



THE STATE OF OBESITY IN TEXAS

DECEMBER 2020



**PARTNERSHIP FOR
A HEALTHY TEXAS**

CONQUERING OBESITY

*Dedicated to developing and promoting policies
and programs that prevent obesity in Texas.*

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PREFACE FROM THE CHAIR

The year 2020 will long be remembered for the devastation resulting from COVID-19. Businesses and schools shut their doors, millions of workers were displaced, and the lives of more than 23,000 Texans were lost. I am hopeful that soon the promise of COVID-19 vaccines will be realized, society will normalize, and 2021 will be a much different year.

The health effects on Texans of more than a half of a year working and learning virtually, however, will be lasting. We must be cognizant of the impacts that restrictions such as lockdowns had on the overall health and mental wellbeing of Texans, and specifically on healthy weight management. This is particularly concerning because of the growing body of evidence that suggests obesity heightens the risk of a more severe response to COVID-19 infection.¹

I have learned that during prolonged emergency responses it is easy to lose focus on our other important public health work. The health challenges our state faced in 2019 are still present, and have only been made worse because of COVID-19. We still have significant health disparities and too many Texans are suffering from, and dying early from, the complications of chronic diseases. Many of these diseases are the result of obesity, and unfortunately many times the challenges of obesity start in childhood.

Aside from the devastating toll on life, the pandemic has caused severe state budget constraints, which will limit the time and resources to pass legislation critical to the health of Texans. Despite these limitations, we must not lose the opportunity the legislative session brings us to improve the policies and enhance the public health resources needed to allow all Texans to live a full and healthy life, free from persistent chronic disease.

This report paints a picture of the obesity crisis in Texas - in which more than a third of adults and nineteen percent of children have obesity - to serve as background to the Partnership for a Healthy Texas' Legislative Priorities for the 87th Session. The priorities represent the coalition's vision to ensure that the state's most vulnerable populations are protected and an individual's income does not determine their health. By ensuring that every child has the physical and health education they need to create habits that last a lifetime and that every adult has access to healthy, affordable food, we are striving towards a more healthy Texas - a goal made even more critical by the current crisis.



David Lakey, MD, Chair of Partnership for Healthy Texas
Former Texas Commissioner of Health (2007-2015)
DECEMBER 21, 2020



The Partnership for a Healthy Texas began in 2006 and has grown to a coalition of more than 50 organizations. We serve to improve the public health as a valued partner in the fight against obesity and continue to have a concerted influence on Texas policy. We believe that by working together we can maximize our impact on the health of Texans and drive economic productivity by reducing the burden of chronic disease.

MISSION: To develop and promote state policies that prevent and reduce obesity in Texas.



Find what works for Texans



Set priorities for the Legislature



Follow through and track success

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The work of the Partnership for a Healthy Texas is generously sponsored by Methodist Healthcare Ministries of South Texas, Inc.





The Partnership for a Healthy Texas, a coalition of over 50 organizations, has identified eight health policies for consideration by the 87th Texas Legislature. These policies are aimed at positively impacting the obesity epidemic in Texas, particularly among school-age children.

Summary of Priorities for 2021 Legislative Session:

Ensure all Texas children have access to a well-rounded education which includes recess, physical education, and instruction on health.

1. Require school districts to create and institute recess policies that reflect best practice, consider recommendations from the School Health Advisory Committee (SHAC) and allow children the opportunity to be active, practice life skills and reenter the classroom ready to learn.
2. Increase middle school physical education (PE) requirements to include moderate to vigorous activity for 6 semesters, high school PE requirements to 3 semesters, and make 1 semester of health education required for graduation.

Eliminate food insecurity exacerbated by the COVID-19 pandemic; increase Texans’ access to healthy foods and decrease their risk of obesity.

3. Fully fund the Surplus Agricultural Products Grant which ensures food banks have the produce to keep Texans from going hungry during the pandemic.
4. Encourage Medicaid Managed Care Organizations (MCOs) to implement initiatives to address social determinants of health (SDoH) including healthy food access.
5. Increase access to SNAP benefits for senior citizens by streamlining the application process.

Maintain and strengthen Texas’ current public health and educational infrastructure to address obesity.

6. Promote the efficacy of the Texas’ Whole Child School Health Policy approach, School Health Advisory Committees (SHACs) and physical fitness assessments which play a critical part of youth fitness and the physical education curriculum.
7. Protect and enhance current requirements around PE and Health Education.
8. Protect vital public health funding at the Department of State Health Services to combat chronic diseases including obesity.



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WHAT IS OBESITY?

According to The Obesity Society:

“Obesity is a multi-causal chronic disease recognized across the life-span resulting from long-term positive energy balance with development of excess adiposity that over time leads to structural abnormalities, physiological derangements, and functional impairments. The disease of obesity increases the risk of developing other chronic diseases and is associated with premature mortality. As with other chronic diseases, obesity is distinguished by multiple phenotypes, clinical presentations, and treatment responses.”²

Obesity is classified as a disease by the scientific and medical communities. While perceptions of health and what constitute a disease differ by culture and community, a consensus is that obesity is a complex chronic disease. Despite this scientific and medical consensus, many misconceived notions that obesity is caused by a lack of willpower to make healthy choices, or a moral failing, still dominate discourse. To properly respond to Texas’ growing obesity epidemic, we must understand the disease’s complex multi-causal roots and implement strategies that address barriers at the levels of the individual, the organizations, the communities, and the state.

BMI	NORMAL					OVERWEIGHT					OBESE									EXTREME OBESITY												
	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
Height (inches)	Body Weight (pounds)																															
58	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167	172	177	181	186	191	196	201	205	210	215	220	224	229	234	239
59	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173	178	183	188	193	198	203	208	212	217	222	227	232	237	242	247
60	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179	184	189	194	199	204	209	215	220	225	230	235	240	245	250	255
61	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185	190	195	201	206	211	217	222	227	232	238	243	248	254	259	264
62	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191	196	202	207	213	218	224	229	235	240	246	251	256	262	267	273
63	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197	203	208	214	220	225	231	237	242	248	254	259	265	270	278	282
64	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204	209	215	221	227	232	238	244	250	256	262	267	273	279	285	291
65	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210	216	222	228	234	240	246	252	258	264	270	276	282	288	294	300
66	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216	223	229	235	241	247	253	260	266	272	278	284	291	297	303	309
67	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223	230	236	242	249	255	261	268	274	280	287	293	299	306	312	319
68	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230	236	243	249	256	262	269	276	282	289	295	302	308	315	322	328
69	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236	243	250	257	263	270	277	284	291	297	304	311	318	324	331	338
70	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243	250	257	264	271	278	285	292	299	306	313	320	327	334	341	348
71	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250	257	265	272	279	286	293	301	308	315	322	329	338	343	351	358
72	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258	265	272	279	287	294	302	309	316	324	331	338	346	353	361	368
73	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265	272	280	288	295	302	310	318	325	333	340	348	355	363	371	378
74	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272	280	287	295	303	311	319	326	334	342	350	358	365	373	381	389
75	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279	287	295	303	311	319	327	335	343	351	359	367	375	383	391	399
76	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287	295	304	312	320	328	336	344	353	361	369	377	385	394	402	410

Source: https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmi_tbl.htm

ADULT OBESITY

Nationally

The number of adults with obesity in the United States has now surpassed 40 percent, according to the most recent National Health and Nutrition Examination Survey (NHANES) from 2017–2018.^{3,4} This is a 26 percent jump from 2007–2008.^{5,6} That number has steadily accelerated since the 1970's.⁷ In 1985, no state had an adult obesity rate higher than 15 percent; in 2000, no state was over 25 percent; and in 2006, only Mississippi and West Virginia were above 30 percent.

Racial and economic disparities

People of color are disproportionately impacted by obesity. According to 2017–2018 NHANES data, Black Americans had the highest rate of obesity (49.6 percent), followed by Hispanic Americans (44.8 percent), and compared to 42.2 percent of their white counterparts.⁸

Income is another contributing disparity within obesity. Those with incomes just above the poverty line had the highest rates of obesity at 42.6 percent, compared to 29.7 percent for those at the highest levels of income.⁹ Additionally, a 2019 study found that racial inequality in income, unemployment, and homeownership were associated with obesity.¹⁰

In 2019, 14.7 percent, or 4.1 million of all Texans lived in poverty, including 1.5 million children.^{11,12} **Black and Hispanic Texans are more than twice as likely to live below the poverty line as White and Asian Texans.**¹³

“Racial inequalities in health endure primarily because racism is a fundamental cause of racial differences in SES [socioeconomic status] and because SES is a fundamental cause of health inequalities.”¹⁴

Texas Adult Obesity

From 1995 to 2010, the prevalence of obesity in Texas adults doubled from 15.9 percent to 31.7 percent.¹⁵ With a current obesity rate of 34 percent, Texas has the 19th highest adult obesity rate in the US.^{16,17} In 2018, obesity prevalence among adults in Texas was highest among those with less than a high school degree and those who make less than \$15,000.¹⁸

Obesity* Trends Among U.S. Adults

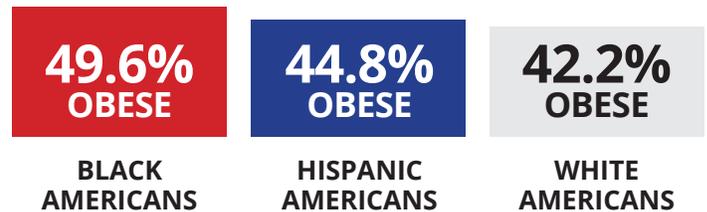


*BMI ≥30, or ~30 lbs. overweight for 5' 4" person.
Data: Behavioral Risk Factor Surveillance System (1985, 2008, 2016), CDC.

Source: D. Blumenthal and S. Seervai, "Rising Obesity in the United States Is a Public Health Crisis," *To the Point*, the Commonwealth Fund, Apr. 23, 2018.

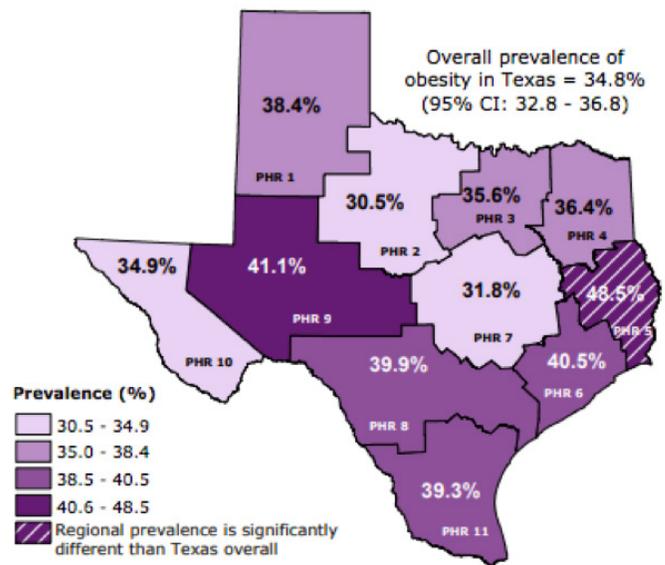
Source: <https://www.commonwealthfund.org/blog/2018/rising-obesity-united-states-public-health-crisis>

OBESITY BY RACE (2017-18)



Source: Molly Warren, Stacey Beck, and Daphne Delgado . Rep. *The State of Obesity Report: Better Policies for A Healthier America 2020*. Trust for America's Health

Prevalence of Obesity Among Adults, by Public Health Region (PHR), Texas, 2018



Data Classification: Quantiles.
Data Source: 2018 Texas Behavioral Risk Factor Surveillance System (BRFSS), Center for Health Statistics, Texas Department of State Health Services.
Obesity is defined as a body mass index (BMI) of 30 kg/m² or higher, calculated from self-reported height and weight.

Created by Chronic Disease Epidemiology Branch, 11/07/2019



Source: Texas Health and Human Services



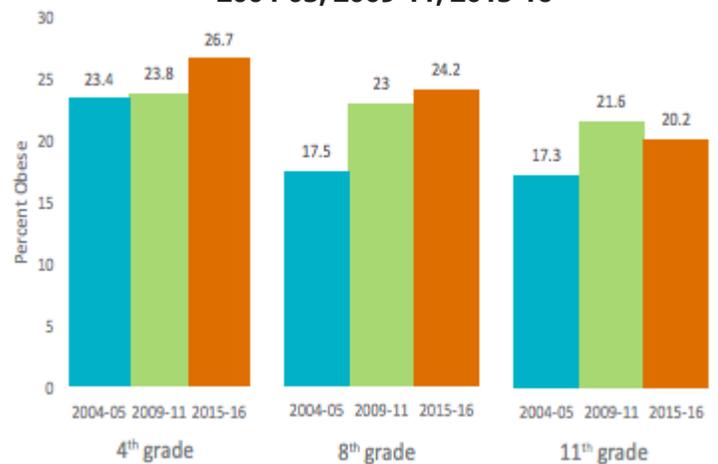
CHILDHOOD OBESITY

In the mid-1970s, just 5.5 percent of young people in the US had obesity.¹⁹ Since then, the prevalence of childhood obesity has more than tripled, skyrocketing to 19.3 percent, or one in five children in 2017-2018 - constituting childhood obesity as a public health crisis.^{20 21}

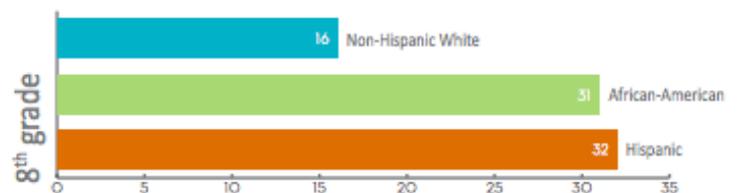
In Texas, 15.5 percent of youth ages 10 to 17 have obesity, giving Texas a ranking of 19 out of 51 for this age group among all states and the District of Columbia.²² Hispanic and Black children have nearly twice the rate of obesity compared to non-Hispanic white children.²³ 31 percent of Black 8th graders in Texas have obesity and 32 percent of Hispanic 8th graders have obesity in Texas.²⁴

Nationally, childhood obesity rates were significantly higher for Hispanic (20.7 percent) and Black (22.9 percent) than white children.

**NATIONAL TRENDS IN CHILDHOOD OBESITY
2004-05, 2009-11, 2015-16**



PERCENT OF TEXAS CHILDREN WHO HAVE OBESITY BY GRADE AND ETHNICITY



Source: Healthy Children, Healthy State: Child Obesity Crisis in Texas." 2020. Michael & Susan Dell Center for Healthy Living. <https://sph.uth.edu/research/centers/dell/texas-child-health-status-report/child%20obesity%20crisis%202019.2020.pdf>

CONTRIBUTING FACTORS TO OBESITY

Obesity is a complex disease that is caused by the inability of the body to regulate caloric intake and expenditure such that excess fat accumulates leading to negative health consequences. This dysregulation can be caused in isolation or collectively by internal factors such as genetic, physiologic, and neurologic causes that lead to a propensity to store excess fat within the body. The extent of dysregulation of these internal factors may vary within individuals along a spectrum ranging from protection against obesity (no dysregulation) to mild or severe obesity. In fact, it is appropriate to think of “obesities” – multiple causes and contributing factors that lead to excess storage of fat.

External factors such as the lifestyle patterns of an individual and the environment in which they live, can influence fat storage

that is dysregulated due to internal factors. While the internal factors may not be modifiable without the help of pharmacological or surgical intervention, the lifestyle or environmental factors that influence fat storage can be potentially modifiable. As a result, access to and support for healthy lifestyle behaviors such as nutritious foods, active lifestyles, stress mitigation, and sufficient sleep are all important to address obesity and promote overall health. However, because of this complex interaction of internal and external factors, there are individuals who have healthy diets and active lifestyles who will still struggle with obesity. Likewise, there are individuals with unhealthy diets and sedentary lifestyles who will maintain a healthier weight. Therefore, when considering strategies to address the increasing rates of obesity, we need approaches that address both the internal and the external factors while eliminating blame of the individuals. By incorrectly blaming individuals and thinking of obesity as a lifestyle choice, we drive stigma (which leads to significant negative health consequences) and miss the opportunity to have a meaningful impact on health. No one chooses to have obesity.



Genetic Causes of Obesity

Advances in genetic research over recent decades have made it clear that there are genetic causes of obesity. These genetic causes can impact both food intake and energy expenditure at many different regulatory points.

In some cases, a mutation in a single gene is sufficient to cause extreme obesity. This monogenic obesity can be treated by providing the gene product. For example, a mutation in the leptin gene, a hormone that regulates appetite and energy expenditure, can cause a complete lack of leptin. For these individuals, treatment with lifestyle interventions like diet and exercise will not have an effect, but leptin replacement treatment quickly reverses the obesity. These types of obesity, called single gene polymorphisms, are rare but advances are ongoing.

The genetic causes that are more common and complex to identify and treat involve combinations of gene mutations or environmental factors that influence how genes are expressed (referred to as epigenetic factors). These complex causes can lead to mild to severe obesity. Ongoing research in this area works to identify ways in which expression of these genes can be modified through pharmacotherapy. Different types of obesity require different treatment strategies or combinations of strategies. Advances are being made not only in the development of pharmacotherapy for these types of obesity, but in tailored treatment strategies so that clinicians can better target drug therapy to individual needs of a patient.

While a lot of work remains to be done in this area, treatment options available today are safe and provide between 5% and 18% weight loss, on average (much higher in some individuals, likely due to the variations described above). As little as 5% weight loss leads to significant decreases in medical costs and improvements in health outcomes, quality of life, and productivity. Clearly, these treatment options need to be available and affordable for people who need them in order to decrease the overall impact obesity has on our society.

Physical Activity

Physical activity is an essential component to overall health and an important contributing factor for maintaining a healthier weight. While the Physical Activity Guidelines for Americans recommend adults participate in at least 150 minutes of moderate intensity activity or 75 minutes of vigorous intensity activity (or a combination of both) per week, fewer than half of American adults achieve these recommendations.²⁵

A 2012 CDC study in Texas found that only 27.2 percent of adults were physically active for a total of at least 60 minutes per day on each of the 7 days prior to the survey.²⁶ Stay-at-home orders during the COVID-19 pandemic may only accelerate this issue. Many Texan adults have reported difficulty maintaining a healthy diet and exercising during the pandemic.^{27, 28}

Diet

A healthy diet is also an essential component to overall health and an important factor for achieving and maintaining a healthier weight. The Dietary Guidelines for Americans recommend a diet rich in whole grains, fruits and vegetables, and a variety of proteins. The majority of Americans do not follow this dietary advice.

The majority of the United States follows a diet that is:²⁹

- Low in vegetables, fruits, dairy, and oils
- Exceeds dietary recommendations for added sugars, saturated fats, and sodium
- Exceeds recommendations for calories

A 2012 CDC study in Texas found that only 27.2 percent of adults reported having consumed vegetables at the recommended level of 3 or more times per day.³⁰

SOCIAL DETERMINANTS OF HEALTH AND OBESITY

According to Healthy People 2020, social determinants of health are:

“conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks. Resources that enhance quality of life can have a significant influence on population health outcomes.”³¹

Social determinants of health acknowledge that reduction in the prevalence of obesity in Texas requires consideration of and action on other policy and environmental changes. This includes addressing structural racism, inequities, and underinvestment in low-income and communities of color.³² There is a growing momentum around addressing social determinants of health in Texas, particularly the needs of the 4.4 million Texans who are enrolled in Medicaid and the Children’s Health Insurance Program, to improve overall health care outcomes and reduce costs.³³

Food Access

Food insecurity is a critical social determinant of health and is linked with lower quality diets and higher levels of obesity in many populations.³⁴ Researchers have hypothesized that food insecurity leads to obesity not only through limited access to a healthy diet but also from an increase in stress hormones which can cause a physiological response in which the body stores more fat.³⁵

In 2019, 35 million people or 10.5 percent in the US were food insecure, defined as access at all times to enough food for an active, healthy life.³⁶ Since the onset of the pandemic, food insecurity has more than doubled, affecting as many as 23 percent of households.³⁷ About 28 percent of Texans were food insecure in 2020 and without financial relief from another federal stimulus package, that number is expected to continue to rise.³⁸ The annual estimated healthcare costs associated with lack of access to food in Texas will be over \$11.1 billion if the current levels continue.³⁹

Food insecurity is associated with serious health conditions, such as:⁴⁰

- Obesity
- Diabetes
- Hypertension
- Anemia
- Developmental delays among children
- Mental health issues

Social determinants of health which effect obesity include:

- **Economic Stability**
 - » Employment
 - » Food Insecurity
 - » Housing Instability
 - » Poverty
- **Education**
 - » Early Childhood Education and Development
 - » Enrollment in Higher Education
 - » High School Graduation
 - » Language and Literacy
- **Social and Community Context**
 - » Civic Participation
 - » Discrimination
 - » Incarceration
 - » Social Cohesion
- **Health and Health Care**
 - » Access to Health Care
 - » Access to Primary Care
 - » Health Literacy
- **Neighborhood and Built Environment**
 - » Access to Foods that Support Healthy Eating Patterns
 - » Crime and Violence
 - » Environmental Conditions
 - » Quality of Housing

Source: Cole, Brian L., and Jonathan E. Fielding. 2007. "Health Impact Assessment: A Tool to Help Policy Makers Understand Health Beyond Health Care." Annual Review of Public Health 28 (1): 393-412. <https://doi.org/10.1146/annurev.publhealth.28.083006.131942>.

CONTRIBUTING FACTORS SPECIFIC TO CHILDHOOD OBESITY

School Policies (Physical Activity)

Some environmental factors that contribute to obesity specifically affect our children. Children spend the majority of their day at school. Unfortunately, the classroom does not always foster a healthy environment for children. Since 2001 and the introduction of the 'No Child Left Behind' federal legislation, schools have placed increasing emphasis on standardized test scores, often at the expense of physical activity during the school day. Students today have limited access to recess and physical activity and spend the majority of the school day in a sedentary learning environment. When schools do offer recess, it is usually offered as a structured break for less than 20 minutes daily.⁴¹

Outdoor, unstructured play provides a different focus on the whole child compared to indoor or structured recesses.^{42 43} According to a recent study, *The Status of School Recess in Texas School Districts*, high-performing school districts were twice as likely to have a recess policy safeguarding the minimum amount of time students have for recess.⁴⁴

Recess allows children the opportunity to practice life skills such as:⁴⁵

- Cooperation
- Taking turns
- Following rules
- Sharing
- Communication
- Negotiation
- Problem solving
- Conflict resolution



Recess also:

- Provides the creative social and emotional benefits of play
- Decreases anxiety
- Develops social skills
- Promotes creativity

According to a Georgia State University study, the percentage of the US school districts with any written recess policy fell from 57 percent to 40 percent from 2006 to 2011.⁴⁶ While the National Association for Sport and Physical Education (NASPE) recommends a minimum of 20 minutes of recess each day for all children, there are few regional policies that guide what structured and unstructured physical activity should look like.⁴⁷ Currently, there is no state-level policy concerning school recess in Texas. While Texas is not one of the five states that has a recess policy, it does have an explicit Physical Activity Policy, which allows for but does not require unstructured recess time. Instead, the state only requires that the allotted time for recess adheres to guidelines set by the district's School Health Advisory Council (SHAC).

Studies show that Texas schools serving predominantly Black, Hispanic, or low-income children were less likely to have recess.⁴⁸

School Policies (Food)

Because children consume up to 50 percent of their daily calories at school, the quality of school meals has a significant impact on childhood health. The National School Lunch Program fed more than 30 million schoolchildren in the U.S. in 2016 and the School Breakfast Program fed more than 15 million.^{49 50}

Unfortunately, kids are not getting the quality nutrition they need. Studies show that the majority of American children are not consuming the daily recommended servings of fruits or vegetables.⁵¹ In a state like Texas, farm-to-school programs could alleviate some of this problem.

While federal attempts to improve nutritional standards for school lunches, such as the Healthy, Hunger-Free Kids Act of 2010 which were shown to decrease obesity for children in poverty, these standards have recently been weakened, allowing school meal programs to serve less fruit, fewer whole grains, fewer varieties of vegetables, and more starchy vegetables.^{52 53}

Other food and lunch policies that can contribute to an unhealthy lifestyle include:

- “Open Campus” policies in which students can leave school for lunch, which has been shown to not only lead to unhealthy meals choices but increase automobile accidents^{54 55}
- Availability of unhealthy ‘competition foods,’ foods outside of breakfast and lunch programs⁵⁶

Community

At home, community infrastructure such as the availability of healthy, affordable, culturally appropriate food, and safe spaces for physical activity can affect children's health. In Texas, economic and ethnic disparities exist throughout our communities. Hispanic neighborhoods in Texas are more likely to have more fast-food restaurants and fewer supermarkets and farmers' markets, and less likely to have access to safe areas for walking than their non-white counterparts.^{57 58} Children who do not have access to safe, well-lit walking routes and have fewer opportunities to be physically active.⁵⁹



HEALTH IMPACT OF ADULT OBESITY

Chronic Disease

Obesity increases the risk of a range of diseases for adults and an overall risk of higher mortality.⁶⁰

According to the CDC, people who have obesity, compared to those with a healthy weight, are at increased risk for many diseases and conditions, including:^{61 62}

- Mortality
- High blood pressure (hypertension)
- High LDL cholesterol, low HDL cholesterol, or high triglycerides (Dyslipidemia)
- Type 2 diabetes
- Coronary heart disease
- Stroke
- Gallbladder disease
- Osteoarthritis (a breakdown of cartilage and bone within a joint)
- Sleep apnea and breathing problems
- Cancer
- Low quality of life
- Mental illness such as clinical depression, anxiety, and other mental disorders
- Body pain
- Limited physical activity

According to a 2018 study, obesity accounts for 18 percent of deaths among Americans ages 40 to 85.⁶³ This means obesity is comparable to cigarette smoking as a public health hazard; smoking kills one of five American adults and is the leading preventable cause of death in the United States.⁶⁴



18%
deaths among
Americans
ages 45-85

ECONOMIC IMPACT OF OBESITY

ONLY 31¢ PER PERSON IS ALLOCATED FOR CDC OBESITY PREVENTION EFFORTS, THOUGH OBESITY ACCOUNTS FOR NEARLY 21% OF ALL HEALTHCARE SPENDING.

Cost of Health Care

In 1988, US health care costs due to obesity were estimated at \$74.2 billion or 5.3 percent of all medical spending nationwide. By 2006, these costs accounted for 9.1 percent of annual health costs, or \$147 billion (in 2008 dollars).⁶⁵ **A 2016 study found that annual medical spending in the United States that is attributable to obesity now exceeds \$149 billion.**⁶⁶

High obesity rates increase costs for both Medicare, which provides healthcare coverage for Americans ages 65 and older, and Medicaid, which provides healthcare coverage for low-income and disabled Americans. These two programs bear approximately half the medical costs of obesity in the US.⁶⁷ One study projected that 8.5 percent of Medicare spending and 11.8 percent of Medicaid spending is attributable to obesity.⁶⁸

Only 31¢ per person is allocated for CDC obesity prevention efforts, though obesity accounts for nearly 21 percent of all healthcare spending.^{69 70}

Decrease in Productivity

The report details the costs of ‘absenteeism’ and ‘presenteeism’ (the lost productivity of employees who are at work but not fully engaged due to health issues or other distractions) at \$42.3 billion, or \$1,627 per worker with obesity. About two-thirds of that cost was associated with reduced productivity at work, with the remainder due to absenteeism, or missed time at work.⁷¹ As obesity has increased in Texas since 2009, those numbers could be much higher today.

Transportation

In the US, the airline industry consumes 350 million more gallons of fuel at an extra cost of \$275 million annually due to an increase in the average weight of passengers. One study found that passenger weight gain accounted for an additional one billion gallons of fuel consumed per year between 1960 and 2002.⁷²

Business Losses

According to ‘Gaining Costs, Losing Time: The Obesity Crisis in Texas,’ obesity could cost Texas businesses \$32.5 billion annually by 2030, if current trends in obesity and health care costs continue.⁷³ The report estimates that nonmedical costs could be as high as **billions** from lost time at school and work, lower productivity, young mortality, and increased transportation costs.⁷⁴ Additionally, the report estimates that indirect costs associated with obesity account for 57.5 percent of total obesity-related business health care costs, or \$5.4 billion in 2009. Combined with direct health costs, total business costs were \$9.5 billion in 2009.⁷⁵

Areas of Costs	Est. Costs	Percent
Healthcare	\$4,022,324,929	42.5%
Absenteeism	\$1,643,955,363	17.4%
Presenteeism	\$3,469,229,333	36.7%
Disability	\$321,813,719	3.4%
Total Costs	\$9,457,323,345	100.0%

Source: Office of Susan Combs, Texas Comptroller of Public Accounts

Loss of Military Personnel

Between 1995 and 2008, at least 140,000 recruits arriving at Military Entrance Processing Centers weighed too much to pass their entrance physicals.^{76 77} The Army estimates that 27 percent of the nation’s young adults (17 to 24 years old) exceed weight requirements to qualify for military service. Every year, about 1,200 enlistees are involuntarily discharged from duty because they cannot stay within weight limits; each represents about \$50,000 in recruitment and training costs, an annual cost of \$60 million.⁷⁸ Mission:Readiness, a group of retired admirals and generals, work to end this loss by advocating for early childhood interventions around increased access to healthy foods and physical activity in Texas schools.

IMPACT OF CHILDHOOD OBESITY

Chronic Disease

Although many of the physical health conditions associated with childhood obesity will subside if a child reaches a healthy weight, some continue to have detrimental effects into adulthood. Additionally, children who are overweight or have obesity as preschoolers are five times as likely as healthy-weight children to be overweight or have obesity as adults. Children with obesity are more likely to become adults with obesity and suffer from consequential physical and mental health problems.⁷⁹

Some of the most common health problems associated with childhood obesity include:⁸⁰

- Diabetes
- Sleep apnea
- Cardiovascular disease

Children with obesity are at greater risk for certain diseases including:

- Type 2 diabetes
- High blood pressure

Additionally, childhood obesity results in higher health care costs. A child with obesity has \$12,900 more in medical costs than a child with healthy weight.⁸¹

Mental Health

Obesity has been described as being “one of the most stigmatizing and least socially acceptable conditions in childhood.”⁸² The negative stereotype, stigmatization, and bullying that children with obesity are subjected to can lead to low self esteem, low self confidence, and a negative body image. Bullying can lead to a negative feedback loop of unhealthy habits, in which children use food as a coping method and source of comfort, and avoid physical activity to avoid situations in which they might be harassed.⁸³

Academic

A research study concluded that children who were affected by overweight and obesity were **four times more likely to report having problems at school than their healthy weight peers**, and more likely to miss school more frequently.⁸⁴



OBESITY AND COVID-19

The impacts of obesity are even more deadly during the current pandemic for both adults and children with obesity.

In a CDC study of deaths from COVID-19 between February and May 2020, the CDC found that mortality was highest for those 65 years or older and those with underlying medical conditions, such as obesity.⁸⁵ However, obesity is a stronger predictor of severe COVID-19-related illness than other medical conditions such as cardiovascular or pulmonary disease.^{86 87}

As of September 26, 2020, the CDC reported that among 7,865 adults hospitalized with COVID-19, 90.9 percent had an underlying health condition, particularly those associated with obesity.⁸⁸ Hospitalized COVID-19 patients with severe obesity are 7 times more likely to require use of ventilators compared to patients with a healthy weight.

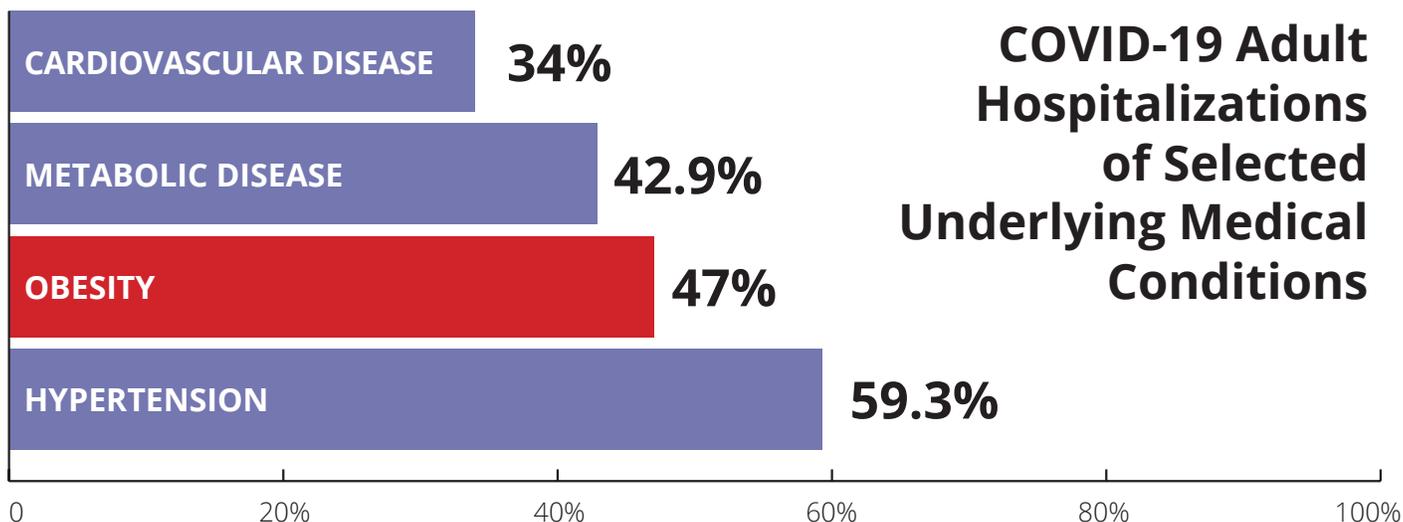
Hospitalized COVID-19 patients with severe obesity are 7x more likely to require use of ventilators compared to healthy weight patients.^{89 90}

The US has the highest prevalence of adult obesity and the greatest number of deaths from COVID-19 in the world.^{91 92} Studies have shown individuals with obesity are more likely to be hospitalized and need the use of a respirator.⁹³

Black and Hispanic populations are disproportionately affected by chronic diseases (including obesity), increasing their risk for worse outcomes from COVID-19.⁹⁴ Early data show that non-white people are more likely to be hospitalized from the virus, and the CDC reports that African Americans are two times as likely to die from the virus than their white counterparts.^{95 96} In Texas, 53 percent of deaths have been among Hispanic adults.^{97 98}

These effects are not limited to adults. As of September 26, 2020, the CDC reported that among 243 children hospitalized with COVID-19 and known condition status, 52.7 percent had an underlying health condition.⁹⁹ Obesity is a risk factor for hospitalization and mechanical ventilation from COVID-19 among children. One study demonstrated that obesity was the strongest risk factor for mechanical ventilation among children ages two years or older with COVID-19.¹⁰⁰ Severe obesity is an even higher risk for COVID-19 complications among children.¹⁰¹

Like adults, during stay-at-home orders, youth have reported more physical inactivity, sedentary behavior, and consumption of unhealthy foods and sugar-sweetened beverages – all of which increase risk for weight gain.¹⁰²



Source: Centers for Disease Control and Prevention, COVIDView, September 26, 2020.



PROMISING INTERVENTIONS

Across Texas, work is being done in local communities to address the obesity epidemic outside of policy changes. There have been successful programs to attempt to curb food insecurity by increasing the availability and accessibility of healthy foods, as well interventions that target increasing physical activity and instill healthy habits from a young age.¹⁰³ In addition, training programs and development of new tools are helping primary care providers to better help their patients with obesity. If scaled and modified appropriately, these programs could be models for legislative change.

Houston Rx Program

The Nutrition and Obesity Policy Research and Evaluation Network (NOPREN) has identified ‘food prescriptions’ as a program to reduce hunger by connecting patients at risk for food insecurity with community organizations to provide them with produce, and assist them with enrolling in nutrition assistance programs.¹⁰⁴ In Southeast Texas, the Houston Food Bank has partnered with healthcare systems, clinics, and organizations, to provide food prescription (Food Rx) to patients when referred by a designated Healthcare Partner or when they commit to a Community Health Program that improves their health and well being.

In the Food Rx program, clients are prescribed to redeem their prescription for 30 pounds of produce every 2 weeks for up to 6 months for a total of 12 redemptions.¹⁰⁵ This program increases access to nutritious food and decreases the financial stress associated with household grocery costs, which is shown to improve health outcomes and decrease food insecurity.¹⁰⁶

According to a 2019 study:¹⁰⁷

- The Houston Rx Program decreased food insecurity by 94%.
- 99% of participants reported consuming all or the majority of food provided.
- Both participants and providers felt the program was “well-received and much needed.”

Similarly, A Prescription for Healthy Living (APHL), is another Food Rx program in Harris County that couples cooking and nutrition classes with food distribution for patients with diabetes.¹⁰⁸ The program uses the USDA MyPlate to ensure patients have the skills they need to cook healthy and delicious food from the Harris Health Food Farmacy, increasing vegetable and whole grain consumption along the way.¹⁰⁹

Double Up Food Bucks

In April 2020, Texas received 417,468 applications for SNAP compared to 114,937 applications in April 2019, representing a **263 percent increase**.¹¹⁰

Programs such as Double Up Food Bucks, operated by Fair Food Network, allow SNAP recipients to double their buying power of fruits and vegetables. By paying for produce with their SNAP benefits, they are able to receive \$20-30 produce for free.¹¹¹ Double Up Food Bucks operates in 28 states at nearly 1,000 program sites.¹¹²

In Texas, the Double Up Food Bucks program is led by local organizations and operates in:^{113 114}

- Sustainable Food Center, Austin
- Urban Harvest, Houston
- Texas Health Resources and Blue Zones Project, Fort Worth
- Texas Hunger Initiative, Lubbock
- South Plains
- Waco

The total value of incentive redemptions for Double Up Food Bucks in Texas since 2017 is \$186,733.¹¹⁵

Double Up Food Bucks not only increases food access for the 222,000 families that it serves nationwide, but it benefits local farmers and local grocery stores. In 2019, nearly 5,000 farmers participated in Double Up programs nationwide, bringing in \$4.6 million in combined SNAP and Double Up sales for farmers nationally, and expanding reach and increasing demand for farmers.¹¹⁶ In California, grocers reported between 5 percent and 12 percent increases in produce sales after launching Double Up and grocers in other states have noted that participation in the program increased their focus on local produce.¹¹⁷

Healthy Food Financing Initiative

El Paso County is the first county in the country to establish a Healthy Food Finance Initiative (HFFI). HFFI is a public-private partnership that works to increase access to healthy and affordable food by supporting economic development projects that increase healthy food retail and strengthen the food system infrastructure. The first three projects of the El Paso County HFFI program were approved for funding in February 2020 and included expansion of a regional food hub, establishment of a rural farm stand, and growth of a healthy food-prep enterprise.¹¹⁸



Community Fridge Project

Community-maintained fridges full of free food are a new phenomena that popped up to tackle the increase in food insecurity and unemployment during the COVID-19 pandemic across the United States in cities including New York, Philadelphia and in Texas.¹¹⁹

The fridge is available 24/7 for people who need food and items, as well as people looking to drop off donated goods. The fridges boost vegetables, fruits, breads, frozen foods, prepared meals, restaurant foods, canned goods, baking and cooking supplies, hand sanitizer, and more.

The fridges also offer a solution to food waste, as it provides the opportunity for restaurants to reduce food waste by donating their daily surplus. These fridges serve as a lifeline to communities, particularly for those without access to reliable transportation to travel to other food banks. Community or 'free fridges' are located across Texas in Austin, Houston, Dallas, and Alief.^{120 121 122 123}



GET FIT Program

Methodist Healthcare Ministries of South Texas, Inc. offers the Get FIT program across South Texas, a free preventative program that educates children about nutrition and physical fitness to prevent Type II diabetes, obesity and sedentary lifestyles. The program is offered throughout the academic year at school districts across the state and in the summer as a one-month youth summer camp, Camp Fit.

The Good Food Purchasing Program

The Good Food Purchasing Program (GFPP) is a coordinated local-national initiative that harnesses the power of procurement to create a transparent and equitable food system, which prioritizes the health and well-being of people, animals, and the environment.

The GFPP brings transparency and accountability to school food procurement and considers five core values by which they advise public food procurement:¹²⁴

- Nutritional Health
- Environmental Sustainability
- Local Economies
- Valued Workforce
- Animal Welfare

Through the GFPP, cities, school districts and major institutions have access to tools and technical assistance that allow them to assess purchasing practices, set goals and create an action plan to increase Good Food purchases over time, track progress, and celebrate success. The GFPP complements and enhances existing Good Food procurement efforts, like Farm to School, and supports institutions in providing healthy, high-quality meals. The Program provides a flexible framework to support cities in creating benchmarks for procurement around the five values.

In February 2019, Austin Independent School District became the first school district in the state to adopt the GFPP.¹²⁵ Since adopting the GFPP, the Nutrition & Food Services Department at Austin Independent School District, which serves over 77,000 meals each school day, has incorporated more local items on their menus, and procured organic, antibiotics-free and non-GMO food options in all cafeterias.¹²⁶

Practical Obesity Management

With fewer than 8000 obesity specialists in the US, there are insufficient specialists to meet the demand of obesity treatment for 145 million individuals in the U.S. affected by obesity. The Practical Obesity Management Course, developed in El Paso by the UTHealth Center for Community Health Impact (CCHI), was designed to address this need by training primary care providers, including physicians, nurse practitioners, physician assistants, nurses, and social workers, how to work together as an interdisciplinary team to treat and manage obesity in their community clinics. As a result, west Texas now has 50 providers trained in obesity management. In addition, in response to requests from course

participants, UTHealth CCHI has converted the training to on-line modules in order to reach more providers, and has developed tools that help providers integrate the training into their daily practice in cost-effective and time-efficient ways.

The LiiNK (Let's Inspire Innovation N'Kids) Project

The LiiNK (Let's Inspire Innovation N'Kids) Project, a Whole Child School intervention, uses four 15-minute **outdoor, unstructured play breaks** in schools daily as well as a 15-minute daily character lesson that emphasizes empathy over bullying, respect, honesty, and trust elements that transfer to the playground and the classroom.

After over one year in the project, 14 percent of the LiiNK students shifted from the overweight or obese category to the healthy weight category, while only 2 percent of the control group shifted categories. After tracking BMI across three years, LiiNK students continued to reflect a 7 percent difference over the comparison students from the overweight/obese category to the healthy category.¹²⁷ Additionally, these results show that young children who are given 60 minutes of recess daily continue to increase physical activity patterns over those with only 30 minutes of recess daily.¹²⁸

Obesity Toolkits

The Texas Pediatric Society, the Texas Chapter of the American Academy of Pediatrics's Nutrition and Health Committee provides online resources and guidelines for pediatric practitioners to prevent, recognize and care for children and adolescents who have overweight or obesity issues. In 2005, the Committee developed the [Obesity Toolkit](#) to assist clinicians in providing care for children who were not at a healthy weight and was updated in 2008. The online toolkit provides patient handouts and videos for health practitioners.¹²⁹

The Michael & Susan Dell Center for Healthy Living also hosts the online [Child Obesity Toolkit](#) for parents, schools and community members to utilize, which includes evidence-based best practices, resources, data, tools, and guides, to combat the obesity crisis in Texas. The Toolkit is updated regularly and includes resources around COVID-19's impact on child obesity.¹³⁰



MOVING FORWARD

While the Partnership for a Healthy Texas has already identified our 2021 Legislative Priorities, there are areas outside the scope of what is politically possible during a unique and challenging session that we hope to explore in the future.

Healthcare

Despite the continued increase in the prevalence of obesity and the acknowledgment by the medical field that obesity is a disease, many continue to view obesity as a lifestyle choice or personal failure. Others acknowledge that obesity is a chronic and complex disease, but they believe that all that is needed is more robust prevention. These perceptions and attitudes, coupled with bias and stigma, have resulted in health insurance plans taking vastly different approaches in determining what and how obesity treatment services are covered for their members. It is time for a paradigm change, and for all public and private health plans to adopt a comprehensive benefit approach toward treating obesity. Individuals affected by obesity should have the same access to care as other recognized disease states: screening and treatment of obesity from a diverse range of healthcare providers who specialize in obesity care, coverage of FDA-approved anti-obesity medications, and access to surgical treatment options.

CONCLUSION

Obesity is a complex disease which is too often misunderstood, mislabeled and stigmatized. The current pandemic is only the most recent reminder of how deadly the obesity crisis is for both adults and children, and tragically, shut-down orders could also fuel an acceleration in rates of childhood and adult obesity. Yet, in the midst of devastation, this crisis presents an opportunity to strengthen public health measures which will help curb the obesity epidemic in Texas and address both the external and intrinsic factors contributing to the disease.

The Partnership for a Healthy Texas stands ready to work with state lawmakers to craft policies that will alleviate the burden of obesity on all Texans and pursue innovative legislative solutions in the future.

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