GLOBAL DAIRY PLATFORM

Perspective Paper

Perceptions on Processing: Time to Change the Narrative

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KEY TAKEAWAYS:

- Food processing serves many purposes — improving safety, shelf life, nutrition, and accessibility — and isn't inherently harmful.
- Casting a wide net in classifying ultra-processed foods (UPFs) risks misleading consumers and policymakers by conflating beneficial processed foods with harmful ones, undermining nuanced nutrition guidance.
- Focus on UPF classification schemes may be distracting the public health community from focusing on how to harness the potential of processing to positively affect nutrition, health, and sustainability, particularly in low-resource environments where shelf-stable, fortified, or reformulated products can support nutrient adequacy and food access.

Food processing, any deliberate change in a food that occurs before it is available to eat, includes a wide range of activities from basic chopping, cooking and freezing, to more complex methods, such as pasteurization, fermentation and packaging. The purpose of processing is typically to improve safety, shelf life, taste, texture, and even nutritional value, or to make food more convenient, accessible, and sustainable. Over the last two decades, following the sharpest increases in obesity and non-communicable disease (NCD) rates globally, the role of processed foods on human health has been brought into question.

Food processing, practically ubiquitious in the food system, in and of itself **does not cause obesity and NCDs.** Recognizing this, researchers attempted to develop a system by which the nature, purpose, extent, and effects of novel food formulation and processing could be distinguished, thereby allowing them to examine the effects of those parameters on human health. This was the backdrop by which the widely recognized classification system for processed foods, Nova (not an acronym, rather the Portugese word for, “New”), was introduced in 2010. Nova classifies foods into four categories: 1) Unprocessed and minimally processed foods; 2) Processed culinary ingredients; 3) Processed foods; and 4) UPFs.[1]

Over the last 15 years, since the introduction of Nova, there have been many epidemiologial studies linking UPF to poor diet quality and increased risk for NCDs. More recently, clinical trials have demonstrated how UPFs drive poor diet quality and increased caloric consumption compared to minimally process ones. Such studies, coupled with demand from public health advocates, have prompted the World Health Organization to issue a call for experts to serve on a guideline development group for UPF, stating the need for experts from all regions of the globe to produce policy-relevant, evidence-based recommendations.

Global UPF recommendations would have far-reaching implications. Therefore, it is critically important that both the pitfalls and promises of processing are recognized to ensure nutrition and health are universally accessible around the world.

What Can Be Captured When Casting a Wide Net?

The Nova classification system casts a wide net with its definition of UPF, which includes:

- Products that are industrially formulated, typically made of multiple ingredients including sugar, salt, and fat and substances rarely used in home cooking, such as hydrogenated oils, modified starches, and protein isolates
- Products that often contain additives for color, flavor, texture, sweetness, and emulsification, and use industrial processes like extrusion, molding, and pre-frying
- Products sold in synthetic packages that are usually ready-to-eat or drink, heavily branded, affordable, shelf stable, and hyper-palatable

This definition encompasses an extensive and heterogeneous range of products from sugar-sweetend beverages and packaged cookies to fortified breakfast cereals made with whole grains, flavored yogurts, and fortified bread. It does not consider nutritional composition or demonstrated effects on human health outcomes. As a result, foods with vastly different nutritional profiles, public health effects, and cultural significance are categorized together.

Imagine if UPF had its own front-of-pack label; with current Nova categorization, it would apply to cola and drinkable yogurt, packaged chocolate chip cookies and frozen yogurt bites. While plain yogurt would not be considered UPF, plain yogurt with strawberry preserves would. This breadth creates ambiguity and can conflate clearly discretionary or low-nutrient products with others that support nutrient adequacy, food security, and adherence to dietary guidelines – particularly in diverse and resouce-constrained food environments.

Trying to Create a Different System

Given the pitfalls of Nova and such a broad category of UPF, some nutrition scientists have challenged it by attempting to create a better system. **WISEcode**, for example, applies a data-driven scoring method on ingredient lists, based on 1) number of processed ingredients; 2) degree of processing and health risk of each component; 3) proportion of calories from added sugars; and 4) presence of banned or high-risk additives to yield a system with 5 levels, including minimal, lightly processed, moderately processed, UPF, and super-UPF (SUPF).[2] Another proposed project, a multi-disciplinary, two-year consensus effort led from University of Copenhagen, aims to enrich how processed foods are classified by integrating nutritional content and the food matrix into the scheme. These projects are meant to bring nuance and granularity to current UPF classification by Nova.

Scientific Reaction or Distraction?

While all these systems are well intentioned scientific reactions to grim nutrition and public health statistics, they may also be a distraction from unlocking the potential of processing to **sustainably nourish the world and promote global health**.[3] The application of these systems in policy and public discourse risks overshadowing more pressing and evidence-based strategies for addressing malnutrition and NCDs.

Nearly a third of the global population are moderately or severely **food insecure**, meaning they do not have access to adequate food.4 Nearly 10% experience hunger.4 Even in high-income countries, **hidden hunger** - the presence of multiple micronutrient deficiencies despite sufficient foods - affects an estimated two billion people worldwide, many of which are in vulnerable population groups, such as children, the elderly, and women of childbearing age.5

Many foods classified as UPF play critical roles in public health nutrition, particularly in imporving nutrient adequacy, enabling dietary adherence, and ensuring access to safe, affordable, shelf-stable options in low-resource settings. Rigid application of UPF classification schemes may unintentionally stigmatize useful innovations and distract from interventions with demonstrated efficacy, such as nutrient fortification and context-specific reformulation.

To address global hunger and rising rates of NCDs, it may be time to shift processing perceptions to reflect reality and consider a more pragmatic, nutrient-focused, and equity-oriented approach.

DAIRY LEADERSHIP: A CALL TO ACTION

- Reframe the narrative on processing by advocating for a science-based understanding that highlights benefits, such as nutrient fortification, safety, accessibility — especially for vulnerable populations.
- Champion processing technology's role in global nutrition and food security, that can help combat malnutrition and hidden hunger.
- Engage in policy discussions and public education to ensure dairy products are recognized as part of the solution.

For more information on the Global Dairy Platform's Perspective Papers or our Quarterly Webinar Series, please reach out to Dr. Beth Bradley at beth.bradley@globaldairyplatform.com.

References

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