COVID-19: Impact of Adult Obesity on Health Outcomes

Texas Research-to-Policy Collaboration Project

A Resource for Improving Measurable Impact

October 12, 2020

Key Findings:

Obesity is linked to worse outcomes from COVID-19

- Studies conducted worldwide during the pandemic have identified obesity as a risk factor for severe illness, hospitalization, and death from COVID-19 among adults.[1-9]

Obesity affects many Americans

- The U.S. has the highest prevalence of adult obesity and the greatest number of deaths from COVID-19 globally.[10,11]

Obesity increases risk for other conditions

- Obesity increases risk for other conditions associated with severity of COVID-19, like hypertension, cardiovascular disease and type 2 diabetes.[5, 6, 12]

Minority populations are at higher risk

- Black and Hispanic populations are disproportionately affected by chronic diseases (including obesity), increasing their risk for worse outcomes from COVID-19.[13-18]

Stay-at-home orders impact healthy habits

- Many adults have difficulty maintaining a healthy diet and exercising, which are important precursors to maintaining a healthy weight, during stay-at-home orders.[19-20]

Impact of Obesity on COVID-19:

- Obesity is a stronger predictor of severe COVID-19-related illness than cardiovascular or pulmonary disease.[6]
- Hospitalized COVID-19 patients with severe obesity are **7 times more likely** to require use of ventilators compared to patients with normal weight.[1]
- Obesity is a risk factor for death from COVID-19, and this risk is greater among younger adults (<50 years) compared to older adults (>50 years).[7]

Americans at Risk:

- Prevalence of **adult obesity is highest in the United States** (36.2%), compared to other countries with a high prevalence of COVID-19: China (6.2%), Italy (19.9%), and Spain (23.8%).[11,12]
  - Severe obesity is the most rapidly increasing group of all obese groups in the US and among ethnic minorities.[21]
- In the U.S., **more deaths from COVID-19 occur in Black and Hispanic populations**:
  - In Louisiana, nearly 75% of COVID-19 deaths have been among Black adults, compared to 70% in Chicago and 40% in Michigan.[13-15]
  - **In Texas, 56% of deaths have been among Hispanic adults.**[16]

Impact of COVID-19 on Adults with Obesity:

During stay-at-home orders, adults with obesity in Texas have reported:[19]

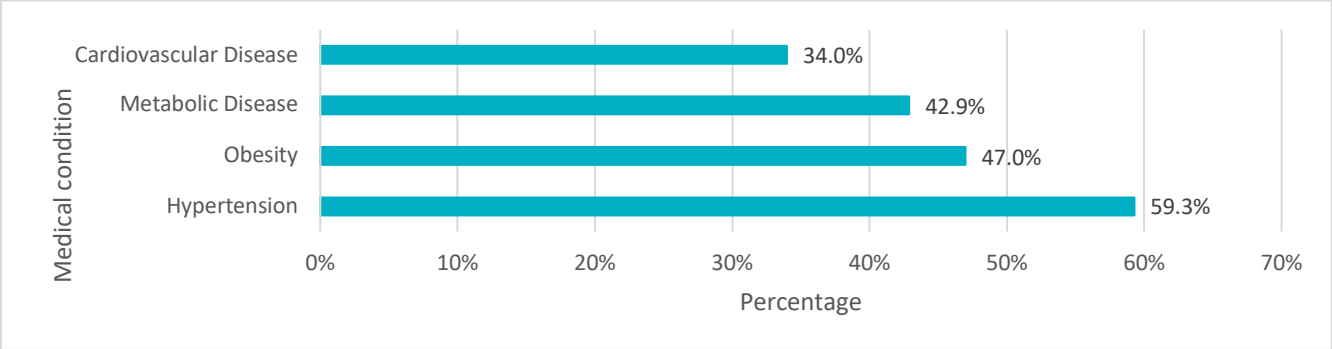
- Difficulty losing weight.
- Having less time for exercise and working out at lower intensities than before lockdown.
- Stockpiling food.
- Stress eating and difficulties following healthy eating patterns.
- Skipping meals (though most of the participants reported being food secure).

Socioeconomic inequities may be exacerbated by COVID-19, as many people have limited resources to exercise at home and purchase healthy foods during lockdowns.[20,22]

Underlying Medical Conditions and COVID-19 Adult Hospitalizations

As of September 26, 2020, the CDC reported that among 7,865 adults hospitalized with COVID-19 and known condition status, 90.9% had an underlying health condition. The most common conditions are reported below – all of which frequently co-occur in adults who have obesity.[23]

Figure 1. COVID-19 Adult Hospitalizations of Selected Underlying Medical Conditions[23]
Centers for Disease Control and Prevention, COVIDView, September 26, 2020.



Mitigation & Prevention Recommendations:

Improve Access to Healthcare:

- Enhance telehealth infrastructure for screening, prevention and treatment of obesity.[24] Telemedicine can be an effective approach for providers to address the health needs of adults – especially those at risk for worse outcomes from COVID-19 – while preventing hospital overcrowding and exposure to critically ill patients.[25] Expand healthcare coverage for adult obesity care to include all obesity care and treatment options (e.g., pharmacotherapy, nutrition counseling).[26,27]

Prevention and Management of Chronic Disease:

- Strengthen state systems and expand resources to support community interventions for obesity prevention, such as workplace wellness programs.[28]

- Promote availability and accessibility of healthy foods and beverages in retail and community settings.[24]
- Enhance infrastructure in the built environment to improve access for physical activity.[24]
- Improve mental and physical health for adults at the individual level by eating a variety of healthy foods, cooking food at home, exercising 150-300 minutes per week, enrolling in stress management programs, getting plenty of sleep, connecting with others, taking breaks from media exposure, and returning to activities they enjoy (e.g., painting, reading, walking).[17,29-31]
- Support, promote, and disseminate public health campaigns or messages to increase awareness of healthy eating and physical activity during the pandemic.

Summary

Adults with obesity are at increased risk for severe illness, invasive mechanical ventilation, hospitalization, and death due to COVID-19. Prevalence of obesity and deaths from COVID-19 are substantially greater in the United States compared to other countries. Further, minority populations are disproportionately impacted by obesity and other pre-existing conditions, increasing their risk for severe illness and hospitalization due to COVID-19. Recommendations to combat obesity in Texas include promotion of telemedicine during the pandemic to keep at-risk populations safe, strengthening of systems to support healthy eating and physical activity habits, public health messages aimed towards adults who have obesity to increase COVID-19 testing, and monitoring for underlying health conditions.

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