Preventing Early Childhood Overweight

The 2005 Los Angeles County WIC Survey: The Third in a Series of Reports

The number of children under 5 who are currently overweight is epidemic and increasing, with studies showing that children ages 2–5 in California have a 1 in 5 chance of being overweight. “Childhood overweight” is the commonly accepted term to describe excessive weight in children.* Mounting evidence demonstrates a link between childhood overweight and cardiovascular risk factors such as hypertension, high cholesterol levels, and abnormal glucose tolerance. Current obesity prevention efforts are largely focused on school-aged children and adults, with an emphasis on social marketing and changing school environments. Comparatively less has been done to study conditions and test environmental interventions among families with children from infancy to age 5. More attention must be paid to determine immediate and longer term practical steps that can be taken at an earlier age to prevent nutrition problems, sedentary habits and obesity. Parents, early childhood stakeholders and providers need information, tools and resources in order to bring focus and energy to protect very young—and particularly vulnerable—children from early and long-lasting harm. The new data provided in this brief corroborate state and national data demonstrating increasing trends in early childhood overweight among 3- and 4-year-olds, and illustrate the need for immediate, multifaceted prevention efforts which should begin even before birth.

Early intervention, prior to the onset and consolidation of poor eating habits and sedentary behaviors, is key to preventing childhood overweight.

The data in this brief come from two sources: the L.A. County WIC Program data collected on the more than 550,000+ participants served monthly, and responses to the 2005 L.A. County WIC Survey administered to a sample of 5,015 WIC families. For a complete description of the survey, including sample demographics and methodology, please see the first brief in this series, available at www.lawicdata.org and www.first5la.org/First-5-LA-Research. Core WIC services include careful tracking of height and weight of all participants. By linking height and weight information from WIC Program data with the WIC Survey data, associations between measures of childhood overweight and demographic and behavioral factors can be explored.

* There is no standard definition of overweight prior to age 2, and children ages 2–5 are considered overweight if their Body Mass Index (BMI) is greater than or equal to the 95th percentile with regard to the standard reference population. BMI is defined as a function of the individual’s weight and height. BMI = (wt (lbs)x 703)/(ht)2
Overweight Status of 3- and 4-year-olds

Every month, the WIC Program in L.A. County serves over 71,000 3-year-olds and 68,000 4-year-olds. As shown on Figure 1, overweight rates of 3- and 4-year-olds have increased by over 3% since 2003. Figure 2 illustrates the overweight rates of 3- and 4-year-olds by Service Planning Area (SPA). Figures 3 and 4 illustrate racial/ethnic group variation in overweight.

* Due to changes in Federal standards, classification of race/ethnicity data for the WIC Program in California were changed in 2006. Race/ethnicity categories from 2006 are not comparable with race/ethnicity categories from previous years.
Factors Associated With Childhood Overweight

The 2005 L.A. County WIC Survey gathered information on a broad range of topics, including breastfeeding practices, child care and preschool utilization, food security (defined as having enough of the kinds of foods they want), access to parks and playgrounds, children’s fast food consumption and TV viewing, as well as maternal perceptions of her child’s weight and physical activity level. Demographic characteristics such as maternal age, ethnicity and education were also captured. A primary goal of this brief is to examine which factors assessed by the survey are significantly related to childhood overweight. Four factors emerge as significant: ethnicity, breastfeeding practices, child care utilization and maternal perceptions of childhood overweight.

Ethnicity
As illustrated in Figures 3 and 4, Latino children have the highest overall rates of overweight, as well as the greatest increases from 2003–2005. African-American and White children show similar rates of change over the time period, but with lower overall rates than their Latino peers.

Breastfeeding
Breastfeeding is associated with significantly lower rates of childhood overweight. Children 3 and 4 years old who were never breastfed were 33.2% more likely to be overweight than children who were breastfed. Consistent with a growing research literature, breastfeeding is a critical, low-cost strategy in the prevention of childhood overweight. For more information about breastfeeding, please see “Report #2 Breastfeeding Practices of WIC Participants” at www.lawicdata.org/, and the breastfeeding policy briefs at www.calwic.org/bfreport.aspx.

Child Care
About one-third (37.5%) of the families with 3- and 4-year-olds reported using some form of child care outside the home. Child care utilization and childhood overweight were significantly related, with children in child care 25.7% more likely to be overweight than children not in child care. Much more research is needed in this area, as the reasons behind this association remain unknown. These data do not examine children participating in various types of child care arrangements such as center-based, home-based or license-exempt, nor do they assess dietary practices in the child care setting, and these are critical areas for exploration.

Maternal Perceptions of Overweight
When the mothers of overweight children were asked if they considered their child to be overweight, 36.9% of mothers responded yes, 60.5% rated their overweight child “about right,” and 1.6% rated the child underweight. Comparatively, only 1.1% of mothers of normal weight children rated their child over weight. These findings are consistent with research on older children. Parents have the greatest influence over their child’s nutrition and physical activity habits during early childhood. Childhood overweight prevention efforts are unlikely to be successful without a better understanding of how mothers perceive the problem of overweight in their preschool children.
Additional Findings

The following factors did not significantly differentiate between normal weight and overweight children in this sample. However, they provide important information about diet and activity practices among low-income, 3- and 4-year-old children in Los Angeles County.

- 20.6% of children watch less than 1 hour of TV per day, 47.8% watch 1–2 hours per day, 27.6% watch 3–5 hours per day, and 4.1% watch more than 6 hours per day.
- 89.5% have access to a safe park or playground.
- 73.2% of families eat a meal together every day.
- 67.5% live in households that are food secure, 19.0% get enough food, but not always the kinds they want, 11.2% sometimes don’t have enough food, and 1.5% often do not have enough food.
- 39.8% of the 3-to 4-year-old children eat fast food on a typical day.

Overweight Prevention Strategies

Protect and support breastfeeding

- Breastfeeding emerges as a key strategy in the prevention of childhood overweight. In order for breastfeeding to become the expected mode of infant feeding, the practice must be supported in the hospital, the community, and in the workplace.

Increase access to healthy foods and opportunities for physical activity

- Fruits and vegetables must become a central part of the diet of infants, toddlers and preschoolers. Upcoming changes to the WIC food package, expected in 2009, include the addition of fruits and vegetables for children as young as 6 months of age. This change is expected to improve access to fresh produce in low-income communities, and can be used as a springboard for communities, child care providers and policy-makers to increase access to fresh produce for young children and families.

- The link between early childhood overweight and child care participation must be further explored. Over 800,000 children in L.A. County alone are in some form of child care, and it is imperative that policy, programmatic and/or training initiatives are developed to improve the overweight prevention capacity in child care settings. The first step is to collect, analyze and disseminate baseline data on the current dietary practices in child care settings—an area in which little to no data currently exist.

Increase physical activity and decrease television time

- Encourage parents to spend more time visiting safe, toddler-friendly parks and to limit television watching while their child is at home or at child care.

Support efforts to better understand what works to prevent early childhood overweight

- The vast majority of parents of overweight children do not identify their children as overweight. In fact, parental recognition of childhood overweight appears to be at its lowest point during early childhood. This represents a significant barrier to successful intervention that must be addressed in creative ways by the pediatric community, early childhood education community, and all providers who come into contact with parents of young children.

- Cultural differences must be recognized and incorporated into overweight reduction strategies, and included in policy recommendations and data collection efforts.