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# The UnProcessed Pantry Project Framework to Address Nutrition in the Emergency Food System

Low-income populations suffer a greater burden of chronic diseases and food insecurity, are more likely to consume ultra-processed food, and are less likely to meet dietary recommendations than the general population.<sup>1,2</sup> Ultraprocessed food is manipulated with artificial ingredients and can be high in sodium, caloric sweeteners, and saturated fats and, thus, has deleterious health effects.<sup>3</sup> The NOVA framework, created by Monteiro and colleagues,<sup>3</sup> is commonly applied to public health research

to characterize food processing at different levels (unprocessed, minimally processed, processed culinary ingredients, processed, ultraprocessed).<sup>3</sup> In the United States, ultraprocessed food typically is accessible, affordable, and convenient, whereas minimally processed food typically is more difficult to access, expensive, and less convenient.<sup>1,4</sup> Over time, the availability of ultraprocessed food has increased across the global food supply and in the diets

of individuals worldwide, especially among low-income populations.<sup>3,5,6</sup>

## NUTRITION IN THE EMERGENCY FOOD SYSTEM

From a social–ecological perspective, addressing food insecurity and preventing chronic disease requires targeted efforts from various sectors to achieve positive dietary and health outcomes.<sup>4</sup> The emergency food

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system operates as a sophisticated network of food banks, food pantries, soup kitchens, and other emergency food programs to provide food for millions of food-insecure and low-income Americans (Figure A, available as a supplement to the online version of this article at <http://www.ajph.org>).<sup>7</sup> Food banks and food pantries acquire food and beverages through donations and purchases from individuals, food retailers, farmers and processors, national companies and organizations, and federal commodities. Food pantries typically distribute food to clients.<sup>7</sup> A food pantry client's dietary quality relies on the food and beverages made available in the food pantry, as well as any food and beverages acquired outside the pantry setting. Food offered at food pantries can range from ultraprocessed to unprocessed, and for many food pantries, the nutrient quality of the food supply is not consistent, which has implications for a client's ability to maintain a healthy diet.<sup>7</sup>

Because of growing numbers of food pantry clients with documented health disparities, a need has been noted for more consistent supplies of nutritious food in the emergency food system, both nonperishable and perishable.<sup>7</sup> The “working poor” are a growing population of US households that experience food insecurity and often do not qualify for federal food assistance programs, such as the Supplemental Nutrition Assistance Program. This population increasingly relies on emergency food to make ends meet. The acute severity of this need was underscored in a different population during the 2019 US government shutdown, when an influx of furloughed government workers without paychecks turned to the emergency food

system, including food pantries, to meet their food needs.

Organizations across the emergency food system have adopted nutrition frameworks to encourage the donation and purchase of more nutritious food at food banks and food pantries.<sup>7</sup> These nutrition frameworks focus on encouraging food pantries to source certain food from broad categories (e.g., cereals, vegetables) and monitor levels of key nutrients in each category (e.g., sodium, saturated fat). These nutrition frameworks can be used to promote more nutritious donations and purchases of food that target broad food categories and specific nutrients, but they have lacked in their translation for use across stakeholders, including food pantry clients.

Because of the complexity of food choices, food banks, food pantries, clients, and other stakeholders in the emergency food system need a framework in which to understand the differences across the processing levels of various food types. Food pantries offer a critically important setting in which to supply a broad range of nutritious food, perishable and nonperishable, and to limit ultraprocessed food. A new framework is needed to help create a food supply in the emergency food system that limits ultraprocessed food when possible, promotes the availability of nutritious perishable and nonperishable food through acquisition and policy, and supports food justice that improves the compromised nutrition and health needs of food pantry clients.

## A NEW FRAMEWORK FOR THE EMERGENCY FOOD SYSTEM

Ultraprocessed food has become ubiquitous across food

environments, including food pantries. Consequently, low-income populations disproportionately consume ultraprocessed food, which may contribute to an increased prevalence of nutrition-related chronic diseases.<sup>3,5</sup> To address this disparity, we developed the UnProcessed Pantry Project (UP3) framework by adapting the NOVA framework and US Department of Health and Human Services and US Department of Agriculture's 2015 Dietary Recommendations for Americans to apply to the food pantry setting.<sup>4</sup> UP3 has multiple applications and the potential to inform and equip food pantries and clients, among others in the emergency food system, to build demand for and ultimately consumption of nutritious food. Organizations can use UP3 to guide changes in the food supply and inform individuals to make more nutritious food choices.

UP3 (Figure 1) is different from the NOVA framework in that it divides food into unprocessed and ultraprocessed categories and labels them to help consumers and food pantries distinguish ultraprocessed food from all other food. The unprocessed food category includes fresh food, pantry staples, and prepared food subcategories. The prepared food subcategory diverges from the processed food category of the NOVA framework by highlighting lightly prepared and heavily prepared food. Differentiating prepared food aids pantries and clients in distinguishing between food that is lower or higher in sodium, added sugar, and saturated fat—key nutrients that affect dietary quality. Ultraprocessed food does not have subcategories.

Consequently, the goal of UP3 is to limit ultraprocessed food, to provide a variety of


unprocessed food in a food pantry's food supply, and to be an educational tool for clients to learn about how to choose and consume more unprocessed food. UP3 provides examples of food, recommends amounts for clients to consume and for the food pantry to stock and encourage in the food supply, and was written at a reading level that can be comprehended by diverse stakeholders. Food can be classified by examining the nutrition label and ingredients list on a packaged food.

## TOWARD A MORE EQUITABLE FOOD SYSTEM WITH UP3

To make progress on decreasing health disparities among food-insecure populations, the overall food system needs to confront equity in the nutrient quality of food in the emergency food system.

The emergency food system has evolved from an ad hoc stopgap system to address cyclical food insecurity to one that increasing numbers of households rely on to make ends meet. Food pantries may hesitate to discourage donations of any type of food because of the possibility that donors stop or decrease donations, client choice is limited, or the demand to address hunger is unmet. Clients are responsible for selecting or accepting, consuming, and preparing food. The promotion and donation of nutritious food, along with nutrition education for clients, should be seen as investments in client health.

Economic challenges and widening income disparities have led to an increased reliance on the emergency food system, especially

UP 	UnProcessed Food <sup>a</sup>				UltraProcessed Food
	Fresh	Pantry Staples	Prepared <sup>b</sup>		
			Lightly	Heavily	
<b>What are the different types of food?</b>	Fresh foods come from plants or animals. They are close to their natural state. They are often washed, ground, chilled, or sliced before eating.	Pantry staples include ingredients used to cook or flavor fresh foods. They are usually not eaten alone. They include foods that have been milled, dried, or pulverized.	Prepared food is often made from both fresh food and pantry staples. This food is processed to make food last longer or to improve taste. This food may be canned, cooked, or baked.		Ultraprocessed food has added artificial ingredients and uses cooking methods that are usually not found in home cooking. These ingredients include sweeteners and preservatives. This food is often high in added salt/sodium, sugar, saturated fat, unhealthy (hydrogenated) oils, and refined grains, and low in nutrients.
<b>What are some examples of this food?</b>	Fresh food includes fruits, vegetables, whole grains, meats, legumes, nuts and seeds, milk, tea, and coffee.	Pantry staples include food such as vegetable oil, butter, sugar, spices, salt, flours, corn starch, baking powder, honey, and maple syrup. Some pantry staples such as hot sauce, soy sauce, and bouillon are ultraprocessed. Choose unprocessed pantry staples whenever possible. Add only a small amount of ultraprocessed pantry staples to fresh food when there is no substitute.	Lightly prepared food is lower <sup>c</sup> in added salt/sodium, sugar, and saturated fat.	Heavily prepared food is high <sup>b</sup> in added salt/sodium, sugar, and saturated fat.	Ultraprocessed food includes candy, chips, soft drinks, packaged frozen dinners, and ready to eat meals.
			Lightly prepared food includes meals and snacks prepared with pantry staples AND fresh foods that are LOW in <sup>c</sup> :  - salt/sodium - added sugars - saturated fat  Examples include soups, stir fries, sandwiches, and salads.	Heavily prepared food includes meals and snacks prepared with pantry staples AND fresh foods that are HIGH in <sup>c</sup> :  - salt/sodium - added sugars - saturated fat  Examples include homemade cakes, and cookies, deep-fried foods, casseroles, and gravies.	
<b>How much should be in the food supply?</b>	More fresh food should be available than any other type.	Pantry staples should be available for clients to use when preparing meals and snacks.	Lightly prepared food and ingredients to make lightly prepared food should be available as much as fresh food.	Heavily prepared food and ingredients to make heavily prepared food should be available less than lightly prepared or fresh food.	Ultraprocessed food should be available seldomly.
<b>How much should I eat of this type of food?</b>	Eat more fresh food than any other type. Try to include fresh food in every snack and meal.	Use pantry staples in small amounts when cooking meals.	Lightly prepared food can be eaten as often as fresh food.	Eat less of this type of food compared to fresh and lightly prepared food.	Eat less of this food than all other types of food.

<sup>a</sup>Focus on a variety of vegetables, fruits, whole grains, lean protein foods, calcium rich foods, and healthy fats every day.

<sup>b</sup>Look at the ingredients list on packaged food. Eat food with fewer and familiar ingredients.

<sup>c</sup>Low sodium is <140 mg per serving. Eat <10% of calories from added sugars and saturated fat.

FIGURE 1—The UnProcessed Pantry Project (UP3) Framework

food pantries. Changes in the food supply and dietary patterns in the United States have resulted in an overabundance of energy-dense, nutrient-poor ultraprocessed food. Although there is a need to address hunger and food insecurity through emergency food outlets, concerns exist about providing food that may unintentionally increase health risks among vulnerable populations. UP3 should be applied across the emergency food system because it can guide access to and consumption of nutritious food and ultimately reduce the risk of chronic diseases among health-disparate populations. *AJPH*

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**Note.** The content is solely the responsibility of the authors and does not necessarily represent the official views of the NIH.

#### CONFLICTS OF INTEREST

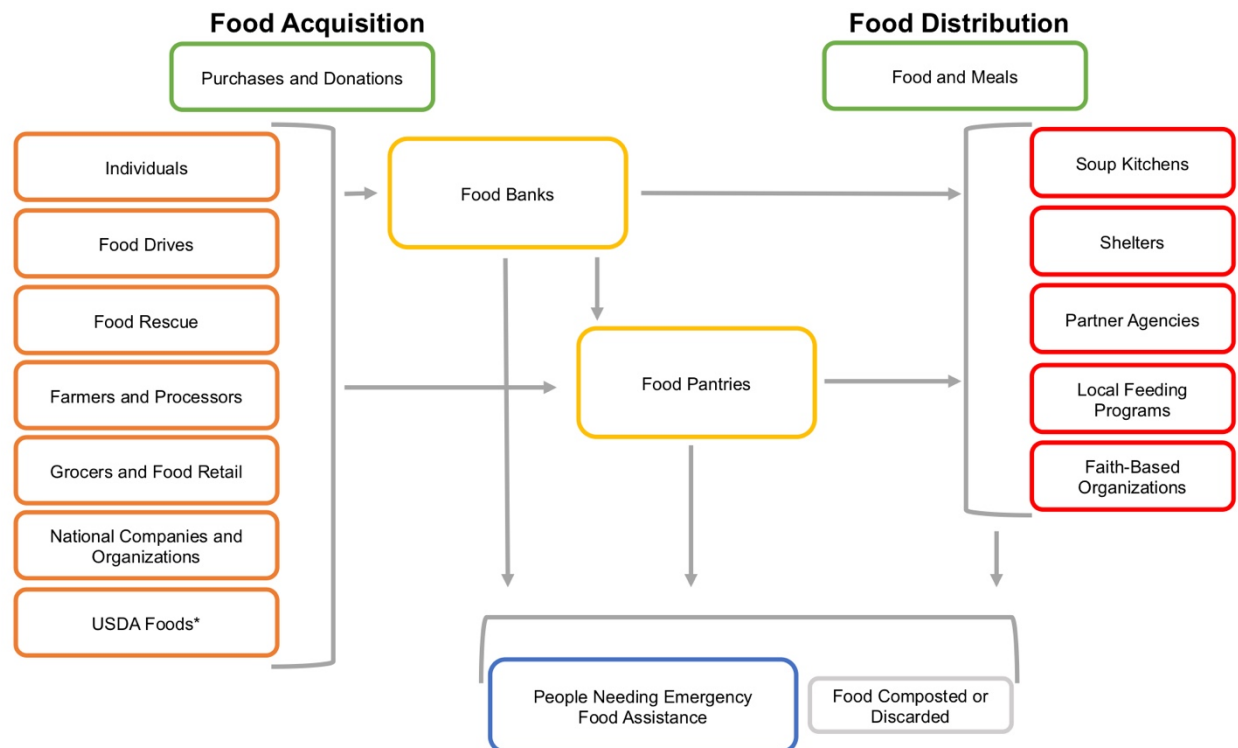
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**Supplemental Material** Food banks and food pantries acquire food and beverages through donations and purchases from individuals, food retailers, farmers and processors, national companies and organizations, and federal commodities (Figure A). Food rescue, or redirecting food that would be wasted, from any of these locations is common. Food banks typically collect, store, and distribute food and beverages for distribution through food pantries to individuals and families in need. Food pantries typically distribute food to clients. Food pantries range in type of organization, capacity, and size, from independent non-profits to affiliations with local organizations such as faith-based organizations.

**Figure A.** Food Acquisition and Distribution in the Emergency Food System



\*USDA Foods contribute to the emergency food system through several programs, such as The Emergency Food Assistance Program (TEFAP).