**Prevention of Childhood Obesity**

**Background:**

The number of children and youth diagnosed with diabetes is increasing at an exponential rate, and is a growing clinical and public health concern (National Institute of Health). Previous legislative attempts to curb the trend of childhood obesity and diabetes have not been effective enough: Nearly 1 in 5 school-age children in the U.S. has obesity, and the annual relative increase in Type II 2 diabetes is 4.8% (CDC; National Institute of Health). Diet and lifestyle, the two primary factors that influence weight, are strongly impacted by where children live, work, and play (U.S. Department of Health and Human Services [HHS], 2010). Below, we identify gaps in in present policy that need to be addressed in order to create an environment that promotes health for children and youth and helps effectively manage and prevent diabetes in this population.

**Key Points**

* According to California *Education Code* Section 51210[a][7], elementary schoolers must receive physical education (P.E.) “not less than 200 minutes each 10 schooldays, exclusive of recesses and the lunch period". Middle and high schoolers must attend physical education “not less than 400 minutes each 10 school days,” as stated in *Education Code* Section 51222[a] (Senate Bill No. 677, 2003).
* Children between the ages of 5-17 should engage in 60 minutes of moderate to vigorous activity *per day* according to the World Health Organization*,* meaning that there is a significant discrepancy in the current amount of exercise that children have the opportunity to engage in, and the amount recommended by health professionals (‘Physical activity and young people’).
* Although it is true that some children engage in exercise through sports and other physically active recreational activities, participation in extracurricular sports is associated primarily with higher socioeconomic status, and involvement cannot be assumed for all children in the US (Johnston, Delva, and O’Malley, 2007).
* Because children from lower socioeconomic status are at an increased risk of obesity and diabetes (Johnston, Delva, and O’Malley, 2007) and may not have access to safe outdoor play spaces or sports opportunities, it is crucial to structure public education in a way that will provide these children with adequate physical activity in order to remove this systematically reinforced trend.
* Adding short (10 minute) periods of activity throughout the school day is an appropriate, inexpensive, and beneficial method for providing increased physical activity for children that would have wide- reaching effects (Babey, Wu, & Cohen, 2017). Other programs have been suggested, such as after- school programs, before- school programs, extended school days with mandatory physical education participation, and improved physical education curriculum, however, research suggests that there are barriers that make these solutions less feasible (Babey, Wu, & Cohen, 2017).

**Conclusion:**

Given the continual increase in prevalence and diagnosis of diabetes in children and youth, and the great cost to healthcare systems that can result, addressing this concern is a great area of need. Because children spend a significant portion of their day at school, we recommend re-structuring the academic school day to provide opportunities for brief periods of physical activity throughout the day. Doing so is inexpensive and evidence-based and could significantly impact childhood obesity

**References:**

Babey, S. H., Wu, S., & Cohen, D. (2014). How can schools help youth increase physical activity? An economic analysis comparing school-based programs. *Preventive medicine*, *69*, S55-S60.

CDC. Retrieved from https://www.cdc.gov/healthyschools/obesity/facts.htm

Johnston, L. D., Delva, J., & O’Malley, P. M. (2007). Sports participation and physical education in American secondary schools: current levels and racial/ethnic and socioeconomic disparities. *American journal of preventive medicine*, *33*(4), S195-S208.

National Institute of Health. Retrieved from https://www.nih.gov/news-events/news-releases/rates-new-diagnosed-cases-type-1-type-2-diabetes-rise-among-children-teens

Physical activity and young people. (2015, June 19). Retrieved from https://www.who.int/dietphysicalactivity/factsheet\_young\_people/en/

Senate Bill No. 677 - The California Childhood Obesity Prevention Act. (2003, September 16).  California Legislative Information. Retrieved from http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=200320040SB677

U.S. Department of Health and Human Services. (2010). Healthy People 2020: Nutrition and weight status. Retrieved September 9, 2010, from http://www.healthypeople.gov/2020/topicsobjectives2020/ overview.aspx?topicid529