# Cleveland Clinic Partners with 16 Area School Districts to Evaluate Childhood Obesity and Recommend Next Steps



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## Background

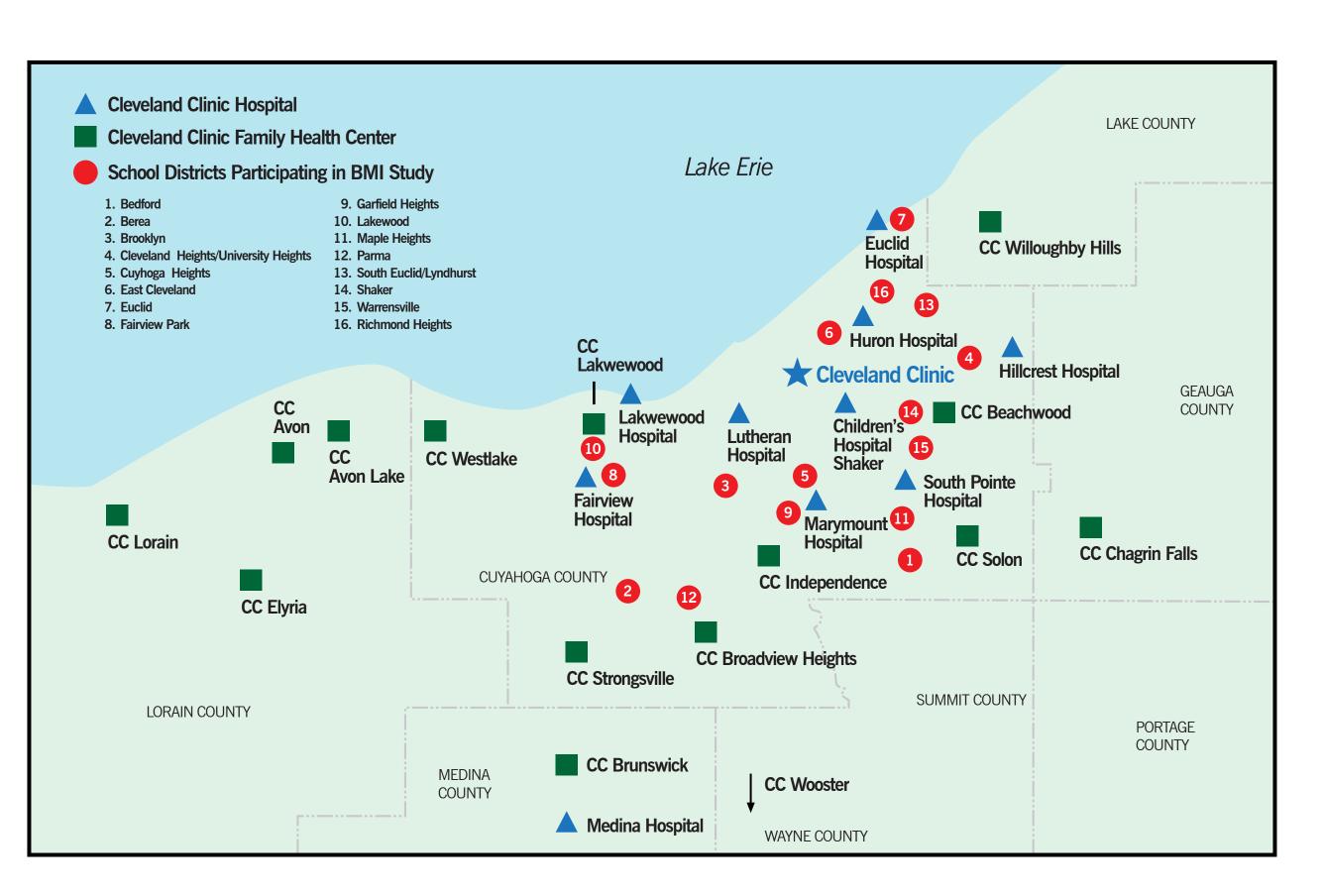
Childhood obesity rates are of growing concern in the state of Ohio, which ranks 37<sup>th</sup> in overall prevalence (with 1 being the best) for overweight or obese children, according to the National Survey of Children's Health. With obese children being much more likely to suffer from type 2 diabetes, high cholesterol, heart disease, and other chronic conditions as adults, childhood obesity has become a critical public health issue in the United States. School systems nationwide are currently measuring Body Mass Index (BMI) as a means to approach this issue.

## Purpose

As part of its strategy to reduce and prevent childhood obesity in Cuyahoga County, Cleveland Clinic partnered with the First Ring Superintendents' Collaborative (FRSC) to implement its 5 to go! childhood wellness initiative, beginning with BMI assessments of kindergarten and fifth graders.

Figure 1

Map of FRSC School Districts and
Cleveland Clinic Facilities



#### Methods

The FRSC represents 16 public school districts surrounding the city of Cleveland and approximately 70,000 students (Figure 1). The FRSC determined that wellness was an important focus of their collaboration and asked Cleveland Clinic to provide technical assistance and expertise. Cleveland Clinic trained BMI coordinators to screen children with a medical grade digital scale and a stadiometer. Information letters were mailed to parents prior to assessments; BMI assessment results and sheets with community-specific health and wellness resources were mailed home after. BMI percentiles were calculated using SAS.

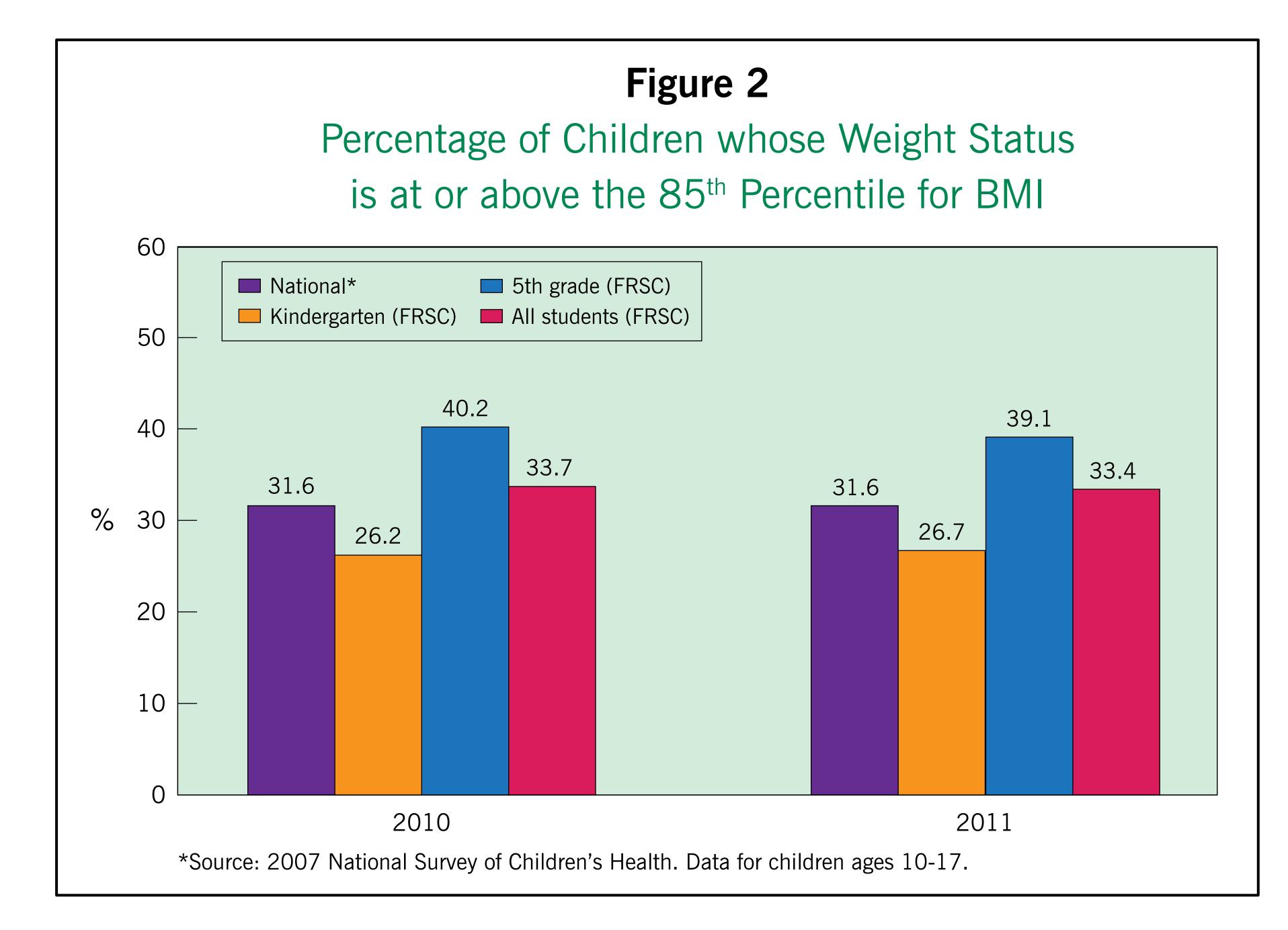
Table 1
FRSC Aggregate BMI Assessment Results
2010 and 2011

BMI Percentiles* (Interpretation)	All Students 2010	KG 2010	5 <sup>th</sup> grade 2010	All Students 2011+	KG 2011	5 <sup>th</sup> grade 2011
0-4.9	278	148	130	262	148	111
(Underweight)	(3.5%)	(4.0%)	(3.0%)	(3.1%)	(4.0%)	(2.7%)
5-84.9	5000	2585	2415	5309	2580	2418
(Average or typical)	(62.8%)	(69.7%)	(56.7%)	(63.5%)	(69.3%)	(58.2%)
85-95	1301	517	784	1337	537	715
(At risk for becoming overweight)	(16.3%)	(13.9%)	(18.4%)	(16.0%)	(14.4%)	(17.2%)
Above 95	1384	454	930	1456	458	908
(Overweight)	(17.4%)	(12.2%)	(21.8%)	(17.4%)	(12.3%)	(21.9%)
Total	7963	3704	4259	8364	3723	4152
	(100%)	(100%)	(100%)	(100%)	(100%)	(100%)

<sup>\*</sup>Percentiles based on ODH guidelines.

### Results and Discussion

After piloting BMI assessments among fifth graders in 13 FRSC school districts in 2009, we screened 7,963 students (kindergartners and fifth graders) in 15 FRSC school districts in the spring of 2010 and 8,364 students (7,875 kindergartners and fifth graders; 489 third and ninth graders were part of a pilot screening in one school district) in all 16 FRSC school districts in the spring of 2011 (Table 1). Among kindergartners, 26.2% in 2010 and 26.7% in 2011 were found to be at or above the 85<sup>th</sup> percentile for BMI. By the fifth grade, 40.2% of students in 2010 and 39.1% of students in 2011 were at or above the 85<sup>th</sup> percentile for BMI.



Our findings indicate an overall prevalence of overweight and obese youth in our community higher than the national average (Figure 2). Additionally, the 46.4% increase of overweight and obese children between kindergarten and fifth grade demonstrates an opportunity to improve and increase wellness programming not only within those age groups, but with families and the community. The BMI component of Cleveland Clinic's 5 to go! initiative began prior to the passage of Ohio Senate Bill 210 which mandates BMI assessments in grades kindergarten, third, fifth, and ninth. The FRSC took the opportunity to fully implement BMI screenings across all recommended grades rather than apply to the Ohio Department of Education for an exemption.

### Recommendations and Conclusions

BMI measurements are a cost effective and feasible manner to collect and share information on overweight and obese children. It also provides a method to more accurately report obesity rates, when compared with self-reported surveillance measures. We have recommended that FRSC school districts continue providing wellness information in district newsletters via their Web site and all other media outlets used. Additionally, we have encouraged FRSC school districts to increase parent education by including Cleveland Clinic health care providers in PTA meetings and other school events to further discuss childhood wellness topics.

Cleveland Clinic continues to be an active partner with the FRSC. All aspects of the 5 to go! initiative, which also includes health and wellness curricula, school nutrition policy recommendations, and physical activity expansion programs have been offered to the 16 school districts that comprise the FRSC. All FRSC school districts will be implementing Cleveland Clinic's curricula in the spring of 2012 and one FRSC school district is implementing Cleveland Clinic's school menu recommendations.



<sup>+</sup>Includes pilot assessment data for 3<sup>rd</sup> & 9<sup>th</sup> graders from one FRSC school district.