

Considering Pediatric Obesity as a US Public Health Emergency

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Obesity affects ~20% of U.S. youth, with severe obesity (body mass index [BMI] ≥ 120 th of the 95th percentile and/or ≥ 35 kg/m²) at record high prevalence.^{1,2} Although numerous public health strategies geared toward reducing or preventing pediatric obesity have been implemented, these have had limited success overall. One approach that has been successful for several diseases, but not yet attempted for pediatric obesity, is a public health emergency declaration.

In this perspective, we discuss pediatric obesity in the United States, needs for further effective interventions, previous public health strategies for mitigation, public health emergencies, and arguments favoring and opposing a pediatric obesity declaration. We focus on pediatric obesity for 2 main reasons. First, because obesity affects ~40% of US adults, given such high prevalence, a single public health emergency may be impractical and therefore starting with pediatric obesity may be more realistic.¹ Second, because most youth with obesity continue to be obese as adults, addressing obesity in pediatrics should reduce future incidence.

PEDIATRIC OBESITY TREATMENT AND PREVIOUS US PUBLIC HEALTH MITIGATION EFFORTS

Lifestyle modifications (eg, dietary changes, physical activity) remain the cornerstone therapy and background for all interventions.³ Additional treatment options, including antiobesity medications (4 currently Food and Drug Administration–approved for long-term management in adolescents) and metabolic/bariatric surgery, may also be necessary for optimal clinical outcomes.³ However, use of these additional therapies remains low because of such issues as inadequate access to pediatric obesity care specialists, acceptance, and insurance coverage.⁴ Limited coverage causes affordability issues for many, widening health care disparities.⁵ Although obesity prevention strategies are also essential, their implementation has largely been ineffective to date, evidenced by the fact that prevalence continually rises.⁶

Multiple public health strategies have been implemented to reduce or prevent obesity. Despite often being resource-intensive, these have overall

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not had demonstrable success. Among the most well-known efforts are “soda taxes” and school-based interventions, both showing mixed results or only moderate success (Appendix 1).

ARGUMENTS FAVORING A PUBLIC HEALTH EMERGENCY DECLARATION

Appendix 2 provides an overview of US public health emergency declarations, and Table 1 summarizes arguments favoring and opposing a pediatric obesity declaration.

The Scope Is Substantial

Obesity is associated with the development of numerous adverse health conditions including type 2 diabetes and cardiovascular disease (Appendix 3 shows obesity prevalence and cost information). Studies show that overweight/obesity account for >18% of U.S. deaths among 40- to 85-year-old people, comparable to cigarette smoking (the leading cause of preventable death), and Blacks are disproportionately affected.^{7,8}

Among children who develop obesity by age 4 years, ~75% will have obesity during adolescence, persisting into adulthood ~80% of the time.^{9,10} Therefore, childhood remains a critical time for action. Even without substantial weight loss, evidence-based care can significantly improve health outcomes.³

Public Health Emergencies Have Been Declared for Issues Impacting Fewer People

Public health emergencies for the opioid addiction epidemic were declared by some states, and then nationwide in 2017, authorizing use of billions of dollars from the Public Health Emergency Fund, temporarily reassigning certain personnel, and waiving some administrative requirements. This emergency was declared because, since 1999, prevalence of

opiate overdose-related deaths quadrupled, and ~500 000 died of drug overdoses between 2000 and 2015.

Although a public health emergency was declared for the opioid addiction epidemic, one has not yet been declared for obesity despite prevalence being substantially higher and effects, though perhaps spread over more time, just as serious. Although opioids accounted for two-thirds of the ~64 000 drug overdose-related deaths (~43 000) in 2016, overweight/obesity leading to cancer alone (1 of many obesity-related comorbidities) accounted for ~7% of cancer-related deaths (~40 000).^{7,11}

Public Health Emergencies Have Helped With Other Diseases

In 2009, the Department of Health and Human Services (HHS) declared an H1N1 influenza public health emergency, paving the way for improved prevention and treatment strategies. Its impact on morbidity and mortality has since significantly decreased from increased resource allocations. In 2020, HHS declared a COVID-19 public health emergency, followed by a national emergency. These actions diverted efforts toward mitigation and improving care access. In light of these declarations and resultant increased exposure, *Operation Warp Speed* was created, leading to the quickest creation of vaccines in history. Similarly, viewing pediatric obesity through a public health emergency lens may lead to more substantial progress by increasing resources and raising awareness, expediting development of more effective interventions with population-wide effects evident sooner than previously seen.

ARGUMENTS OPPOSING A PUBLIC HEALTH EMERGENCY DECLARATION

Resource Allocation Concerns

Because public health emergencies often require substantial amounts of time, energy, and funding, where would

TABLE 1 Arguments Favoring and Opposing a U.S. Pediatric Obesity Public Health Emergency Declaration
Favoring a Pediatric Obesity Public Health Emergency
<ol style="list-style-type: none"> 1. Obesity is a burgeoning health disease epidemic that significantly strains the medical system, and the time to begin acting is during childhood 2. Public health emergencies have been declared for diseases affecting far fewer individuals than obesity and are just as morbid and fatal (ie, the opioid-addiction epidemic) 3. Public health emergencies have helped in the past for numerous diseases including H1N1 influenza and COVID-19 4. Although previous initiatives for obesity treatment have had limited success, a public health emergency declaration has yet to be tried and may be more effective given the increased resources, scope, and attention devoted to such an approach
Opposing a Pediatric Obesity Public Health Emergency
<ol style="list-style-type: none"> 1. Resources would need to be provided by either potentially diverting from other efforts (ie, opiate-addiction, tobacco cessation) or increasing the national debt (already burdened by COVID-19), to fund a disease for which previous public health policies have overall only been modestly effective 2. Health policies geared toward mitigating obesity created by a declaration may affect an individuals’ autonomy despite the fact that an individuals’ actions (ie, dietary choices) may not directly impact others’ health or well-being 3. A declaration may either, unintentionally or intentionally, increase weight stigmatization and/or worsen health care disparities 4. A declaration may create moral panic leading to those with obesity being further ostracized, or be viewed as “one too many” leading to future declarations being ignored 5. Lack of clear benchmarks for determining when a public health emergency for a chronic disease that affects a large portion of the population, such as pediatric obesity, should be discontinued
Nonexhaustive.

this support come from for a pediatric obesity declaration?¹² As the US national deficit is at an all-time high, should this be driven higher to support resources needed or should funding be diverted from other efforts (ie, tobacco cessation, opiate addiction, COVID-19)? This is especially pertinent to consider given that many public health interventions for obesity have had limited success and raises questions regarding whether diverting funding toward new efforts is the best use of limited resources.^{6,12}

Potential Autonomy Impacts

Individuals value the right to have autonomy and decide for themselves (or dependents) their health-related decisions.¹² Although strong arguments can be made to limit autonomy for actions directly impacting others' health and well-being (ie, laws against driving under the influence), arguments become more nuanced for actions not directly affecting others. Such is the case with policies that could be created through an emergency limiting intake of unhealthy food and drink choices (ie, removing vending machines). That said, pediatric obesity has indirect impacts on others, including increasing health care costs and making policies less affordable, differentially affecting those from lower socioeconomic backgrounds most often affected by obesity.⁵ Furthermore, due process concerns may be amplified when emergency orders limit individual freedoms and similar past policies have caused public outcry leading to their repeal and state-wide bans on such future initiatives, thereby increasing unhealthy behaviors.¹²⁻¹⁴

Perpetuating Stigma and Inequalities

Obesity-related health policies can intentionally or unintentionally single out individuals based on weight, increasing stigmatization and discrimination.^{12,15} Much of this stigma stems from beliefs that obesity is a "condition of choice" resulting solely from poor lifestyle choices. Evidence suggests weight stigmatization can trigger psychological and behavioral changes that worsen metabolic health, weight, and all-cause mortality independent of BMI.¹⁶ Although negative health impacts from obesity generally develop over time, harm experienced from stigmatization can occur acutely.¹⁶

Health policies may also inadvertently negatively affect specific groups and, therefore, while some benefit, others may be harmed. For example, "soda taxes" studies have shown that most tax was "passed through," increasing prices for both unhealthy and healthy beverages.¹⁷ Such practices increase costs for everyone, differentially impacting those from lower socioeconomic backgrounds already more likely to be food insecure. Appendix 4 lists additional arguments opposing a declaration.

SHOULD PEDIATRIC OBESITY BE DECLARED A PUBLIC HEALTH EMERGENCY?

Although arguments favoring a declaration may not currently exceed those opposing it, we believe these arguments offer insights for effectively addressing this epidemic. Considerations for a declaration should account for potential to "catastrophize" obesity, hyping the problem without offering tangible solutions. Publicizing issues without providing solutions is unlikely to be effective, as evidenced by the "war on obesity" amounting to little more than a moral panic.¹⁸ Even with more acute threats from COVID-19 (versus chronic threat of obesity) and emergence of effective treatments, significant public resistance to those measures emerged.¹⁹

To reduce potential weight stigmatization created by a declaration, further advocacy efforts geared toward health care providers, policymakers, and the public around recognition that obesity is a genetically and biologically driven disease are essential. Policymakers should involve scientists and other stakeholders (ie, health system administrators and professionals, people living with obesity). We must also consider that this epidemic is unlikely to recede quickly even with more effective policies. Though new approaches may increase short-term costs, there will likely be future cost savings because of decreased long-term obesity-related comorbidity prevalence.²⁰ Cost-effectiveness and equity impact analyses evaluating such approaches should be performed before robust implementation.

Though the United States made significant progress in mitigating COVID-19, it remains a dominant health issue and central public health focus. As for addressing pediatric obesity, although multiple practical considerations must be considered, we can learn from and build on these experiences to improve child health (Supplemental Table 2). Namely, with COVID-19, a public health emergency increased awareness and resources for a substantial public health problem, leading to discovery of solutions with a sense of emergency. Because studies show that obesity worsens COVID-19-related complications and mortality, this pandemic may serve as a call to action. Specifically, it may be time to more effectively address the pediatric obesity epidemic with broader and more immediate actions. The most important first step toward this end is to increase advocacy to empower youth and families living with pediatric obesity.

APPENDIX 1: OBESITY PUBLIC HEALTH STRATEGIES: THE "SODA TAX" AND SCHOOL-BASED INTERVENTIONS

Among the most well-known public health strategies to mitigate obesity are "soda taxes," implemented by some local governments in the United States and elsewhere. Beginning in 2015 in Berkeley, California, the "soda tax" eventually expanded to other U.S. cities, including San Francisco, Oakland, Seattle, Philadelphia, and Chicago. Other countries, including

Mexico, Norway, and the United Kingdom, have also implemented such taxes. In the United States, these taxes raised the price of sugar-sweetened beverages by 1 to 2 cents per ounce, thereby increasing the total price by as much as 75%. The primary rationale behind “soda taxes” is similar to those behind efforts to increase tobacco prices, namely, to change relative prices of healthy versus unhealthy foods and beverages to move diets away from unhealthy choices to reduce obesity.²¹ An additional rationale for such taxes is to prompt manufacturers to reformulate their product offerings from being unhealthy.

Overall, the effects of “soda taxes” have been mixed, with some studies showing reduced consumption within specific populations (ie, children with overweight, individuals in low-income neighborhoods); however, many show little or no impact.^{21–28} Even granting that such taxation schemes may discourage the consumption of targeted products, evidence for their effect on health outcomes is currently lacking. Notably, although consumption of sugar-sweetened beverages in the United States has declined since the early 2000s, obesity rates have continued to rise without interruption during that time.²⁹

Another commonly used public health strategy is school-based interventions; however, these have also only been moderately successful. For example, systematic reviews and meta-analyses of school-based interventions published in 2012 and 2013 showed reductions in BMI of only 0.16 to 0.33 kg/m², with a relatively small 0.35 kg/m² BMI reduction specifically in interventions targeted at children with overweight or obesity.^{30,31} Further, studies of school-based BMI screening suggest this approach has no benefit and may cause harm by leading to body image issues.³²

APPENDIX 2: OVERVIEW OF U.S. PUBLIC HEALTH EMERGENCY DECLARATIONS

Public health emergency declarations release financial resources to handle an actual or potential public health crisis. According to HHS, under Section 319 of the Public Health Services Act, the HHS Secretary can declare a public health emergency if they determine, after consultation with public health officials as necessary, that (1) a disease or disorder presents a public health emergency or (2) a public health emergency otherwise exists.³³ On the national level, a public health emergency declaration allows the HHS Secretary to take specific actions in response to that emergency and can be a necessary step in authorizing various discretionary actions to respond to it.³³ These discretionary actions include increasing federal or state spending (thereby potentially incurring further deficits) or diverting funds from other causes from which they were initially intended. For example, after COVID-19 was declared a U.S. public health emergency, the government took numerous actions that ultimately helped pave the way for the \$2.3 trillion Coronavirus

Aid, Relief and Economic Security Act, and later the American Rescue Plan, in response to the economic fallout from the pandemic.

On the state level, laws vary regarding the definition of an “emergency.” Some states refer to the occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property resulting from a natural phenomenon or human act.¹³ Other states mention only the magnitude of the potential harm regardless of source, and some do not explicitly define an “emergency.”³⁴ This raises many critical potential questions. Notably, can a chronic health condition such as pediatric obesity be considered a public health emergency, and when should the lawmaking process and the potential rights afforded to individuals be suspended to protect public health? This is important because the use of emergency powers often falls outside usual governmental “checks and balances” systems, thereby placing more authority to act in the hands of a few public officials (ie, governors, public health officers).

Budget models from the Wharton School of the University of Pennsylvania have predicted that the Coronavirus Aid, Relief and Economic Security Act may lead to a 6.7% to 7.5% increase in federal debt in 2025 and 2030 compared with an economy without this.³⁵ Moreover, estimates from the Committee for a Responsible Federal Budget have predicted that the 2021 American Rescue Plan, created to further speed up recovery from COVID-19, may cost an additional \$4.1 trillion through 2031.³⁶

APPENDIX 3: RISING OBESITY PREVALENCE AND COSTS

The increase in obesity prevalence has remained uninterrupted since the 1980s. Obesity currently affects ~20% of U.S. youth, with severe obesity at record high prevalence.^{1,2} Approximately 85% of adolescents with severe obesity already have ≥1 cardiovascular risk factor.³⁷ By 2030, it is estimated that there will be an additional 65 million people in the United States with obesity leading to 6 to 8 million additional cases of diabetes, 5 to 7 million cases of heart disease and stroke, and 500,000 cases of cancer, with associated additional costs of \$48 to \$68 billion dollars annually.³⁸ Obesity-attributable health care costs in the United States are estimated to approach anywhere from \$150 billion to \$1.4 trillion annually.^{39,40} Even without substantial weight loss, evidence-based obesity care can significantly improve health outcomes.⁴¹ For example, a 2% to 5% weight loss maintained over 2 years reduces risk for type 2 diabetes in adults with overweight/obesity by 30% to 60%.⁴²

APPENDIX 4: ADDITIONAL ARGUMENTS OPPOSING A PEDIATRIC OBESITY PUBLIC HEALTH EMERGENCY DECLARATION

Also considered by those opposing a pediatric public health emergency declaration are concerns for creations of moral panics, widespread fears that some are threatening

the well-being of a society, or “boy who cried wolf” scenarios.¹⁸ A consequence of the former is that neither state, civil society, nor private sector institutions feel responsible for the rise of obesity, leading to those with obesity being further ostracized.¹⁸ As for the latter, although a public health emergency is a powerful tool, future warnings may be disregarded if used too often, leading to future epidemics being ignored.⁴²

Additionally, there is a need for clear benchmarks for terminating use of emergency power.³⁴ When the disease for which

a public health emergency is declared is chronic and affects such a large proportion of individuals, such as those with pediatric obesity, the determination for when that emergency has been resolved and legislative actions can be removed are unclear and, therefore, could continue in perpetuity.

ABBREVIATION

HHS: Health and Human Services

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