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We are submitting this comment on behalf of the Global Food Research Program (GFRP) at the University of North Carolina at Chapel Hill. The GFRP is a project of the Carolina Population Center. Our researchers and staff collaborate with diverse partners across the globe to evaluate food and nutrition policies and to develop research aimed at reducing diet-related disparities in health and creating a healthful food system. We are writing in strong support of USDA's proposed updates to the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) food packages. WIC supports families in putting healthy meals on the table so that young children can grow and thrive. Parents trust and turn to WIC based on its long record of improving health outcomes for babies and young children, which is rooted in a science-based process and expert advice from WIC counselors that prioritizes the consumption of healthy foods. The proposed updates to the WIC food package build on revisions made in 2009, which were shown to have a positive impact on participants through improved diet quality, better availability of healthy foods and beverages and lower risk of overweight and obesity among children(1-3).

We strongly support the permanent increase to the Cash Value Benefit (CVB) to reflect 50% of DGA-recommended fruit and vegetable intake, the addition of a monthly issuance of seafood across food packages, increased access to whole grains through new culturally appropriate options and stronger cereal standards, and new package size flexibilities and substitution options that will improve access to dairy and other food groups. At the same time, we encourage the USDA to also strongly consider allowing additional flexibilities like allowing rolling over of benefits, substitution across select categories, and explicit language on maintaining the National Academies of Science, Engineering, and Medicine (NASEM) CVB levels during implementation of changes to the rest of the WIC food packages. These steps will better meet the needs of today's WIC population, improve participant access to healthy WIC foods, and provide a greater opportunity to introduce children participating in WIC to a balanced diet of nutrient-dense foods.

In 2022, we conducted two qualitative research studies with WIC participants in North Carolina to understand their perceptions of the WIC food packages and the recent increase in the CVB component of the WIC food packages(4-6). One study was conducted with English-speaking WIC participants and the other study with Spanish-speaking WIC participants. In our first study, we conducted group discussions with 55 WIC participants, half of the groups were conducted with participants living in rural counties and half with participants living in urban or suburban counties. In our second study, we conducted in-depth interviews with 18 Spanish-speaking WIC participants. **Our findings demonstrate there is strong participant support for: an increase in the CVB amount, options to substitute CVB for baby food and 100% juice, options to substitute items within and across food categories, addressing dietary and cultural preferences by adding a wider variety of WIC-eligible products, offering a variety of package sizes for more flexibility and to address shortages, and adding seafood to child (2-4 years) and adult packages.** We summarize findings from these studies and recommendations for updates to the food package based on WIC participant feedback and further supported by other evidence below.

The GFRP supports USDA's proposal to establish permanent, higher benefit amounts for the CVB to reach the target intake for fruits and vegetables. Higher fruit and vegetable issuance is critical for improving health outcomes and closing intake disparities. Recent data from the National Survey of Children's Health demonstrated that one in two children ages one-five years did not eat a daily vegetable and one in three children did not eat a daily fruit, and fruit and vegetable consumption was even lower among children experiences food insufficiency(7). Whole fruit is higher in fiber than 100% fruit juice, and NASEM prioritized fiber intake across all child and adult food package(8, 9). NASEM also identified significant gaps in vegetable consumption among WIC-eligible populations,



including 100% of postpartum women, 99% of children, and 99% of pregnant women who fall short of DGA-recommended vegetable intake(9).

Pre-pandemic CVB amounts (\$9-11/person/month) were deemed insufficient by NASEM and WIC participants to meet recommended fruit and vegetable intake(9, 10). For example, when discussing the pre-pandemic CVB amounts in our qualitative studies, participants said:

“It’s not enough. It’s not it’s just like a bag of apples and a package of strawberries. I mean, what’s that going to do? You know what I mean? Like it’s nothing.”

“...it just seemed, seemed as if they were just like, “hey, here you go. Here’s a little bit of something.” But you know, anybody that shops for themselves knows that \$9 in the produce department is going to last you maybe two days with children.”

Research, including our two studies as well as studies from other states, shows the 2021 CVB increase was incredibly well received by program participants, resulting in rapid and measurable increases in fruit and vegetable consumption (averaging at ¼ cup per day for WIC-enrolled children)(4, 11-14). Participants of our focus groups believed the CVB increase allowed their families to eat healthier(4). Participants also stated the CVB increase allowed their children to try a wider variety of fruits and vegetables, which is crucial for healthy taste preference development in early childhood(15). It is also important for pregnant and breastfeeding participants to consume an adequate amount and variety of fruits and vegetables, not only for their own health, but because dietary volatiles from fruits and vegetables are transferred via amniotic fluid and human milk, bridging flavors consumed in utero to those in early childhood(16). Discussing the effects of the CVB increase, one participant in our study said:

“And we’ve discovered that he loves asparagus and broccoli. So, we could like do that for lunch or like a little midday snack. I give him some grapes, and like broccoli, or strawberries, and asparagus, just for a healthier snack or lunch, instead of going to like freezer meals and potato chips and stuff like that.”

Both Spanish and English-speaking participants agreed that the CVB was one of the most valuable components of the WIC food package(4-6). They noted that they often spend their CVB first before other WIC food package components (e.g., beans, cereal) each month and that the CVB was the component that needed to be increased the most during the pandemic. One participant stated:

“... the fruits and vegetables I think is like the most important thing. And I think that is more important than eggs, more important than milk, more important than cereal. They all have their benefits. But I think the vegetables, especially if you’re going to start the kids off when they’re young, you have to give them the vegetables when they’re little or they’re not going to want them.”

“A mí me gusta mucho porque los niños lo que más comen es la fruta y la verdura... Además como le dije el aguacate había subido bastante y es un alimento que ocupo a diario también para ellos, Entonces para mí, pues estuvo muy bien el beneficio”

Translation: I really like it, because the food my children eat the most are fruits and vegetables... Moreover, like I was telling you, the price of avocados has increased a lot, and since that is something that my children eat daily, the benefit was really good for me.

In addition to addressing key nutrient gaps and helping young children develop healthy taste preferences, the CVB is the most versatile element of the WIC food package, providing a greater degree of choice that can empower WIC families to reflect cultural eating patterns and experiment with new varieties. Added CVB benefits greatly shifted participant perceptions about the value of WIC participation: previously 83.8% of WIC participants felt that the CVB was “not enough,” but only 24% felt similarly after the increased amounts were put in place in 2021(14). NASEM identified that a higher-value CVB could incentivize ongoing participation by young children, addressing a persistent challenge that fueled participation declines in the 2010s(9). On the value of CVB, participants in our study said:

“So I would say like, it’s [the CVB increase] definitely giving me a reason to stay enrolled and everything. Like it’s making him[her child] healthier and happier.”



“The vegetables were the most important and the vegetables and the fruits and vegetables was the most important. Um, while pregnant, after pregnant. And they’re really the most expensive thing, but also the most beneficial thing.”

While we support the USDA’s proposal to increase the CVB amounts to \$24 for children, \$43 for pregnant and postpartum participants, and \$47 for breastfeeding participants with annual adjustments for inflation, both of our studies found that many participants felt they needed more than the current amount of CVB for fruits and vegetables to meet their family’s needs given the rising cost of food(4). For example, participants said:

“I could definitely use more. I mean, fruits and vegetables are a large part of my diet, especially throughout the day, between meals.”

“WIC should match whatever the benefits are to how we’re living today. With how high stuff, stuff is, right now, WIC should be like, “Okay, we should match it so at least our clients are able to actually buy stuff that’ll actually last, not just buying one or two stuff.” Because when you think about it, you’re like, well, WIC come on, like, I’m using this as a help for me and my family.”

Further, the GFRP also strongly urges the USDA to maintain the elevated CVB benefits throughout implementation. USDA’s proposed rule outlines an implementation timeline of 18 months, allowing States to adjust complex computer systems to account for the new food packages. This window is critical to ensure that States are positioned to appropriately program in new products, issuance levels, and substitution patterns. However, the proposed rule suggests that changes cannot be made on a food category basis; instead, an entire food package (e.g., the food package for children) must be adjusted at the same time. For example, the proposed rule suggests that canned fish could not be added to the child food package until the entire child food package is updated. This limitation is of particular concern for the food packages with elevated Cash Value Benefit, as a narrow reading of that limitation would suggest that benefits must be reduced to \$9 or \$11 for fruits and vegetables unless all changes are included across the individual food package. USDA should avert this potential disaster and explicitly exempt Cash Value Benefit from this limitation in implementation to assure equitable treatment of WIC participants as States adjust their systems and program in the new food packages.

The GFRP also encourages the USDA to go further by allowing 100% juice only as a substitution. USDA’s proposed rule, echoing NASEM’s recommendation, would reduce overall issuance of 100% fruit juice and permit substitution of the remaining juice benefit for additional CVB. USDA should go one step further and flip the substitution pattern: eliminate default juice issuance, add an additional \$3 (adjusted for inflation) to the CVB, and permit 100% juice only as a substitution option. By decreasing overall juice issuance and boosting CVB for whole fruit purchases, WIC can work to reverse whole fruit and fruit juice intake disparities that disproportionately affect families with low incomes and, in particular, Black children(7, 17). Whole fruit is higher in fiber than 100% fruit juice, and NASEM prioritized fiber intake across all child and adult food packages(8, 9). WIC participation is also associated with earlier introduction of juice and higher prevalence of juice consumption when compared to non-participants(18, 19). By eliminating default juice issuance, WIC can better align participant perceptions and nutrition education messages with medical advice.

In our interviews with Spanish-speaking WIC participants, we heard support for reducing the juice issuance and a desire to substitute the juice received for more CVB. Participants felt that juice was not a healthy option for their children and wanted to have the option to provide more whole fruits and vegetables for their families.

*“No compramos muchos jugos, lo que compramos es fruta congelada para hacer jugos”
Translation: We don’t buy a lot of juice, what we buy is frozen fruit to make juice.*

*“Los jugos no me gustan, es muy rara la vez que cojo lo que tengo permitido, solo escojo uno porque no le doy bebidas azucaradas a mi hijo”
Translation: I don’t like the juice, I rarely use the full amount, I just pick one because I don’t give sugary beverages to my son.*



Additionally, the GFRP supports USDA's proposal to increase the CVB substitution amounts for infant fruits and vegetables, allow other forms of fruits and vegetables to be substituted than fresh fruits and vegetables, and lower the minimum age for infants to receive a CVB from 9 months to 6 months. Participants in our qualitative study expressed strong support for these substitutions and felt this flexibility would better meet the needs of their families and their children's preferences(4, 5). When asked about suggested changes to the CVB, participants wanted to continue to receive this benefit for their 6–12-month-old children once complementary foods were introduced so that they could make their own pureed baby foods instead of receiving the jarred baby foods. Participants wanted to be able to receive more CVB in place of baby food for their children ages 6-12 months:

"So I wish that they would continue to give us the fruits and vegetable money once they turned six months...because [my child] loves fresh fruits and vegetables as well."

"I was just saying that...my daughter, she'd been eating real food since she was six months old, like table food...I just wish that they provided that for her because she don't eat baby food. She wants to eat what I eat, and I wish she could have like strawberries..."

The GFRP encourages the USDA to build additional flexibilities into the WIC food packages, such as rolling over benefits from one month to the next and allowing more substitutions across WIC food package components, to meet the needs of WIC participants, address shortages in WIC-approved items, and better suit the dietary behaviors and preferences of young children, which shift often throughout the first few years of life. Participants in both of our studies wanted their WIC benefits to roll over for at least one month, similar to how Supplemental Nutrition Assistance Program (SNAP) benefits are administered(4, 6). Many participants mentioned the current means of administering WIC benefits one month at a time created anxiety about forgetting to use benefits before they expired. Allowing this flexibility in use of WIC benefits could also increase redemption rates and allow WIC to better meet its goals of improving nutritional status and food security in this vulnerable population. For example, participants stated:

"...with WIC I wish that a lot of the stuff would roll over. Like, like I said previously...certain things like with the eggs, my child doesn't eat them all the time. And then she turns around, and she's scarfs 'em down and sometimes I don't always get food stamps."

"But at least give us an extra month or something like a grace period to use it too because...sometimes stuff is out of stock I have to go around to different stores to find it."

Participants in our studies also wanted to be able to substitute components of the food package that their family does not use and go to waste due to dietary and cultural preferences for components they use more of, such as fruits and vegetables. For example, Spanish-speaking participants felt that peanut butter is not a culturally relevant food and wanted to be able to substitute the peanut butter they received for other protein sources. In our focus groups, one participant said:

"They [WIC staff] could maybe ask you like, you know, "Do you want more milk or do you want more eggs?" you know. But there might still maybe where they have to give you two gallons of milk or something, you know, because they want to make sure the kids get calcium or whatever. But I think that would be a better option because some people don't eat cheese or some people don't eat eggs or so, maybe they should be able to get more of something else."

"If I could say, you know, you can keep this bread and give it to someone who would actually use this bread and someone who will actually use this cereal, go ahead and just give me \$5 more for fruits and vegetables, and that would be fine. Like, I just think if it's like tailored to the child like that, then I guess everyone is happy, because it's like, I just feel like it's being wasted then because it's like, I could buy more fruits and vegetables instead of having this bread that nobody's gonna eat."

The GFRP supports the USDA's proposal to include seafood in the child (2-4 years) and adult food packages. Participants in both of our qualitative studies expressed strong support for seafood to be included in the WIC packages(4, 6). For example, one participant stated:



"I don't like the fact that they took away getting tuna...They were saying that that was good for breastfeeding moms...and it's like, that's not on there [the list of approved foods]."

USDA's proposed rule would greatly expand access to seafood, from only 3.4% of WIC participants to an estimated 58.7%. In addition to introducing a new food category to many WIC participants, seafood is an important source of protein and other nutrients like iron, choline, omega-3 fatty acids, calcium, and vitamin D which are a priority for the WIC population(8). The 2020 Dietary Guidelines for Americans – the first edition with distinct recommendations for pregnancy, lactation, and early childhood – emphasized the particular benefits of seafood consumption for pregnant and breastfeeding women, noting the potential benefits to a child's cognitive development(8). We support USDA's decision to issue seafood monthly, instead of forcing a complicated rotation with legumes and peanut butter. In addition to the health benefits of expanded access to a new food category, USDA should avoid complex issuance patterns that could confuse participants and deter the retention of eligible families.

The GFRP supports the USDA's proposal to create a pathway for plant-based dairy alternatives. We strongly urge USDA to follow through on its proposal to develop a pathway to authorize nutritionally comparable dairy alternatives without having to wait for a future review or rulemaking. Setting a standard and framework will encourage manufacturers to work toward new fortified products, delivering another healthier product to market. Providing a pathway for plant-based dairy alternatives that meet nutrition standards to be eligible for WIC purchases will increase the value and choice of the WIC package for participants with allergies or dietary patterns that do not include dairy.

Further, adding more non-dairy substitution options for milk, soy-based cheese, and requiring lactose-free milk to be offered, would provide flexibility and choice for WIC-administering agencies and participants. These changes allow for personal preferences, as well as for individuals with special dietary needs to meet their nutrients. For example, in the US approximately 60-80% of African Americans and Native Americans are lactase nonpersistent, so providing lactose-free dairy alternatives is critically important(20).

Findings from both of our studies demonstrate WIC participant support for these updates to the dairy component and a need to address the diversity of WIC participants and their varying dietary requirements and preferences. For example, participants stated:

"So for them[WIC] to ignore the, I'm sure abundance of parents who have been screaming for this [plant-based dairy alternatives] for a long time, like you know, yes, we could get soy milk but a lot of us don't use soy either. So give us the ability to have like oat milk, or to have almond milk and just let us drink what our kids want to drink versus trying to force us to have something that we don't like anyway and aren't using"

"I raised my children vegan, so we don't eat any of, you know, the cheese, eggs, the yogurt the milk."

"I think that it would be a positive turn for WIC to start thinking about families who have alternative diets."

The GFRP supports USDA's proposal to adjust dairy issuance to promote participant choice. Although the proposed rule would decrease overall dairy issuance to allow for more balanced issuance across food categories, the WIC food package is still providing the majority of recommended dairy intake, at 59% for children and 71% for women(9). USDA puts forth several steps to further improve flexibility and choice among dairy options. USDA would remove the limitation on the quarts of milk that could be substituted, allowing a participant to redeem all potential substitutions: yogurt, cheese, and tofu. USDA's changes to offer a broader range of package and container sizes introduce another degree of flexibility that will make it easier for State WIC agencies to authorize single-serve and multipack yogurt containers, string cheese, and drinkable yogurts. In our qualitative studies, we heard WIC participant support for the types of changes to dairy in the proposed rule to ensure that participants have more choice throughout the food package(4). For example, participants said:



“The milk is great, but you know, some people don't tolerate milk as well as other people do. And I feel like sometimes we don't always use every gallon of milk so that'll be leftover on my card.”

“But what I don't understand is if she doesn't need that much milk, then why don't they take half of what we are, what they give us for milk and just put it towards more beneficial things that we already needed like fruit and stuff like that.”

“...the 32 ounce yogurts like, to just have it in like maybe the smaller sizes just because like after you open that big yogurt like it has only so much time that you can still use it versus like the smaller cup yogurt are more like for a portion for a child. So I don't know maybe like a different size choice for the yogurt.”

The GFRP supports USDA's proposals to strengthen whole grain intake. NASEM identified that 100% of adults and 93% of children do not meet DGA-recommended intake for whole grains(9), with children instead exceeding recommended refined grain intake(8). NASEM recognized that breakfast cereals are well positioned to drive increased whole grain intake for young children, leveraging limited WIC resources to deliver whole grains and key nutrients like iron and folate through the same food category. NASEM identified that multiple whole grain cereals – including gluten-free varieties – are already on the marketplace(9). Introducing whole grain consumption during childhood is critical for WIC participants' health throughout the lifecourse, as whole grain consumption boosts intake of priority nutrients like fiber and iron and is associated with reduced risk of cardiovascular disease, type 2 diabetes, and other chronic diseases(21).

Additionally, we know from policy evaluation research in the US and globally that the food industry is capable of reformulating products, including adding more whole grains. This new standard for whole grains would incentivize companies to improve the nutritional composition of breakfast cereals. This is particularly important given recent data showing households with low incomes and children are more likely to purchase refined grains(22).

In addition, USDA has listened to WIC families and providers in going further than the NASEM report to offer a broader range of nutritionally appropriate whole grain options that align with cultural eating patterns, including quinoa, wild rice, millet, triticale, amaranth, kamut, sorghum, wheat berries, tortillas with folic acid-fortified corn masa flour, corn meal (including blue), teff, buckwheat, and whole wheat pita, English muffins, bagels, and naan. In our interviews with Spanish-speaking WIC participants, there was a desire for the WIC food package to include more options in the grain category as many participants reported that their children do not like whole grain bread.

The GFRP supports the USDA's efforts to establish package and container size flexibility across food categories. USDA's proposed rule goes beyond the NASEM report to offer far greater flexibility to State WIC agencies in authorizing smaller package sizes than the maximum, across all food categories except for infant formula. This step will not only expand options and introduce more convenient package sizes (such as single-serve or multipack yogurts), but it also empowers WIC shoppers to assume greater responsibility in maximizing their redemptions. Combined with tailored and individualized nutrition education and the emerging support of digital tools like shopping apps, package size flexibility could both reduce barriers in the shopping experience and further invigorate WIC's nutrition education programming. In both of our studies, participants consistently stated they want a variety of package sizes for more flexibility given shortages of WIC-approved items in grocery stores during pandemic and pre-pandemic times, to better meet the needs and dietary behaviors of their young children, and to accommodate cultural food preferences(4, 6). Participants also really appreciated the flexibilities in approved package sizes that were approved through waivers during the pandemic. For example, they stated:

“Some of the items like the juicy juice that we used to get, I've seen that they change the size of it...it's never in stock.”

“And then also like our milk for my daughter we get skim or 1% is what we're allowed. But recently, during the shortages, they started allowing us to get 2% which has helped because again, a lot of this stuff is out of stock and it's continuously like I'll go to multiple stores and I can't find the organic skim milk, it's always out. So when they loosened the restrictions up a little bit and let us choose like a 2% option that helped tremendously.”



“We're hoping that...cheese sticks will be on there [changes to the WIC food packages] because they [USDA] gotta look at what the kids, kids are eating because it's them that they're supposed to be providing for.”

In conclusion, we strongly support the following changes proposed by USDA to improve the WIC food packages:

- Establish permanent, higher amounts of the CVB
- Allow substitution of 100% juice and baby food fruits and vegetables for more CVB
- Provide greater flexibility to accommodate participants' personal and cultural food preferences and special dietary needs, such as expanding whole grain options and providing more non-dairy substitution options for dairy components
- Add canned fish to more food packages, creating more equitable access to this under-consumed food
- Adjust the dairy issuance to promote participant choice
- Build additional flexibilities into the food package to promote participant choice and benefit redemption

We encourage USDA to finalize this rule as quickly as possible so that WIC can issue the new food packages to participants across the country.

Sincerely,

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Citations:

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