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Lesley Lueke [a]
[a] Southern Illinois University

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DEVOURING CHILDHOOD OBESITY BY HELPING CHILDREN HELP THEMSELVES

Lesley Lueke*

"The destiny of nations depends on how they nourish themselves."[1]

INTRODUCTION

Imagine your six-year-old daughter, Jessica, is perfect in every way—except she is overweight. You allow her to consume high-fat and high-calorie foods and sugary juices as often as she asks for them. You watch as her face grows rounder and her clothing size surpasses that of the average six-year-old. Fast-forward four years, and, at age 10, Jessica is considered obese by medical standards. You realize you need to help change your daughter's diet, but she is already set in her ways of eating fast food and candy as her only nutrients. Then, as a teenager, Jessica has low self-esteem and considers food as her solace. By adulthood, Jessica is still obese and pays for her condition with higher insurance premiums and medical expenses in addition to a greater cost of living than that of the average-weight adult. There must be something that could have been done at an early age to prevent this escalating problem.

Childhood obesity is a national epidemic calling for a national solution. Obesity does not besiege only one age group; rather, it is an equal opportunity killer. As of 2008, 64% of American adults were overweight, and 36% of American adults were obese.[2] As alarming as those rates are, the Organisation for Economic Co-operation and Development (OECD) projects that those rates will increase 7-8% over the next 10 years.[3] Childhood

* Second-year law student at Southern Illinois University. Address correspondence to Ms. Lueke at Southern Illinois University School of Law, Law Journal Office, Lesar Law Building, Carbondale, Illinois 62901.

[1] JEAN ANTHELME BRILLAT-SAVARIN, THE PHYSIOLOGY OF TASTE: MEDITATIONS ON TRANSCENDENTAL GASTRONOMY 14 (M.F.K. Fisher trans., The Heritage Press 1949) (2009).

[2] FRANCO SASSI, OBESITY AND THE ECONOMICS OF PREVENTION: FIT NOT FAT 60 (2010).

[3] *Id*. at 71-72.

obesity rates are also on the rise and obese children tend to become obese adults.[4]

Because obesity rates continue to climb, it is apparent that states have been unsuccessful at implementing effective strategies to combat the epidemic. In addition to state governments, fingers have been pointed at parents, schools, and fast food chains, but scholars and legislators seem to forget about placing some of the responsibility on the children. Children spend the majority of their time in school; schools, therefore, are the ideal environments to educate children about nutrition and the consequences of an unhealthy lifestyle.[5]

Unfortunately for today's children, the states have failed at providing adequate health and nutritional education in schools and federally mandated programs have thus far been unsuccessful.[6] If children are unable to make informed, healthy decisions, then the population will continue to grow obese. It is in the nation's best interest to stop this obesity epidemic before it spirals out of control.

Section I of this commentary provides background information on contributing factors to and potential consequences of childhood obesity. Section II outlines current federal and state programs designed to curb obesity. Section III stresses the immediate need for nutrition education reform in public schools. Section IV concludes that a federal statute is needed to provide necessary incentives for schools to establish adequate nutrition education curricula.

I. A GROWING POPULATION

Children today are fatter than ever.[7] This fact is evidenced by a tripling of childhood and adolescent obesity rates in the United States since 1980.[8] In 1980, the obesity rate for children aged 6-11 was 6.5%, while the rate for adolescents aged 12-19 was 5%.[9] By 2008, the obesity rate for children had risen to 19.6%, while the rate for adolescents had reached 18.1%.[10] These obese children, meanwhile, are likely to become obese adolescents and adults.[11]

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[4] William Dietz, *Health Consequences of Obesity in Youth: Childhood Predictors of Adult Disease,* 101 J. PEDIATRICS 518, 522 (1998).

[5] Mary Story et al., *The Role of Schools in Obesity Prevention*, 16 THE FUTURE OF CHILD. 109, 110 (2006).

[6] Elaine Belansky et al., *Early Impact of the Federally Mandated Local Wellness Policy on Physical Activity in Rural, Low-Income Elementary Schools in Colorado*, 30 J. PUB. HEALTH POL'Y S142, S156 (2009) (finding the Local Wellness Policy was not effective at increasing physical activity and healthy eating in Colorado elementary schools).

[7] *See generally* Cynthia Ogden et al., *Prevalence of High Body Mass Index in US Children and Adolescents, 2007-2008*, 303 J.A.M.A. 242 (2010).

[8] *Id*. at 242.

[9] Cynthia L. Ogden et al., *Prevalence of High Body Mass Index in US Children and Adolescents, 1999-2000*, 288 J.A.M.A. 1728, 1728 (2002).

[10] Ogden, *supra* note 7, at 245.

[11] Dietz, *supra* note 4.

Worldwide, more than 2.6 million people die each year from the higher health risks associated with being overweight or obese.[12] The life expectancy of today's youth is predicted to be shorter than that of their parents.[13] This prediction is particularly troubling because, historically, life expectancy has continued to rise with developments in medical sciences and technologies.[14] By eating high-fat, high-calorie foods and maintaining a sedentary lifestyle, however, Americans are limiting the effects of these advances in science and medicine.[15]

A. Not Just "Big Boned"

Several factors contribute to childhood obesity, including larger portion sizes, high-fat food consumption, sedentary lifestyles, and genetic predispositions.[16] Although several factors contribute to obesity, the formula for weight gain is simple: when the number of calories consumed is greater than the number burned, waistlines expand.[17] Consequently, food consumption and physical inactivity are two of the most powerful components of obesity.

The adage "you are what you eat" has never been more applicable.[18] Today, many children eat high-fat, high-calorie junk food in place of nutritious, healthy meals.[19] One-third of children and teens frequent a fast food drive-thru at least once a day.[20] Meanwhile, the average portion size has significantly increased over the past 20 years.[21] These larger servings significantly increase caloric intake, particularly in children, who are generally unable to distinguish between age-appropriate portions and larger portions.[22] Easy access to vending

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[12] Bernadette Mazurek Melnyk et al., *The Worldwide Epidemic of Child and Adolescent Overweight and Obesity: Calling All Clinicians and Researchers to Intensify Efforts in Prevention and Treatment*, 5 WORLDVIEWS ON EVID.-BASED NURSING 109, 110 (2008).

[13] Stuart J. Ohshansky et al., *A Potential Decline in Life Expectancy in the United States in the 21st Century,* 352 NEW ENG. J. MED. 1138, 1140-41 (2005).

[14] *See generally* Richard A. Easterlin, *The Worldwide Standard of Living Since 1800*, 14 J. ECON. PERSP. 7, 7 (2000).

[15] David Satcher*, Perspective Challenge and Opportunity; A Former Surgeon General Renews His Prescription for the American People*, 25 HEALTH AFFAIRS 1009, 1010 (2006).

[16] *Ogden*, *supra* note 9, at 1732.

[17] *See generally* Nicholas A. Christakis & James H. Fowler, *The Spread of Obesity in a Large Social Network Over 32 Years,* 357 NEW ENG. J. MED. 370 (2007).

[18] *See* VICTOR H. LINDLAHR, YOU ARE WHAT YOU EAT (1940) (popularizing the phrase in the mid-20th century); *see also* BRILLAT-SAVARIN, *supra* note 1, at 14 (originating the phrase by writing: "Tell me what you eat, and I shall tell you what you are.").

[19] *See generally* Linda J Gillis & Oded Bar-Or, *Food Away from Home, Sugar-Sweetened Drink Consumption and Juvenile Obesity*, 22 J. AM. C. NUTRITION 539 (2003).

[20] Shanthy A. Bowman et al., *Effects of Fast-Food Consumption on Energy Intake and Diet Quality Among Children in a National Household Survey*, 113 PEDIATRICS 112, 113-14 (2004).

[21] *See, e.g.*, Samara Joy Nielsen & Barry M. Popkin, *Patterns and Trends in Food Portion Sizes, 1977-1998*, 289 J.A.M.A. 450, 451 (2003); s*ee also* Lisa R. Young & Marion Nestle, *The Contribution of Expanding Portion Sizes to the US Obesity Epidemic*, 92 AM. J. PUB. HEALTH 246 (2002).

[22] *See* Jennifer Orlet Fisher et al., *Children's Bite Size and Intake of an Entrée Are Greater with Large Portions than with Age-Appropriate or Self-Selected Portions*, 77 AM. J. CLINICAL NUTRITION 1164,

machines filled with sugar-laden fruit drinks, soda, and high-calorie foods with little or no nutritional value also impact the obesity formula.[23] Children may not even realize that beverages contain calories, and accordingly, they may not compensate at mealtimes for those calories consumed.[24] Moreover, these calories are often "empty calories," as they are less satiating and often lead to increased caloric intake.[25]

It is apparent that running and playing outside have been replaced with indoor activities, because most children under 18 spend their free time watching TV, playing video games, or sitting in front of a computer.[26] Children may even be getting the wrong message about the importance of physical activity at school, as states' budgets are constantly being stretched, with funding for programs often considered unnecessary being withdrawn.[27] Tight budgets, coupled with schools' pressure to meet state and federal academic standards, make physical education a low priority.[28] Only six states currently require physical education in every grade level.[29] To children, the lack of physical activity at school may translate to discouragement of physical activity at home.

B. Consequences of Obesity

There is an extensive list of physical and health consequences of childhood obesity including: cardiovascular disease; metabolic syndrome; hyperlipidemia; insulin resistance; diabetes; asthma; sleep apnea; orthopedic complications; and fatty liver disease.[30] While some of these health risks may be easily observed by society, obesity also contributes to psychological disorders, which may remain hidden from society's view.[31] Obesity, together with poor

1167-70 (2003); *see also* Kristen L. McConahy et al., *Portion Size of Common Foods Predicts Energy*, 104 J. AM. DIETETIC ASS'N 975, 976-78 (2004).

[23] Bettylou Sherry, *Food Behaviors and Other Strategies to Prevent and Treat Pediatric Overweight*, 29 INT'L J. OBESITY S116, S121-22 (2005).

[24] *See* Leann Lipps Birch et al., *Children's Food Intake Following Drinks Sweetened with Sucrose or Aspartame: Time Course Effects*, 45 PHYSIOLOGY & BEHAVIOR 387 (1989); *see also* Jeanine Louis-Sylvestre et al., *Learned Caloric Adjustment of Human Intake*, 12 APPETITE 95 (1989).

[25] D.P. DiMeglio & Richard D. Mattes, *Liquid Versus Solid Carbohydrate: Effects on Food Intake and Body Weight*, 24 INT'L J. OBESITY 794, 798-99 (2000).

[26] DANICE K. EATON ET AL., YOUTH RISK BEHAVIOR SURVEILLANCE—UNITED STATES, 2009, 59 MORBIDITY & MORTALITY WKLY. REP., June 4, 2010, at 26-27.

[27] *See* Nicholas Johnson et al., *An Update on State Budget Cuts: At Least 46 States Have Imposed Cuts that Hurt Vulnerable Residents and Cause Job Loss*, CTR. BUDGET POL'Y PRIORITIES, 2010, at 9-12, http://www.cbpp.org/files/3-13-08sfp.pdf (updated Feb. 4, 2011) (reporting that 34 states have cut funding for K-12 education since 2008).

[28] ROSLOW RESEARCH GROUP, PHYSICAL EDUCATION TRENDS IN OUR NATION'S SCHOOLS: A SURVEY OF PRACTICING K-12 PHYSICAL EDUCATION TEACHERS 29-31 (2009).

[29] NAT'L ASS'N FOR SPORT AND PHYSICAL EDUC., 2010 SHAPE OF THE NATION REPORT: STATUS OF PHYSICAL EDUCATION IN THE USA 7 (2010), http://www.aahperd.org/naspe/publications/upload/Shape-of-the-nation-Revised2PDF.pdf (reporting that only Illinois, Iowa, Massachusetts, New Mexico, New York, and Vermont require physical education in grades K-12).

[30] *See, e.g.,* Melnyk, *supra* note 12, at 110; *see also* Dietz, *supra* note 4, at 521-22.

[31] Dietz, *supra* note 4, at 520.

self-image and psychological disorders, such as depression, form a vicious circle, as obesity can contribute to depression and vice versa.[32]

Although obese children are not always conscious of their weight, they are often stigmatized by peers and later develop a negative self-image.[33] Generally, children prefer to be friends with thinner classmates[34] and are socialized to associate larger individuals with negative traits, such as laziness and sloppiness.[35] This stigma can have a lasting mental and emotional impact, contributing to a wide range of psychological disorders.

Furthermore, obesity is expensive for individuals, employers, governments, and taxpayers. In 2010, the annual individual cost of being obese was $4,879 for women and $2,646 for men, while the annual individual cost of being overweight was $524 for women and $432 for men.[36] The primary cause of this is the significantly higher amounts obese and overweight individuals spend on health care.[37] Perhaps the obvious expense is health care, but, because of their weight condition, obese individuals must also account for lost wages, higher insurance premiums, and higher costs of personal items.[38]

Obese individuals are not the only ones paying these increased costs, however. Employers share the costs with their overweight and obese employees, and the federal and state governments pay a portion of medical expenses for treatment of obesity-related disorders through Medicaid and Medicare programs.[39] In 2006, an estimated $146 million was spent on obesity-related medical expenses,[40] and these costs are climbing as obesity rates and general medical expenditures continue to rise.[41] One need not be an economist to

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[32] *Id.*

[33] *See* Jeanne Walsh Pierce & Jane Wardle, *Cause and Effect Beliefs and Self-Esteem of Overweight Children*, 38 J. CHILD PSYCHOL. & PYSCH. 645, 649-50 (1997); s*ee also* Sarah E. Anderson et al., *Association of Depression and Anxiety Disorders with Weight Change in a Prospective Community-Based Study of Children Followed Up into Adulthood*, 160 ARCH. PEDIATRICS & ADOLESCENT MED. 285, 288-90 (2006).

[34] Dietz, *supra* note 4, at 519.

[35] J. Robert Staffieri, *A Study of Social Stereotype of Body Image in Children*, 7 J. PERSONALITY & SOC. PSYCH. 101, 103-4 (1967).

[36] AVI DOR ET AL., A HEAVY BURDEN: THE INDIVIDUAL COSTS OF BEING OVERWEIGHT AND OBESE IN THE UNITED STATES 15-16 (2010) (explaining that these increased costs come from, among other things, increased medical expenses, life insurance expenses, fuel usage, lost wages, lost productivity, and short-term disability).

[37] *Id.* at 5-8.

[38] *Id.* at 9-15.

[39] *Id.* at 17-18.

[40] *Childhood Obesity—2009 Update of Legislative Policy Options*, NCSL.ORG, http://www.ncsl.org/default.aspx?tabid=19776#Nutrition_Education (last visited Feb. 11, 2011).

[41] *See* SASSI, *supra* note 2, at 71-72 (projecting a 7-8% increase in obesity rates over the next 10 years); *see also* Gerard F. Anderson & Bianca K. Frogner, *Health Spending In OECD Countries: Obtaining Value Per Dollar*, 27 HEALTH AFFAIRS 1718, 1720-21 (discussing the rapid increase in health care spending since 1970).

recognize that obese and overweight individuals are costing themselves—and the United States—a fortune.

II. HEALTH EDUCATION SYSTEMS FAILING TODAY'S YOUTH

The federal government has long recognized the importance of nutrition for children. In 1946, Congress passed the National School Lunch Act for the purposes of safe-guarding the health and well-being of American children and benefitting the nation's agricultural economy.[42] The School Lunch Program offers eligible children at participating schools free or low-cost nutritious lunches.[43] The Act allocates funds to the Secretary of Agriculture, who then distributes those funds to each state's educational agency.[44] State agencies are responsible for determining each school's program eligibility and for apportioning funds to each participating school based on need and attendance.[45]

To supplement the National School Lunch Act, the Child Nutrition Act of 1966 was established for essentially the same purposes.[46] The Child Nutrition Act established milk and breakfast programs that provided free or reduced-priced breakfasts to schoolchildren whom local school authorities found unable to pay for a full-priced breakfast.[47] The National School Lunch Act established the National Advisory Council on Child Nutrition to review the functions of programs carried out under the two Acts and to provide an annual report recommending legislative or administrative changes the council deems necessary.[48] Both Acts were amended in 1977 to extend a summer food program, and to revise the special milk and breakfast programs.[49]

It is important to note that neither Act offers, nor requires, a nutrition educational component, but rather simply provide nutritional meal and milk programs. Furthermore, schools are not required to participate in the meal or milk programs.[50] A school may voluntarily participate, but the statute mandates compliance with its various provisions enumerated in section 1758.[51]

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[42] National School Lunch Act, Pub. L. No. 79-396 (June 4, 1946) (codified at 42 U.S.C. § 1751 (2006)).

[43] David T. Kramer, *Construction and Application of National School Lunch Act and Child Nutrition Act of 1966*, 14 A.L.R. FED. 634 (2008).

[44] National School Lunch Act, Pub. L. No. 79-396 (June 4, 1946) (codified at 42 U.S.C. § 1752 (2006)).

[45] National School Lunch Act, Pub. L. No. 79-396 (June 4, 1946) (codified at 42 U.S.C. § 1758(a) (2006)).

[46] Child Nutrition Act, Pub. L. No. 89-642 (Oct. 11, 1966) (codified at 42 U.S.C. § 1771 (2006)).

[47] Child Nutrition Act, Pub. L. No. 89-642 (Oct. 11, 1966) (codified at 42 U.S.C. §§ 1772-1773 (2006)).

[48] Kramer, *supra* note 43.

[49] National School Lunch Act and Child Nutrition Amendments, Pub. L. No. 95-166 (Nov. 10, 1977) (codified at 42 U.S.C. § 1761 (2006)).

[50] Kramer, *supra* note 43.

[51] *See* 42 U.S.C. § 1758(a) (2006) (requiring schools to serve meals meeting minimum nutritional standards, provide a variety of milk, and not force high school students to accept food they do not intend to consume); *see also* 42 U.S.C. § 1758(b) (2006) (setting forth requirements and procedures for determining eligibility for free and reduced-priced lunches).

A. The Local Wellness Policy

More recently, the federal government attempted to address the childhood obesity epidemic through the Child Nutrition and Women, Infants and Children Reauthorization Act of 2004. The Act required all schools participating in the National School Lunch Program to create a Local Wellness Policy (LWP) by 2006 to increase opportunities for healthy eating and physical activity.[52] The LWP required schools to: establish goals for nutrition education, physical activity, and other school activities; establish nutritional guidelines for foods available in schools; and provide assurance that local, self-imposed requirements complied with USDA guidelines.[53] Although physical activity was required by the LWP, an emphasis was placed on providing children with nutritious foods.[54] Policies and guidelines were developed at the local level to ensure each locality's needs were met.[55] When school districts formed LWPs, they were required to assemble or consult with a wide array of authorities (for example, parents, students, teachers, and community members) to benefit from multiple individuals' expertise.[56] Districts were further required to develop plans to measure policy implementation.[57]

B. Local Wellness Policy Compliance

Overall, the LWP has proven ineffective in reducing the prevalence of obesity in school children.[58] While the vast majority of schools have some type of wellness policy that addresses federal requirements, many of the policies are not strongly worded.[59] This problem likely stems from the broad coverage of the federal mandate.

Because the federal mandate requires plans to incorporate several aspects of health and fitness, school districts are able to develop plans that comply with federal standards, but are unable to follow through with them.[60] Schools

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[52] Child Nutrition and WIC Reauthorization Act, Pub. L. No. 108-265 (June 30, 2004) (codified at 42 U.S.C. § 1751).

[53] *Id*.

[54] Belansky, *supra* note 6.

[55] *Local Wellness Policy*, FNS.USDA.GOV, http://www.fns.usda.gov/tn/healthy/wellnesspolicy.html (last visited Feb. 11, 2011).

[56] *Id.*; Belansky, *supra* note 6.

[57] *Local Wellness Policy*, FNS.USDA.GOV, http://www.fns.usda.gov/tn/healthy/wellnesspolicy.html (last visited Feb. 11, 2011).

[58] *See* Belansky, *supra* note 6; *see also* Julie Metos & Marilyn Nanney, *The Strength of School Wellness Policies: One State's Experience*, 77 J. SCH. HEALTH 367, 372 (2007); Alicia Moag-Stahlberg et al., *A National Snapshot of Local School Wellness Policies*, 78 J. SCH. HEALTH 562 (2008).

[59] SCHOOL NUTRITION ASS'N, A FOUNDATION FOR THE FUTURE II: ANALYSIS OF LOCAL WELLNESS POLICIES FROM 140 SCHOOL DISTRICTS IN 49 STATES 7-8 (2006) (finding that while 89% of school districts establish nutrition guidelines for food available a la carte and 87% establish guidelines for food available in vending machines, only 16% establish specific nutrition standards for those foods).

[60] *See generally* Belansky, *supra* note 6; s*ee also* Dong-Chul Seo, *Comparison of School Food Policies and Food Preparation Practices Before and After the Local Wellness Policy Among Indiana High Schools*,

cite several reasons why their plans are not feasible.[61] Not surprisingly, the most common excuse is the lack of funding and resources, as the LWP is an *unfunded* federal mandate.[62] When schools were required to develop LWPs in 2006, districts in states like Colorado, for example, already had strained budgets, so that the additional expenses of developing LWPs became particularly burdensome.[63] It is reasonable to assume that other school districts faced similar financial problems, especially in such difficult economic times. One national survey found that less than two percent of LWPs address the funding of implementing and evaluating the school's policy.[64]

Schools not only have trouble financing LWPs, but they are also unable to allocate enough resources to those plans.[65] Forty-three percent of school districts admit that a lack of time, resources, and priority has prevented them from implementing nutrition standards.[66] Schools simply do not have enough educators and support staff to fulfill their goals.[67] If schools are unable to hire more educators and skilled staff, such as nutritionists, to implement their wellness plans, they will never even reach, let alone exceed, their goals.

Because the mandate's requirements are so lax, some districts have made only minimal changes since the mandate went into effect.[68] In fact, nearly four of every five Utah school districts wrote LWPs that complied with the federal guidelines, but did not require them to change nutrition and physical education requirements.[69] Moreover, when writing their policies, these districts were more likely to adopt goals and restrictions that other districts had already implemented.[70] As a result, there is a high probability that districts simply copied other districts' ineffective plans.[71]

In Colorado, for example, when school districts formulated their LWPs, only one in four districts actually assembled a committee and consulted with a diverse group of external individuals, as required by the Act.[72] The committees in 50% of the school districts consisted solely of individuals within the school

40 AM. J. HEALTH EDUC. 165 (2009) (discussing that little improvement was observed pertaining to the availability of fruits and vegetables at school after the LWP was implemented).

[61] Belansky, *supra* note 6, at S155.

[62] *Id.*

[63] *Id.*

[64] ACTION FOR HEALTHY KIDS, LOCAL WELLNESS POLICIES ONE YEAR LATER: SHOWING IMPROVEMENTS IN SCHOOL NUTRITION AND PHYSICAL ACTIVITY 3 (2007) (finding that only 4 of the 256 policies reviewed address funding).

[65] SCHOOL NUTRITION ASSOCIATION, FROM CUPCAKES TO CARROTS: LOCAL WELLNESS POLICIES ONE YEAR LATER 13-15 (2007).

[66] *Id.* at 13.

[67] Moag-Stahlberg, *supra* note 58, at 567.

[68] *See generally* Belansky, *supra* note 6; *see also* Metos, *supra* note 58, at 370.

[69] Metos, *supra* note 58, at 370.

[70] *Id.*

[71] *Id.*

[72] Belansky, *supra* note 6, at S154.

system, and in the remaining 25% of districts, one person drafted the wellness plan.[73] In addition to the majority of Colorado schools not following the formation requirements, many school principals were unaware or unfamiliar with the school's LWP.[74]

Finally, federal enforcement is weak.[75] The Act does not require schools to evaluate their LWPs, and provides no penalty for failure to implement one.[76] On the whole, since the federal mandate went into effect in 2006, school districts have improved their nutritional guidelines.[77] Nevertheless, improving guidelines does not translate into students' increased knowledge about nutrition, as they are given certain foods with no explanation as to why that food was served instead of another. Moreover, children and teens are likely to view these restrictions on food as a punishment, rather than as a way to assist them in becoming healthier.

C. Opposing Nutrition Education

Opponents of a federal nutrition education program argue that such a program is unconstitutional because the Constitution provides parents with the guarantee to raise their children in any way they desire.[78] A nutrition education program in schools, however, would be incorporated into the pre-existing education programs. If parents do not wish their children to be susceptible to such regulations, they have other options, such as enrolling their children in schools that do not participate in these programs or home schooling. The government already largely regulates required core courses through the No Child Left Behind Act,[79] so the imposition of a voluntary nutrition program on schools would not interfere with parental rights. Furthermore, it is difficult to imagine parents wanting their children to be oblivious to nutrition, as awareness is a major tool children can use in making healthy decisions in life.

III. A CALL FOR REFORM

Something must be done to stop the growing obesity rate before it has a permanent adverse effect on advances in longevity. Although states have

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[73] *Id.* (noting that, of the districts surveyed, three assembled a diverse external committee, six assembled an internal committee, and the remaining three assigned the task to a single individual).

[74] *Id*. at S155-56.

[75] ROBERT WOOD JOHNSON FOUNDATION, LOCAL SCHOOL WELLNESS POLICIES: HOW ARE SCHOOLS IMPLEMENTING THE CONGRESSIONAL MANDATE? 5 (2009).

[76] *Id.*

[77] *See generally* Carol Heard Longley & Jeannie Sneed, *Effects of Federal Legislation on Wellness Policy Formation in School Districts in the United States*, 109 J. AM. DIETETIC ASS'N 95 (2009).

[78] Meyer v. Nebraska, 262 U.S. 390, 399 (1923).

[79] No Child Left Behind Act of 2001, Pub. L. No. 107-110 (Jan. 8, 2002) (codified at 20 U.S.C. §§ 6314-18).

made several failed attempts to remedy the obesity epidemic, studies show that there is hope for halting the increasing numbers of obese children.[80]

Interventions targeting parents and their children, for example, have proven effective in reducing childhood obesity rates.[81] Between 2006 and 2008, Delaware's 5-2-1-Almost None Program halted increases in the number of overweight and obese children.[82] The program, developed by the Nemours Foundation, a non-profit children's health foundation, was designed to be easy for children to remember.[83] Under the program, children were encouraged to eat five servings of fruits and vegetables daily, to limit sedentary activity to two hours per day, to be physically active for at least one hour per day, and to refrain from consuming most sugar-sweetened beverages.[84] To implement 5-2-1-Almost None, the Nemours Foundation assisted Delaware school districts in forming, editing, and implementing their LWPs required under the National School Lunch Program.[85] The Nemours Foundation also launched a social marketing campaign to raise the awareness of children and parents about the program.[86] After the beginning the campaign, there was increased awareness of the 5-2-1-Almost None program in households, which led to increased physical activity for children in those households.[87] These results are promising because they suggest that, at a minimum, the increase of obesity rates can be halted, if not reduced.

A. Educate Rather Than Serve or Shield

Ninety percent of America's health care budget is spent on treating diseases and their complications, and while not all diseases are preventable, many are.[88] Obesity is one condition that can be prevented and, if left untreated, can lead to many other serious diseases.[89] To that end, nutrition education must be a part of schools' curriculum so children are empowered with the knowledge to help themselves and avoid obesity. A number of government regulation models have been proposed to regulate the products to which children are exposed, as well as to avoid having the products marketed to children.[90] The Food and

[80] Melnyk, *supra* note 12, at 110.
[81] HILTJE OUDE LUTTIKHUIS ET AL., INTERVENTIONS FOR TREATING OBESITY IN CHILDREN (REVIEW) 5-17 (2009).
[82] Debbie I. Chang et al., *A Statewide Strategy to Battle Child Obesity in Delaware*, 29 HEALTH AFFAIRS 481, 485 (2010).
[83] *Id.* at 482.
[84] *Id.*
[85] *Id.*
[86] *Id.* at 486.
[87] *Id*. (noting that household awareness of the 5-2-1-Almost None program increased from 5% to 19% between 2006 and 2008, and that the percentage of children who were engaged in one or more hours of physical activity daily rose from 10% to 26%).
[88] Satcher, *supra* note 15.
[89] *Id.*
[90] Marion Nestle, *Food Marketing and Childhood Obesity—A Matter of Policy*, 354 NEW ENG. J. MED. 2527, 2529 (2006).

Drug Administration (FDA), for example, restricts the sale and advertisement of tobacco products.[91] The government also promotes self-regulation by the food industry, encouraging companies to limit unhealthy food advertisements targeting children.[92]

Many current regulations simply shield children from food products, rather than teach them how to make effective decisions.[93] For children to be prepared to make wise food choices in adulthood, they must be given the opportunity to practice when they are young. While acknowledging that unhealthy food promoters should not be allowed to run rampant with marketing campaigns to entice children, children need to learn early in their lives how to face the everyday challenges associated with living healthy lifestyles.

Parents are often blamed for not intervening when their children become overweight or obese, but parents cannot reasonably be expected to teach their children healthy habits when the parents do not have or practice those life skills.[94] Furthermore, parents cannot monitor every morsel of food their children consume and, accordingly, children must be taught the necessary skills to make informed decisions when an authoritative figure is not present to tell them what or what not to eat. Children must be taught how to make healthy choices because, in many instances, parents are unable or unlikely to relay nutritional information to their children because they lack the knowledge, time, or concern. Children should not be punished for their parents' disregard for or ignorance of their own health; all children should be given the opportunity to adopt a healthy lifestyle, regardless of whether their parents teach them how or choose to live that way.

B. The Ideal Environment for Nutrition Education Programs

More than 95% of all children and adolescents between the ages of 5 and 17 are enrolled in school.[95] Because children and adolescents spend a significant amount of time in school, schools have continuous and intensive contact with youth during the first two decades of their lives; that contact can be used to positively shape nutritional habits.[96] It is already apparent that schools are willing to cooperate with the state and federal governments to benefit their students' health, as 99% of public schools and 83% of private schools participate in the National School Lunch Program.[97] This suggests

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[91] 21 C.F.R. § 1140 (2010).

[92] *See generally* C. Hawkes, *Self-Regulation of Food Advertising: What It Can, Could and Cannot Do to Discourage Unhealthy Eating Habits Among Children*, 30 NUTRITION BULL. 374 (2005).

[93] Cheryl L. Hayne et al., *Regulating Environments to Reduce Obesity*, 25 J. PUB. HEALTH POL'Y 391, 399 (2004) (proposing vending machines limit unhealthy food choices).

[94] *See generally* Debra Etelson et al., *Childhood Obesity: Do Parents Recognize this Health Risk?,* 11 OBESITY RESEARCH 1362 (2003).

[95] Story, *supra* note 5.

[96] *Id.*

[97] *Id.*

that schools would likely be receptive to nutrition education programs that benefit students.

Schools are inherently interested in the education of their students. In fact, in 2002, President George W. Bush signed into law the No Child Left Behind Act of 2001 (NCLB), which required every student to be proficient at his or her respective grade level in core academic subjects, including reading and math.[98] NCLB's goals and requirements are assessed by standardized tests, and schools often focus primarily on meeting the NCLB requirements before spending funding and resources on non-core areas, including physical education and nutrition, which are not covered by the Act.[99] School principals often cite the competing pressures of NCLB and keeping students "academically fit," rather than physically fit, as a major reason the focus on their LWPs is not as strong as their focus on core subjects.[100]

Although NCLB places heavy burdens on school districts to ensure their students are performing at their grade level, it is in the schools' best interest to promote nutrition education in addition to the core courses, if for no other reason than children's nutrition significantly impacts their academic performance.[101] Hunger, for example, interferes with cognitive function, while iron deficiency is linked with fatigue and a limited ability to concentrate.[102] While it is not feasible to hold children responsible for ensuring they consume enough iron on a daily basis, they can be taught to select healthier options, such as fruit and toast for breakfast. If children can eat healthier when they are not in school, children and schools can both reap the benefits in the classroom. Children will enable themselves to be more attentive and retain information, while schools will achieve higher test scores.

Some may argue that, because many children have little choice regarding what they eat due to parental control over what foods are purchased and kept at home, the nutrition education programs will have little effect on the foods children actually eat. While this may be true, as children grow older, their power to choose what foods they consume increases. By educating children in elementary school and junior high about the importance of a balanced diet, they will be better equipped to make better, healthier decisions once they are given the opportunity.

[98] *See generally* No Child Left Behind Act of 2001, Pub. L. No. 107-110 (Jan. 8, 2002) (codified at 20 U.S.C. §§ 6361-68).
[99] Story, *supra* note 5.
[100] Belansky, *supra* note 6, at S155.
[101] Story, *supra* note 5.
[102] *Id*.

IV. STRENGTHENING NUTRITION EDUCATION PROGRAMS

As explained above, a majority of states have failed in halting childhood obesity and implementing effective LWPs. Schools, alone, should not be blamed for these failures, as federal LWP requirements are lax and rarely enforced.[103] Although there are several problems with the federally mandated LWP program, the largest are that it is required, but unfunded; it does not include a requirement for nutrition education; and it lacks penalties for non-compliance.[104] The federal government should revisit the shortcomings of the LWP program and take a stronger approach to encouraging schools to implement nutrition education.

A. Conditional Spending as a Model

To remedy the absence of funding for LWPs, the federal government should implement a conditional spending grant that allows for schools to receive additional funding as an incentive for incorporating nutrition education into their curriculum. Conditional spending has proven to be an effective method of encouraging states to act.

The National Highway and Motor Vehicle Safety Act, for example, promotes the use of seat belts in motor vehicles by encouraging states to enact seat belt laws.[105] To receive a federal grant, states must meet at least four of six requirements: (1) the state has in effect a law that makes it unlawful for either the driver or the front-seat passenger to be without a safety belt secured around the body; (2) the state has a primary safety belt law in force; (3) the state imposes a minimum fine or penalty points against driver licenses for violation of the state's safety belt law or child passenger protection law; (4) the state has implemented a special traffic enforcement program; (5) a child passenger protection program is enacted; and/or (6) the state has implemented a child passenger protection law.[106]

States that meet at least four of these requirements are given additional federal funds to be used for state highway purposes.[107] Currently, 31 states have primary seat belt laws, suggesting that states are generally receptive to the conditional grant of federal funds.[108] Additionally, seat belt use has steadily increased during the last decade, reaching 85% in 2010.[109]

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[103] Belansky, *supra* note 6, at S152.
[104] *Id.* at S155-56.
[105] 23 C.F.R. § 1345.1-2 (2010).
[106] 23 U.S.C. § 405 (2006).
[107] 23 C.F.R. § 1345.5-6 (2010).
[108] Clifford Atiyeh et al., *New Systems Speed Up Drivers' Blood-Alcohol Tests*, BOSTON GLOBE, Jan. 29, 2011, at 5.
[109] Rong-Gong Lin II, *Californians Are Among the Most Likely to Use Seat Belts*, L.A. TIMES, Jan. 6, 2011, at 3.

B. Incentives to Require Nutrition Education

Because states have generally shown an interest in and a willingness to participate in conditional funding programs, such a program is ideal for implementing nutrition education programs. A federal statute implementing an incentive program for states to adopt laws requiring public schools to incorporate nutrition education into existing curriculum is necessary to halt the rapid rise of childhood obesity. As explained above, the federal government must evaluate the failures of previous attempts, such as the LWP programs, and tailor conditional spending guidelines to correct those deficiencies.

Congress should authorize the Department of Education to establish criteria that states must meet to receive additional funds. The most essential criterion is a requirement that states enact laws mandating the incorporation of nutrition education into existing curriculum. Basic requirements that states must impose on school districts to be in compliance must be specifically enumerated. Suggested requirements include: a specific number of hours per school year spent on nutrition education, a certain percentage of which to be devoted to instruction related to healthy food choices; a component informing students of the consequences of poor eating habits and the benefits of healthy food choices; and a module involving parental education.

Moreover, the Department of Education should create a model curriculum to assist states in establishing specific guidelines and to assist schools in creating nutrition education programs. Because schools are already pressed for time in the classroom due to requirements imposed by NCLB, the model curriculum should be designed in a way that incorporates a portion of nutrition education into the core subjects. For example, students could learn about the number of calories and proportions of the food pyramid in math class, a daily food and activity journal could be utilized in a writing unit, and books about eating healthy could be used for reading assignments. Some aspects of nutrition education are inherently more difficult to incorporate into existing curriculum, including portion control and understanding nutrition labels, of course, and these topics would need to be addressed independently of other courses. Although opponents may argue that there is not enough time in already busy school days to teach nutrition education, if a portion of the program is integrated into existing curriculum, schools will be more likely to find smaller windows of time to teach those aspects of nutrition education that cannot as easily be included in reading, writing, math, science, and social studies.

In creating this funding incentive for states to implement nutrition education requirements, the conditional receipt of federal funds must be unambiguous. The Department of Education must clearly enumerate the percentage of additional funds the state will receive for distribution among its schools. The percentage must be small, so that it does not coerce states into adopting such laws, but large enough to allow schools to finance effective nutrition

education programs. Five to seven percent of education funds would likely suffice.

Furthermore, as noted above, the lack of federal enforcement has been a major reason schools have failed to comply with LWP requirements. The proposed legislation, then, must condition the receipt of additional education funds on enforcement. Because the Department of Education will not specifically authorize or require a particular state agency to enforce individual state statutes, states will be free to delegate that authority to their own agencies. This will enable states to tailor enforcement plans to their individual needs, making enforcement much more feasible.

Finally, states that voluntarily participate in the conditional spending program must be held accountable for failing to enforce their nutrition education laws and/or comply with the requirements set forth by the Department of Education. It must be made clear to the states that, once they are found to be in non-compliance, they have a limited amount of time to come into compliance or they will forfeit the additional funds. It is imperative that both the Department of Education and the states enforce their respective requirements for these nutrition education programs to be effective.

Because the vast majority of schools already participate in LWP programs,[110] a curriculum that focuses on nutrition is essentially revising, editing, and adapting existing policies. Utilizing the Department of Education's model programs and reviewing the explicit requirements set forth by the states, schools will not be left to guessing and speculating about what is required of their nutrition education programs, correcting one of the major flaws of the LWP program.

C. Constitutionality

Opponents of such a federal program might argue that it is unconstitutional to require schools that operate under the states' authority to integrate nutrition education into the already existing requirements. The Constitution, however, does not prevent Congress from placing a condition on a state's receipt of federal funds, where five requirements are met: (1) the federal spending provision promotes the general welfare; (2) the condition on receiving federal money is unambiguous; (3) the condition is related to the purpose for which the federal funds are being appropriated; (4) the condition does not coerce the states into compliance; and (5) no independent constitutional bar to the condition exists.[111]

Here, the conditional grant would promote the general welfare by encouraging states to require schools to teach students about nutrition. Implementing requirements that are aimed at improving the health of children

[110] Story, *supra* note 5.
[111] South Dakota v. Dole, 283 U.S. 203 (1987).

clearly promotes the general welfare, as the promotion of healthy children yields a healthy nation. Because the statute would expressly direct states to pass laws requiring schools to incorporate nutritional education into their curriculum and would require states to provide a means of evaluating schools' compliance, and would impose a penalty for non-compliance, the condition would, therefore, be clear and unambiguous.

Moreover, the federal funds would be distributed to the states, which would, in turn, disperse those funds to schools for the expenses associated with the newly required nutrition education mandate, including the hiring of additional staff and the purchasing of necessary materials. The condition of the funding, then, would be directly related to the proposed use of the federal funds. Furthermore, the condition would not coerce states into compliance, as the percentage of federal funds will be relatively small (for example, five to seven percent of the amount of federal funds the states currently receive). Finally, there is no other provision in the Constitution that bars Congress from passing a conditional spending provision that is related to education. Because all five requirements would be fulfilled, the conditional grant of funds to provide incentives for states to implement effective nutrition education programs would be constitutional.

CONCLUSION

The percentage of American children who are overweight or obese continues to rise, despite governmental efforts to combat the epidemic. Over time, obese and overweight children usually become obese and overweight adults, placing a great strain on society, especially if uninsured. If the government were to implement an overhaul of nutrition education programs, it would potentially save millions of dollars in health care expenditures and increase longevity, saving lives.

While it is unlikely that the primary importance of academic success will ever be supplanted in American schools, it is critical that schools focus on nutrition education to ensure students' and schools' optimal achievement. Because previous government strategies—at both the state and federal levels—have been largely unsuccessful, it is time to learn from those failures and implement a program that encourages states to enact and enforce requirements to educate children about nutrition, especially the consequences of poor eating habits and the benefits of healthy food choices. By addressing the shortcomings of past attempts to combat childhood obesity, the state and federal governments will make strides in the right direction by helping children help themselves throughout the course of their lifetimes.