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Before the Senate Environment and Public Works' Subcommittee on Children's Health

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Senator Klobuchar, Member of the Subcommittee, thank you for this opportunity to testify about the number one health threat facing our children today and generations to come—obesity.

I am Mary Story, a professor and associate dean in the School of Public Health at the University of Minnesota and the director of Healthy Eating Research, a national program of the Robert Wood Johnson Foundation focused on environmental and policy strategies to promote healthy eating among children and reduce childhood obesity. I have over 20 years of experience researching obesity and nutrition in children and adolescents and serve as a Member of the Institute of Medicine Committee on Childhood Obesity Prevention.

I commend you for holding a hearing today to examine the environmental factors that affect the health of our children. My work has always been driven by the belief that we must provide our children with the best start in life and health. Giving children a healthy start will help ensure future generations of healthy adults. In doing so, we must ensure they have healthy air to breathe, clean water to drink and play in, access to healthy foods, and safe places to walk, run, bike and play.

As a parent and a nutritionist, I am concerned about what American children are eating – too much fat, sugar and empty calories and not enough fruits and vegetables. In addition, children are not getting enough physical activity. This imbalance has led to the serious problem of obesity. Some experts warn that if obesity rates continue to climb, today's young people may be the first generation in American history to live sicker and die younger than their parents' generation. Things have to change.

Introduction to Problem:
Obesity rates have soared among all age groups, increasing more than four-fold among children ages 6 to 11 over the past four decades. Today nearly one third of children and adolescents are overweight or obese. That's more than 23 million kids and teenagers. [1,2]

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[1] Ogden C, Carroll M and Flegal K. "High Body Mass Index for Age Among US Children and Adolescents, 2003–2006." *Journal of the American Medical Association*, 299(20): 2401–2405, May 2008.

And significant disparities exist. For example, 38 percent of Mexican-American children and 34.9 percent of black children ages 2 to 19 are overweight or obese compared with 30.7 percent of white children in the same age range. [3]

The health of our children is at great risk, impacting not only their quality of life – and those around them, but also placing significant financial pressure our health system. Economist Eric Finkelstein recently reported that annual medical expenditures attributable to obesity have doubled in the past decade and may be as high as $147 billion per year.[4]

Environment: Where our children live, learn and play

As we examine the environmental factors that have led us to this public health epidemic, it is important to define "environment." For childhood obesity prevention, an environmental approach means focusing on the physical places where children live, learn and play. The goal is to ensure that these environments support and encourage healthy eating and physical activity.

Over the past 40 years, we've learned a great deal about what it takes to keep our children healthy. Research now tells us that our children's physical and social environments affect their health even more than we previously imagined. How kids live and what they have access to directly impacts their behavior and health.

Unfortunately, many of our communities are unhealthy. In addition to poor air quality and hazardous waste – areas that other panelists are discussing, many communities do not have access to healthy affordable foods or have parks or other safe areas for physical activity. Too often people have to rely on small stores, convenience stores and hybrid gas stations where there is a smaller selection of healthy foods at higher prices because they don't have access to full-service grocery stores. In many lower-income communities there a dearth of public transportation, walking or bike paths – including safe routes to and from school.

As a result children eat poorly and and don't have enough opportunities to be active so their health suffers. Ultimately, we all pay a price—higher health care costs, increased school absenteeism and reduced economic growth.

And while we know it is an individual's decision what and how much to eat or how much activity they get, we also know that individual behavior change can only occur in a supportive environment with accessible and affordable healthy food choices and

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[2] Ogden C, Flegal K, Carroll M and Johnson C. "Prevalence and Trends in Overweight Among US Children and Adolescents, 1999–2000." *Journal of the American Medical Association*, 288(14): 1728-–1732, October 2002.

[3] Ogden C, Carroll M and Flegal K. "High Body Mass Index for Age Among US Children and Adolescents, 2003–2006." *Journal of the American Medical Association*, 299(20): 2401–2405, May 2008.)

4 Finkelstein E, Trogdon J, Cohen J and Dietz W. "Annual Medical Spending Attributable to Obesity: Payer-and-Service-Specific Estimates." *Health Affairs*, 28 (5): w822-w831. Published online July 2009.

opportunities for regular physical activity. Americans are fighting an uphill battle to maintain a healthy weight, eat healthy and be active because so many factors in our environment are working against us. It is hard to eat healthy when the most prevalent options are fast-food restaurants and convenience stores. And if you don't have access to safe parks, playgrounds and sidewalks, it's hard to be active. Where we live and work and go to school matters and affects what people eat and how active they are.

I'd like to examine three environments with the Subcommittee today—community – community, school and child care—and would like to work with all of you to implement common- sense solutions so all of our children can grow up in a healthy environment.

The Community Environment

It is important to examine the overarching community and neighborhood environment from both a food access and physical activity point of view.

Research shows that better access to supermarkets is related to having a healthier diet. For example, one study found that with each additional neighborhood supermarket there was a 32 percent greater likelihood of eating five or more daily fruit and vegetable servings. Conversely, other studies have shown that youth who have greater access to convenience stores consume fewer fruits and vegetables.[5] And we know there is great inequality in access to different types of food stores according to income, race, ethnicity and urbanization.

All of this is important because findings from studies examining relationships between access to food stores and obesity suggest that greater access to supermarkets may be related to a reduced risk for obesity. At the same time, greater access to convenience stores may be related to an increased risk for obesity. There is movement across many states to offer incentives to attract full-service supermarkets back into lower- income, rural and urban areas, an initiative recently backed by the Institute of Medicine.[6] Other opportunities to improve food access include improving the availability and accessibility of farmers' markets, establishing mobile stores and providing shuttle services so residents can access supermarkets.

And while I know my fellow panelist, Dr. Reid Ewing will speak to the physical environment, I would be remiss if I didn't at least touch on it as the characteristics of neighborhoods and community can influence children's daily activity levels. As mentioned earlier, children across the country do not get enough physical activity.. The Institute of Medicine recently released its *Local Government Actions to Prevent Childhood Obesity* report, a report I was proud to be a part of, and highlighted the

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[5] Morland K, Wing S, Diez-Roux A. "The contextual effect of the local food 27. environment on residents' diets: the Atherosclerosis Risk in Communities Study." *American Journal of Public Health*, 92(11): 1761–1767, November 2002.

[6] IOM (Institute of Medicine). 2009. Local Government Actions to Prevent Childhood Obesity. Washington, DC: The National Academies Press

following promising strategies for changing and improving physical activity environments:

- Plan, build and maintain a network of sidewalks and street crossings that connects to schools, parks and other destinations, and create a safe and comfortable walking environment;
- Adopt community policing strategies that improve safety and security of streets and park use, especially in higher-crime neighborhoods;
- Collaborate with schools to implement a Safe Routes to Schools program;
- Build and maintain parks and playgrounds that are safe and attractive for playing, and in close proximity to residential areas;

  Collaborate with school districts and other organizations to establish agreements that would allow playing fields, playgrounds, and recreation centers to be used by community residents when schools are closed (joint-use agreements); and

- Institute regulatory policies mandating minimum play space, physical equipment and duration of play in preschool, afterschool and child-care programs.

The School Environment

Schools play an important role in shaping the dietary and physical activity behaviors of our children. Overweight and obese children tend to miss more school, which may affect academic performance. In addition, strong evidence links healthy nutrition and physical activity behaviors with improved academic performance and classroom behavior. Yet, recent research shows that our school environments aren't as healthy as they could be. School districts across the country that are part of the National School Lunch Program are mandated to have a local school wellness policy addressing nutrition and physical activity. The most comprehensive review of these wellness policies to date tells us the following about the school environment:[7]

- While most students nationwide are enrolled in a school district with a wellness policy on the books, these policies are weak, failing to provide our children with the healthy foods and physical activity they need to learn and grow,

- In most cases, school districts required strong nutritional guidelines for school meals, but imposed weaker restrictions on what is sold in *à la carte* lines, vending machines and school stores, meaning most kids may have access to junk food and soda throughout the school day.

- Additionally, the majority of students were enrolled in a district with a policy that did not address integrating nutrition education into core subjects.

[7] Chriqui JF, Schneider L, Chaloupka FJ, Ide K and Pugach O. Local Wellness Policies: Assessing School District Strategies for Improving Children's Health. School Years 2006-07 and 2007-08. Chicago, IL: Bridging the Gap Program, Health Policy Center, Institute for Health Research and Policy, University of Illinois at Chicago, 2009.

- In addition, while more than 30 percent of students were enrolled in a school district that required physical activity outside of physical education, the majority of policies did not require physical activity breaks throughout the day.

- It is important to note, that although national recommendations are that children should engage in 60 minutes of moderate activity most day s of the week, estimates show that only 3.8 percent of elementary schools provide daily physical activity.

- Further, only 18 percent of elementary-school students were enrolled in a district with a strong policy that required daily recess.

While improvements have been made in the school food environment especially in the area of ensuring school meals meet the minimum U.S. Department of Agriculture (USDA) school meal standards, we need to ensure that these standards are updated. For example, standards pertaining to competitive foods, foods and beverages sold outside of the reimbursable school meal programs, still need substantial improvements. High-calorie, low-nutrition foods are still widely available in many schools, especially middle and high schools – in vending machines, cafeterias and fundraisers. Junk food has no place in schools. The USDA nutrition standards for all foods sold outside of the school meal program need to be updated. The school environment needs to promote the health of our children.

The Child Care Environment

It is a similar story in our child-care facilities. Most children in this country are in child care. It is estimated that there are about 100,000 childcare centers and 200,000 family day care homes across the country. The majority of infants and children up to age 5 spend an average of 29 hours per week in some form of child-care setting.[8] And more than half of young people ages 5 to 14 years also spend time in a regular child-care setting.[9] And we know that the obesity problem starts at an early age with 24.4 percent of children ages 2 to 5 already obese or overweight.[10] The early childhood years are an important period for developing healthy brains, healthy food preferences and motor skills.

As many of you know, there are many types of child-care arrangements, but the federal government does play a role in this area. The USDA and designated state agencies administer the Child and Adult Care Food Program (CACFP), which provides meals and snacks to nearly 2.1 million children in center-based care and almost 900,000 children in family child-care homes. Yet, beyond the CACFP meal pattern requirements, which are not consistent with the Dietary Guidelines for Americans, there are no federal regulations

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8 Iruka I, Carver P. Initial results from the 2005 NHES Early Childhood Program Participation Survey (NCES 2006–075). Washington, DC: U.S. Department of Education. National Center for Education Statistics; 2006.

9 Johnson J. Who's minding the kids? Child care arrangements: Winter 2002. Washington, DC: Current Population Reports, P70–101. U.S. Census Bureau; 2005.

10 Ogden C, Carroll M and Flegal K. "High Body Mass Index for Age Among US Children and Adolescents, 2003–2006." *Journal of the American Medical Association,* 299(20): 2401–2405, May 2008

for nutrition or physical activity that govern child-care facilities. This means that the types of food and beverages our children are served and the amount, frequency or type of physical activities they are provided vary widely across states. Recent studies have shown that children who attend such child-care centers may not be offered the recommended share of certain key nutrients that are essential for healthy brain development, including iron, zinc and magnesium. For example, one study showed that foods consumed during child care generally supplied 50 percent to 67 percent of children's requirements for energy and nutrients, with the exceptions of niacin, iron and zinc.[11] Other studies have shown that preschool children may not be meeting national recommendations for physical activity. For example, one study showed that preschoolers averaged 7.7 minutes of moderate-to-vigorous physical activity per hour of attendance.[12] Child-care policies and practices can greatly influence physical activity levels.

It is my hope that more attention will be paid to these child-care settings in the future, as all our children need a healthy start in life. The Institute of Medicine is in the process of updating the nutrition standards for the CACFP meal patterns – this is a start. But more needs to be done to encourage states to adopt strong policies and practices that promote a healthy child-care environment for this critical population.

Recommendations and Closing:

We are here today because we all believe we need to change the environments in which we live. Sometimes, it takes new public policies to make sustainable and lasting change happen—like when states work to improve the quantity and quality of physical education in schools; school boards ban junk food in school vending machines; transportation planners integrate bicycle lanes and walking paths into road construction projects; and cities offer incentives to build new supermarkets in underserved areas.

As Congress and the Administration work to address obesity and the health of children in general, I would recommend a highly coordinated strategy across all agencies, with the goal of ensuring health is part of all policies. This means that government needs to integrate health into all areas of public policy development—with a particular focus on areas outside of health that affect our well being—things like housing, education, employment and the economy. The goal is to recognize the value of a healthy public—not only on an individual basis, but to the country as a whole in terms of economic success and global competition. For example, we know that healthy children learn better and are more attentive in school, therefore the adoption of a health in policies strategy related to education moves the ball forward in ensuring our students are successful, and provides them with the resources they need to be fit and healthy. At the very least, I would recommend coordinating childhood obesity prevention efforts across the U.S. Department of Health and Human Services, Department of Agriculture, the Department of Transportation, Environmental Protection Agency, the Department of Education, the

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11 Briley M, Jastrow S, Vickers J, Roberts-Gray C. Dietary intake at child-care centers and away: Are parents and care providers working as partners or at cross-purposes? *Journal of the American Dietetic Association*. 1999;1999(99):950–954

12 Pate R, Pfeiffer K, Trost S, Ziegler P, Dowda M. Physical activity among children attending preschools. *Pediatrics.* 2004;114:1258–1263.

Department of Interior, the Department of Housing and Urban Development and the National Institutes of Health.

Whether we are looking at transportation policies, climate change legislation, child nutrition programs, how to spend stimulus money in communities, and of course—health reform, approaching these decisions with a focus on the impact these policies and programs will have on health—especially children's health, will be an important step in addressing the short and long-term health issues across the country.