

Salud America!

The Robert Wood Johnson Foundation Research Network to Prevent Obesity Among Latino Children

RESEARCH BRIEF

October 2011

Obesity Among Young Latino Children: Disparities and Changes Over Time

Introduction

The high rate of overweight and obesity in the U.S. has serious health implications, including increased risk for hypertension, cancer and type 2 diabetes.^{1,2} There are documented disparities across racial and ethnic groups in childhood overweight and obesity. Particularly, Latino children are at a greater risk for weight problems compared with White children. Currently, 38.2 percent of Hispanic children ages 2 to 19 are overweight or obese, compared with 31.7 percent of all children those ages.³ Obesity among Latino children and youth has increased by 120 percent in the past 20 years,⁴ highlighting the need for research focused on reversing the epidemic in this population.

PRELIMINARY RESEARCH RESULTS

Our *Salud America!* pilot research project, “Young Latino Children’s Weight Changes: Examination of Individual, Family and School Factors,” studied factors and behaviors that may affect weight, nutrition and physical activity among Latino youth. This brief examines the weight status of 5-year-old Latino children in kindergarten and how their weight changed through 5th grade, compared with their White, African-American and Asian peers. It also examines variations in weight among Latino subgroups by country and region of origin and socioeconomic status (SES). Study data come from the Early Childhood Longitudinal Study-Kindergarten Cohort

AUTHORS

Claudia Galindo, Ph.D., University of Maryland, Baltimore County (UMBC), Sergio Prada, Ph.D., IMPAQ International, Judith Shinogle, Ph.D., UMBC and Adele Kirk, Ph.D., UMBC.

PEER REVIEW

Peer review for this research brief was conducted by *Salud America!* National Advisory Committee Member Elva Arredondo, Ph.D., assistant professor, Division of Health Promotion and Behavioral Sciences, San Diego State University.

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¹ Dietz, W. “Health consequences of obesity in youth: Childhood predictors of adult disease.” *Pediatrics*, 101, 518-525, 1998.

² Visscher, T. L. and Seidell J. C. “The public health impact of obesity.” *Annual Review of Public Health*, 22, 355-375, 2001.

³ Ogden CL, Carroll MD, Curtin LR, Lamb MM and Flegal KM. “Prevalence of High Body Mass Index in US Children and Adolescents, 2007–2008.” *Journal of the American Medical Association*, 303(3): 242–249, 2010.

⁴ Harrington, S. “Overweight in Latino/Hispanic adolescents: Scope of the problem and nursing implications.” *Pediatric Nursing*, 34(5), 389-394, 2008.



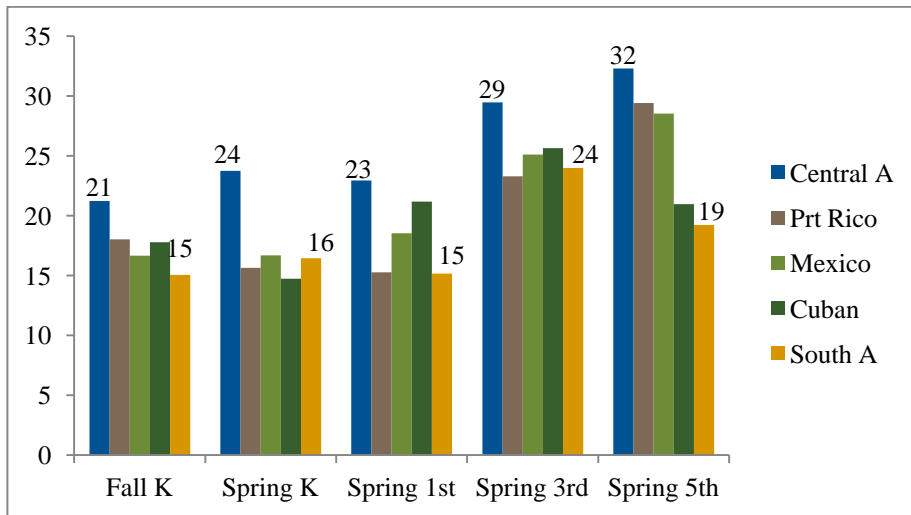
(ECLS-K), sponsored by the National Center for Education Statistics.⁵ The ECLS-K is a nationally representative sample of 21,000 students from the kindergarten class of 1998–99. Our analysis features five waves of data collection (fall and spring of kindergarten, spring of 1st grade, spring of 3rd grade, and spring of 5th grade). Our sample of 17,000 kindergarteners—after excluding foreign-born White and African-American students—included 3,600 Latinos. After attrition, 2,100 Latinos remained by 5th grade. Preliminary results include:

- **Latino children are more likely to be obese than White and Asian children at all points of observation.** At the start of kindergarten, Latino children showed the highest obesity rates (16%) compared with African-American (12%) Asian (12%) and White (10%) children, according to preliminary results. Evidence also showed that obesity rates increased over time among all racial and ethnic groups, but more so among Latino and African-American children. For example, obesity rates remained relatively stable during the first two years of schooling, but there was a noticeable jump in 3rd grade among all racial and ethnic groups. There was another jump in 5th grade, but only among Latino and African-American children. By the spring of 5th grade, more than one-fourth of Latino children were obese.
- **Among Latino children from different countries and regions of origin, Central American, Puerto Rican and Mexican children have the highest obesity levels.** These Latino groups with the highest obesity levels are the same groups with the most significant economical disadvantages.⁶ In contrast, children of Cuban and South American origin were less likely to be obese. There was also a higher increase in obesity rates among children of Central American, Puerto Rican and Mexican origin over time, compared with other Latino subgroups. For example, 21 percent of Central American children were obese at the start of kindergarten, rising to 32 percent by 5th grade. Among South American children, 15 percent were obese at the start of kindergarten, rising to 19 percent by 5th grade.

⁵ National Center for Education Statistics. *User's manual for the ECLS-K first grade public-use data files and electronic codebook (No. NCES 2002-135)*. Washington, D.C.: U.S. Department of Education, Office of Educational Research and Improvement, 2002, <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2002135>.

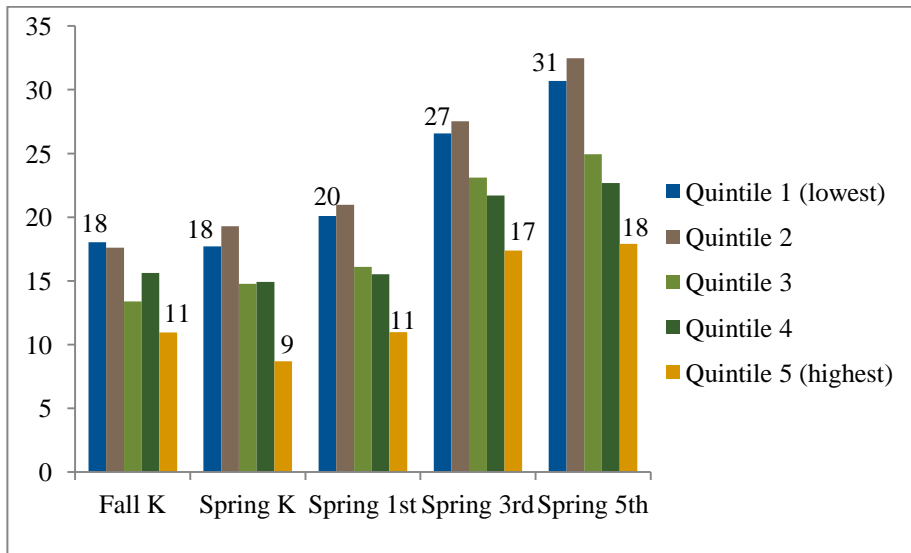
⁶ Ramirez, R. R. *We the people: Hispanics in the United States* (No. CENSR-18). Washington, DC: U.S. Census Bureau, 2004, <http://www.census.gov/prod/2004pubs/censr-18.pdf>.

Obesity Rates by Latino Children's Country and Region of Origin from Kindergarten to 5th Grade (%)



- Rates of obesity among Latino children decrease as SES increases.** Obesity levels among all Latino children increased over time regardless of SES, but the rates increased more among children in the lowest SES quintile. For example, at the beginning of kindergarten, 18 percent of Latino children in the lowest SES quintile were obese, compared with 11 percent of Latino children in the highest quintile. Differences in obesity rates between the highest and lowest SES quintiles increased over time. By the end of 5th grade, nearly one-third of Latino children in the lowest SES quintile were obese compared with less than one-fifth of their peers in the highest quintile.

Obesity Rates by Latino Children's SES Quintile from Kindergarten to 5th Grade (%)



Conclusion and Policy Implications

Our preliminary results indicate that, from kindergarten through 5th grade, Latino children were more likely than their White peers to be obese, and these disparities increased with age. Obesity patterns among Latino children were high and relatively stable in kindergarten and 1st grade, but increased significantly between 1st and 3rd grades and again by 5th grade. Additionally, there is an important variability in obesity that is masked if Latino children are considered one pan-ethnic group, which is a common practice in research. Within Latino populations, Mexican, Puerto Rican and Central American students had higher prevalence of obesity. There also was a higher incidence of obesity among Latino children experiencing higher poverty levels.

These findings suggest that obesity-prevention programs should specifically be targeted to early elementary school grades. Programs and policies to curb obesity may also need to be more targeted toward Latino subgroups at greater risk. Our future work will study how sex, country of origin, SES and generational status (i.e., whether the child is born in foreign countries of non-U.S. parents or born in the U.S. of non-U.S.-born parents) influence childhood obesity. We will also explore how parental behaviors, and school factors influence weight and weight changes among Latino children. Studying factors such as television viewing, time for recess and physical education, and neighborhood safety is key for informing policy decisions intended to reduce the weight differences between racial and ethnic groups. Better

understanding these issues will also help develop policies and interventions targeted at specific Latino sub-groups during the early school years.