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**Department of Public Health**

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December 12, 2003

Patricia Daniels, Director  
Supplemental Food Programs Division  
Food and Nutrition Services  
USDA  
3101 Park Center Drive, Room 520  
Alexandria, VA 22302

Re: Revisions to the WIC Food Packages

Dear Ms. Daniels:

Thank you for the opportunity to provide comments about revisions to the WIC food packages. Our comments are organized by the eleven broad issues identified on the final page of the notice as it appeared in the Federal Register.

**1. Indicate the elements of the food packages you would keep the same and why.**

Supplemental foods. We support the supplemental nature of the WIC food packages. The WIC food packages should continue to provide foods that significantly contribute to the target nutrient profile for each participant category. We support the minimum iron and vitamin C levels that currently define WIC-approved cereals and juices. We also support the maximum of 6 grams of simple carbohydrate per serving defining WIC approved cereals.

Purchase of specified foods. We support the continued use of food instruments or electronic benefits transfer cards for the purchase of specific foods (as opposed to a cash benefit program). Numerous studies have reported the improved dietary intake patterns of program participants compared to income-eligible non-participating individuals. Allowing the purchase of specified foods also provides parents and caretakers with repeated opportunities to apply the information and skills gained from their WIC nutrition education activities.

State-approved food lists. We support continued flexibility for state WIC programs to develop their own approved food lists and to develop food selection criteria that are more limiting than those in federal regulations.

Point of purchase decisions about milk. We also support the option for state WIC programs to allow participants to make the decision about the fat content of milk at the point of purchase. Although the recommendation for the general population is to drink low fat milk products, there is considerable variation in susceptibility to chronic diseases that makes this specific dietary change unwarranted in some individuals. It is also possible to balance the fat contribution of higher fat milk products with other low fat food choices, resulting in a diet that meets the dietary guidelines. This is particularly



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important for maintaining an adequate calcium and vitamin D intake when some consumers will stop drinking milk altogether rather than switch to a lower fat product.

## 2. What changes, if any, are needed to the *types* of foods currently authorized in the WIC food packages?

Add fruits and vegetables. We support the position of the National WIC Association (NWA) and others stating that fresh, frozen and canned fruits and vegetables should replace some of the juice currently provided in the food packages for children and women. We recommend adding 4 pounds of fruits and vegetables to Food Package IV and 6 pounds to Food Packages V and VI. This provides approximately one additional serving of fruits or vegetables per day. This proposal is cost neutral or may even result in a cost savings. Average prices for one pound of frozen, canned or fresh produce are less than the current cost of one container of juice (\$1.20 compared to \$1.80). The actual impact on food costs will be based on the choices made at the point of purchase.

We also support adding commercial jarred vegetables for infants in Food Package II. Children's food preferences are major determinants of foods they eat, and food preferences and eating practices are established early in life. It is critical for children to have repeated exposures to new foods. This may be particularly important for foods that tend to be consumed in limited quantities like vegetables. We recommend providing one (1) serving per day (2½ ounces or 4 tablespoons). To accommodate the larger and more economical jars as infants get older and eat more, we recommend a maximum of 80 ounces per month. This proposal is cost neutral to perhaps a slight increase in overall costs given the other revisions we are proposing.

Fruits and vegetables provide vitamins, minerals, fiber and other substances such as antioxidants that are associated with good health. Fruits and vegetables may help protect against many chronic diseases. They also promote healthy bowel function. Most fruits and vegetables are naturally low in fat and calories and are filling. Many are also quick to prepare, easy to eat, and can be apportioned easily for individuals.

Nutrition and oral health professionals agree that fruits and vegetables are healthy choices for snacks. Since young children and pregnant women rely on snacks to meet their nutritional needs, it would be helpful to have healthy choices provided in the WIC food packages.

USDA selection criteria should emphasize fruits and vegetables that are available year round and in at least two forms (to address food storage, availability, and cost issues). The fruits and vegetables should also be low to moderate in cost and acceptable to culturally and ethnically diverse populations. State WIC agencies would then identify products that meet these criteria for their target population.

We believe that the primary goal of adding fruits and vegetables is to increase intake from these food groups with the secondary goal of increasing fiber and folate intake. We do not propose setting targets for vitamin A or C content because these needs are adequately addressed through the milk and juice components of the food packages.

Nutrient-rich fruits and vegetables such as dark-green leafy vegetables, deep orange fruits and vegetables, citrus, melon, and berries should be emphasized as administratively feasible given these criteria. However, the fruits and vegetables should not be limited to these products. Other fruits and

vegetables should also be included such as tomatoes, cabbage, apples, green beans and others that meet the administrative selection criteria because of the known benefits of consuming a wide variety of foods in the diet.

These foods would be offered in addition to any produce available to participants through the WIC Farmer's Market Nutrition Program.

Add fortified soy beverages. We support NWA's recommendation that appropriately fortified soy beverages be allowed in replacement for milk. This product line has changed dramatically in the past decade, resulting in several national brands of fortified soy beverages readily available. We recommend the following minimum standards for these products — 25% DRI for calcium in a 1 cup serving and fortified with both vitamin A and D. Products that meet these standards would meet the nutrition needs of program participants who cannot drink cow's milk due to lactose intolerance, milk allergies, or religious prohibitions against dairy foods. Participants with allergies to cow's milk currently have limited choices — commercial soy-based toddler formulas, goat's milk, and commercial soy-based supplements.

We also support allowing these beverages for participants who prefer to drink soy beverages for taste and other reasons. Allowing these beverages based on preference is consistent with current program practices allowing goat's milk for children and women.

We recommend that these beverages be substituted ounce-for-ounce with cow's milk.

Adding these beverages will require approval of specific products by brand name. State WIC agencies are accustomed to this approach for cereals and juices, so it is administratively feasible and reasonable to do the same for fortified soy beverages. In the long term, it would be beneficial to establish a standard of identity for these beverages. This would eliminate the need to be brand-specific in the authorized food list because of the specific labeling requirements for products with a standard of identity. Manufacturers might also respond to a standard of identity by reformulating their products to meet that standard.

Adding fortified soy beverages has the potential to increase the cost of the food packages, although some of the increased cost will be offset by our proposal to reduce the total amount of milk in all food packages. Soy fortified beverages are generally lower in cost than the commercial soy-based formulas currently used by some WIC participants.

Combine the protein-rich foods into one category with options. We support creating a new category of protein-rich foods that allows all children and women to choose a specific number of items — one (1) for children, four (4) for postpartum women, and five (5) for pregnant and breastfeeding women. The number of items allowed is based on the varying protein needs for each participant category.

Food Package IV for children currently allows 3½ items from this list and provides significantly more protein than needed — two to three times the RDA. In addition, the 1994-1996 CSFII data reported that only 0.2% of 1-2 year olds and 0.4% of 3-5 year olds consumed less than 75% of the 1989 RDA for protein. When the significant protein contribution from the milk component is considered, it seems reasonable to limit the child's food package to one (1) item from the group. This recommendation results in a cost savings for this food package.

Food Package VI for postpartum women currently allows 2½ items from this list with only eggs provided. Our proposal allows four (4) items in the food package with the specific goal of increasing folate intake. This recommendation results in a cost increase for this component of the food package. However, the impact on total food costs may be cost neutral given the rest of our recommendations.

Food Package V for pregnant and breastfeeding women currently allows 3½ items from this list. Our proposal to increase the number of items to five (5) is based on the new protein requirements for these women published by the Institute of Medicine earlier this year (an additional 25 grams of protein per day). Allowing more choices for breastfeeding women also increases their folate intake. This recommendation results in a cost increase for this component of the food package. However, the impact on total food costs may be cost neutral given the rest of our recommendations.

We also propose allowing a second form of legumes in this category — 3-15 ounce cans of legumes with no added pork or bacon. Cooking skills in this country have declined in recent years as reported in numerous surveys. At the same time, consumers report that they have limited time for food preparation so they turn to convenience foods when they do cook. Canned beans are low-cost, shelf stable, and convenient foods that provide significant amounts of protein, iron, B vitamins, and fiber. Canned beans also are easier to apportion for individual servings than dried beans.

This category combines some of the food items currently provided in all food packages. We suggest the following quantities as options:

- 18 ounces of peanut butter
- 18 ounces of canned tuna
- 16 ounces canned salmon or chicken
- 1 dozen large eggs
- 1 pound dried beans or peas
- 3-15 ounce cans of legumes

Given the recent FDA/EPA advisory about consuming tuna, pregnant and breastfeeding women would be allowed to receive a maximum of 18 ounces of canned tuna. This amount is consistent with the recommendation of 12 ounces of fish per week with several different kinds consumed to reach that level. This amount of tuna should also be safe for children.

These options will increase flexibility in the food packages to better meet the needs of culturally and ethnically diverse populations, address food allergies, provide increased variety in the diet, and provide adequate levels of protein. The cost implications of this proposal depend on the options selected by the participant. In the context of all of our recommendations, this change is likely to be cost neutral to a slight increase in cost.

Add other approved foods to Food Package III. We also recommend that all other foods approved for the remaining food packages, including milk, be allowed in Food Package III. The current Food Package III is adequate only for participants whose medical conditions preclude foods from the family table. However, it is clearly inadequate for participants whose medical condition requires some formula but also allows for eating typical foods. This is particularly a problem for children who are transitioning from formula and semi-solid foods to a regular diet. These children would benefit from a wider variety

of choices in terms of texture modification. Many of these children also need both formula and milk during this transition, with the formula providing critical nutrients as they learn to eat and drink typical foods.

The cost implications for this recommendation vary with the individual circumstances. It could be cost neutral or even a cost savings for participants who currently choose to receive Food Package III with the maximum amount of formula rather than moving to Food Package IV. It could also be cost neutral, an increase or a decrease in cost based on the proportion of formula and other authorized foods each participant receives. This proportion would vary between individuals based on their specific nutrition needs and progress towards eating table foods and drinking cow's milk

Revise age ranges for Food Packages I and II. We also recommend that the age groupings for infants in Food Packages I and II be revised to be consistent with the DRIs and the current feeding recommendations of the American Academy of Pediatrics — birth - 5 months and 6 - 12 months. There are no costs associated with this recommendation.

Eliminate juice and infant cereal from Food Package II for formula-fed infants. Providing juice and cereal before 6 months of age conflicts with the feeding recommendations published by the American Academy of Pediatrics. Providing cereal to younger babies also sends a mixed message to parents and caregivers whose infants are not yet ready for solid foods. Given the potential for confusing parents and caregivers AND the supplemental nature of the WIC foods, it is prudent for the WIC program to wait until infants are 6 months old to provide both cereal and juice. Infant cereal is a low cost product, therefore the cost burden to parents and caregivers who choose to introduce cereal before 6 months of age is very small. Juice should be introduced in a cup, a developmental skill that is much more likely to be present in infants at 6 months of age.

Iron-fortified formula adequately meets the iron and vitamin C needs for 6-12 month old infants. Breastfed infants require an additional source of iron by 6 months of age so we recommend continuing to provide infant cereal to this group of infants. Because vitamin C enhances the absorption of iron from non-heme food sources like cereal, we also recommend that breastfed babies receive juice beginning at 6 months of age. This recommendation results in a cost savings.

### **3. Should the *quantities* of foods in the current WIC food packages be adjusted? If yes, by how much and why?**

Reduce the amount of juice. Teaching parents and caregivers to select 100% juice with vitamin C is an important task in WIC nutrition education activities, and helps parents and caregivers distinguish between fruit juices and fruit drinks. Even though we recommend reducing the amount of juice in the food packages, we believe some juice should be included in the package. The vitamin C is important to meet daily needs and to enhance iron absorption from non-heme iron foods.

We recommend that the quantity of juice be reduced in Food Package III for children to 144 ounces reconstituted. This results in a cost savings.

A maximum of 144 ounces of juice for children provides a little more than 4½ ounces per day. This is consistent with the recommendations of the American Academy of Pediatrics (4-6 ounces of juice per day). The Academy also stated that fruit juice offers no nutritional benefits over whole fruit for

children. Excessive fruit juice consumption has been associated with overnutrition, undernutrition, diarrhea, flatulence, abdominal distention and tooth decay.

Four ounces of vitamin-C rich juice per day will provide greater than 100% of the DRI for Vitamin C for children. The current food package far exceeds the DRI for this nutrient and there is no evidence that such large intakes are beneficial for children.

We also recommend that the quantity of juice be reduced in Food Packages V and VI for women to 192 ounces reconstituted. This represents a cost savings.

In the food package for women, 192 ounces of juice will provide a little more than 6 ounces per day (the serving size recommended in the USDA Food Guide Pyramid). This amount of vitamin-C rich juice will provide 100% of the DRI for Vitamin C for pregnant and postpartum women of all ages and at least 65% of DRI for breastfeeding women. The current food package far exceeds the DRI for this nutrient and there is no evidence that such large intakes are beneficial for women.

Allow state WIC agencies to round up formula. We recommend that WIC programs be allowed to round up to the next can of infant formula to ensure that the participant receives the maximum allowed under federal regulations. Numerous changes in container sizes for powdered formula have occurred in the past few years. Powdered formula is now sold in a variety of sizes from 12 ounces to 16 ounces. The current limit of 8 pounds of powdered formula prevents many participants from receiving 806 ounces of reconstituted formula (the amount allowed for infants receiving concentrated formula).

These changes in container sizes appear to have benefited the industry by reducing rebate payments but have been detrimental to participants. This is particularly the case since the maximum amount of formula will be inadequate for most babies sometime around 6 months of age. Therefore, it seems reasonable that infants be allowed to receive at least 806 ounces per month on a reconstituted basis and to round up to the next can to accomplish this. Infants on the WIC program should not have their food packages limited by the marketing strategies of industry.

It is difficult to assess the cost implications of this proposal. When the size of containers for powdered formula changed, savvy WIC participants quickly figured out they would receive more ounces of reconstituted product if they used concentrated formula. Some WIC agency personnel have also provided infant food packages with some concentrate and some powdered formula in order to come as close as possible to the allowed maximum. Given the different strategies in use, this proposal is likely to result in increased costs, although formula rebates will offset some these costs.

Redefine the maximum amount of formula in Food Package III. We recommend that the maximum amount of formula allowed in Food Package III be defined as reconstituted volume and not by weight. When some of the elemental powdered formulas and the modular components are prescribed, the participant ends up receiving substantially less product related to their need than when a typical powdered formula is prescribed. This is due to different packaging and directions for mixing formula. These participants are high risk clients and deserve to receive the same relative proportion of nutrition support as those prescribed typical powdered formulas. This proposal would result in a cost increase.

Reduce the amount of cow's milk. We support NWA's recommendation to reduce the amount of milk in the food packages for children and women. We recommend the following quantities:

Children 1-3 years old	3 gallons of milk or its equivalent
Children 4 years old	4 gallons of milk or its equivalent
Postpartum women >18 years old	4 gallons of milk or its equivalent
All other women	6 gallons of milk or its equivalent

GAO's analysis of maximum food packages and the number of servings as a percentage of daily minimum recommended servings clearly indicates that the dairy component of the current food packages provides more than the recommended number of servings, and therefore cannot be considered "supplemental." The same conclusions can be drawn from the nutrient analysis for calcium content of these food packages.

We propose more milk for 4 year old children because they have higher calcium needs. Pregnant women, breastfeeding women, and postpartum women <18 years old have greater calcium needs than older postpartum women so the maximum amounts are adjusted accordingly.

This proposal would result in a cost savings.

#### **4. Recognizing that the WIC Program is designed to provide supplemental foods that contain nutrients known to be lacking in the diets of the target population, what nutrients should be established as priority nutrients for each category of WIC participants?**

We support continued emphasis on calcium, vitamin A, vitamin C, iron and protein as priority nutrients for the WIC food packages as a group. However, we recommend that specific nutrients receive more emphasis in some food packages than in other food packages. Our suggestions reflect information published in the following documents:

- Review of the Nutritional Status of WIC Participants from USDA Center for Nutrition Policy and Promotion (1999)
- The Dietary Reference Intake series published by the Institute of Medicine, Food and Nutrition Board

Pregnant women. Iron, calcium and protein should be the priority nutrients for this group of women. Although an iron supplement is the only way for pregnant women to consume enough iron, high iron foods should continue to be emphasized in their food package options. Many of these high iron foods also contribute significant amounts of protein.

Calcium is also of particular concern given current food consumption practices, specifically the replacement of milk products with juice, fruit drinks and carbonated beverages. Protein should receive priority for pregnant women related to the new RDA recommendation (an additional 25 grams of protein per day).

Breastfeeding women. Folate, calcium, and protein should be the priority nutrients for breastfeeding women. Although the current recommendations for adequate folate intake include a daily supplement or daily consumption of a breakfast cereal fortified at 100% of the DRI, folate-rich foods should continue to be emphasized in their food package options. An adequate folate intake plays a role in preventing

neural tube defects and cardiovascular disease. Many of these folate-rich foods provide other important vitamins, minerals, antioxidants, and fiber. Calcium and protein should receive priority for the same reasons as described for pregnant women.

Postpartum women. Folate and calcium should be the priority nutrients for this group of women. As stated above, the best strategies for an adequate folate intake include a daily supplement or a daily serving of highly fortified breakfast cereal. However, folate-rich foods should continue to be emphasized in their food package options for their preventive role against neural tube defects and cardiovascular disease. Many of these foods also provide other important nutrients as described previously.

While the current food packages include some folate-rich foods (citrus juices, dried beans and peas, and fortified cereals), the choices made at the point of purchase for juice and cereal and the lack of familiarity with preparing dried beans and peas limit the amount of folate currently consumed from WIC foods. Adding fruits, vegetables and canned beans would significantly increase the folate content of the basic food package.

Calcium is a priority nutrient for postpartum women for the same reasons described for pregnant and breastfeeding women. Postpartum women <18 years old have greater needs than those 18 years and older.

Infants. Iron should be the priority nutrient for formula-fed infants throughout the first year and for breastfed infants beginning at 6 months of age. Vitamin C is also a priority nutrient for breastfed infants because of its role in enhancing iron absorption.

Children. Iron, vitamin C and calcium should be the priority nutrients. Iron deficiency anemia continues to be a common nutrition problem for children, therefore it must continue to receive emphasis in the WIC food package. Vitamin C is also a priority nutrient, primarily because of its role in enhancing iron absorption. The 1994-1996 CSFII data report that approximately 13% of children 1-5 years old consume less than 75% of the 1989 RDA for vitamin C. Although vitamin C should continue to be a priority nutrient, there is no evidence that it is necessary to maintain the level currently provided in the food package. Calcium is a priority nutrient to support adequate growth. The 1994-1996 CSFII data report that approximately 30% of children 1-5 years old consume less than 75% of the 1989 RDA for calcium. Food consumption patterns also reflect that milk is often replaced by juice, fruit drinks and carbonated beverages.

All women and children. We also support fiber as a priority nutrient for all women and children. Fiber has been shown to reduce the risk of chronic diseases including cardiovascular disease, obesity, and Type II diabetes. It has also been shown to help prevent certain cancers as well as promote normal bowel function, satiety, and weight management. While the current food packages include some high fiber foods, choices made at the point of purchase for cereal and the lack of familiarity with preparing dried beans and peas limit the amount of fiber currently consumed from WIC foods.

Target nutrient profile for priority nutrients. We support NWA's recommendation that the target nutrient profile for priority nutrients should be established at 65% of the DRI for the priority vitamins and minerals. However, we do not believe it is feasible or realistic to apply this same target of 65% to fiber due to the significant impact of point of purchase decisions for breakfast cereals.



We recommend that each food package is evaluated against a target profile that reflects the priority nutrients for that specific participant category. While there are some priority nutrients in common across all participant categories, there are also important differences. The level of 65% assures the provision of a nutrient-dense food package yet maintains the supplemental nature of the WIC program.

**5. Keeping in mind that foods provided by WIC are designed to be supplemental, can the WIC food packages be revised (beyond what is allowed under current regulations) to have a positive effect on addressing overweight concerns? If so, how?**

Reducing the quantity of milk and juice could have a positive effect on addressing overweight concerns by reducing the potential for excess calorie intake from these beverages.

Increasing the fiber content of the diet by replacing some juice with fruits and vegetables and allowing the option of canned beans (a more acceptable form for many participants) could also have a positive effect on overweight concerns. Fiber-containing foods are more filling and could decrease overall food intake.

Providing choices of protein-rich foods that include some low fat items could also have a positive effect on overweight concerns. Many WIC participants “automatically” receive high fat peanut butter in their food packages because they do not know how to prepare dried beans or peas. Including other convenient, shelf-stable and ready to eat protein-rich foods could also decrease overall energy intake.

**6. Are there other concerns that affect foods issued through the WIC food packages that should be considered in designing the food packages? For example, should WIC provide options to address common food allergies, cultural patterns or food preferences?**

Allowing more choices within categories or components of the food package rather than a single prescriptive food package will help address allergies, cultural patterns and food preferences. For example, allowing participants to choose from the protein options would allow someone with a peanut allergy to avoid peanut butter or someone eating a vegan diet to avoid animal products. Adding fortified soy beverages as a dairy option also allows participants with a milk allergy to receive calcium-rich foods without dairy products or someone with lactose intolerance to consume calcium-rich foods. These options will maximize the impact of the WIC food package on nutrition and health status.

We support NWA’s position that all approved foods must be available to all participants without any exclusionary criteria or being labeled for one specific population or cultural group. Constructing the food packages with categories or components that allow for choice make this easier to administer as long as the options adequately address all three issues — allergies, cultural patterns, and food preferences.

Although we support adding new types of foods to the WIC food packages, we also believe that USDA must carefully consider the feasibility and administrative burden of providing a wider range of foods. It is critical to strike a balance between increasing variety to meet needs, maintaining the nutritional integrity of the food packages, and limiting the administrative burden placed on state WIC agencies.

## 7. What data and/or information (cite sources) should the Department consider in making decisions regarding revisions to the WIC food packages?

The WIC food packages should be consistent and compatible with the recommendations in the Dietary Guidelines for Americans and the USDA Food Guide Pyramid. This is a challenge since both of these documents are currently under review for potential revisions.

In addition to all relevant USDA studies and publications, DRI publications, and nutrition surveillance and monitoring reports, we recommend that the following documents be reviewed in the context of revising the WIC food packages:

- Position of the American Dietetic Association: Nutrition and Lifestyle for a Healthy Pregnancy Outcome. *Journal of the American Dietetic Association*. 2002;102(10):1479.
- Position of the American Dietetic Association: Dietary Guidance for health children aged 2 to 11 years. *Journal of the American Dietetic Association*. 1999;99:93
- Position of the American Dietetic Association: Child and Adolescent Food and Nutrition Programs. *Journal of the American Dietetic Association*. 1996; 96:913.
- Position of the American Dietetic Association. Women's Health and Nutrition. *Journal of the American Dietetic Association*. 1999;99:738.
- Position of the National WIC Association: NAWD WIC Food Prescription Recommendations, 2000.
- Position of the National WIC Association: NWA Culturally Sensitive Food Prescription Recommendations, 2003.
- Prevention of Pediatric Overweight and Obesity. *Pediatrics* 2003;112(2):424-430
- Oral Health Risk Assessment Timing and Establishment of the Dental Home. *Pediatrics* 2003;111(5):1113.
- The WIC Program. *Pediatrics* 2001;108(5):1216.
- The Use and Misuse of Fruit Juice in Pediatrics. *Pediatrics* 2001;107(5):1210.
- Separating Food from Culture: The USDA's Failure to Help Its Culturally Diverse WIC population. *Drake Journal of Agricultural Law*. 2001;6: 223.

WIC participant survey data about the acceptability of the food packages is also very important. In 2000, the Iowa WIC Program assessed the extent of food insecurity among 2731 randomly-selected active WIC participants. Program participants were also invited to share comments regarding their WIC services, including the foods they receive. Although quantitative analysis was not completed on the written comments, the following statements were most common:

- "Offer fruits and vegetables year round and not just through Farmers' Market in the summer."
- "The WIC foods are limiting. My child has to eat the same thing until he is 5 years old."
- "Dried beans are not helpful. They take too much time to prepare and it is difficult to find recipes."
- "Offer more than just baby cereal. Offer baby food in a jar."
- "As my child grows, he eats more food. The food package does not increase when he eats more food."
- "WIC should offer a substitute for milk, since I am allergic to milk."
- "I always run out of formula."
- "We eat much more cereal than what WIC provides. At \$4 a box, it is too expensive to buy on my own."
- "Whole wheat bread would be great."

- “Six gallons of milk is too much for our family.”

The Iowa WIC Program continues to assess the extent of food insecurity among WIC participants and implemented another survey in October 2003. Almost 10,000 surveys were mailed to a random sample of active WIC participants. Quantitative and qualitative analyses will be completed in early 2004. We anticipate that comments related to the WIC food package will parallel past surveys.

#### **8. Recognizing that current legislation requires WIC food packages to be prescriptive, should participants be allowed greater flexibility in choosing among authorized food items? If so, how?**

We believe that participants should be allowed greater flexibility in choosing foods for their food package. The food packages can maintain their prescriptive nature if the relative nutrient contributions of each category or component of the food package are clearly defined.

Allowing this flexibility implies a partnership between the CPA and the parent/caregiver in designing the food package. Most of the decisions will need to be made “up front” or at the time of the food package prescription so that the number of decisions at the point of purchase is reasonably limited for participants. Limiting the number of decisions at the point of purchase will also reduce the burden on vendors for processing WIC transactions.

Greater flexibility for participants could translate into increased client retention rates. For many years, the WIC community has identified the drop-off of participants after the first birthday. This drop-off is influenced by several factors, however, one of the key factors suggested has been that the child’s food package has a lower perceived value. While this is certainly true in terms of dollar value, participants may also view the limited food choices for children as having lower value.

The WIC community has also identified that many older children leave the program before their fifth birthday, and that they do not leave because the family’s income exceeds the limits. The current food package remains the same from the first through the fifth birthday — and therefore loses “value” in the eyes of some parents and caregivers. Another potential factor could be “boredom” with the choices allowed in the WIC food packages. By broadening the choices in the food packages and allowing greater participant flexibility, we project a positive impact on caseload retention and overall participant satisfaction.

#### **9. How can WIC food packages best be designed to effectively meet nutritional needs in culturally and ethnically diverse communities?**

The Food Guide Pyramids developed for different ethnic groups find common ground in promoting the intake of fruits, vegetables, and legumes. The Dietary Guidelines for Americans advise consumers to “build a healthy base” by consuming 5 servings a day of fruits and vegetables including dried beans and peas. Therefore, it seems prudent for the WIC food packages to adopt a total diet approach that encourages consumption from these food groups with an emphasis on lower fat options. Given an adequate number of carefully selected options, the food packages will meet the nutritional needs in culturally and ethnically diverse communities. These choices will also reinforce that some traditional food choices are healthy choices for everyone.

We believe it is critical that each food package be evaluated in its entirety for its ability to meet the target nutrient profile for the priority nutrients specific to each participant category. The current policy requirement for food-to-food substitutions based on nutrient profiles is unreasonable, unnecessary and nearly impossible to achieve. It is time to place emphasis on foods and how they fit into the overall diet rather than focusing solely on the nutrient profile of each food.

**10. Should WIC state agencies be afforded more or less flexibility in designing WIC food packages?**

WIC state agencies should have more flexibility in designing WIC food packages. This would involve identifying foods within defined categories and assuring that each food package in its entirety meets the target nutrient profile for each food package. WIC state agencies are in the best position to do this given their knowledge and understanding of the demographic profile of their state, the cultural influences on food patterns among their participants, participant acceptability, and the relative cost and availability of foods. Increased flexibility also improves the ability of state WIC agencies to respond to budget issues, food research and development trends affecting the food choices made by participants, and changes in the foods available in the marketplace.

**11. The WIC program's overall goal is to achieve the greatest improvement in health and development outcomes for WIC participants, achieved partly by providing food that targets nutrients determined to be lacking or consumed in excess in the diets of the WIC population. In addition to targeting these food nutrients, food selection criteria should address necessary operational concerns for the foods — for example, cost effectiveness; appeal to recipients; convenient and economical package sizes; complexity/burden for the WIC administrative structure to manage; etc. It would be helpful if commenters would identify/recommend WIC food selection criteria, describe how the criteria interact, indicate their relative weighting or importance, and provide supporting rationale.**

We support using the following food selection criteria:

- Significant contribution to the target nutrient profile
- Readily available all year
- Low to moderate cost
- Acceptable to program participants
- Convenient packaging and sizing that easily apportioned into servings
- Consistent with published recommended feeding practices
- Feasible and reasonable for state WIC agencies to implement
- Feasible and reasonable for vendors to provide and transact WIC business
- Adequate variety to address a broad range of allergies, cultural patterns and food preferences

All of these criteria are important and should receive equal weight in the food selection process. More importantly, these criteria should be reviewed on a regular basis to ensure their continued relevance to the nutrition, health, cultural and economic needs of program participants and to the products available in the marketplace.

## **Additional comments**

Delete Food Package VII. From its inception, the existence of Food Package VII has been in conflict with the supplemental nature of the WIC food packages because it provides nutrients significantly exceeding the needs of breastfeeding women. Overall, the current Food Package V adequately addresses the nutrient needs of breastfeeding women. Food Package VII was instead designed to promote breastfeeding and serve as an incentive for mothers to decline infant formula from WIC. However, implementation of this food package has been problematic. Some breastfeeding mothers choose to use infant formula from other sources and still receive this food package. For other breastfeeding mothers, exclusive breastfeeding is not an option given the lack of support at the worksite or school or specific job responsibilities that make pumping or expressing milk difficult if not impossible.

In the last decade, the WIC program has implemented many other strategies to promote and support breastfeeding that make this “enhanced package” obsolete. Food Package V, as currently provided and as proposed in this letter, meets the needs of breastfeeding women. This proposal results in cost savings.

Adding additional choices of enriched grain products. There is a certain appeal to adding other choices to this category, primarily because some ethnic or cultural groups do not consume breakfast cereals. However, the potential food items including whole grain bread, rice, pasta, tortillas and corn meal are much lower in iron and fiber content than breakfast cereals. Using these foods to replace most or all of the iron provided by cereal would require providing large quantities that quickly increase food costs. Iron-fortified breakfast cereals still appear to be the most cost-effective means for obtaining a significant amount of iron and fiber in the diet.

In addition, many of these proposed substitutes are core foods or foundation foods. As such, they are generally low cost and would be purchased regardless of whether they were included in the WIC food package. Given their current widespread use in culturally and ethnically diverse populations, adding them to the WIC food packages doesn’t seem appropriate. We believe that adding more protein-rich options, fortified soy beverages, fruits and vegetables may adequately address some of the concern about the iron content of the WIC food packages due to their contribution to iron intake. At this point, we do not have any specific suggestions for addressing this issue.

## **Conclusions**


When it comes to food, one size does not fit all. As stated by Sucher and Kittler in the Journal of the American Dietetic Association (1991), “Nutrition is ultimately unequal. The needs of one client are not necessarily those of another and may be affected by ethnicity, religious affiliation, or socioeconomic status.” It is time for USDA to look beyond the nutritional needs related only to socioeconomic status. Providing more choices among the authorized food items is a key strategy for accomplishing the goal of meeting individual nutrition needs while still addressing population-based nutrition issues.

The Dietary Guidelines for Americans and the Food Guide Pyramid describe a healthy diet as one that includes a variety of foods from all of the food groups. People eat food, not nutrients. We believe it is time for the WIC food packages to also provide supplemental foods using a “food approach” rather than exclusively a “nutrient approach.”

The enclosed attachments summarize our recommendations for each food package in table form. All of our recommendations are reflected in these calculations because they complement one another.

Thank you for the opportunity to provide comments about these issues. If you have any questions about these comments, please call me at 515/ 281-3713.

Sincerely,



Judy Solberg, MPH, RD, LD  
Director  
Iowa WIC Program

Attachments: Summary Table Proposed Food Package IV  
Summary Table Proposed Food Package V  
Summary Table Proposed Food Package VI

cc: Ralph Anzur

### Proposed Food Package IV (Children)

- 36 ounces cereal<sup>(1)</sup>
- 144 ounces juice<sup>(2)</sup>
- 12 quarts milk (16 quarts for 4 year olds)<sup>(3)</sup>
- 1 protein food choice<sup>(4)</sup>
- 4 pounds fruits and vegetables<sup>(5)</sup>

	Calories	Protein (gm)	Calcium (mg)	Iron (mg)	Folate (mcg)	Vitamin C (mg)	Vitamin A (RAE)	Fiber (gm)	Cost
Daily nutrient contribution for children 1-3	459	21	759	11	373	75	488	5 <sup>(6)</sup>	Proposed Food Pkg. IV (1-3 yr olds) \$24.69
% RDI for children 1-3		158%	152%	156%	248%	500%	163%	25%	Proposed Food Pkg. IV (4 yr olds) \$26.85
Daily nutrient contribution	526	25	919	11	379	76	568	5 <sup>(6)</sup>	Current Food Pkg. IV <sup>(7)</sup> \$34.03
% RDI for 4 year olds		131%	115%	109%	189%	304%	142%	19%	

### Proposed food package reduces costs with nutrient profile that is equal to or better than current food package IV.

Food Guide Pyramid Group	Vegetable (2 #/month)		Fruit (Juice and 2 #/month)		Dairy		Protein		
	0.4 (1-3)	0.3 (4 yrs)	1.6 (1-3)	1.1 (4 yrs)	1.6 (1-3)	2.1 (4 yrs)			
% of Minimum Recommended Servings	30% (1-3)	20% (4 yrs)	13% (1-3)	10% (4 yrs)	80% (1-3)	55%(4 yrs)	80% (1-3)	105%( 4 yrs)	27-30% (1-3) 20-25%(4 yrs)

(1) For cereal, an average of the six WIC-approved cereals included in Chart 4, p 53909, USDA Proposed Rules, Federal Register/ Vol. 68, No 178 is used to calculate nutrient contribution and the average lowa price for WIC-approved cereal is used to calculate costs.

(2) For juice, nutrient composition of unsweetened frozen orange juice, reconstituted, is used to calculate nutrient content and an average lowa price for WIC-approved juices is used to calculate cost.

(3) For milk, nutrient composition and average lowa average price from WIC price assessment reports (PARS) of low fat (2% milk) was used to calculate nutrient contribution and cost.

(4) For protein choices, an average of the nutrient composition and average lowa retail costs of these protein foods was used to calculate nutrient contribution and cost:  
 1 dozen eggs  
 18 ounces peanut butter  
 18 ounces canned tuna

(5) For fruits and vegetables, an average of nutrient composition and cost of a variety of canned and fresh fruits, and fresh, canned and frozen vegetables readily available year-round in Iowa was used to calculate nutrient contribution and cost.

(6) Fiber content of this food package would be 10 grams if the assumption of dried beans for protein choice and Oat Bran Flakes for cereal was assumed as was done in USDA Proposed Rules Chart 3, p 53909, USDA Proposed Rules, Federal Register/ Vol. 68, No 178. This average nutrient profile is more realistic for lowa food selection.

(7) Cost of current food package is based on same data for cereal, juice, and milk as proposed food package, an average price of dried legumes and peanut butter of \$1.28, and \$1.35 per dozen for eggs.

## Proposed Food Package V (Also Replaces Current Food Package VII) (All Pregnant, Breastfeeding, and Non-breastfeeding Postpartum Women <18)

- 36 ounces cereal <sup>(1)</sup>
- 192 ounces juice <sup>(2)</sup>
- 24 quarts milk
- 5 protein food choices <sup>(4)</sup>
- 6 pounds fruits and vegetables <sup>(5)</sup>

<sup>(5)</sup>\*\*Vitamin A could reach target level for breastfeeding women if at least one fruit or vegetable choice high in Vitamin A was required.

	Calories	Protein (gm)	Calcium (mg)	Iron (mg)	Folate (mcg)	Vitamin C (mg)	Vitamin A (RAE)	Fiber (gm)	Cost
Daily nutrient contribution	826	46	1272	12	441	85	655	6	Proposed Food Pkg. V \$44.62
% RDI for pregnant woman		65%	127%	44%	73%	100%	85%	23%	Current Food Pkg. V <sup>(7)</sup> \$36.20
% RDI for breastfeeding woman		65%	127%	132%	88%	71%	50% **	22%	Current Food Pkg. VII <sup>(7)</sup> \$44.37
% RDI for 14-18 year old female		100%	98%	79%	110%	131%	94%	18%	

**Proposed food package costs more than current food packages for these categories of participants, but savings from implementation of our proposed food packages for children would be over twice the amount needed to cover those costs for the Iowa WIC caseload. The nutrient profile is improved for folate and fiber for all women covered by this food package, and improved in all nutrients except Vitamin A for postpartum teenagers.**

Food Guide Pyramid Group	Grain	Vegetable (3 #/month)	Fruit (Juice and 3 #/month)	Dairy	Protein
Servings per day	1.2	0.4	1.5	3.2	1-1.3
% of Minimum Recommended Servings	13%	10%	50%	107%	33-43%

- (1) For cereal, an average of the six WIC-approved cereals included in Chart 4, p 53909, USDA Proposed Rules, Federal Register/ Vol. 68, No 178 is used to calculate nutrient contribution and the average lowa price for WIC-approved cereal is used to calculate costs.
- (2) For juice, nutrient composition of unsweetened frozen orange juice, reconstituted, is used to calculate nutrient content and an average lowa price for WIC-approved juices is used to calculate cost.
- (3) For milk, nutrient composition and average lowa price from WIC price assessment reports (PARS) of low fat (2% milk) was used to calculate nutrient contribution and cost.
- (4) For protein choices, an average of the nutrient composition and average lowa retail costs of these protein foods was used to calculate nutrient contribution and cost:
  - 1 dozen eggs
  - 18 ounces peanut butter
  - 18 ounces canned tuna
- (5) For fruits and vegetables, an average of nutrient composition and cost of a variety of canned and fresh fruits, and fresh, canned and frozen vegetables readily available year-round in Iowa was used to calculate nutrient contribution and cost.
- (6) Fiber content of this food package would be 14 grams if the assumption of dried beans for protein choice and Oat Bran Flakes for cereal was assumed as was done in USDA Proposed Rules Chart 3, p 53909, USDA Proposed Rules, Federal Register/ Vol. 68, No 178. This average nutrient profile is more realistic for lowa food selection.
- (7) Cost of current food package is based on same data for cereal, juice, and milk as proposed food package, an average price of dried legumes and peanut butter of \$1.28, \$1.35 per dozen for eggs, and \$1.20 for 2 pounds carrots.



### Proposed Food Package VI (Non-Breastfeeding Women over 18)

- 36 ounces cereal<sup>(1)</sup>
- 192 ounces juice<sup>(2)</sup>
- 16 quarts milk<sup>(3)</sup>
- 4 protein food choices<sup>(4)</sup>
- 6 pounds fruits and vegetables<sup>(5)</sup>

	Calories	Protein (gm)	Calcium (mg)	Iron (mg)	Folate (mcg)	Vitamin C (mg)	Vitamin A (RAE)	Fiber (gm)	Cost
Daily nutrient contribution for woman 19-50 years	687	36	972	12	449	102	642	6	<b>Proposed Food Pkg. VI \$37.98</b>
% RDI for woman 19-50 years		78%	97%	69%	112%	136%	92%	31%	Current Food package VI <sup>(7)</sup> \$29.20

**Proposed food package improves nutrient profile for iron, folate, and fiber for postpartum women. Increased cost would be more than offset by decreased costs for children's food packages.**

Food Guide Pyramid Group	Grain	Vegetable (3 #/month)	Fruit (Juice and 3 #/month)	Dairy	Protein
Servings per day	1.2	0.4	1.5	2.1	0.8-1.1
% of Minimum Recommended Servings	20%	13%	75%	106%	32-43%

(1) For cereal, an average of the six WIC-approved cereals included in Chart 4, p 53909, USDA Proposed Rules, Federal Register/ Vol. 68, No 178 is used to calculate nutrient contribution and the average lowa price for WIC-approved cereal is used to calculate costs.

(2) For juice, nutrient composition of unsweetened frozen orange juice, reconstituted, is used to calculate nutrient content and an average lowa price for WIC-approved juices is used to calculate cost.

(3) For milk, nutrient composition and average lowa cost from WIC price assessment reports (PARS) of low fat (2% milk) was used to calculate nutrient contribution and cost.

(4) For protein choices, an average of the nutrient composition and average lowa retail costs of these protein choices was used to calculate nutrient contribution and cost:

- 1 dozen eggs
- 18 ounces peanut butter
- 1 pound dried legumes (avg. of two varieties reported on WIC PARS)
- 45 ounces (3 cans) legumes (avg. of five kinds of dried beans commonly used in Iowa)
- 18 ounces canned tuna
- 16 ounces canned chicken or salmon

(5) For fruits and vegetables, an average of nutrient composition and cost of a variety of canned and fresh fruits, and fresh, canned and frozen vegetables readily available year-round in Iowa was used to calculate nutrient contribution and cost.

(6) Fiber content of this food package would be **13 grams** if the assumption of dried beans for one protein choice and Oat Bran Flakes for cereal was assumed as was done in USDA Proposed Rules Chart 3, p 53909, USDA Proposed Rules, Federal Register/ Vol. 68, No 178. This average nutrient profile is more realistic for Iowa food selection.

(7) Cost of current food package is based on same data for cereal, juice, and milk as proposed food package, an average price of dried legumes and peanut butter of \$1.28 and \$1.35 per dozen for eggs.