



Considering Teenagers in Community Initiatives

Data memo

Audience

Dan Buettner and directors of the Blue Zones Project

Purpose

The Blue Zones Projects make healthy living easier for all residents through comprehensive community impact. This data memo will offer recommendations for integrating teenagers in future Blue Zones projects. It is meant to summarize youth health trends in the United States, and the ideas outlined here can be put into further context in specific cities.

Background

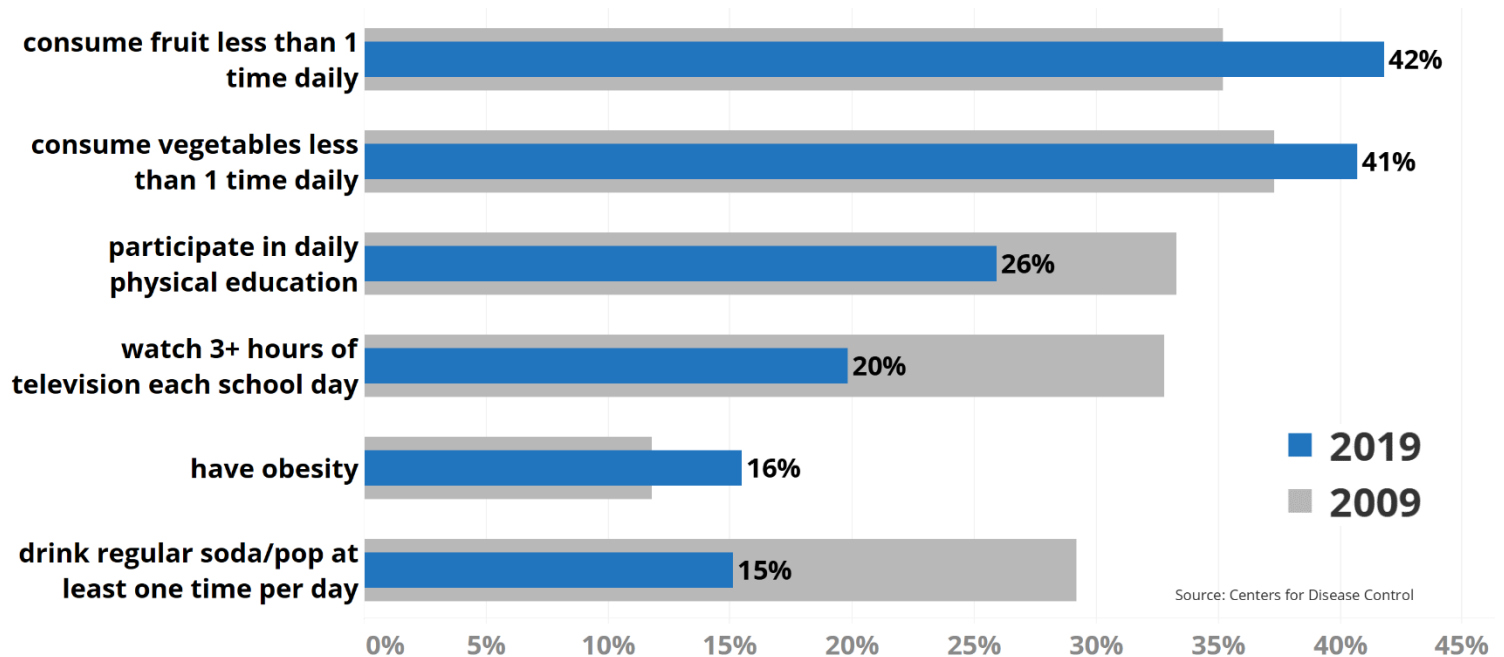
The report is centered around data from the CDC on youth nutrition, physical activity, and obesity. The data is collected every two years, and it shows survey responses for US high school students. Breakdowns by race, gender, and location point to interesting cultural patterns, and key findings can be used to improve how the Blue Zones Project facilitates teenagers to live better.

Key Findings

To start, we will look at **overarching youth health trends** that are present in the United States, and how key metrics have changed in the past several years.

Some youth health trends have improved, but most have gotten worse

Percent of US high school students who...



The percentage of students who eat fruit less than one time per day has increased, indicating that overall fruit consumption is down. The same goes for vegetables, unfortunately. This presents a clear issue that students are not getting adequate produce intake. In 2019, over 40% of students reported consuming fruit, and separately, vegetables, less than one time daily – which means not at all. On the plus side, regular soda consumption fell about 10%.

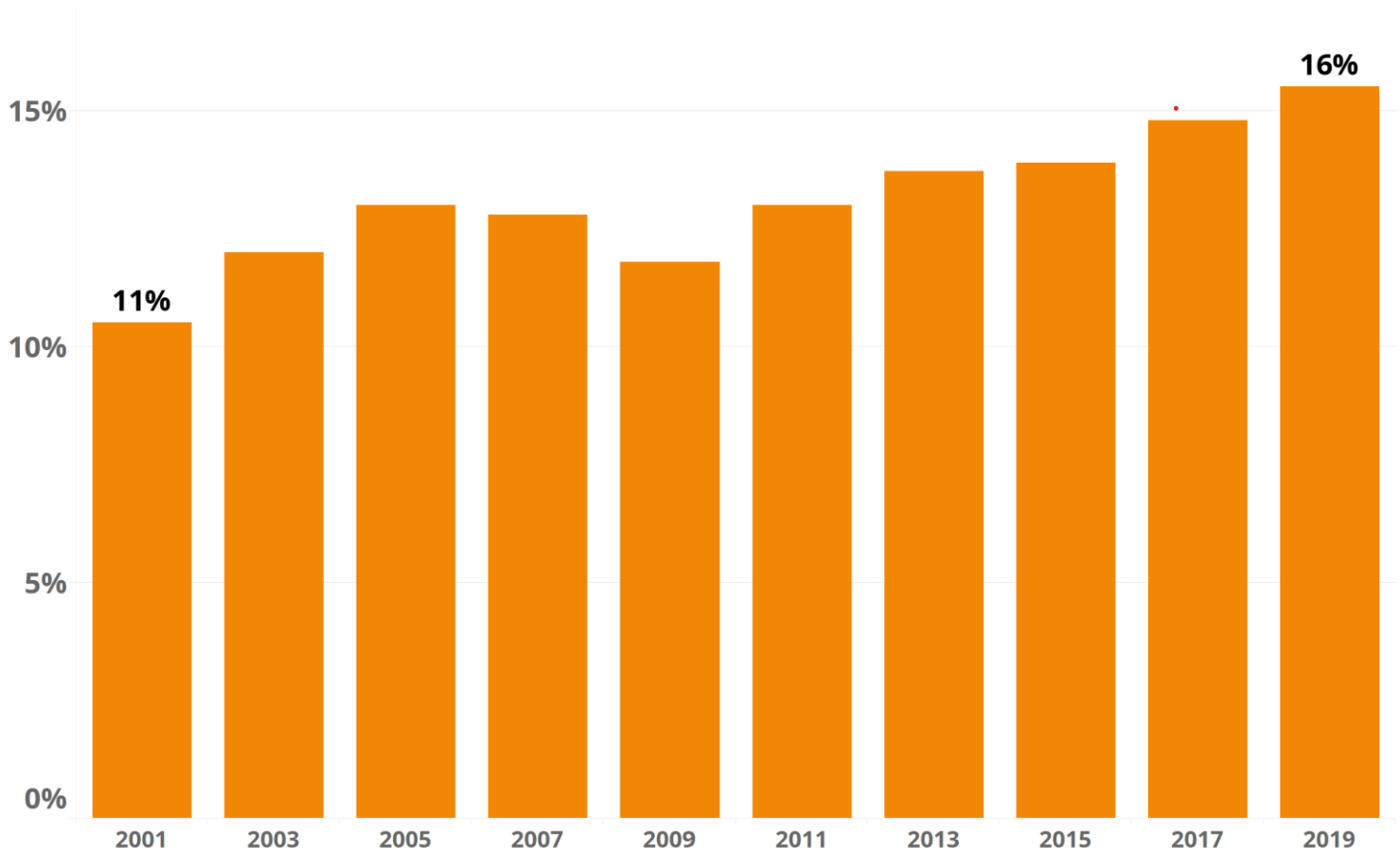
The percent of students participating in daily physical education declined about 7%.

The number of students who watch 3 or more hours of TV a day also dropped significantly from 2009 to 2019. However, smartphone and social media usage has undoubtedly skyrocketed in the same period. A [research study](#) by Common Sense Media looked at media usage trends in young people and also found a large drop in television viewing. However, American teens clocked in an average of nearly 7.5 hours of entertainment screen time per day (not including schoolwork).

There has been about a 5% increase in obesity between 2009 and 2019. This is problematic because, according to the Centers for Disease Control and Prevention, [obesity is linked to several health problems](#), including high blood pressure, type 2 diabetes, heart disease, many types of cancer, mental illness, and death. With this, there are gender, racial, and geographical inequalities surrounding obesity, and these will be discussed in more depth throughout this report. Overall, obesity is an important metric for the Blue Zones Project to keep track of and attempt to reduce, so this disturbing trend can be reversed.

Obesity Is on the Rise

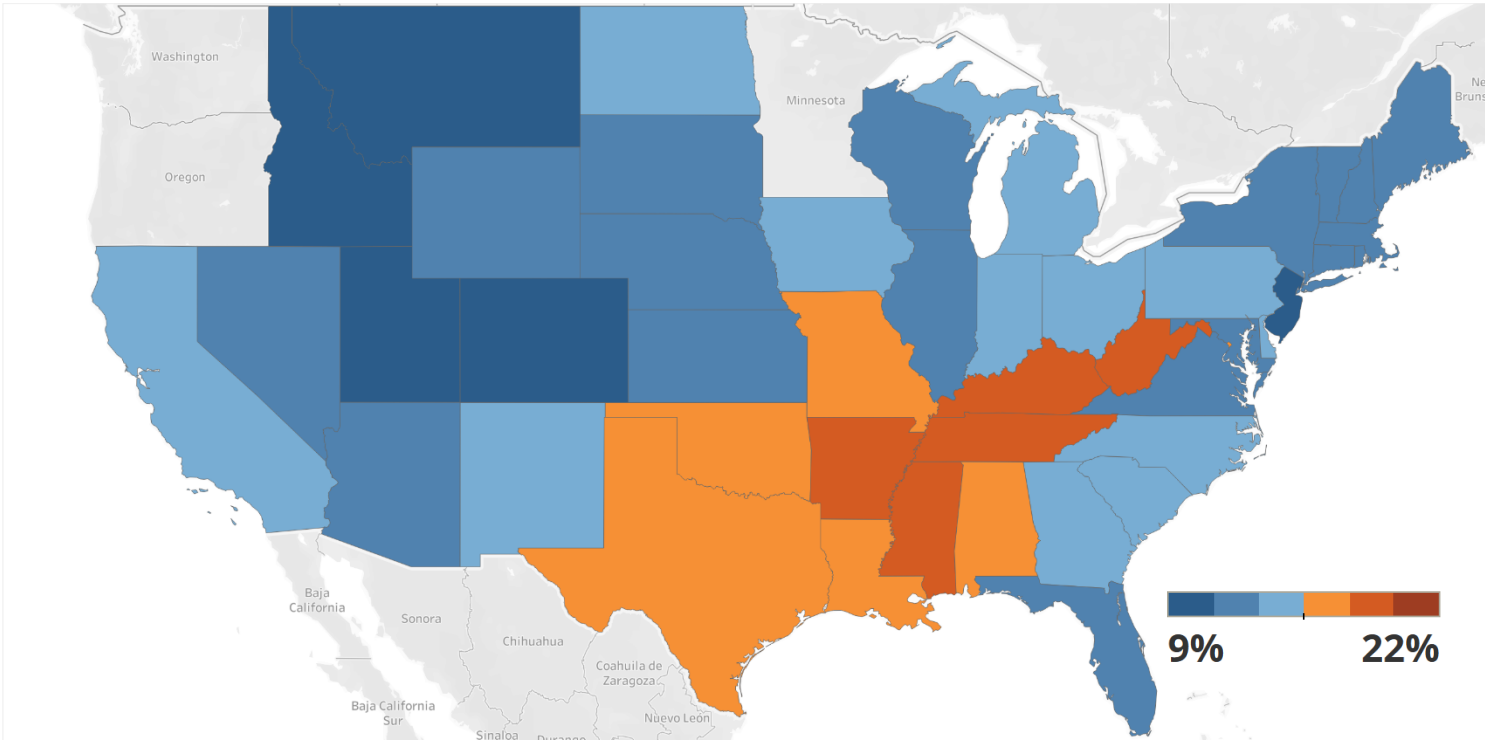
Percent of US high-schoolers with obesity



Source: Centers for Disease Control

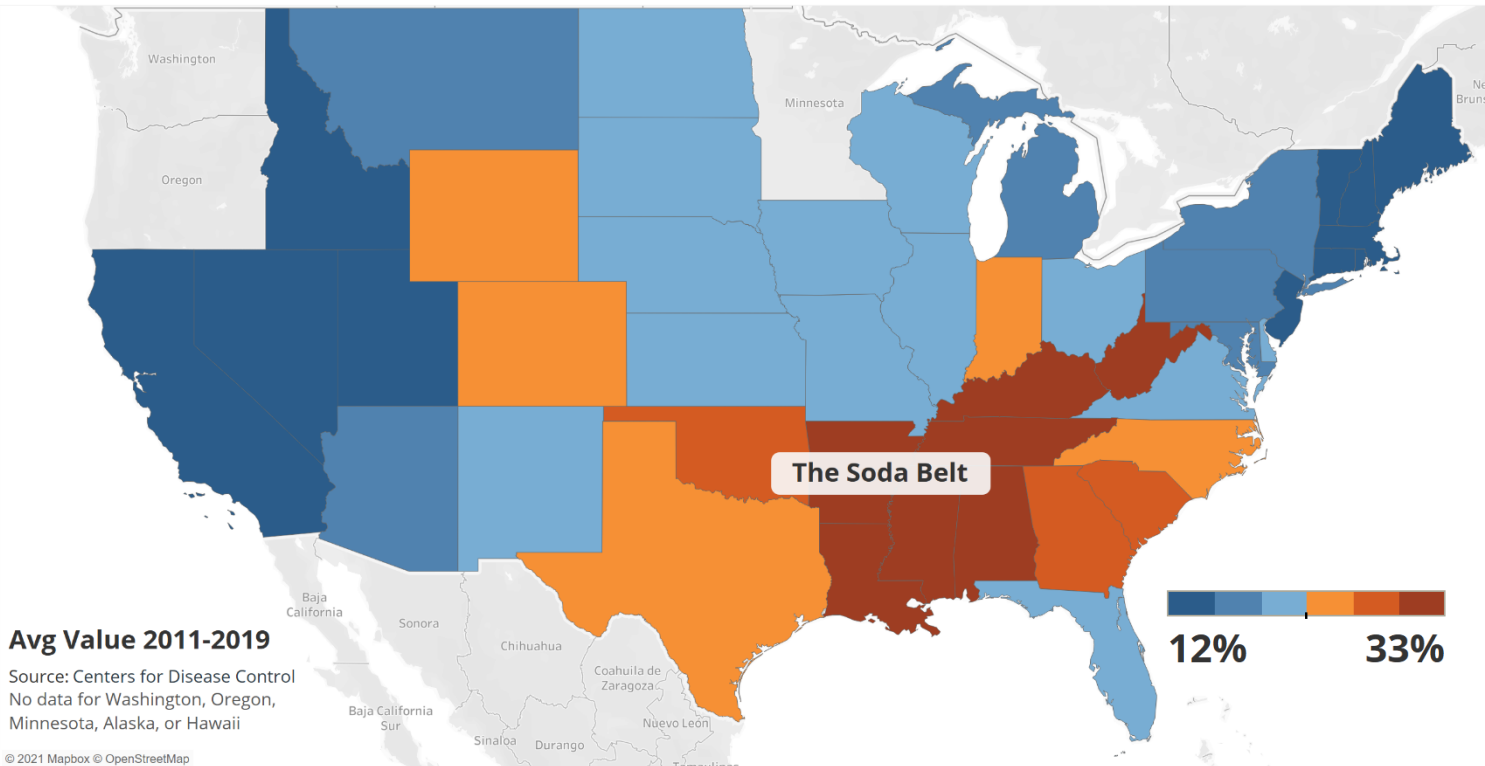
Youth Obesity Is Highest in the South

Percent of high school students who have obesity



US Youth Soda Consumption Is Also Highest in the South

Percent of high school students who drank regular soda/pop everyday



Avg Value 2011-2019

Source: Centers for Disease Control
No data for Washington, Oregon, Minnesota, Alaska, or Hawaii

Geographic, Gender, and Racial Differences

Location

As shown in the map above, youth obesity is not distributed equally around the United States. Rather, the highest rates of youth obesity are in the south.

In 2019, Mississippi and West Virginia had the highest rates of youth obesity, at 23%. Several Rocky Mountain states, including Montana, Idaho, Utah, and Colorado, along with some states out east, New Jersey in particular, have shown the lowest rates of youth obesity for the past several years, hovering around 10% of high school students.

Interestingly, the map illustrating the percentage of daily soda drinkers reveals similar geographic patterns as the obesity map. It is easy to see that soda consumption is also more common in the south. Of course, correlation does not equal causation, and there are many other factors that contribute to obesity in addition to soda consumption, such as exercise and diet factors.

However, the data reveals that many southern states with high regular soda consumption also have higher levels of obesity, and this suggests consumer behavior trends revolving around health and wellness are less prominent in these states.

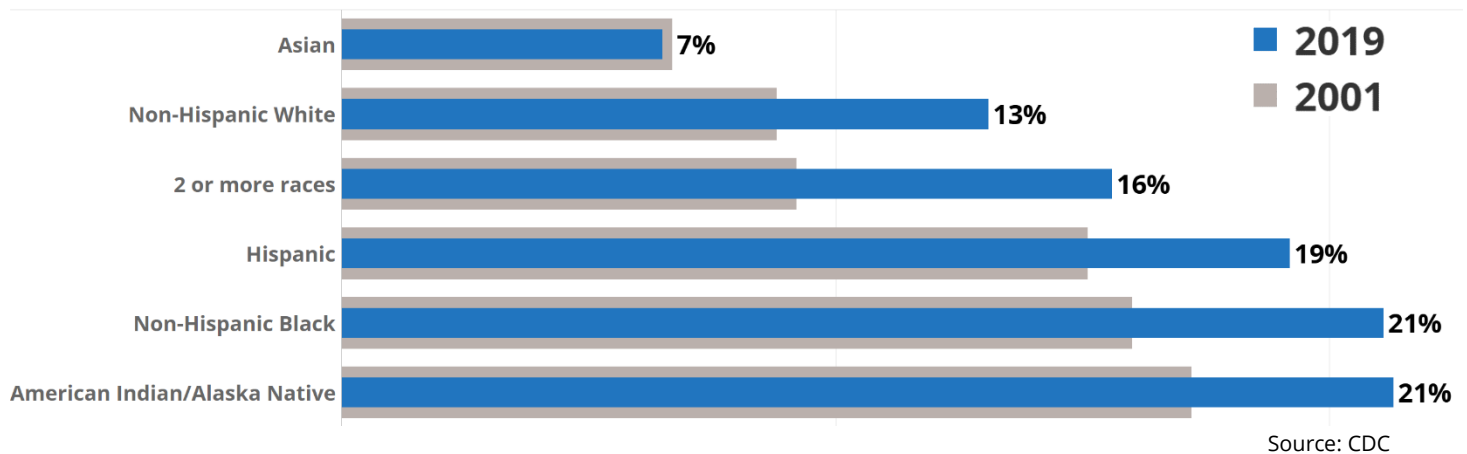
Supplemental research supports this, as [southern states suffer](#) from high rates of disease and shorter life expectancy than the rest of the (already struggling) United States. Overall unhealthy choices, limited access to healthcare, low walkability in residential areas, and more sedentary lifestyles plague the south. Luckily, the Blue Zones Project can help improve these situations through the [Blue Zones Power 9](#) approach. This being said, southern states may be a strong area for the Blue Zones Project to focus on next.

Race

Breaking down youth obesity rates by race reveals intriguing patterns. Asian American students have consistently shown the lowest rates of obesity, with statistics hovering around 7% since 2001. In the same time period, the obesity rates for all other surveyed races have significantly increased. Black students saw the greatest jump in obesity, from 16% to 21%.

Asian Americans Have Had Consistently Low Obesity Rates

While obesity rates have increased for other races

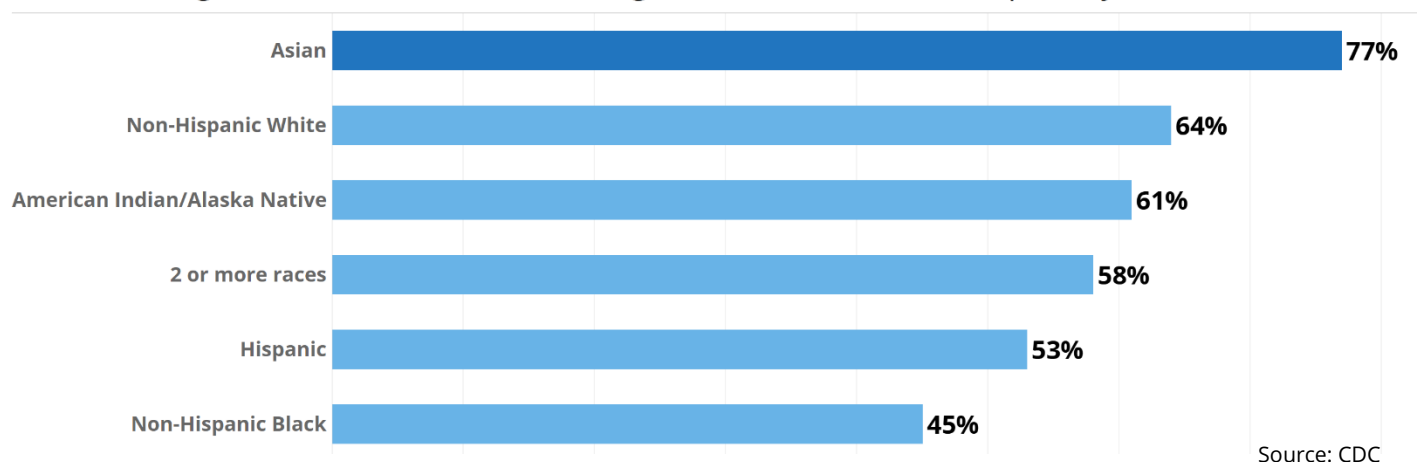


The reasons for obesity differences by race are not cut-and-dry, and Asian Americans have higher risks for health complications at lower BMI levels, according to the [American Heart Association](#). Nevertheless, cultural differences may be present. For example, the vast majority of Asian American students eat vegetables daily, while less than half of black students do. It is difficult to pinpoint exactly what may be causing these racial differences, but it is likely to be a combination of social norms and access to fresh produce.

We do know, however, that eating vegetables daily is good for your health, and according to this data, many students are not getting their daily dose of vegetables, and the problem is far worse for Hispanic and black students. Thus, there is plenty of room for improvement in produce intake. Ideally, every student could be eating vegetables every day, and this would be consistent with the largely fruit- and vegetable-based diets found in the blue zones.

Asian Students Eat Vegetables More Often

Percent of high school students who ate vegetables at least one time per day in 2019



Gender

Male students have higher rates of obesity than female students, as shown by the gender comparison below. However, more males exercise daily. There are a lot of sociocultural forces that could play a role in these differences, but it is something to think about.

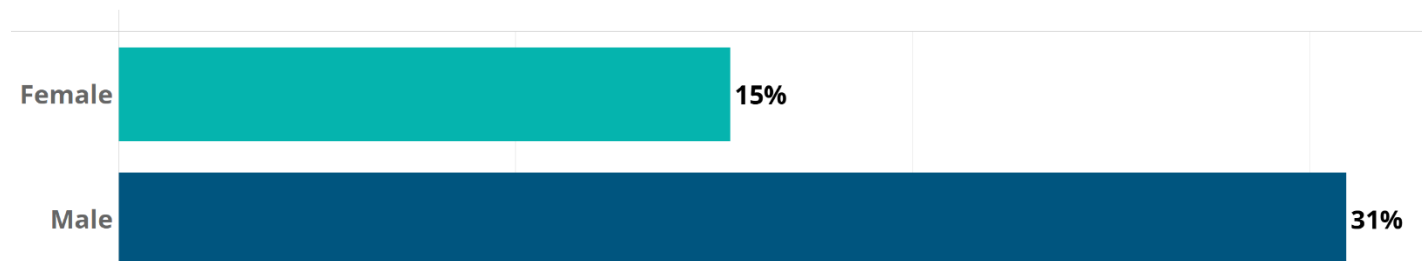
Males Show Higher Obesity Rates

Percent of US high school students with obesity in 2019



Fewer Females Exercise Daily

Percent of students who achieved at least one hour of daily physical activity in 2019



Source: CDC

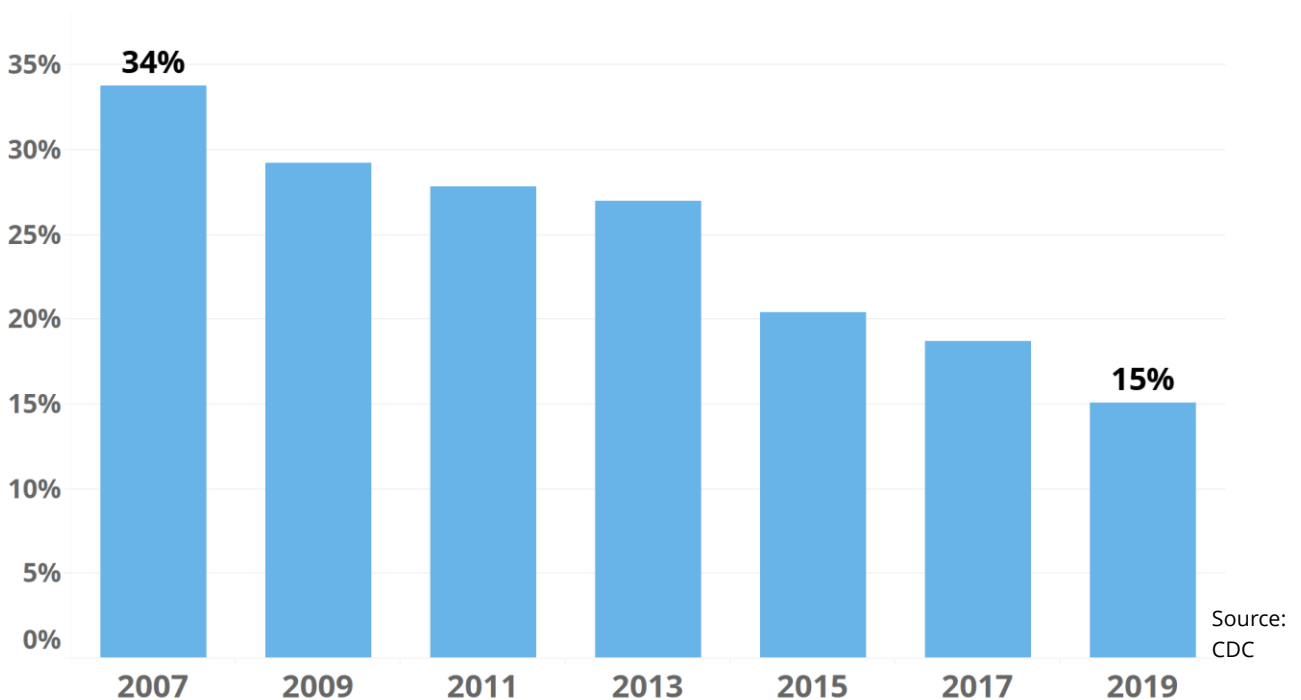
Unfortunately, most students do not achieve the recommended minimum amount of daily exercise. In addition to helping reduce overall obesity rates and promoting physical activity, The Blue Zones Project can aim to close these gender gaps, and awareness of these disparities is the first step.

One Promising Trend

One of the most interesting trends in the data revolves around soda consumption. As shown in the following graph, it has declined every survey year since 2007, with the sharpest drop-off after 2013. Back in 2007, about 1 in 3 US high school students drank soda every day. Now, less than 1 in 6 drink soda daily, which is a great improvement.

Soda Consumption Over Time

Percent of US high school students who drank regular soda every day



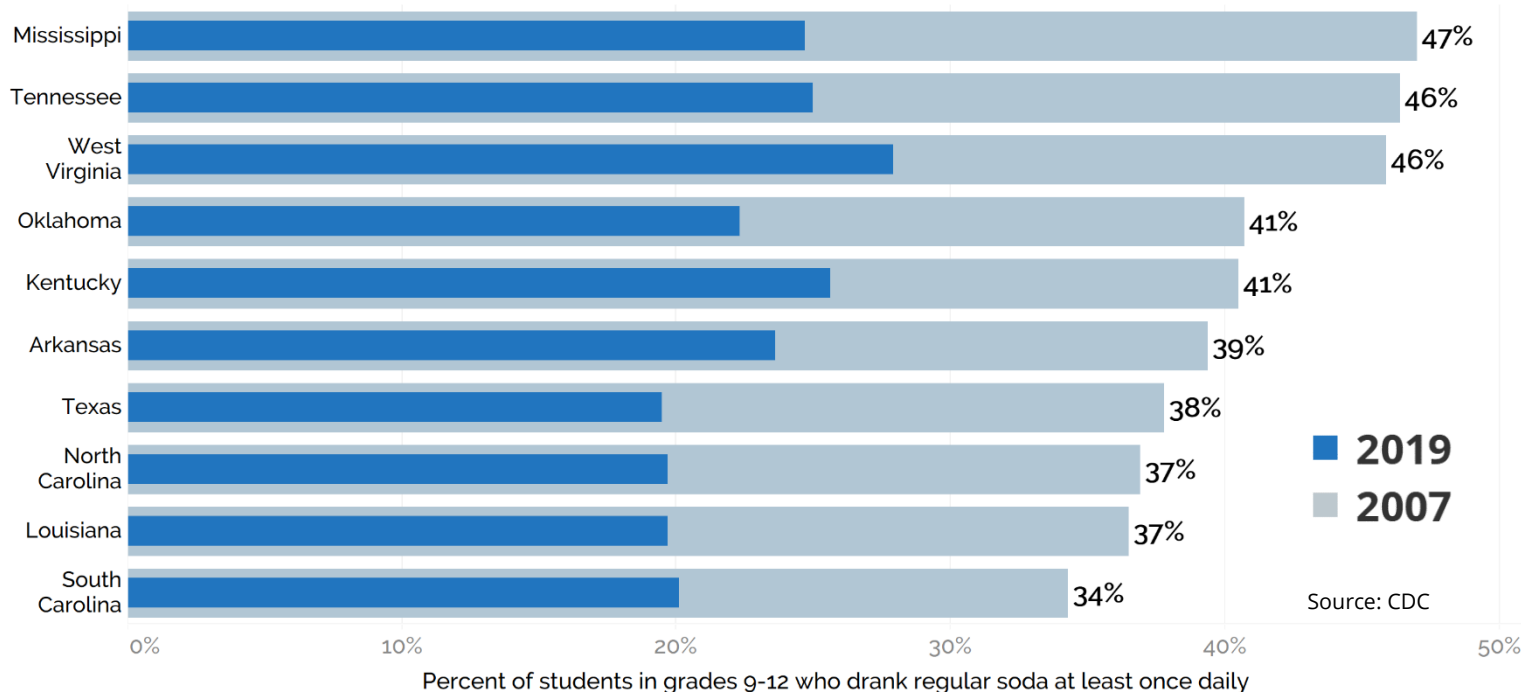
There are several possible explanations for the decline. People are not drinking less liquids - we all still get thirsty, but rather, soda is being substituted for other beverages more often.

Ideally, students are now drinking more water. This would line up with consumer trends toward health, sustainability, and overall wellness. For example, there have been many reusable water bottle fads over the past few years. In addition, regular soda may be less available in school vending machines and other places. However, people drinking more water instead of soda probably does not account for most of the soda decline.

Instead, replacing regular soda with diet soda, coffee, or juice has become the norm, and these beverages are often available to students. Big beverage names, from Starbucks and LaCroix to the hundreds of brands under the Pepsi and Coca-Cola umbrellas, have all been responsive to health-focused megatrends in the US. They have done this by switching up product attributes and matching their marketing to consumers' new interests. This has exacerbated the move away from traditional soda.

The Top 10 "Soda States" from 2007

Have all shown a significant decrease in daily soda consumption among high school students



Of course, various consumer segments and different regional cultures make for a wide variety of soda consumption among states. As mentioned earlier, the south showed the highest rates of youth soda consumption in the United States (among other unhealthy patterns).

Thus, a promising detail in this story is that all of the top 10 soda consuming states have experienced a drastic decline in the percent of students drinking soda since 2007. For example, Mississippi had the highest percentage of daily soda-drinkers, at 47% of all high school students. But by 2019, the number had dropped to a significantly healthier 25%.

Overall, the soda trend can be used as a reassuring case study that demonstrates the power of readily available options. The Blue Zones Project revolves around the idea of making healthy living accessible, and there are plenty of ways to involve teenagers in this process. Next, I will discuss recommendations for integrating the key data findings from this section into future Blue Zones Project communities.

Recommendations

The Blue Zones Project has the power to cultivate a holistic approach to wellbeing. This is accomplished by improving community surroundings to make it easier for *all* residents, including teenagers, to make healthy living decisions.

Currently, there are Certified Blue Zones Worksites and Certified Blue Zones Universities. Extending this idea to **Certified Blue Zones High Schools** would improve the environment in which students spend 25% of their time. Enhanced engagement and well-being would likely occur, causing positive ripple effects throughout teenagers' entire lives. Specific school improvements could include...

- Soda machines can be replaced with water bottle refilling stations.
- Increase sports teams for all genders and offer exercise classes for those who would like to partake in physical activity but not necessarily on a sports team. Ensure equal opportunity for all students.
- Since recess is often something left at elementary school, perhaps offering study breaks where students can get some fresh air could be encouraged.
- Hold cooking classes to demonstrate preparation techniques of Blue Zones highlighted meals. In addition, clubs where students try and share new healthy recipes with each other could develop healthy eating habits and inspire positive social interaction.
- Create a school vegetable and herb garden that is maintained by students via a school club or class. This would help educate students and foster appreciation for natural foods. The produce grown here can be used in the cafeteria.
- Revamp school lunches to offer fresh fruit- and vegetable-based meals.

In addition, a **social media campaign** targeting teenagers can be implemented. The Blue Zones Project has already been using Instagram and Facebook successfully, but TikTok has not been explored. According to a [survey by Piper Sandler](#), the top three social media platforms used by teens daily in 2020 were Snapchat (34% of respondents), TikTok (29%), and Instagram (25%).

These platforms can easily be used to spread healthy lifestyle tips (such as recipes and educational information) or share updates from the Blue Zones Project via short videos. TikTok, Instagram Reels, and the Snapchat Spotlight feature all provide the possibility of virality, allowing messages to quickly reach thousands (or even millions) of students right in the palm of their hands.

Conclusions

The vast majority of Americans now understand that activity, diet, and obesity are all interrelated. As shown in the nine blue zones, a healthy diet coupled with regular exercise and positive social relationships promotes vitality and longevity. Plus, these same healthy habits are associated with [improved academic success](#), as examined by the CDC.

By promoting overall wellbeing in communities, youth health trends surrounding physical activity, nutrition, and obesity should improve. With this, Blue Zones Project has the power to help teenagers live happier and healthier lives through the recommendations in this report.

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