



American Academy  
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

**Testimony**

Submitted to the Subcommittee on Civil Rights and Human Services  
Committee on Education and Labor  
United States House of Representatives

**Hearing**

Growing a Healthy Next Generation: Examining Federal Child Nutrition Programs  
Tuesday, March 12, 2019

**Statement of Dr. Eduardo Ochoa, Jr.**

Eduardo Ochoa Jr., M.D.  
University of Arkansas for Medical Sciences, Department of Pediatrics  
1 Children's Way, Slot 512-28  
Little Rock, AR 72202  
ochoeduardor@uams.edu  
Tel. (501) 364-3398  
Fax: (501) 978-6443

Thank you Chairman Scott and distinguished members of the House Committee on Education and Labor for the opportunity to submit this testimony. My name is Dr. Eduardo Ochoa and I am a general pediatrician practicing at Arkansas Children's Hospital in Little Rock. I am also a faculty member at the University of Arkansas for Medical Sciences and a Principal Investigator with Children's HealthWatch, a non-partisan network of pediatricians and public health researchers committed to improving the health of young children and their families by informing policies that address and alleviate economic hardships. I am also a member of the American Academy of Pediatrics (AAP). The AAP is a non-profit professional membership organization of 67,000 primary care pediatricians and medical and surgical pediatric subspecialists dedicated to the health and well-being of all infants, children, adolescents, and young adults. The testimony I give today is on behalf of Children's HealthWatch and the American Academy of Pediatrics.

As a practicing pediatrician and researcher, I see the benefits of consistent access to nutritious foods on the health and development of children. In the primary care clinics at Arkansas Children's Hospital, we have been screening for food insecurity and other social needs for several years, finding that about a quarter of our patients are food insecure. Naomi is one such patient. I talked with her mother, who didn't know that I also work at the clinic where Naomi was seen recently. Naomi's mom recounted that she was in clinic for Naomi's check-up and was surprised that she was asked to complete a questionnaire that asked about social needs and, through the questions, we identified that her family was experiencing food insecurity. We know that because she responded with two affirmative answers to the Hunger Vital Sign, a measure validated by Children's HealthWatch research and endorsed as a best practice by the American Academy of Pediatrics.<sup>1,2</sup> Naomi's mother's earnings at work are stretched thin, and even though Naomi is fed at her Head Start program, there is still worry about whether the food at home will run out before she has money to buy more. They left our clinic with a full grocery bag and a list of local resources to get more when she needed it. We were glad to provide her this short-term assistance, but we know there's more to do to ensure that Naomi – and children like her – have consistent access to enough healthy food. Thus, on behalf of Naomi and all of my patients, I am pleased to discuss the importance of child nutrition programs in the United States, including the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), the National School Lunch Program (NSLP) and School Breakfast Program (SBP), the Child and Adult Care Food Program (CACFP), and the Summer Food Service Program (SFSP).

All of these programs are effective in reducing food insecurity– defined as the inability to afford enough food for all family members to lead active, healthy lives– among children and their families. Decades of research has documented the adverse health effects of food insecurity on the health, growth, development, and educational outcomes of children from infancy through adolescence. Infants and toddlers living in food-insecure families are significantly more likely to be in fair or poor health, be hospitalized and have longer hospital stays, suffer from iron-deficiency anemia and common illnesses, and be at-risk for developmental delays compared to young children living in food-secure families.<sup>3,4,5,6,7</sup> Among school-aged children, food insecurity is associated with lower math and reading scores, hyperactivity and absenteeism and tardiness at school.<sup>8,9,10,11</sup> Some longitudinal studies have found food insecurity increases risk of obesity

or being overweight among children.<sup>12,13</sup> Food insecurity in childhood not only affects children's short-term health, development and learning, but has also been associated with long-term health consequences including an increased risk of chronic conditions such as heart disease and obesity in adulthood.<sup>14</sup>

### **Nutritious school meals sustain health and prepare children to learn.**

The National School Lunch Program (NSLP) and School Breakfast Program (SBP) feed 30 million children healthy meals each school day across the country. Research shows NSLP and SBP are associated with numerous benefits for children including improved test scores,<sup>15</sup> lower rates of absences and tardiness,<sup>16,17,18</sup> improved dietary intake,<sup>19,20</sup> and lower risk of obesity.<sup>21</sup>

While the research of Children's HealthWatch focuses on young children not yet in school, we know that infants and toddlers live within the context of families, many of whom have older siblings. NSLP and SBP not only ensure that school-age children eat a nutritious breakfast and lunch, but they also have a positive effect on families. These programs alleviate pressure on often constrained family food budgets; by saving money on up to 10 meals each week during the school year for their children, parents are able to afford meals at home and on the weekends. This means, and research has shown, that the NSLP and SBP are effective in reducing household food insecurity.<sup>22</sup>

As a pediatrician treating children of all ages, I know the value of proper nutrition in schools. Children typically consume up to half of their daily calories at school and for some children, including those who I see in my clinic, the meals they eat at school may be the only meals they eat in a day. This is why evidence-based meal standards that are age appropriate for growing bodies and brains are necessary. My professional association, the American Academy of Pediatrics, applauded Congress in 2010 for the steps it took to align school meal standards with solid nutrition science. These standards passed in the Healthy Hunger-Free Kids Act of 2010 (HHFKA) reflect the Dietary Guidelines for Americans and the recommendations of the AAP and ensure children are eating more fruits, vegetables, lower fat milk, less sodium and more whole grains in their daily diets. Milk deserves special mention here because of the important nutrients it contains, such as calcium and vitamin D, which are very important for healthy growth and development of children. However, low or fat-free unflavored milk is preferable so as to avoid unnecessary fat and calories in children's diets.<sup>23</sup>

In a country where obesity affects nearly one in five children, and places children at greater risk of cardiovascular disease and diabetes, healthy school meals are necessary for reversing this concerning health trend.<sup>24</sup> We are concerned by the USDA's recent announcement that rolls back some of the nutrition standards. The evidence-based standards from 2010 are estimated to prevent more than 2 million children from becoming obese, saving our country up to \$792 million in avoidable health-care costs over a ten year period.<sup>25</sup> Evaluation of the impact of the improved standards is also emerging and positive. Research has shown that as a result of the updated standards, children are eating more fruits and vegetables and their overall dietary

quality has improved.<sup>26</sup> In fact, just recently in my home state of Arkansas, results were released of a Centers for Disease Control study on sodium reduction in school meals. The study was conducted in partnership with 30 schools across Arkansas with goal of reducing dietary sodium intake in food service, procurement and preparation. The study found an 11 percent decrease in sodium content in the meals served and underscored that a comprehensive approach to healthier diets through reduced sodium is feasible.<sup>27</sup> Given the wealth of evidence on the need to increase intake of nutritious foods for healthy weights and prevention of chronic illnesses during childhood, I strongly urge the committee to retain the progress made to improve these standards if they reauthorize our nation's child nutrition programs.

The preponderance of evidence documenting the benefits of school meal programs illuminates the necessity of ensuring that all children, especially those living in low-income neighborhoods, have access to these meals without their families facing administrative barriers or stigma in applying. The Community Eligibility Provision (CEP) is an effective and efficient way to enroll children in neighborhoods with high rates of poverty in school meals. Retaining or even expanding eligibility for CEP is critical to the health and well-being of children in these schools and communities. The research suggests that maximizing school meal participation by setting community eligibility standards to at least 40 percent, the current standard, will ensure we feed children at greatest risk of food insecurity and prepare them to learn.

Children's HealthWatch recommends the following policy improvements to school meal programs:

- Retaining the nutrition standards set by the Healthy, Hunger-Free Kids Act of 2010.
- Increasing access to the National School Lunch Program and School Breakfast Program through strategies including the Community Eligibility Provision and evidence-based models for increasing school breakfast participation including breakfast after the bell and breakfast in the classroom.

### **Summer meals keep children healthy when school is out**

Summer Nutrition Programs include the Summer Food Service Program and the National School Lunch Program. These programs are critically important to keep children healthy when school is out and they no longer have access to school lunch and breakfast. With the Seamless Summer Option (SSO), funding is provided to sponsors, which are typically organizations like schools, local government agencies, and private nonprofit organizations, to serve breakfast and lunch to children ages 18 and younger at community sites in low-income areas.<sup>28</sup> Sites are places where children come together during the summer and can include schools, YMCAs, Boys & Girls Clubs, churches, parks, recreation centers, and more. Often summer meals sites offer educational and enrichment programming along with nutritious meals to ensure that children are nourished and healthy as well as engaged throughout the summer. In just one month of summer 2017, the programs served 3 million children across the country.<sup>29</sup> While this is laudable, it is not enough. Summer Nutrition Programs do not reach all of the children who need them. In fact, only one in seven children who ate a free or reduced-price school lunch during the 2016-2017 school year participated in Summer Nutrition Programs in July 2017. Summer breakfast reaches even

fewer children, despite its critical importance. In July 2017, summer breakfast reached just over half of children participating in summer lunch.

Research on Summer Nutrition Programs is challenging to conduct given the dispersed nature of the program. Nevertheless it is a growing area of research and findings thus far document support for strong nutrition standards, just like the school nutrition programs.<sup>30</sup> However, access to the programs is of equal importance as standards. If children do not receive the meals, then they do not benefit from the nutrition either. Research has demonstrated that geographic accessibility is associated with a significantly lower probability of very low food security - a more severe level of food insecurity, particularly among households with younger children and those living in less urban areas.<sup>31</sup> In other words, where there is access, summer meals lower the chances that children will experience severe food insecurity. This research aligns closely with the robust evidence we have about the critically important nature of school nutrition programs and their role in increasing children's intake of nutritious foods which contribute to healthy growth and weight, improved academic performance, and prevention of chronic illnesses during childhood.

Creative models for improving access to summer meals exist, particularly for children in rural areas.<sup>32</sup> Summer Electronic Benefits Transfer (EBT) is a summer benefit that provides low-income families with children a monthly benefit on a debit-card to purchase food at stores in their communities. Summer EBT does not replace traditional summer meal programs, but rather complements them, and is particularly helpful in rural areas where a meal program may not be available or accessible. Research demonstrates Summer EBT is effective in reducing food insecurity and improving dietary quality among school-age children in low-income families during the summer months.<sup>33</sup>

Since 2013, Arkansas Children's Hospital has provided lunches year-round to children as a sponsor site of the Summer Food Service Program and the Child and Adult Care Food Program. The hospital also ensures that families access nutrition assistance programs by employing financial counselors trained to assist families with SNAP applications when applying for Medicaid, and by having a WIC office onsite open one day per week.

We are not alone in bridging the nutrition gap for children in the health care setting. Hennepin County Medical Center in Minneapolis pioneered the approach we built on and also provides meals to children in the summer through the Summer Food Service Program. When summer comes, 3-to-5-year-olds who get up to 10 meals a week in centers like Head Start or older children who get the same amount in their schools could live in households that have a very hard time providing those meals. Because I know that many of those children in our area receive care in the primary care clinics at Arkansas Children's Hospital, I take comfort in knowing that we are asking about food insecurity and have several tools, including the Summer Food Service Program, to help those families alleviate some of the hunger they experience over the summer.

To ensure that children have the consistent access to food they need to grow and learn from the earliest ages through adolescence, Children's HealthWatch recommends:

- Expanding access to summer nutrition programs through investments that increase the number of children living in families facing food insecurity participating in the program
- Streamlining program operations to reduce administrative burden.
- Increasing opportunities to reach children through alternative delivery models, including Summer EBT, in areas that lack access to summer meals sites
- Implementing strong nutrition standards for the Summer Nutrition Programs

### **CACFP supports healthy nutrition, growth, health and development for young children**

As noted previously, nutrition in early childhood is an essential foundation for healthy child growth and development; thus ensuring that young children have healthy, nutritious food where they live, learn, and play is critically important. The Child and Adult Care Food Program (CACFP) has a vital role in this. CACFP provides reimbursement to Head Start programs, family child care, child care centers, afterschool programs, homeless shelters, domestic violence shelters, and senior day care centers for nutritious meals and snacks served to children and seniors. For this hearing I will focus on the childhood portion of the program. Young children attending family child homes, child care centers, or Head Start programs that participate in CACFP can receive up to two meals and one snack per day that meet National Academy of Sciences standards for nutrition.<sup>34</sup> CACFP served more than 4 million children in fiscal year 2017. My department at UAMS in Arkansas is the grantee for the Head Start and Early Head Start programs in Pulaski County. We serve nearly 900 children in Head Start and Early Head Start, and depend on CACFP to provide two meals and a snack each school day to the children in our 13 sites totaling nearly 2,500 meals per day.

Research on this program is growing.<sup>35</sup> Most of the evidence thus far focuses on preschoolers' participation in CACFP. Research has demonstrated that CACFP improves household food security for families of children attending child care settings participating in CACFP.<sup>36</sup> Studies have also documented that child care settings participating in CACFP serve more fruits, vegetables, and low-fat or skim milk, and fewer sweetened beverages, sweets, and snack foods than settings not participating in CACFP.<sup>37,38,39, 40</sup> Moreover preschoolers consume less saturated fat and total fat, most likely due to CACFP-participating centers serving low-fat milk.<sup>41</sup> I can tell you that our nutrition director at the UAMS Head Start program has heard from parents that their children are asking for new fruits and vegetables they've tried at school to be served at home. For example, one parent recently said that her son asked her to purchase spinach from the store because he had eaten it at school. And another parent stated that she was grateful that her child was eating nutritious meals and snacks because the family struggle to afford healthy food at home. Centers participating in CACFP are also more likely to have quality nutrition and physical activity environments and use good nutrition practices, like serving whole grains every day, including nutrition in the preschool curriculum, and serving family style meals.<sup>42,43, 44</sup>

There are also broader health and development benefits of CACFP. Children who attend centers participating in CACFP are less likely to be obese and, even if they start out with an unhealthy weight – overweight or obesity - they are more likely to have reached a healthy weight at kindergarten entry.<sup>45,46</sup> Children’s HealthWatch’s own research shows that toddlers between 13 months and 3 years old in subsidized child care whose meals are supplied by their child care provider — and, therefore, highly likely to be participating in CACFP — are less likely to be in fair or poor health, less likely to be hospitalized or be at risk for developmental delays, and more likely to be at a healthy weight than similar children whose meals are supplied from home.<sup>47</sup> Furthermore, these young children likely participating in CACFP were less likely to be food insecure than those who attended a non-participating child care setting.<sup>48</sup> These findings provide evidence that CACFP contributes to high quality, regular, nutritious meals in child care to support children’s optimal health, growth, and development, as well as to alleviate some economic hardship for low-income households with young children. At my hospital in Little Rock, we first started our response to the high levels of food insecurity in our patient population by offering meals through the Summer Nutrition Program, but now have added meals through CACFP year-round. The partnership to accomplish this started in 2013 with our Department of Human Services and from August 2017 to August 2018 we provided approximately 27,000 meals to children and their siblings seen in our clinics. Through partnerships with local food pantries, we also provide urgent assistance to families in need of food by providing a bag of groceries the day of the visit, as happened last week in my clinic for children with special healthcare needs. Although we have taken many steps as a healthcare facility to address food insecurity, we realize our impact is limited and that too many children in America are food insecure.

Children’s HealthWatch recommends:

- Allocating adequate funding to support high quality nutrition – specifically it is important to increase and simplify CACFP meal and snack reimbursement rates to offset the high cost of healthy foods
- Adding a third meal or snack option to meet the nutrition needs of children in care for longer hours
- Increasing participation of family child care providers by allowing automatic eligibility for providers in neighborhoods where 40% percent of elementary school children qualify for free or reduced-price school lunch (currently this is set at 50%). As a pediatrician in a rural state, area eligibility is especially important for areas with lower density populations, but still high rates of people living in poverty. Expanding the area eligibility criteria would better serve rural communities in Arkansas and across the country.
- Ensuring that eligible providers can easily access the program by reducing administrative burdens and costs that create barriers for eligible child care centers and providers to be CACFP providers

**WIC is an evidence-based program for improving birth outcomes and health among infants, toddlers, and preschoolers during a critical developmental window.**

For nearly five decades, WIC has been a premier public health program for pregnant, breastfeeding, and postpartum women, infants, and children under age five. Given the rapid pace of young children's brain development,<sup>49</sup> timely availability of adequate nutrition is essential. Several studies document the importance of WIC. For example, WIC participation has been positively associated with healthy birth outcomes, improved diets for infants, increased iron density, and higher rates of vaccinations and other preventive health care.<sup>50</sup>

Children's HealthWatch research has documented that compared to children who were likely eligible but not receiving WIC due to access problems, children who received WIC were more likely to:

- Be in excellent or good health
- Live in a food secure household
- Have a healthy weight for their age
- Have a lower risk of developmental delays<sup>51,52</sup>

Our research has also shown that continuous participation in WIC is critical for ensuring children have optimal health throughout early childhood. Previous research from the Minneapolis site of Children's HealthWatch compared children in Minnesota currently receiving WIC to those who had previously participated in WIC but were not currently enrolled.

Compared to children currently enrolled, children who were formerly enrolled had:

- Higher prevalence of overweight
- Lower prevalence of being a 'well child' – defined as a child who is in good or excellent health, is not at risk for developmental delays, has not been hospitalized, and has a healthy weight and height for his/her age.

Maternal health was also affected by discontinued WIC participation. Compared to those currently enrolled, mothers with children formerly enrolled in WIC more frequently reported being in fair or poor health.<sup>53</sup> Recent research from a nationally representative dataset similarly found that food insecurity among children turning five (age 61 months) who had not yet started kindergarten increases 5 to 11 percentage points due to the loss of WIC eligibility and the resulting gap in nutrition support before they start school.<sup>54</sup>

Moreover, WIC has repeatedly been demonstrated to reduce health care costs – for families and for society as a whole. We know that for every dollar spent on WIC benefits and services for pregnant mothers, the associated savings in Medicaid costs during the first 60 days ranged from \$1.77 to \$3.13 – in other words the savings are double or triple for every dollar invested.<sup>55,56</sup>

During this important period of development, every day is an opportunity to ensure children have the nutritious food their bodies need to grow. This is why I think it is important to encourage the colocation of WIC offices in hospitals and community health centers and ensure coordination with health insurance and the medical home for the child. In fact, one study from



a Vermont pilot project found that children who received services from a collocated clinic were more likely to be continuously enrolled in WIC during their first year of life and that parents were significantly more likely to receive advice about early nutrition practices from both their pediatrician and a WIC nutritionist.<sup>57</sup> Further, pediatric clinic staff had more positive views of coordination of WIC services and services in their practice after participating in the program. As coordination between WIC is often a concern of pediatricians, this result is quite positive. Another study found that compared with other infants, those who used collocated WIC sites either were closer to their age-appropriate weight or had higher immunization rates when recertified by WIC after their first birthday.<sup>58</sup> Any linkage that reduces barriers to access for this critical program is a worthwhile investment for the health and well-being of children.

In summary, our research and the research of others documents the necessity of a strong WIC program. Therefore, reducing barriers to the program and expanding the reach of WIC will ensure that more children have the nutritious foods their growing brains and bodies need. Based on the evidence, Children's HealthWatch recommends the following policy improvements to WIC:

- Reducing administrative barriers for families of infants and helping them stay connected to WIC by extending the recertification period from 12 months to 24 months.
- Closing the gap between WIC and school meals participation by extending WIC eligibility to age 6 (instead of current age 5) to cover children who are neither age-eligible for school - and therefore school meals - nor eligible for WIC.
- Maintaining or strengthening WIC eligibility through pregnant women and children's eligibility for other key programs for low-income families such as Medicaid and SNAP.

### **Child nutrition programs work in concert throughout childhood to ensure children of all ages have the best opportunity to grow and develop to their fullest potential**

In summary, as a pediatrician, I know the vital importance of child nutrition programs in our nation. Each program complements the others in ensuring that no matter their age, children are nourished with healthy food in all the places children live, learn, and play. The programs are strong but they can be even better if we fund them adequately, ensure that the standards are driven by science, and make smart improvements that ensure the programs are coordinated, and minimize administrative burden for families, providers and government. In my clinic, I see firsthand the difference these programs make for children and their families. I see the relief on a mother's face when we can provide a grocery bag, or when our financial counselor can walk a father through a SNAP application. The staff in our clinics have been moved to tears when the data on food insecurity among our patients and families is presented to them. Our teachers at Head Start know the difference Monday morning breakfast makes to children that may have missed meals over the weekend. I look forward to working with you to ensure that these vital programs are best able to serve children and support their healthy growth and development.

Thank you for the opportunity to provide this testimony.

- 
- <sup>1</sup> Hager, E. R., Quigg, A. M., Black, M. M., Coleman, S. M., Heeren, T., Rose-Jacobs, R., Cook, J. T., Ettinger de Cuba, S. E., Casey, P. H., Chilton, M., Cutts, D. B., Meyers A. F., Frank, D. A. (2010). Development and Validity of a 2-Item Screen to Identify Families at Risk for Food Insecurity. *Pediatrics*, 126(1), 26-32. doi:10.1542/peds.2009-3146.
- <sup>2</sup> Council on Community Pediatrics, Committee on Nutrition. Promoting food security for all children. *Pediatrics*, 2015;136(5).
- <sup>3</sup> Ettinger de Cuba S, Casey PH, Cutts DB, Heeren T, Coleman S, Bovell-Ammon A, et al. Household food insecurity positively associated with increased hospital charges for infants. *J Applied Research on Children*. 2018;9(1). Available at: <http://childrenshealthwatch.org/wp-content/uploads/Food-Insecurity-Positively-Associated-with-Hospital-Charges-for-Infants.pdf>
- <sup>4</sup> Cook JT, Frank DA, Berkowitz C., Black MM, Casey PH, Cutts DB, et al. Food insecurity is associated with adverse health outcomes among human infants and toddlers. *The Journal of Nutrition*, 2004;134(6), 1432-1438.
- <sup>5</sup> Alaimo, K., Olson, C. M., Frongillo Jr, E. A., & Briefel, R. R. Food insufficiency, family income, and health in US preschool and school-aged children. *American Journal of Public Health*, 2001;91(5), 781.
- <sup>6</sup> Rose-Jacobs, R., Black, M. M., Casey, P. H., Cook, J. T., Cutts, D. B., Chilton, M., et al. Household food insecurity: associations with at-risk infant and toddler development. *Pediatrics*, 2008;121(1), 65-72.
- <sup>7</sup> Skalicky, A., Meyers, A. F., Adams, W. G., Yang, Z., & Frank, D. A. Child food insecurity and iron deficiency anemia in low-income infants and toddlers in the United States. *Maternal and Child Health Journal*, 2006;10(2), 177-185.
- <sup>8</sup> Ashiabi, G. Household food insecurity and children's school engagement. *Journal of Children and Poverty*, 11(1), 2005;3-17
- <sup>9</sup> Jyoti, D. F., Frongillo, E. A., & Jones, S. J. Food insecurity affects school children's academic performance, weight gain, and social skills. *Journal of Nutrition*, 2005;135(12), 2831-2839
- <sup>10</sup> Murphy, J. M., Wehler, C. A., Pagano, M. E., Little, M., Kleinman, R. E., & Jellinek, M. S. Relationship between hunger and psychosocial functioning in low-income American children. *Journal of the American Academy of Child & Adolescent Psychiatry*, 1998; 37(2), 163-170.
- <sup>11</sup> Alaimo, K., Olson, C. M., & Frongillo, E. A. Food insufficiency and American school-aged children's cognitive, academic, and psychosocial development. *Pediatrics*, 2001;108(1), 44-53
- <sup>12</sup> Bronte-Tinkew, J., Zaslow, M., Capps, R., Horowitz, A., & McNamara, M. Food insecurity works through depression, parenting, and infant feeding to influence overweight and health in toddlers. *Journal of Nutrition*, 2007;137(9), 2160-2165.
- <sup>13</sup> Metallinos-Katsaras, E., Must, A., & Gorman, K. A longitudinal study of food insecurity on obesity in preschool children. *Journal of the Academy of Nutrition and Dietetics*, 2012;112(12), 1949-1958.
- <sup>14</sup> Case, A., Fertig, A., & Paxson, C. The lasting impact of childhood health and circumstance. *Journal of Health Economics*, 2005;24(2), 365-389
- <sup>15</sup> Murphy JM, Pagano M, Bishop SJ. Impact of a Universally Free, In-Classroom School Breakfast Program on Achievement: Results from the Abell Foundation's Baltimore Breakfast Challenge Program. Massachusetts General Hospital, Boston, MA. Interim report; 2001.
- <sup>16</sup> Bartfeld JS, Ahn HM. Breakfast and the Achievement Gap Among Urban Minority Youth. *J Sch Health*. 2011; 81(10):635-640.
- <sup>17</sup> Kleinman RE, Hall S, Green H, Korzec-Ramirez D, Patton K, Pagano ME, Murphy JM. Diet, Breakfast, and Academic Performance in Children. *Annals of Nutrition & Metabolism* 2002; 46 (suppl 1):24-30.
- <sup>18</sup> Murphy JM. Breakfast and Learning: An Updated Review. *Journal of Current Nutrition and Food Science*, 2007; 3(1): 3-36.
- <sup>19</sup> Clark MA, Fox MK. Nutritional Quality of the Diets of U.S. Public School Children and the Role of the School Meal Programs. *J Am Diet Assoc*. 2009; 109 (2 Supplement 1), S44-S56.

- 
- <sup>20</sup> Robinson-O'Brien R, Champoux B, Haines J, et al. Associations Between School Meals Offered Through the National School Lunch Program and the School Breakfast Program and Fruit and Vegetable Intake Among Ethnically Diverse, Low-Income Children. *J Sch Health*. 2010;80 (10): 487-492.
- <sup>21</sup> Millimet DL, Tchernis R, Husain M. School Nutrition Programs and the Incidence of Childhood Obesity. *Journal of Human Resources*. 2010;45 (3), 640-654.
- <sup>22</sup> Bartfiel JS, Ahn HM. The School Breakfast Program Strengthens Household Food Security among Low-income Households with Elementary School Children. *J. Nutr*. 2011;141(3):470-475.
- <sup>23</sup> Daniels SG, Hassink SG, Committee on Nutrition. The Role of the pediatrician in primary prevention of obesity. *Pediatrics*, 2015;136:e275.
- <sup>24</sup> Centers for Disease Control. Childhood obesity facts: Prevalence of childhood obesity in the United States. Webpage. Accessed March 4, 2019. <https://www.cdc.gov/obesity/data/childhood.html>
- <sup>25</sup> Gortmaker SL, Wang YC, Long MW, Giles CM, Ward ZJ, Barrett JL, et al. Three interventions that reduce childhood obesity are projected to save more than they cost to implement. *Health Affairs*, 34(11);2015.
- <sup>26</sup> Johnson DB, Podrabsky M, Rocha A, Otten JJ. Effect of the Healthy Hunger-Free Kids Act on the Nutritional Quality of Meals Selected by Students and School Lunch Participation Rates. *JAMA Pediatr*, 2016 Jan;170(1): e153918
- <sup>27</sup> Long CR, Rowland B, Langston K, Faitak B, Sparks K, Rowe V, McElfish PA. Reducing the intake of sodium in community settings: evaluation of Year One activities in the Sodium Reduction in Communities Program, Arkansas, 2016-2017. *Prev Chronic Dis*. 2018; 15: 180310.
- <sup>28</sup> Hayes C, Rosso R, Boyd A, FitzSimons C. Hunger Doesn't Take a Vacation: Summer Breakfast Status Report. Food Research and Action Center. 2018.
- <sup>29</sup> Hayes C, Rosso R, Boyd A, FitzSimons C, 2018.
- <sup>30</sup> Hopkins LC, Gunther C. A Historical Review of Changes in Nutrition Standards of USDA Child Meal Programs Relative to Research Findings on the Nutritional Adequacy of Program Meals and the Diet and Nutritional Health of Participants: Implications for Future Research and the Summer Food Service Program. *Nutrition*. 2015;7(12):10145-10167.
- <sup>31</sup> Miller DP. Accessibility of summer meals and the food insecurity of low-income households with children. *Public Health Nutrition*. 2016; 19(11):2079-2089.
- <sup>32</sup> Rural Hunger in America: Summer Meals. Food Research and Action Center. 2018.
- <sup>33</sup> Collins AM, Kleman JA, Briefel R, Rowe G, Gordon AR, Logan CW, et al. A Summer Nutrition Benefit Pilot Program and Low-income Children's Food Security. *Pediatrics*, 2018;141(4).
- <sup>34</sup> Hartline-Grafton H. The importance of the federal nutrition programs for infants and toddlers. Food Research and Action Center. 2018.
- <sup>35</sup> Hartline-Grafton H. 2018
- <sup>36</sup> Heflin, C., Arteaga, I., & Gable, S. (2015). The Child and Adult Care Food Program and food insecurity. *Social Service Review*, 89(1), 77–98.
- <sup>37</sup> Andreyeva, T., Kenney, E. L., O'Connell, M., Sun, X., & Henderson, K. E. (2018). Predictors of nutrition quality in early child education settings in Connecticut. *Journal of Nutrition Education and Behavior*, 50(5), 458–467.
- <sup>38</sup> Korenman, S., Abner, K. S., Kaestner, R., & Gordon, R. A. (2013). The Child and Adult Care Food Program and the nutrition of preschoolers. *Early Childhood Research Quarterly*, 28(2), 325–336.
- <sup>39</sup> Gordon, R. A., Kaestner, R., Korenman, S., & Abner, K. (2010). The Child and Adult Care Food Program: Who is Served and What are Their Nutritional Outcomes? NBER Working Paper, 16148.
- <sup>40</sup> Ritchie, L. D., Boyle, M., Chandran, K., Spector, P., Whaley, S. E., James, P., Samuels, S., Hecht, K., & Crawford, P. (2012). Participation in the Child and Adult Care Food Program is associated with more nutritious foods and beverages in child care. *Childhood Obesity*, 8(3), 224–229.
- <sup>41</sup> Andreyeva T, Kenney EL, O'Connell M, Sun X, Henderson, KE, 2018.
- <sup>42</sup> Liu, S. T., Graffagno, C. L., Leser, K. A., Trombetta, A. L., & Pirie, P. L. (2016). Obesity prevention practices and policies in child care settings enrolled and not enrolled in the Child and Adult Care Food Program. *Maternal and Child Health Journal*, 20(9), 1933–1939.

- 
- <sup>43</sup> Andreyeva T, Kenney EL, O’Connell M, Sun X, Henderson, KE, 2018.
- <sup>44</sup> Erinoshio, T., Vaughn, A., Hales, D., Mazzucca, S., Gizlice, Z., Treadway, C., Kelly, A., & Ward, D. (2018). The quality of nutrition and physical activity environments of child-care centers across three states in the southern U.S. *Preventive Medicine*, 113, 95–101.
- <sup>45</sup> Korenman S, Abner KS, Kaestner R, Gordon RA, 2013.
- <sup>46</sup> Lumeng, J. C., Kaciroti, N., Sturza, J., Krusky, A. M., Miller, A. L., Peterson, K. E., Lipton, R., & Reischl, T. M. (2015). Changes in body mass index associated with head start participation. *Pediatrics*, 135(2), e449–e456.
- <sup>47</sup> Gayman A, Ettinger de Cuba S, March E, Cook JT, Coleman S, Frank DA. Child Care Feeding Programs Support Young Children’s Healthy Development. Boston, MA: Children’s HealthWatch. 2010.
- <sup>48</sup> Ettinger de Cuba S, Cutts DB, Black MM, Coleman S. Child Care Feeding Programs Support Young Children’s Healthy Development. Strong Foundations – Tenth Biennial Federal Reserve System Community Development Research Conference. Washington, DC, March 2017.
- <sup>49</sup> Schwarzenberg SJ, Georieff M. Advocacy for Improving Nutrition in the First 1000 Days to Support Childhood Development and Adult Health. *Pediatrics*, 2018;141(2).
- <sup>50</sup> Coleman S, Nichols-Barrer IP, Redline JE, Devaney BL, and Ansell SV. Effects of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): A review of recent literature. United States Department of Agriculture. January 2012. Report number WIC-12-WM. Available at <http://www.fns.usda.gov/sites/default/files/WICMedicaidLitRev.pdf>
- <sup>51</sup> Jeng K, March E, Cook J, Ettinger de Cuba S. Feeding Our Future: Growing Up Healthy with WIC. Boston, MA; 2009.
- <sup>52</sup> [http://childrenshealthwatch.org/wp-content/uploads/MB\\_Pediatrics\\_2004.pdf](http://childrenshealthwatch.org/wp-content/uploads/MB_Pediatrics_2004.pdf)
- <sup>53</sup> Winter N, Ettinger de Cuba S, Cutts D, Black M, Pasqueriello J, Bovell A. Building on strength: Keeping young children connected to WIC. Children’s HealthWatch. 2015. Available at: <http://childrenshealthwatch.org/wp-content/uploads/FINAL-WIC-Retention-brief-for-web.pdf>
- <sup>54</sup> Arteaga I, Heflin C, Gable S. The impact of aging out of WIC on food security in households with children. *Children and Youth Services Review*. 2016; 69: 82-96.
- <sup>55</sup> Devaney B, Bilheimer L, Schore J. Medicaid Costs and Birth Outcomes: The Effects of Prenatal WIC Participation and the Use of Prenatal Care. In: Cost-Benefit Analysis and Public Policy. 2009. p. 401–18.
- <sup>56</sup> Avruch S, Cackley AP. Savings achieved by giving WIC benefits to women prenatally. *Public Health Rep*. 1995;110(1):27–34.
- <sup>57</sup> U.S. Department of Agriculture. WIC Services in the Medical Home: Improving Early Feeding Practices. [https://fns-prod.azureedge.net/sites/default/files/VT\\_report.pdf](https://fns-prod.azureedge.net/sites/default/files/VT_report.pdf). Published June 2007. Accessed February 21, 2019.
- <sup>58</sup> Kendal AP, Peterson A, Manning C, Xu F, Neville LJ, Hogue C. Improving the health of infants on Medicaid by collocating special supplemental nutrition clinics with managed care provider sites. *Am J Public Health*. 2002;92(3):399-403.