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141 Northwest Point Blvd
Elk Grove Village, IL 60007-1098
Phone: 847/434-4000
Fax: 847/434-8000
E-mail: kidsdocs@aap.org
http://www.aap.org

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

Re: Revision to the WIC Food Packages

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To whom it may concern:

On behalf of the 57,000 members of the American Academy of Pediatrics (AAP), I offer the following comments in response to the advanced notice of proposed rulemaking on the *Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): Revisions to the WIC Food Packages*, which was published in the Federal Register on September 15, 2003 (68 FR 53903).

Since its inception in 1972, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) has been an important source of nutrition education, supplemental food, and health care referrals for low-income women during and after pregnancy and for infants and children up to age 5 in the United States. As recently as 1998, nearly one-half of infants born annually received benefits through the program.¹

The AAP has been an avid supporter and active partner of WIC for more than three decades. From generating nutritional guidance to developing immunization outreach plans, the AAP and WIC have worked effectively to improve the health and development of children nationwide. Today, the AAP continues to participate in national WIC initiatives, and AAP members work closely with WIC programs at the state and local levels.

The AAP applauds the US Department of Agriculture (USDA) for its efforts to ensure WIC food packages reflect current science about children's and mother's nutritional needs. We are pleased to offer the following comments in response to the "Review Issues" identified in 68 FR 53903.

1. Elements of WIC package to keep the same:
 - a. Requirements concerning iron-fortified infant cereal and the availability of special formulas (medical foods) for infants and children are adequate at this time.

¹ Office Analysis, Nutrition, and Evaluation. WIC Participant and Program Characteristics, 1998. Washington, DC: Food and Nutrition Service, US Department of Agriculture; 2000. Report No. WIC-00-PC

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- b. Likewise, requirements concerning cheese, eggs, beans/peas, cereals, tuna and carrots for women are adequate. Packages for milk, however, should emphasize low fat options, and amounts should be adjusted.
2. Changes to types of foods currently authorized:
 - a. The AAP recommends that fruit juice be deleted as an option for infants under 6 months of age, and that authorized amounts for infants and children over 6 months be substantially reduced. Fruit juice has limited dietary value and when used in a bottle, may promote excess intake and dental caries. As such, it should not be available under WIC without strict regulation.²
 - b. The AAP encourages WIC to consider offering some sort of meat product for older infants (6-12 months), especially for breastfed infants.³
 - c. The AAP recommends that WIC consider ways to provide more fruits and vegetables to 1-5 year old children. See #5e.
 3. Adjustments to quantities – how much & why?
 - a. The AAP recommends that WIC consider adjusting the amount of infant formula provided to children under the age of 6 months. The amount of formula provided [assuming WIC is the only source] may be inadequate to support the growth of an infant growing at the 50th percentile beyond 2-3 months of age and this may encourage dilution of formula..
 - b. After 6 months, when complementary foods are available, formula amounts should be decreased to avoid excessive intake from the combination of formula and complementary foods. The AAP strongly recommends that more incentive for breastfeeding mothers and infants be devised. Possibilities to be considered include an enhanced food package for both the older breastfed infant (6-12 months) and for the lactating woman. WIC's policy of providing free formula also should be reconsidered as it may negatively impact breastfeeding rates among WIC participants.
 - c. The AAP recommends the provision of complementary foods be permitted at 6 months, instead of at 4 months. Such a change would not prohibit the introduction of complementary foods earlier. Rather, as a supplementary program it would provide needed support when the amount of complementary food increases.
 4. Nutrients to be targeted:
 - a. The appropriately targeted nutrients for infants are quite different for breastfed and formula fed infants. Consequently, the AAP recommends that the USDA consider having different food packages for breastfed and formula fed children.

² American Academy of Pediatrics. Committee on Nutrition. The use and misuse of fruit juice in pediatrics. *Pediatrics*. 2001;107:1210-1213

³ Kleinman, RE, ed. *Pediatric Nutrition Handbook*. Elk Grove Village, IL: American Academy of Pediatrics;2003:301-303,313-320

- b. For formula fed infants, essentially all micronutrient needs are met from formula when taken in amounts to meet growth needs, including vitamins C, A, and folate, and minerals iron, zinc, and calcium.
 - c. The AAP recommends that the USDA review the iron content of infant formulas due to recent concerns about defining optimal levels of iron fortification. Furthermore, the amount of whole cow milk provided for the 1-5 year old group may also be excessive (~25 oz/day) and may contribute to iron deficiency by displacement of more iron rich foods. Data suggest that iron deficiency is now more common in the second year of life (12-24 month), as iron fortified cereal is discontinued (as is iron-fortified formula for formula fed infants). The AAP therefore recommends that the USDA consider providing more emphasis on iron-fortified cereals and meats for the older infant and toddler.
 - d. Zinc requirement is not well met by current packages for older, breastfed infants (6-12 months). In response, the AAP recommends that the USDA consider providing some source of meat for 6-12 month old breastfed infants. This would also enhance intakes of vitamins B₆, B₁₂, and iron.
 - e. Finally, while we recognize that vitamin D is not a food, the AAP recommends that the USDA consider distribution of vitamin D drops for all breastfed infants (unless they consume at least 500 mL of per day of vitamin D-fortified formula or milk) and all non-breastfed infants and children who are ingesting less than 500 mL per day of vitamin D-fortified formula or milk.⁴
5. Adjustment of packages to address overweight concerns:
- a. Extent and duration of breastfeeding have been found to be inversely associated with risk of obesity in later childhood, possibly mediated by physiologic factors in human milk as well as by the feeding and parenting patterns associated with nursing.⁵ The AAP recommends that the USDA promote breastfeeding for extended duration. This could be accomplished through enhanced “incentives” in maternal food package for breastfeeding mothers, and enhanced food package for 6-12 months breastfed infants.
 - b. The AAP recommends that WIC provide no juice to infants under 6 months of age and limit the amount available to other groups to 120 oz/month (4 oz/day) for all other groups, including women. As noted, the availability of large amounts of juice for older children and women fosters excessive intake, and may negatively impact the consumption of fresh fruits and vegetables.⁶
 - c. The AAP recommends that WIC provide less formula for the 6-12 month age group. Formula is easier to overfeed than solids. Moreover, as

⁴ American Academy of Pediatrics, Section on Breastfeeding and Committee on Nutrition. Prevention of rickets and vitamin D deficiency: new guidelines for vitamin D intake. *Pediatrics*. 2003;111:908-910

⁵ American Academy of Pediatrics, Committee on Nutrition. Prevention of pediatric obesity and overweight. *Pediatrics*. 2003;112:424-430

⁶ American Academy of Pediatrics. Committee on Nutrition. The use and misuse of fruit juice in pediatrics. *Pediatrics*. 2001;107:1210-1213

complementary foods are introduced, relative reduction in formula intake is expected.

- d. The AAP believes that low fat milk also should be the standard for children over 2 years of age.⁷ It should be understood that the fat intake after two years of age should be reduced to 30% of total energy with a lower limit of 20% of total calories.⁸ The AAP recommends that WIC provide less milk for 1-5 year olds. The current package provides more than 3 cups/day, which is more than recommended, and as a supplemental program, may be excessive.
- e. To encourage more fruit and vegetable consumption in children, the AAP recommends that the USDA consider allowing fresh or frozen fruits and vegetables for 1-5 yr olds' package. Priority should be given to non-starchy vegetables. Fiber is an important dietary constituent that can affect blood cholesterol levels. Carbohydrate content of the diet should be 55% to 60% of the calories, of which the majority should be complex carbohydrates. Current recommendations for fiber intake in children range from 0.5 g/kg to approximately 12 g/100 kcal.⁹

6. Other considerations, e.g. allergies (milk, eggs, peanuts, soybeans, tree nuts, fish, shellfish, wheat), cultural patterns or food preferences.

The entity of allergies is very vague and difficult to diagnose, and in fact only a small percentage of infants are actually allergic. Special products (medical foods) should continue to be available for infants with such needs, but the current use of "hypoallergenic" products suggests that allergies are pervasive. Expanding this category without appropriate data and testing may be opening a Pandora's box.

Cultural food practices often heavily influence whether children are healthy physically, nutritionally, emotionally, and socially. Clearly, if there is an inadequate intake of calories and essential macro- and micronutrients, an outcome may be poor growth and other related problems such as developmental delay. The concept of cultural food patterns and practices is complex. A number of factors that are intertwined and overlap are referred to as determinants of these patterns. They are: physiological, agricultural production, environment/ecology, food availability, purchasing power, food storage, fuel for cooking, cooking/eating equipment/utensils, self-image, personal/historical significance, child rearing, primary caretaker, religious/faith beliefs, health status, and community food and nutrition resources. Cultural patterns are significant because the food and beverages consumed, to a

⁷ American Academy of Pediatrics, Committee on Nutrition. Use of whole cow milk in infancy. *Pediatrics*. 1992;89:1105-1109

⁸ American Academy of Pediatrics, Committee on Nutrition. Cholesterol in childhood. *Pediatrics*. 1998;101:141-147

⁹ Kleinman, RE, ed. *Pediatric Nutrition Handbook*. Elk Grove Village, IL: American Academy of Pediatrics;2003:541-542

degree, determine health and, more specifically nutritional status.¹⁰ Thus, the AAP recommends that if nutritionally comparable substitutions can be identified and standardized to meet cultural preferences, this would be a welcome feature of the program.

7. Data/information to be considered for making decisions re revisions: nutritional needs, ethnic food consumption data, scientific studies, acculturation practices, participant surveys.

Clearly the USDA would need to use national survey data and published literature regarding typical intakes; the DRI's should guide estimates for nutrient needs. The AAP recommends that the differences in nutritional intakes and status, and therefore nutrient needs, between breastfed and formula fed infants be recognized and reflected in programmatic design.

8. Give clients more flexibility to choose?

To some extent, if possible, but see above! Unless the food package is broadened, how much flexibility is possible? Also, given pathway for feeding for the first year, flexibility for clients (except for branding) is limited.

9. How to design food packages to best meet nutritional needs in culturally and ethnically diverse communities?

This may be too difficult for a national program to design. The packages could be adjusted by region and reflect ethnic and cultural choices, but choices in infancy are limited. Each region may want to consider offering choices of solid foods based on cultural needs. This would be reasonable if equivalence of nutrients delivered could be assured. See #6 above.

The AAP supports the WIC initiatives for women, infants and children. We have made specific recommendations as noted above. In summary, these recommendations would allow more specific nutrient supplementation at critical periods of an infant's growth and development, encourage breastfeeding and decrease the use of juice, which may lead to excessive intake, promote growth failure or obesity, and promote caries. The modifications suggested above include: encourage breastfeeding and enhance breastfeeding packages, consider increasing the amount of formula provided during 0 to 6 months to discourage dilution of the formula provided, limit the amount of juice provided to infants after 6 months of age, alter food packages to increase intake of zinc, iron and other selected nutrients among breastfed infants beyond 6 months of age, provide less formula after 6 months as complementary foods are introduced, provide low fat milk and encourage reduction of fat intake after 2 years of age, encourage fruit and vegetable consumption by offering fresh or

¹⁰Kleinman, RE, ed. *Pediatric Nutrition Handbook*. Elk Grove Village, IL: American Academy of Pediatrics;2003:137-148

frozen fruits and vegetables in the food package for children, and consider cultural or ethnic differences in food choices or practices to design different food packages as more data become available. .

Because of the variability in food intake, especially when complementary foods are provided, there is no single package that can be designed for ALL infants. If a "modular nutrition" philosophy is adopted, appropriate nutritional advice and nutrients could be provided along with anticipatory guidance at each check up.

Sincerely,

A handwritten signature in cursive script that reads "Carden Johnston".

Carden Johnston, MD, FAAP
President

CJ:pk