Annual Obesity Report 2021

State of Nevada
Division of Public and Behavioral Health
Department of Health and Human Services

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Background

The Body Mass Index (BMI) determining individual obesity status is a standard measurement for adults and children in America. An adult is considered obese if their BMI is ≥ 30, and child obesity is calculated and determined by the Centers for Disease Control and Prevention (CDC) Growth Chart Percentile Range.[i] Obesity affects 42 percent of adults and 19 percent of children, putting people at risk for chronic diseases such as diabetes, heart disease, and some cancers. Over a quarter of all Americans 17 to 24 years are too heavy to join the military. Health care spending in the US increased 4.6 percent to reach $3.8 trillion in 2019. In 2019, there was an increase in national health spending for hospital care, physician and clinical services, and retail purchases of prescription drugs—which together accounted for 61 percent. Reduced productivity, unemployment, and direct health care costs are among the main economic repercussions of obesity.[ii]

Adult Obesity

Prevalence of adult obesity in America increases significantly each year, currently at 42.4 percent. The CDC's Adult Obesity Prevalence Maps demonstrate 12 states now have adult obesity prevalence at or above 35 percent (Alabama, Arkansas, Indiana, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Oklahoma, South Carolina, Tennessee, and West Virginia), up from nine states in 2018.[iii] As well as increased risk for chronic disease (i.e., cardiovascular disease [CVD], diabetes mellitus, certain types of cancer; etc.), obese adults are at risk for other health conditions, including psychosocial issues, sleep apnea and breathing problems, and body pain. Studies show obese individuals are subject to lower quality life and are negatively impacted by criticisms from others, causing anxiety and depression.[iv, v]

Long-standing systemic health and social inequities, known as Social Determinants of Health (SDOH), have put many people from racial and ethnic minority groups at increased risk of severe illness from COVID-19, for which obesity is among the greatest risks.[vi] Nationally, non-Hispanic Black adults had the highest prevalence of self-reported obesity (39.8 percent), followed by Hispanic adults (33.8 percent), and non-Hispanic White adults (29.9 percent).[iii] Obesity worsens outcomes from COVID-19 infection and may triple the risk of hospitalization.[vii]

Child Obesity

The prevalence of obesity among US youth aged two to 19 was 18.5 percent in 2015-2016.[x] Obesity can affect psychological, cardiovascular, and overall physical health in children and adolescents.[viii] Children with obesity are more likely to have CVD, increased risk of impaired glucose tolerance and type 2 diabetes, breathing problems such as asthma and sleep apnea, joint and musculoskeletal problems, fatty liver disease, gallstones, gastro-esophageal reflux, and heartburn. Social problems can occur such as anxiety and depression, low self-esteem, bullying and stigma.[ix] Obese children are also more likely to become obese adults.[ix] According to the 2017 CDC's National Center for Health Statistics (NCHS) Data Brief, the prevalence of obesity among non-Hispanic Black (22.0 percent) and Hispanic (25.8 percent) youth is higher than among both non-Hispanic White (14.1 percent) and non-Hispanic Asian youth (11 percent).[x]

The US Department of Agriculture (USDA) 2020-2025 Dietary Guidelines for Americans recommends persons consume fruits and vegetables to reduce risk of diet-related chronic diseases. The Youth Behavior Surveillance System (YRBS) monitors prevalence of youth health behaviors such as fruit and vegetable consumption. Analyzed data from 2017 found the median frequencies of fruit and vegetable consumption among adolescents nationally to be as low as 0.9 times per day.[xi]

Nevada Obesity Overview

Adult Obesity

According to the 2020 Behavioral Risk Factor Surveillance System (BRFSS), 28.7 percent of Nevada adults reported being obese. Nevada adult obesity is steadily increasing. Between 2016 and 2019, adult obesity in Nevada increased nearly five (5) percent (25.8 ≥ 30.6), narrowing the margin of normal weight people by six (6) percent (35.9 ≥ 29.9).[xii] Obese adults demonstrate a greater risk for a multitude of comorbidities, including heart disease, chronic lower respiratory disease, diabetes mellitus, and hypertension, all of which are associated with leading causes of death in Nevada.[xiii] Poor nutrition and inactivity contribute to obesity risk. BRFSS data show higher rates of overweight/obese Nevadans among Hispanics (36.5 percent), non-Hispanic Blacks (35.8 percent), and non-Hispanic Whites (33.2 percent). Additionally, 43.4 percent of Nevada adults surveyed consumed fruit less than one (1) time per day and 25.2 percent consumed vegetables less than one (1) time per day.**Error! Bookmark not defined.** BRFSS data also show about one half of Nevada adults surveyed do not participate in any form of physical activity.[v]

Child Obesity

Among children entering kindergarten in Fall 2019, 11.1 percent were considered overweight, and approximately one-fifth (21.3 percent) were obese.[xiv] Nevada Rural/Frontier Counties were home to the greatest percentage of obese children (23.2 percent) as compared to Clark County (21.2 percent) and Washoe County (20.4 percent). Trends in BMI scores across racial/ethnic groups indicate children who are African American/Black and Native American/Alaskan Native (>30.6 - 18.5 percent), and Hispanic (29.9 percent) are more likely to be obese than Caucasian (16.9 percent) children. Children physically active less often (zero to three days per week) were more likely to be obese, compared to children more physically active (four to seven days per week).[xiv]

The CDC plays a key role in tracking data on the burden of obesity and its related racial and ethnic disparities. Among other factors, the risk of adult obesity is greater among adults considered obese as children, and racial and ethnic disparities exist by the age of two (2). Growth trajectories modeling today's children show over one half (59 percent of today's children and 57 percent of children aged two-19) will have obesity at age 35. Early feeding patterns, including how babies are fed and how caregivers use food in response to an infant's mood, affect acute growth, future eating patterns, and the risk of obesity. Similarly, family and caregiver modeling of healthy behaviors, food offerings, and active playtime, as well as characteristics of neighborhoods such as walkability and traffic volume, may affect children's nutrition and physical activity habits.[xv]

Nevada Revised Statutes (NRS) 392.420 does require routine collection of height and weight data among Nevada school children. However, in 2020 and 2021, schools impacted by this NRS were unable to collect the required data due to school closures and safety measures required by the COVID-19 pandemic response. Additionally, during the 81st Legislative Session, Senate Bill (SB) 2 was passed making the following changes to NRS 392.420. These changes are demonstrated in Table one (1) below.

Table 1. NRS 392.420 School Height and Weight (H&W) Surveillance

NRS 392.420- School Height and Weight Surveillance		
	Before 2021 Legislative Session	**After** 2021 Legislative Session (SB 2)
When	Every school year	-Every other school year to be conducted during hearing, scoliosis, and vision screening
Who	Representative random sample of 4th, 7th, and 10th grade students	All 4th and 7th grade students*
What is DPBH WPP doing?	Coordinated state agencies and schools to assist with data collection	-Coordinates with schools to assist with data collection -Provides tools, training, and technical assistance for data collection H&W measurement equipment to include stadiometers, floor scales, and privacy screenings Development of a H&W data collection guide and student/family resources -Provision and dissemination of the Annual Obesity Report and the bi-annual Height and Weight Data Report
*NRS still refers to a "sample". The sample is all students present for screening		

In 2018-19, following NRS at that time, a representative sample of randomly selected fourth, seventh, and tenth grade classroom students in Washoe and Clark Counties, based on height and weight (BMI) data, showed 58.9 percent of students in the healthy weight category, and 41.1 percent in unhealthy weight categories. Table two (2) below demonstrates frequency and percent totals of the representative samples.

Table 2. Fourth, Seventh and Tenth Grade Student BMI Data

**Based on US Centers for Disease Control and Prevention (CDC) youth BMI percentiles*

2018-2019 Fourth, Seventh, and Tenth Grade Student BMI		
	Clark and Washoe County Overall	
BMI Category*	**Frequency**	**Percent of Total**
Underweight	139	2.5%
Healthy Weight	3,283	58.9%
Overweight	1,014	18.2%
Obese	1,137	20.4%
Total	**5,573**	**100%**

Obesity during childhood can have harmful effects on the body including greater risk for CVD, insulin resistance and diabetes mellitus, respiratory and joint problems, gastrointestinal issues, anxiety, and psychological disorders.[xvi] Research demonstrates 70 percent of obese children ages five (5) to 17 years have at least one (1) risk factor for CVD, and 39 percent could have two (2) or more, in childhood.[xvii]

Nevada Wellness and Prevention Program

Overview

In 2020, the Chronic Disease Prevention and Health Promotion Section (CDPHP), housed within the Division of Public and Behavioral Health (DPBH), Bureau of Child, Family and Community Wellness (CFCW), rebranded what was the Obesity Prevention and Control Program to the Wellness and Prevention Program (WPP) to better represent program focus on common risk factors of chronic disease (such as nutrition and physical activity) by implementing evidence-based strategies to create a culture of obesity prevention by changing obesity-related behaviors thereby curtailing/reducing child and adult obesity in Nevada. Strategies include altering the physical and social environment to:

- increase physical activity opportunities and patterns;
- enhance healthy eating options and standards;
- break up and decrease sedentary time engagement (particularly screen/media time);
- promote breastfeeding support for appropriate age groups; and,
- encourage adequate amounts of sleep.

Funding

Nevada WPP efforts are 100 percent federally funded through leveraging the CDC Preventive Health and Health Services Block Grant (PHHSBG) and the U.S. Department of Agriculture (USDA) Supplemental Nutrition Assistance Program-Education (SNAP-Ed). Nevada receives PHHSBG funds to provide support for public health needs and programs which are under- or unfunded. The PHHSBG is distributed in two (2) year grant cycles and is renewable depending upon federal allocations. SNAP-Ed is a federally funded grant program supporting evidence-based nutrition education and obesity prevention interventions and projects for persons eligible for SNAP through complementary direct education, multi-level interventions, and community and public health approaches to improve eating habits.[xviii]

Program Initiatives

Nevada WPP currently focuses on:

1. Promoting and increasing physical activity in Early Care and Education Centers (ECEs), worksites, and communities;
2. Enhancing healthy eating options and standards in ECEs and worksites;
3. Developing strategies to divide and decrease sedentary time in ECEs and worksites;
4. Promoting breastfeeding support in ECEs and worksites; and,

5. Collaborating with local and state partners for the promotion of key behaviors related to obesity prevention and reduction for all Nevadans.

Early Childhood Obesity Prevention

Nevada WPP facilitates early childhood obesity prevention initiatives by working with a multitude of state and local partners, including the University of Nevada, Las Vegas (UNLV), Nevada Institute for Children's Research and Policy (NICRP). The NICRP oversees maintaining and convening the Early Childhood Obesity Prevention Steering Committee, comprised of various cross-sector members including representation from other State agencies, local health authorities, University Nevada, Reno (UNR), Extension, Children's Advocacy Alliance, Nevada Minority Health and Equity Coalition, and the Children's Cabinet. Throughout 2019, NICRP and Steering Committee members addressed activities outlined in the Nevada State Early Childhood (0-8 years) Prevention Three Year Plan (2017-2020). The Early Childhood Obesity Prevention Steering Committee activities included statewide alignment of child care food safety/sanitation regulations to ensure disseminated information contained the same evidence-based best practices for the child care healthy eating environment, and planning and development measures to align and maximize Nevada regulation in areas of nutrition, infant feeding, and physical activity (including screen time exposure) relevant to the Achieving a State of Healthy Weight (ASHW) Caring for Our Children (CFOC) child care and early education standards.[xix]

The WPP has also collaborated closely with the Chief School Nurses, Washoe County Health District, Washoe County School District, Clark County School District, and Southern Nevada Health District, to implement plans, tools, and technical assistance to ensure success in collecting height and weight data under the changes made to NRS 392.420. Height and Weight data collection will now be conducted during non-legislative years to ensure staff capacity and allow time for analysis and reporting pursuant to being able to provide the most up to date data in legislative years. The examples below demonstrate the data cycle dates.

School Year 2021-2022 -Data Collection

School Year 2022-2023 -Data Analysis

School Year 2023-2024-Data Collection

Additionally, WPP provided funds to Washoe County School District to purchase and distribute necessary tools to Washoe County Schools for height and weight data collection. Clark County School District was consulted but was unable to participate this year due to staff capacity. Funds will be offered next year to Clark County Schools, as well.

WPP has begun work on a toolkit to provide training and technical assistance to schools in this data collection effort to ensure reliable and valid data collection.

The *2018 Child and Adult Care Food Program (CACFP) ECE Gap Analysis* was finalized in January 2019. The WPP continues efforts to address the issues and barriers identified in the *CACFP ECE Gap Analysis* to increase ECE center participation in the CACFP.

DPBH Worksite Wellness

The WPP also coordinates and implements Worksite Wellness initiatives to encourage healthy behaviors in the workplace among Department of Health and Human Services (DHHS) employees. Achievements included coordination of annual wellness challenges held in the past five (5) years. Although there were limitations due to the COVID-19 pandemic and the current remote working environment, the fifth annual 2022 Spring Wellness Challenge will be held April 2022. Additionally, the DHHS Nevada Resilience Project materials and resources were included in the holiday challenge distribution for employee and their families to support those experiencing struggles and challenges due to limitations, loss, and impact of COVID-19. In response to the changed worksite environment, the WPP released a worksite wellness survey in February 2022 to identify opportunities for future worksite wellness activities; results are currently being analyzed and reported to DPBH Administration. Finally, WPP was able to add a comprehensive Wellness page to the Nevada Worksite Wellness Website, compiling examples of evidence-based nutrition, breastfeeding, physical activity, and tobacco/smoke free policies, as well as promoting resources for employee mental health well-being.

Conclusion

The state of obesity in Nevada continues to increase in both children and adults. By continuing efforts to emphasize the importance of behavior modification; i.e., increasing healthy eating and physical activity, and decreasing screen/media time in children and throughout adulthood, is critical to reducing the state of obesity.[xx] The WPP will continue to address obesity prevalence in Nevada by maintaining and enhancing existing statewide partnerships, engaging additional key stakeholders, breaking through barriers, and promoting healthy behaviors that encourage healthful environments.

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i https://www.cdc.gov/obesity/childhood/defining.html
ii https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5401682/
iii https://www.cdc.gov/brfss/brfssprevalence/index.html
iv https://www.cdc.gov/obesity/data/prevalence-maps.html
v https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4500922/
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xiv https://nifa.usda.gov/program/supplemental-nutrition-education-program-education-snap-ed
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xvi https://www.cdc.gov/obesity/childhood/causes.html
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