# Beyond Nutrition: Eating, Innovation, and Cultures of Possibility

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### Key messages

> Food is about much more than macro- and micronutrients; it is intimately linked to identity and social relations.

> In metrifying nutritional advice, care should be taken not to ignore the subjective and emotional components of food and eating.

> Food is integral to identity, and attempts to change diets need to take this into account.

> Culture should be seen not as an obstacle to health, but as a source of potential. Public health and nutritional interventions should work with, rather than against, this dynamism.

> Beneficiaries should be treated as clients, customers and collaborators, as sources of inspiration and innovation as well as mouths to feed.

My Uncle Art invariably offers guests ice cream, no matter the time of year or temperature outside. He grew up during the Depression on a farm in Alabama. His family got their water from a well and cooked over a fire, but Art says they did not feel poor; they just did not have many things. Once a year, every Fourth of July, Art's dad would hitch up the mule and ride the wagon an hour into the nearest town to purchase a block of ice. When he got it home, covered in hay, Art's mother would make ice cream.

For Art, the ice cream he keeps in his freezer is about more than milk and sugar, calories and fat: it carries a deep connection to his childhood and identity, more emotional and subjective than rational and calculating. His story reminds us that food is about much more than nutrients, and that some of the most important aspects of eating cannot be captured in numerical metrics.

As a cultural anthropologist, I came to the study of nutrition by way of the political economy of development among the Maya of Guatemala. More than half of all Maya children under five years old suffer from chronic malnutrition, a tragedy that someone studying development and wellbeing could hardly ignore. In this essay, I would like to share some anthropological observations about global health and nutrition. First, nutrition is not just about macro- and micronutrients; as food, it is also importantly about identity and culture. Second, culture should not be seen as an obstacle to health and nutrition, but as a source of possibilities and potential. And third, poor people are more than just poor – they are people too, and driven by desires as well as need. The most effective and sustainable efforts to improve nutrition and health take into account such social and cultural contexts as well as nutritional science.

## More than nutrition

Klaus Kramer enjoins us to focus on "food systems" as a whole rather than on one narrow aspect.[1] This is a recognition that poor nutrition is not just an over-abundance of macronutrients or a deficiency of micronutrients; it is also about poverty and exclusion, education and agriculture, politics and gender, and a whole host of other interrelated factors. (Likewise, poverty is not just a lack of income.) For example, the empty calories consumed in a soda in Hyderabad result from the collusion of many disparate processes beyond the physiological, from pop

"Food is about much more than nutrients, and some of the most important aspects of eating cannot be captured in numerical metrics."

Maní+ consumer focus group

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Maya women making maize tortillas

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culture appeal to international trade and global politics, from maize farmers in the American Midwest to trade negotiators in Geneva and multinational food corporations.

Philosopher Bruno Latour warns of the danger of "purifying" knowledge too much; he points out that while specialization can bring great scientific advances, it also carries the danger of becoming divorced from actual contexts.[2] Those of us working on malnutrition have to look beyond nutrition in the narrow scientific sense to better understand the context of the problems we want to solve. Nutrition is linked to cultural traditions and personal histories; to the natural environment and geographies of power; to concerns of health and wellbeing. Structural conditions as well as cultural practices frame food choices, and food is an intensely multidimensional (social, political, biological, environmental, cultural) aspect of life.[3]

### We are what we eat

Myths of origin passed down among the Maya of highland Guatemala recount several failed attempts to create humans out of sticks and mud until the gods finally stumbled upon the life-giving force of maize. Maize is at the heart of the Maya diet to this day, both symbolically and materially. No meal is complete without a tall stack of maize tortillas, and it is taboo to waste maize: even to let a stray kernel fall to the ground is frowned upon.

Many of my Kaqchikel Maya friends claim not to feel truly full unless they eat a sizable quantity of maize tortillas. Some go further and claim that the *terroir* (preferably local) of the maize is also crucial to their sense of satiation. Ixq'anil, a friend from Guatemala, once came to the USA for a visit, and even the dense, black German bread my wife baked could not fill her up, so profound was her hunger for maize tortillas. This was a hunger for more than just nutrients, and an illustration that food is more than a vehicle for nutrients.

To paraphrase Claude Lévi-Strauss, food has to be good to think, not just good to eat.[4] That is to say, most people make food choices based not primarily on nutritional values but on symbolic and cultural values. Food is an especially intimate

area of daily life, deeply associated with family, hearth, and home. Dietary prohibitions such as keeping halal or kosher are important ways of demonstrating the boundary between in- and out-groups. Vegetarianism and veganism have become important markers of identity politics in parts of Western Europe and North America.

## "Food has to be good to think, not just good to eat"

Food preferences serve as a powerful symbol of identity, tightly linked to conceptions of the self and embedded in particular political economies. Thus, when we think about trying to improve nutrition and modify what people eat, we should keep in mind that this can be seen as a challenge to their sense of self and cultural autonomy. For example, many of the patients at my university's hospital come from rural Tennessee. In an effort to promote better nutrition a few years ago, the administration replaced the McDonald's on site with an Au Bon Pain. The move was felt as a slight by those patient families for whom McDonald's and other "traditional" fast food chains serve as sources of comfort food. The subtle class and cultural connotations of the French-named replacement added a degree of discomfort for family members looking for a touch of familiarity in a foreign context. Hospitals should discourage unhealthy eating, and this was probably the right decision, but we need to be mindful of the full range of social and cultural implications of our attempts to change eating habits.



Maize fields in Guatemala

## "We need to be mindful of the full range of social and cultural implications of our attempts to change eating habits"

### Food, love, and calories

Provisioning one's family and loved ones with food is a way of expressing love and caring. Ethnographer Daniel Miller has followed North London shoppers on trips to the grocery store. He finds that the act of shopping, provisioning for others in the household, is a key means of communicating concern, affection, and love.[5] For lower income families, inexpensive packaged foods can serve as an affordable treat, a sign of love and devotion in a context of limited resources. What we might see as unhealthy junk food may be tied to a mother's love for her children or a spouse's affection for a hard-working partner.

Likewise, eating is most often a group activity, one in which an individual's choices affect others. With nutrition policy and recommendations, we often focus on individuals, and specifically on individuals as rational and self-interested actors. But we need to also be attuned to the social and cultural contexts of food choices. In the context of eating together, change cannot happen with just the individual: it has to involve the whole family or domestic unit.

Anthropologist Emily Yates-Doerr calls attention to the "metrification" of nutritional messaging.[6] That is the tendency to reduce descriptions of food and nutrients to measurable quantities: calories and grams, percentages and numerical proportions. For most readers of this magazine, thinking about nutrition metrically probably comes naturally. But for many around the world, the metrics of macro- and micronutrients is not the primary frame through which they view food. If eating is also about family and friends, love and devotion, how do we translate these values and emotions into calories and kilograms? Something being "good for you" often is not sufficient to get people to change their diets.

Brazil's national nutrition guidelines and publicity campaign illustrate one way to take into account a more holistic view of nutrition within the context of food culture. Eschewing pyramid diagrams and pie charts, when Brazil revised their dietary guidelines in 2014 they opted for ten broad principles. These include avoiding processed food as much as possible, cooking one's own food, and eating with others. In their visual representations, they chose to depict balanced meals in terms of realistic plates based on foods that are regularly eaten by all social classes.

### Culture as a source of possibilities

In global health, culture is often viewed as a barrier to treatment or an obstacle to health. Many well-intentioned interventions seek to "overcome" or "break down" cultural conceptions (about blood, or pills, or time, for example) in order to improve treatment and delivery. In this framing, culture is assumed to be an inalienable trait or a singular entity.

Rather than viewing culture as a static thing, we should see it as a flow or a dynamic assemblage, an ever-changing arrangement of imperfectly shared understandings and practices. It is important that we not reduce people to mere cultural automatons; in living their lives, individuals the world over are not trying to recreate the past, but living for tomorrow, oriented toward the future in new and imaginative ways.[7] In this light, we can treat culture not as an obstacle to modern scientific practices, but as a source of potential change and possibility.

From a public health perspective, we may try to engage people through their beliefs and not contrary to them. Changing eating habits is difficult, and efforts to improve nutrition have a better chance if they work with, not against, local food cultures. Poor nutrition (both under- and overnutrition) is often correlated with declines in traditional diets and increased consumption of inexpensive processed foods.

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"School gardens are highly effective at changing youth eating behaviors and long-term attitudes toward food"

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One successful example of harnessing cultural energy to improve nutrition comes from the school gardens movement. School gardens can re-introduce traditional staples to children, while encouraging them to adapt them to their own lives and diets. While school gardens trace their history to 1840s Sweden, today they are most vibrant in Italy and the United States. Studies have shown them to be highly effective at changing youth eating behaviors and long-term attitudes toward food.[8]



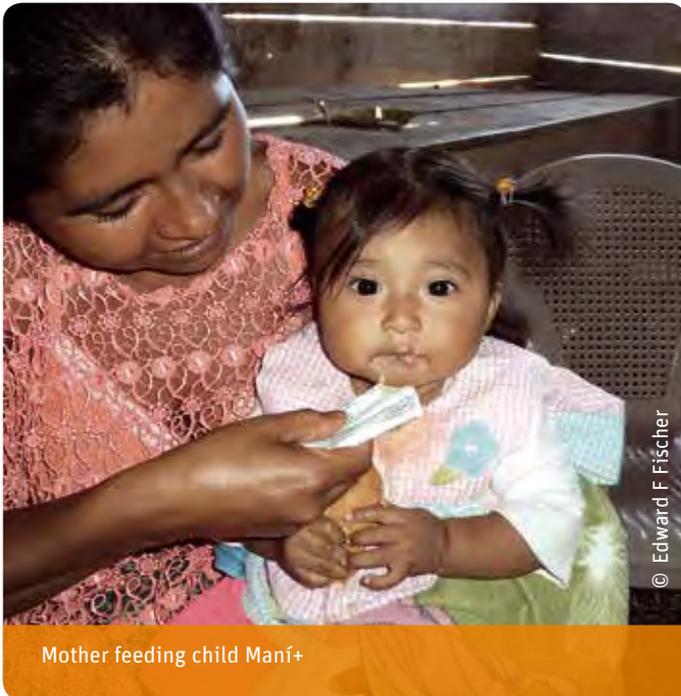Arroz, feijão, coxa de frango, repolho, moranga e laranja

Arroz, feijão, omelete, mandioca de forno

Arroz, feijão, peito de frango, abóbora com quiabo e compota de jenipapo

Arroz, feijão, carne moida com legumes

© Brazilian Ministry of Health

Brazilian dietary guidelines (from Brazilian Ministry of Health)

Mother feeding child Maní+

© Edward F Fischer

**Poor people are more than just poor**

"The poor" are people with hopes and desires and fears and uncertainties just like the rest of us. Nobel laureate Amartya Sen proposes that the goal of development should be for people to have the freedom to construct lives that they themselves value.[9] This means treating beneficiaries as clients, customers, and collaborators – sources of inspiration and innovation.

NutriPlus, a malnutrition project I started in Guatemala, has developed a collaborative model of social enterprise that incorporates local knowledge and solutions while building capacity. Working with the Instituto de Nutrición de Centro América y Panama (INCAP), we developed Maní+, a lipid-based nutritional supplement (LNS). Aimed at children six months to three years, the locally sourced and produced Maní+ product contains 6 g of protein, 16 g of carbohydrates, 14 g of fat, and 220 calories in each 40 g dose. The micronutrient mixture was formulated by Guatemalan nutritionists to specifically address the nutritional deficiencies encountered in rural Guatemala.[10]

As part of a holistic program, the Maní+ LNS is accompanied by an education program that includes mothers as collaborators in the process of improving their children's nutrition. Rather than simply telling mothers what they should do, we share information and discuss and debate it. In one exercise, we rank items found in their kitchens in terms of nutritional value. Vegetable oil often tops the list; in exploring the reasons why, we find logical and reasonable explanations (it is expensive and high in fat and calories), which we can help put into the context of a complete diet. In these ways, mothers become empowered to make their own decisions. We conduct the focus groups in local languages and modeled on local systems of community organi-

zation. In workshops, mothers and facilitators actively construct a narrative of malnutrition in their communities in light of the data provided. Knowledge is thus co-created, and mothers feel more empowered to act.

The base of Maní+ is peanut paste. While peanuts are consumed as a snack in Guatemala (usually roasted and served with chili and lime), mothers in our early trials were put off by the texture of the paste format. Through focus groups and field tests, we refined the Maní+ formula to adapt to local tastes. In these efforts, we treated our potential beneficiaries as clients with their own preferences, driven by desire as well as need. We try to remember that beneficiaries of programs always have a choice; even if a product is given away, folks can choose not to use it, to feed it to their animals, or to give it to older siblings. For our program to be effective, mothers have to actively want to follow the regime, and thus our approach resembles that of a consumer goods company.

**"We try to remember that beneficiaries of programs always have a choice"**

Most revealing were the creative ways mothers developed to use the Maní+ LNS. One woman mixed it with banana to make a mush for her child; another blended into an atole (a traditional liquid porridge). We encourage these innovations and share them with other groups and communities. We take this as evidence of empowerment – mothers taking ownership of the LNS usage and of their capacity to adapt nutritional information and resources to the specific needs and likes of their families.

**Conclusion**

These anthropological observations on food and nutrition have focused on three main topics. First, food is about much more than just macro- and micronutrients; it is intimately linked to identity and social relations. In this context, we must take care in our metrification of nutritional advice not to ignore the subjective and emotional components of food and eating. The stories of Uncle Art and Ixq'anil are cautionary tales. We have to be realistic about what we can change in people's diets. Food is integral to identity and thus tricky to tinker with in public health schemes. Looking at eating holistically allows us to account not just for nutrients but for powerful social forces as well. [11]

Second, culture should not be seen as (merely) an obstacle to health, but as a source of possibilities and potential. While food cultures are closely linked to identity, they are also open to change. Public health and nutritional interventions should work with rather than against this dynamism. In fact, we might un-
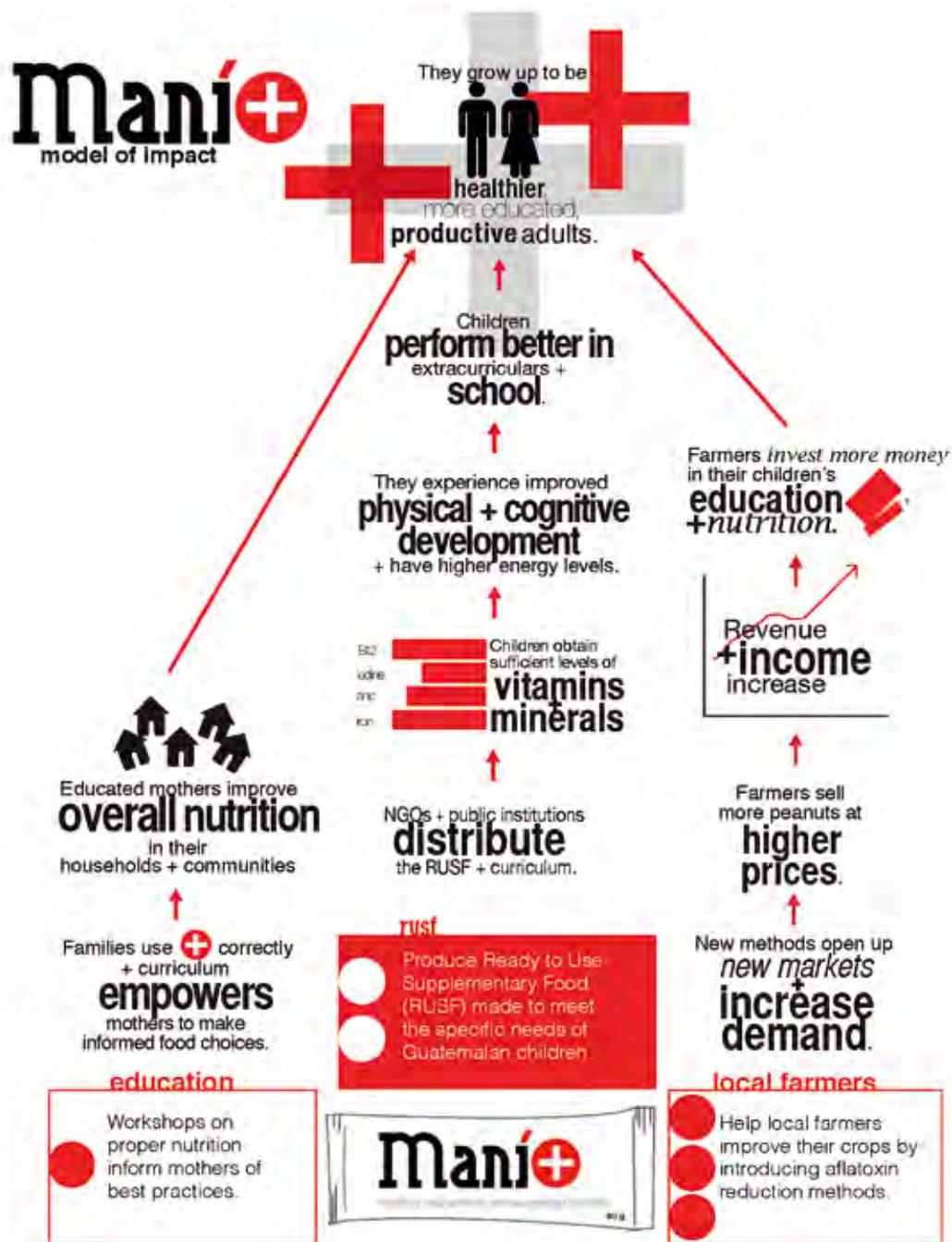
Maní+ Model of Impact

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derstand culture as a sort of strategy – always changing, moving in an intentional (but not fully predetermined) direction based on certain values – and look for strategic convergences. Finally, we need to recognize that poor people are more than just poor – they are people too, and driven by desires as well as need. We should, therefore, strive to treat beneficiaries as clients, customers, collaborators, as sources of inspiration and innovation as well as mouths to feed.

"We should strive to treat beneficiaries as clients, customers, collaborators, as sources of inspiration and innovation"

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