Childhood Obesity Prevention through a Health Disparity and Health Equity Lens:

Overview, Data Indications, and Policy Recommendations for the Silver State

Developed by the Minority Health and Equity Coalition in collaboration with the University of Nevada Las Vegas and the Children’s Advocacy Alliance

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Executive Overview

Obesity is a serious public health problem in the United States and can affect anyone, regardless of age. Nearly one in three kids or teens in the U.S. are overweight or obese, nearly three times the number in 1963; and nearly 60% of overweight children ages 5 to 17 have at least one risk factor for cardiovascular disease (25% have two or more).\(^1\)

The percentage of obese youth in the United States been steadily climbing over the last four decades.\(^2\) According to the National Survey of Children’s Health, 17% of Nevada children ages 10-17 are overweight and 13.7% are obese; a ranking of 31 out of 51 among all states and the District of Columbia.\(^3\) According to the Nevada Institute for Children’s Research & Policy, 31.6% of Nevada children entering kindergarten are overweight or obese.\(^4\) The obesity rate for high school students in Nevada is currently 14%.\(^5\)

Obesity puts children at increased risk for cardiovascular diseases, type 2 diabetes, sleep apnea, liver disease, bone and joint issues, psychosocial issues, and poorer academic performance.\(^6\) There are also negative psychological effects including low self-esteem, negative body image, and depression.\(^7\)

Obesity occurs when a child is well above a healthy body fat percentage for his or her age and height and may be influenced by a child’s community. In some communities, it may be difficult to make healthy food choices and perform adequate physical activity.

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7. Ibid.
Childcare centers, schools, or neighborhoods can impact dietary choices and opportunities for active play. Community factors for physical activity and diet include the affordability of healthy foods, peer and social supports, marketing and promotion, and policies that determine community design.\(^8\)

In 2020, COVID-19 related lockdowns and school closures negatively impacted dietary habits, sleep patterns, and physical activity levels among children.\(^9\) School environments often provide structure and routines around mealtimes, physical activity, and sleep (three predominant lifestyle factors implicated in obesity risk).

There is growing consensus in the scientific community that multiple factors contributing to childhood obesity disparities among racial and ethnic minorities correlate with socioeconomic status.\(^10\) Additional factors impacting childhood obesity include cultural, family, community/environmental, and psychological stressors.\(^11\) While obesity affects many Nevadans, some racial and ethnic groups are disproportionately impacted. Nearly half of all Native American/Alaska Native kindergarteners in the state are obese (44.6%). Latinx (32.1%) and African American kindergarteners (27.4%) also have high obesity rates, especially when compared to Caucasian children (15.3%).

![Weight Status of Nevada Kindergarteners by Race/Ethnicity 2018-2019 School Year](#)


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Populations that experience health inequities (based on factors such as race, income, gender, or geographic location) suffer poor health outcomes. For Nevada to reduce these racial/ethnic health disparities in childhood obesity, we must provide equal access to services that promote optimal health by meeting individuals and families where they are physically, emotionally, and economically.\textsuperscript{12} Federal funding for obesity prevention in Nevada is minimal. In 2013, Nevada received funding from the Centers for Disease Control and Prevention (CDC) to develop a state obesity prevention plan to document efficiencies and improve programs, expand practice-based evidence, and demonstrate health outcomes related to childhood obesity. Additionally, each state conducted an evaluation of its efforts over the project period (2013-2015) in collaboration with the CDC. That funding has ended, and current funding to continue this important endeavor is limited. Sadly, once federal grant programs end, the ability to sustain them with fidelity is difficult and they often lose efficacy.

**Problem Statement and Contributing Factors**

An imbalance of nutritional factors and physical activity often contributes to obesity. The consumption of higher than recommended amounts of total fat, saturated fat, added sugar, and sodium combined with inadequate amounts of activity (active play, sports participation, and/or structured exercise) leads to the body storing excess calories in adipose tissue. Obesity during childhood increases the likelihood of developing:\textsuperscript{13}

- High blood pressure and/or cholesterol, which are risk factors for cardiovascular diseases
- Impaired glucose tolerance, insulin resistance, and/or type 2 diabetes
- Respiratory problems including asthma and sleep apnea
- Joint disorders and discomfort
- Fatty liver disease, gallstones, and gastro-esophageal reflux (i.e., heartburn)

Additionally, childhood obesity correlates with anxiety, depression, low self-esteem, and lower self-reported quality of life. Children who are overweight are more likely to experience bullying.\textsuperscript{14} Being overweight or obese during childhood increases the likelihood of adult obesity and associated health concerns. Approximately 70% of obese adolescents grow to become obese adults.\textsuperscript{15} Adult obesity is associated with increased

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risk of the adverse health conditions demonstrated in childhood obesity and additional diseases including several cancers.\textsuperscript{16} 

**Social Determinants of Health and Health Equity** 

Health reflects not only personal choices, but also access to social and economic opportunities, available resources and supports, quality of education, safety of workplaces, cleanliness of water, food, and air, and the nature of social interactions and relationships.\textsuperscript{17} Eating well and staying active, not smoking, getting recommended immunizations and screening exams, and seeing a doctor when ill is vital to overall health and wellness. The conditions in which we live explain, in part, why some individuals are healthier than others and why we as a nation need drastic health improvements.

*Health equity* examines differences in quality of life and healthcare across different populations. Health equity is achieved when every person can attain their full health potential: This means individuals should not be denied this potential because of socially determined circumstances. Health inequities are reflected in differences in longevity and/or quality of life, rates of disease, disability, and death, severity of disease, and access to treatment.\textsuperscript{18}

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\textsuperscript{17} https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

Equality vs Equity: A Visual Representation

**Contributing Factor 1: Food Preferences**

Culture-related preferences for certain foods have been identified as contributory to obesity disparities.\(^ \text{19} \) Focus groups investigating barriers to healthy eating among minority youth found availability of fast food, cultural attraction, cultural eating, and family norms as barriers to healthy dietary habits.\(^ \text{20} \) Additionally, cultural perceptions of health relative to body size may contribute to childhood obesity disparities. For example, multiple participants in a focus group of Latina mothers agreed with the statement that “having a thin child is a sign of poor parenting.” \(^ \text{21} \)

Fast food and processed foods are widely available, low cost, and nutritionally poor. These lower-cost foods comprise a greater proportion of the diets of individuals with lower-incomes.\(^ \text{22} \) Presently, parents often work longer hours or reduce expenditures because of the rising unemployment rate.\(^ \text{23} \) As a result of the COVID-19 pandemic, many are homeschooling their children. Families may have a limited amount of time and/or resources to prepare meals, leading them to choose fast, convenient prepared foods.

**Contributing Factor 2: Family Factors**

Research findings indicate that family factors also contribute to childhood obesity disparities. For example, research has found that parental body mass index (BMI) is predictive of children’s BMI\(^ \text{24} \), and that children model their caregivers’ unhealthy

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\(^ {19} \) Austin, G.L., & Krueger, P.M. (2013). Increasing the percentage of energy from dietary sugar, fats, and alcohol in adults is associated with increased energy intake but has minimal association with biomarkers of cardiovascular risk. *The Journal of Nutrition, 143*(10), 1651-1658. doi:10.3945/jn.113.180867.


eating behaviors. It is important to note that family-based interventions have shown that a parent’s weight change is a significant indicator of children’s weight change. Therefore, studies suggest that family-based modification of physical activity and nutrition patterns are effective in reducing weight for all members of the family unit.

**Contributing Factor 3: Community/Environmental Factors**

Community based and environmental factors, including differences in resources like safe play areas and access to grocery stores, contribute to childhood obesity. Racial/ethnic minority and families with low incomes are more likely to live in neighborhoods with limited options for physical activity and healthy food options. According to a report from the CDFI Fund, African American, non-Hispanic individuals are 2.49 times more likely to live in areas with limited supermarket access area than Caucasian, non–Hispanic individuals. Additionally, physical activity in low-income neighborhoods may be limited by a lack of parks or safe areas to play. Many low-income neighborhoods lack healthy food options, and residents often shop at convenience stores.

Food insecurity is defined as “the disruption of food intake or eating patterns because of lack of money and other resources,” and may be influenced by several factors including income, employment, race/ethnicity, and disability. The risk for food insecurity increases when money to buy food is limited or not available. Food deserts, defined as areas where healthy food options are physically inaccessible, are common in low-income American neighborhoods. The term food desert is used by experts to describe areas in which fast food is plentiful and grocery stores are scarce.

Food deserts exacerbate food insecurity, encourage poor dietary choices, and contribute to obesity. Residents of these areas often use public transportation or walk to and from work and school, making it inconvenient and expensive to leave their neighborhood for groceries. Staple foods like milk, bread, and cereal are often available in local convenience stores, but for higher prices than usual because retailers corner their

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32 Ibid.

While opening a grocery store may sound like a simple solution, it is often a difficult task in a food desert. Franchise fees, taxes, and zoning laws can discourage supermarkets from opening in low-income areas. Changes in governmental policy, however, can make providing affordable, healthy options in low-income neighborhoods possible. Incentives to move closer to low-income areas and tax credits to expand existing stores encourage entrepreneurs to expand into food deserts.

Nevada is vast and includes urban, metropolitan, rural, and frontier geography. In 2018, 16.5% of rural households faced food insecurity compared to 13.5% of households in metropolitan areas. It is surprising that in the rural and frontier areas that grow our food, households often face considerably deeper struggles with hunger than in metropolitan or urban areas. Food insecurity contributes to a vast array of illnesses, and individuals that reside in rural areas are at higher risk for poor health outcomes than their urban counterparts.

Nevada has a high food insecurity rate of 20.5% when compared to the national low of 9.4% in North Dakota and high of 25.6% in New Mexico. This data, collected in 2018, will likely worsen with increased rates of unemployment and homelessness resulting from the COVID-19 pandemic. The 2019 Nevada Legislature passed Assembly Bill 326, which provides tax credits to business entities that invest in grocery stores located in underserved communities. AB326 will incentivize the creation of grocery stores and jobs, and make fresh produce more accessible.

**Data Source:** Nevada Institute for Children's Research and Policy. *Health Status of Children Entering Kindergarten in Nevada (2018-2019).*

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34 Ibid.
36 Ibid.
38 Ibid.
Contributing Factor 4: Psychological Factors

Psychological factors contributing to childhood obesity disparities include poor social functioning, anxiety, and depression. Furthermore, a correlation has been demonstrated between obesity and depression in youth. This is concerning because racial/ethnic minority youth experience a disproportionate number of stressors which may contribute to elevated levels of anxiety and depression.

Youth, like adults, have unique and individual responses to stressors. It is important to consider racial and cultural identities while examining key motivators that contribute to better physical and mental health. A focus group study of culturally diverse children found that weight concerns were a healthy eating motivator among all groups except non-Hispanic, African American males, and motivation to eat healthy was adversely impacted by junk food cravings.

Contributing Factor 5: COVID-19 and Childhood Obesity

The COVID-19 pandemic is impacting childhood obesity and may have long-term health effects for young individuals. Children and teens who struggle with overweight and obesity are currently isolated, often in unfavorable environments for maintaining healthy lifestyle behaviors. In a study published by researchers at the University at Buffalo in June 2020, compared to behaviors recorded a year prior, children ate an additional meal, slept an extra half hour, added nearly five hours on technological devices, and dramatically increased their consumption of red meat, sugary drinks, and high calorie/low nutrient foods per day. Conversely, physical activity decreased by more than two hours per week and the amount of vegetables consumed remained unchanged. While safety is paramount, legislators and school administrators must strive to balance appropriate restrictions and their health impacts.

Contributing Factor 6: Cost Effectiveness

Sustainable, cost-effective strategies are required to decrease obesity rates. By reviewing and conducting a return-on-investment analysis of published policies, Nevada could save millions of dollars in direct and indirect costs related to obesity. The

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44 Ibid.
literature review conducted to create this document led to the creation of seven recommendations to reduce childhood obesity prevalence in Nevada.

Policy Recommendations for Policymakers, Elected Officials, and School Administrators

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<td>Establish a governor’s task force to <strong>prioritize obesity prevention</strong> through legislation and administrative policy change at state and local levels</td>
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<td>Recommendation 2</td>
<td>Develop and support policies that <strong>reduce disparities</strong> in healthcare provision and <strong>improve access to care</strong> (including primary care, oral health, and mental health services)</td>
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<td>Recommendation 3</td>
<td>Develop policies and consider low-interest loan programs for entrepreneurs to <strong>reduce food insecurity</strong></td>
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<td>Improve access to safe and affordable places for children and families to <strong>increase physical activity</strong></td>
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<td><strong>Improve data collection</strong> to better monitor indicators and outcomes in reducing obesity on Nevada children and youth</td>
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<td>Recommendation 6</td>
<td>Increase awareness of nutritious options at restaurants to <strong>encourage healthy choices</strong></td>
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<td>Recommendation 7</td>
<td><strong>Improve nutritional offerings in schools</strong> by increasing the rigor of nutrition standards in Nevada</td>
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**Recommendation 1:** Establish a governor’s task force to prioritize statewide efforts to reduce and prevent childhood obesity, support existing groups like the Nevada Early Childhood Obesity Steering Committee, and to study the effects of obesity on children's health. The task force shall: (1) Gather and maintain current information regarding childhood obesity to better understand the impact of obesity on children's health; (2) examine the nutrition standards for food procured by the state; (3) explore ways to increase physical activity in children; (4) recommend the implementation of a pilot program that will align with school schedules post-COVID in an effort to promote increased physical activity and reduce screen time; and (5) advise the General Assembly and governor concerning the coordination and administration of state programs that may reduce the incidence of childhood obesity. The task force will produce funding allocation estimates at the county level to support evidence-based programs and strategies for community-level and school-based programs.

**Recommendation 2:** Although the Affordable Care Act (ACA) led to large coverage gains, some groups remain at higher risk of being uninsured, lacking access to care, and experiencing poor health outcomes. Enacted in 2019, Senate Bill 198 required the state of Nevada to collect data examining why children lost Medicaid coverage in a
12-month period. Beyond coverage, additional challenges to children’s healthcare include limited capacity to address social determinants of health, declines in funding for preventative initiatives, and gaps in data. To reduce obesity, families in Nevada must have affordable, geographically accessible, culturally competent healthcare coverage.

**Recommendation 3:** The 2019 Nevada Legislative Session successfully addressed some policy issues to improve the state’s capacity to reduce the obesity burden on children in the state of Nevada. To combat food deserts, policymakers should restrict the number of fast-food restaurants per intersection and consider a low-interest loan program that would encourage entrepreneurs to establish grocery stores in underserved areas. Additionally, funding needs for food insecurity should be assessed, and federal grants submitted through the state department of health.

**Recommendation 4:** Increasing access to physical activity is a critical component of reducing childhood obesity. Shared-use agreements allow public access to existing facilities or outdoor recreation parks by defining terms and conditions for sharing the costs and risks associated with expanding a property’s use. For example, school districts may create shared-use agreements to allow after-hours access to school facilities for community members. Community organizations can provide access to safe places to be physically active—such as walking trails, indoor facilities, parks, and playgrounds—away from busy streets. Health and fitness facilities provide indoor physical activity opportunities. These facilities can also provide safer, more comfortable activity opportunities for people with mobility limitations or chronic health conditions.

As a result of the COVID-19 pandemic, communities across the nation face challenges with restricting the use of recreation and gymnasium facilities. Virtual/online programming is an innovative way to keep kids active. Partnerships with schools and local businesses may increase participation through small incentives. Outdoor facilities could be considered and included in shared agreements so that local water parks and state parks with equipment rentals could be utilized for safe physical activity.

**Recommendation 5:** Data assists the Nevada State Legislature in creating policies that improve the lives of our citizens. In an effort to appreciate improvements and continue to evolve, we must develop a system to track key measures that will demonstrate if policies are efficient and cost-effective.

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48 Ibid.
**Recommendation 6:** In a study conducted by the University of California Berkeley Haas School of Business, researchers found what they called the “first is best” effect. When given choices in situations not considered high-risk, like ordering from restaurant menus, participants were 62% more likely to select the first item than subsequent options. Highlighting healthy choices on restaurant menus is a low-cost way to increase the likelihood parents and children will notice them when ordering meals.

**Recommendation 7:** Schools in the state of Nevada adhere to nutrition standards in the Nevada School Wellness Policy. While these standards are sound, it is recommended they be codified and benchmarks for improvements are set to ensure children throughout Nevada have access to healthy meals at school.

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