



Apple Processors Association

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Ms. Patricia Daniels, Director
 Supplemental Food Programs Division
 FNS, USDA
 3101 Park Center Drive, Room 520
 Alexandria, Virginia 22302

Comments on RIN 0584-AD39--Special Supplemental Nutrition Program for Women, Infants and Children (WIC): Revisions to the WIC Food Packages

The members of the Apple Processors Association (APA) support the WIC Program, and are pleased to be able to supply high-quality, affordable 100% apple juice for WIC Program participants. We believe that apple products are a vital part of the WIC Program's success in providing essential nutrients for low-income children as well as pregnant and breastfeeding women. As the Institute of Medicine, Food and Nutrition Board reviews the science behind the WIC food packages, APA offers some areas for research.

I. Which elements of the WIC food package should be kept the same?

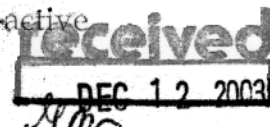
APA recognizes that the WIC food packages were developed to enhance the diets of pregnant and breastfeeding women, as well as children up to age 5 with key nutrients determined to be present in insufficient quantities in the diets of these populations.

- APA supports the rationale behind using the nutrients lacking in the diet as the starting point for building the food package, and urges the Department to consider newer data collected through NHANES/CSFII to determine whether these target nutrients have changed over time.
- APA also supports the utilization of the seven tailored food packages for various population groups, which address the diverse nutritional needs of these groups.

APA recommends that IOM investigate the feasibility of WIC directors having more alternative foods in each core food package to select as sources of critical nutrients.

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

- APA recognizes the need to incorporate more fruits and vegetables into the American diet, and encourages the WIC food packages to make available fortified apple sauce in addition to 100% apple and other juices. The IOM/FNB might also consider the need and feasibility of adding a serving of fruit and vegetables to the core food package to supply bio-active components in addition to vitamins A, C, and folate.



- APA encourages the Committee to look to the USDA/DHHS national food consumption data, rather than independent clinical trials to determine the relationships between 100% fruit juice and fruit product consumption and childhood obesity, in setting the amounts of juice to include in the food package.

The *Dietary Guidelines for Americans* and the *Food Guide Pyramid* highlight the importance of fresh and processed 100% fruits and vegetable products for a balanced diet. Processed apple products, such as 100 % apple juice and applesauce, are an affordable, convenient, and popular way for children to incorporate fruits into their diets. The USDA's Economic Research Service showed that processed fruit accounts for 0.73 of the 1.36 servings per capita per day of the *Food Guide Pyramid* fruit servings. Apple juice provided 0.11 of that serving, apple sauce 0.03 of that serving, and fresh apples 0.10 of that serving of fruit per capita per day.

As USDA and the IOM/FNB contemplate issues surrounding fruits and vegetables, we ask that you consider that pasteurized, fortified 100% fruit juices and fortified applesauce are an affordable, easy source of Vitamin C, folic acid, potassium, boron, and, for some products, calcium. Apples and apple juice have a generally low Glycemic Index, 52 and 58, respectively. Several ongoing health research projects on apples suggest that the bio-active compounds may play a role in cognitive function and asthma.

IOM/FNB may want to consider establishing criteria for fruits and vegetables that would be included in the WIC package as those "fruits and vegetables that meet the guidelines developed by the national Cancer Institute and Produce for Better Health Foundation for the *5-A-Day-for-Better-Health* program." The term for "juice" means 100 percent juice or juice concentrate, without added fat or sugar.

Recently, some articles in the media have raised caution in feeding fruit juice to children, and suggest that high intakes of juice may contribute to childhood obesity. However, the preponderance of research has shown no relationship between children's juice intake and short stature or overweight. Research supports the finding that 100 % fruit juices, and not fruit drinks and ades, are an important source of nutrients for Americans, and do not compromise children's growth, or contribute to causing overweight in Americans. Fruit drinks and ades are less nutritious, contain little juice, contain added sugars, and are not made from whole fruit. These fruit drinks ades are more popular with children than fruit juices. and intake of ades has increased concurrent with the increase in obesity, according to USDA food consumption data. A review of the USDA CSFII 1994-96, 98 by Forshee and Store found that boys and girls ages 6-11 years from all ethnic groups, consumed about one-third the amount of non-citrus juice as fruit ade [37 gm non-citrus juice to 150 gm fruit ade for boys and 44 gm non-citrus juice to 131 gm fruit ade for girls].

Interest in the appropriate intake of juice was sparked by a policy statement; *"The Use and Misuse of Fruit Juice in Pediatrics"* released by the American Academy of Pediatrics in May, 2001. The AAP statement¹ notes that: *"excessive juice consumption and the resultant increase in energy intake may contribute to the development of obesity. One study² found a link between juice intake in excess of 12 ounces/day and obesity. Other studies, however, found that children who consumed greater amounts of juice were taller and had lower body mass index than those who consumed less juice³ or found no relationship between juice intake and growth parameters⁴. More research is needed to better define this relationship."*

The American Academy of Pediatrics relied more on clinical trials than national food consumption data. We urged the IOM/FNB to assess how well the clinical data represents the overall population, and to rely more on data that is nationally representative of the U.S. population.

III. Should the quantities of foods in the current WIC food packages be adjusted?

APA urges USDA and technical experts on the Institute of Medicine's Food and Nutrition Board to review current data available from national nutrition monitoring surveys (NHANES/CSFII) to determine the appropriateness of the current quantities of 100% fruit juice provided via the various WIC packages. The *1999 Review of the Nutritional Status of WIC Participants* indicates that in many groups of WIC participants, including infants 4-11 months old, children 1-3 years old as well as pregnant women, have higher vitamin C intake than those who are WIC eligible, but do not participate in the program. In addition, according to this study, all groups of children who participate in the WIC program are reaching the RDA for vitamin C from the consumption of fruit juices. Despite this encouraging news, other groups including non-breastfeeding and breastfeeding women who participate in the WIC program are still not meeting 100% of the RDA for vitamin C. Adding a serving of fruit and permitting more alternative fruit products that meet the *5-A-Day-for-Better-Health* criteria in the WIC food packages will help women find more acceptable fruit choices.

For these reasons, APA believes that the current quantities of 100% juice provided by the WIC food packages should be maintained, and that the importance of adequate vitamin C intakes should be emphasized in nutritional counseling, especially for groups still not meeting 100% of the RDA for vitamin C, such as post-partum women.

The IOM/FNB should consider recommending that the WIC nutritional advice emphasize the differences between 100% fruit juices and the fruit ades with product names and in packages that are misleading.

IV. What nutrients should be established as priority nutrients for each category of WIC participant?

APA recommends that the IOM panel utilize national nutrition monitoring surveys to explore target nutrients of concern for each of the seven categories of WIC participants.

As stated above, the *1999 Review of the Nutritional Status of WIC Participants* indicates that both breastfeeding and non-breastfeeding WIC participants are still not meeting the RDA for vitamin C, and we recommend that vitamin C remain a priority nutrient for all participants, especially the groups who continue to fall short of the RDA for vitamin C.

V. Can the WIC food packages be revised to have a positive effect on addressing overweight concerns?

- Additional servings of fruit in the WIC package could help reverse the trend toward childhood obesity.
- Since less nutritious beverages, such as fruit drinks and ades, are not made from whole fruit, and contain added sugars, the IOM FNB should consider ways to assure that WIC recipients understand the difference between these products during nutrition counseling sessions.

For many, pasteurized, fortified 100% fruit juices are an affordable, easy source of Vitamin C, folic acid, potassium, and even some calcium. Research has supported that 100 % fruit juices, and not fruit drinks and ades, are an important source of nutrients for Americans, and in no way compromise children's growth, or contribute to causing overweight in Americans. In section VII, references are listed to support this claim.

Furthermore, fruit consumption can help control weight. Overweight children and obese adults of both genders consumed significantly less fruit, including fruit juices, than their healthy-weight counterparts, according to an Economic Research Service analysis of the USDA *1994-96 Continuing Survey of Food Intake by Individuals (CSFII)*⁵.

VI. Are there other concerns that affect foods issued through the WIC food packages that should be considered in designing the food packages?

- APA urges USDA and the IOM panel to consider some of the likely socio-economic consequences of displacing processed fruit juices and other products with fresh produce for WIC families.
- The panel should consider the feasibility of adding alternatives to fruit juices, and allow WIC nutritionists to decide which products to offer their WIC participants.

Proposals to decrease juices in the WIC program and replace these products with fresh fruits and vegetables should be examined for practical considerations applicable to lower income households. First, some WIC participants may have limited access to refrigeration space required for storing fresh fruits and vegetables. 100% juices are a shelf-stable alternative that provide many of the essential vitamins and minerals present in fresh fruits. Secondly, research has shown that low-income communities typically have fewer grocery stores and thus individuals residing in these communities have more difficulty accessing fresh produce than individuals in wealthier communities. It must be taken into consideration that accessing fresh fruits and vegetables is not always convenient or easy for low-income Americans. Obtaining fresh produce may increase transportation costs when families must travel outside of their neighborhoods to purchase these food items.

VII. What data and/or information should the Department consider in making decisions regarding revisions to the WIC food packages?

We ask that the Department consider the following studies:

USDA's Center for Nutrition Policy and Promotion found no relationship between fruit juice consumption of 12 or more ounces per day and body mass index and height. Furthermore, USDA found that children drinking more fruit juice were actually slightly taller with slightly lower BMI's, based on usual dietary intake data from 850 children nationwide.⁶ Average fruit juice consumption was 5.1 ounces per day for 2-3-year-olds and 3.5 ounces per day for 4-5-year-olds. Fewer than 10% of children averaged 12 or more ounces of juice per day. In addition, children consuming higher levels of fruit juice also consumed higher levels of milk and lower levels of fruit drinks and soft drinks. (USDA Center for Nutrition Policy and Promotion, *Nutrition Insights*, March 1997)

- Dr. Jean Skinner found no relationship between children's juice intake and short stature or overweight. In addition, as juice consumption decreased, intakes of less nutritious beverages increased. (*J Am Diet Association*. 2001;101:432-437)
- Data consistent with Skinner and USDA has also been reported in Germany. Researchers examined fruit juice consumption and anthropometric measures in 205 preschool children at ages 3,4, and 5 years. Only five children consumed greater than 12 ounces of fruit juice per day in all three food records. None of these children were of short stature or overweight. Growth, body mass index, and height were not associated with juice consumption. (*J Pediatr Gastroenterol Nutr*. 1999; 29:343-349)

- Several recent studies have documented the lack of food stores that carry fresh produce in low-income neighborhoods. It has been found that the local food environment has a significant impact on the food choices of individuals, and that poor and minority communities may not have equal access to the variety of healthy food choices available to nonminority and wealthy communities. (*Am J Public Health*. 2002 Nov; 92(11):1761-7. *Am J Prev Med*. 2002 Jan; 22(1):23-9.)

VIII. Should participants be allowed greater flexibility in choosing among authorized food items?

APA believes that participants should maintain the ability to choose among approved food items, which provide the same key nutrients within the food packages. For example, families may choose 100% orange juice or 100% apple juice as long as both products provide 30 mg of vitamin C per 100 ml of juice. The IOM panel should consider what additional processed and fresh fruits can provide the requisite nutrients and should be added to the WIC food packages.

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

As stated in items VI and VII, practical barriers to accessing fresh produce in low-income communities should be considered before displacing processed fruit products with fresh items. Considering that there are groups of WIC recipients who are still not meeting their daily requirement for vitamin C, any changes to the food packages that may make it more difficult for recipients to access food sources of key vitamins and minerals could be expected to further exacerbate these deficiencies.

- IOM should review the CSFII data to determine the current fruit sources of vitamin C for the WIC recipients that are falling short of the daily vitamin C requirement.

X. Should WIC State agencies be afforded more or less flexibility in designing WIC food packages?

APA supports increased flexibility for state agencies to design WIC food packages that will best meet the needs of their specific population, as long as key nutrients are still the basis for the food packages and considerations related to food availability are considered prior to making changes.

XI. Identify/recommend WIC food selection criteria, describe how the criteria interact, indicate their relative weighting or importance.

1. Foods must provide key nutrients determined to be lacking in the diets of WIC participants as indicated by national and targeted surveys of the WIC eligible population.

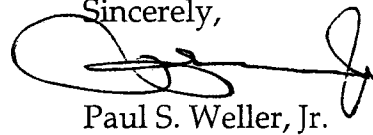
2. Once key nutrients are identified, foods sources selected to deliver these nutrients must be easily accessible to participants within their neighborhoods. This is a high priority for consideration, because if foods are not readily available in the stores, it is unlikely that WIC recipients will consume them.
3. Upper limit of some nutrients such as fat and sugar should be established. The NCI and Produce for Better Health guidelines for the *5-A-Day-for-Better-Health* program provide a good standard for fruits and vegetables in the WIC food package.
4. Food preferences of the WIC eligible population must also be considered when selecting foods. Focus groups and other survey methods can be used to determine preferences of the population.
5. Cost-effectiveness of delivering key nutrients should also be considered when selecting foods for the WIC package.

Members of the Apple Processors Association are committed to improving the health of Americans, and look forward to working with the U.S. Department of Agriculture and the IOM Food and Nutrition Board in the future. Thank you for this opportunity to present our comments.

Enc:

PSW/kb

Sincerely,



Paul S. Weller, Jr.
President

¹ American Academy of Pediatrics. The Use and Misuse of Fruit Juice in Pediatrics. Policy Statement. *Pediatrics*. 2001,107: 1210-1213.

² Dennison BA, Rockwell HL, Baker SL. Excess fruit juice consumption by preschool-aged children is associated with short stature and obesity. *Pediatrics*. 1997; 99:15-22.

³ Alexy U, Sichert Hellert W, Kersting M, et al. Fruit juice consumption and the prevalence of obesity and short stature in German preschool children: results of the DONALD study. *J Pediatr Gastroenterol Nutr*. 1999; 29:343-349.

⁴ Skinner JD and Carruth BR. A Longitudinal study of Children's Juice Intake and Growth: The Juice Controversy Revisited. *J Am Diet Assoc*. 2001; 101 (6): 432-437.

⁵ Lin BH and Morrison RM. Higher Fruit Consumption Linked with Lower Body Mass Index. *Food Review*, 2002, 25(3):28-32.

⁶ USDA Center for Nutrition Policy and Promotion. *Nutrition Insights*, March 1997. Accessed at <http://www.cnpp.usda.gov/InsgtM97.html> 11/14/03.