Alaska Obesity Prevention and Control: Student Weight Status

KODIAK ISLAND BOROUGH SCHOOL DISTRICT

2016-2017 District Summary

Over the 2016-17 school year, Kodiak Island Borough School District staff measured the height and weight of 1,029 students (69% of all enrolled) in grades K-5, 9, and 11. With measurement results scaled to represent each grade's enrolled population:

- 17.8% of students were overweight (BMI 85th to <95th percentile)
- 20.9% of students were obese (BMI ≥ 95th percentile)
- 6.7% of students were severely obese, with a BMI ≥120% of the 95th percentile
- The prevalence of overweight and obesity was slightly higher among male students (41.1%) than among females (36.0%).

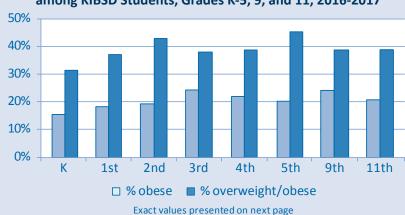
Figure 1: Student Weight Status among KIBSD Students, Grades K-5, 9, and 11, 2016-2017



Weight Status by Grade

Over 16% of students were obese in all grade ranges, placing them at higher risk for weight related diseases such as type 2 diabetes, heart disease, and other chronic diseases¹. The percentage of students either overweight or obese was highest amongst grade 5 students, while the prevalence of obesity alone was highest among students in grades 3 and 9. These percentages were lowest among Kindergarten students.

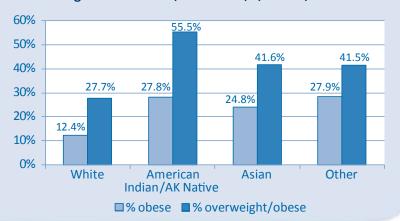
Figure 2: Prevalence of Overweight and Obesity, by Grade, among KIBSD Students, Grades K-5, 9, and 11, 2016-2017



Disparities in Weight Status

Reporting by race allows us to identify racial disparities in order to address and reduce them. The prevalence of overweight/obesity among White students (27.7%) was significantly lower than among American Indian / Alaska Native students (55.5%), Asian students not including Pacific Islander (41.6%), and students of other races (41.5%). Schools with at least 45% of students enrolled in the school meal programs were assigned the proxy status of low socioeconomic status (SES); overweight/obesity prevalence was significantly higher in low-SES schools (43.7%) than in higher-SES schools (26.7%) (see Table 4).

Figure 3: Prevalence of Overweight and Obesity, by Race/Ethnicity, among KIBSD Students, Grades K-5, 9, and 11, 2016-2017



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PREVALENCE OF OVERWEIGHT AND OBESITY (WITH 95% CONFIDENCE INTERVALS) KODIAK ISLAND BOROUGH STUDENTS IN GRADES K-5, 9, AND 11

Table 1: Weight Status Overall and by Sex, 2016-2017

Sex	% Overweight & Obese	% Overweight	% Obese
Overall	38.7 (30.0-48.2)	17.8 (13.6-23.0)	20.9 (16.1-26.7)
Male	41.1 (32.1-50.8)	18.7 (13.7-24.8)	22.5 (16.8-29.3)
Female	36.0 (26.3-47.1)	16.9 (12.2-22.9)	19.2 (14.1-25.4)

Table 2: Weight Status by Grade, 2016-2017

Grade	% Overweight & Obese	% Overweight	% Obese
Kindergarten	31.8 (24.1-40.5)	15.2 (10.3-21.8)	16.6 (11.7-22.9)
1st	37.2 (21.3-56.5)	19.2 (12.5-28.2)	18.1 (9.1-32.8)
2nd	42.8 (31.5-54.9)	23.7 (15.3-34.7)	19.1 (11.2-30.6)
3rd	37.9 (29.3-47.3)	13.1 (5.3-28.6)	24.8 (22.1-27.7)
4th	38.7 (20.8-60.3)	16.6 (10.2-25.9)	22.2 (10.9-39.7)
5th	46.6 (38.2-55.2)	26.5 (20.1-34.0)	20.1 (13.9-28.2)
9th	38.7 (36.5-41.0)	14.0 (11.1-17.5)	24.7 (22.8-26.7)
11th	38.7 (30.0-48.2)	17.8 (13.6-23.0)	20.9 (16.1-26.7)

Table 3: Weight Status by Race/Ethnicity, 2016-2017

Race/Ethnicity	% Overweight & Obese	% Overweight	% Obese
White	27.7 (22.0-34.3)	15.3 (12.0-19.4)	12.4 (9.2-16.5)
American Indian / Alaska Native	55.5 (45.4-65.1)	27.6 (19.6-37.5)	27.8 (22.1-34.5)
Asian §	41.6 (40.4-42.8)	16.8 (13.2-21.3)	24.8 (20.3-29.8)
Other	41.5 (29.6-54.6)	13.6 (7.7-23.0)	27.9 (21.8-35.0)

[†] Reporting by race allows us to identify racial disparities in order to address and reduce them.

Table 4: Weight Status by School Socioeconomic Status (SES), 2015-20161

School SES	% Overweight & Obese	% Overweight	% Obese
Lower SES Schools	43.7 (37.8-49.8)	19.8 (15.4-25.0)	23.9 (21.5-26.5)
Higher SES Schools	26.7 (20.9-33.4)	13.0 (9.4-17.8)	13.6 (10.9-16.9)

[¶] School SES is based on the proxy measure of proportion of students enrolled in the free- and reduced-price meal program. Schools with 45% or more of students enrolled in the program were classified as lower SES schools.

Table 5: Weight Status by School Year**

School Year	% Overweight & Obese	% Overweight	% Obese
2012-13*	36.1 (28.5-44.4)	18.9 (16.2-22.0)	17.1 (11.8-24.1)
2013-14*	35.3 (28.0-43.4)	20.3 (16.2-25.2)	15.0 (9.5-22.9)
2014-15*	37.3 (30.3-45.0)	18.2 (15.9-20.8)	19.1 (13.8-25.9)
2016-17	38.7 (30.0-48.2)	17.8 (13.6-23.0)	20.9 (16.1-26.7)

^{*} For comparison with 2016-17, annual totals limited to grades K-5, 9, and 11.

Percentages may not sum precisely due to rounding.

Reference: ¹Institute of Medicine (2005). Committee on Prevention of Obesity in Children and Youth. Preventing childhood obesity: health in balance. Washington, DC: The National Academies Press.





[§] Pacific Islander students are not included in this group.

^{**} Kodiak did not participate in measurement reporting for 2015-16 school year.