Measuring the Effects of SNAP on Obesity

Chancellor  Hello and thanks for joining us for the November 2016 episode of the Poverty Research and Policy Podcast from the Institute for Research on Poverty at the University of Wisconsin–Madison. I'm Dave Chancellor.

This episode features Lorenzo Almada, who is a postdoctoral research scientist at Columbia University's Population Research Center. He came to IRP last spring as a visiting scholar, sponsored by the RIDGE Center for National Food and Nutrition Assistance Research, and for this podcast we're going to be talking about work he did measuring the effects of SNAP or food stamps on obesity.

For Almada, this was an especially interesting question in part because obesity affects so many Americans but we know that there's a higher prevalence of obesity among lower income Americans. Although it appears that there's a connection between obesity and lack of resources, Almada says it's not clear what's driving that relationship.

Almada  It's obviously a very complicated situation, but is it the kinds of foods? Is it the lack of resources to buy better foods? The availability, so a lot of issues with food deserts where maybe you can't find healthy options. And so a lot of that has been interesting to me and that's sort of where I've been focusing, but in terms of actually caring about obesity, it's one of the things where — I don't want to get too personal — but certain aspects of it has afflicted my own family and has led to bad outcomes, right? You can think about diabetes and cancer and things like that so, it got to a certain point where it was sort of like a personal thing. I've had experiences, not my own, but family members who have been stricken with illnesses related to obesity and so it became sort of a passion of mine to understand it better and find ways to prevent it.

Chancellor  When we're thinking about obesity in the context of poverty or food insecurity, there's a lot of interest in trying to understand how government programs might influence obesity, and in this case, looking at the SNAP program, Almada says you can imagine a number of scenarios in which receiving benefits might either increase or decrease someone's likelihood being obese.

Almada  The effects of food stamps benefits on obesity aren't that clear, exactly. The economic theory, anyway, says that it's rather ambiguous and you can see that, even if you think that food stamp benefits, receiving food stamp benefits, increases your food expenditure, it's not exactly clear what spending more on food, how it could affect your weight, right? You could think about buying healthier, more expensive food. A lot of people argue that the more nutrient dense, the better the quality foods tend to be more expensive than these high calorie, low nutrient dense cheap foods. You can think of soda and other things that are high in calories and don't have a lot of nutritious value and those tend to be cheaper. So, spending more on food doesn't necessarily mean that you're going to gain weight. But the same story can be told with non-food items, so if you think about economic theory saying that, ok, you're going to spend either more on food or more on
nonfood items, the nonfood items can go the same way too. You can think about spending your additional
money on joining a gym, anything that makes you healthier, helps you lose weight. Or you can think about
maybe you're going to get a TV or something and just live a more sedentary life and that can lead to weight
gain. So it's unclear and that was sort of the first step in all of this when I was first thinking about the study,
that maybe -- I can definitely make some theoretical predictions about what's going to happen with addi-
tional food stamps or joining the food stamp program and how it's going to impact obesity. But then when
I realize that even that is unclear, then I was like ok, this is definitely an empirical work. I need to get data
and I need to see what's going on.

But Almada says it can be tricky to study how a program affects obesity because of selection issues, which
is a way of saying that people who sign up for a program might be different from people who are ineligi-
ble or don't sign up for a program.

If you don't account for that selection, then you're going to be finding findings that aren't reflecting real-
ity, that aren't reflecting the cause and effect of the program. If you're trying to see how a food assistance
program like the food stamps program, how it impacts food insecurity, well it's fairly obvious that more
food insecure individuals are going to join the program, so if you're not careful about it, what you're going
to pick up if you just look at the data blindly is that people who participate in food stamp program are food
insecure so you can think about the same thing with obesity where lots of studies have shown that people
who participate in the food stamp program tend to be less healthy than people who don't, so if you blindly
look at this data, and by less healthy I mean, have a higher propensity for being obese, and if you blindly
look at the data, you'll think, oh, food stamps is causing obesity because we see these high correlations. I
think studies need to be very careful and I try to be very careful in my own work about addressing that
causality to make sure that we're actually finding the true effects and not just observing these correlations.

Almada says that an initial way to get around this problem of selection would be to look at how different
levels of food stamp benefits impact adult obesity, but he explains that even then there could be differences
between the groups you're comparing that wouldn't be due to the change in the size of the benefit itself.

If you think about it, benefits are determined by household size and income. So if you try to see variations
in those benefits, right, so differences in those benefits among households, they're going to be a result of
either changes in income or changes in household size. And so you don't want to identify the effects based
on those changes because, let's say for example that your income goes up, that means your benefits will go
down. So there, the income increasing for that person could also affect weight. So, what I was trying to do
is find a way to examine changes that aren't affected by changes in income or household size. The way to
do that was to look at food stamp participating households who also had children who, once they became
school age eligible, they would be eligible for other assistance programs, and specifically the school break-
fast program and the national school lunch program. The idea here is that now these households have
essentially a reduction in expenditure on these foods because the children are now receiving these free in
school meals and so that increases the food stamp benefit per capita of these households and so this is sort
of a way to look at changes in the amount of benefits that isn't correlated or related to changes in household
size or changes in the amount of income that the household is receiving.

So, to look at this, Almada and his coauthor, Rusty Tchernis of Georgia State University, used data from the
1979 cohort of the National Longitudinal Survey of Youth or NLSY, which tracks about 12,000 nationally
representative men and women through interviews.

They were first interviewed in 1979 and they were followed for almost every year until 1994 and then every
two years after and so this is a great dataset to use for this kind of study because it's a panel where they're
observed multiple years over time so we can see changes in the household composition, changes in the
share of children, the number and the share of children in these households moving in and out of school,
and we can also see changes in obesity rates, changes in BMI.
With all of this information, they were then able to see how what amounted to additional benefits per person in a household once children entered school affected adult obesity.

We see a reduction in both the BMI and the probability of being obese for the adults in these households. We're trying to understand the mechanisms a little more, but what we think is going on is that additional benefits might be helping smooth the consumption for these disadvantaged households across the month. It could allow for purchases of better meals, of better quality food that doesn't necessarily increase weight, it might even help reduce weight.

While the data they use doesn't quite clear up questions about the mechanisms behind their findings, when it comes to public policy, it does suggest that more money and more resources can make a difference when it comes to obesity in low-income adults.

I think it's important to at least understand the gap that families might be facing when they don't have access to meals, especially for the children. If they don't have access to meals during summer months — I know there's been a big push, I know the USDA is working on a lot of pilot programs to either provide summer meals for low income families, you can think about a summer meal program or there's a benefit transfer program that's being studied right now where food stamp recipients can receive additional benefits during the summer months if they're families with children. I think this in a lot of ways if you think about the policy implications, it's to make sure that families have enough money to not only buy food, but hopefully to buy healthy foods, to buy foods that are nutritious in value and that can help live a long and healthy life.

Many thanks to Lorenzo Almada for taking the time to share his work with us. If you would like to learn more, you can check Almada and Tchernis's September 2016 NBER working paper No. 22861 which is titled “Measuring Effects of SNAP on Obesity at the Intensive Margin.”

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