

American Academy  
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

Testimony of  
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On behalf of the  
**American Academy of Pediatrics**

Before the  
**Senate Agriculture Committee**

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Chairman Roberts, Ranking Member Stabenow, members of the committee, I am Sandra Hassink, and I am President of the American Academy of Pediatrics (AAP), a non-profit professional organization of 62,000 primary care pediatricians, pediatric medical sub-specialists, and pediatric surgical specialists whose mission it is to attain optimal physical, mental and social health and well-being for all infants, children, adolescents, and young adults.

It is an honor to be here today speaking about a subject on which I have dedicated my life's work, childhood obesity and the connection between nutrition and health. I began the weight management clinic at Nemours A.I. duPont Hospital in Wilmington, DE in 1988, and for the last 27 years have cared for children with overweight and obesity. In addition to being AAP president, I am medical director for the AAP Institute for Healthy Childhood Weight whose mission it is to empower pediatricians, their teams, patients, and families to achieve a healthy weight.

I'd like to begin today by focusing on the building blocks of a foundation of child health and highlighting what I see as the three basic needs of every child that will ensure this foundation:

- Sound, appropriate nutrition;
- Stable, responsive and nurturing relationships; and
- Safe, healthy environments and communities.

Meeting these needs for every child is fundamental to achieving and sustaining optimal child health and well-being into adulthood for all children.

### ***Early Nutrition as a Critical Factor in Childhood Development and Adult Health***

Exciting new data shows the short- and long-term impacts of investments in nutrition and health care during the prenatal and early childhood years. The time period from pregnancy through early childhood is one of rapid physical, cognitive, emotional and social development and because of this, this time period in a child's life can set the stage for a lifetime of good health and success in learning and relationships or it can be a time when physical, mental and social health and learning are compromised.

Data from animal and human studies indicate that two experiences relatively common in pregnancy – an unhealthy maternal diet and psychosocial distress – significantly affect children's future neurodevelopment. Prenatal exposure to maternal distress and poor nutrient status are a toxic mix and are associated with decrements in neurocognitive development, particularly in relation to memory and learning, and specifically with regard to variation in the structural, functional, and neurochemical aspects of the hippocampus.<sup>i</sup>

Optimal overall brain development in the prenatal period and early years of life depends on providing sufficient quantities of key micronutrients during specific sensitive time periods. These periods coincide with the times when specific brain regions are developing most rapidly and have their highest nutrient requirements.<sup>ii</sup>

Micronutrients such as iron and folate demonstrated effects on brain development and are commonly deficient in pregnant women and young children in the U.S. These deficiencies can lead to delays in attention and motor development, poor short term memory, and lower IQ scores.<sup>iii</sup>

It is important to note that lack of adequate access to food is itself a contributor to toxic stress. Toxic stress, a result of prolonged exposure to adverse childhood experience in the absence of caring, stable relationships with adults, can affect the physical, mental, and economic well-being of children well into adulthood.<sup>iv</sup> The inability to provide food for yourself or your children creates stress in families, contribution to depression, anxiety, and other emotional impacts of poverty.

Like poverty, food insecurity is a dynamic, intensely complex issue. For many families, seemingly small changes to income, expenses, or access to federal or state assistance programs may instantly reduce the ability to purchase healthy food and result in increased vulnerability to food insecurity.

### ***The Double Burden of Obesity and Food Insecurity***

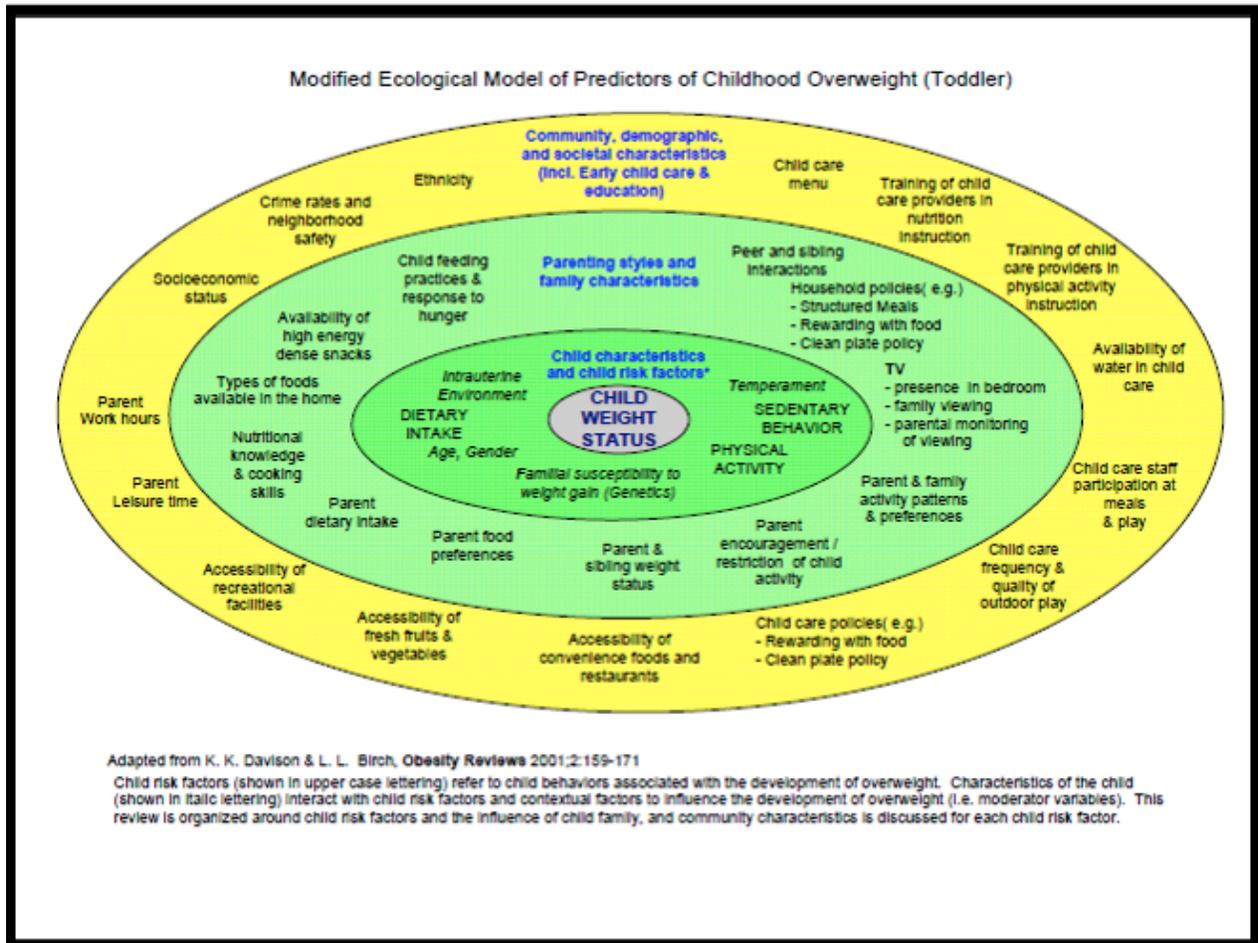
Today our children are experiencing an unprecedented nutritional crisis resulting in the double burden of obesity and food insecurity. The picture of food insecurity is increasingly a child with overweight or obesity consuming a poor-quality diet. Families with children are more likely to be food insecure than families without children, and being food insecure makes families especially vulnerable to obesity due to the additional risk factors associated with poverty including lack of access to healthy, affordable foods, fewer opportunities for physical exercise, high levels of stress, and limited access to health care. Good nutrition is not only an essential component of chronic disease prevention and treatment; it also helps treat the effects of chronic hunger.

In food insecure households, parents reported poorer health and developmental risks in their children including more frequent stomach aches, headaches, colds, hospitalizations, anemia, and chronic conditions. Parents also reported more anxiety, depression and difficulties in school.<sup>v</sup> Infants are more likely to have insecure attachments and perform more poorly on cognitive assessments.<sup>vi</sup>

As a pediatrician who has specialized in caring for children suffering from overweight and obesity, I can tell you firsthand that we have an urgent public health problem facing our children. Nearly 1 in 3 school-age children and adolescents has overweight or obesity and only half of all children ages 2 to 17 meet federal diet quality standards. Children who have overweight or obesity as preschoolers are 5 times as likely as normal-weight children to have overweight or obesity as adults. Children with obesity are at increased risk for high blood pressure, high cholesterol, cardiovascular disease, type 2 diabetes, asthma, and social and psychological problems. Obesity disproportionately affects minority children and the highest rates of obesity are found in people with the lowest incomes.

When I started my practice in childhood weight management 27 years ago, I was seeing adolescents. When I retired last October I had a special clinic for children under 5 with obesity. These children were already showing the effects of their increased Body Mass Index on their blood pressure, and measures of blood sugar control. We saw obesity related liver disease in 4 year olds and had children with prediabetes as young as 6.

First and foremost, we must recognize that there is no single factor responsible for obesity. Obesity is the end result of a complex interplay of different issues. Davidson and Birch described the “socio-ecologic” model of obesity, which illustrates the many factors that impact weight. The concentric circles of this model show the issues related to the individual, family, community, and larger social structure that either promote or inhibit good nutrition, physical activity, and overall health. Any meaningful attempt to stem the rising tide of obesity must address many of these issues simultaneously and over a prolonged period of time in order to produce sustainable change.



### ***Effective Programs and Strategies***

One of the most effective investments congress can make during the prenatal to school-aged period is to support the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). I thank the committee for its strong, bipartisan support for WIC over the past 4 decades.

WIC provides nutritious foods, nutrition education, breastfeeding support, and referrals to health care and social services for millions of low-income women, their infants, and young children who are determined to be nutritionally at-risk. In providing this nutrition support and linkages with health care, WIC builds good health and promotes resilience in families at risk, helping to mitigate the effects of toxic stress.

WIC helps give children a healthy start at life and children who receive WIC have improved birth outcomes, increased rates of immunization, better access to health care through a medical home, and participation may help reduce childhood obesity. It is now well-documented that WIC is effective in improving birth outcomes and the health of infants, including reducing low birth weight births below 2500g.<sup>vii</sup> WIC is particularly effective at improving birth outcomes in the moms with inadequate prenatal care and who are particularly high risk cases.<sup>viii</sup> One study found that WIC helps eliminate socioeconomic disparities in birth outcomes.<sup>ix</sup>

WIC has played an important role in promoting breastfeeding and improving breastfeeding initiation. However, this is an area where further improvements can be made to support continuation of breastfeeding to meet AAP recommendations. These recommendations are to exclusively breastfeed for about 6 months, followed by continued breastfeeding as complementary foods are introduced, with continuation of breastfeeding for 1 year or longer as mutually desired by mother and infant.<sup>x</sup>

In addition to its nutritional benefits, breastfeeding protects against respiratory and gastrointestinal tract infections, ear infections, and may be linked to lower obesity rates in adolescence and adulthood. In order to support WIC participants to move closer to meeting AAP recommendations and national targets for breastfeeding, we recommend that the committee seek to find ways to promote breastfeeding in the WIC program including through an increase in the authorization for the breastfeeding peer counseling program within WIC to \$180 million.

In a time of limited federal resources and maximizing the efficiencies of those limited resources, I urge the committee to look for ways to even further streamline the WIC enrollment process. One example might be to give states the option to certify infants for two years to eliminate duplicative paperwork. Another would be to extend eligibility for children to age 6 to assure a continued strong health and nutrition foundation and to help ensure there are no nutritional and health care lapses prior to school entry.

One of the hallmarks of any successful nutrition and health care intervention is its evidence and science base. WIC participants may not purchase just any foods. The WIC food packages are based on what nutrition science experts recommend are needed to meet the nutritional needs of pregnant and breastfeeding women and young children. I urge the committee to preserve and protect the integrity of the WIC food packages by basing them on sound scientific evidence.

Similarly, as the committee looks ahead to the reauthorization of WIC, I urge you to keep in mind that WIC is a targeted intervention for mothers and young children with

impacts that can be long-term in nature including health outcomes, educational prospects, and the prosperity of our communities.

WIC is just one intervention to address the double burden.

Families, our schools, child care, communities, and certainly pediatricians have an important role to play in shaping healthy habits. As the committee prepares to reauthorize the child nutrition programs, I urge you to make addressing the double burden of obesity and food insecurity in young children a priority. We must ensure that the foods our children receive in school and child care are of high nutritional quality and we must not forget that countless children go without access to food during out of school or child care time including mornings, evenings, weekends and especially summer. Pediatricians can tell almost immediately which children had adequate nutrition during the summer and which children did not when conducting back-to-school physical exams.

When you are in the middle of an epidemic – and I believe we are – you cannot keep doing what you’ve been doing. As pediatricians, parents, community leaders, and policy makers, we have an obligation to ensure that the food we provide our children is healthy and nutritious and that we model that behavior as adults.

### ***Role of the Pediatrician***

The pediatrician’s office serves an important setting for conversations about food and health. Pediatricians see children and their families for 31 well-child visits during the first 21 years of life. Twenty of these visits occur in the first five years of a child’s life, providing an opportunity to partner with families to establish health living habits. Pediatricians can play a crucial role in screening and identifying children at risk for food insecurity and connecting families with needed community resources.

The AAP Institute for Health Childhood Weight developed [Health Active Living for Families](#) with tools and tips on healthy eating and physical activity for children under 5. It’s important that obesity prevention and treatment focus on family systems changes, lifestyle modifications, and access to healthy, affordable food and physical activity. New research shows the increasingly important relationship of fathers on their child’s nutrition and physical activity including a position association between father’s and preschooler’s Body Mass Index. All mothers want their children to eat, grow and be healthy but we are learning that maternal feeding goals often depend on the child’s characteristics. Therefore, we may need more tailored interventions for families to be effective in addressing the double burden.

Good nutrition in childhood sets the stage for lifelong health. Just like we vaccinate to protect against the flu, so too can we provide pregnant women and children with nutritional assistance and breastfeeding support to protect against chronic disease. As we celebrate our mothers this weekend, I urge the committee to put their nutritional needs and those of their children first. Our children's health simply cannot wait.

Thank you and I would be happy to answer any questions.

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<sup>i</sup> Monk et al. Research Review: Maternal prenatal distress and poor nutrition – mutually influencing risk factors affecting infant neurocognitive development. *Journal of Child Psychology and Psychiatry*. 54:2 (2013), pp 115-130.

<sup>ii</sup> Wachs et al. Issues in the timing of integrated early interventions: contributions from nutrition, neuroscience, and psychological research. *Ann. N.Y. Acad. Sci.* 1308 (2014) 89-106.

<sup>iii</sup> Monk et al. (2013).

<sup>iv</sup> Shonkoff J, Garner A, AAP Committee on Psychosocial Aspects of Child and Family Health, et al. The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*, 2012; 129(1): e232-246.

<sup>v</sup> Nord M, Food insecurity in households with children: Prevalence, severity, and household characteristics. 2009 USDA, Economic Research Service.

<sup>vi</sup> Zaslow M et al Food security during infancy; Implications for attachment and mental proficiency in toddlerhood. 2009 Maternal and Child Health Journal 13(1) 66-80.

<sup>vii</sup> Bitler MP & Currie J. Does WIC work? The effects of WIC on pregnancy and birth outcomes. *J Policy Anal Manage.* 2005 Winter; 24(1):73-91.

<sup>viii</sup> El-Bastawissi AY, et al. Effect of the Washington Special Supplemental Nutrition Program for Women, Infants and Children (WIC) on Pregnancy Outcomes. *Matern Child Health J.* 2007 Nov; 11(6): 611-21.

<sup>ix</sup> Finch BK. Socioeconomic Gradients and Low Birth-Weight: Empirical and Policy Considerations. *Health Serv Res.* 2003 Dec; 38(6 Pt 2): 1819–1842.

<sup>x</sup> AAP Section on Breastfeeding. Policy Statement: Breastfeeding and the Use of Human Milk. *Pediatrics*, 2012; 129; e827.