CITY AND COUNTY OF SAN FRANCISCO
BOARD OF SUPERVISORS

BUDGET AND LEGISLATIVE ANALYST
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Policy Analysis Report

To: Supervisor Ahsha Safai
From: Budget and Legislative Analyst's Office
Re: Childhood Obesity in San Francisco
Date: October 26, 2022

Summary of Requested Action

Your office requested that our office conduct an analysis of the cost of childhood obesity in San Francisco between 2015 and 2020 including emergency room visits and hospital stay costs where obesity is the primary or secondary cause of the visit and/or hospital stay. You also requested data showing the frequency of obese or overweight children seeing their primary health doctors and numbers of referrals to dieticians and nutritionists for obese and overweight children.

For further information about this report, contact Fred Brousseau, Director of Policy Analysis, at the Budget and Legislative Analyst's Office: fred.brousseau@sfgov.org.

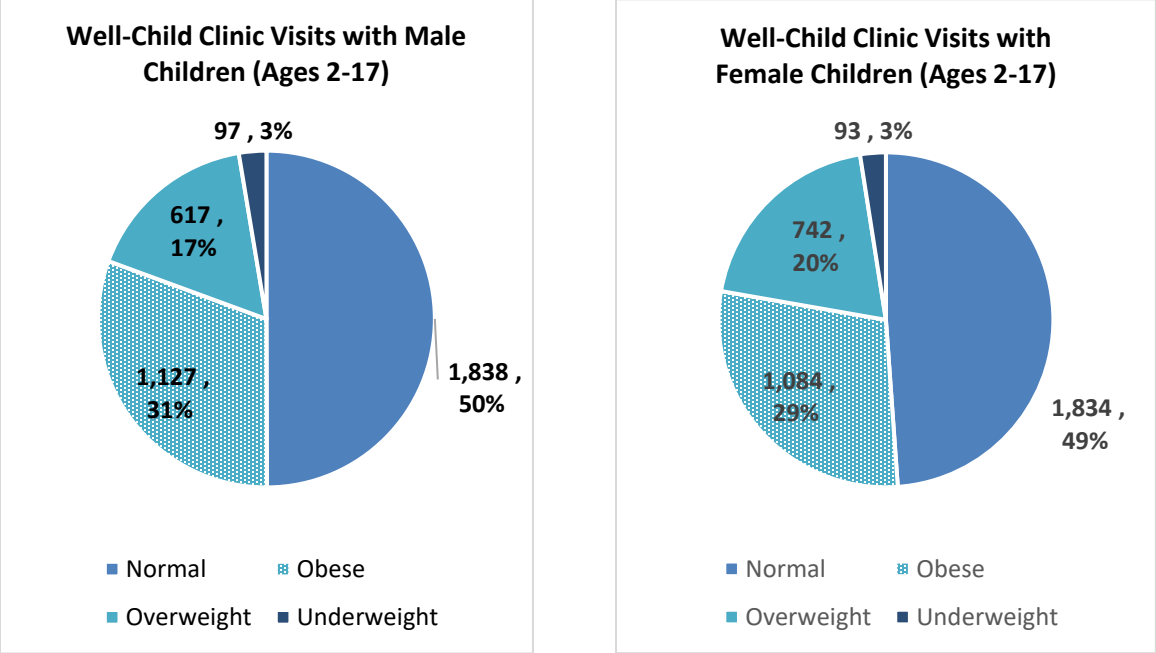
Executive Summary

- Individuals are defined as overweight when their body mass index is between the 85th and 95th percentile and obese when it is at the 95th percentile or above. The numeric percentile from 0 to 100 refers to the percentage of the population with a lower body mass index. Body mass index is a measure of body fat based on an individual's height and weight.
- While rates of obesity and overweight youth are not regularly reported by public agencies for the City and County of San Francisco, the U.S. Centers for Disease Control and Prevention reports the prevalence of obesity nationally was 19.7 percent for children ages 2 through 19 between 2017 and 2020. The statewide obesity rate for just teenagers in California was somewhat lower at 17.8 percent in 2020. In the same year, 12.1 percent of teens statewide were classified as overweight.
- To help measure the magnitude and impact of San Francisco children with obesity or overweight conditions, we obtained and analyzed: 1) data on hospitalization frequency and costs for youth with primary or secondary diagnoses of obesity or overweight BMI, and 2) the frequency of well-child visits for obese and overweight

children in the San Francisco Health Network, the City's public healthcare system. The Health Network is overseen by the Department of Public Health and provides care to individuals covered by Medi-Cal and City healthcare coverage and access programs. Data on child emergency room visits due to obesity or overweight BMI and pediatrician referrals to dieticians and nutritionists due to patient obesity or overweight BMI was not available.

- We found that between August 2019 and March 2022, 48 percent of 7,432 well-child clinic visits for members of the San Francisco Health Network were with children classified as obese (30 percent) or overweight (18 percent). This is not representative of the City's population as a whole, but represents the San Francisco Health Network enrollee population, which was 111,015 adults and children as of June 2022. Exhibit A shows the distribution of the well-child clinic visit population by weight status and gender. Well-child clinic visits generally occur annually.

Exhibit A: Nearly Half of all San Francisco Health Network Pediatric Well-Child Clinic Visits were for a Child with an Obese or Overweight Body Mass Index (August 2019- March 2022)



N = 3,679 well-child clinic visits with male children; N = 3,753 well-child clinic visits with female children.

- On a national level, the Centers for Disease Control and Prevention reported higher prevalence of obesity for children as they age and for Hispanic and Black children between 2017 and 2020. The same pattern appears in the San Francisco Health Network well-child clinic visit data, with higher rates of obesity and overweight

classifications reported for Native Hawaiian/Pacific Islander, Latino, and Black or African American children whose well-child clinic visits occurred between August 2019 and March 2022, as shown in Exhibit B.

Exhibit B: San Francisco Health Network Well-Child Clinic Visits show a Higher Percentage of Obese or Overweight Body Mass Index for Certain Racial/Ethnic Groups

Racial/ethnic group	Normal	Obese or Overweight	Underweight
Native Hawaiian/Pacific Islander (non-Latino)	25%	74%	1%
Latino	47%	51%	2%
Black or African American (non-Latino)	49%	49%	2%
Other	57%	39%	4%
Decline to State	59%	33%	8%
White (non-Latino)	65%	31%	4%
Asian (non-Latino)	66%	29%	5%
American-Indian/Alaska native (non-Latino)	76%	24%	0%

Source: DPH: well-child visit data from August 2019 to March 2022.

- Data from all private and public San Francisco hospitals show that there were 1,698 hospitalizations of children Citywide between 2017 and 2020 with obesity or overweight BMI reported as their primary or secondary diagnosis. This means that the child may have had a presenting condition such as a digestive system problem but that being obese or overweight was part of the diagnosis.
- As shown in Exhibit C, total costs for these 1,698 hospitalizations over the four-year period from 2017 to 2020 was $175.8 million, or an average of $43.9 million per year. The average length of stay for the hospitalizations in San Francisco with obesity or overweight BMI reported as the primary or secondary diagnosis averaged 4.6 days.

Exhibit C: The Cost of Hospitalizations in San Francisco for Children with an Obese or Overweight Diagnosis was $175.8 million between 2017 and 2020

	2017	2018	2019	2020	Total/4 Year Average
Avg Length of Stay (Days)	4.5	4.4	4.3	5.0	4.6
Number of Hospitalizations	427	431	486	354	1,698
Avg Charges Per Hospitalization	$83,839	$104,112	$112,120	$114,736	$103,702
Total Costs	$35,799,276	$44,872,349	$54,490,608	$40,616,426	**$175,778,659 /$43,944,665**

- The $43.9 million in average costs per year reported above are not borne by the City or public dollars entirely as they also include hospitalizations in the City's private hospitals paid for by medical insurance or private payments. These amounts capture a portion of the costs associated with childhood obesity and overweight conditions in San Francisco as a whole. The amounts reported understate total costs as, due to data unavailability, they don't include: 1) emergency room visits by children for conditions caused by being obese or overweight, 2) visits to physicians for acute conditions caused by obesity or being overweight, and 3) specialty services related to these conditions.

- Disparities by race/ethnicity were also found in the hospitalization data that we analyzed. Latino youth made up approximately 48.3 percent of all hospitalizations, though Latinos make up only 22.9 percent of San Francisco's child population. Whites and Asians had a disproportionately lower proportion of the hospitalizations compared to their shares of the population, which were 34.8 percent for white children and 28.2 percent for Asian children, according to the 2020 Census. Average charges and lengths of stay for Black children were higher than for all other racial/ethnic groups.

Exhibit D: Latino Children had a Disproportion Number of Hospitalizations August 2019 – March 2022

Race/ethnicity	2017	2018	2019	2020	All Years	% Total	Avg. Charges Per Hospitalization	Avg. Length of Stay (Days)
Asian or Pacific Islander	-	21	-	-	21	1.4%	$82,460	2.8
Black of African American	47	-	30	22	99	6.7%	$159,598	6.0
Latino	164	196	211	147	718	48.3%	$129,613	4.5
Other	25	39	54	51	169	11.4%	$87,666	4.4
Unknown	54	48	38	21	161	10.8%	$38,283	4.7
White	92	66	102	60	320	21.5%	$89,069	4.4
Total	382	370	435	301	1,488	100.0%		

- Interventions to reduce childhood obesity and overweight conditions often involve more physical activity and changes in diet. The Centers for Disease Control and Prevention published a report in 2011 with recommended strategies for enhancing school-based physical education and active transport to school.

- In San Francisco, the passage of Proposition V in 2016 established a Sugary Drinks Distributor Tax, the proceeds of which are used to support education and services to reduce consumption of sugary beverages and improve diets for adults and children. Under the terms of Proposition V, an annual report is required each year

summarizing the results of the programs and services supported by the tax revenues and recommending further programming for the Mayor and Board of Supervisors to consider.

- With approximately $10.6 million anticipated in Sugary Drinks Distributor Tax revenues for FY 2022-23, some of the funding will be spent on programs aimed at youth including subsidies for Recreation and Park Department programs, school food nutrition education, and water access at school sites. The most recent annual report on the results of the programs funded by the Sugary Drinks Distributor Tax show positive results, both in terms of reduced purchases of sugary drinks in San Francisco, increases in low-income households' consumption of healthy foods and improved food security.

Policy Options

To decrease instances of obese and overweight youth in San Francisco, the Board of Supervisors could consider the following actions.

1. Appropriate funds to: a) enhance programs and services found to be effective in reducing consumption of foods and beverages that contribute to obesity and being overweight and, b) to encourage more regular physical activity. The required annual evaluations of Sugary Drinks Distributor Tax expenditures can serve as a guide to validated approaches and results.

2. To better measure the results of existing and enhanced programs and services, the Board of Supervisors could encourage the Department of Public Health to collect and report Citywide data on obesity and overweight rates for youth to the Board of Supervisors on at least an annual basis.

Project Staff: Fred Brousseau, Rashi Kesarwani

Obesity in Children

Obesity is a Serious Health Problem Nationwide

Obesity is a serious health problem in the U.S., with the prevalence of childhood obesity from 2017 to 2020 at 19.7 percent (or about 1 in 5), with greater prevalence among older children and Latino and non-Latino Black children, according to the Centers for Disease Control and Prevention (CDC).[1] The CDC notes that many factors can contribute to overweight and obesity status including individual characteristics—behavior, genetics, and taking certain medications—as well as "societal and community factors" such as

- Childcare and school environments;
- Neighborhood design;
- Access to healthy, affordable foods and beverages; and
- Access to safe and convenient places for physical activity

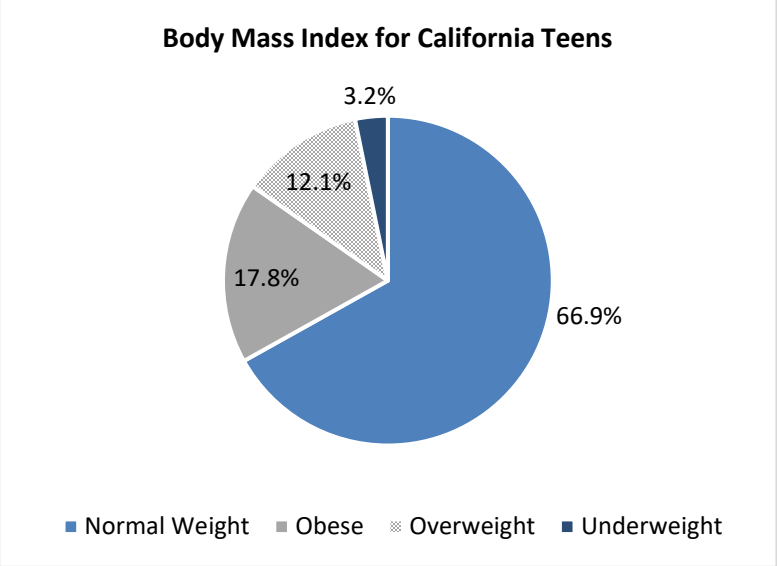
Weight Status is Measured Using an Individual's Body Mass Index (BMI). Body Mass Index is a measure of body fat based on height and weight. *Prevalance of childhood obesity and overweight status is based on the percentage of children with a body mass index at the 85th percentile or above. (The numeric percentile from 0 to 100 refers to the percentage of the population with a lower body mass index.)*
Obese*: Body Mass Index at 95th percentile or above*
Overweight*: Body Mass Index from 85th to <95th percentile*
Normal*: Body Mass Index from 5th to <85th percentile*
Underweight*: Body Mass Index <5th percentile*
Source: Centers for Disease Control and Prevention

In the state of California, the obesity rate is 17.8 percent for teens according to the 2020 California Health Interview Survey and shown in Exhibit 1. The California Health Interview Survey also presents two trends that appear contradictory: teens' consumption of sugar-sweetened beverages is increasing but so is their consumption of fruit and vegetables, with surveys showing a statistically significant increase in these two dietary behaviors, as presented in Exhibit 2. According to the *San Francisco Sugary Drinks Distributor Tax (SDDT) Evaluation Report 2020-2021*, food and beverage companies almost exclusively target advertising for nutritionally poor products (e.g., sugary drinks, candy, fast food) to Latinx[2] and Black/African American consumers, and disproportionately target Latinx and Black/African American children and teens. The same companies are also less likely to target youth of color with advertisements for healthier food products (e.g., fruit, nuts, yogurt).

[1] Centers for Disease Control and Prevention, Childhood Obesity Facts, https://www.cdc.gov/obesity/data/childhood.html

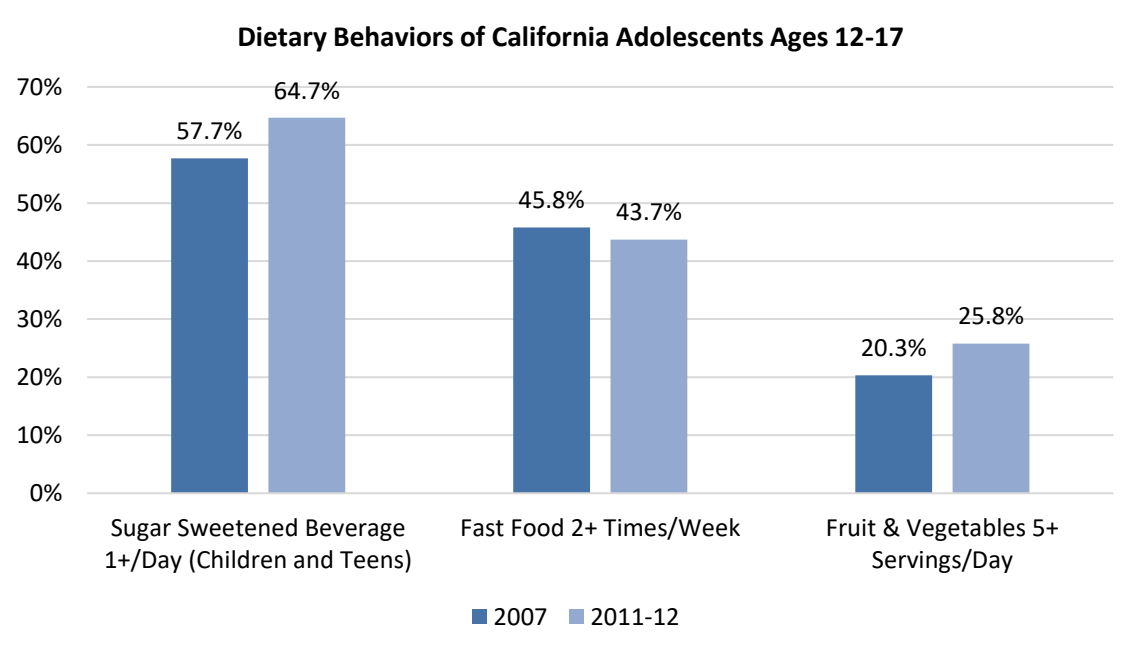
[2] The Latinx designation is used here consistent with the data source. The Latino designation is used elsewhere in this report matching corresponding sources.

Exhibit 1: 2020 Obesity Rate Among California Teens was 17.8 Percent; Overweight Rate was 12.1 Percent



Source: California Health Interview Survey 2020

Exhibit 2: California Teens Consuming both More Fruit and Vegetables and Sugar-Sweetened Beverages



Source: 2007 and 2011-12 California Health Interview Surveys, as reported by Wolstein, Joelle, Babey, Susan H., and Diamant Allison L. in *Obesity in California*, June 2015

Note: Change was statistically significant for sugar-sweetened beverages as well as for fruit and vegetable consumption.

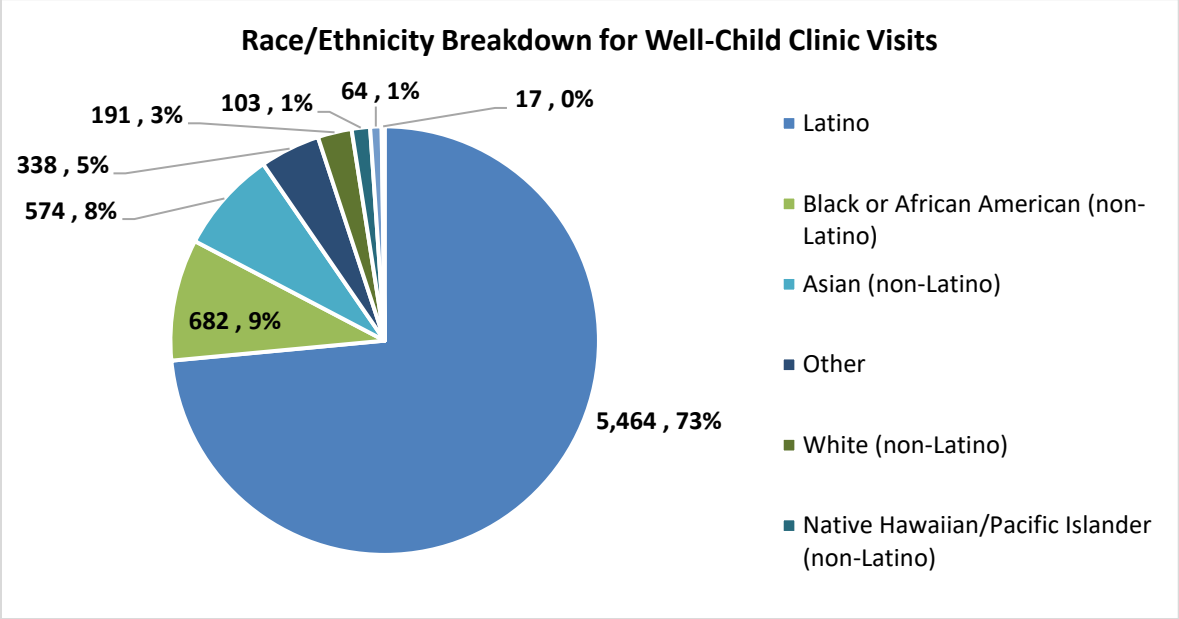
Obesity and Overweight Body Mass Index Among Children in San Francisco

We did not find available statistics on the prevalence of childhood obesity for the City and County of San Francisco as a whole. However, data from the San Francisco Health Network and the Department of Public Health provide indicators on its prevalence among segments of the City's youth population. Further, the cost of care for obese and overweight children in San Francisco is not available for the population overall, but we did find and present below cost and length of stay data for San Francisco hospitalizations for youth whose primary or secondary diagnosis for the hospitalization was obesity or overweight.

The San Francisco Health Network is the public healthcare system for the City and County of San Francisco, overseen by the Department of Public Health (DPH). The Health Network includes the Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center, Laguna Honda Hospital and Rehabilitation Center, and numerous primary care clinics managed by DPH.[3] The Health Network provides care to individuals covered by the state-federal low-income health program Medi-Cal and other City health care coverage and access programs, including Healthy Workers, Healthy Kids, and Healthy San Francisco.[4] As of June 2022, the Health Network had 111,015 members (adults and children). We note that the racial make-up of well-child clinic visits reported on below is disproportionately Latino, as shown in Exhibit 3; this racial breakdown is not representative of San Francisco's overall child population, which is 22.9 percent Latino.[5]

[3] City Performance Scorecards, Health Network Enrollment, https://sfgov.org/scorecards/public-health/health-network-enrollment
[4] City Performance Scorecards, Health Network Enrollment, https://sfgov.org/scorecards/public-health/health-network-enrollment
[5] U.S. Census Bureau, Children Characteristics: link

Exhibit 3: San Francisco Health Network Sees a Disproportionate Share of Latino and Black Children

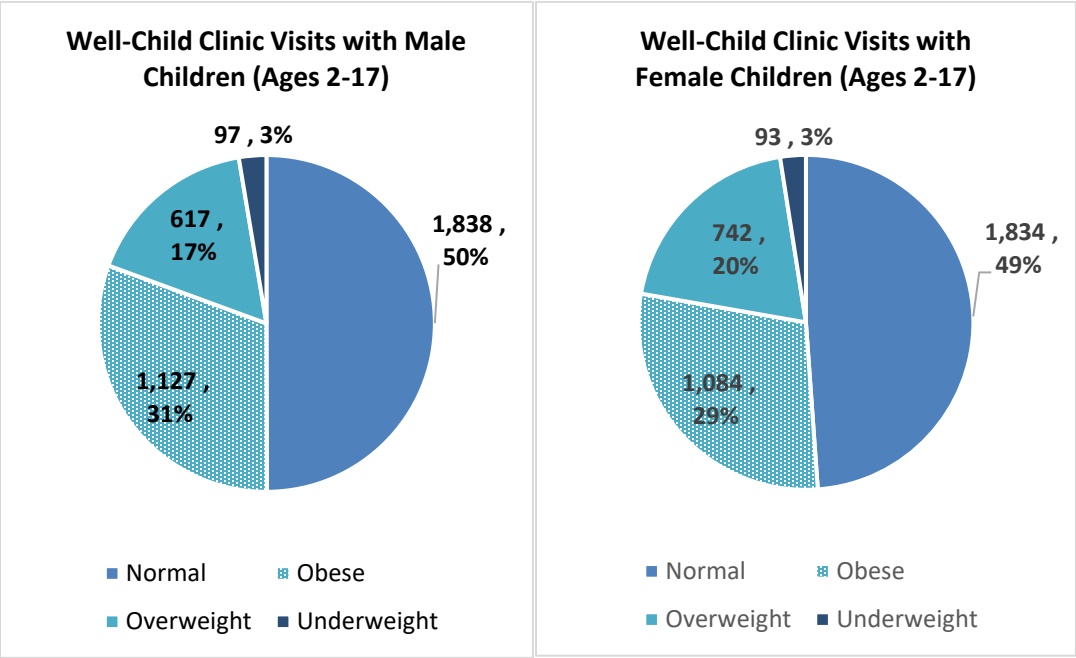


Source: DPH

We received and analyzed San Francisco Health Network data for well-child clinic visits of children ages 2-17 from the period August 2019 through March 2022. Well-child clinic visits generally occur annually. Out of a total of 7,432 well-child clinic visits among children ages 2 to 17 during that time, we found that 48 percent of the visits were with a child who was either obese (30 percent) or overweight (18 percent) based on the child's age and sex-specific body mass index (BMI). This pattern was seen in well-child clinic visits for both male and female children, as shown in Exhibit 4 below.

Among well-child clinic visits for just teens in the San Francisco Health Network (ages 12-17), we found that 29 percent were diagnosed as obese, and 21 percent were diagnosed as overweight. The 50 percent of teens attending well-child clinic visits between August 2019 and March 2022 identified as obese or overweight is well above the 29.9 percent rate for teens statewide (17.8 percent obese and 12.1 percent overweight).

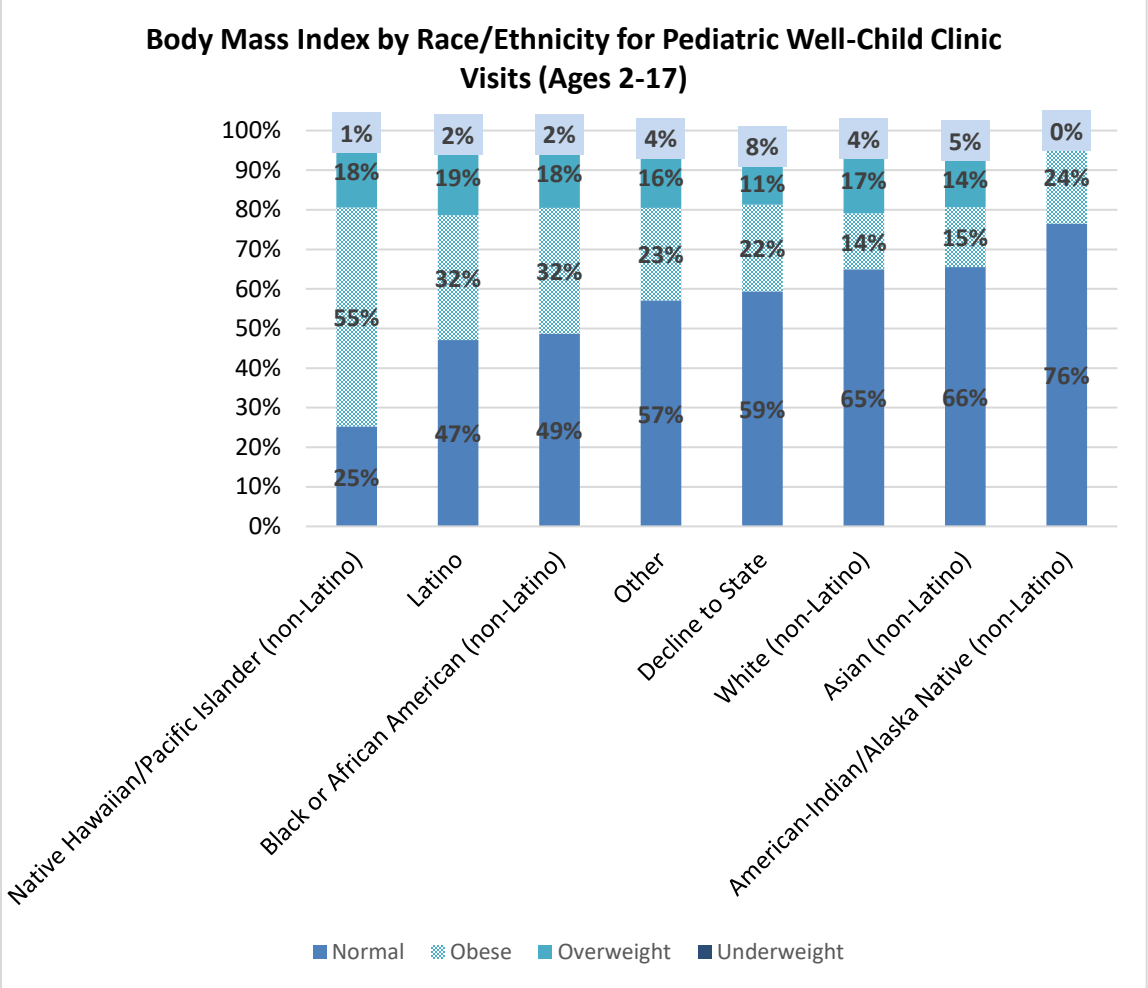
Exhibit 4: Nearly Half of all San Francisco Health Network Pediatric Well-Child Clinic Visits Show an Obese or Overweight Body Mass Index



Source: SF Health Network data from Aug. 2019-March 2022; calculations by BLA
Note: N = 3,679 well-child clinic visits with male children; N = 3,753 for well-child clinic visits with female children.

The data also show a racial/ethnicity disparity in the well-child clinic visits for children diagnosed as obese or overweight, with clinic visits for Native Hawaiian/Pacific Islander, Latino and African American children showing the highest percentage of obese or overweight BMI, as presented in Exhibit 5.

Exhibit 5: Rates of Obesity and Overweight BMI Are Not Proportionately Distributed by Racial/Ethnic Group, San Francisco Health Network Well-Child Clinic Visits

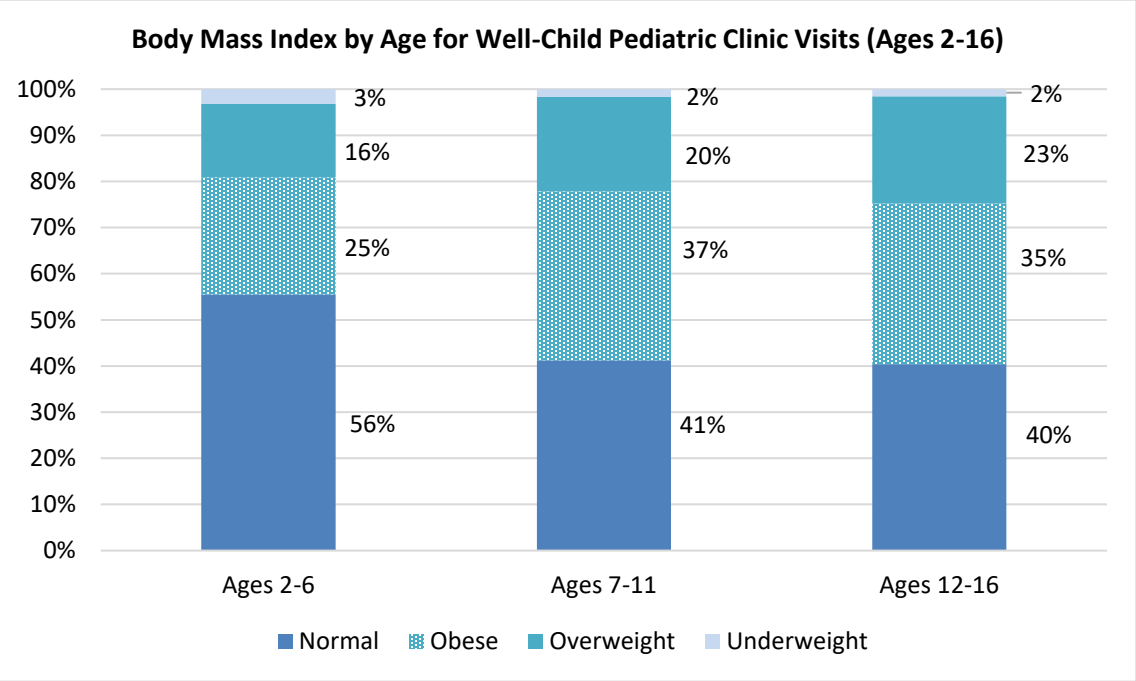


Race/ethnicity	Normal	Obese & Overweight	Underweight
Native Hawaiian/Pacific Islander (non-Latino)	25%	74%	1%
Latino	47%	51%	2%
Black or African American (non-Latino)	49%	49%	2%
Other	57%	39%	4%
Decline to State	59%	33%	8%
White (non-Latino)	65%	31%	4%
Asian (non-Latino)	66%	29%	5%
American-Indian/Alaska native (non-Latino)	76%	24%	0%

Source: SF Health Network data from Aug. 2019-March 2022; calculations by BLA
Note: N = 7,433 well-child clinic visits by race.

When distributing the data by age groups (2-6, 7-11, and 12-16), we find that obesity or overweight BMI is more prevalent in well-child clinic visits for older children, as shown in Exhibit 6. While those attending well-child clinic visits between ages 2 and 6 were either obese or overweight at a rate of 41 percent, children ages 7 to 11 and 12 to 16 were obese or overweight at a rate of 57 percent and 58 percent, respectively.

Exhibit 6: Well-Child Clinic Visits for Older Children Show a Higher Percentage of Obese or Overweight Body Mass Index Relative to Children Ages 2 to 6



	Normal	Obese & Overweight	Underweight
Ages 2-6	56%	41%	3%
Ages 7-11	41%	57%	2%
Ages 12-16	40%	58%	2%

Source: SF Health Network data from Aug. 2019-March 2022; calculations by BLA

Note: N = 7,198 for well-child clinic visits by age.

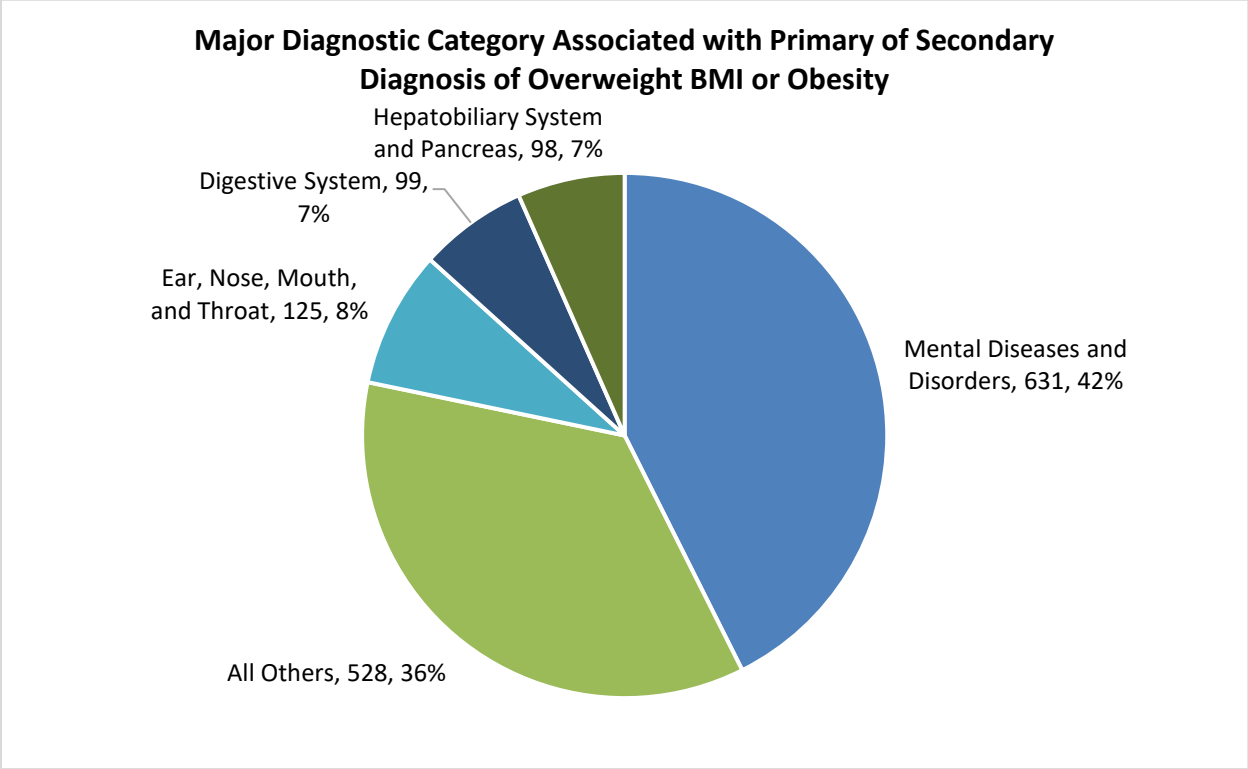
The cost of hospitalizations for San Francisco youth with obesity or overweight diagnoses was $175 million between 2017 and 2020, or approximately $43.8 million per year

The California Department of Health Care Access and Information provides hospitalization data to the San Francisco Department of Public Health (DPH). We received aggregated results from DPH on the average length of stay and average cost of hospitalizations for children (ages 2 to 18) with a primary or secondary diagnosis of overweight or obesity at all San Francisco hospitals between 2017 and 2020. This counts only those children for whom obesity or being overweight was recorded as the primary or secondary diagnosis at the time of the hospitalization. The data were derived by using International Classification of Diseases (ICD-10) codes for obesity and overweight BMI, and we note data limitations in the nearby sidebar.

We note that there are some limitations associated with our analysis of hospitalization data. First, it is possible that providers do not use the codes the same way across all San Francisco hospitals. Second, while we know when a hospitalization was associated with an obesity or overweight diagnosis code, we cannot assume the converse, that hospitalizations without an obesity or overweight primary or secondary diagnosis code imply association with normal weight. These factors make the data vulnerable to some misclassification bias and unexpected results.

Numerous presenting conditions are associated with these hospitalizations, with mental diseases and disorders accounting for the highest share, at 42 percent of 1,481 hospitalizations with a known Major Diagnostic Category, as displayed in Exhibit 7. Because clinicians may not systematically document the weight status of every child hospitalized as a primary or secondary diagnosis, some children who are overweight or obese when hospitalized may not be included in the data below. Additional analysis by DPH indicates that a longer average length of stay and higher average charges for children diagnosed as obese or overweight are associated with particular major diagnostic categories. For conditions related to the (1) digestive system, (2) musculoskeletal system, (3) endocrine, and (4) kidney and urinary tract, the median length of stay was significantly longer for obese or overweight children (three days) as opposed to children of normal weight (two days). The median charge per hospitalization for these diagnostic categories was also 21 percent higher: $76,452 versus $62,930.

Exhibit 7: Mental Diseases and Disorders Are Associated with 42 Percent of Hospitalizations with a Primary or Secondary Diagnosis of Overweight BMI or Obesity 2017-2020



Source: DPH

Overall, the data show that a total of 21,753 hospitalizations occurred in all San Francisco hospitals for children ages 2 to 18 between 2017 and 2020. Of those, 1,698 hospitalizations occurred among children with a primary or secondary diagnosis of obesity or overweight BMI, with most of these hospitalizations (84 percent) occurring among children with a diagnosis of obesity. The average cost per hospitalization for children with a primary or secondary diagnosis of obesity or overweight BMI increased annually over the four-year period, 2017 through 2020, from $83,839 to $114,736, as shown in Exhibit 8. The total cost for these hospitalizations for the four years was $175,778,659, or an average of $43.8 million per year. These costs are for all hospitalizations, the costs of which were borne by all payors for medical services: public dollars through publicly funded medical services, private insurance, and possibly by self-paying patients.

Exhibit 8: The Cost of Hospitalizations in San Francisco for Children with an Obese or Overweight Diagnosis was $175.8 million between 2017 and 2020

	2017	2018	2019	2020	Total/4 Year Average
Average Length of Stay (Days)	4.5	4.4	4.3	5.0	**4.6**
Number of Hospitalizations	427	431	486	354	1,698
Average Charges Per Hospitalization	$83,839	$104,112	$112,120	$114,736	$103,702
Total Costs	$35,799,276	$44,872,349	$54,490,608	$40,616,426	$175,778,659/ $43,944,665

Source: State Department of Health Care Access and Information from SF DPH

We also analyzed the hospitalization data by race, as shown in Exhibit 9. Race/ethnicity data are not always available for all hospitalizations and are only displayed when there are at least 20 hospitalizations in a given year for any group. Here, we find that among children with a primary or secondary obesity or overweight diagnosis, Black or African American and Latino children have higher average charges per hospitalization compared to the average of $103,702 for all children with an obesity or overweight BMI primary or secondary diagnosis. Black or African American children also had a higher average length of stay (6.0 days) than the average of 4.6 days for all children, suggesting they are sicker on average when hospitalized.

Latino children with an obese or overweight BMI primary or secondary diagnosis experienced the most hospitalizations between 2017 and 2020, at 718, or 48.3 percent of the 1,488 total hospitalizations with racial data. With a 21.5 percent hospitalization rate for whites and a 1.4 percent rate for Asian/Pacific Islanders, these two groups of children had disproportionately lower hospitalization rates than their shares of the 2020 child population, which was 34.8 percent white and 28.2 percent Asian, according to the 2020 Census.

Exhibit 9: Black or African American and Latino Children Have Higher Average Charges

	2017	2018	2019	2020	All Years	Avg. Charges Per Hospitalization	Avg Length of Stay (Days)
Asian or Pacific Islander	-	21	-	-	21	$82,460	2.8
Black of African American	47	-	30	22	99	$159,598	6.0
Latino	164	196	211	147	718	$129,613	4.5
Other	25	39	54	51	169	$87,666	4.4
Unknown	54	48	38	21	161	$38,283	4.7
White	92	66	102	60	320	$89,069	4.4

Source: California Department of Health Care Access and Information from SF DPH

Interventions for Children Diagnosed as Obese or Overweight

The CDC published a 2011 report, *Strategies to Prevent Obesity and Other Chronic Diseases: The CDC Guide to Strategies to Increase Physical Activity in the Community*, that provides approaches for local jurisdictions to pursue, and we summarize below some approaches targeted to children.

Strategies Targeted to Children

Enhanced School-Based Physical Education. According to the CDC, these interventions are characterized by key strategies that encourage youth to engage in enjoyable physical activity of moderate to vigorous intensity through: (1) physical education classes or (2) other youth-oriented settings such as after-school programs. One program example cited is CATCH (Coordinated Approach to Child Health), a popular evidence-based school health program designed to promote physical activity and healthy food choices in children.

Active Transport to School. According to the CDC, active transport to school interventions are designed to encourage and support youth to engage in active transportation, such as walking and biking to school, through interventions such as Safe Routes to School.

San Francisco's Sugary Drinks Distributor Tax

In November 2016, San Francisco voters approved Proposition V, a tax on distributing sugar-sweetened beverages that established a 1 cent per ounce fee on the distribution of bottled sugar-sweetened beverages. The tax is estimated to raise $10.7 million in FY 2022-23. According to the Sugary Drinks Distributor Tax 2022 Annual Report, a large body of evidence exists indicating that sugary drink consumption increases risks for cavities, overweight/obesity, type 2 diabetes, hypertension, and heart disease. Sugary drinks can contain hundreds of calories per serving, but they do not signal "fullness" to the brain and therefore lead to overconsumption.

Exhibit 10 presents planned expenditures for the City's sugary drinks distributor tax revenues for Fiscal Years 2020-21 through 2022-23. As can be seen, the planned distribution of funds covers a variety of direct services such as subsidies for fresh fruit and vegetables and education about healthy eating and food purchasing. The tax revenues are expended on programs and services covering all age groups though a portion of the expenditures are directed to youth such as Recreation and Park Department program subsidies, school food nutrition education, and water access at school sites.

Exhibit 10: Sugary Drinks Distributor Planned Tax Funding Allocations (FY 2020-21 to FY 2022-23)

		FY 2020-21	FY 2021-22	FY 2022-23
1.	Community-Based Grants: health education, food security, physical activity; food as medicine Medi-Cal; community-based organizations working with SFUSD	$1,995,212	$4,225,000	$3,300,000
2.	San Francisco Unified School District: school food, nutrition education; water access; student led action	$1,000,000		$1,700,000
3.	Food Access: healthy food purchasing supplement; Healthy Retail SF	$1,150,000	$1,900,000	$1,150,000
4.	Oral Health: community oral health task forces; school-based sealant application; school-based education and case management	$800,000	$660,000	$999,983
5.	SF Recreation & Parks: peace parks; SVIP funding – peace parks transportation; Requity: outreach, scholarships, equity in recreation	$2,225,000	$2,895,000	$2,912,213
6.	Breastfeeding	-	$175,000	-
7.	Infrastructure: staffing/research support	$800,000	$820,000	$623,764
	TOTAL	**$7,970,212**	**$10,675,000**	**$10,685,960**

Source: Sugary Drinks Distributor Tax Advisory Committee

Proposition V, as codified in the City's Administrative Code, mandates the establishment of a Sugary Drinks Distributor Tax Advisory Committee whose duties include submitting an annual report to the Mayor and Board of Supervisors that evaluates the impact of the Sugary Drinks Distributor Tax on beverage prices, consumer purchasing behavior, and public health. The Committee is also mandated to make recommendations for programs to be funded to reduce the consumption of sugar-sweetened beverages.

According to the *San Francisco Sugary Drinks Distributor Tax (SDDT) Evaluation Report 2020-2021*, several funded programs were found to show positive results. The Healthy Food Purchasing Supplement (see #3 above), which provides incentives and supplements for healthy foods to low-income households, was found to show statistically significant increases in participants' food security and consumption of fruit and vegetables. Another grantee, SisterWeb, has achieved higher rates of breastfeeding among their clients compared to overall rates in San Francisco. The evaluators found a statistically significant decrease in the volume of sugar-sweetened beverages purchased in San Francisco compared to Richmond, California in the two

years after the Sugary Drinks Distributor Tax was implemented; there was no statistically significant change in purchases of untaxed beverages or sweet snacks.

Sugary Drinks Distributor Tax proceeds have been used to target vulnerable priority populations, including low-income San Franciscans; community members who identify as Black/African American, Pacific Islander, Native American, Latinx, or Asian; and children, youth, and young adults up to 24-years-old. The structure of the SDDT Advisory Committee includes seats targeted to youth, including a seat that is required to be held by a person under 19-years old, a seat to be held by a parent or guardian of a student enrolled in the San Francisco Unified School District, and a seat held by a person with experience or expertise in services and programs for children ages five and under.

Policy Options

To decrease instances of obese and overweight youth in San Francisco, the Board of Supervisors could consider the following.

1. Appropriate funds to: a) enhance programs and services found to be effective in reducing consumption of foods and beverages that contribute to obesity and being overweight and, b) to encourage more regular physical activity. The required annual evaluations of Sugary Drinks Distributor Tax expenditures can serve as a guide to validated approaches and results.

2. To better measure the results of existing and enhanced programs and services, the Board of Supervisors should encourage the Department of Public Health to collect and report Citywide data on obesity and overweight rates for youth to the Board of Supervisors on at least an annual basis.