Opinion: Why we should regulate sugar like alcohol

By Laura Schmidt, Special to CNN
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Obesity may just be a marker for the damage caused by the toxic effects of too much sugar, the author says.

STORY HIGHLIGHTS

Researchers seeing similar effects from too much sugar and too much alcohol

Alcohol is simply the distillation of sugar, she says, and sugar should be taxed and regulated

Schmidt: We may be thinking about obesity and chronic disease in the wrong way

She says tackling obesity and chronic disease will be hard, but concerned people can do plenty

Editor's note: Laura Schmidt and her colleagues, Robert Lustig and Claire Brindis, are the authors of "The toxic truth about sugar." To read the full commentary, visit the science journal Nature.

(CNN) -- I am a medical sociologist, which means I study the health of whole societies. I've spent more than 20 years studying the best possible ways to address alcohol problems in societies -- what works and what doesn't to protect people from harm.

I work as a professor in the University of California, San Francisco School of Medicine and at the UCSF Clinical and Translational Science Institute. This allows me to connect with other scientists who come from very different backgrounds but who want to work together on big problems -- think of a Manhattan Project, only one focused on protecting health through the collaboration of scientists who study everything from tiny cells to entire societies.

So three years ago, a pediatric endocrinologist named Rob Lustig walks into my office and asks for my help. Rob tells me that he's finding many connections between the metabolism of fructose (sugar) and ethanol (alcohol) in his work on metabolic functioning, liver damage and the obesity epidemic.

Rob runs the obesity clinic at UCSF Benioff Children's Hospital, where he spends his days trying to help morbidly obese kids who feel hungry all the time. One of the saddest effects of sugar overconsumption is to dampen the natural hormones that tell kids' bodies when they've eaten enough, leading them to feel hungry...
even as they overeat.

Rob says he's also seeing that too much sugar in these kids' diets causes severe liver damage -- they have even started doing liver transplants on some of the kids in his clinic.

Fast-forward to today, and here's what we've learned:

-- More people on the planet Earth are dying from chronic diseases such as heart disease, stroke, cancer and diabetes than anything else. This is even true for developing countries that have turned a critical page on health: People in those countries are now more likely to die from the "diseases of affluence" than from the "diseases of poverty" like malaria and cholera. Major risk factors in chronic disease, of course, are alcohol, tobacco and junk food consumption.

-- Many of the health hazards of drinking too much alcohol, such as high blood pressure and fatty liver, are the same as those for eating too much sugar. When you think about it, this actually makes a lot of sense. Alcohol, after all, is simply the distillation of sugar. Where does vodka come from? Sugar.

-- We may be thinking about obesity and chronic disease in the wrong way. Most experts are worried about sugar because it's "empty calories" that make people fat. But what leads to chronic disease is actually something called metabolic syndrome, which can be caused by the toxic effects of sugar.

-- Added sugar at the levels consumed by many Americans changes our metabolism -- it raises blood pressure, critically alters the signaling of hormones that turn hunger on and off, and can damage the pancreas and liver. Worldwide consumption of sugar has tripled over the past 50 years, and along with that has come an obesity pandemic. But obesity may just be a marker for the damage caused by the toxic effects of too much sugar. This would help explain why up to 40% of people with the metabolic syndrome - - what leads to diabetes, heart disease and cancer -- are not clinically obese.

What should we do about all this?

First, we think that the public needs to be better informed about the science of how sugar impacts our health.

Second, we need to take what we know about protecting societies from the health harms of alcohol and apply it to sugar.

What doesn't work is all-out prohibition -- that's very old-school and often creates more problems than it solves.

What does work are gentle "supply side" controls, such as taxing products, setting age limits and promoting healthier versions of the product -- like making it cheaper for a person to drink light beer rather than schnapps.

The reality is that unfettered corporate marketing actually limits our choices about the products we consume. If what's mostly available is junk food and soda, then we actually have to go out of our way to
find an apple or a drinking fountain. What we want is to actually increase people's choices by making a wider range of healthy foods easier and cheaper to get.

Turning around obesity and chronic disease will be an uphill political fight, but there's plenty that concerned people can do:

-- Contact the U.S. Department of Agriculture and Congress to encourage them to take sugar off the Generally Regarded as Safe (GRAS) list. This is what allows food producers to add as much sugar as they want to the products we eat.

-- Support our local, state and federal officials in placing a substantial tax on products that are loaded with sugar. Ask them to use the proceeds to support a wider range of food options in supermarkets and farmer's markets.

-- Help protect our kids by getting sports drinks and junk food out of our schools. Ask our school boards to replace those vending machines with good old-fashioned drinking fountains. Ask local officials to control the opening hours and marketing tactics of the junk food outlets surrounding our schools. That way, kids can walk to school without being barraged by advertising for sugary products that taste good but harm their health.

We need to remember that many of our most basic public health protections once stood on the same battleground of American politics as sugar policy does today.

Simple things like requiring a seat belt and having an airbag in your car to save you in a crash were once huge political battles. Now, we take these things for granted as simple ways to protect the health and well-being of our communities.

It's time to turn our attention to sugar.

The opinions expressed in this commentary are solely those of Laura Schmidt.
When I was young I ate far more candy and other junk food than I allow my own children to eat or than I eat myself today. All soda was sugared when I was a kid except Fresca and Tab, which no self-respecting kid would drink. I drank either soda or sugared Kool-Aid every day, or limeade or lemonade. Other kids did, too; I was about average. Today, most of us (at least among people I know) restrict their kids' junk food intake way more than mine was restricted, yet there was only one really fat kid in my grade school and half a dozen or so who were chunky but not to the point of being obese. Fat kids were rare in the early seventies. Today, they tell us it's an epidemic, even though many parents really restrict junk food. Is it that there's another group of parents out there who are stuffing their kids with junk food 24/7, or is something else going on?

Whenever someone supports government regulations, all I hear is "I want men with guns to force you into conforming with my specific beliefs, because that tactic is working so well in China and North Korea."

Yet another irresponsible, insane person who wants the government to save us all from ourselves. Look, everyone knows that they need to eat sugar in moderation. A lot of it isn't good for you. Big deal. The government does not need to be involved in this.

Most people are NOT obese. Most children do not need liver transplants. The ONLY solution by government bureaucrats (including state school professors like the author) is too tax and regulate EVERYONE in an attempt to fix the problem of the few. It must be very nice to be a bureaucrat. You have the POWER to control everyone else. HOPE AND CHANGE!

I have a better idea. Let's just ban self-righteous San Francisco professors who actually believe the world gives a d@mn about their silly opinions. This load of crap is after all only her opinion with nothing in the way of facts provided to back it up.

Our food labeling is complex, to understand food label you almost need to be scientist to know whats in our food we eat, I use an iPhone app NxtNutrio which allows me to scan the bar-code of food item then for products that contains High Fructose Corn Syrup(HFCS), other bad sugar or caution ingredients NxtNutrio helps me to avoid them.

NO to Regulation YES to Education and Technology to help consumer
Agreed no to regulation and yes to education. But HFCS is not any more harmful than any other monosaccharide sugars. This is a media misconception. It's all about cutting down on sugar intake in general, there isn't bad and good sugar. The body metabolizes them all the same.

Choice is bad, freedom is bad, liberty is bad. Government bureaucracy forcibly making all your choices for you so you're forced to make only the right choice without freedom? Good.

I'd disagree; but then lunatic nanny-statists like the people pushing the sugar controls would punish me for making a "bad" choice and opposing fascist dictatorship style government.

So remember, if you really hate letting people make their own choices; push for more government control... we'll get slavery back again, eventually and incrementally. Won't that be great?

Actually it's both - HFCS is typically 55% Fructose, 45% Sucrose whereas table (cane) sugar is 50/50, so there's only a minor difference in the makeup of these. Both wreak metabolic havoc on our bodies and should be regulated strongly, IMHO. I would certainly back a tax on high-sugar foods (doesn't matter if you're not the only buying them, right?) while at the same time educating people as to WHY it deserves to be taxed.

Be careful here. This is a slippery slope. 12 oz of pure grape juice has 50% more sugar than 12 oz of Coca cola. You might be surprised at how many "healthy" foods are very high sugar, especially fruits.
This professor and medical sociologist is absolutely on the right track. Everyone is so worried about being P.C. that they stop to see the science staring at them. Children and adults are having liver transplants and are obese because of too much sugar consumption! People don't like change. But we regulate alcohol and the problem is exactly that people think sugar is harmless and it isn't. We don't even know what moderation means in food anymore. I think it is Jeffrey Smith who says, have the cake, but only if you make it from scratch, which gives one pause, doesn't it? Are you aware that most sugar purchased at the store and used in processed foods is beet sugar which is often GMO? (Cane sugar is not GMO at this time, but in the U.S. our foods do not need to be even labeled if they contain GMO!) Foods look like they used to look, but they are not the same and we need to take sugar and the high amount of it in our food very seriously and the inflammation it causes in the body. Inflammation is the source for most diseases. Perhaps, by taxing, it will get our attention and start the real conversation we all need to have. Also, school lunches have an inordinate amount of sugar in the processed foods. We have again allowed corporations to decide what our children are eating at lunch.

Jonathan Byrne

Hold on. Whether or not the science is wrong, the regulation is wrong. Period.

As a matter fact, we don't really regulate alcohol. You need to be 21 to buy it (in most states) and bars can't stay open all night (in most states), but I may legally purchase and consume as much of it as I wish. If I want to drink to the point of acute alcohol poisoning, that's not against the law so long as I'm not drunk in public.

Corporations deciding what our kids eat for lunch?! You're kidding me. Have you seen how many federal regulations there are around school lunches? It's nuts!

ziggy1724

It seems to me that the "poor" people who buy the junk food are sometimes the ones that can't afford medical insurance and have to be assisted by the government i.e. my tax dollars. I don't care what people do with their bodies but I do care about where my money ends up and it shouldn't go to someone who is too lazy to get off their butts and cook a healthier meal. I can buy oatmeal, lettuce, dressing, deli meat, frozen chicken, rice, and frozen veggies for less than 30$ a week for all my meals. How many pizza rolls and gatorades is that? Not enough for an entire weeks worth of meals....

ziggy1724

I understand that everyone has different circumstances and sometimes people choose to do what is the easiest and at certain points that is the only option. I do believe that it is possible to choose to eat healthier though. If people did take the bus just one time a week to pick up staple foods like rice or frozen veggies, they would not only be eating healthier but they would also be saving money and helping out their circumstances. Not doing this is something I would consider lazy, it takes effort and planning, most people not all people, are not willing to take the time to do that.

scb1106

You buy food at a regular supermarket and you probably drive your selections home in a car. There aren't many full-service markets in poor neighborhoods. Try shopping at a 7-11 or taking a bus to a grocery store and see what food selections you make. Calling people lazy when you are ignorant of their real circumstances may make you feel self-righteous, but it's not an accurate interpretation of the problem.
They aren't you tax dollars anymore. This notion of "my tax dollars" is a little ridiculous.

Anyway, what are you going to do? Mandate the meals of people below the poverty line?

anonbosch

Note to all the wannabe libertarians here: governments already have a stranglehold on the food supply. This article is at least as much about democratizing food choices (i.e. through better information) as it is about controlling them.

Roland Deschain

I need the government controlling more of my choices like I need a hole in the head.

Eddie Von Bevern

how about instead of regulating what we eat and how much we educate our kids. make healthier foods affordable for the poor to be able to buy instead of cheap frozen junk food. show not only our kids but everyone else to have some fruit rather than candy, teach a varied diet. in school have kids be a part of the cooking process, perhaps a class gets to help make lunch for at least themselves once in awhile. there's nothing wrong with eating candy or drinking soda once in a while as long as you eat in moderation and consume healthy foods and drinks most of the time.

7Voter

What about making all meat - grass feed, all veggies organic, all wheat whole grain - really what is the end game???? Oh wait these choices already exist in all major grocery stores. Can we all stop trying to regulate each others bodies! And leave my money alone - I already make these choices and when I choose to eat sugar I don't need you or any regulator getting money for it! Seriously!!

medschoolkid

Guest: What exactly do you propose to be the proper human diet? Anti-nutrients, gluten, wheat germ agglutinin? Only 1% of the population has celiac disease and can't tolerate gluten. All of these are just hyped up naturally occurring proteins that occur in small amounts. And none of them is linked to Type 2 diabetes. What journals are your studies published in? And believe it or not just because a study gets published doesn't mean its conclusive or even relevant. Somebody emails you a study saying something like this and you skip over the chemistry you can't understand and come to an uninformed conclusion. The consumption of whole grains leads to increased cardiovascular health, and actually reduces the risk for type 2 diabetes. Please do more thorough research.
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