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SPECIAL REPORT

Obesity Rates Decline Among Young WIC Participants

November 2019

STATE of CHILDHOOD OBESITY

Helping All Children Grow Up Healthy

Robert Wood Johnson Foundation

About the Robert Wood Johnson Foundation

For more than 45 years, the Robert Wood Johnson Foundation has worked to improve health and health care. We are working alongside others to build a national Culture of Health that provides everyone in America a fair and just opportunity for health and well-being. For more information, visit www.rwjf.org. Follow the Foundation on Twitter at www.rwjf.org/twitter or on Facebook at www.rwjf.org/facebook.

Find this report and interactive data features with the latest childhood obesity rates and trends, as well as policies and recommendations for helping all children grow up healthy, at stateofchildhoodobesity.org.

Overview

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides healthy foods and nutrition education to pregnant women, mothers, and children under age 5. WIC is one of the nation's largest federal nutrition programs, serving approximately 6.3 million low-income people and families in 2018, including about half of all infants born in the United States.[1]

New data from the Centers for Disease Control and Prevention (CDC) show that obesity rates among 2- to 4-year-olds who participate in WIC have significantly declined in 41 states and territories from 2010 to 2016.[2] These data provide the state-by-state breakdown behind the significant decline in the national rate of obesity among preschoolers enrolled in WIC, which dropped from 15.9 percent to 13.9 percent during that time period.[3] The CDC does not definitively determine the reasons for the decline in obesity, but suggests local, state, and national initiatives, as well as recent updates to the WIC food package, may have played a role.[4]

Numerous health benefits are linked with WIC participation. The program helps moms have healthy pregnancies, helps kids and moms have healthier diets, improves birth outcomes, helps children do better in school, and increases access to regular health care.[18]

Studies have linked the updates to the WIC food package, which make more nutritious foods and beverages available to participants, to healthier diets among both caregivers and kids;[5,6] increased rates of breastfeeding among moms enrolled in WIC;[7,8] and lower obesity rates.[9,10] In addition, food retailers are offering a greater variety and availability of fruits, vegetables, whole grains, and other healthy options.[11,12,13] Food retailers also report an increase in the demand for and sales of healthy foods.[14,15,16]

Advocates for WIC believe the program is a critical investment in children's and moms' well-being. Many of the children enrolled in WIC are at a higher risk for obesity or food insecurity, which means they lack consistent access to the food they need for an active, healthy life.[17] Food insecurity is one way to assess hunger and is linked with poor health among infants and children, including low birth weight, birth defects, asthma, and increased hospitalizations. Yet numerous health benefits are linked with WIC participation. The program helps moms have healthy pregnancies, helps kids and moms have healthier diets, improves birth outcomes, helps children do better in school, and increases access to regular health care.[18]

This report includes the latest state-by-state obesity rates among young children enrolled in WIC, as well as national and state trends since 2010. It provides details about the impact and reach of the WIC program and offers key recommendations for Congress, the U.S. Department of Agriculture (USDA) and the Centers for Medicare and Medicaid Services to extend the positive impact of WIC.

DEFINING OBESITY AMONG CHILDREN AND TEENS[19]

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 Centers for Disease Control and Prevention (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.

Why is BMI age- and sex-specific for children and teens? 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.

FEATURED STORY

Farmers' Market Helps Promote Health in Columbus, Ohio

In the peak of summer in Ohio's capital city of Columbus, many locals spend their mornings browsing aisle after aisle of fresh fruit and vegetable stands staffed by local farmers. They're not only trying and buying a variety of healthy foods, they're also learning about everything from breastfeeding to the importance of drinking water to car seat safety at surrounding booths. That's the scene at the local farmers' market, which is hosted by Columbus Public Health and Franklin County WIC, and held right outside on the main campus of Columbus Public Health.

On a single morning, you might find as many as 2,000 WIC participants at the market. Columbus' Franklin County has the largest WIC program in the state, with over 30,000 participants, including 14 clinics: nine with Columbus Public Health and five with Nationwide Children's Hospital. With 1 in 4 of Columbus' kids entering kindergarten overweight or obese, the WIC program is particularly important.

WIC participants are welcomed at the market with a $20 voucher (or $60 per family) that they can spend on the abundance of fresh fruits and vegetables available at this and other farmers' markets across the county. People who use the Ohio Direction Card (an Electronic Benefit Transfer card issued to Ohio families approved for food assistance) also are eligible to receive $20 of matching funds for $20 dollars spent at the market.

What's more, they can chat with the farmers who grow the produce to learn more about where the foods come from and how to use them in delicious, nutritious meals. Thanks to other Columbus Public Health programs and partners, WIC participants can also find booths across the market where they can get yearly immunizations, or new moms and moms-to-be can get information about car seat safety and breastfeeding.

There's a little something here for everyone—the market is a place where the community can come together a few times a year to enjoy fresh, local, healthy food and get information that can help improve their health. Ohio's WIC Program is working to extend these and other benefits to more moms and kids across the state.

> Our WIC participants have a safe, healthy environment to come get fresh fruits and vegetables, learn about breastfeeding and nutrition education.

Dawn Sweet
RD, LD
WIC Director
Franklin County WIC

FEATURED STORY

Boston Medical Center Welcomes WIC Participants

Boston Medical Center brings services for families participating in the WIC program all under—and on top of—one roof.

Sixty percent of the produce grown in the hospital's rooftop farm goes straight to the food pantry, which is located next to the WIC services office so participating families have easy access. The hospital also screens patients for food insecurity and refers those who are at-risk to the food pantry. Each referral details special dietary needs, such as diabetes, hypertension, or kidney disease, so Preventive Food Pantry Manager Latchman Hiralall and his staff can select items tailored for their customers' diets.

Hiralall understands the stigma that exists with accessing a food pantry and takes great care to ensure the pantry is welcoming for all visitors. He bags food privately with each family, so they can talk with him about any dietary restrictions. These outstanding services have resulted in an 18-year operating history and a customer satisfaction rate of 90 percent!

At the hospital's Teaching Kitchen, expectant families participate in free cooking classes taught by registered dieticians, such as "Healthy Cooking for Mom and Baby." Using produce from the food pantry and rooftop farm, families learn hands-on how to prepare affordable, healthy meals. Moms learn which foods and how much to eat during each trimester, including the best sources of folate, calcium, and other important nutrients. Moms also receive tips for preventing or treating gestational diabetes, eating to manage symptoms of morning sickness, and eating food that is safe for a growing baby. The instructor also reviews what to feed babies after they are born to support their growth and development.

> We routinely screen our patients for food insecurity, and then refer those who screen positively to the food pantry, located right in the hospital for easy access. We feed between 7,000 and 8,000 people per month, many of them WIC participants.

Latchman Hiralall
Preventive Food Pantry Manager
Boston Medical Center

Childhood Obesity Rates & Trends

The WIC Participant and Program Characteristics Survey

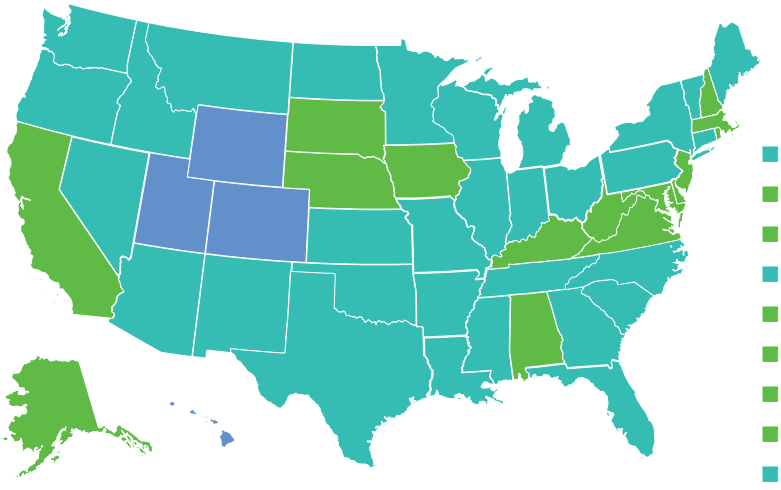
The WIC Participant and Program Characteristics (WICPPC) survey gathers data from all states on all participants.[20] The data include height and weight measurements for children, which are collected by medical staff during certification visits, and then are used to calculate BMI and obesity rates among children ages 2 to 4. A strength of these data is that they are a census of all WIC participants and not just a sample of them.

> WIC should not be public health's best-kept secret, and I think that right now it is. We absolutely have to do more to advocate for WIC and support it. Every politician should be supporting it. Every business owner should be supporting it. And most importantly, every woman and every child who needs WIC should have easier access to its nutrition, breastfeeding, health care, and educational services. It's, quite frankly, a basic human right for moms and babies to have these supports to help them be healthy.

Lori Fresina

Vice President and Executive Director
Voices for Healthy Kids,
American Heart Association

The data are gathered in April of even-numbered years, and analyzed by the CDC. The latest data were published in November 2019 by the CDC in its *Morbidity and Mortality Weekly Report* (MMWR).



OBESITY RATE: WIC PARTICIPANTS AGES 2-4, 2016

- 0–9.9%
- 10–14.9%
- 15–19.9%

Key Findings

- Between 2010 and 2016, the obesity rate among 2- to 4-year-olds enrolled in WIC significantly declined in 41 states and territories.
- Obesity rates ranged from a low of 7.9 percent in Utah to a high of 19.8 percent in Alaska in 2016.
- The obesity rate increased statistically significantly in three states between 2010 and 2016: Alabama, North Carolina and West Virginia.
- At the national level, the obesity rate among 2- to 4-year-olds enrolled in WIC declined significantly between 2010 and 2016, from 15.9 percent to 13.9 percent.[21] This decline was statistically significant among all racial and ethnic groups studied: white, black, Hispanic, American Indian/Alaska Native, and Asian/Pacific Islander.

OBESITY RATE AMONG CHILDREN AGES 2 TO 4, BY RACE AND ETHNICITY, 2016

WIC Participant and Program Characteristics

National Rate	13.9%
American Indian/Alaska Native	18.5%
Asian/Pacific Islander	10.0%
Black	11.4%
Hispanic	16.4%
White	12.1%

Obesity Rates Among Children Ages 2-4 Enrolled in WIC

Overall	2016	2014	2012	2010
National	13.9	14.5	15.2	15.9
Age				
2	12.3	12.5	13.2	14.1
3	14.5	15.4	15.9	16.6
4	15.8	16.8	17.2	17.9
Sex				
Girls	13.4	13.9	14.4	15.0
Boys	14.4	15.2	15.9	16.8
Race/Ethnicity				
American Indian/ Alaska Native	18.5	18.0	18.9	20.9
Asian/Pacific Islander	10.0	11.1	11.7	12.5
Black	11.4	11.9	12.1	12.7
Hispanic	16.4	17.3	18.3	19.3
White	12.1	12.2	12.4	12.8

By state	2016	2014	2012	2010
Alabama†	16.3	16.3	15.6	15.8
Alaska*	19.8	19.1	20.6	21.2
Arizona*	12.1	13.3	14.9	15.0
Arkansas*	13.3	14.4	14.6	14.8
California*	15.5	16.6	17.6	18.4
Colorado*	8.1	8.5	8.9	9.6
Connecticut*	14.4	15.3	16.6	17.1
Delaware	16.2	17.2	16.9	18.4
District of Columbia*	11.4	13.0	14.4	14.4
Florida*	12.7	12.7	13.7	14.6
Georgia*	12.5	13.0	13.4	14.4
Hawaii	9.6	10.3	10.2	9.7
Idaho*	11.3	11.6	11.8	11.9
Illinois*	14.8	15.2	15.9	15.7
Indiana*	13.0	14.3	14.7	15.1
Iowa	15.2	14.7	15.1	15.6
Kansas*	12.5	12.8	13.1	13.7
Kentucky*	15.9	13.3	13.5	18.2
Louisiana*	13.2	13.2	13.8	13.8
Maine*	13.9	15.1	14.9	15.2
Maryland*	15.6	16.5	16.2	17.1
Massachusetts*	16.4	16.6	16.9	17.1
Michigan*	13.3	13.4	13.9	14.4
Minnesota*	12.2	12.3	12.2	12.7
Mississippi*	14.4	14.5	14.8	14.9
Missouri*	12.3	13.0	13.5	14.4
Montana	12.1	12.5	11.3	13.4
Nebraska	15.2	16.9	17.2	14.4
Nevada*	11.6	12.0	12.9	15.0
New Hampshire	15.8	15.1	14.8	15.0
New Jersey*	15.0	15.3	16.8	18.9
New Mexico*	12.1	12.5	13.5	15.7
New York*	13.7	14.3	15.1	16.1
North Carolina†	14.2	15.0	13.5	13.9
North Dakota	14.3	14.4	14.0	14.5
Ohio	12.4	13.1	13.0	12.6
Oklahoma*	13.1	13.8	15.0	15.4
Oregon*	14.7	15.0	15.9	15.8
Pennsylvania*	12.2	12.9	13.1	12.8
Rhode Island*	15.4	16.3	16.7	16.4
South Carolina*	11.4	12.0	12.6	13.3
South Dakota	17.1	17.1	14.8	17.3
Tennessee*	14.6	14.9	15.3	16.0
Texas*	14.6	14.9	15.9	16.9
Utah*	7.9	8.2	8.7	12.5
Vermont	14.5	14.1	13.7	13.8
Virginia*	15.3	20.0	20.1	21.5
Washington*	13.3	13.6	14.3	14.9
West Virginia†	16.6	16.4	14.1	14.4
Wisconsin*	14.3	14.7	15.2	15.2
Wyoming*	9.1	9.9	10.6	11.8

More information: www.stateofchildhoodobesity.org/wic/

* The obesity rate among children ages 2 to 4 participating in WIC declined statistically significantly between 2010 and 2016. In addition to the states, declines were also significant in the Northern Mariana Island, Guam, and Puerto Rico.

† The obesity rate increased statistically significantly between 2010 and 2016.

Unless otherwise indicated, the obesity rate was stable between 2010 and 2016. It was also stable in American Samoa and the U.S. Virgin Islands.

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

After the WIC food package was made healthier, participants bought foods with significantly fewer calories, and less sodium, fat, and sugar.[24]

Helping children maintain a healthy weight from an early age is essential to preventing a wide range of health problems and saving billions in health care costs. WIC and other federal nutrition assistance programs that millions of families rely on play a critical role in keeping kids healthy and helping to address childhood obesity.

About WIC

The WIC program currently serves approximately 6.3 million people, including about half of all infants born in the United States. Children are eligible for WIC up to their fifth birthday. WIC helps low-income 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.

WIC was funded at $6.17 billion in FY18, with $60 million designated for breastfeeding initiatives, and $18.5 million directed to the WIC Farmers' Market Nutrition Program that provides fresh, locally grown produce to participants.[22] The USDA administers the funds for WIC and state agencies execute the program.

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. Research shows that, following the changes, WIC participants are buying and eating more fruits, vegetables, whole grains, and low-fat dairy products.[23]

Recommendations

- 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.
- 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 should maintain the scientific integrity of the WIC food package process as USDA undertakes the Congressionally mandated 10-year cycle revision.
- The Centers for Medicare and Medicaid Services should continue to support and reimburse WIC for its role in lead screening.

$1→$2.48

Investing $1 in WIC saves $2.48 in medical, educational, and productivity costs.[25]

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