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Childhood Obesity: Getting Back to the Basics

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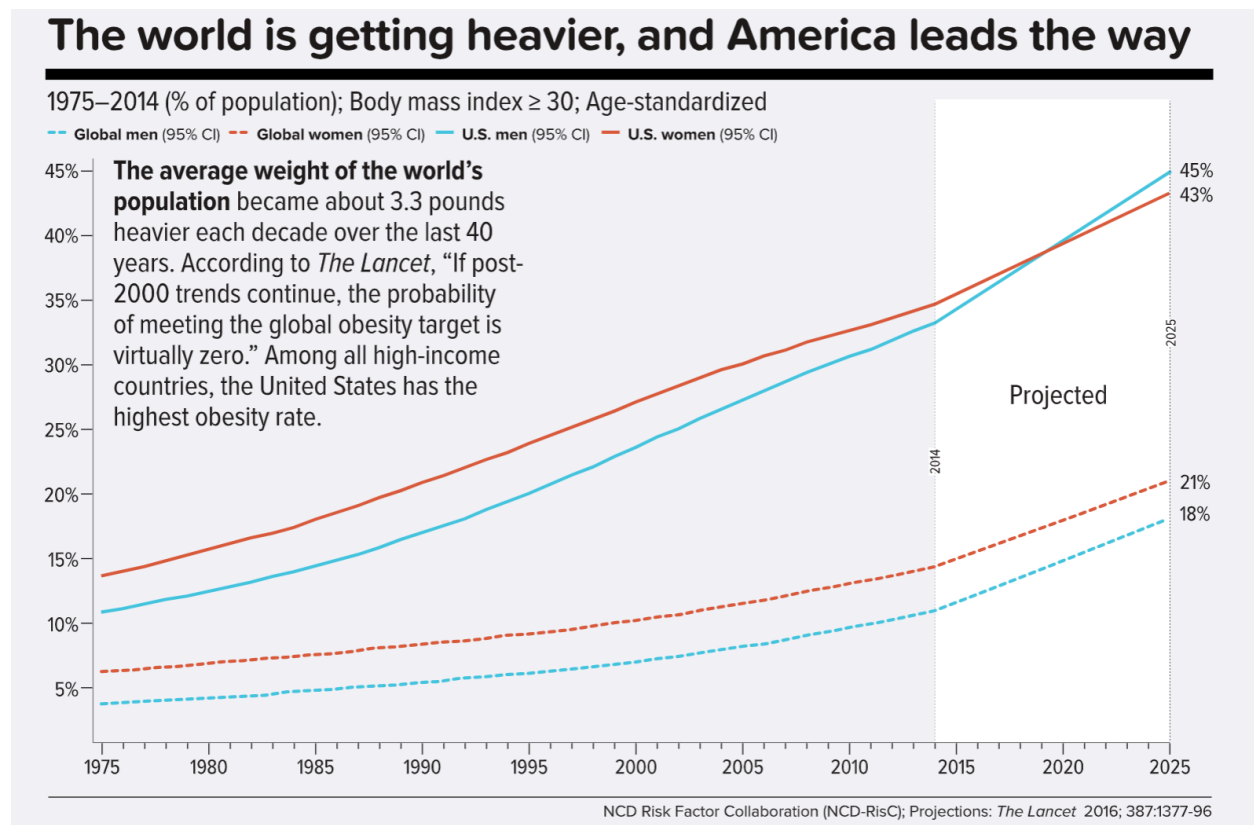
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Abstract

Childhood obesity is an epidemic that affects the nation. The Centers for Disease Control and Prevention (CDC) (2015) states that over the past thirty years, the prevalence of childhood obesity has more than doubled in younger children and quadrupled in adolescents (CDC, 2015). Although obesity is a multifactorial health issue that is affected by genetics, metabolic factors, socioeconomic factors, and lifestyle choices (Stanford, 2018), a majority of pediatric obesity is as a result of consuming more energy than the body utilizes. There are both immediate and long-term consequences of obesity that negatively affect a child's health which may carry over into the adult life. Consumption of a healthy diet and adequate physical movement can help children maintain a healthy weight (CDC, 2016). This paper will review the lasting effects of obesity, explore the National School Lunch Program and its influence on pediatric health, reinforce the need for physical activity during the school day, and examine how communities can effect change.

Introduction

According to the Centers for Disease Control and Prevention (CDC) (2015) childhood obesity more than doubled in younger children and quadrupled in adolescents over the past thirty years. Five percent of adolescents (age 12-19) in 1980 were obese, compared to twenty-one percent in 2012 (CDC, 2015). More than one-third of all children and adolescents in 2012 were overweight or obese (CDC, 2015). Obesity usually starts between the ages of five and six or during adolescence; children (age 19 and under) who are obese between the ages of ten and thirteen are 80% more likely to be obese adults (American Academy of Child & Adolescent Psychiatry, 2016). Furthermore, obesity contributes to 300,000 deaths per year (American Academy of Child & Adolescent Psychiatry, 2016) and costs society close to \$3 billion dollars annually (CDC, 2010).



(Drexler, 2017)

There are both immediate and long-term consequences of obesity that can be devastating to a child's health and carry over into the adult life. Immediate risks include: type 2 diabetes, high blood pressure, high cholesterol, breathing problems such as asthma and sleep apnea, joint problems, fatty liver disease, gallstones and gastro-esophageal reflux (heartburn) (CDC, 2016). Long term consequences of obesity include: coronary artery disease, atherosclerosis, hip fracture, and gout (Tato, 2001); as well as increased risk for ischemic heart disease, stroke, hypertension, and diabetes (Reilly & Kelly, 2011). Additionally, obesity in children also renders significant psychological issues (Children's Health Policy Center, 2010). Children's Health Policy Center (CHPC) (2010) identifies obese kids as the least desirable playmates and as many as 1/3 lack reciprocated friendships. The Children's Health Policy Center (2010) demonstrates that obese children have poor self-perceptions, low self-esteem, negative body image, and a higher rate of psychiatric diagnoses than their non-obese counterparts. They have higher than average rates of depression, anxiety, eating disorders, social withdrawal, and behavioral problems.

Obesity is a multifactorial health issue that is affected by genetics, metabolic factors, socioeconomic factors, and lifestyle choices (Stanford, 2018). It is also influenced by a family history of obesity, medications, stressful life events, low self-esteem, and emotional problems such as depression (American Academy of Child & Adolescent Psychiatry, 2016). While these external factors should be considered the vast majority, 99%, of obese kids simply consume more calories than their body burns (American Academy of Child & Adolescent Psychiatry, 2016). Maintaining a healthy lifestyle of nutrient dense food and physical activity, balancing energy in versus energy out, is helpful to avoid unhealthy weight gain (CDC, 2016).

Eating behaviors of children are heavily influenced by their immediate environment (Story, 2009). Children spend a majority of their waking hours at school which provides schools

a unique opportunity to influence nutritional behavior and health (Brenner et al., 2016; WHO, 2018). Quality nutrition education has the potential to decrease BMI, diminish weight gain, have a positive effect on attitudes towards fruits and vegetables, as well as increase consumption of produce (Hard, Uno, and Koch, 2015). Government sponsored programs such as Healthy People 2020 have specified goals to improve the health of school-aged children noting that social environments, such as school, have a significant impact on nutritional habits formed by adolescents (Healthy People 2020, 2018). Acknowledging the importance of daily physical activity in achieving a healthy energy balance, Healthy People 2020 also recommends schools allow for daily physical activity as part of the academic schedule (Healthy People 2020, 2019).

National School Lunch Program

The CDC (2016) sees academic success as a primary indicator of the overall well-being of youth and a strong determinant of good health as an adult. In 2012, the USDA published new guidelines aimed at improving nutrition in schools. The National Center for Education Statistics (NCES) observed that approximately 50 million students attended public schools in 2016. More than 30 million students are served by the National School Lunch Program (NSLP) and more than 14 million are served by the School Breakfast Program (Academy of Nutrition and Dietetics, 2018). This shows that countless students rely on the school system for both their education and nutritional needs. Schanzenbach (2009) noticed that children participating in the NSLP were more likely to be obese than those that brought their lunch. The students started out with the same weight in kindergarten but by first grade 14 percent of school lunch participants were obese as compared to 11 percent of “brown baggers.”

The 2010 Healthy, Hunger-Free Kids Act (HHFKA), approved funding to meet updated nutrition standards but the new standards imposed a financial hardship on some school districts

(Hayes, Contento, & Weekly, 2018). These guidelines added an additional 10 cents for every lunch and 27 cents for every breakfast prepared. In contrast, the HHFKA (2010), only provided school districts with an additional 6 cents (Guerrero, Olsen, & Wistoff, 2018). The Academy of Nutrition and Dietetics state in their Spring 2018 position paper, “Nearly 8 in 10 school district directors have reported the need to reduce staffing, defer or cancel equipment investments, and reduce reserve funds to offset financial losses since the 2012 standards were implemented” (pp. 3).

The HHFKA granted 4.5 billion dollars to be given over 10 years for school meal and child nutrition programs. In contrast, the annual obesity related medical cost in 2008 currency was estimated at \$147 billion dollars (CDC, 2017). According to Thomson Medstat Research Brief (2005), the national medical cost of childhood obesity alone was \$14 billion dollars. Furthermore, obese children are 27%-54% more likely to be absent from school affecting their graduation rate and psychosocial development (An, Yan, Shi, & Yang, 2017). Given the over-all burden of obesity on the nation it seems reasonable to invest more resources in prevention.

The Conscious Kitchen: Real Food Fights Obesity

The Conscious Kitchen (TCK) serves as a possible alternative to the traditional school lunch. TCK is a non-profit organization based in Sausalito California, headed by Judi Shills. An innovative organization that was able to remodel the face of school nutrition at a site where a majority, 95%, of the students qualify for free or reduced meals. With the support of the community TCK renovates ‘heat and serve’ kitchens into fully functioning kitchens with a cooking staff providing freshly prepared meals, contributing to the overall health and cognitive acumen of the children. Their goal is to provide fresh, nutrient dense, palatable meals versus pre-packaged, heat and serve foods while staying within school budget limits

(www.consciouskitchen.org). In addition to providing freshly cooked meals TCK works to manage the school garden, provides nutritional education, and conducts cooking classes to the students and their families.

Physical Activity: Essential to Fight Obesity

Just as nutrition impacts the psychological, cognitive, and overall health of a child, physical activity also impacts all areas of health and is an important component of a healthy school environment (CDC, 2016; Children's Health Policy Center, 2010; American Academy of Pediatrics, 2015). Although both physical education and recess allow for the expenditure of energy it is important to note the difference between them. Physical education is organized and planned, another form of instruction with the expectation of the student to follow given guidelines (Pica, 2008). In contrast, recess is unstructured play time which allows for social-emotional learning, cooperation, problem solving, an avenue to relieve and manage stress through physical activity, and fosters creativity (CDC, 2018; Ramstetter, Murray, & Garner, 2010). Recess increases a student's level of physical activity, improves their memory, attention, and concentration, decreases disruptive behavior, and improves social and emotional development (CDC, 2018). Despite these benefits, time allotted for recess has been decreased or eliminated in many school districts in an effort to improve academic achievement by using more of the school day in the classroom (American Academy of Pediatrics, 2013). Additionally, schools with 75% or more students eligible for free or reduced-price lunch had the lowest minutes per day of recess (Ramstetter, Murray, & Garner, 2010).

The No Child Left Behind (NCLB) policy (2001) had a significant impact on the daily schedule of public education. The policy required schools to test their students yearly from grades 3 through 8, in English and Math, and once in high school (Ladd, 2017). If school

districts did not meet adequate progress towards proficiency goals, they suffered financial consequences (Ladd, 2017). Increased instruction time for these subjects resulted in decreased time spent on physical education, recess, social studies, science, art, and music, creating a very narrow view for our educational system (Ladd, 2017; Ramstetter, Murray, & Garner, 2010). In 2015, the NCLB was replaced with Every Student Succeeds Act (ESSA). ESSA allows for a more holistic view of education, focusing on preparing students for success in college and careers (U.S. Department of Education, 2018). Under this new Act states are required to set their own measuring standards that must include three academic markers and one non-academic marker (Healthy Schools Campaign, 2016). These guidelines created a space for states to implement their own policy and strategies focusing on student health, safety, and supportive learning environments (Fobbs, Mays, & Rayburn, 2016). Individual states can now choose to use funds for a school nutrition program, assign time for physical activity (Fobbs, Mays, & Rayburn, 2016), or use resources to invest in programs such as Peaceful Playgrounds.

Peaceful Playgrounds

Peaceful Playgrounds is a company started by Dr. Melinda Bossenmeyer, Ed.D. while she was serving as Principal at an elementary school in California. She created the program with the intent of increasing physical activity among children while also keeping them safe from conflict and injury. This is accomplished by encouraging free play in an environment that offers children multiple choices. Peaceful Playgrounds, already established in 8,000 schools, offers program kits, online courses, and digital downloads focused on creating safe play environments so that children can be healthy and active.

Implications for Practice

The causes and consequences of childhood obesity go beyond nutrition, physical activity, and illness. It is a multi-dimensional phenomenon that requires a communal response to change the prevailing culture of inadequate nutritional intake and sedentary lifestyles. The Community Tool Box (CTB) (2018) by the University of Kansas outlines a template to effect change in a community. Assess, plan, act, evaluate, and sustain are the steps to communal action (CTB, 2018). The Conscious Kitchen and the Peaceful Playground Foundation both have action plans for transforming school meal programs and physical activity opportunities offered to students. The Peaceful Playground Foundation also includes curriculum regarding grant writing and playground training.

Health care providers, educators, and those that influence policy, have the ability to influence the health of children as well. Health care providers routinely provide health education to their patients and the patient's family. This conversation should include a discussion about nutrition, prompting parents to inquire about their child's school lunch program and physical activity opportunities. Providers can equip parents with resources such as TCK, the Peaceful Playground Foundation, and the Community Tool Box, encouraging them to seek out other parents who are concerned about the overall health of their children and create coalitions for change.

Educators and policy makers can work in collaboration with parents encouraging school administration to prioritize health, petitioning their state to choose school nutrition and physical activity as a metric by which they are measured under ESSA. Although the government requires healthier options at school this does very little to change the culture around health. It will take community effort to transform meal time and safe unstructured free time for students.

Childhood obesity does affect children from all backgrounds, indicating the need for a larger culture shift around nutrition, activity, and health. In addition to school systems not prioritizing physical activity, our general American lifestyle is more sedentary. Also, working parents find it challenging to prepare home cooked meals, often opting for less nutritious fast food options. Focusing on improving the opportunities offered at school, the place children spend the majority of their waking hours, is an effective approach to start influencing larger change.

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