

Salud America!

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



Influence of Media on Overweight and Obesity Among Latino Youth

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RESEARCH BRIEF

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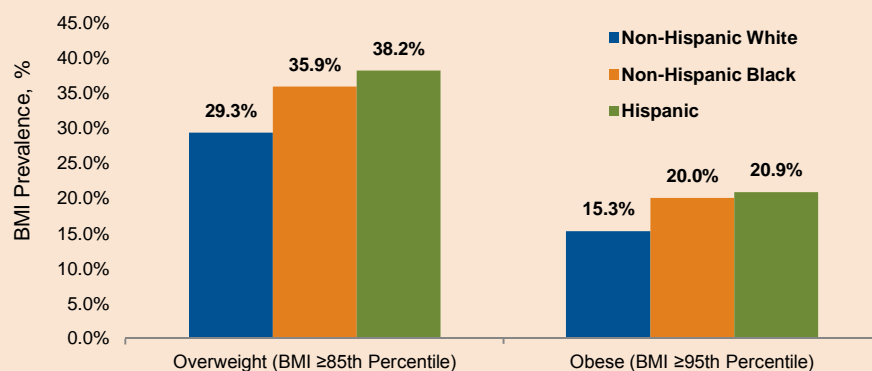
Influence of Media on Overweight and Obesity Among Latino Youth

Introduction

Latino youth are more likely to be overweight or obese than their white peers (Figure 1).¹ According to current estimates, more than 38 percent of Latino youth ages 2-19 in the United States are overweight and almost 21 percent are obese.¹ The higher prevalence of overweight and obesity among Latino youth places them at greater risk for developing health and psychological problems such as cardiovascular disease, asthma, type 2 diabetes, liver disease, sleep apnea, depression, anxiety and psychological stress.^{2,3} These negative effects on Latino youth—and the nation as a whole—cannot be understated, as Latinos currently represent the most populous and fastest growing ethnic minority in the United States. In 2010, the 50.5 million Latinos in the United States comprised 16 percent of the total population—a figure that grew by 43 percent between 2000 and 2010.⁴ In the coming years, the negative effects felt in this large minority population will likely ripple through the health of the nation as a whole, resulting in greater health care expenditures, higher disability rates, lost work productivity, stunted economic growth, and perhaps even threats to national security.⁵⁻⁹

FIGURE 1

High body mass index (BMI) among U.S. youth ages 2-19 years is most prevalent in Latinos, 2007-2008¹



Data source: National Health and Nutrition Examination Survey 2007-2008.

Several environmental, social and cultural factors may contribute to the higher rates of overweight and obesity among Latino youth. Among this population, the likelihood of obesity is partly determined by the interplay of several factors specific to Latinos, including country of origin and the degree of American acculturation.

As with other children and adolescents, marketing may also have a powerful influence on the health behaviors of Latino youth. Media can have a pervasive presence in the lives of youth,¹⁰ and has the potential to influence their eating and physical activity habits.^{11,12} The dominant medium for youth-targeted marketing messages is television,¹³ which now includes web-based platforms like Hulu and YouTube. Moreover, children are increasingly being exposed to food and beverage marketing through other technology channels, including social media outlets (e.g., Facebook, Twitter, YouTube), other Internet venues (e.g., websites, banner ads, advergames [web-based video games used to advertise a product]), mobile devices (e.g., mobile website banner ads, smartphone applications, text message advertising), and video games, in addition to more traditional forms of media such as radio and print ads.^{13,14}

This research brief highlights findings regarding the relationships between media marketing and the health behaviors of Latino youth, particularly as these behaviors pertain to overweight and obesity.

Key Research Results

- **The amount of time young people spend with entertainment media has risen dramatically, particularly among Latinos.** According to a recent study by the Kaiser Family Foundation, each day Latino youth consume nearly 4.5 hours more media (television, movies, video games, music, computer use, newspapers, magazines, and books) than white youth (13 hours of total media exposure for Latinos versus 8 hours and 36 minutes for whites) (Figure 2). Latino youth spend just under 5.5 hours per day watching television, compared to roughly 3.5 hours per day for white youth.¹⁰
- **Increased television viewing is associated with increased snacking and caloric intake among youth; this association is mediated by increased consumption of calorie-dense, low-nutrient foods frequently advertised on television.**^{11,12,15,16}
An observational study determined that each one-hour increase in television viewing correlated with the consumption of an additional 167 calories per day, typically consisting of the types of foods commonly advertised on television.¹² Consistent with these findings, a different large-cohort study determined that screen exposure time directly corresponds to children's requests for advertised products, including requests for food and drinks.¹⁶
- **Latinos are avid users of digital media, including the Internet and mobile phones, among other new media platforms (e.g., Facebook, MySpace).**¹⁷⁻²¹ A study conducted by Yahoo, Telemundo, and Experian Simmons Research found that 90 percent of all Latinos have a cell phone (versus 79% of the general

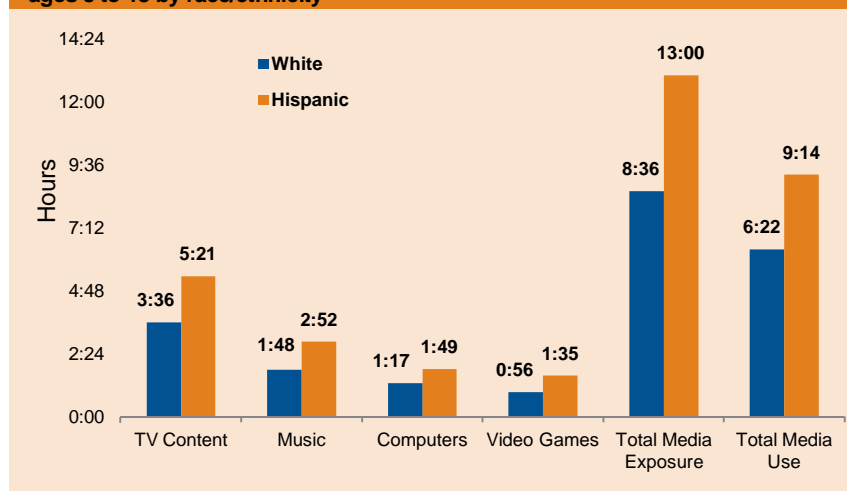
Latino youth tend to be early adopters and heavy users of entertainment media and, as such, may be exposed to more advertising than their white peers.

population), 66 percent use text messaging (versus 38% of the general population), and two-thirds have been online for more than five years.¹⁷

- **Communication-based sedentary behaviors (e.g., talking on the phone, texting, instant messaging) may, like screen time, contribute to lack of physical activity among youth.** A cross-sectional study identified a strong correlation between high levels of screen time (>3 hours/day) and high levels of sedentary communication time (>2 hours/day) among students in grades 5 to 8. The influence of these technologies among Latino youth was not specifically assessed.²²

FIGURE 2

Average amount of time spent with each medium in a typical day among children ages 8 to 18 by race/ethnicity¹⁰



Data source: The Henry J. Kaiser Family Foundation 2010.

Note: Total media exposure is the amount of all media content consumed in a day. Total media use is calculated by reducing media exposure by the proportion of time during which media-multitasking occurs (e.g., listening to music while using the computer).

- **Latinos, particularly Latino youth, have been identified as an important target market segment among fast-food and soda companies.**^{14,21,23} Approximately 5 percent of the \$4.2 billion spent by fast-food companies on all forms of advertising in 2009 was specifically spent on advertisements appearing on Spanish-language television.¹⁴ In an interview with *Brandweek*, Martha Bermudez, senior manager of multicultural marketing for Pepsi-Cola North America said, “It’s important for us to reach young Latinos with messaging that is relevant and authentic because obviously they are the future for us.”²¹ Similarly, Adcentricity, a group of digital media strategists wrote in a white paper that, “Hispanic consumers’ behavior patterns, along with their adoption of technology and media consumption trends, makes it clear that there is a goldmine of opportunity in creating new touch points and engagement strategies through digital advertising.”²³

Beverage and fast-food companies are targeting Latino youths with new products and promotions.

- **Children viewing Spanish-language television in the United States are heavily exposed to food and drink commercials, most of which advertise unhealthy foods, including fast food and sugared drinks.**^{14,24} In addition to ads they may view on other forms of television, the average Latino youth viewed approximately one fast-food television ad per day on Spanish-language television in 2009. Latino preschoolers were most heavily exposed, viewing an average of 270 Spanish-language fast food ads in 2009. McDonald's ads accounted for one-quarter of young people's exposure to Spanish-language fast-food advertising.¹⁴ A separate study found that on average 2.5 food or drink ads were broadcast each hour on after-school Spanish-language television, with fast food accounting for 44 percent of the food commercials, and sodas and other sugared drinks accounting for 54 percent of the drink commercials.²⁴
- **Fast-food marketers have developed sophisticated websites and Web marketing campaigns designed to appeal specifically to young Latino consumers.** Examples include the “Futbol Kingdom” section of Burger King’s main website; the McDonald’s website, MeEncanta.com, designed specifically for Latinos; and McDonald’s ads posted on YouTube targeting bicultural, bilingual young Latinos.^{14,20}
- **Low-income Latino communities are disproportionately exposed to outdoor advertisements for high-calorie, low-nutrient foods and beverages.** A cross-sectional study found that low-income Latino neighborhoods have up to 9 times the density of outdoor advertising for fast food, sugary beverages (e.g., sodas, sweetened juices), and alcohol when compared with high-income white neighborhoods. In high-income Latino neighborhoods, the density of such ads was still 2.5 times higher than in high-income white neighborhoods.²⁵
- **Latinos perceive greater exposure to fast-food promotions and see fast-food restaurants as more conveniently located relative to whites.** Moreover, Latinos included in this cross-sectional study reported significantly more favorable attitudes toward fast food than whites. Consistent with these results, the investigators also found that parents of Latino children reported more frequent consumption of fast food by their children compared with parents of white children. Data analysis found that the association between exposure to fast-food promotion and children’s more frequent consumption of fast food was largely driven by parent perceptions that eating fast food is a favorable social norm.²⁶
- **Research suggests that a ban on fast-food advertising during children’s television programming could dramatically reduce the number of overweight children.** After monitoring the television viewing habits of nearly 13,000 children using data from two longitudinal studies, researchers from the National Bureau of Economic Research found that larger amounts of fast-food advertising seen by children and adolescents was strongly associated with increased BMI among both children and adolescents. The researchers further determined that a ban on fast-food advertising during children's television programming could reduce the number of overweight children aged 3-11 years by 18 percent and the number of overweight children aged 12-18 years by 14 percent.²⁷

Emerging research indicates that various media outlets might be harnessed to positively influence nutrition and physical activity outcomes among Latino youth.

- **Evidence suggests that multi-component media campaigns can positively affect the health behaviors and attitudes of Latino youth and their parents regarding physical activity.**²⁸⁻³¹ For example, the Centers for Disease Control and Prevention sponsored the VERB campaign, a mass-media, multiethnic campaign that used paid advertisements, Internet activities and school and community promotions to encourage children ages 9 to 13 to be physically active every day. Awareness of the campaign was achieved among 70 percent of Latino children ages 9 to 13. A strong positive relationship was identified between children's level of awareness of VERB and their weekly sessions of free-time physical activity.²⁸ In addition, parent awareness of VERB increased over time and was associated with positive attitudes about physical activity for all children, belief in the importance of physical activity for their child and the number of days that parents were physically active with their child.²⁹
- **Ongoing research is assessing novel media outlets such as video games (i.e., "exergames") at improving physical activity; these results are forthcoming.** For example, *Salud America!* pilot investigator Dr. Zan Gao of Texas Tech University is testing how *Dance Dance Revolution*, a dance video game, impacts Latino children's fitness levels.



Conclusions

- A small body of research suggests that food and beverage advertising on Spanish-language television, the Internet, mobile media and in minority neighborhoods may play an important role in the high risk of overweight and obesity among Latino youth.
- Latino youth are often targeted with marketing that promotes foods and beverages of lower nutritional quality.
- Food and beverage companies regard Latinos as an attractive market segment given the growth of the population, their purchasing power and their relevant consumer behavior.
- Research shows that current marketing disseminated through various media outlets often negatively influences youth's food and beverage choices. However, there is also evidence that these same outlets can be used instead to promote healthy eating habits and physical activity.
- The effects of new interactive marketing techniques (e.g., viral marketing) and venues (e.g., cell phones) on Latino physical activity and nutrition are not yet known.

Areas for Future Research

It is clear that there is a significant obesity problem affecting Latino youth. The influence of media marketing on the health behaviors of Latino youth, particularly as these behaviors pertain to overweight and obesity, is less well-defined. To address the paucity of research on the influence of marketing practices specifically targeted to Latino youth, a full range of studies is necessary. Such studies should address questions concerning:

- The influence of food and beverage promotions via television, mobile marketing, advergames and other interactive marketing, billboards, store signage, in-school and in-store packaging, and other outlets on Latino youth's health behaviors.
- Effects of the amount and density of unhealthy food and beverage outlets within Latino communities on consumption behaviors.
- The effects of marketing high-calorie, low-nutrient foods and beverages among Latino children and teens, including researcher access to industry analysis of such marketing practices.
- The effectiveness of culturally specific media campaigns focused on healthy eating and physical activity.
- The usefulness of innovative forms of media—video games, text messaging, and Internet advertisements—for promoting healthy behaviors among Latino youth.



Policy Implications

- Independent research demonstrates that self-regulation of child-targeted marketing by the food and beverage industry is insufficient.^{13,32} To better facilitate change, particularly for Latino youth, policymakers should consider banning all junk-food advertising to young children and banning junk-food advertising techniques that are deceptive and misleading to adolescents to reduce the potential influence of marketing for high-calorie, low nutrient-dense foods.
- Fast-food, soda, snack, and cereal companies should be encouraged to adopt meaningful standards for child-targeted marketing, such as those being developed by the Interagency Working Group on Food Marketed to Children, a collaboration of the Federal Trade Commission, the Centers for Disease Control and Prevention, the Food and Drug Administration, and the U.S. Department of Agriculture.
- All warnings, labeling, and dietary/health information in advertisements and on product packaging should be available in both English and Spanish.
- Public and private funds should be used for culturally competent, Spanish-language counter-marketing and health promotion efforts. In conjunction, efforts should be made by public and private organizations to disseminate positive and culturally relevant physical activity and nutrition ads through both public and paid media channels used heavily by Latino youth (e.g., television, text message, Internet ads).

ABOUT THE PROGRAM

Salud America! The RWJF Research Network to Prevent Obesity Among Latino Children is a national program of the Robert Wood Johnson Foundation. The program aims to unite and increase the number of Latino researchers engaged in research and interventions on childhood obesity among Latinos to seek environmental and policy solutions to the epidemic. The network is directed by the Institute for Health Promotion Research at The University of Texas Health Science Center at San Antonio.

For more information, visit www.salud-america.org.

ABOUT THIS BRIEF

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References

1. Ogden CL, Carroll MD, Curtin LR, et al. Prevalence of high body mass index in US children and adolescents, 2007–2008. *JAMA*. 2010;303(3):242–249.
2. Centers for Disease Control and Prevention. *Obesity and Overweight for Professionals: Childhood: Consequences*. Atlanta, GA: Centers for Disease Control and Prevention; 2009. <http://cdc.gov/nccdp/dnpa/obesity/childhood/consequences.htm>. Accessed February 11, 2011.
3. BeLue R, Francis LA, Colaco B. Mental health problems and overweight in a nationally representative sample of adolescents: effects of race and ethnicity. *Pediatrics*. 2009;123(2):697–702.
4. Humes KR, Jones NA, Ramirez RR. Overview of race and Hispanic origin: 2010. *2010 Census Briefs*, C2010BR-02. Washington, DC: US Census Bureau; 2011. <http://www.census.gov/prod/cen2010/briefs/c2010br-02.pdf>. Accessed May 17, 2011.
5. Finkelstein EA, Trogdon JG, Cohen JW, Dietz W. Annual medical spending attributable to obesity: payer- and service-specific estimates. *Health Aff (Millwood)*. 2009;28(5):w822–w831.
6. Thorpe KE. *The Future Costs of Obesity: National and State Estimates of the Impact of Obesity on Direct Health Care Expenses*. Minnetonka, M: United Health Foundation, the American Public Health Association and Partnership for Prevention; 2009.
7. Ricci JA, Chee E. Lost productive time associated with excess weight in the U.S. workforce. *J Occup Environ Med*. 2005;47(12):1227–1234.
8. Goetzel RZ, Hawkins K, Ozminkowski RJ, Wang S. The health and productivity cost burden of the 'top 10' physical and mental health conditions affecting six large U.S. employers in 1999. *J Occup Environ Med*. 2003;45(1):5–14.
9. Mission: Readiness. Too Fat to Fight: Retired Military Leaders Want Junk Food Out of America's Schools – A Report by Mission: Readiness, Military Leaders for Kids. Washington, DC: Mission Readiness; 2010. http://cdn.missionreadiness.org/MR_Too_Fat_to_Fight-1.pdf. Accessed August 17, 2010.
10. Rideout V, Foehr U and Roberts D. *Generation M²: Media in the Lives of 8- to 18-Year Olds*. Menlo Park, CA: The Henry J. Kaiser Family Foundation; 2010. <http://www.kff.org/entmedia/upload/8010.pdf>. Accessed February 13, 2011.
11. Vader AM, Walters ST, Harris TR, et al. Television viewing and snacking behaviors of fourth- and eighth-grade schoolchildren in Texas. *Prev Chronic Dis*. 2009;6(3):A89.
12. Wiecha JL, Peterson KE, Ludwig DS, et al. When children eat what they watch: impact of television viewing on dietary intake in youth. *Arch Pediatr Adolesc Med*. 2006;160(4):436–442.
13. Federal Trade Commission. *Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation*. Washington, DC: Federal Trade Commission; 2008. <http://www.ftc.gov/os/2008/07/P064504foodmktgreport.pdf>. Accessed February 13, 2011.
14. Harris JL, Schwartz MB, Brownell KD, et al. *Fast Food FACTS: Evaluating Fast Food Nutrition and Marketing to Youth*. New Haven, CT: Rudd Center for Food Policy and Obesity; 2010.
15. Ayala GX, Baquero B, Arredondo EM, et al. Association between family variables and Mexican American children's dietary behaviors. *J Nutr Educ Behav*. 2007;39(2):62–69.
16. Chamberlain LJ, Wang Y, Robinson TN. Does children's screen time predict requests for advertised products? Cross-sectional and prospective analyses. *Arch Pediatr Adolesc Med*. 2006;160(4):363–368.
17. Rich L. Shiny new things: what digital adopters want. *Advertising Age*. 2010. http://adage.com/images/bin/pdf/shiny_new_things.pdf. Accessed February 13, 2011.
18. Montgomery K, Chester J. Interactive food and beverage marketing: targeting adolescents in the digital age. *J Adolesc Health*. 2009;45(3):S18–S29.
19. Walsh M. "Study: mobile teens almost tapped out." *Online Media Daily*. 2008. http://www.mediapost.com/publications/?fa=Articles.showArticle&art_id=85796. Accessed March 24, 2011.

20. Chester J, Montgomery KC. *Interactive Food & Beverage Marketing: Targeting Children and Youth in the Digital Age. An Update*. Berkeley, CA: Berkeley Media Studies Group; 2008.
http://digitalads.org/documents/NPLAN_digital_mktg_memo.pdf. Accessed November 2, 2010.
21. De Lafuente D. Research: Report: McD's, Pepsi score best with young Hispanics. *Brandweek*. 2008.
http://www.brandweek.com/bw/magazine/current/article_display.jsp?vnu_content_id=1003791582. Accessed March 24, 2011.
22. Leatherdale ST. Factors associated with communication-based sedentary behaviors among youth: are talking on the phone, texting, and instant messaging new sedentary behaviors to be concerned about? *J Adolesc Health*. 2010;47(3):315–318.
23. Adcentricity. Digital Hispanics in a physical world. *Adcentricity* [white paper]; 2009.
http://www.adcentricity.com/RESOURCES/Digital_Hispanics/. Accessed March 24, 2011.
24. Thompson DA, Flores G, Ebel BE, et al. Comida en venta: after-school advertising on Spanish-language television in the United States. *J Pediatr*. 2008;152(4):576–581.
25. Yancey AK, Cole BL, Brown R, et al. A cross-sectional prevalence study of ethnically targeted and general audience outdoor obesity related advertising. *Milbank Quarterly*. 2009;87(1):155–184.
26. Grier SA, Mensinger J, Huang SH, et al. Fast food marketing and children's fast food consumption: exploring parental influences in an ethnically diverse sample. *J Public Policy Market*. 2007;26(2):221–235.
27. Chou SY, Rashad I, Grossman M. Fast-food restaurant advertising on television and its influence on childhood obesity. *J Law Econ*. 2008;51(4): 599–618.
28. Huhman M, Potter LD, Wong FL, et al. Effects of a mass media campaign to increase physical activity among children: year-1 results of the VERB campaign. *Pediatrics*. 2005;116(2):e277–e284.
29. Price SM, Huhman M, Potter LD. Influencing the parents of children aged 9–13 years: findings from the VERB campaign. *Am J Prev Med*. 2008;34(6 Suppl):S267–S274.
30. DeBar LL, Schneider M, Ford EG, et al. Social marketing-based communications to integrate and support the HEALTHY study intervention. *Int J Obes (Lond)*. 2009;33(Suppl 4):S52–S59.
31. HEALTHY Study Group, Foster GD, Linder B, et al. A school-based intervention for diabetes risk reduction. *N Engl J Med*. 2010;363(5):443–453.
32. Powell LM, Szczypka G, Chaloupka FJ. Trends in exposure to television food advertisements among children and adolescents in the United States. *Arch Pediatr Adolesc Med*. 2010;164(9):794–802.