, University of North Carolina at Asheville. Written (email) communication. July 2019.

^p Eat smart, move more resources. Eat Smart, Move More North Carolina website.

<https://www.eatsmartmovemorenc.com/resources/>. Published 2022. Accessed May 12, 2022.

community through partnerships with early childhood, elementary school, and middle school programs; health promotion programs; and adult education programs.^q

- The Pitt County Health Department implements community nutritional education programs, including:
 - The Farmers Market Nutrition Education Program, which offers free food samples and highlights healthy food preparation methods and recipes for fresh fruits and vegetables.
 - The WITN Growing UP FIT! Program, which encourages families to eat healthier and be physically active. Segments include information on healthy nutrition messages, announcements, and programs in the community.
 - To Your Health Program, which is a series of televised nutrition mini-lessons and food preparation demonstrations hosted by nutrition and physical activity partners.^r

Community/Environment Recommendation 1:

Expand the use of evidence-based and evidence-informed strategies for physical activity and nutrition in pilot child care centers.

- a) **The BCBSNC Foundation, along with other funders and state agencies with shared missions and goals, should develop incentives to incorporate evidence-based and evidence-informed obesity prevention strategies into programs and policies in child care centers located in counties with high obesity rates among children. This effort should be coordinated with, and expand the ongoing efforts of, the four Shape NC hubs, including the obesity prevention work that will occur in Bertie County as part of the Transformation Zone.**
- b) **As part of this initiative, child care teachers and directors should be educated and coached about obesity trends, healthy food preparation, best nutrition practices, age-appropriate physical activity strategies, the outdoor learning environment, limited or no screen time, and the importance of breastfeeding and infant feeding.**

In 2010, Blue Cross and Blue Shield of North Carolina (BCBSNC) Foundation, in partnership with The North Carolina Partnership for Children, Inc. (NCPC), and the Corporation for Community and National Service, developed the *Shape NC: Healthy Starts for Young Children* initiative. Shape NC promotes the health of children from birth to age 5 by working with communities and child care centers to incorporate evidence-based strategies that support healthy eating and encourage active living. These strategies involve the physical environments of child care centers and early childhood education facilities, best practices, nutritious snacks, and innovative curricula designed to keep children physically active.^s

^q DINE nutrition education for life. Durham County Department of Public Health website. <https://www.dcopublichealth.org/services/nutrition/dine>. Accessed May 12, 2022.

^r Eat local. Pitt County North Carolina website. <https://www.pittcountync.gov/354/Eat-Local>. Accessed on May 13, 2022.

^s What is shape NC? Smart Start website. <https://www.smartstart.org/shape-nc-2021/#:~:text=Shape%20NC%3A%20Healthy%20Starts%20for%20Young%20Children%20is%20an%20initiative,weight%20and%20ready%20to%20learn>. Accessed May 13, 2022.

Shape NC rolled out in three phases, each focused on implementing the following evidence-based, evidence-informed practices in child care settings: Preventing Obesity by Design (POD) through the Natural Learning Initiative, Go NAP SACC, and Be Active Kids (BAK).

Phase I Shape NC was implemented from 2010 to 2013. Phase II began in Onslow, Randolph, Buncombe, Nash, and Edgecombe County hubs between 2013 and 2016. The first evaluation report of Phase II was released in April 2015. Shape NC reported that facilities implementing the model practices saw a statistically significant improvement in children’s BMI scores, compared to children at control facilities not using the models.^t

Phase III was implemented between 2017 and 2020. Each of the four partners—Wilson, Wake, and Randolph Smart Starts and the Childcare Service Association of Durham County) —chose 10 centers as treatment and comparison sites. In addition to the programs listed above, Shape NC also hosted Provider Learning Collaboratives, through which program participants, core partners, Shape NC Mentor Sites, state licensing consultants, infant and toddler specialists, and child care health consultants convened to increase knowledge of evidence-based strategies for the promotion of physical activity, child nutrition, and natural outdoor learning environments. Phase III of Shape NC received \$3,000,000 to complete its evaluation and expansion of best health practices for child care facilities through 2020.

As of December 2020, Shape NC had reached over 13,700 children and 270 child care centers, and a full evaluation report of the first 10 years of the initiative was released in the fall of 2021^u. This evaluation identified a positive impact on outdoor and indoor active play, improved learning collaboratives and content-specific training for child care staff, and increased knowledge among child care staff of high-quality outdoor learning environments.^v

Shape NC aids child care programs in implementing the evidence-based approaches described below.

- Go NAP SACC offers learning modules across several theme areas, including child nutrition, breastfeeding, oral health, physical activity, and outdoor learning. Go NAP SACC’s tools and resources are made free to North Carolina child care providers, consultants, and community workers. Go NAP SACC received additional funding in 2017 to scale up and disseminate its program to improve access for more early care programs.^w
- Preventing Obesity by Design (POD, a program of North Carolina State University, has received \$315,000 in Blue Cross Blue Shield of North Carolina Foundation funding to train teachers, allied professionals, and volunteers on the significance of healthy design (such as active outdoor environments) in impacting child development.^x Preventing Obesity by Design (POD) is a program of the Natural Learning Initiative developed in 2007^y. POD incorporates information about physical activity and outdoor learning environments.

^t Shape NC. Celebrating the Shape NC journey. <https://indd.adobe.com/view/71a9b0fd-4749-48eb-a406-ec60e1309023>. Accessed May 13, 2022.

^u Ibid.

^v Ibid.

^w Child nutrition. Nap Sacc website. <https://gonapsacc.org/our-focus-areas>. Accessed May 13, 2022.

^x Davis, Merry. Blue Cross Blue Shield of North Carolina Foundation. Written (email) correspondence. July 2019.

^y Preventing obesity by design. NC State Design Natural Learning Initiative website. <https://naturalearning.org/what-is-pod/>. Accessed May 13, 2022.

- Be Active Kids® provides trainings for anyone related to the birth-to-5 environment, including child care health consultants, local Smart Start partnership staff, local Childcare Resource and Referral staff, Head Start staff, More at Four staff, Cooperative Extension offices and community college instructors in North Carolina, early childhood teachers, and child care providers and directors. Online resources include webinars for parents and others to learn about how to maintain commitment to physical activity and healthy eating. BAK primarily focuses on best practices for age-appropriate physical activity and nutrition. These trainings incorporate breastfeeding and the BAK website links to a variety of nutrition resources.²

Community/Environment Recommendation 2:

Provide pre-service and in-service education for child care providers on evidence-based and evidence-informed strategies for physical activity and nutrition.

Using funding from the Childcare Development Fund Block Grant, the NC DHHS Division of Child Development and Early Education (NCDCDEE) implemented five new initiatives targeting the health and wellness of infants and toddlers starting in fall 2018. The Childcare Development Fund Block Grant requires that 3% of grant spending targets quality improvement in child care.^{aa} Initiatives include:

- Healthy Starts for Infants & Toddlers: Shape NC
- Infant Toddler Childcare Health Consultation Services for Economically Distressed Counties
- Infant Toddler Educator Award\$

Guilford, Orange, and Wake counties' SmartStart Partnerships were awarded \$400,000 (\$133,000 each) through the North Carolina Breastfeeding-Friendly Childcare Designation (NC BFCCD) Fund to implement the NCDCDEE initiative Healthy Starts for Infants & Toddlers: Shape NC.^{bb} NCDCDEE expanded Shape NC to focus on facilities serving children from birth to 35 months. The initiative implements training for child care providers in nutrition, age-appropriate physical activity, outdoor learning environments using natural greenery (e.g., shade trees, gardens), and breastfeeding-friendly practices.^{cc}

To expand the availability of pre-service education for child care providers on evidence-based and evidence-informed strategies to promote healthy weight for young children, the North Carolina Center for Health and Wellness (NCCHW), in partnership with Eat Smart, Move More North Carolina, should survey administrators in North Carolina's public and private two- and four-year colleges and universities that offer child care and early education degree programs about the existing curricula

² Rarigh, Richard. Center for Health Promotion and Disease Prevention, University of North Carolina at Chapel Hill. Personal (phone) communication. July 2019.

^{aa} Infant and toddlers in NC to benefit from new projects. NC Early childhood foundation. <https://buildthefoundation.org/2018/08/infants-and-toddlers-in-nc-to-benefit-from-new-projects/>. Published August 2, 2022. Accessed May 13, 2022.

^{bb} Federal funding going to communities to expand shape NC. Smart start website. <https://www.smartstart.org/shape-nc-awarded-3-million-from-bcbsnc-foundation/>. Published June 3, 2022. Accessed May 13, 2022.

^{cc} Exciting infant toddler news. North Carolina Department of Health and Human Services. <https://ncchildcare.ncdhhs.gov/Whats-New/exciting-infant-toddler-news>. Published August 1, 2022. Accessed May 13, 2022.

used to teach upcoming child care and early education professionals about early childhood health and obesity prevention strategies.

1) The survey should seek information about whether the current curricula convey information on topics such as, but not necessarily limited to, the following:

- i) Obesity trends among infants and young children**
- ii) The impact of obesity on health**
- iii) Infant feeding and signs of satiety**
- iv) Healthy food and beverage procurement and preparation and best nutrition practices**
- v) Strategies to promote healthy and appropriate sleep duration**
- vi) The importance of reducing screen time**
- vii) Age-appropriate movement and physical activity**
- viii) Outdoor learning environments and edible landscapes**
- ix) Breastfeeding support**
- x) Staff wellness to support role modeling**
- xi) Effective strategies to educate parents and other caregivers about best practices to implement at home in order to promote healthy weight**

2) The survey should seek information on the content, the amount of time spent on the topics, teaching methods, whether information is integrated throughout the curricula (both in classroom and in-service learning), and whether the students are tested to ensure competency in the content area. In addition, the survey should collect information on the curricula used to teach prospective child care and early education professionals about educating parents about early childhood obesity prevention practices. NCCHW should evaluate the existing curricula to identify best practices and, if necessary, seek curricula from other colleges and universities outside of North Carolina.

Although Eat Smart, Move More North Carolina was unable to conduct this survey, the NC Center for Health and Wellness completed this recommendation. In partnership with NCIOM, NCCHW contracted the Orelena Hawks Puckett Institute to conduct *An Analysis of North Carolina Community College Early Childhood Education Coursework on Nutrition, Health and Physical Activity*. The analysis was completed and presented to the NCIOM in January 2014.^{dd}

The survey was conducted using the guidance of the recommendations of the Task Force on Early Childhood Obesity Prevention. The topics and variables enumerated in the above recommendation were measured. Survey respondents included early education faculty from 54 out of 58 community colleges in North Carolina. Respondents were surveyed, “to determine the extent to which they included content knowledge on child health, nutrition, physical activity, and obesity, and adult wellness, in the courses they taught”. The goal of the survey was to assess the nutrition, physical activity, health, and obesity content of early education courses in community colleges.

^{dd} Gardner, Dave. North Carolina Center for Health and Wellness, University of North Carolina at Asheville. Written (email) correspondence. July 2019.

Survey results indicated:

- 70% of respondents incorporated child movement and physical activity into coursework
- 57% incorporated information on limiting child screen time
- 52% incorporated healthy food and beverage preparation
- 49% incorporated information on outdoor environments
- 47% incorporated information on the effects of obesity on child health
- 46% incorporated obesity trends among infants and young children
- 46% incorporated modeling personal wellness practices

About one-third of the faculty indicated they incorporated either quite a bit or a great deal of information on the other indicators into course curricula.

- a) **NCCHW should host a summit for North Carolina child care and early education professionals to identify strategies to enhance the curricula offered at community colleges, colleges, and universities for prospective early childhood professionals about health and wellness for young children aged 0-5 years, and obesity prevention strategies such as those listed earlier.**

Survey findings were presented to the NCIOM in January 2014. A summit on early childhood obesity was convened in March 2014, hosted by NCIOM, with a breakout session focused on training for early child care professionals on obesity prevention strategies.^{ee}

- b) **Using the findings from the survey and the summit, the North Carolina Institute for Child Development Professionals, in collaboration with NCCHW, the North Carolina Childcare Health and Safety Resource Center, the North Carolina Childcare Resource and Referral Council, North Carolina Pediatric Society, and two and four-year college and university representatives, should lead the development of education modules and materials that can be incorporated into existing curricula. The education materials should be pilot-tested in select higher education institutions. If they are successful in enhancing workforce and student knowledge and skills about obesity in this age group and the use of evidence-based and evidence-informed strategies to reduce early childhood overweight and obesity, the curricula should be disseminated across the state.**

- c) **To expand the availability of evidence-based and evidence-informed training for existing child care professionals, these education modules and materials should also be used for continuing education credits offered through the North Carolina Childcare Resource and Referral Council, Smart Start partnerships, child care health consultants' networks, and the North Carolina Childcare Health and Safety Resource Center to certified early educators.**

Several resources and training materials have been made available to early educators in North Carolina. For example, the Childcare Health and Safety Resource Center provides detailed information about competencies in nutrition, physical activity, and obesity prevention, as well as a resource center with information and guidance for child care facilities seeking to connect with evidence-based programs and

^{ee} Federal funding going to communities to expand shape NC. Smart start website. <https://www.smartstart.org/shape-nc-awarded-3-million-from-bcbsnc-foundation/>. Published June 3, 2022. Accessed May 13, 2022.

practices for implementation in their child care facility.^{ff} They also provide contact information and referrals for child care health consultants in communities across the state.

Community/Environment Recommendation 3:

Cross-train all child care consultants and other support personnel on evidence-based and evidence-informed strategies for physical activity and nutrition.

All child care consultants and other support personnel who provide training and technical assistance to child care and early education programs should be cross-trained in evidence-based and evidence-informed strategies to support early educators in promoting healthy weight among young children. Using the education modules and materials developed in Community/Environment Strategy 2 as a starting point, the North Carolina Childcare Health and Safety Resource Center should take the lead in developing the cross-training curricula and promoting it among the different child care consultants including but not limited to child care health consultants, Shape NC consultants, Smart Start quality enhancement specialists, Childcare Resource and Referral technical assistance specialists, Head Start consultants, Child and Adult Care Food Program consultants, infant/toddler specialists, and the staff at NCDCDEE who provide training and technical assistance to licensed child care programs.

a) Training should cover, but not be limited to, the following topics:

- 1) Obesity trends among infants and young children**
- 2) The impact of obesity on health**
- 3) Infant feeding and signs of satiety**
- 4) Healthy food and beverage procurement and preparation and best nutrition practices**
- 5) Strategies to promote healthy and appropriate sleep duration**
- 6) The importance of reducing screen time**
- 7) Age-appropriate movement and physical activity**
- 8) Outdoor learning environments and edible landscapes**
- 9) Breastfeeding support**
- 10) Staff wellness to support role modeling**
- 11) Effective strategies for educating parents and other caregivers about best practices to implement at home to promote healthy weight**

b) The modules and materials for this cross-training should be developed and/or modified if need be, such that they can be delivered through multiple mediums, including but not limited to computer-based webinars, training curricula that can be included as part of ongoing trainings and packaged learning modules. The training should be incorporated into existing trainings and updated as new information and evidence become available.

c) Organizations that employ consultants and other support personnel should include this cross-training as part of their professional training requirements.

^{ff} Welcome to the North Carolina Child Care Health and Safety Resource Center. North Carolina Child Care Health and Safety Resource Center website. <https://healthychildcare.unc.edu/>. Accessed May 13, 2022.

The fourth initiative implemented by the NCDCCDEE in the summer of 2018 (mentioned in Community/Environment Strategy 2) is the Intensive Infant & Toddler Technical Assistance Delivery Model Pilot. Three regions were chosen to participate in a pilot program offering more intensive training. This program seeks to holistically train child care providers in healthy child outcomes, as opposed to just preparing them for their assessment. The initiative is run by the Childcare Services Association and NC Resource Referral Council.^{gg}

The Preschool Development Grant funding also provides technical assistance to infant/toddler care providers.^{hh}

Other existing organizations and programs provide child care trainings, certification, materials, and support for addressing childhood obesity in the child care setting. These include the NC Childcare Resource and Referral, NC Partnership for Children, local Smart Start partnerships, ProSolutions Training, professional child care associations, community colleges, colleges and universities, the Division of Public Instruction's Office of Early Learning, and NC Cooperative Extension Service. Programs that include staff training include NAPSACC, Be Active Kids, and Shape NC Healthy Start in Early Care and Education Professional Development. These programs include most or all of the criteria listed above.

Community/Environment Recommendation 4:

Increase the focus of Eat Smart, Move More North Carolina on young children and their families.

a) Eat Smart, Move More North Carolina (ESMMNC) should increase the focus of its community engagement efforts to implement evidence-based and evidence-informed strategies to promote healthy weight among young children and their families.

1) ESMMNC should survey member organizations to collect information on existing early childhood initiatives and programs.

2) ESMMNC should also work with other appropriate organizations, including but not limited to the Physical Activity and Nutrition Branch, Women and Children's Health Section, and Nutrition Services Branch within the North Carolina Division of Public Health; as well as local health departments, Center for Training and Research Translation at the University of North Carolina at Chapel Hill, Shape NC, the Carolina Global Breastfeeding Institute, and the Natural Learning Initiative at North Carolina State University, to identify and create an inventory of evidence-based and evidence-informed tools, policies, programs, and practices to improve healthy nutrition and physical activity for young children.

b) ESMMNC should educate member organizations about the importance of intervening to improve nutrition and physical activity among young children aged 0-5 years and their

^{gg} Exciting infant toddler news. North Carolina Department of Health and Human Services website. <https://ncchildcare.ncdhhs.gov/Whats-New/exciting-infant-toddler-news>. Published August 1, 2022. Accessed May 13, 2022

^{hh} Preschool development grant award. North Carolina Department of Health and Human Services website. <https://ncchildcare.ncdhhs.gov/Whats-New/preschool-development-grant-award>. Accessed May 13, 2022.

families, and should promote the availability of evidence-based and evidence-informed tools, policies, programs, and practices across the state. Specifically, ESMMNC should help connect member organizations and others who use their resources with additional information on:

- 1) Obesity trends among infants and young children**
- 2) The impact of obesity on health**
- 3) Infant feeding and signs of satiety**
- 4) Healthy food preparation and best nutrition practices**
- 5) Strategies to promote healthy sleep**
- 6) The importance of reducing screen time**
- 7) Age-appropriate movement and physical activity**
- 8) Outdoor learning environments and edible landscapes**
- 9) Effective strategies for educating parents and other caregivers about best practices to implement at home in order to promote healthy weight**
- 10) Breastfeeding support**

Around the same time as the completion of the task force recommendations, ESMMNC published North Carolina’s Plan to Address Obesity: Healthy Weight Healthy Communities, updated for 2013–2020.ⁱⁱ This comprehensive plan defines the obesity epidemic in North Carolina, identifies core factors that contribute to obesity, and provides evidence-based strategies for reducing and preventing obesity. Early care and education is identified as a key setting in the obesity prevention plan. ESMMNC released an updated obesity prevention plan in 2019.^{jj}

ESMMNC^{kk} hosts several statewide meetings each year that provide the opportunity for the general public and expert stakeholders to “share current research, advances and best practices related to obesity prevention, nutrition and physical activity for all ages including early childhood”.^{ll}

ESMMNC members collaborate in providing and distributing evidence-based tools, policies, programs, and other resources, which are made available online for early education and other professionals.^{mmm}

ⁱⁱ Eat Smart, Move More North Carolina. North Carolina’s plan to address obesity: Healthy weight and healthy communities. https://www.eatsmartmovemorenc.com/wp-content/themes/esmm/assets/downloads/plan/NC_Obesity_Prevention_Plan_2013-2020.pdf. Accessed May 13, 2022.

^{jj} Gardner, Dave. North Carolina Center for Health and Wellness. University of North Carolina at Asheville. July 2019.

^{kk} ESMMNC organizational members include the CCCPH Branch (previously the Physical Activity and Prevention Branch), Women and Children’s Health Section, and Nutrition Services Branch within the North Carolina Division of Public Health; as well as local health departments, Center for Training and Research Translation at the University of North Carolina at Chapel Hill, Shape NC, the Carolina Global Breastfeeding Institute, and the Natural Learning Initiative at North Carolina State University

^{ll} Gardner, Dave. North Carolina Center for Health and Wellness. University of North Carolina at Asheville. July 2019.

^{mmm} Ibid.

Community/Environment Recommendation 5:

Form an ECOP Communications Committee to develop a communications campaign to support policy and behavior change to reduce early childhood obesity.

- a) The North Carolina Institute of Medicine should convene an ECOP Communications Committee comprising North Carolina funders; communications professionals; the North Carolina Division of Public Health; Eat Smart, Move More North Carolina; representatives from North Carolina colleges and universities with expertise in communications, obesity, and/or young children; and other appropriate groups such as grocery stores, hospitals, and others to develop a carefully crafted communications campaign to promote healthy weight in very young children. This group should specifically examine opportunities for communications activities that would best support the ECOP Task Force’s blueprint.**

1) Once these activities have been determined, North Carolina health funders should provide support to the School of Journalism and Mass Communication at the University of North Carolina at Chapel Hill to conduct an analysis of the relevant peer-reviewed and “gray” literature to determine what messages have been effective in influencing individuals, organizations, or policymakers to make changes needed to reduce the risk of overweight and obesity among very young children. Other states’ efforts that are similar should be reviewed as well.

2) The ECOP Communications Committee’s campaign development process should follow the seven steps to developing a successful communications campaign and should specifically consider audience segmentation, channel selection, and opportunities for partnering with existing efforts (e.g., farmers markets accepting EBT cards, existing school efforts) to boost overall campaign effectiveness, minimize costs, and ensure that the campaign is culturally and linguistically appropriate.

Following the completion of the task force, NCIOM held several meetings with communications professionals from BCBS, Smart Start, and other organizations to identify next steps and best practices for social marketing and messaging for early childhood obesity prevention. In March 2014, NCIOM convened a summit of stakeholders in various sectors addressing early childhood obesity prevention.ⁿⁿ The summit addressed topics including best practices in communication on obesity prevention for health care providers and practitioners, clinical strategies for prevention, enhanced standards and best practices for child care settings, and community engagement strategies for faith communities. While NCIOM has not convened stakeholders regularly on these topics, subsequent projects, including Healthy NC 2030, have incorporated childhood obesity prevention strategies into priority discussions.

ⁿⁿ North Carolina Institute of Medicine. Early Childhood Obesity Prevention Summit. March 2014.

Policy Recommendation 1:

Create a voluntary recognition program for child care and early education programs that meet enhanced physical activity and nutrition standards.

The North Carolina Division of Child Development and Early Education (DCDEE), Division of Public Health Child and Adult Care Food Program (CACFP), the North Carolina Partnership for Children (NCPC), the Carolina Global Breastfeeding Initiative (CGBI), Childcare Resource and Referral Network, and the NC Childcare Health and Safety Resource Center should develop a voluntary recognition program for licensed child care programs, family care homes, Head Start, NC Pre-K, and other early care and education settings that meet enhanced nutrition recommendations, including breastfeeding, physical activity, and naturalized outdoor learning environment standards for infants and young children.

a) The standards for recognition should include:

- 1) Evidence-based or other validated measures that have been shown to improve nutrition, physical activity, and overall health, and promote a healthy weight for young children, beginning in infancy.**
- 2) Requirements that teachers have received enhanced training and certification on health and wellness, including training on how to educate parents about early childhood nutrition and physical activity.**

b) The groups listed in Strategy 1a should seek public input into the voluntary recognition standards before implementing the program.

c) NCPC should seek additional funding to provide financial incentives to child care programs that meet the voluntary standards for enhanced health and wellness recognition.

The Nutrition Services Branch of the NC Division of Public Health (DPH) launched the North Carolina Breastfeeding-Friendly Childcare Designation (NC BFCCD) in 2015. The designation is administered by DPH, is valid for three years, and is free for early education facilities. The program recognizes “licensed childcare facilities statewide that have taken steps to promote, protect, and support breastfeeding”. Using a five-star system, the program integrates the Ten Steps To Breastfeeding Friendly Child Care Centers developed by the Carolina Global Breastfeeding Initiative (CGBI).^{oo} CGBI has also worked in partnership with the NC Childcare Health and Safety Resource Center, the NC Infant-Toddler Enhancement Project, Shape NC, the NC Department of Health and Human Services, Wake County Human Services, and Wake County Smart Start to scale up the Ten Step model throughout the state. The Ten Step model was evaluated in a number of facilities and is modeled after the WHO, UNICEF, and Baby Friendly USA Ten Step program for baby-friendly hospital status, which has been thoroughly researched

^{oo} Breast-feeding friendly child care designation program. North Carolina Department of Health and Human Services website. [https://www.nutritionnc.com/breastfeeding/bf-childcare.htm#:~:text=The%20North%20Carolina%20Breastfeeding%2DFriendly%20Child%20Care%20Designation%20\(NC%20BFCCD,%2C%20protect%2C%20and%20support%20breastfeeding](https://www.nutritionnc.com/breastfeeding/bf-childcare.htm#:~:text=The%20North%20Carolina%20Breastfeeding%2DFriendly%20Child%20Care%20Designation%20(NC%20BFCCD,%2C%20protect%2C%20and%20support%20breastfeeding). Accessed May 19, 2022.

and proven effective. Stipulated in steps 2, 3, 5, 6, 8, 9, and 10 is training of staff, parent education and support, and continued education on breastfeeding promotion/support. ^{pp}

In 2016, the North Carolina General Assembly recognized the role that out-of-school-time programs have in encouraging healthier eating and physical activity.^{qq} The North Carolina Healthy Out-of-School Time Recognition Program (NC HOST) launched in April 2017. NC HOST offers voluntary recognition for out-of-school-time programs that meet a subset of the National After School Association Healthy Eating and Physical Activity Standards (HEPA).^{rr} The NC Center for Afterschool Programs website also provides a detailed database that allows users to filter searches for after-school programs based on preferences of grade, location, activities, and duration.^{ss}

Policy Recommendation 2:

Enhance family education about early childhood healthy weight and obesity prevention strategies through existing maternal, infant, and early childhood home-visiting and family-strengthening programs.

- a) The Children and Youth Branch in the North Carolina Division of Public Health should train the NFP and HFA parent educators it funds about early childhood physical activity, nutrition, healthy weight, and obesity prevention. This training should include appropriate parent education on healthy weight, breastfeeding, nutrition, physical activity, and sleep into existing home-visiting or family-strengthening programs**

The standard curriculum for both Nurse Family Partnership and Healthy Families America includes providing pregnant people and families with information on nutrition and healthy choices. Nurses also provide parent education on healthy weight, breastfeeding, nutrition, physical activity, and safe sleep.^{tt}

- b) NCPC should collaborate with DPH to ensure Parents as Teachers (PAT) parent educators receive similar training.**
- c) DPH should examine possibilities for tracking this information in the home-visiting data systems for the programs funded through the Division of Public Health.**

^{pp} CGBI: Ten steps to breastfeeding friendly childcare. University of North Carolina at Chapel Hill Gillings School of Global Public Health website. <https://sph.unc.edu/cgbi/ten-steps-to-breastfeeding-friendly-child-care/>. Accessed on May 19, 2022.

^{qq} House Bill 1030/Session Law 2016-94, Section 12E.2
<https://www.ncleg.net/Sessions/2015/Bills/House/PDF/H1030v8.pdf>

^{rr} NC Healthy Out-of-School Recognition Time. Eat smart, Move More North Carolina website.
<https://www.eatsmartmovemorenc.com/resource/nc-healthy-out-of-school-time-recognition-program/>. Accessed May 19, 2022

^{ss} Mapping database of Out-Of-School Time programs. North Carolina Center for After School Programs website.
<https://ncafterschool.org/about/>. Accessed May 19, 2022.

^{tt} Tyson, Marshall. Children and Youth Branch, Division of Public Health, North Carolina Department of Health and Human Services. Written (email) communication. July 2019.

This information is currently captured in nurse home-visit notes. In addition, these data components will be included in future updates to the data reporting and tracking systems.^{uu} In addition, researchers at UNC-Chapel Hill conducted a comprehensive landscape study of home visiting in the state, focused on addressing gaps and answering key questions, including: How many families receive home visiting? What program models are operating and where? How large is the home-visiting workforce in our state? Where are the largest areas of unmet need? What are the facilitators and barriers to statewide implementation?^{vv}

Building on the results of the landscape analysis, several state partners have convened a North Carolina Home Visiting Strategic Planning Process.^{ww} This process culminated in the development of an Action Plan that calls for “better coordination across state funders and across programs to build and maintain a system that remediates racial and economic inequities through the equitable access points, quality, and distribution of services” in home visiting.^{xx}

Policy Recommendation 3:

Expand the focus of state agencies to prioritize early childhood health, physical activity, and nutrition through healthy community design.

- a) State agencies should adopt and promote policies and practices that focus on healthy community design to create opportunities for physical activity and access to healthy, affordable foods for families with young children aged 0-5, targeting at-risk communities.**
- b) As community design impacts all age groups, the 2013 Statewide Walk Bike NC Plan should be used as a standard reference for designing communities with pedestrian mobility in mind, and with consideration given at the local level to connectivity of neighborhoods, commercial/retail areas, schools (including child care and early learning programs), and recreation areas.**

The CCCPH Branch of the NC Division of Public Health supports communities in physical activity and healthy eating promotion. CCCPH has led and/or participated in partnerships to support Active Routes to School, Complete Streets, shared-use agreements, farmers markets, and healthy corner stores. In 2019, CCCPH re-convened the Healthy Environment Collaborative (HEC), a partnership of the North Carolina Departments of Health and Human Services, Transportation, Commerce, Natural and Cultural Resources, and Environmental Quality. The HEC members work to integrate and influence interdepartmental efforts to improve the health of North Carolina’s people, environments, and economy. This includes work to enhance cross-departmental relationships and coordinate and align resources where there are departmental intersections, such as in healthy community design. Through

^{uu} Ibid.

^{vv} University of North Carolina at Chapel Hill School of Social Work. North Carolina early home visiting landscape analysis strengthening systems to support families. http://jordainstituteoffamilies.org/wp-content/uploads/2018/09/NC-HV-Study-09_07_18-FINAL.pdf. Published August 2018. Accessed May 19, 2022.

^{ww} Smart Start. North Carolina's Action Plan for Building a Statewide Home Visiting and Parenting Education System November 2020. <http://www.smartstart.org/wp-content/uploads/2021/01/HVPE-Action-Plan-Summary-4.docx>. Published November 2020. Accessed May 19, 2022.

^{xx} Home visiting and parenting education system-building. Smart Start website. <https://www.smartstart.org/home-visiting-parental-education-system-building/>. Accessed May 19, 2022

2021, HEC members have focused on improving health equity within communities. In early 2022, HEC completed the Health Equity Indicator Project and will be presenting findings to the Historically Marginalized Populations Workgroup and other community partners.^{yy}

Other examples include:

Federal funding from the Centers for Disease Control and Prevention (CDC) has allowed North Carolina State University to integrate extension programs with county-based efforts in Edgecombe, Halifax, Lee, and Northampton to promote healthy eating and physical activity across community settings. Programs include increasing access to healthy local foods; promoting healthy eating and physical activity in out-of-school-time programs; connecting neighborhoods to parks, playgrounds, trails, and nature areas for children and families to access; and implementing shared-use agreements and Active Routes to School programs.^{zz}

The 2013 Statewide Walk Bike NC Plan continues to guide the design of bicycle and pedestrian mobility across North Carolina communities. Efforts in community design for increased pedestrian/bike mobility since 2013 include the updating of the Complete Streets Policy, workshops across the state, and continued work with and through the Safe Routes to School organization and through design reviews from the Bicycle and Pedestrian Division.^{aaa}

Additional efforts have moved away from the traditional on-road bike lanes to more innovative developments for bike and pedestrian use including sidewalks, greenways, shared-use paths, protected bike lanes, and cycle tracks.^{bbb}

c) The American Planning Association’s Policy Guide on Community and Regional Food Planning should be used as a standard reference for designing communities with healthy and affordable food access in mind, with consideration at the local and regional levels to support comprehensive food planning processes.

Since 2013, there have been many innovative programs implemented at the city and county levels to combat food insecurity.

In June 2016, the North Carolina General Assembly passed budget adjustments that included \$250,000 in funding for a pilot version of the Healthy Food Small Retailer Program (HFSRP), a program housed in the North Carolina Department of Agriculture that focuses on strategies to address rural food insecurity.

^{yy} Singletary, Tish. Division of Public Health, Community and Clinical Connections for Prevention and Health Branch NC Department of Health and Human Services. Written (email) communication. March 2022.

^{zz} Centers for Disease Control and Prevention. Programs to reduce obesity in high obesity areas. https://www.cdc.gov/nccdphp/dnpao/state-local-programs/profiles/reduceobesity_nc-fs-508.pdf. Published November 2017. Accessed May 19, 2022.

^{aaa} Complete streets. Connect NCDOT website. <https://connect.ncdot.gov/projects/BikePed/Pages/CompleteStreets.aspx#:~:text=What%20Are%20Complete%20Streets%3F,making%20improvements%20to%20existing%20in%20infrastructure>. Accessed May 19, 2022.

^{bbb} Furstenberg, Joseph. Written (email) communication. July 2019.

Through this program, the NC Department of Agriculture funds corner stores and increases their capacity to sell fresh, healthy, local foods; combat food insecurity; and promote healthy eating habits.^{ccc}

Each year since 2016, the HFSRP has been funded through an appropriations bill in the amount of \$250,000 per year. Researchers have examined the impact of this program on the availability of healthy food and on purchasing and consumption patterns. These analyses showed improvements in availability of healthy food, but no statistically significant change in purchases or self-reported consumption.^{ddd}

Policy Recommendation 4:

Improve collection and reporting of physical activity and nutrition data in multiple settings to more fully promote healthy weight among young children.

Data from a number of early child care and education programs feed into the NC Early Childhood Integrated Data System (NC ECIDS)—the sole source of integrated data across multiple programs in North Carolina. NC ECIDS allows for data analyses that can provide unduplicated counts of children across early childhood, social services, public health, and education programs, which will ultimately lead to a better understanding of which services children receive. NC ECIDS will also be able to link data on program participants to the quality of programs and workforce credentials, and eventually will link to state longitudinal education data systems through the Department of Public Instruction.^{eee}

a) The North Carolina Partnership for Children, North Carolina Division of Child Development and Early Education, and the Child and Adult Care Food Program within the North Carolina Division of Public Health should collect data on the extent to which child care programs are implementing best practices related to nutrition and physical activity. Specifically:

- 1) The North Carolina Child and Adult Care Food Program should continue to collect information about the nutritional content of foods served in child care programs for meals or snacks.**
- 2) The Division of Child Development and Early Education should continue to collect information on physical activity, screen time, and meal/snack practices, as well as music, movement, and health practices, as part of the Star Rated License system.**
- 3) The North Carolina Partnership for Children should use physical activity, nutrition, and outdoor learning environment data from the current Shape NC assessment tool (and future iterations) for centers that want to implement additional best practices not captured by other assessments. This information should be provided to the North Carolina**

^{ccc} North Carolina Department of Agriculture and Consumer Services. Healthy Food Small Retailer Project. <https://www.ncagr.gov/markets/healthyFoodSmallRetailer/documents/HealthyFoodSmallRetailerReport2019.pdf>. Published October 30, 2019. Accessed May 19, 2022.

^{ddd} Healthy food small retailer/corner store Act. Carolina Farm Stewardship Association website. <https://www.carolinafarmstewards.org/healthy-food-small-retailer-corner-store-act/>. Accessed May 19, 2022.

^{eee} North Carolina Early Childhood Integrated Data System. North Carolina Department of Health and Human Services website. <https://www.ncdhhs.gov/north-carolina-early-childhood-integrated-data-system>. Accessed May 19, 2022.

Partnership for Children to gain a better understanding of current nutrition and physical activity practices in child care programs.

Shape NC, as a project of NCPC, collected data on a quarterly basis during Phase I of the project (see Community/Environment Recommendation 1). Evaluation data showing improvement led to extended funding for the project, allowing a scale-up in Phase II. Evaluation reports indicated priority outcomes, evaluation methods, and data sources used for a Phase II evaluation. Shape NC's priority outcomes directly respond to this strategy as they directly assess their own progress in implementing best practices of nutrition and physical activity.

Shape NC's priority outcomes include goals for centers not participating in Go NAP SACC; these centers are expected to "apply knowledge [of best practices related to health, nutrition and physical activity] in other ways to promote healthy weight for young children". Community Engagement Specialists work with local communities to improve and promote healthy weight among children in the community at large.^{fff}

- b) The North Carolina Division of Public Health, State Center for Health Statistics, should aggregate data across multiple years on young children, aged 0-5, to obtain reliable data on physical activity, nutrition, and other data that would provide information about activities that influence healthy weight.**

The DPH State Center for Health Statistics publishes trend data from the Child Health Assessment and Monitoring Program Survey (CHAMPS), including data on nutrition, physical activity, and child height and weight. While these data are not aggregated across multiple years, researchers and implementers can use the trend data to inform programs and activities.^{ggg}

- c) The Recreation Resources Service at North Carolina State University should collect information about available active play opportunities for young children and their families, including but not limited to parks, outdoor learning environments, and walking and bicycle trails.**

The Recreation Resources Service website provides a list of state, national, and local resources for communities to consult in improving access to outdoor activities. Resources also include advocacy strategies for enhancing outdoor activities within communities.^{hhh}

^{fffff} Shape NC. Smart Start website. <https://www.smartstart.org/shape-nc-2021/>. Accessed May 19, 2022.

^{ggg} Child health assessment and monitoring program. North Carolina Department of Health and Human Services Division of Public Health website.

<https://schs.dph.ncdhhs.gov/units/stat/champ/#:~:text=The%20Child%20Health%20Assessment%20and,from%20birth%20to%20old%20age>. Published October 13, 2021. Accessed May 19, 2022.

^{hhh} Recreation resource services. North Carolina State University website. <https://rrs.cnr.ncsu.edu/>. Accessed May 19, 2022.

Policy Recommendation 5:

Improve the collection of Body Mass Index (BMI) data for young children and make the information available to policymakers, health professionals, and the public to evaluate existing programmatic and policy initiatives and to inform future ones.

- a) Community Care of North Carolina should continue to encourage primary care professionals to measure weight and height (to calculate Body Mass Index (BMI) percentile) for all Medicaid recipients at least once annually. This information should be included as part of the data collected by the Informatics Center and should be included in quality improvement reports provided back to the networks and CCNC health professionals. Within three years, aggregate information about BMI at the state and network levels should be made publicly available, including information for young children aged 0 through 5.**

NC Medicaid has incorporated BMI measurement into its Quality Strategy under Medicaid Transformation to managed care, which launched in 2021. Under this strategy, providers must submit data on a number of quality measures, including “Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents” (the total of all ages for each of the three rates), a composite measure that includes BMI measurement.ⁱⁱⁱ

- b) The North Carolina Division of Public Health should explore the possibility of capturing BMI data from electronic health records.**
- c) The Kindergarten Entry Health Assessment should capture BMI data for each child entering kindergarten. To do so, the Kindergarten Entry Health Assessment, which captures height and weight data, should be submitted electronically to schools enrolling kindergarten-aged students with data to be aggregated at the district and state level. These data will provide the state with BMI data for all children in the state entering kindergarten.**

The Kindergarten Entry Health Assessment does not currently include height/weight/BMI information. The form is not able to be transmitted electronically.ⁱⁱⁱ

Policy Recommendation 6:

Promote breastfeeding for all North Carolina infants.

All of the major technical assistance and child care training curricula in North Carolina incorporate some element of encouraging breastfeeding among women, teach proper storage of breast milk, and support centers in becoming breastfeeding friendly. The Nutrition Services Branch administers the state-based

ⁱⁱⁱ NC Medicaid Managed Care updated. North Carolina Department of Health and Human Services Division of Health Benefits website. <https://medicaid.ncdhhs.gov/blog/2021/07/23/nc-medicaid-managed-care-quality-strategy-updated>. Published July 23, 2022. Accessed May 19, 2022.

ⁱⁱⁱ North Carolina Department of Public Instruction. North Carolina health assessment transmittal form. <https://publichealth.nc.gov/wch/doc/aboutus/HAFForm2016Revised-062917.pdf>. Accessed May 19, 2022.

Breastfeeding-Friendly Childcare Designation (NC BFCCD) program, which launched in 2015 (discussed in Policy Strategy 1).

The NC BFCCD is modeled after the NC Maternity Center Breastfeeding-Friendly Designation (NC MCBFD), which recognizes hospitals that promote breastfeeding according to guidelines set by the WHO and Baby Friendly USA. The Women, Infants, and Children branch hosts free conferences and training on a range of breastfeeding topics, including policy, peer counselor CPD courses, and webinars on earning NC MCBFD.^{kkk}

Additional efforts to support breastfeeding mothers in North Carolina include the Ban the Bag initiative by the North Carolina Breastfeeding Coalition (NCBC). Started in 2009, this initiative seeks to facilitate collaborative community work through education and advocacy and create an environment of genuine breastfeeding support for all families. NCBC encourages families and hospitals to “ban the bag” of baby formula samples and coupons given to new mothers. Studies have shown these promotional tactics make mothers more likely to end (or not start) exclusive breastfeeding. NCBC also administers the Golden Bow Award, a voluntary recognition program for facilities that do not promote any formula brand or discharge mothers with companies’ formula promotional packages.^{lll} This program is in alignment with the National Academy of Medicine (then Institute of Medicine)’s recommendation in Appendix D of the ECOP report: “Hospitals [should enforce] the World Health Organization’s International Code of Marketing of Breast Milk Substitute.”^{mmm} Twenty-seven hospitals have been granted the Golden Bow Award since 2009.

NCBC also offers awards to Breastfeeding-Friendly Workplaces and Businesses.ⁿⁿⁿ In October 2014, NCBC implemented the Mother-Baby Award for Outpatient Clinics, which recognizes and promotes the best of North Carolina outpatient clinics that offer evidence-based, high-quality breastfeeding support. NCBC’s award criteria follow the Baby-Friendly USA Guidelines and Evaluation Criteria and the Academy of Breastfeeding Medicine’s Clinical Protocol #14: Breastfeeding-Friendly Physician’s Office: Optimizing Care for Infants and Children. Since its implementation, the NCBC has recognized 27 outpatient health care clinics in North Carolina.^{ooo}

The Carolina Global Breastfeeding Institute also has a three-year, \$1.3 million grant from the W.K. Kellogg Foundation to increase the number of women and men of color serving as certified lactation consultants in vulnerable communities. The grant will help establish lactation consultant training programs in communities of color; in the first year of funding, the project will work with Johnson C. Smith University in Charlotte and North Carolina A & T State University in Greensboro. Other institutions

^{lll}Golden bow award. North Carolina Breastfeeding Coalition website. <https://www.ncbfc.org/golden-bow-award>. Accessed May 19, 2022.

^{lll}Golden bow award. North Carolina Breastfeeding Coalition website. <https://www.ncbfc.org/golden-bow-award>. Accessed May 19, 2022.

^{mmm} North Carolina Institute of Medicine. Promoting Healthy Weight for Young Children: A Blueprint for Preventing Early Childhood Obesity in North Carolina. Morrisville, NC: North Carolina Institute of Medicine; 2013.

ⁿⁿⁿ Breastfeeding-Friendly employers and community partners. North Carolina Breastfeeding Coalition website. <https://www.ncbfc.org/business-case-for-breastfeeding-1>. Accessed May 19, 2022.

^{ooo} Mother-baby friendly clinic awards. North Carolina Breastfeeding Coalition website. <https://www.ncbfc.org/mother-baby-friendly-clinics>. Accessed May 19, 2022.

in the South and Southwest will be recruited in years two and three.^{ppp} See Policy Strategy 6 for more details.

The North Carolina Division of Medical Assistance, in conjunction with Community Care of North Carolina, should:

a) Promote Baby-Friendly hospitals.

The national Baby-Friendly designation has been granted to 16% of North Carolina’s hospitals, while 45% of hospitals have been awarded the state-based NCBFD.

b) Promote breastfeeding as part of the Pregnancy Medical Home program.

As part of the Pregnancy Medical Home Program, Community Care of North Carolina has developed guidelines for providers that include breastfeeding support. Providers are encouraged to align their facilities with baby-friendly recommendations such as skin-to-skin contact at delivery and discouraging routine separation of mother and baby. Guidelines also include prompt evaluation and treatment of breastfeeding problems (including providing 24-hour assistance) and addressing breastfeeding concerns at the comprehensive postpartum visit.^{qqq}

c) Encourage pediatricians, family physicians, and other health care professionals to work with parents to promote breastfeeding and to provide referrals to lactation consultants as needed.

d) Provide reimbursement to lactation consultants who have IBCLC certification, and pay to rent or purchase breastfeeding equipment.

In addition, in the 2021 Appropriations Act, the North Carolina General Assembly extended Medicaid benefits for low-income mothers for one year after a child is born, from the six weeks postpartum that had previously been guaranteed. The state budget appropriated \$62.8 million through 2023 for this effort, paid from additional hospital assessment receipts. As the current NCIOM Task Force on Maternal Health notes, expansion of postpartum Medicaid from six weeks to one year will contribute to improved maternal health outcomes and increased rates of breastfeeding, and help address the continuing rise in maternal mortality and morbidity in North Carolina and across the country by expanding access to care during the critical postpartum period, particularly for Black women in North Carolina.^{rrr}

^{ppp} Helping hospitals in the Carolinas become baby- friendly. The Duke Endowment.

<https://www.dukeendowment.org/news/helping-hospitals-in-the-carolinas-become-baby-friendly>. Published June 11, 2018. Accessed May 19, 2022.

^{qqq} Community Care of North Carolina. Pregnancy medical home program care pathway: postpartum care and the transition to well woman care. <https://www.communitycarenc.org/sites/default/files/2018-03/pmh-care-pathway-postpartum-care-and-transition-well-woman-care.pdf> Published February 2015. Accessed June 12, 2021.

^{rrr} North Carolina Institute of Medicine. Blog Post. <https://nciom.org/expanding-pregnancy-medicaid-coverage-up-to-one-year-after-delivery/> Published Feb. 23, 2022. Accessed June 5, 2022.