

STATE of CHILDHOOD OBESITY

Prioritizing Children's Health During the Pandemic



About the Robert Wood Johnson Foundation

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Dr. Richard Besser

PRESIDENT & CEO, RWJF



Jamie Bussel
SENIOR PROGRAM OFFICER, RWJF

Introduction

A conversation between Dr. Richard Besser, president and CEO of the Robert Wood Johnson Foundation, and Jamie Bussel, senior program officer, about childhood obesity, COVID-19, income disparities, and what the country needs to do to address these interwoven challenges. Watch a video of their full discussion and find the full transcript at stateofchildhoodobesity.org.

Jamie Bussel: We're excited to release our second annual *State of Childhood Obesity* report because it focuses on prioritizing children's health during the pandemic. The newest data show that about 15 percent of children between the ages of 10 and 17 have obesity—and that's remained pretty consistent over the last few years. In addition, we continue to see stark and deep disparities, with higher rates of obesity among kids of color and kids from families with low income. We also see these disparities with the COVID-19 epidemic.

Dr. Richard Besser: The overlap between groups that are being hit hardest for COVID-19 and the disparities for obesity show real parallels. Because while obesity hits every racial and ethnic group and every income group, it doesn't hit each group equally. And that's what we're seeing with COVID-19. When you think about why that is, there are a number of different factors. Some have to do with exposure, but so much has to do with opportunities to make healthy choices. Who has opportunities for healthy eating, and for healthy activities, and for the types of behaviors that will reduce the risk for obesity?

JB: This report includes some incredible stories that lift up extraordinary people, extraordinary leaders on the front lines who are making a difference to ensure all kids and families have those opportunities and have healthy choices. For me, these are beacons of hope.

RB: I think we are at a moment in our history where because of this crisis—because of the pandemic of coronavirus, the devastation from this economic downturn, and the rising, inspirational movement for racial justice—we can change policies that will truly change the nature of our communities. We can transform our cities and towns into communities of opportunity and not communities that lead to the health consequences we're seeing today.

JB: I love that idea, the notion of communities of opportunity. And I think our Foundation's commitment to preventing childhood obesity is really a commitment to ensuring every child in this country, every family, has a fair and just opportunity to live the best, healthiest life possible.

Overview

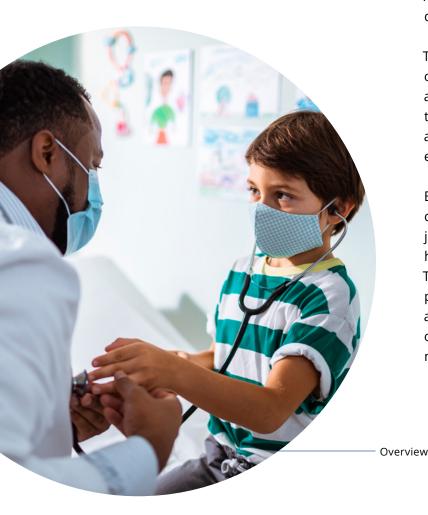
Childhood obesity has been an ongoing epidemic in this country for a generation. The national childhood obesity rate has been rising for decades,¹ putting millions of children at greater risk for type 2 diabetes, high blood pressure, asthma, and other serious conditions.² The newest available data show that 15.5 percent of youth ages 10 to 17 have obesity³ and reaffirm persistent racial and ethnic disparities, with rates remaining significantly higher among Black, Hispanic, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander youth than among white or Asian youth.

Early research shows a strong connection between obesity and COVID-19. The Centers for Disease Control and Prevention (CDC) includes obesity⁴ as one of several underlying conditions that increases risk of severe illness from COVID-19 among people of any age. People with obesity tend to become sicker, are more likely to be hospitalized, and are even more likely to die when COVID-19 strikes.⁵

COVID-19 has also disproportionately impacted people of color and impoverished communities. Black, Latinx and Indigenous people have higher rates of infection and are more than three times as likely to die from COVID-19 as are white people. Black and Latinx children are much more likely than their white peers to be hospitalized because of COVID-19. As with their parents, these children are suffering disproportionately during this pandemic.

These disparities, which lead to increased risk for obesity and for COVID-19, are not a coincidence. They are a result of policies, decisions, and disinvestment that put millions of Americans—children and adults—at risk for poor health, chronic disease, and even death.

Before the pandemic forced schools closed and caused so many Americans to lose income and jobs, millions of families were living in poverty, with hunger, in unsafe homes, and without health care. The pandemic exacerbates these conditions and places many more children on the brink. As schools and child-care centers remain closed, children are not only losing access to educational opportunities, but in many cases to a regular source of healthy meals.



And while the COVID-19 pandemic underscores the clear and urgent need to reform longstanding discriminatory systems and policies that harm our health, public health experts have long been advocating for similar changes to address childhood obesity, a national epidemic in its own right.

In short, these two crises intersect in many ways.

COVID-19 creates an unprecedented opportunity to rethink policies and redesign programs to prevent disease and better promote health for all. And in the midst of current public health crises, it is more critical than ever to prioritize children's health and build a stronger foundation for the next generation.

To date, emergency relief measures in response to COVID-19 have increased support for nutrition assistance programs and allowed more flexibility to help prevent hunger and extend resources to those in need. But there is much more work to be done. Moving forward, leaders at all levels must seek new opportunities to strengthen and modernize policies to support healthier child-care settings, schools, and communities.

This report presents the latest childhood obesity rates and trends, expert insights, relevant research, and policy developments, including emergency relief efforts to support major federal nutrition programs. It highlights promising strategies for prioritizing children's health and improving equity in response to the pandemic and throughout recovery.



In the midst of current public health crises, it is more critical than ever to prioritize children's health and build a stronger foundation for the next generation.

Building Community Power to Limit Marketing of Sugary Drinks

Far too many people live in communities where we have disinvested in healthy policies and basic resources. This is why obesity and other chronic health conditions are more prevalent among certain populations, including children of color.

COVID-19 has highlighted deep structural problems in our country.

Dr. Xavier Morales and his team address these challenges by partnering with base-building community organizers to build their advocacy "muscle" and make healthy choices more accessible where they live.

Taking on the beverage industry's marketing of sugary drinks to kids is one of Xavier's passions. That's because consuming sugary drinks harms kids' health and increases their risk of preventable diseases, such as obesity.

The beverage industry's aggressive tactics for marketing unhealthy products are well-documented. In 2018 alone, <u>companies spent more than \$1 billion</u> advertising sugary drinks, disproportionately targeting Black and Latinx youth. Xavier believes beverage companies are capitalizing on our policy decisions and disinvestments—strategically creating and contributing to environments that harm people's health, especially communities of color and children.

He also believes that once people understand the dangers of sugary drinks and how they are being unfairly targeted by the beverage industry, they won't stand for it.

As the old saying goes, "knowledge is power." Educating kids and families about the health benefits of drinking water and the dangers linked with sugary drinks builds community power. That power can change the effects of historical disinvestment in some communities, and even change the national narrative and policy priorities.

Learn more about strategies for preventing childhood obesity at stateofchildhoodobesity.org.



Childhood obesity is a symptom of our past policy decisions and disinvestments. We need to address the root causes of children with obesity by transforming the environments, policies, and practices to support healthy outcomes.



Dr. Xavier Morales

Executive Director of the Praxis Project

Policy Changes Can Prevent Kids from Consuming Sugary Drinks

These days, many parents and their children know that sugary drinks, including fruit juices, sports drinks, and soda pop, are not good for them and should be avoided. But few know it better than Dr. Sara Bleich and her family.

Dr. Bleich, an obesity prevention researcher, knows just how bad sugary drinks are for kids. The data are so concerning that she allows her two young children to consume sugary drinks only at parties.

Dr. Bleich explains that, when her children go to parties, they are allowed to choose either a sugary beverage or a piece of cake. To make her point, Bleich shared a story about being at a child's birthday party where someone said to her: "Your daughter is so funny... I offered her juice and she said, 'can I see the cake first?'"

Dr. Bleich is passionate about her children's health and her passion extends to the health of all children, especially <u>Black and Hispanic children</u>, who are at higher risk for obesity.

Much of her research focuses on sugary drinks, which contribute half of all added sugar to the diets of children ages 2 and older. Dr. Bleich says, "...we have growing evidence about beverage taxes that tells us if we increase the prices of sugary drinks, people buy fewer of them."

She believes we have an opportunity right now to implement a national tax on sugary drinks because of the enormous resource gaps the government is dealing with as a result of the COVID-19 pandemic.

Dr. Bleich cites learnings from two cities (Berkeley and Philadelphia) that passed sugary drink taxes and used the tax revenue for efforts to improve public health and education, such as community health screenings, and school-based gardening and cooking programs.

Learn more about reducing kids' consumption of sugary drinks at stateofchildhoodobesity.org.



If I were queen for a day, I would use the unfortunate COVID-19 crisis to pass a national tax on sugary drinks and use that revenue toward improving the public's health.



Dr. Sara Bleich

Professor of Public Health Policy at the Harvard T.H. Chan School of Public Health in the Department of Health Policy and Management



Berkeley Residents Fund Healthy Programs with Soda Tax Revenues



A classroom full of toddlers dance and sing songs about growing up healthy and strong



Kindergartners plant, harvest, and eat fava beans and broccoli with their garden teacher



Black moms gather each week for "Motherhood Circles," where they learn about nutrition with a health and wellness coach



Outreach workers offer free water bottles and hold health workshops for immigrant families and day laborers

These are some of the creative ways the city of Berkeley, California, is helping children and families make—and have access to—healthy choices. And all of these efforts are funded by revenue collected by a tax on sugary drinks.

To date, more than \$7 million from the Berkeley sugary drink tax program has helped fund local initiatives designed to reach populations heavily targeted by the sugary drink industry, including kids of color and those growing up in price-sensitive communities. Programs educate residents about the health harms of sugary drinks and provide them with resources to make healthier choices.

Across the United States, seven cities and the Navajo Nation have passed taxes on sugary drinks. <u>Research</u> has generally found that the taxes reduce purchases of sugary drinks.

In Berkeley, consumption of sugary beverages has <u>dropped by 52</u> <u>percent</u> in the city's diverse and lower-income neighborhoods since the tax passed. That's particularly important as Black, Latinx, and economically disadvantaged communities tend to be high consumers of sugary drinks, and beverage companies spend significantly more money on ads targeting these populations.

Learn more about Berkeley's sugary drink tax revenue program at stateofchildhoodobesity.org.



It's really nice to see little kids who are already saying 'I'm not going to drink that soda because it's not good for me.' It's cool to see them make that change.

Eduardo Rosas

Program Coordinator at the Multicultural Institute, Berkeley, California



Childhood Obesity Rates & Trends

This report includes the latest data from major federal surveys that track obesity rates among children and teens, including the National Health and Nutrition Examination Survey; the National Survey of Children's Health; the WIC Participant and Program Characteristics Survey; and the Youth Risk Behavior Surveillance System. Because research shows that children who have obesity at an early age are more likely to have obesity later in life, 8.9 this report also includes the latest findings from the Behavioral Risk Factor Surveillance System, which tracks state-by-state adult obesity rates. When describing differences by race and ethnicity, this section uses the racial and ethnic terms provided by the original dataset.

Defining Obesity Among Children and Teens¹⁰

Body mass index (BMI) is a measure commonly used to determine overweight and obesity. BMI is calculated by dividing a child's weight (in kilograms) by height (in square meters). According to the CDC, obesity is defined as a BMI that is at or above the 95th percentile for children and teens of the same age and sex. Overweight is defined as a BMI that is at or above the 85th percentile and below the 95th percentile for children and teens of the same age and sex. A child's weight status is determined using an age- and sex-specific percentile for BMI, which is different from BMI categories used for adults. Because children's body fat levels change over the course of childhood and vary between boys and girls, their BMI levels are expressed relative to other children of the same age and sex.





Key Findings and Trends

Results from several major surveys confirm that childhood obesity continues to be a national public health crisis, putting millions of children at greater risk for type 2 diabetes, high blood pressure, and other serious conditions. Black and Latinx youth have disproportionately higher obesity rates compared with white children.

The latest available data, released in October 2020, are based on height and weight reports for youth ages 10 to 17. Key findings and trends from that survey are available below, including states with the highest and lowest rates.

The table and figures in this section highlight national and state-by-state childhood obesity rates from major datasets that measure and track different age groups. More information about the datasets highlighted here, including a complete listing of state-by-state rates for every major survey and details about who is included and how data are collected, is available in the appendix.

- The national obesity rate for youth ages 10 to 17 in 2018-19 was 15.5 percent, compared with 16.1 percent in 2016. The difference is not statistically significant.
- Racial and ethnic disparities persist. In 2018-19, non-Hispanic Asian children had the lowest obesity rate (5.9%) followed by non-Hispanic white children and non-Hispanic multiple race

children (11.7% and 14.7%, respectively). Obesity rates were significantly higher for Hispanic (20.7%), non-Hispanic Black (22.9%), non-Hispanic American Indian/Alaska Native (28.5%), and non-Hispanic Native Hawaiian/other Pacific Islander (39.8%) children.

- There are also disparities by income level: 21.5
 percent of youth in households making less than
 the federal poverty level had obesity, more than
 double the 8.8 percent of youth in households
 making at least 400 percent of the federal
 poverty level.
- Kentucky had the highest overall youth obesity rate, 23.8 percent, and Utah had the lowest, 9.6 percent.
- Five states had obesity rates that were statistically significantly higher than the national rate in 2018-19: Kentucky (23.8%), Mississippi (22.3%), South Carolina (22.1%), Tennessee (20.4%), and Arkansas (20.2%).
- Eight states had obesity rates that were statistically significantly lower than the national rate in 2018-19: Utah (9.6%), Minnesota (9.9%), Kansas (10.6%), Montana (10.6%), New York (10.7%), Colorado (10.9%), Hawaii (11.1%), and Nebraska (11.5%).
- Additional years of data are needed before trends over time can be reliably assessed.

National Obesity Rates by Age Group

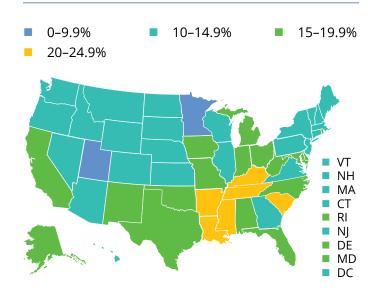
	National Survey of Children's Health ¹¹	Youth Risk Behavior Surveillance System ¹²	WIC Participant and Program Characteristics Survey ¹³	National Health and Nutrition Examination Survey ¹⁴
Age range studied	Youth ages 10-17	Students in grades 9-12	Children ages 2-4 participating in WIC	Children and youth ages 2-19
Most recent year of data available	2018-19 (Released Oct. 2020)	2019 (Released Aug. 2020)	2016 (Released Nov. 2019)	2017-18 (Released Apr. 2020)
National obesity rate	15.5%	15.5%(a)	13.9%(b)	19.3%(c)(d)
Black	22.9%	21.1%	11.4%	22%
Hispanic	20.7%	19.2%	16.4%	25.8%
White	11.7%	13.1%	12.1%	14.1%
Asian American	5.9%	6.5%(e)	10.0%(f)	11%
American Indian/ Alaska Native	28.5%	21.3%	18.5%	N/A
Native Hawaiian/ other Pacific Islander	39.8%	N/A	10.0%(f)	N/A

Notes:

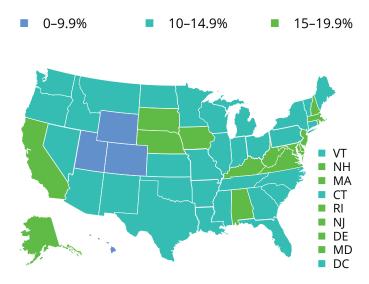
- a. The national obesity rate is significantly higher than it was in 1999.
- The national obesity rate declined significantly between 2010 and 2016.
 This trend was significant for all racial and ethnic groups studied, and in 41 states and territories.
- The national obesity rate data is from 2017-18. The racial and ethnic breakdowns are from 2015-16.
- d. Youth obesity rates rose significantly from 1999-2000 to 2015-16. Rates have plateaued from 2013-14 to 2015-16.
- e. The YRBS uses the racial/ethnic group Asian instead of Asian American.
- f. This survey combines Asian American and Pacific Islander, which is why the obesity rate is the same for those groups.

State-by-State Obesity Rates by Age Group

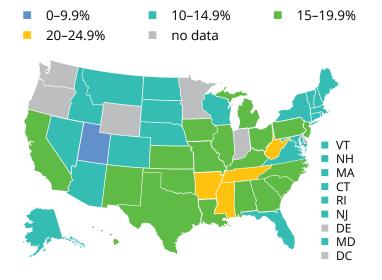
YOUTH AGES 10-17 2019



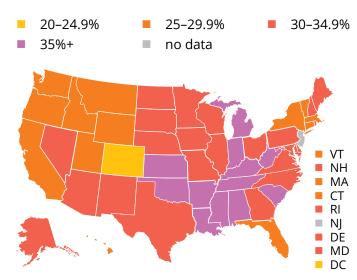
WIC PARTICIPANTS AGES 2-4 2016



STUDENTS IN GRADES 9-12 2019



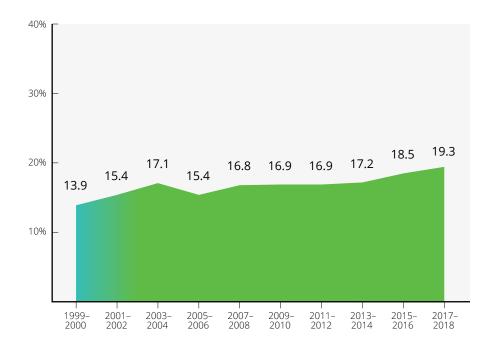
ADULTS AGES 20+ 2019



National Trends in Childhood Obesity Rate

NATIONAL RATE AGES 2-19 1999-2000 TO 2017-2018

- 10-14.9%
- 15-19.9%







Policies & Recommendations

The disproportionate impact of COVID-19 on families furthest from economic opportunity, people of color, and people with obesity should heighten awareness of the need for more equitable policies and more investment in prevention.

In the short term, modernizing and strengthening key policies is essential for America's recovery from the pandemic. Longer-term reform to ensure programs and policies at all levels of government prioritize health and equity is critical for reducing disparities; creating healthier child-care settings, schools, and communities; and ensuring that all children can thrive.

The following policies and recommendations can serve as a set of priorities as federal, state, and local leaders work to respond to the pandemic and create long-lasting changes that will help all children grow up healthy and at a healthy weight.



Supplemental Nutrition Assistance Program

The Supplemental Nutrition Assistance Program (SNAP) provides short-term financial support to individuals and families furthest from economic opportunity. It is the nation's largest nutrition assistance program and is designed to respond to times of increased need. Two-thirds of participants are children, older adults, and people with disabilities. The average SNAP participant in FY 2018 received \$126.00 per month.

Research has shown that SNAP reduces poverty, benefits the economy, improves food insecurity, and even benefits children's health and academic performance.¹⁷ According to the United States Department of Agriculture (USDA), a \$1 billion increase in SNAP benefits during an economic downturn increases GDP by \$1.54 billion, supports 13,560 new jobs, and creates \$32 million in farm

SNAP Supports Health and Boosts the Economy

SNAP participation is linked with significant, long-lasting benefits for America's most vulnerable children and families—and the program is proven to boost a lagging economy. An issue brief from the Robert Wood Johnson Foundation summarizes research on the benefits of SNAP and makes the case for specific changes, including raising benefit levels, to ensure the program is responsive to the COVID-19 pandemic.

Read the full issue brief on rwjf.org.

income.¹⁸ In addition, children with access to SNAP show lower risk for high blood pressure, heart disease, diabetes, and other poor health outcomes as they get older.¹⁹

The Supplemental Nutrition Assistance Program-Education (SNAP-Ed) is a nutrition education component of the program under which USDA provides grants to states to encourage participants to make healthy purchases with their benefits.²⁰ The program is funded separately from SNAP—each state receives an allotment based on state participation rates—and the services offered are in addition to actual food assistance benefits. SNAP-Ed also partners with community-based organizations and implementing agencies may also be involved in policy, systems, and environmental change efforts within communities.

COVID-19 Response

As COVID-19 has spread across the United States, families have faced unprecedented unemployment, lost income, and higher risk of eviction or foreclosure. Coupled with the closures of schools and early childhood education centers, which provide daily meals to millions of children, these factors have led to an increase in the number of people facing food insecurity, or uncertain access to enough healthy food.

In May 2020, roughly two months into the pandemic's impact on the United States, more than 1 in 5 adults living with children reported that their household had faced food insecurity in the prior month.²¹ Initial USDA

data from April show that nearly 43 million people nationally were participating in SNAP, an increase of close to 6 million people compared to just the previous month.²²

In response to the pandemic, in March 2020, Congress passed the Families First Coronavirus Response Act²³ and the Coronavirus Aid, Relief, and Economic Security (CARES) Act.²⁴ Together, the laws temporarily suspended SNAP work requirements, allowing states to request emergency benefits (special waivers) for existing SNAP participants, and provide emergency assistance to existing SNAP households—up to the maximum monthly allotment—to help cover meals that children normally get for free during school, while schools remain closed. The law also included over \$15.5 billion in additional funding for SNAP, to cover some of the waiver authorities and anticipated increases in participation.

In addition, \$400 million was allocated to The Emergency Food Assistance Program to assist local food banks in meeting increased demand for Americans with low income during the emergency, including children who normally receive meals at school.²⁵

Despite these important steps, gaps remain. The additional funding for SNAP in the CARES Act was directed to cover the anticipated increase in participants, but was not enough to increase total benefits for those participating or expand eligibility. And while the Families First Act provided states with flexibility to provide emergency supplemental benefits, states only have this flexibility for a limited time. ²⁶ If, as anticipated, a broader economic recession outlasts the COVID-19 public health emergency, those facing food insecurity will need additional help.

COVID-19 increases child hunger—14 million American children at risk

Black and Hispanic children have highest rates of food insecurity

Healthy food is critical to children's growth and development. But in millions of households across the country—particularly in communities with low incomes—families do not have the resources to buy nutritious meals.

An <u>analysis</u> conducted in June 2020 links the COVID-19 pandemic with a dramatic increase in food insecurity, finding that about 14 million U.S. children (16.5% of households with children) do not have enough to eat.²⁷ That's 5.6 times as many children as in 2018 and nearly three times as many as during the peak of the Great Recession in 2008.



The situation is even worse for Black and Hispanic children. Among households with children, about 3 in 10 Black households and 1 in 4 Hispanic households do not have enough food—compared to just under 1 in 10 white households.

Because food insecurity is tied to a lack of financial resources, rates of food insecurity can be predicted by the unemployment rate. As unemployment has spiked during the COVID-19 pandemic, so too has child hunger and food insecurity. Other predictors of food insecurity include having a low-wage job, limited access to credit, and limited savings. 29

In response to the public health crisis, experts have called for strengthening and expanding federal nutrition assistance programs, such as SNAP, to help more families purchase healthy food.³⁰

Find the full analysis at brookings.edu.



Recommendations

In response to the pandemic:

- Raise the maximum SNAP benefit level by at least 15 percent per participant for the duration of the economic downturn.
- Remove the three-month time limit on SNAP benefits for unemployed adults who are not raising children under the age of 18 for the duration of the economic downturn.
- Stop implementation of new regulatory changes that would decrease SNAP benefits or take SNAP benefits away from 4 million people.
- USDA should simplify the process for states to distribute benefits through the Pandemic Electronic Benefits Transfer (P-EBT) program.

Longer term:

- Increase SNAP benefits by 20 percent to enhance anti-hunger and anti-poverty effects while reforming the underlying system of calculating food costs and benefit amounts.
- Avoid funding cuts and eligibility restrictions that would reduce enrollment and/or benefit levels.
- Double investments in SNAP-Ed and financial incentive programs to encourage SNAP participants to purchase more fruits and vegetables and help them make healthier purchases.

Women, Infants, and Children Program

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is one of the nation's largest federal nutrition programs, serving approximately 6.3 million people, ³¹ including about half of all infants born in the United States. WIC helps qualifying pregnant, postpartum, and breastfeeding women, infants, and children up to age 5 achieve and maintain a healthy weight by providing healthy foods and nutrition education; promoting breastfeeding and supporting nursing mothers; and providing health care and social service referrals.

The WIC food package is required by law to be periodically re-evaluated to ensure it aligns with the latest U.S. Dietary Guidelines. In 2009, the WIC food package was updated to include more fruits, vegetables, whole grains, and lower-fat milk.³² Research shows that, following the changes, WIC participants are buying and eating more fruits, vegetables, whole grains, and low-fat dairy products.³³ Research has also shown that WIC participation is associated with healthier consumption patterns among mothers and children, and with higher fruit, vegetable, and whole grain consumption among children.³⁴ Newer data has also shown that children who participate in WIC through age 4 have healthier diets than children who leave earlier.³⁵

The most recent data available show that the obesity rates among children ages 2 to 4 who participate in WIC declined from 15.9 percent in 2010 to 13.9 percent in 2016.³⁶ The decline was statistically significant among racial and ethnic groups studied,

and in 41 states or U.S. territories. CDC researchers cite the updates to the food package as one factor that may have contributed to the decline.

COVID-19 Response

The Families First Coronavirus Response Act provides \$500 million in additional funding for WIC to improve access to nutritious foods among participating pregnant women or mothers with young children who lose their jobs or are laid off due to the COVID-19 pandemic. In addition, states are able to waive some of the requirements that are typically part of WIC,³⁷ such as the requirement to apply in person and waive some of the minimum stocking requirements for participating providers. These waivers were originally scheduled to expire on September 30, 2020, but USDA has extended them through the national public health emergency. This will allow offices to approve new participants remotely, and provide flexibility in some of the food package requirements.

Although national data on WIC enrollment during the pandemic are not yet available, prior research on the impact of unemployment and rising food insecurity suggests that WIC enrollment will increase in 2020.³⁸





Recommendations

In response to the pandemic:

 USDA and Congress should ensure that the relevant waivers remain in place for as long as needed and that states and WIC offices have the technical support they need to continue to serve families.

Longer term:

- Congress should increase WIC funding to extend eligibility to postpartum mothers through the first two years after the birth of a baby, and to children through the age of 6 to align with participation in school meal programs, and should enable infants and children to participate for two years before having to reapply.
- Policymakers should work to increase racial equity in WIC participation, including making WIC packages more culturally inclusive, providing targeted support based on health disparities, and providing breastfeeding support that is inclusive and relevant for women of color who participate in WIC.

- Congress should fund the WIC Breastfeeding Peer Counseling Program at its full authorized amount of \$90 million to ensure mothers have access to critical supports.
- Congress should continue to support and fund efforts to streamline and modernize WIC services through technology, including achieving the congressional mandate for all states to achieve WIC Electronic Benefit Transfer (EBT) by 2020.
- USDA is required by Congress to update the WIC food package every 10 years. As it does so, USDA should ensure that the process is grounded in the latest, most sound nutritional science.
- The Centers for Medicare and Medicaid Services should continue to support and reimburse WIC for its role in lead screening.

Reducing Childhood Obesity Now May Help in the Next Pandemic

By William Dietz, director of the Sumner M. Redstone Global Center for Prevention and Wellness at the Milken Institute School of Public Health at The George Washington University, and director of the STOP Obesity Alliance

Among the many lessons emerging from the COVID-19 pandemic is the impact of obesity. People with obesity and associated diseases tend to become sicker and are more likely to die from COVID-19.

We know childhood obesity is a powerful predictor of obesity in adulthood. It puts children at increased risk for developing numerous health problems later in life, including diabetes and heart disease. In addition, early research³⁹ suggests that obesity may also increase their susceptibility as adults to serious illness. such as COVID-19.

People of color have higher rates of obesity⁴⁰ and are disproportionately impacted by COVID-19. They are more likely to experience higher rates of hospitalization and death due to infection than whites.⁴¹ This is driven by structural racism that creates disparities such as poverty, economic disadvantage, and lack of access to healthy food. Many people of color are also essential workers along the food supply chain—including farm workers, workers in meat processing plants, grocery clerks, and food deliverers—which increases their vulnerability to infection. Unfortunately, the wages, benefits, and working conditions of these workers do not reflect their essential status.

Combined with the impacts of COVID-19 on their daily lives, including disruption of the food supply and layoffs of family members, many are having a harder time than usual putting enough food on the table for themselves and their families—let alone healthful foods that can be more expensive than the alternatives. As a result, food insecurity has increased, 42 and undernutrition may be just around the corner.

The COVID-19 pandemic has laid bare stark health and social inequities in our country and underscores the urgent need to build healthy and equitable communities that can withstand future public health crises like the one we face today. We need to apply the lessons we are learning from the COVID-19 pandemic to generate the political will necessary to reduce obesity and health, achieve health equity, and establish a sustainable food system.

To see the full version of this commentary, visit <u>rwif.org</u>.

How WIC Has Changed During the COVID-19 Pandemic

For more than 40 years, people who participate in WIC have mostly interacted with WIC staff in person: to enroll, to receive EBT benefits for healthy foods and drinks, and for support with nutrition or breastfeeding. In March 2020, the COVID-19 pandemic made in-person visits to WIC offices unsafe. But one of the first federal relief packages enabled WIC services to be provided in new ways.

Brian Dittmeier and Georgia Machell of the National WIC Association offer insights about how the program is responding to the crisis.

WIC clinics quickly figured out ways to provide services remotely, extending the certification periods, extending batch issuance for food and beverage benefits, and handling nutrition counseling and breastfeeding support via telephone appointments. These shifts sustained vital supports while reducing or eliminating in-person contact to keep everyone safe.

And hundreds of thousands of new families are reaching out for WIC support. In Kentucky, North Carolina, South Carolina, and California, for instance, participation has grown by more than 10 percent since February 2020.

But additional policy changes are needed. For example, WIC participants are still required to show up in person to shop at a traditional retail grocer, and many are not able to use curbside pickup for self-checkout. This can put participants and others at risk for contracting the coronavirus.

Learn more about how recent changes to WIC have impacted children and families at <u>stateofchildhoodobesity.org</u>.



Congress should consider a nationwide online purchasing solution for WIC consumers.

A post-COVID America will require a modern approach to meeting the needs of pregnant women, infants, and young children.



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Virtual Services and Partnerships Address Nutrition Needs and More



6.3M

<u>WIC</u> serves about 6.3 million people, including half of all infants born in the United States The COVID-19 pandemic has reshaped the way we live our lives, including how we get our groceries. For families who participate in federal nutrition programs, such as WIC, the pandemic has also changed how they access services that help them lead a healthy life.

Because of social distancing requirements, the WIC program at St. Joseph's Health in Paterson, New Jersey, has changed its practices in several important ways. Staff continue to provide healthy foods and nutrition education to pregnant women and moms of children up to age 5. They also support nursing mothers and provide health care and social service referrals, but now the intake, counseling, and nutritional education is handled virtually via phone calls, email, Zoom, FaceTime, or WhatsApp.

The St. Joseph's WIC office also uses a digital app called <u>NowPow</u> to help participants keep track of their prescription referrals and other information. St. Joseph's also developed and expanded partnerships with community organizations such as CUMAC, which recruited local volunteers, including the First Lady of New Jersey Tammy Snyder, to prepare boxes of healthy, shelf-stable food. The Health Coalition of Passaic County and Dr. David Asiamah, director of clinical-community engagement, have also been the forces behind the success of the NowPow application.

Anny Uddin, Chief Nutritionist for the WIC program at St. Joseph's Health describes why virtual services are so critical today: "We're trying to meet moms with their needs and families with their needs when they're trying to do virtual schooling, they're trying to maintain a job, they're trying to get to the appointments that they need."

Learn more about virtual WIC programs and innovative partnerships at stateofchildhoodobesity.org.

School Meals and Snacks

Many children consume up to half their daily calories at school. In 2019, nearly 30 million children participated in the National School Lunch Program⁴³ and nearly 15 million participated in the School Breakfast Program.⁴⁴ In 2016-17 roughly half, 52 percent, of U.S. students qualified for free and reduced-price school meals.⁴⁵

The Healthy, Hunger-Free Kids Act of 2010 updated nutrition standards for school meal programs for the first time in 15 years to reflect the latest nutrition science, and increased the federal reimbursements schools receive for serving meals that meet those standards. The updated standards, 46 which took effect in 2012, require more whole grains, fruits and vegetables, fat-free and low-fat milk, and less sodium, saturated fats, and added sugars. Research from USDA found that, between the 2009-10 and 2014-15 school years, meals became much healthier and student participation in lunch was higher in schools that served healthier meals.47

In 2018, USDA rolled back some of the healthier standards, including by delaying further reductions in sodium; reintroducing flavored 1 percent milk; and allowing waivers for schools to opt out of whole-grain provisions. These changes took effect for the 2019-20 school year. In January 2020, USDA proposed⁴⁸ further rollbacks that would let schools offer fewer fruits, limit the variety of vegetables, and offer more processed foods that are high in calories, fat, and sodium. A health impact assessment from Healthy Eating Research finds that the proposal would "adversely affect students' health and

academic performance, and that students from lowincome families attending schools in Black and rural neighborhoods are most likely to be impacted by the proposed changes."⁴⁹

COVID-19 Response

COVID-19 relief measures passed by Congress in March 2020 enabled USDA to issue nationwide school meal waivers, eliminating paperwork for states and helping more schools quickly adopt and utilize flexibilities. For instance, in the spring and summer of 2020, these waivers allowed schools and community distribution sites to serve meals outside of a school setting, which would normally be prohibited. But even with these flexibilities in place, a survey from the School Nutrition Association found that 860 districts nationwide reported combined losses of more than \$626 million during the 2019-20 school year because of the pandemic.⁵⁰

USDA initially declined to extend the waivers into the start of the 2020-21 school year. However, following growing demands from school districts, and bipartisan inquiries from congressional leadership,⁵¹ USDA extended the waivers through the 2020-21 school year.⁵² The goal is that these waivers will give schools the flexibility needed to serve meals to students even if they are not attending in person. Every state, as well as American Samoa, Guam, Puerto Rico, the Virgin Islands, and Washington, D.C., is using some of the waivers.⁵³

The COVID-19 relief measures also enabled USDA to approve state plans to provide emergency assistance—through SNAP—to households with children who would otherwise receive free or reduced-price meals at school. The relief legislation has also provided \$8.8 million in additional funding to cover food purchases and demonstration projects to increase flexibility for schools.

Recommendations -

- USDA should support states in using existing waivers to serve free meals to all students through the end of FY 2021, as recently authorized by Congress.
- USDA should reconsider the rule it proposed in January 2020 that would weaken school nutrition standards and adversely affect student health and academic performance.
- Maintain nutrition standards for school meals that were in effect prior to USDA's final rule from December 2018 (for whole grains, sodium, milk) and current nutrition standards for school snacks.
- Continue to implement and expand the Community Eligibility Provision that allows schools in high-poverty areas to serve free meals to all students, regardless of family income.
- States should implement nutrition standards that strengthen the federal standards.
- USDA should expand guidance and technical assistance to support schools in meeting updated nutrition standards and managing new school kitchen equipment.

Healthier school meals mean healthier kids

Research links healthier nutrition standards with lower risk for obesity

Meals served in school cafeterias across America are a lifeline for many families, particularly those furthest from economic opportunity. Many of the students who are the principal participants in school meals programs are also at highest risk for obesity, food insecurity, and poor health. ^{54,55} That's why it's so critical that schoolday meals are nutritious.

The latest research about the school meals nutrition standards that were rolled out during the 2012-13 school year shows the impact nutritious school meals can have on kids' health.

The study⁵⁶ found that by 2018, the prevalence of obesity among children in families with low incomes was 47 percent lower than would have been expected had the healthier nutrition standards not been put into place. The authors estimate that this translates to more than 500,000 fewer cases of obesity.



47% lower risk of obesity by 2018

In recent years, the USDA has proposed weakening school meal standards by reintroducing low-fat flavored milk and loosening whole grains requirements.

Experts contend that nutritious school meals—whether served in a cafeteria or distributed to families during school closures due to COVID-19—are more critical than ever for promoting health and preventing hunger.⁵⁷

Find the full study at healthaffairs.org.



Nationwide, School Districts Feed Kids and Families

Before the COVID-19 pandemic hit, 51 percent of all students nationwide qualified for free or reduced-price school meals. That's millions of students from families with low income who rely on school meals as a critical source of daily nutrition.

What happens when that source of food is jeopardized because schools are forced to close?

Enter school nutrition professionals who showed up strong as first responders when COVID-19 hit. They are advocates for healthy kids and families, rebels with a cause of ensuring no child goes hungry, incredibly creative problem solvers, and innovative partners.

As a registered dietitian nutritionist in Burke County, Georgia, Donna Martin's mission is to provide kids in her rural school district with nutritious meals and teach them the importance of eating healthy foods.

Martin included flyers with the packed meals that informed families when the next bus full of food would come. She also included recipes to teach families wonderful ways to cook healthy meals.

Tarrah DeClemente, the manager of health promotion for Chicago Public Schools (CPS), saw great need and demand not only to feed students, but also their families who struggled with hunger during the shelter in place mandate.

Tarrah is thankful for USDA's relaxed rules that allowed her team to feed families in need more easily during the pandemic. Not having to take identification or turn families away because they're at the wrong school or distribution site helped CPS do right by the city of Chicago at a time when residents need them.

Read more profiles of school food service directors at stateofchildhoodobesity.org.



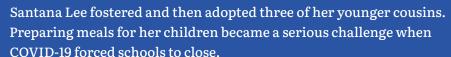
We're here to feed children, but also if everything else is shut down, why not just be here to feed people?

Tarrah DeClemente

Manager of Health Promotion, Chicago Public Schools



School Meals Are a Lifeline for America's Kids and Families



"One of the biggest reasons why they were afraid to close school was because the majority of the kids mostly eat at school," said Lee, who lives in Milwaukee, Wisconsin. "So if they're not going to have school, how are the kids going to eat?"

In response to the pandemic, the Milwaukee Public School District in Milwaukee, Wisconsin, developed "Stop, Grab & Go" locations where families can pick up school meals. Breakfast and lunch are free for all students and children under the age of 18.

There are stories like this from just about every city and town across America. That's because the foods that schools provide through their meals programs really matter to kids and families.

Research shows school meals have become significantly <u>healthier</u> thanks to updated nutrition standards that were implemented nearly a decade ago. And healthier school meals are linked with <u>lower risk</u> for obesity among children growing up in families with low incomes.

School meals also prevent children from experiencing hunger and introduce kids to a variety of fruits, vegetables, and dishes that they may otherwise not have the opportunity to try. While schools in many states remain closed, food service staff are finding innovative ways to ensure children and families in need have enough food.

Read more about how school districts have responded to the COVID-19 crisis at stateofchildhoodobesity.org.



Child and Adult Care Food Program, Head Start, and Early Head Start

The Child and Adult Care Food Program (CACFP) provides federal funding to states to reimburse providers for the cost of providing nutritious meals and snacks to children and adults in their care. More than 4.3 million children and 130,000 adults participate each year, ^{58,52} and providers (e.g., early care and education providers and out-of-school time providers) must serve meals that meet minimum nutrition standards to receive reimbursement. Many of the waivers and flexibilities USDA has issued in response to COVID-19 apply to CACFP as well. ⁵⁹

Updated nutrition standards for CACFP took effect in 2017, the first major changes in nearly 50 years. These standards require more whole grains, a wider variety of fruits and vegetables, fewer added sugars, and less saturated fat. A health impact assessment predicted that the changes should increase children's intake of vegetables and whole grains, reduce their consumption of grain-based desserts, and improve their overall health.⁶⁰ Research has shown that participating in CACFP moderately increases consumption of milk and vegetables among children, and may reduce the prevalence of overweight.⁶¹

Head Start is a comprehensive early childhood education program that helps prepare children for school by providing education, health, and social services. It reaches more than 1 million children under the age of 5 in families furthest from economic opportunity every year. Early Head Start serves children under age 3 and pregnant women. Head Start and Early Head Start programs participate in either CACFP or the federal school meals programs.

Standards that went into effect in 2016 require Head Start and Early Head Start programs to provide healthy snacks, culturally appropriate nutrition services, easily accessible drinking water throughout the day, and the integration of physical activity into the daily curriculum. Research shows that children participating in Head Start are more likely to have healthy eating patterns than similar children who do not participate. ^{62,63}





COVID-19 Response

The Coronavirus Aid, Relief, and Economic Security (CARES) Act, passed in March 2020, provides \$750 million in grants to all Head Start programs to help them respond to coronavirus-related needs of children and families, including making up for lost learning time. The Office of Head Start has also provided participating programs with numerous flexibilities during the pandemic.⁶⁴ For instance, they are not holding programs accountable for assessments that are not possible to achieve with social distancing guidelines and various reporting requirements have been waived to reduce administrative burden.

Recent laws have extended the Community Eligibility Provision in CACFP, and extended P-EBT benefits to cover children in childcare settings, not just in schools. Both changes should help ensure more children have access to healthy foods in child-care settings through CACFP.

Recommendations

- CACFP should be expanded to allow the option of a third meal service.
- CACFP should continue streamlining program operations and paperwork to allow for easier enrollment for providers to serve as sponsors of the program.
- CACFP should continue to fund nutrition and wellness education and program efforts.
- Head Start and Early Head Start should be adequately resourced, so that the programs are stabilized and can hire, retain, and support high quality staff.
- Head Start and Early Head Start programs should expand access for the nation's most vulnerable families, especially for infants and toddlers.

Dietary Guidelines

Every five years, USDA and Health and Human Services (HHS) jointly publish the Dietary Guidelines for Americans, a series of recommendations reflecting the latest nutrition science. The current guidelines emphasize combining nutrient-dense foods in the same meal and limiting saturated fats, added sugars, and sodium.

CACFP, the National School Lunch and School Breakfast Programs, and WIC are required to have nutrition standards that meet the Dietary Guidelines.

The next iteration of the Dietary Guidelines, which will cover 2020-2025, will for the first time include standards for pregnant women, infants, and toddlers. In July 2020, the Dietary Guidelines Advisory Committee recommended several changes to the guidelines to reduce consumption of added sugars: targeting a maximum of 6 percent of daily calories from added sugars, and endorsing no added sugars at all before age 2.65

Recommendations

- USDA and HHS should work with the Dietary Guidelines Advisory Committee to finalize guidelines in a timely manner and in a way that will help reduce consumption of added sugars.
- USDA and HHS should work with the Dietary Guidelines Advisory Committee to maintain the scientific integrity of the Dietary Guidelines.



Preemption

Preemption happens when a higher level of government discourages, limits, or even eliminates the power of a lower level of government to take action on a specific issue. Federal preemption laws can restrict state and local governments. State preemption laws—as long as they don't conflict with federal laws—can restrict the power of city and county officials in that state.

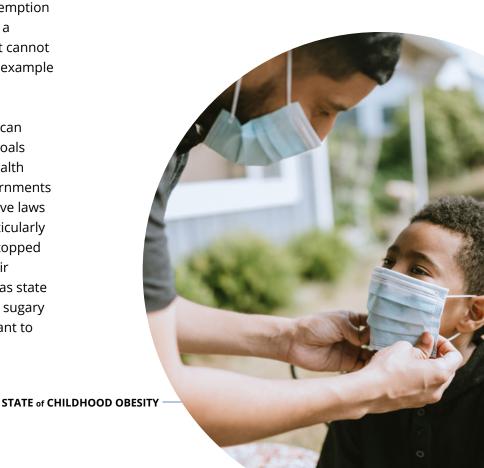
There are two main types of preemption: floor preemption and ceiling preemption. Ceiling preemption happens when a higher level of government prohibits lower levels of government from requiring anything more than or different from what the higher-level law requires. For example, state governments have passed laws prohibiting local governments from passing higher minimum wage laws, or sugary drink taxes. ⁶⁶ Floor preemption is when a higher level of government passes a requirement that lower levels of government cannot go below. The national minimum wage is an example of floor preemption. ⁶⁷

Depending on how it is applied, preemption can either advance or undermine public health goals and either help or hurt efforts to improve health equity.⁶⁸ This is because local and state governments are often at the forefront of passing innovative laws to improve the health of their residents, particularly marginalized communities. When they are stopped from passing laws to do so, the health of their residents suffers.⁶⁹ For example, California has state legislation preventing localities from passing sugary drink taxes, which some jurisdictions may want to

consider in order to reduce sugar consumption and raise revenues during the ongoing recession caused by COVID-19.⁷⁰

Recommendations -

- State policymakers should oppose legislation limiting the ability of cities, counties, and towns to advance health equity through regulation, taxation, or legislation related to children's health and healthy communities.
- State policymakers should support the repeal of existing state laws limiting the ability of localities to advance health equity through regulation, taxation, or legislation related to children's health and healthy communities.



Physical Activity

Physical activity provides important health benefits for children, including reducing the risk of obesity and building strong bones and muscles. The Physical activity and fitness are also linked with improved academic performance, such as better grades and scores on academic tests, and brain functions, such as attention and memory. The Mowever, the most recent federal survey found that approximately 24 percent of youth ages 6 to 17 meet the guideline recommended by experts for 60 minutes of physical activity every day. The most recent federal survey found that approximately 24 percent of youth ages 6 to 17 meet the guideline recommended by experts for 60 minutes of physical activity every day.

COVID-19 Context

In an effort to prevent the spread of COVID-19, many public parks were closed or facility use was limited. And months of school closures have prevented many students from engaging in the regular activity they would get during recess and physical education class. But being active may help reduce one's risk for COVID-19 or reduce the strength of symptoms if one does become sick.⁷⁵

Many existing policy options for making physical activity easier and safer still apply, even during the pandemic. For instance, research has shown that proximity to parks is associated with higher levels of park use, and with higher levels of physical activity, especially among young people.⁷⁶ Encouraging outdoor park use in ways that are safe and responsive to conditions within a specific community may be an effective way to help children and caregivers continue to be active during the pandemic.⁷⁷

With schools in many states at least beginning the year in remote learning, school-based opportunities for physical activity will be limited in the near term. However, schools will likely try to include movement breaks during any virtual lessons, and even short physical activity breaks can have benefits.⁷⁸

Safe Routes to Schools (SRTS) is a policy that promotes walking and wheeling to and from school by providing communities with resources to build sidewalks and bike paths, add crosswalks, and improve lighting and signage to ensure safe conditions. Although the program is focused on getting to school, the ultimate goal of building walking and biking infrastructure should support activity throughout a given community. The Safe Routes Partnership has published resources to assist communities in implementing their Safe Routes to School strategies in ways that are safe for their communities in the beginning of the 2020-21 school year.⁷⁹



Recommendations

- The federal government should provide guidance and funding to ensure that schools can continue to help students be active, even while learning remotely.
- While the pandemic continues, state and local leaders should work together to support access to and use of parks in ways that are safe given local conditions.
- As states and school districts consider their school reopening plans, they should try to incorporate opportunities for physical activity for students in ways that are safe and healthy given local conditions.



COVID-19 school closures may lead to increase in childhood obesity

Study predicts 1.2 million new cases of childhood obesity nationwide if schools remain closed through 2020

Although it's recommended that kids get 60 minutes of physical activity every day, 80 more than 75 percent of American children do not meet those guidelines. 81 That's why physical education and physical activity during the school day is so important—particularly for young people who have obesity or lack access to physical activity opportunities at home. And it's one of the reasons school closures due to the COVID-19 pandemic raise such concerns for keeping children healthy.



75%

of U.S. kids do not meet the recommendation for 60 minutes of daily physical activity

According to a study⁸² that used modelling to estimate the impact of COVID-19 on childhood obesity, school closures through the end of 2020 could result in the obesity rate among kindergartners increasing by 2.4 percent. In fact, the study predicts that even a two-month school closure could lead to a 0.6 percent increase. And researchers say, if the impact is universal among all U.S. children ages 5-17, there will be approximately 1.27 million new cases of childhood obesity by March 2021. The study predicts larger increases among Black and Hispanic children, who already have disproportionately high rates of obesity.



1.2M

School closures could lead to 1.2 million new cases of childhood obesity

The predictions are sobering, particularly as virtual schooling begins to feel like the new normal for many families. Study authors underscore the need for policies that can mitigate the impact of COVID-19, including innovative strategies to promote safe physical activity at home or outside that minimizes social gathering. The CDC recommends regular physical activity to help promote children's health and mental well-being and protect against complications of COVID-19.83

Find the full study in the Journal of Sport and Health Science.

Descriptions of Obesity Rate Datasets

The National Survey of Children's Health

The National Survey of Children's Health (NSCH)⁸⁴ collects health information for children ages 0 to 17 in the United States. Parents or caregivers are asked to report their child's height and weight, which is used to calculate body mass index (BMI) for children ages 10 to 17 years. BMI-for-age percentiles are then used to identify children who have obesity (i.e., BMI at or above the 95th percentile).

An advantage of the NSCH is that it supports both national and state-by-state estimates, so obesity rates between states can be compared. A limitation is that the survey collects parents' reports of their child's height and weight, not direct measurement; parents may not always report accurate numbers, which impacts the assessment of obesity.⁸⁵ In addition, parent-reported data are more reliable for children ages 10 to 17 than for younger children, which is why the survey does not provide BMI calculations for children ages 0 to 9.

In recent years, the NSCH was significantly redesigned, and the 2016 survey was the first to reflect those changes. Due to changes in the survey's mode of data collection and sampling frame, it is not possible to directly compare results from the 2016 NSCH or later years to earlier iterations. Since 2016, the NSCH has been conducted as an annual survey and will continue to collect new data each year going forward, so trends over time can be evaluated, with 2016 data serving as a new baseline. In order to increase sample

size and enable more reliable estimates, after a large initial sample size in 2016, data are pooled across two collection years, in this case 2018 and 2019.

The Health Resources and Services Administration's Maternal and Child Health Bureau (HRSA MCHB) funds and directs the NSCH and develops survey content in collaboration with a national technical expert panel and the U.S. Census Bureau, 86 which then conducts the survey on behalf of HRSA MCHB.

WIC Participant and Program Characteristics

About half of all infants born in the United States are served by the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).⁸⁷ WIC provides qualifying women and children with healthy food, health care referrals, and nutrition education. Children are eligible for WIC up to their fifth birthday. WIC is administered by USDA.

The WIC Participant and Program Characteristics (WICPPC) survey gathers data from all states on all participants.⁸⁸ A strength of these data is that they are a census of all WIC participants and not just a sample of them. The data include height and weight measurements for children, which are collected by medical staff during certification visits, and then are used to calculate BMI and obesity rates among children ages 2 to 4. The data are gathered in April of even-numbered years, and analyzed by the CDC.

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Youth Risk Behavior Surveillance System

The Youth Risk Behavior Surveillance System (YRBSS) collects a wide range of health data on students in grades 9 through 12.89 The survey is conducted every two years by the CDC nationally, and by state departments of health and education. It is usually conducted during the spring. Results are available for most states, though Minnesota, Oregon, Washington, and Wyoming do not participate and sometimes other states are not able to collect enough responses to adequately report results.90

The survey asks students to self-report their height and weight and uses those data to calculate BMI rates and the percentage of students who have obesity. A limit of self-reported data is that people tend to over-report their height and under-report their weight, meaning the obesity rates may be underestimates. Because of sampling methodology, it is not possible to compare national rates with specific state-level rates.

National Health and Nutrition Examination Survey

The National Health and Nutrition Examination Survey (NHANES) is conducted every two years by the National Center for Health Statistics within the Centers for Disease Control and Prevention. The survey has been conducted periodically since the 1970s and produces a wide range of health data for both children and adults.⁹¹

Children and youth ages 2 to 19 are included in the survey. The survey includes direct measures of participants' height and weight, making it the most accurate source of national obesity trends. However, it also has a relatively small sample size, which means it is important to look at data trends over time rather than on individual reporting periods. The most recent NHANES includes obesity rate data from 2017-18.

Behavioral Risk Factor Surveillance System

The Behavioral Risk Factor Surveillance System (BRFSS) tracks adult obesity rates at the state level each year. The BRFSS is a health survey conducted via telephone, collecting health data from adults ages 18 and older from all 50 states, the District of Columbia, and participating U.S. territories. The survey is administered by the states and the Division of Population Health in the National Center for Chronic Disease Prevention and Health Promotion.

The survey includes questions asking respondents for their height and weight; these data are not directly measured.⁹³ The self-reported height and weight data are then used to calculate obesity rates for each state, territory, and Washington, D.C. A limit of self-reported data is that people tend to over-report their height and under-report their weight, meaning the obesity rates may be underestimates.

State-by-State Obesity Rates

	Youth Ages 10-17 (NSCH, 2018-19)	Students in Grades 9-12 (YRBSS, 2019)	WIC Participants Ages 2-4 (WICPCC, 2016)	Adults Ages 20+ (BRFSS, 2019)
National	15.5	15.5	13.9	-
Alabama	17.3	17.2	16.3	36.1
Alaska	15.4	14.8	19.8	30.5
Arizona	12.1	13.3	12.1	31.4
Arkansas	20.2	22.1	13.3	37.4
California	17.1	15.9	15.5	26.2
Colorado	10.9	10.3	8.1	23.8
Connecticut	13.3	14.4	14.4	29.1
Delaware	16.0	_	16.2	34.4
Washington, D.C.	12.5	17.1	11.4	23.8
Florida	17.8	14.0	12.7	27.0
Georgia	14.9	18.3	12.5	33.1
Hawaii	11.1	16.4	9.6	25.0
Idaho	12.1	12.1	11.3	29.5
Illinois	14.9	15.2	14.8	31.6
Indiana	16.7	_	13.0	35.3
lowa	15.3	17.0	15.2	33.9
Kansas	10.6	15.1	12.5	35.2
Kentucky	23.8	18.4	15.9	36.5
Louisiana	20.1	16.5	13.2	35.9
Maine	13.2	14.9	13.9	31.7
Maryland	17.6	12.8	15.6	32.3
Massachusetts	11.8	14.2	16.4	25.2
Michigan	17.3	15.3	13.3	36.0
Minnesota	9.9	_	12.2	30.1
Mississippi	22.3	23.4	14.4	40.8
Missouri	16.3	18.4	12.3	34.8

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	Youth Ages 10-17 (NSCH, 2018-19)	Students in Grades 9-12 (YRBSS, 2019)	WIC Participants Ages 2-4 (WICPCC, 2016)	Adults Ages 20+ (BRFSS, 2019)
Montana	10.6	11.5	12.1	28.3
Nebraska	11.5	13.3	15.2	34.1
Nevada	12.9	12.3	11.6	30.6
New Hampshire	13.7	12.7	15.8	31.8
New Jersey	14.0	11.9	15.0	_
New Mexico	15.2	15.2	12.1	31.7
New York	10.7	13.4	13.7	27.1
North Carolina	16.1	15.4	14.2	34.0
North Dakota	13.1	14.0	14.3	34.8
Ohio	15.7	16.8	12.4	34.8
Oklahoma	18.8	17.6	13.1	36.8
Oregon	12.9	_	14.7	29.0
Pennsylvania	14.5	15.4	12.2	33.2
Rhode Island	17.5	14.3	15.4	30.0
South Carolina	22.1	16.6	11.4	35.4
South Dakota	11.7	14.1	17.1	33.0
Tennessee	20.4	20.9	14.6	36.5
Texas	17.3	16.9	14.6	34.0
Utah	9.6	9.8	7.9	29.2
Vermont	14.0	13.1	14.5	26.6
Virginia	13.0	14.8	15.3	31.9
Washington	11.9	-	13.3	28.3
West Virginia	19.6	22.9	16.6	39.7
Wisconsin	14.2	14.5	14.3	34.2
Wyoming	13.7	-	9.1	29.7

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