

The cost is too damn high

The first global survey of the price of healthy eating

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This episode followed on from the one on the published research and policy about agriculture and global hunger. Almost all of that research is on starchy, energy-rich staple crops. Wheat, rice, maize, potatoes. As a result, although lots of people still don't have access to all the energy they need, the global supply of calories is actually more than enough.

Anna Herforth is the lead author of a new report — Cost and affordability of healthy diets across and within countries — that for the first time looks at the cost of not just a diet that provides enough energy, but also one that provides enough nutrition and one that is actually healthy.

Anna Herforth: The energy sufficient diet is composed of one single food, which is just the least cost starchy staple in each time or place. That might be rice in one country. It might be maize in another country. Or it might be potatoes at one time of year, it might be rice at a different time of year. That's the foil against which the other diets are measured. Then the nutrient-adequate diet is based on a linear programming method to find the solution for the least cost way to meet all micronutrient needs, vitamins and minerals, and macronutrient needs, so starches, proteins, and fats.

Jeremy: And the healthy diet?

Anna Herforth: The healthy diet is what reflects what you would think of as a healthy diet. If you have an image in your mind of food-based dietary guidelines, it has a pyramid or a plate of food that, part of it is a starchy staple, part of it is some protein-rich food, animal or plant source, and part of it is vegetables. Then you have some fruits involved in the diet and a healthy amount of fat. That is what constitutes the healthy diet. There are many ways to define a healthy diet, the specifics of it, although the generalities are quite common.

We calculated many ways to eat a healthy diet and took the mean, average, of them all.

Jeremy: Bottom line—which is probably an unfortunate phrase in this context—how much do each of those diets cost on average across all the countries and all the conditions?

Anna Herforth: On average, we found that the healthy diet costs around \$3.75, which doesn't necessarily seem like a lot if you're a high-income person, less than \$4 a day. Of course, we know the poverty line is \$1.90, the international poverty line. That's for everything. Assuming you have to spend something on housing and transportation or school or clothing, if you take a portion of that for food which is \$1.20, that's all a lot of people have to be able to spend the maximum amount on food. If a healthy diet is \$3.75 and you only have \$1.20, you're not going to be able to access a healthy diet.

Jeremy: If I remember from the report, even the energy-sufficient diet is \$0.79, \$0.80 a day. If you've only got \$1.20 to spend, you might not even be able to afford that.

Anna Herforth: Certainly for some people even achieving energy sufficiency is a challenge. We focused on discussions of global food security. For a long time, we focused on that metric of energy sufficiency. It is the most important vital measure of whether you can even survive. We focused on that at the exclusion of really what people need to eat to be healthy, which is not a new aspirational goal. It is actually what's been agreed for the last 25 years in the global UN definition of what is food security, which is access by all people at all times for sufficient safe, nutritious food to meet dietary needs for healthy and active life. This is the ideal of actually what food security is. I see this work as a necessary update to the conversation around energy sufficiency, that, yes, even for some people, energy sufficiency is a problem. For many, many people, really, food security is not there because it's not possible to access that nutritious diet to meet dietary needs.

Jeremy: If you look at levels of poverty in all the countries you examined and the cost of the diet, it's possible then to estimate how many people globally cannot afford a healthy diet?

Anna Herforth: Yes. That's what we did. We found about three billion people globally can't afford a healthy diet.

Jeremy: That's almost half the population. It's what—40% or something?

Anna Herforth: Yes, it's particularly high throughout South Asia and Africa, where the vast majority of people in those regions doesn't have sufficient daily income to be able to access a healthy diet that would meet dietary needs, dietary recommendations.

Jeremy: I just want to leave a moment for that to sink in. Three billion people in the world cannot afford the bare minimum healthy diet.

But here's something else. Anna Herforth and her colleagues also looked at the price differentials between the three kinds of diet for each region of the globe. What really struck me about the rich world is that the difference between a healthy diet and a nutritionally adequate diet is the lowest in the world. But the difference between either a healthy diet or a nutritionally adequate diet and an energy sufficient diet is the highest in the world. To me, that suggests that relatively speaking, energy-rich foods are way cheaper, or healthy diets are way more expensive, in the rich world than they "ought" to be. Can that be right?

Anna Herforth: That does seem to be a good conclusion to draw from that. That's not something we actually focused on in the report, the differentials for high-income countries, but it's a really interesting observation. There's not so many people in high-income countries who are unable to afford a healthy diet, but there are some. Then you have to ask, "Why doesn't everyone eat a healthy diet?" Clearly, there are more factors at play than just cost. Also, if you're thinking about relative costs, everyone likes to economize. If energy-dense foods are really much more ubiquitous and cheaper than fruits and vegetables and legumes, things that are essential for a healthy diet pattern, then there are many reasons, including relative prices, where you might see behavior of people favoring those energy-dense foods.

Jeremy: If you consider the whole basket of foods necessary for a healthy diet, which bits cost the most and which bits cost the least?

Anna Herforth: On average globally, the starchy staple portion of the diet is actually, as you would expect, it's the cheapest, costing about 16% on average. Whereas the fruits and vegetables cost 40% of the total, and the protein-rich foods, including dairy, cost 44%. Clearly,

we see the healthy diet cost is largely due to those nutrient-rich additions of diversity in fruits, vegetables, legumes, animal-source foods in addition to starchy staples.

Jeremy: I guess if you're hungry and you don't have much money, those are going to go by the wayside, the fruit, veg, the dairy, and protein.

Anna Herforth: Clearly, if you're short on cash, you're going to favor energy. You're going to make sure you can cover the energy needs for the day and go towards satisfying the starchy staple requirements. Whereas fruits and veg, yes, they're super important for long-term health, but if you're thinking really short-term and you don't have the ability to pay \$1.50—which is above even the entire food portion of the poverty line—then clearly that's what's going to go.

Jeremy: You only considered the market. You didn't consider anything about food people are growing for themselves. Do you think that makes a difference to the overall picture?

Anna Herforth: Absolutely, yes. This is the market cost. That's really an important point to make because when the cost of a healthy diet is too high in the market, that's where we really need to support other ways of accessing healthy diets, which could come from home production, could come from the collection of wild foods. In a lot of cultures, fruits are accessed from the wild. That certainly is not captured in these market costs. Having access to wild areas or preservation of those areas to begin with might be an essential piece of ensuring access to food where it's too expensive in the market.

Jeremy: What are the other policy recommendations that you make?

Anna Herforth: In that vein of how could people access food when it is too expensive, beyond wild collection, there's also even thinking about support for seeds or home gardening and home food production as almost a safety net, as a form of social protection, so that people are able to produce some of the components of healthy diets if they are producers and have access to some land. Other forms of social protection could come into play as well.

But then in the longer-term, how do we get out of this situation where healthy diets are just too expensive for a whole lot of people on the planet? How did we get here and how do we get out of it? I think that primarily the issue is, we need to always think in terms of diversity, diversification of food systems, because for so long, we've been pouring almost all of the agricultural research and development resources into just a few crops, mainly starchy staple crops, and we need to have more research to make fruits and vegetables and legumes cheaper. They've received such a minuscule proportion of attention and resources, even up to the post-harvest transportation of perishable items is a whole different story compared to the transportation storage of starchy grain.

There's a lot of work needed there to just make it more feasible, more profitable, and less risky for farmers to be producing these diverse foods that everybody needs, that are not only too expensive, they're even in short supply altogether at any price.

Jeremy: It's interesting though, because not just investment in research and development, but even subsidies tend to go to starchy staples globally. I wonder what the impact would be, if it could be done, of switching those subsidies to, say, fruit and veg.

Anna Herforth: Yes, I also wonder what that would produce, because I don't think we've seen a lot of examples where it's been done and it does seem that there is a disproportionate attention, as you say, not only in the research and development but in even the consumer side, to certain kinds of foods over others, which are exaggerating the imbalances in costs of these different pieces of the diet.

Jeremy: To what extent though do you think that these imbalances, I guess I could call them, are the result of people still thinking about acute hunger and famine of the sort of '50s and '60s, and trying to avoid that kind of desperate situation, rather than accepting that actually we can probably supply enough starchy staples, but we're not supplying a decent, nutritionally-adequate diet?

Anna Herforth: Right now, we're just in the pattern of that line of thinking. It's quite entrenched, because not only the international systems but also the national agricultural research systems and even departments in universities, all of these different systems favor starchy staples. There's always, in the crop sciences department of a university,

there's several people focused on maize or rice, or there's just a whole system of expertise in these areas where it's a momentum, where that's what people know how to do. We just haven't created the necessary system to train and focus on that same sort of expertise for a diversity of other crops. I think in part maybe it's an ideological hang-up on hunger, but I do hear the global conversation changing towards healthy diets quite substantially. Then that requires a concurrent shift and investment in how to address that issue. If the issue has changed over the last 50 years from famine as the focus to poor diets as the focus, then there needs to be also a shift in resources to be able to tackle that new focus.

Jeremy: I guess the ultimate question—well, my ultimate question—is to do with the poverty line. There's this figure of \$1.90 a day, \$1.20 of which is spent on food. You can't just raise the poverty line because all that'll do is... You could raise the poverty line to \$5 a day and then people who are above the poverty line would be able to afford a healthy diet, but you can't just do that. How do you recognize that the poverty line is kind of an inadequate description for whether people can afford a healthy life?

Anna Herforth: [laughs] That is the elephant in the room, really. We didn't set out to say what the poverty line should be, but the results of this study showing how much higher the minimum cost of a healthy diet—it's not what actually people spend, it's the minimum market cost of a healthy diet—is so much higher than poverty lines. It does lead exactly to the question of what does the poverty line mean then, if it's not enough to cover adequate food?

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