Researchers and clinicians at the John A. Burns School of Medicine (JABSOM) are committed to reducing health disparities, including the higher rates of cardiovascular and metabolic disease caused by obesity. More keiki in Hawai‘i are overweight than are children in other States.

The medical school received a highly competitive $12.6 million grant for a sweeping project called RMATRIX, to support interdisciplinary efforts to reduce or eliminate health disparities. The "R" in RMATRIX stands for Research Centers in Minority Institutions, which is funding the research. MATRIX is short for Multidisciplinary And Translational Research Infrastructure Expansion.

Obesity plays a significant role in health disparities, with Asian/Pacific Island children, for example, at higher risk of being overweight. That, in turn, leads to higher rates of heart disease and diabetes. An interventional trial targeting obesity is being conducted by The Center for Native and Pacific Health Disparities Research. JABSOM’s Department of Pediatrics, and the Hawaii Initiative for Childhood Obesity Research and Education (HICORE) have launched new community campaign which involves several local healthcare organizations and emphasizes ways to prevent childhood obesity.

The PILI ‘Ohana program is a partnership between 10 community-based organizations throughout the State of Hawai‘i and a team of academic researchers from the Department of Native Hawaiian Health (DNHH). Its aim is to integrate community wisdom and expertise with scientific methods to conduct research on health disparities, with a specific emphasis on obesity, in Native Pacific populations.

The Nation’s Institute of Medicine (IOM) has just issued a report which brings several of the latest findings about obesity in the United States into focus.

Click here to read the IOM report.

Photo: Courtesy of the Hawai‘i State Department of Health
Early Childhood Obesity Prevention Policies

Obesity in children is a serious health problem in the U.S. that can persist as children grow older and can affect the quality and longevity of their adult lives. Even the nation’s youngest children are at risk of becoming obese. Today, almost 10 percent of infants and toddlers carry excess weight for their length, and slightly more than 20 percent of children between the ages of two and five already are overweight or obese. A wide range of environmental factors can influence a child’s risk for obesity in the first years of life.

Because of growing evidence on the importance of assessing the beginnings of obesity and instituting preventive measures in the early years, the Institute of Medicine’s (IOM) Standing Committee on Childhood Obesity Prevention recommended that an IOM committee review factors related to overweight and obesity from birth to age five, with a focus on nutrition, physical activity, and sedentary behavior, and make policy recommendations on obesity prevention in the first five years.

Multiple stakeholders can affect the environments in which children grow and develop. Although parents usually have the greatest influence as the primary caregivers, many other adults outside of the home setting—including state and local government officials, healthcare providers, child care providers, and members of the community at large—help shape the lives of infants, toddlers, and preschool children.

The Importance of Early Assessment of Risk

Because early obesity can track to adulthood, efforts to prevent obesity should begin long before a child enters school. The committee recommends that
at every routine pediatric visit—or well-child visit—healthcare professionals measure weight and length or height in a standardized way, using the most current growth charts from the World Health Organization and the Centers for Disease Control and Prevention. Additionally, healthcare professionals should consider the following when determining which young children are at highest risk of developing obesity:

• growth measurements at or above the 85th percentile curves;
• children’s rate of weight gain; and
• parents’ weight status.

Parents see pediatricians, primary care physicians, and other healthcare professionals as child care authorities. Thus, these professionals have an important opportunity to make parents aware of their child’s excess weight early on to allow time for intervention and prevention.

Creating Healthier Behaviors

Over the past 20 years, Americans have reduced their physical activity and increased the amount of time they spend in sedentary pursuits. The need to reverse this trend extends to even the youngest members of society. Evidence suggests that higher levels of physical activity are associated with a reduced risk of excessive weight gain over time in younger children. Therefore, the committee recommends that child care providers and early childhood educators afford infants, toddlers, and preschool children with opportunities to be physically active throughout the day. Child care providers and early childhood educators should reduce the amount of time they spend sitting or standing. Healthcare providers should counsel parents on how to increase their children’s physical activity and reduce the time they are sedentary at home as well.

In addition to promoting physical activity among young children, caretakers also should pay careful attention to how they feed children. Children’s food preferences can develop as early as infancy. While research suggests that breastfeeding is associated with a reduced obesity risk for children, many hospitals and healthcare professionals do not provide sufficient information about or support for breastfeeding. Without the benefit of outside advice or resources, mothers are less likely to start breastfeeding or may stop earlier than is recommended. Because of the health benefits conveyed through breastfeeding, the committee recommends that adults who work with infants and their families promote and support breastfeeding exclusively for six months and continued in conjunction with solid foods for one year or more.

Children who consume a diet rich in nutrient-dense fruits, vegetables, low-fat or nonfat (for children over two years of age) milk and dairy products, and whole grains, and low in energy-dense, nutrient-poor foods, are less likely to be overweight and obese. The committee recommends child care facilities provide meals that are consistent with the meal patterns in the federal Child and Adult Care Food Program to ensure that children have access to healthy foods and age-appropriate portions. It also is important for government agencies to do what they can to promote access to affordable healthy foods through maximizing participation in the federal nutrition assistance programs and helping communities enhance access to affordable nutritious foods where families live.

Currently, the national governmental dietary recommendations—known as the Dietary Guidelines for Americans—do not include recommendations for children under the age of two. Such guidelines are necessary for setting nutrition recommendations for public and federal programs, and therefore, the committee recommends that the Departments of Agriculture and Health and Human Services (HHS) establish dietary guidelines for children from birth to age two.
Limiting Children’s Screen Time
The lives of young children are permeated by media—television, videos, digital media, video games, mobile media, and the Internet. The committee’s recommendation to limit two- to five-year-old children’s exposure to screen time is related to two issues, both of which have the potential to contribute to early childhood obesity: the food and beverage marketing children may experience when they are watching television or interacting with other media, and the amount of overall screen time to which they are exposed. Because of these concerns, the committee recommends that healthcare providers counsel parents and other caregivers of children not to place televisions or other media in young children’s bedrooms. The committee also recommends that HHS use media in a positive way by launching a social marketing campaign to provide consistent messages to parents and caregivers of young children about obesity prevention strategies.

Increasing Sleep
Evidence suggests a decrease in sleep duration across infancy, childhood, and adolescence over the last 20 years, with the most pronounced decreases among children under three years of age. Mounting epidemiologic evidence indicates that short duration of sleep is a risk factor for obesity among all age groups, including infants and children under the age of five. Child care providers should adopt practices that promote healthy sleep durations, and healthcare providers should counsel parents on these issues.

Conclusion
What happens to a child during the first years of life is important to their current and future health and well-being throughout childhood and adolescence and into adulthood. However, national efforts to prevent obesity have not paid enough attention to infants, toddlers, and preschool children. The committee’s report highlights the urgent need for early prevention. Its recommendations are pertinent to healthcare and child care providers and to other stakeholders, and they detail how and why we should ensure access to healthy foods, create safe play areas, and make other changes to the environment that support families’ efforts to prevent obesity and maintain healthy lifestyles. Too many of our youngest children are overweight or obese, and all of the influencers in their lives need to understand both the implications of that trend and how to contribute toward its prevention.
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