

# More Sustainable School Meals

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**Patricia:** You'll have at least two different meals to choose from, usually a vegetarian meal and then a non-vegetarian meal. But there's usually, in my experience, more options. And then you have this amazing salad bar with, you know, all different types of beans, carrots, cabbage, um, olives, you know, whatever you can imagine. And then there's crisp bread that you can choose and everything and milk and you serve this yourself.

School meals in Sweden, I'd say it's one of the oldest programs in the world in terms of universal ... universality. So they've been providing meals to children since the 1940s, but then at large scale, and to all children since around the 60s, 70s. It's a great system. I grew up there. I had the school meals, and I'd say ... I'm currently living in the UK, so I can see the difference. I have a son now.

It's fantastic in the sense that the law says that every child has a right to a free, fully subsidised school meal every school day. And it's also enacted in law that these meals have to be nutritious. So these are actually great meals. So children can eat as much as they want. And from the research we've seen, we see that this has been a really important, or it is a really important component, when it comes to levelling out social inequalities. So in the analysis that we've done, we see that kids from lower socio-economic backgrounds, they have worse diets outside of school, but in school all kids eat the same, so they get the same amount of important nutrients and food groups like vegetables.

**Jeremy:** It sounds wonderful. Why were you motivated to change things up? I mean, what's the problem?

**Patricia:** At the time, the idea with school meals was to reach ... to do exactly that, to reach children that were socially disadvantaged and to cover their needs in terms of primarily energy. But then as things evolved, nutrient and nutrient adequacy became also more important. And today it's more about fostering healthy diets and preventing overweight and obesity.

**Jeremy:** So tell me about this experimental design. Because even though you had this excellent school lunch system, you wanted to reduce the impact on greenhouse gas emissions. Tell me about the design.

**Patricia:** Yes. So over the last, I said decade or even more, it's become more and more salient that we need to change or shift our diets to safeguard the health of humans, but also the health of the planet. And in the project that we were working on, we thought, okay, how can we achieve this most efficiently? We know that diets are shaped when we're young and those diets tend to track into adulthood. So we need to focus on children. And in Sweden, we have this unique opportunity where we know that children are getting this at least one meal a day in school for at least nine years of their lives. So we saw this as an important opportunity to intervene and to try and foster not only healthier diets, but also more planet friendly diets. And there's been work being done on trying to achieve this, but there's also been a lot of pushback, especially from parents, when you have like a vegetarian day or when you mention this concept of eating less meat. So we thought, okay, how can we approach this from a different angle?

First of all, we optimised the menus so that they were nutritious, affordable — so they had the same price as the usual menus, cost for the school. That is because meals are free. But then having a lower climate impact, so we made sure that the menus reached an average of 500 grams of carbon dioxide equivalents per meal, which is what the World Wildlife Fund recommend as a sustainable, planet friendly meal. So we also said we want the new menu to be as similar as possible to the old one, because we know that acceptability is key. It's part of sustainability. Sustainability is not just about the planet. It's about health, human health. It's about affordability, accessibility, but also acceptability. So we did this. And what the algorithm then suggested was not a vegan diet or meal menu, was not a vegetarian menu, but it was an omnivorous menu, but with slightly shifted

proportions in some of the food groups. And so this new menu was then that which was reaching these targets, was it included all the food groups. But at a recipe level, some of the ingredients shifted, shifted in amounts. So instead of having a meat stew, that stew was, you know, it still had meat, but it was complemented with some legumes and roots.

**Jeremy:** Three schools were involved and they did the normal menu for a month, and then your planetary friendly menu for a month with a gap in between. What did you measure and what did you find? Well let's start ... Let me break that down because it's it's easier. What did you measure?

**Patricia:** Yes. So in both periods we measured food consumption and food waste because we didn't want to either increase food waste or decrease consumption. And we also had besides that, we had a questionnaire where we measured school meal satisfaction.

**Jeremy:** And what did you find?

**Patricia:** Well, when we compared the measurements at baseline where they had the usual menu, and then during the intervention where they had this planet friendly menu, we saw that food waste did not significantly increase, consumption did not significantly decrease, and there was no difference in school meal satisfaction.

**Jeremy:** It's kind of one of those wonderful papers where negative results are exactly what you're looking for.

**Patricia:** Exactly. Yes. Precisely so.

**Jeremy:** So the schoolchildren ate the same amount. Waste was the same amount. They judged the meals to be equivalent. Have the schools adopted the new menus permanently?

**Patricia:** We know that in the municipality ... So we have done this in three — two additional municipalities — so three in total at this point. And we know that the municipalities have kept the menus going, but also use some of the thinking behind it in there because they can't use the same menus over and over and over. So ... And we haven't been able to ... Because this is a research project, you need funding. We haven't been able to continue the work with the municipalities and the schools. But we know that the work has

continued in their own way with the same approach or thinking, so to speak.

And we also, I just would like to add, that we did qualitative research in addition to this measurement of waste and consumption and satisfaction. So we spoke to the children and to see how they perceived the intervention, but also exploring kind of what are the barriers or opportunities in getting more children to appreciate and eat plant based or plant forward menus. And we saw that most of them hadn't noticed the shift. Some of them actually noticed that the food was tastier. And some of them noticed that there was more vegetarian food. So there was a ... The experiences were a bit mixed, but interestingly, most of them didn't notice, because we weren't specific. We told the schools, parents, children that something was happening during this spring term, but not exactly when. The communication was, we're testing new menus, rather than saying anything about exactly what that was, because we wanted to avoid this pushback and kind of that, if you go in with that knowledge, it can actually make you reject something without having tried it. So we wanted to avoid that.

**Jeremy:** It's interesting that you didn't accompany the different menu with any kind of teaching of the children about sustainable diets, about planetary health, anything like that. And I quite understand why, you didn't want to mess things up and just look at the food. But do you have a sense that if you were to roll this out, that it would be better if you did include some teaching about what was going on.

**Patricia:** Very good question. And actually, in our last studies — we did three similar studies — but in the last one we did include ... So we had three groups. One group did not receive any change. One group had the same kind of just changing the menu. And the third group had the menu change plus a pedagogical component which covered exactly what you said. And we didn't see any additive benefits with the educational component. It doesn't mean that that's not the case, that that couldn't be possible. Obviously our studies, they were limited in terms of, you know, scope. And also it's, you know, we didn't have a large number of schools. And we also, it's quite context specific, that in that municipality, they had already done a lot of teaching around the Sustainable Development Goals. It wasn't really something new. So those things can, could, have also impacted the fact that we didn't find this additional benefit of education.

**Jeremy:** One of the things I found intriguing was that in general, I mean, in general, the children weren't that satisfied with the lunches. They didn't express huge satisfaction. And you note that for older children especially, they just skip lunch. They go outside and — I don't know what they get in Sweden — but, you know, they go outside and buy their lunch there. Is there scope to change the menus further so that even older children who are, you know, being independent, all of that stuff, so that even the older children stay in school, eat the better lunch, get better nutrition.

**Patricia:** I think so. And I think you were pointing toward something really important. Even though we didn't see a difference in school meal satisfaction, the satisfaction wasn't, you know, top in any of the periods. So there's a lot of work that can be done on that. And that requires, which we didn't do, to incorporate children in this process of developing menus and implementing them. Another aspect is about the school food environment. So if we want to address this issue more broadly, we need to think about what's around us, what's available around the school. How can we control that? There's a lot of work from the US and other contexts where they've started to control more what's around the school, and they've seen really positive effects from that.

**Jeremy:** I don't know whether the Swedish Government has paid attention to your study, but I wonder whether you think there is scope for a similar approach of meals that are essentially the same, but with lower greenhouse gas emissions, and, I should add, lower cost as well. Your meals came in at 10% cheaper. Is there a scope for that in, say, other institutional settings like hospitals or ...

**Patricia:** Absolutely. We think that this ... and we've been trying to get funding to also develop kind of an application, something that can be used in meal planning across different settings, because we know that the public sector, it is providing loads of meals. I think it's 3 million a day in Sweden. Sweden is a small country, so you can imagine in other countries. But they also have this normative effect. So whatever happens, they have this procurement power. So they tend to also impact what's happening outside of the public sector.

**Jeremy:** And looking more widely, Europe seems to be doing pretty well on school meals. A third of the countries have universal school meals, and I understand the cost benefit ratio is fantastic if you look

in the long term. This may seem an unfair question, but do you have any idea what possible reasons there could be for not regarding school meals as a great investment in the future?

**Patricia:** I don't think that there's an issue with political will. If we look globally, most countries, I think more than 75% of countries, have a school meal programme, some kind of programme. Most of the times it's about barriers related to financing. It's barriers related to physical. How do you, do you have kitchens in each school? It's about that kind of infrastructure, creating that if you don't have it from the beginning, it's about coordination.

In the countries that we've worked with in the European Union that do have school meal programs, but they have the targeted system, they have the system where they target specific families or specific schools, there's a more fiscal issue where it's difficult to identify who is in, who is out because of how the, yeah, how the fiscal system works and because there are many actors involved. But the financial barrier and how to finance it, not how to, kind of, if you want to get the money there, you will get it, you'll find the money. But it's more about how to manage that money. Is it via municipalities? Is it centrally? Are parents ... Like how, if parents are going to pay a little bit, how is that going to in practice work?

**Jeremy:** Okay, one more question. What are your plans for future research?

**Patricia:** One of the things that we've been working on is to try and see, how can we roll this out and scale this up not only in, across, schools, because the methods that we've used so far have been quite time consuming. And it requires researchers to be involved. And we don't want that. We want this to be, this to happen by the meal planners at the municipalities or at the hospitals or care homes. So, we're trying to find funding. We've been trying to get funding to support the development of some kind of user-friendly tool that can be used for this purpose.

**Jeremy:** So people could just optimise the meals within the existing parameters using some kind of tool that would do the do the hard work?

**Patricia:** Exactly. They would, you know, set their targets and, yeah, do it themselves, essentially.

I should note that in closing the episode, I expressed my disbelief that the political will was there to fund better school meals for all children. To me, the long-term return on investment is huge for any country, and many studies agree that means testing to ensure only “deserving” pupils get a free or subsidised meal is far more expensive than just giving everyone a school lunch.

So why aren't universal free school meals ... universal?

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