

Feeding Health: Michael Pollan on Improving Public Health through the Food Systems

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[Julie Fishman] Welcome to this CDC podcast. I'm Julie Fishman, Associate Director for Program Development at CDC's National Center for Environmental Health. Joining me by phone today is Michael Pollan who will be discussing his March 2009 visit to CDC, what he sees as the most important challenges and opportunities for improving our nation's food system, and what possible roles the public health community might play. Mr. Pollan is the Director of the Knight Program in Science and Environmental Journalism at UC Berkeley. He is a noted, well-respected, award-winning author and his most recent books are *In Defense of Food: An Eater's Manifesto*, *The Omnivore's Dilemma*, and *Food Rules: An Eater's Manual*. Mr. Pollan also wrote a New York Times letter to President-Elect Obama on the President's role as Farmer-in-Chief. Thank you for joining us today, Michael.

[Michael Pollan] You're welcome, Julie. Good to be here.

[Julie Fishman] Michael, based on your visit to CDC, can you share some of your thoughts on food, nutrition, and the nation's food system? What are some of the biggest challenges and opportunities for improving this system?

[Michael Pollan] Well let me start by giving you a few of my impressions of my visit to CDC, which was, you know, one of the more interesting days I've spent. I was frankly surprised, and maybe because I don't, I was fairly ignorant about CDC, but that the extent to which the people there were alert to the kind of systemic issues of the food system and how they have an impact on our health. And that I expected, you know, a bunch of people who would be talking about nutrients and microbes and was delighted to hear people talking about things like school lunch and playgrounds and cooking, because the food issue is as much about our behavior, our lifestyle, our culture, as it is about science, and it's really the intersection of those two things, so I was very heartened to learn that there was this group of people who were so well plugged into the public health community and were thinking on such holistic terms. And I felt a lot of kinship with the kinds of approaches and perspectives that, you know, that I heard voiced there. So it was, to me, it was very encouraging and my sense is that the CDC has a very important role to play in this, what I see as a movement to reform the American way of eating and that involves reforming agriculture as well. So, on balance, it was a very exciting and heartening day.

[Julie Fishman] Picking up on that question you spoke about the role that CDC and government can play in improving the food system and I wonder if you could say a little more about that, particularly those of us working in public health and the public health community, what we could do to take some action to improve the food system.

[Michael Pollan] Well, I mean there are so many different things, but I think what CDC brings is the authority of your expertise and information, and that when the CDC can lend its voice to, you know, the discussion going on today, say about school lunch reform, I mean, we're reauthorizing

the school lunch program this fall, there are tremendous questions about how that system works. It is clear that it's obsolete. The goals that it was established to, when it started, were really about simply getting more calories to people who weren't getting enough calories. I mean that was the, that was the goal of the school lunch program. And now the problem is too many calories and the wrong kinds of calories. So, to the extent that the CDC can do analysis, can, you know, lend its authority to the, say the benefits of moving toward less processed foods in school lunch. What are the health impacts of that? And assessing, when you do interesting pilot programs, let's say you've got something like, you have a school district that attempts to go toward fresh food, you know, cooked food rather than processed food. What are the impacts on school performance? On health outcomes? There's an enormous need for assessment, there are lots of interesting proposals out there, but they really need to be assessed and you have the tools to do that and you have a certain authority in the culture, which I think is very powerful. So I think, the next place obviously to bring that to bear is the farm bill. What are the, you know...let's do a, the equivalent of an environmental impact statement. What would be a 'health impact statement' of a given piece of legislature? You know, we're always scoring pieces of legislation for various purposes, you know, we're scoring the health care bills in Congress right now to see how much they'll cost and what impacts they'll have, how many people they'll insure. Well, why aren't we doing the public health impacts on something like the farm bill or the school lunch bill? And it seems to me that you're the arm of the government that is best equipped to do that.

[Julie Fishman] Thank you. There has been a movement in public health towards a approach called "health in all policies," which fits very well with what you were just talking about in terms of assessing the health impacts of different pieces of legislation and my next question gets to that. What do you think the implications for our food system would be if we aimed for health in all policies? That is, if we considered the health outcomes of all our policy decisions?

[Michael Pollan] Well, you wouldn't have the farm bill that we have. You wouldn't be, in effect, subsidizing high fructose corn syrup. You know, the overproduction of corn and soy, which our food policies, our farm policies, now are responsible for and indeed that is the goal of those policies. You would have to take another look at that, because those are the building blocks of fast food. You know, we're subsidizing high fructose corn syrup and we're subsidizing hydrogenated soy oils or partially hydrogenated soy oils. So that when that legislation is being written, there should be some requirement that health outcomes be looked at. Do we really want to make soda that cheap? You know, if you look over the last thirty years the real price of soda has plummeted while the real price of fresh produce has gone up. So, we know that that's a problem from a public health point of view, so how might you revise those farm policies to create the opposite effect?

[Julie Fishman] One of the things I found most interesting in reading your work is the discussion of the role of petroleum in our food system and calling for a resolarization of the food system. Describe to our listeners what you mean by resolarization of the food system.

[Michael Pollan] Sure. Well, you know, we talk a lot about the industrialization of the food system, which is another way of getting at the fact that along the way we figured out how to use fossil fuel to produce food very cheaply with very few people. The reason we only have about a million full time farmers in America, feeding 350 million people, is that fossil fuel has taken the place of a lot of those farmers in several different ways. I mean, one is the mechanization-

obviously enough. But also in the fertilizer and the fact that you can grow a giant monoculture that can be harvested with a machine- you couldn't do that without fossil fuel-based fertilizers to replenish the soil. The pesticides that you need to keep those monocultures alive are also produced from fossil fuel. So cheap oil has become really the feed stock of so much of what we eat and, you know, it's weird to think of that, but when you, looking at that fast food meal of hamburger, french fries, and soda you could set that on a scale and on the other side of the scale put a certain quantity of oil in a glass, and you're really, it is oil that's putting that on your table.

Now that's a very weird fact because, in fact, anyone who knows the first thing about botany knows that food comes from sunlight, originally, and that the only way really to produce a calorie is through photosynthesis. To the extent we can move our food system back to a basis of solar energy, not completely, but as much as possible, and squeeze the oil out of the system we will end up with a system that consumes less fossil fuel. Right now, the food system consumes about 20 percent of the fossil fuel we're burning in this country, and is responsible for less greenhouse gas and right now the food system contributes somewhere between 25 and 33 percent of the greenhouse gas. And also we'll be healthier because that high fossil fuel food system is a processed food system. The foods you can grow that way are corn and soy, but those are not really foods. You can't eat industrial corn or soy; it must be turned into processed food. So, shortening the food chain, getting people to eat real food and not industrially produced corn and soy products, all these things, you know, go under the title of resolarizing the food system for me. And I think that if you use that as your metric, to what extent is this reform or this policy going to help get the fossil fuel out of the food system? You're on the right track. And by the way, eating less meat is a big part of that. I mean, it takes 33 calories of fossil fuel energy to produce one calorie of feedlot beef. Making that connection between energy and food I think is very very important and once again the same goals are you can hit three different targets if you work on getting the oil out of the food system. You will have a food system that uses less oil, that contributes less greenhouse gas, and produces a healthier population. How lucky is that?

[Julie Fishman] That's great.

[Michael Pollan] It's not easy to do but if you head in that direction you're going to solve several problems at once.

[Julie Fishman] Now if you can project forward for us five or ten years from now what do you think will look most different about the food system compared to the one we see today?

[Michael Pollan] Well that's very hard to do and journalists are, you know, uncomfortable dealing with the future. But, extrapolating from some current trends, I think that there's a range of alternative food chains that are developing right now. Organic is one, local is another, pastured animal protein is another. I think these are going to get bigger. I think, in five years, you will you know, organic is at what, two percent of the food system? It will be five percent of the food system or more. I think that grass-fed meat will be available at supermarkets around the country and that's a very positive thing, both for our health and the health of the environment. I think that the local food movement will continue to grow and that there will be farmers markets in longer seasons in more places. And I think consciousness about the links between food and health will be more pronounced. I also think that there is a very good chance that the health industry will take a stronger interest in the food system. If we get a health care reform bill that, at

a bare minimum, forces insurers to take all comers, to not have pre-existing conditions, to stop cherry picking and actually take a whole population, they will have a very strong interest, which they don't have now, in preventing every new case of type 2 diabetes. And so there is the potential to enlist the health care industry as an ally in the movement to reform the food system. That I think when they really can save a lot of money by preventing obesity, by preventing type 2 diabetes, they will then realize "hey we've got to work on this farm bill," "we have an interest in this school lunch program." And nothing would be more helpful to this movement to getting another powerful set of interests in this country on board for reform.

[Julie Fishman] Thank you very much. I was wondering if you had any closing thoughts that you'd like to share with us.

[Michael Pollan] When I look around at the different institutions in this country that have the potential to make progress on this issue, I really see CDC, especially under its new leadership, as having an opportunity, having the expertise, having the kind of commitment, and having the cultural authority, and I can't emphasize that too much, to speak on these issues, to do research on these issues, to help form an agenda. But I think you guys have the potential to really drive change in a way that will bring your goal, and prevention is one of the important goals of the CDC, much closer to reality.

[Julie Fishman] Michael, thank you very much for taking the time to discuss these issues with us. They are vitally important to everyone's health and we truly appreciate you sharing your thoughts with us.

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