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The Childhood Obesity Epidemic: Lessons for Preventing Socially Determined Health Conditions

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Between 2000 and 2010, there were almost 3 times as many publications in the *Archives* about childhood obesity as in the preceding 90 years of the journal's history. This reflected efforts to understand a child health problem that caught the public's attention because it was so common, visible, costly, and difficult to treat. Despite all the research on childhood obesity, we have not reversed the epidemic. One explanation may be that obesity, like all health conditions that are primarily socially-determined, resists durable solutions until there is a change in societal norms and the values underlying those norms. The childhood obesity epidemic is just one symptom of our way of living. Reversing the epidemic may require that we apply a new approach to improving child health in the 21st century. One approach is to make societal changes to enhance human well-being rather than to prevent a particular symptom, such as childhood obesity. In the process, we may address obesity and other socially-determined health conditions while preventing new ones from emerging.

LOOKING BACK: WHAT DID WE LEARN IN THE PAST DECADE?

Early in the past decade, childhood obesity was declared an epidemic on the basis of data presented in the most highly cited paper ever published in the *Archives*.[1] As the decade passed, we learned that the causes of the obesity epidemic were complementary, not competing. While it is widely understood, for example, that the epidemic was caused by changes in children's environments and not by changes in the frequency of obesity genes in the population, we now understand that the expression of obesity genes can be altered by the environment. We also learned that the epidemic resulted from both overeating and inactivity as well as other complementary causes: the amount and the type of food people ate, individual and group behavior, free choice and constraints on those choices, household and community factors, and poverty and affluence.

Before reaching this more nuanced understanding, however, researchers tended to focus on single causes. This may have occurred because research, like the epidemic itself, is influenced by social forces. The custom of biomedical inquiry to identify a linear chain of causation is not well-suited to untangling the web of causation that produced the obesity epidemic.[2] Some may have been looking for isolated causes to engage public action by assigning blame for a problem with high societal costs.[3] However, as the decade is ending,

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there is increasing recognition that the childhood obesity epidemic has multiple causes of social origin that need to be addressed with collective action.

LOOKING FORWARD: WHAT MORE CAN THE OBESITY EPIDEMIC TEACH US?

To conclude solely that childhood obesity is a complex problem with broad social determinants keeps us from the opportunity to understand how we can better address socially-determined health conditions in children. Many of the other "new morbidities,"[4] such as depression, substance use, attention-deficit disorder, and bullying are likely to share causes rooted in our way of living. To address those root causes, we must ask not only *how* our way of living has changed but *why*.

Failure to consider why our way of living has changed may lead to solutions for the obesity epidemic that are not sustainable or that create new problems. It is plausible that we could reverse the obesity epidemic by changing children's environments in ways that make children less well than they are now, especially if we do not recognize that obesity may reflect how children are coping with multiple stresses induced by our current way of living. For example, protecting children from food marketing or removing televisions from their bedrooms may leave children lean but not well, if we fail to address the questions of whether we should market anything to young children or have more than one working television in a household.

The childhood obesity epidemic was an unexpected consequence of numerous well-intentioned decisions made by adults about how to improve our way of living. These decisions were often made without considering children or all aspects of their well-being. These decisions at the household, community, and national levels reflected societal norms. These decisions resulted in policy changes, ranging from farm subsidies to reducing physical education classes, and lifestyle changes, ranging from the increased use of electronic media to reliance on processed food. In aggregate, these decisions so changed children's physical and social environments that in just two decades the phenotype of the average child had changed.

The decisions that led to changes in our way of living reflected the values of adults — what was important to us. Although these changes may have been disproportionately influenced by the values of those with the most political and economic power, the changes also reflected the values that parents brought to parenting, consumers brought to the marketplace, and voters brought to the polls. The shifts in societal values, like the resulting shifts in children's energy balance, were not necessarily large but were persistent and widespread. It is likely that there were shifts in the balance between values that sometimes compete with one another: the value of money and material goods over relationships, quantity over quality, new over old, outcomes over process, competition over cooperation, fast over slow, more over less, and short-term goals over long-term goals.

FOCUSING ON HUMAN VALUES AND WELL-BEING

Reversing the childhood obesity epidemic requires a widespread and sustained change in societal norms, and this is unlikely to occur without shifts in the societal values that underlie those norms. So far, the public discussion on obesity has primarily been about changing the environmental factors related to eating and activity rather than the values that underlie those changes. Moving the discussion to values is a paradigm shift that could not only allow meaningful progress in childhood obesity but also help prevent other socially-determined health conditions from emerging.[5] Discussions about values need not be contentious if they

are framed as a way to clarify the trade-offs that must occur in achieving goals people have for themselves and their children when resources are inevitably limited. For example, we may want more extracurricular activities in our schools, but we may also be unwilling to pay for them by selling candy to children.

One way that pediatricians might safely introduce values into the public discussion is to shift the focus from preventing poor health outcomes to promoting well-being.[6] Medical and public health professionals now emphasize that obesity is bad for children's health and our economy. Instead these professionals could be talking more about what it means for children to be well and what changes are required in homes and communities to make children well, discussions in which *wellness* means more than avoiding health problems such as obesity. In defining wellness and the changes needed to achieve it, people may assign less blame and more freely discuss their values.

DEFINING AND PROMOTING HUMAN WELL-BEING

Well-being for children has usually been characterized differently than for adults.[7] However, one way to consider preventing socially-determined health conditions that affect children is to advance a single framework for human well-being that applies across the lifespan. This would force us to consider the requirements for well-being that might be similar at the ages of 5, 55, and 85. Adults will continue to create social structures and norms that promote their well-being. If children and adults have a shared set of requirements for well-being, then children will also benefit from these social changes. For example, addressing the problems of food insecurity and neighborhood safety can improve the well-being of both adults and children, involves questions of societal values, and can affect problems beyond the symptom of obesity. The need for a shared framework is also suggested by the fact that reversing the childhood obesity epidemic requires reversing the adult obesity epidemic, which should not necessarily require different approaches.

Among the various models of adult well-being, the ones that hold the most promise for integrating the needs of children are models of eudaimonic wellbeing.[8] These models share in common the importance of the human need to find purpose and meaning in life, which requires lifelong growth and development. In addition, the eudaimonic models emphasize other requirements for wellness, such as autonomy, competence, mastery, self-acceptance, positive relations with others, and transcending self through commitment or connection to something or someone else.

If children, like adults, have similar requirements to be well and if these shared requirements are considered in decisions about changing policies, institutions, and environments, then we might make more progress in addressing socially-determined health conditions, such as obesity, and preventing ones that have yet to emerge. If these decisions about social changes focused on the benefits and risks to human well-being, they might generate more public dialogue about the values underlying the changes. For example, an emphasis on developing positive relationships with others might clarify the trade-offs that can occur with acquiring material goods, which is also important to well-being. An emphasis on relationships might also clarify the trade-offs in connecting to others through face-to-face versus electronic communication. The importance of helping children identify their natural gifts and find meaning and purpose in their lives might highlight the trade-offs in education between children's cognitive development and their social, emotional, and spiritual development. Such trade-offs, while not about obesity, per se, could also affect energy balance. To help children transcend a focus on self by helping them see their connection to others and the natural world could avert unforeseen and socially-determined health consequences due to

depleting and degrading environmental resources. To the extent that this transcendence affects how we use transportation and local food, it could also affect obesity.

CONCLUSION

The childhood obesity epidemic is a valuable and humbling mirror for adults that allows us the opportunity to see the trade-offs we have made because of the ways of living we have chosen. The downsides of these trade-offs are also reflected in other problems that affect human health, such as climate change, an unsafe food supply, and increasing income inequality. It is inevitable that human societies, driven by their values, will try to improve living conditions by altering their environments and social structures. However, in doing so, there will invariably be some aspects of children's lives that will be worsened, often unevenly across social classes. As the childhood obesity epidemic has shown us, many of these downsides cannot easily be foreseen.

Just as, 100 years ago, some understood that social changes were required to address the high US infant mortality rate,[9] many now understand that social changes are required to reverse the obesity epidemic. The persisting importance of social conditions for children's health and the inevitability of social change suggest that pediatricians must develop an approach to preventing rather than treating socially-determined health problems in children. One approach consists of encouraging social changes that promote human well-being and stimulating public dialogue about the values that underlie social change and the requirements for human well-being.

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