
CRS Report for Congress

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WIC Food Package: History of the Sugar Cap

October 25, 1999

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ABSTRACT

This report provides a historic review of the WIC food package and the controversy over the sugar cap on cereals allowed in the program. Following a brief background on the program itself, it reviews the WIC food requirements, the long controversy over the sugar content of WIC cereals, and the federal WIC regulation that sets a per serving sugar limit. The continuing debate and positions on the sugar cap among health professionals and the industry are provided. The recent congressional directive on the WIC cereal sugar cap and several related issues are also reviewed. The report will be updated if and when there is a policy change.

WIC Food Package: History of the Sugar Cap

Summary

In 1972, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) was created to provide specific food, nutrition education, social services and health care referrals to low-income women who were pregnant, postpartum or breastfeeding, as well as infants and children under 5 years of age. Recipients have to be objectively evaluated as being at nutritional risk to qualify.

Supplemental foods were to contain nutrients known to be lacking in the diets of the population at nutritional risk: high-quality protein, iron, calcium, vitamins A and C. The targeted nutrients identified in the law served as the basis for determining the actual food items to be provided to participants. Initially, local WIC clinics issued packages of food for recipients, based on such criteria as an individual's health status, food preferences and age. In 1977, the U.S. Department of Agriculture (USDA) grouped food items into three standardized packages, which were reorganized into six packages in 1980.

In 1980, USDA set a 6 grams of sugar per serving cap for cereal products allowed to be used in the WIC program, which has resulted in continuing controversy. This controversy has stemmed, in part, from the fact that a number of cereals, most notably those products with dried fruits, are too high in sugar to qualify for use in the program. Health groups support the sugar cap because of concerns about the impact of sugar on dental health. However, certain cereal manufacturers believe that there is no scientific rationale for setting the sugar cap at 6 grams. Currently, more than 50 cereal products are allowed for use by WIC recipients. Over the years, most commenters to USDA's WIC regulations have continued to support the sugar cap at 6 grams per serving. The National Advisory Council on Maternal, Infant and Fetal Nutrition has repeatedly recommended that the sugar cap be maintained and the food package be reviewed periodically to be sure that it is up-to-date.

The USDA appropriations law for FY1999 directed that the National Academy of Sciences conduct a study on the appropriate amounts of fruits, fiber and sugar in the diets of WIC participants. The Academy declined to conduct such a study because of the limited nature of a review that did not consider the related issues of dietary fat, iron and other nutrients.

In August 1999, USDA released a preliminary report on the nutritional status of WIC participants. The report indicated that, in general, all WIC recipients met most of their nutrient needs. The agency reported that the sugar intake of all WIC recipients was considerably more than the suggested daily intake of added sugar. However, the contribution of the WIC package to added sugar was very low, with the primary added sugar sources being peanut butter and ready-to-eat cereals.

The conference report on H.R. 1906, the FY2000 USDA appropriations measure, directed USDA to make no exceptions to the sugar cap in the WIC program. The conferees also indicated their expectation that the Secretary would periodically review the food package and consider additional nutritious foods.

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WIC Food Package: History of the Sugar Cap

Since the 1970's, there has been considerable controversy about the amount of sugar in the cereal products allowed to be used in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). In 1980, the U.S. Department of Agriculture (USDA) set, by regulation, a maximum sugar level which excluded a number of cereals from the program, most notably those that contain dried fruits. While that rule has remained in effect, the controversy has continued, with the advocates supporting it for public health reasons, and certain manufacturers contending that there is no scientific support for the sugar cap. While Congress has monitored this issue over the years, only recently has it signaled its position that the current sugar limit should remain in place. This paper will review the history of the sugar cap on cereals allowed in the WIC food package and several related sugar issues.

Background on the WIC Program

In 1972, the WIC program originated as a pilot program, which was included in child nutrition law as a regular program in 1975. It provides specific nutritious foods, nutrition education, social services, and health care referrals to low-income women who are pregnant, postpartum and breastfeeding, as well as infants and children under the age of 5. Recipients are evaluated as being at nutritional risk using objective clinical measures by health professionals, in addition to having income below 185% of federal poverty guidelines. Food vouchers that specifically list the foods appropriate for the recipients' nutritional needs are redeemable at approved retail outlets. In FY1998, the average monthly WIC participation was 7.4 million persons, which included 1.7 million women, 1.9 million infants and 3.8 million children. The average per person costs were \$32 a month for food and \$12 for administrative and other non-food costs. For additional general information on the WIC program, see CRS Report 98-25, *Child Nutrition Programs: Background and Funding*, by Joe Richardson.

Since 1972, there have been a series of regulations proposed and finalized that have addressed numerous aspects of the WIC program. In addition, a number of studies have been conducted to evaluate the program. However, only one rule has been proposed and finalized which addresses the WIC sugar cap. Nevertheless, in the context of addressing other regulatory aspects of the program, the debate about the amount of sugar in foods in the WIC package, especially cereals, flavored milk and juice, has arisen several times. The original regulation establishing the WIC sugar cap remains in place and Congress has directed that it remain so, at least, for the time being.

WIC Food Requirements

When WIC was established in 1972, the term “supplemental foods” was defined to mean foods containing nutrients known to be lacking in the diets of the population at nutritional risk. It identified five target nutrients: high-quality protein, iron, calcium, vitamins A and C. The targeted nutrients identified in the law served as the basis for determining the actual food items to be provided to participants. At the request of Congress, an advocacy group convened a conference in November 1972 at which health and nutrition experts made recommendations to USDA regarding specific food items rich in the target nutrients.¹ In early 1973, USDA convened its own task force to review the conference recommendations, and further define and identify food items that would address considerations of cost, storability, acceptability and availability.

In July 1973, USDA proposed regulations that set forth the actual food items that were to be offered to WIC participants.² Although the WIC food items were specified in 1973, they were not grouped into USDA-defined food packages at that time. Instead, the local WIC clinic was authorized to issue its own “packages” of foods for participants, based on such criteria as an individual’s medical and nutrition status, food preferences, and age. For infants, the food items included iron-fortified infant formula or whole milk or evaporated milk; iron- fortified infant cereal and fruit juice with vitamin C. For children and pregnant or lactating women, foods included whole, evaporated, skim or low-fat milk; iron-fortified cereal; fruit juice with vitamin C; cheese and eggs. The proposed regulations required that the supplemental foods for each group be provided with a maximum number of units per month depending on the recipient’s age.

As proposed, the fortified products were to contain the following amounts of iron: infant formula, 10 mg per liter; infant cereal, 90 mg per 100 gm; adult or children hot or cold cereal: 30 mg per 100 grams of dry cereal. However, it was soon determined that cereals with the originally proposed iron content were not then available in the marketplace. In 1974, the final regulation for the iron fortification of infant cereal was reduced to 45 mg per 100 grams dry cereal.³ By 1976, the final rules required that the iron content of cereal for children and women be reduced to 28 mg per 100 grams dry cereal to allow additional cereals to be used in the program.⁴

¹ U.S. Congress. House. Select Committee on Nutrition and Human Needs, *Conference report for the Special Supplemental Food Program*. 1974. p. 66-77.

² U.S. Dept. of Agriculture. Food and Nutrition Service. *Special Supplemental Food, Program for Women, Infant and Children*. Supplemental Foods. Proposed Rules. *Federal Register*, v.38, July 11, 1973.

³ *Ibid.* Final Rules. *Federal Register*, v. 39, December 27, 1974.

⁴ *Ibid.* Final Rules. *Federal Register*, v. 41, January 12, 1976.

Discussion of WIC Cereals Sugar Cap Prior to 1979

The federal requirements for WIC-eligible cereals have been an issue since the beginning of the development of the WIC food package regulations. The initial legislation for the WIC program enacted on September 26, 1972 did not impose a federal sugar limit for WIC-eligible cereals. In the preamble to the 1977 proposed regulations on other aspects of the program, the agency noted having received numerous comments raising concerns about the high sugar content of the cereals and flavored milk allowed in the food package.⁵ The notice indicated that the food package requirements were established to identify specific types of foods that were good sources of nutrients specified in the authorizing legislation, without identification of individual products and their overall nutrient profile. The preamble suggested that, if a state WIC agency believed that flavored milk and sugared cereals were undesirable, it could elect not to provide these foods. The regulation maintained the same iron levels as those previously established for infants, children and pregnant/postpartum/lactating women. It added a special food package for children over 1 year of age with special dietary needs, if the physician determined and documented that the child's condition precluded the use of the food package for children with special problems.

In a subsequent WIC regulation issued in 1977, USDA indicated that a large number of commenters had again requested a change in the cereal requirements due to concerns about the exclusion of cereals that did not meet the requirements for iron fortification, the need for inclusion of whole grain products, the sugar content, and the artificial flavorings and colorings used in allowed products.⁶ Some commenters expressed concerns that some cereals might contribute to health problems, and may not be the most nutritious food choices, and argued that the WIC food package should contain only foods that provide an effective educational message. In a more extensive discussion of the food package cereals, the preamble to this regulation indicated that the food package in general was designed to increase the consumption of foods that would provide the nutrients specified in the law known to be lacking in the diets of women and children at nutritional risk: high-quality protein, iron, calcium, vitamins A and C.

The agency requested further comments on establishing a maximum level of sugar for cereals based on commenters' concerns about the possible relationship between sugar consumption and dental caries (cavities), obesity and "sweet tooth" development. While commenters only requested that "sugar" be limited, food products contain sugars in a number of forms including refined sugar, corn syrup, molasses and brown sugar. Citing the disagreement in the scientific literature regarding the correlation between various sugars and health problems, the agency requested comments on what should be restricted, the level of the restrictions, and the rationale on which the restrictions should be based. The notice indicated that the Food and Drug Administration (FDA) did not require food manufacturers to list sugar content on their labels; thus, any USDA requirements to establish a maximum

⁵ *Ibid.* Proposed Rules. *Federal Register*, v. 42, February 11, 1977.

⁶ *Ibid.* Final Rules. *Federal Register*, v. 42, August 26, 1977.

level for cereal sugar content would require a mechanism by which the sugar level of a given cereal product could be determined. The agency requested suggestions for such a mechanism. As part of these rules, USDA also grouped the WIC food items for the first time into three standardized food packages for infants, children and women, and children with special dietary needs.

That same year, the National Advisory Council on Maternal, Infant and Fetal Nutrition recommended that the current food package be reviewed in depth and adjustments be made to assure that the food was provided in quantities that were consistent with the physiological needs of program participants.⁷ While the Advisory Council generally supported the existing regulatory requirements and made no specific comment on the sugar content of WIC foods, it did express concerns about the quantities of food being provided and whether the nutrient load was too much for certain children. It also concluded that no special formulas should be provided for individuals with inborn errors of metabolism (metabolic disorders that prevent the normal digestion of certain amino acids), but rather that referral services be provided for children needing special therapeutic formulas.

Establishing a WIC Sugar Cap in Regulations

In a proposed rule published in November 1979, USDA responded to legislation⁸ that deleted the law's previous requirement for specific nutrients in WIC foods and gave the Secretary authority to prescribe the supplemental foods to be made available to WIC participants by regulation. USDA's Food and Nutrition Service (FNS) proposed to moderate sugar levels by establishing a maximum sugar content for authorized cereals.⁹ An extensive discussion of the issue of sugar and its presence in WIC authorized cereals appeared in the notice of the proposed rule. The text reviewed the findings of several scientific reports that emphasized concern about the amount of sugar in the U.S. diet and the potential related health problems. The notice indicated that the Advisory Panel and the Department agreed with previous commenters that nutrition education goals of the WIC program supported reducing the level of sugar in the cereals allowed. The notice also indicated that table sugar added by consumers was a conscious decision and a more economical way for additional sugar to be provided, since the price of highly sugared cereals was proportionately higher. It also indicated that since the sugar in cereal was an added ingredient, it could easily be reduced, as opposed to the sugar content of juice where the sugar is a naturally occurring constituent of the product. The Department proposed a sugar limit of 6 grams per ounce of cereal, which was the least restrictive amount that allowed for the largest number of cereals (26 products at that time) to qualify for the program. Other cereal concerns addressed in the proposed rule

⁷ U.S. Dept. of Agriculture. Food and Nutrition Service. National Advisory Council on Maternal, Infant and Fetal Nutrition. *1977 Biennial Report on the Special Supplemental Food Program for Women, Infants and Children*. Washington, 1977.

⁸ Child Nutrition and WIC Reauthorization Act of 1989 (P.L. 101-147).

⁹ U.S. Dept. of Agriculture. Food and Nutrition Service. *Special Supplemental Food Program for Women, Infant and Children*. Supplemental Foods. Proposed Rule. *Federal Register*, v. 44, November 30, 1979, p. 69254.

included a change in iron content, whole grain cereal, highly fortified cereals and artificial flavors and colors. USDA noted that the majority of commenters (90%) on the previous notice indicated that there should be a maximum limit set for sugar content of cereals in the WIC program.

In the preamble to the final rule published in 1980, USDA reviewed and responded to comments made on the sugar limit proposal.¹⁰ In addition to the previous scientific reports identified in the proposed rule, the Department noted that a single food in the diet cannot be responsible for dental caries. Nonetheless, the Department said it was concerned about total sugar reduction, and also favored follow-up nutrition education to stress the importance of wise food choices. To concerns that cereals had been unnecessarily singled out, the Department responded that after review of the evidence on dietary sources of sugar, it had concluded that the increase in sugar in the U.S. since 1909 had been due primarily to the consumption of processed foods, which included ready-to-eat cereal products. Thus, USDA set the maximum sugar level at 6 grams per ounce for cereal. The Department also eliminated flavored milk from the food packages because of the sugar content of these products. In addition, USDA revised the types and quantities of supplemental foods provided and expanded the number of food packages from three to six, which more closely reflected the nutritional needs of the participating groups. The six groups included infants 0 to 3 months; infants 4 to 12 months, children and women with special dietary needs; children 1 to 5 years, pregnant and breastfeeding women, non-breastfeeding postpartum women.

Implementation of the final rule, published in November 1980, was extended twice. The rationale for these extensions was to allow the Department time to re-evaluate the rule and consider measures designed to increase state agency flexibility in determining allowable food packages. The rule ultimately took effect on December 31, 1982.

In late 1982, numerous resolutions introduced in Congress and floor statements by Members of both chambers addressed the issue of the nutritional quality of the WIC food package. Several Members expressed concern that high sugar cereals and flavored milk products might again be available under the regulations that were due to be implemented that year, if the states were allowed too much flexibility. Other Members raised concerns about the scientific rationale for the sugar limit. That same year the National Advisory Council on Maternal, Infant and Fetal Nutrition recommended that USDA should continue to review the overall nutritional content of the WIC food package regulations to ensure that they met the nutritional requirements of the program's population and supported the national Dietary Guidelines.¹¹

¹⁰ *Ibid.* Final Rule. *Federal Register*, v. 45, November 12, 1980, p. 74854.

¹¹ U.S. Dept. of Agriculture. Food and Nutrition Service. National Advisory Council on Maternal, Infant and Fetal Nutrition. *1982 Biennial Report on the Special Supplemental Food Program for Women, Infants and Children*. Washington, 1982.

Oversight of the WIC Sugar Cap

In 1990, USDA initiated a congressionally-mandated review (P.L. 101-147) of the WIC food package and the program's nutritional standards.¹² The Department received 187 comments on the WIC dietary guidelines, half of which addressed the regulatory limits on sugar. Only three commenters opposed a continued 6 grams per one-ounce serving sugar cap for cereal products. In addition, a team of Pennsylvania State University experts prepared 10 technical papers for USDA's WIC Advisory Council. One paper addressed the scientific basis for the WIC sugar limit and concluded that there was no scientific evidence that sugars were an independent risk factor for any chronic disease with the possible exception of dental caries.¹³ However, the report endorsed diets low in sugar, especially sucrose, to reduce dental caries.

During the 102d Congress, the conference report on the Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriations Act (P.L. 102-142) directed USDA to review the sugar limits placed on cereal products, especially those with dried fruits, allowed in the WIC program and report to the appropriate congressional committees. On December 31, 1991, the Department submitted a report to Congress which concluded that dried fruits, specifically raisins, contribute an insignificant amount of key nutrients and did not warrant an inclusion in the WIC program.¹⁴ The report indicated that other foods in the WIC package provided sufficient amounts of the nutrients determined to be lacking in the diets of those at nutritional risk in the program.

The National Advisory Council on Maternal, Infant and Fetal Nutrition issued a report in 1992 that continued to support its position that the WIC sugar cap should remain at 6 grams per one-ounce serving.¹⁵ The Council indicated that, as an adjunct to public health care, the WIC program must be concerned with the dental health of children. Its position was based on the consensus of scientific evidence that dietary sugars contributed to the development of dental caries. With nearly 50 currently available cereal products meeting the WIC sugar limit, the Council was satisfied that this wide range of cereals was sufficient to allow considerable choice among program participants, including children.

¹² U.S. Dept. of Agriculture. Food and Nutrition Service. WIC Program Report to Congress. *Nutritional Risk Criteria and Food Package Reviews*. July 1991. 32 p.

¹³ U.S. Dept. of Agriculture. Food and Nutrition Service. Technical Papers. *Review of WIC Food Packages*. Technical Paper No. 9, November 1991, 17 p.

¹⁴ U.S. Dept. of Agriculture. Food and Nutrition Service. WIC Program. Report to Congress on *Cereals Containing Fruit in the WIC Supplemental Food Packages*. December 1991. 12 p.

¹⁵ U.S. Dept. of Agriculture. Food and Nutrition Service. National Advisory Council on Maternal, Infant and Fetal Nutrition. *1977 Biennial Report on the Special Supplemental Food Program for Women, Infants and Children*. Washington, 1992.

In a 1996 response to concerns raised by one cereal manufacturer, USDA again issued a notice of intent to reconsider the WIC sugar cap for cereals.¹⁶ Of the 878 commenters who responded, 809 expressed support for maintaining the current 6 grams per serving sugar limit and rejected a specific exception for raisins in raisin bran cereals. A number of comments suggested that it was time to initiate a comprehensive review of the entire WIC package to determine whether the foods and the nutrients that were provided were in line with the current U.S. Dietary Guidelines.

The FY1999 omnibus appropriations law (P.L. 105-240) directed the Department of Agriculture to fund a study by the National Academy of Sciences (NAS) on the appropriate amounts of fruits, fiber and sugar in diets of the population targeted by the WIC program. In response to a request by USDA to conduct such a study, the NAS Institute of Medicine (IOM) declined on the basis of the narrowness of the review requested.¹⁷ The letter cited NAS study criteria, which include undertaking a project when the Academy's unique attributes are necessary to provide a scientifically based review of the study problems and the issue is of considerable significance to the health and well-being of the population. The Academy indicated that it would be difficult to limit an NAS review to the role of fruit, sugar and fiber, without consideration of the related issues of dietary fat, iron, and other nutrients. The response suggested that a broader review might include either the soundness of the current WIC package in meeting the current U.S. Dietary Guidelines in addition to nutrients at risk in the diets of vulnerable program participants, or a framework for determining the foods to be included in the WIC program relative to the new knowledge on dietary requirements and guidelines.

In August 1999, USDA released a preliminary report on the nutritional status of WIC participants,¹⁸ with the final report expected to be available in the fall of 1999. The preliminary report indicated that infants and children generally met all nutrient recommendations, with the exception of children ages 1 to 4 years whose intakes of zinc were low, and it noted that sugar intake was double the recommended level for this age group. For both pregnant and postpartum WIC mothers, shortfalls were seen in total caloric intakes, iron, calcium, vitamin C, zinc and magnesium. Pregnant WIC women were also found to be consuming less than the recommended amount of folic acid. In a separate discussion of the sugar intakes of WIC participants, the agency indicated that all groups of women and children studied consumed more than the suggested daily intake of added sugar, with the exception of nursing mothers. The report indicated that the contribution of the WIC package to added sugars in the overall diet was very low, with the primary sources of added sugars being peanut butter and ready-to-eat cereals.

¹⁶ U.S. Dept. of Agriculture. Food and Nutrition Service. Special Supplemental Food Program for Women, Infant and Children. Supplemental Foods. *Notice of Intent to Propose Rulemaking and Solicitation of Comments*. *Federal Register*, v. 61, March 18, 1996. p. 10903.

¹⁷ National Academy of Sciences. Institute of Medicine. Letter to Assistant Secretary for Research Eileen Kennedy from Alisson Yates, Director of the Food and Nutrition Board. 1999.

¹⁸ U.S. Dept of Agriculture. Center for Nutrition Policy and Promotion. *Review of the Nutritional Status of WIC Participants*. Executive Summary, August 1999. p. 10.

During the 106th Congress, the conferees on H.R. 1906 (FY2000 USDA appropriations measure, H.Rept. 106-354) indicated awareness that the Department was considering changes in the WIC food package involving potential exceptions to the current sugar cap. The conferees directed USDA to make no exceptions to the sugar cap in the WIC program. The report also indicated the conferees' expectation that the Secretary would periodically review the food package and consider the addition of other nutritious foods to the food packages for women, infants and children.

Issues Related to the WIC Sugar Cap

Sugar Labeling. In the early 1990's, when the federal government began its effort to reform food labeling, the issue of sugar labeling was raised. Some stakeholders favored principle display panel (PDP — front of the package) flags for sugar content. However, because the final Nutrition Facts panel on the food label was to provide the sugar content for a serving of the food, FDA decided that the sugar content of the food on the PDP was a duplication and not necessary on food packages. The "sugars" listing is a subgroup of the total carbohydrates that also includes a separate listing of the amount of dietary fiber present in the food.

In August 1999, the Center for Science in the Public Interest, a Washington-based consumer advocacy organization, filed a sugar labeling petition with the Food and Drug Administration.¹⁹ The petition requests that the agency require the Nutrition Facts panel on food packages to disclose by a separate listing the quantity of added sugars present in packaged foods and to set a Daily Reference Value (the amount to consume in a 24-hour period) for refined sugars added to foods.

Consumption Guidelines. The Dietary Guidelines Advisory Committee has been meeting over the past year to review the 1995 edition of the Dietary Guidelines for Americans to determine whether changes are needed in the year 2000 edition.²⁰ Since the first guidelines were issued in 1980 (and updated every 5 years since then), the document has included the directive to reduce the intake of sugars based on concerns about empty calories and dental caries. The current guidelines review is expected to continue this earlier directive on sugar consumption. Although over the years a number of chronic diseases have been suggested as being affected by sugar consumption, only dental caries, which is a multi-factorial problem, has been associated with sugar intake.

Although not directly related to the WIC food package items, a recent study conducted by the Food and Nutrition Board (FNB) concerned the health criteria used for identifying potential WIC recipients. In 1993, USDA's Food and Nutrition Service requested that FNB (part of National Academy of Sciences) conduct a comprehensive review of the scientific basis for the nutrition risk criteria used in the WIC program.

¹⁹ Center for Science in the Public Interest. Petition on added sugar to FDA Commissioner Jane Henney. August 3, 1999.

²⁰ U.S. Dept. of Agriculture. Agricultural Research Service and Dept. of Health and Human Services. Office of the Secretary. Dietary Guidelines Advisory Committee. Meeting. Fed. Reg. 64: 3676. January 25, 1999.

Using nutrition risk as a requirement for certification for program participation has been a unique feature of WIC since its inception. The original legislation defined four types of nutritional risk to be used by the local WIC agency in prioritizing eligible applicants when it reached its maximum caseload and had to select individuals from the waiting list when openings occurred. The WIC program's authorizing legislation had permitted states and other agencies considerable flexibility to define their own nutrition risk criteria and determine the threshold values for assessing the level of risk. The appropriateness of nutrition risk criteria had become an issue of major interest to the WIC community and was of significance to the program's future at the time that the study was initiated. The FNB concluded that changes were needed in the current WIC priority system to give higher priority to those nutrition risk criteria identified as having strong relationships to risk and potential to benefit and lower priority to nutrition risk criteria with weaker relationships to risk and potential to benefit participants. Both research and action recommendations were contained in the final report.

