

# Salud America!

## A National Research Network to Build the Field and Evidence to Prevent Latino Childhood Obesity

Amelie G. Ramirez, DrPH, MPH, Kipling J. Gallion, MA,  
Cliff E. Despres, BJ, Rebecca T. Adeigbe, MS

### Introduction

Understanding and addressing childhood obesity is critical to preventing adolescent and adult obesity, reducing obesity-related morbidity and mortality, and curbing debilitating healthcare cost.<sup>1–4</sup> National obesity trends indicate more than one third of adults and nearly 17% of youth were obese in 2009–2010.<sup>5</sup>

Latinos are the largest, youngest, and fastest-rising minority group in the U.S. The Latino population accounts for 16% of the U.S. population, and Latinos younger than 18 make up 22% of all U.S. youth, up from 17% a decade ago.<sup>6</sup> One in five school children and one in four newborns are Latino.<sup>7</sup> In less than 15 years, Latinos will make up more than 30% of all U.S. youth.<sup>8</sup>

The Latino population has higher rates of obesity than the non-Hispanic white population (adults: 37.9% versus 34.9%; youth: 39.1% versus 27.9%).<sup>9,10</sup> Adult Mexican Americans have higher rates of obesity than non-Hispanic whites (39.6% versus 34.9%).<sup>11</sup> Mexican-American boys have the highest obesity rates compared to non-Hispanic whites and African-American boys (40.5% versus 30.1% versus 36.9%), and Mexican-American girls have the highest rates of obesity compared to non-Hispanic white girls (38.2% versus 25.6%).<sup>4</sup> Adult obesity trends are displayed in Figure 1 and youth obesity trends in Figure 2.

### Understanding Latino Childhood Obesity

The determinants of obesity are complex and they crosscut social, cultural, and personal strata.<sup>12–15</sup> The key to understanding, combating, and ultimately reducing Latino childhood obesity is employing an ecologic approach focused on society, community, school, family, and the individual.

### Society

Increased local, regional, and national media coverage has raised public awareness of adult and childhood

obesity.<sup>4</sup> This coverage has created dialogue about the government's role in regulating policies that affect children's health, as governmental regulations can determine cost, availability, and desire for specific goods and opportunities for physical activity.<sup>4</sup> Food and beverage companies have come under scrutiny for marketing strategies used to target youth to promote unhealthy food items. The use of popular licensed characters for product promotion, television advertisement, and marketing using digital and social media channels is a strategy used to create brand recognition and loyalty among youth.<sup>16,17</sup> This is troublesome for Latino youth because of their high consumption of television programming and use of digital products, mobile phone devices, and the Internet.<sup>18,19</sup>

### Community

Environmental factors pose barriers for healthy eating and physical activity among minority and low-income communities, including Latino youth and their families.<sup>20,21</sup> Latino youth residing in low-income minority neighborhoods tend to have limited access to supermarkets and grocery stores offering healthy, affordable foods and are disproportionately exposed to outdoor advertisements for high-calorie, low-nutrient foods and beverages.<sup>22–24</sup> Latino parents and youth identify neighborhood safety and lack of recreational opportunities as barriers to physical activity.<sup>20,25–27</sup>

### School

School environments have been identified as optimal locations for nutrition- and physical activity-based interventions.<sup>21</sup> The implementation of the *Healthy, Hunger-Free Kids Act of 2010* ([www.fns.usda.gov/cnd/governance/legislation/cnr\\_2010.htm](http://www.fns.usda.gov/cnd/governance/legislation/cnr_2010.htm)) generated new guidelines for school meals and required school wellness policies for schools receiving federal funds—both efforts to reduce childhood obesity rates.<sup>4</sup> Schools with predominantly Latino youth have many external factors contributing to students' consumption of unhealthy food in schools and around schools.<sup>28,29</sup> Latino students have greater access to unhealthy foods compared to other students, and predominantly Latino middle schools and high schools have more food, beverage, and à la carte service contracts and promotional offerings than schools with more diverse student

From the Institute for Health Promotion Research, The University of Texas Health Science Center, San Antonio, Texas

Address correspondence to: Amelie G. Ramirez, DrPH, MPH, Institute for Health Promotion Research, The University of Texas Health Science Center at San Antonio, 7411 John Smith, Suite 1000, San Antonio TX 78229. E-mail: [ramirezag@uthscsa.edu](mailto:ramirezag@uthscsa.edu).

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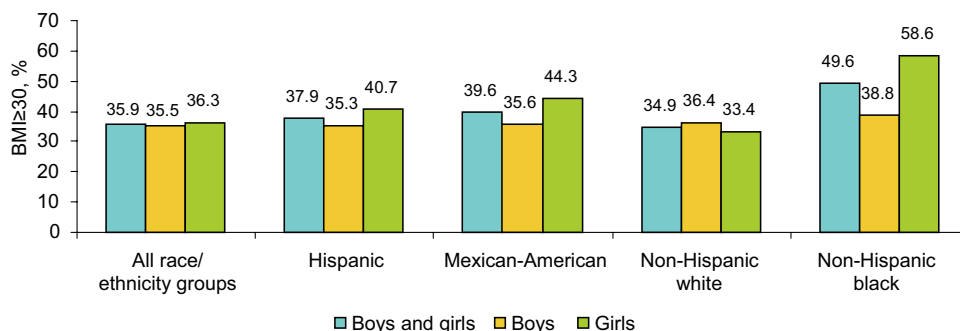


Figure 1. Obesity trends of U.S. adults, 1999–2010<sup>10</sup>

bodies.<sup>28,30</sup> Schools attribute increased demand for academic performance and reduced budgets for physical education (PE) teachers for a resulting reduction in physical activity and recess time in schools.<sup>20</sup>

**Family**

Parents, lifestyle, and cultural beliefs influence the health and risk of obesity among Latino youth.<sup>31,32</sup> Parents and immediate relatives have a significant influence over children’s eating behaviors, nutrition knowledge, and engagement in physical activity.<sup>33,34</sup> Latino cultural beliefs toward childhood obesity tend to favor concepts of overweight and obesity being caused by genetic and family traits, and a child’s health related to happiness and being loved; Latino parents—primarily mothers—perceive a child with a higher BMI as more healthy and less likely to get sick than a child with a lower BMI.<sup>34</sup>

**Individual**

Individual behaviors related to diet, physical activity, and utilization of primary care also contribute to the Latino childhood obesity epidemic. Nearly 33% of all Latino children live in poverty and most lack health insurance and/or a primary care doctor.<sup>35</sup> Two of every three food items

consumed by Latino youth are pizza, chips, dessert, burgers, or soda/juice, and more than half (67%) of Latino children do not get the recommended amounts of physical activity.<sup>36</sup> Only one in four Latino youth participates in organized sports compared to one in two white youth, and Latino youth who perceive themselves as “unfit” are less likely to participate in afterschool fitness programs.<sup>37</sup>

**The Robert Wood Johnson Foundation Targets Childhood Obesity**

The Robert Wood Johnson Foundation (RWJF; the Foundation) began focusing its efforts on childhood obesity in 2007 with the goal of reversing the epidemic by 2015,<sup>38</sup> intending to accomplish this goal by funding research and initiatives for policy change in public, school, and community settings. The Foundation recognizes that the greatest risk for childhood obesity is among minority groups and populations in lower-income areas and has dedicated funds for these groups. The Foundation has identified six policy priority areas on which to focus their efforts; these efforts are centered on school food environments, physical activity environments, access to healthy affordable foods, community built environments, pricing strategies, and marketing toward children.<sup>38</sup>

**Salud America! Fills the Latino Childhood Obesity Research Void**

In response to the urgent need for Latino childhood obesity information, RWJF provided a 5-year grant to create *Salud America!* The RWJF Research Network to Prevent Obesity Among Latino Children. *Salud America!* is directed by the Institute for Health Promotion Research (IHDR) at the University of Texas Health Science Center at San Antonio. Over the past 30+ years, *Salud America!* and IHDR Director Dr. Amelie Ramirez and her team have designed and implemented more than 100 national, statewide, local, and private

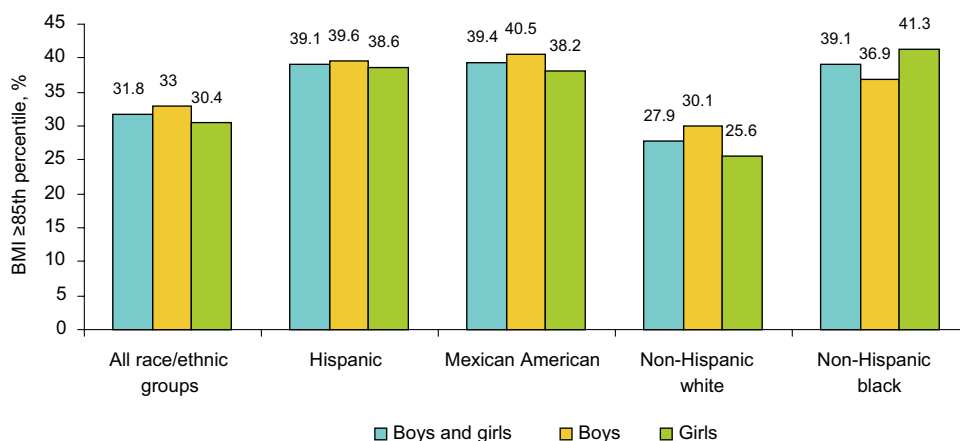


Figure 2. Obesity trends of U.S. youth, aged 2–19 years, 1999–2010<sup>9</sup>

research programs to test novel behavioral health interventions and communication strategies to improve Latino health and reduce cancer, obesity, and chronic disease.

*Salud America!* aims to:

1. develop a National Advisory Committee and an online network of researchers, community leaders, and health groups to reverse Latino childhood obesity;
2. develop a research priority agenda on Latino childhood obesity prevention;
3. fund pilot research projects; train and mentor funded researchers throughout their projects; and
4. conduct a series of scientific conferences to disseminate research findings.

## **Methods to Accomplish *Salud America!* Goals**

### **Developing a National Advisory Committee**

The *Salud America!* team brought together a National Advisory Committee (NAC) of senior-level experts representing the physical activity, nutrition, school, community, public policy, advocacy, behavioral science, and media communication fields. The members of the NAC (Table 1) were charged with providing insight in their fields of expertise and reflecting on evolving research.

### **Developing a Network of Researchers**

To develop a network of researchers, community leaders, health groups, and the public, the *Salud America!* team used existing networks from the IHP, the NAC, Internet-based key-term searches, and a snowball effect to grow its network. An e-mail address is the only membership requirement, although an input form requests additional demographic information, including gender, race/ethnicity, occupation, and area(s) of interest in childhood obesity. The network has quadrupled its membership since the summer of 2008 (N=2016). A survey of network members conducted in 2009 revealed that the majority of members had a doctoral or master's degree (43.7% and 38.3%); 81% were female; 31% were between the ages of 40 and 49; and the majority were non-Hispanic white (47%) followed by Latinos (45%). Nearly half of the network members (43.7%) had been working in an area of childhood obesity research for 1–4 years, and Latino childhood obesity was part of an overall interest in obesity (42.2%).

### **Developing a Latino Childhood Obesity Research Priority Agenda**

*Salud America!* developed the first-ever National Latino Childhood Obesity Research Agenda by conducting a national three-round Delphi survey between May and July 2008. More than 300 *Salud America!* (n=318) network members participated in the survey. Survey results yielded the top five main priority areas, which were society, community, school, family, and individual. Each of these five main areas contained five specific

research priorities critical for reversing the trend of Latino childhood obesity.<sup>39</sup>

### **Funding Pilot Research Studies**

*Salud America!*, through the RWJF, issued a call for pilot research proposals focused on the top research priority areas identified in the National Latino Childhood Obesity Research Agenda. Pilot funding of up to \$75,000 over 2 years was offered for research projects that identified the most promising policy-relevant strategies for both reducing and preventing Latino childhood obesity and increasing the skills and experience of researchers working on childhood obesity.

Ninety applications were received in early 2009. The top-20 applications were funded, including six junior and 14 senior investigators. Based on the National Latino Childhood Obesity Research Agenda, 11 pilot studies focused on family, six on community; three were school-based studies. Pilot investigators, who worked in and with Latino communities across the nation from 2009–2011 are listed in Table 2.

### **Research Synthesis and Policy Implications**

The 20 *Salud America!* pilot investigators created research briefs in December 2011 to highlight their projects' preliminary research results, policy implications, and progress making policy changes ([bit.ly/UEM5zk](http://bit.ly/UEM5zk)). The network itself also conducted a comprehensive literature review in 2011 to provide insight into key research results, areas for future research, and policy implications focused on nutrition, physical activity/built environment, and the media's influence on overweight and obesity among Latino youth ([bit.ly/I2Ubt3](http://bit.ly/I2Ubt3)).

In the realm of society/community, this literature review indicated that access and affordability to healthy, affordable foods and physical activity environments should be a priority within Latino communities because they are disproportionately affected by obesity. Local governments should consider zoning ordinances and positive financial incentives to improve built environments for healthy food and physical activity.<sup>20,21</sup> Public works and law enforcement departments should prioritize improvements in these areas to help promote healthy eating and physical activity.<sup>20</sup>

In the realm of schools, the literature review indicated that city and school officials should prioritize healthy foods and eliminate junk foods in and around schools, particularly those with large Latino populations.<sup>21</sup> State policies that require regular, quality PE classes can be effective if schools are provided sufficient support to implement them.<sup>20</sup> Local leaders and school districts should implement joint-use agreements that would expand

**Table 1.** National Advisory Committee members for *Salud America!*

Name	Institution	Discipline(s)
Elva Arredondo, PhD	San Diego State University	Cultural influences and social mediators of preventative behaviors
Marice Ashe, JD, MPH	Public Health Institute	Public policy solutions to address chronic disease
Laura Brennan, PhD	Transtria	Health interventions and program evaluation
Nancy Butte, PhD, RD	Baylor College of Medicine	Genetic and environmental determinants of childhood obesity
Ana Diez-Roux, MD, PhD, MPH	University of Michigan	Determinants of minority health and disparities
Robert Garcia, JD	The City Project	Equal access to health promoting resources
Lawrence W. Green, PhD	University of California at San Francisco	Program planning and research evaluation
Robin Hamre, MPH, RD	CDC	State-level physical activity, nutrition and obesity prevention initiatives
Terry Huang, PhD, MPH	CDC	Multilevel systems approach to childhood obesity prevention
Barbara Israel, DrPH	University of Michigan	Capacity building for health disparities policy change
Laura Kettel Khan, PhD	Centers for Disease Control and Prevention	Overweight and chronic disease patterns relationship to childhood development
Judith Ottoson, EdD, MPH	San Francisco State University	Health program evaluation
Frank Penedo, PhD	University of Miami	Chronic disease management and health disparities
Charlotte Pratt, PhD	National, Heart, Lung, and Blood Institute	Multilevel systems approach to childhood obesity prevention in minority populations
Maya Rockey Moore Cummings, PhD	Global Policy Solutions	Health equity and youth civic participation
James Sallis, PhD	San Diego State University	Policy and built environment implications on physical activity
Randy Schwartz, MSPH	American Cancer Society	Health promotion policy and advocacy approaches
Mary Story, PhD, RD	University of Minnesota	Environmental factors related to nutrition, physical activity, and obesity
Elsie Taveras, MD	Harvard Pilgrim Health Care	Nutrition and physical activity effect on child health and obesity
Mildred Thompson, MSW	PolicyLink Center for Health and Place	Policy approaches to improve health in low-income communities and communities of color
Amy Yaroch	Center for Human Nutrition	Research evaluation in diet, communication, and survey design

school-based physical activity settings for the entire community and support Safe Routes to School or other active commuting programs.<sup>20</sup>

To systematically monitor the policy implications and policy development efforts of our funded pilot study, members of the NAC applied the Policy Spectra framework and methodology to the pilot studies.<sup>40</sup> The Policy Spectrum was used to identify with some consistency the stages of policy development and relevant steps within each stage. The spectrum is a dynamic model that depicts the policy process from recognition of a health issue to policy enactment. It is constructed of four stages:

pre-policy, develop policy, enact policy, and post-policy enactment and includes 12 subcategories.<sup>40</sup>

### **Communication**

*Salud America!* also created innovative communication channels to disseminate research findings and raise awareness of the Latino childhood obesity epidemic and potential solutions. The network distributes a monthly e-alert, quarterly e-newsletter, and a daily-updated blog to inform network members of the most recent Latino childhood obesity-related news, research findings, role

Table 2. *Salud America!* grantees

Grantee name	Institution	Project title	Location
Shari Barkin, MD	Vanderbilt University	Increasing Access to Physical Activity and Use of Community Recreation Centers by Latino Families to Reduce Pediatric Obesity	Tennessee
Cristina Barroso, DrPH	University of Texas School of Public Health, Brownsville	Body Image Among Latino Families	Texas
Alexy Arauz Boudreau, MD	Massachusetts General Hospital	A Family Approach to Addressing Lifestyle Decision in Obesity and Diabetes	Massachusetts
Dina Castro, PhD	University of North Carolina	Growing Healthy Kids	North Carolina
Dharma Cortes, PhD	University of Massachusetts	Esto es Mejor: Improving Food Purchasing Selection Among Low-Income, Spanish-Speaking Latinos Through Social Marketing Messages	Massachusetts
Robert Dudley, MD, MEd, FAAP	Community Health Center	Healthy Tomorrows for Latina Teens	Connecticut
Claudia Galindo, PhD	University of Maryland, Baltimore	Young Latino Children's Weight Changes: Examination of Individual, Family, and School Factors	Maryland
Zan Gao, PhD	Texas Tech University	Integrating DDR to Promote Urban Latino School Children's Physical Health and Academic Achievement: Project GAME	Texas
Meizi He, PhD	University of Texas, San Antonio	Building a Healthy Temple—A Faith-Based Community Participatory Research Project for Preventing Childhood Obesity Among Latinos	Texas
Harris Huberman, MD	New York State University	Primeros Pasos Parenting Newsletters: A Low-Intensity Approach to Prevent Obesity in Latino Children	New York
Rebecca London, PhD	Stanford University	Linking After-School Program Participation With Latino Youths' Obesity and Physical Fitness Outcomes	California
Nelda Mier, PhD	Texas A&M Health Science center	Assessing the Built Environment in Colonias to Influence Policy Promoting Physical Activity in Mexican-American Children and Families	Texas
Carmen Nevarez, MD, MPH	Public Health Institute	Evaluation of the Impact of a Menu-Labeling Program ( <i>La Salud Tiene Sabor</i> ) in South L.A."	California
Norma Olvera, PhD	University of Houston	From Mothers to Daughters: A Physical Activity Dosage Intervention to Impact Adiposity	Texas
Javier Rosado, PhD	Florida State University	A Measurement of Obesity: BMI Screenings Across Two Settings	Florida
Emma Sanchez, ScD	San Francisco State University	Informing Latino Childhood Obesity Prevention: The Role of Physical Education Policies in California	California
Monika Stodolska, PhD	University of Illinois	Crime, Physical Activity and Outdoor Recreation Among Latino Adolescents	Illinois
Myriam Torres, PhD	University of South Carolina	Juntas Podemos [Together We Can]: Empowering Latinas to Shape Policy to Prevent Childhood Obesity	South Carolina
Miriam Vega, PhD	Latino Community on AIDS	La Familia en la Cocina	New York
Angela Wiley, PhD	University of Illinois, U-C	Abriendo Caminos—Clearing the Path	Illinois



model stories, funding opportunities, events, and more. *Salud America!* used Facebook, Twitter, and YouTube social media networks to expand its network and offer information to the general public. As of November 2012, the *Salud America!* network has more than 2000 members, 4300 Twitter followers, and 500 Facebook “likes.” The network’s dramatic, child-narrated discussion-starter video, “Did You Know,” has more than 30,000 views on YouTube (in English at [youtu.be/pnfZvxXITic](http://youtu.be/pnfZvxXITic) and Spanish at [youtu.be/ZyU9Ceuwfi](http://youtu.be/ZyU9Ceuwfi)) and won several national film awards from industry leaders.<sup>41</sup>

In addition, *Salud America!* hosted three annual scientific summits to unite research, policy, advocacy, and community leaders and present the most up-to-date findings related to Latino childhood obesity. At the network’s inaugural summit in 2009, Former U.S. Surgeon General Dr. Richard Carmona infamously tabbed childhood obesity as a threat to national security.<sup>42</sup> Scientific reports from each summit are at [salud-america.org/conferences.html](http://salud-america.org/conferences.html).

### **Salud America! Leveraged Funds**

*Salud America!* designated \$1.5 million to fund the 20 pilot studies. The pilot investigators have leveraged that funding and have received more than \$35 million in additional funding on Latino childhood obesity issues (not counting \$13.2 million in submitted and in-development research proposals). In addition to securing funding, the *Salud America!* pilot-study grantees have disseminated their own findings or raised awareness of Latino childhood obesity via several peer-reviewed scientific publications, book chapters, news stories, websites, and presentations at local, regional, and national scientific and industry conferences.

### **Salud America! Refunding**

*Salud America!* received a 2-year (2012–2014), \$2.1-million grant from RWJF to transition its pursuit of reversing Latino childhood obesity into the realm of evidence-based health policy and advocacy support. Rather than solely building the evidence and the field of researchers, *Salud America!* now will aim to deliver and interpret tailored scientific evidence, multimedia products, templates, and role models to empower Latinos to advocate for healthy policies. Over the next 2 years, *Salud America!* aims to:

1. expand its national brand as an information resource on Latino childhood obesity;
2. add new members and advocates to its network;
3. develop an online advocacy support platform specific to the needs and concerns of advocates working to prevent Latino childhood obesity;

4. develop a scientific research expert team to interpret and build evidence, and identify relevant content and calls to action;
5. produce dynamic multimedia products to feed the network and advocacy platform; and
6. monitor and evaluate the impact of these activities.

*Salud America!*’s innovative, online advocacy support platform will provide and stimulate advocates, providers, and other stakeholders with both nationally and locally relevant content centered on Latino-centric geographic regions and focused on advocacy interests around RWJF’s six policy priority areas. In addition, research experts will conduct secondary data analyses and systematic reviews, setting the stage for evidence-based multimedia content for traditional, social, and mass media, and other ways to feed the network and the advocacy platform.

### **Conclusion**

Prior to the development of the *Salud America!* research network, there was a void in scientific evidence for reducing and preventing Latino childhood obesity. During the past 5 years, *Salud America!* has substantially increased awareness of Latino childhood obesity issues, the number of investigators examining those issues, and the evidence base; the network’s pilot studies documented important societal, cultural, community, and family factors contributing to Latino childhood obesity and identified policy implications and recommendations for combating the epidemic.

The evidence provided by *Salud America!* pilot studies will help advocates, advocacy groups, decision makers, and policymakers present the case for obesity prevention policies. The network’s newly funded efforts will facilitate progress along the policy contribution process from pre-policy, policy development, policy enactment, and post-policy in underserved Latino communities where obesity is of gravest concern.

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