

# Medicaid and Public Health Collaboration to Reduce Obesity in Low-Income Children: Texas

Laredo, Texas, is a rural, low-income area along the U.S./Mexico border with high rates of poverty and chronic disease. More than 30 percent of children between five and 11 years of age are overweight, and their rates of obesity are on the rise.<sup>1</sup> To combat this epidemic, the City of Laredo Health Department (CLHD) is pursuing collaborative approaches to reduce the risk of chronic disease, particularly obesity, hypertension, and diabetes in children. CLHD is partnering with two Medicaid managed care organizations (MCOs) and two Laredo school districts to implement an evidence-based school-based health program that addresses childhood obesity and diabetes risk factors. While the initial intervention did not result in improvements in obesity rates for the participating children, the pilot test offers valuable lessons.

## Collaborative Structure

CLHD recruited Superior HealthPlan and Molina Healthcare to participate based on their history of successful partnerships on public health and chronic disease initiatives. It also worked with two of the largest school districts in the region, the Laredo Unified School District and the Laredo Independent School District. In addition, CLHD engaged Dr. Roberto Treviño, developer of Bienestar — an evidence-based, bilingual school health curriculum — to educate school administrators, children, and families about physical activity and nutrition.<sup>2</sup>

## Intervention Focus

Children and families in the Laredo community have little access to affordable healthy food choices, are largely uninsured, and have high rates of sedentary lifestyles. To address these challenges and reduce risks for childhood obesity and diabetes, the Texas team sought to deliver the Bienestar curriculum in one elementary school in each participating school district with first-, second-, and third-graders served by one of the two MCOs. Dr. Treviño and CLHD trained school staff (nurses, teachers, principals, and physical education coaches) at each school to deliver the curriculum. To encourage school participation, the two MCOs provided funding for culturally sensitive, age-appropriate workbooks and teacher guides, as well as incentives such as exercise equipment and healthy food to be promoted at Bienestar activities. School staff delivered the health education classes to students and conducted Bienestar activities, e.g., Zumba classes, to engage the students' families.

### INNOVATIONS IN CHILDHOOD OBESITY PROFILE SERIES

Although a wide range of efforts to reduce childhood obesity are currently underway, few involve meaningful collaboration between the Medicaid and public health sectors. To leverage this untapped opportunity, the Center for Health Care Strategies (CHCS), with support from Kaiser Permanente Community Benefit, launched the *Innovations in Childhood Obesity (ICO)* initiative in 2015 to foster collaboration between Medicaid and public health organizations to develop, test, and disseminate innovative approaches for reducing obesity among low-income children. This series of profiles details how state Medicaid and public health agencies partnered to reduce the prevalence of childhood obesity in their communities.

## Evaluation

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### Measurement

The team provided data collection templates to school nurses and survey materials to teachers, who gathered information on key process and outcome measures. Process measures, including the number of participating schools, classrooms, and children, captured the reach of the program. Key outcome measures included student weight, body mass index (BMI), and results of a test that assessed students' knowledge of nutrition and healthy eating habits. School staff collected these data prior to the start of the curriculum and again after students had completed the program.

A total of 334 students participated in the evaluation program; however, the capacity for data collection varied across the two participating school districts. One school district (n=128 students) was able to capture the full range of measures at baseline, but only one measure — students' nutrition-related knowledge — at follow up, whereas the other school district (n=206 students) collected pre- and post-data on the full range of measures.

### Findings

Overall, findings demonstrate that while students' nutrition-related knowledge improved significantly over the study period, an increase in average BMI occurred concurrently. At pre-test, the average BMI among students was 18.9, with a range of 11.8 to 38.1 (n=334). On average, BMI increased over the study period by 0.04 for students with a pre- and post-measurements (n=115), a statistically significant increase (p=0.02). At post-test, average BMI was 19.3 and ranged from 11.9 to 35.1. A further breakdown of BMI measurement indicated that the majority of students with pre- and post-measurements for BMI were underweight (BMI<18; n=65) and normal weight (BMI between 18 and 25; n=36), while only 12 percent were overweight (BMI>25; n=14), at baseline. BMI scores *increased* across all three groups following the intervention; however, this increase was only statistically significant for students with a normal body weight at baseline (p=0.01).

On average, students' nutrition-related knowledge improved over the same study period. At baseline, the average score was 60 percent correct, with scores ranging from as low as six percent to 100 percent correct (n=318). At post-test, the average score was notably higher at 90 percent correct, with a range of 48 percent to 100 percent (n=294). This gain in knowledge was statistically significant (p<0.0001).

Based on these findings, the team is assessing factors that may be associated with the increase in BMI. Further research evaluating the Bienestar curriculum is also needed to explore how the intervention can be targeted to address healthy habits within BMI subgroups (underweight, normal, and overweight).

*The Texas team will assess opportunities to partner with pediatric medical providers and medical clinics on related chronic disease and obesity prevention efforts to reach more children and parents and create alignment between schools and pediatrician offices.*

## What's Next?

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The Texas team will continue to explore factors that may have contributed to the increase in BMI among participating students with an eye toward modifying future initiatives. It will also assess opportunities to partner with pediatric medical providers and medical clinics on related chronic disease and obesity prevention efforts to: (a) reach more children and parents; and (b) create alignment between the schools and pediatrician offices. Further, CLHD plans to partner with the mayor of Laredo and other city and community-based organizations to better address the long-term health and wellness needs of high-risk children.

### ABOUT THE CENTER FOR HEALTH CARE STRATEGIES

The Center for Health Care Strategies (CHCS) is a nonprofit policy center dedicated to improving the health of low-income Americans. It works with state and federal agencies, health plans, providers, and consumer groups to develop innovative programs that better serve people with complex and high-cost health care needs.

### ABOUT INNOVATIONS IN CHILDHOOD OBESITY

CHCS, with support from Kaiser Permanente Community Benefit, launched the *Innovations in Childhood Obesity (ICO)* initiative to: (1) fuel the development of obesity-reduction efforts by states, health plans, and their community partners; and (2) expand cross-sector collaboration within selected states. The *ICO* fostered collaboration between Medicaid and public health organizations in five states — Arizona, Maryland, Oklahoma, Oregon, and Texas — to develop, test, and disseminate innovative approaches to reduce obesity in low-income children. To learn more, visit [www.chcs.org](http://www.chcs.org).

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## ENDNOTES

<sup>1</sup> City of Laredo, Texas (2017). "City of Laredo, Texas Federal Legislative Agenda 2017." Available at: [http://www.ci.laredo.tx.us/cmo/CASS/Pres\\_Fed/2017/chronic.html](http://www.ci.laredo.tx.us/cmo/CASS/Pres_Fed/2017/chronic.html).

<sup>2</sup> For more information about the Bienestar program, see: <http://www.sahrc.org/health-programs>.