

**Institute of Medicine. *Review of WIC Food Packages: An Evaluation of White Potatoes in the Cash Value Voucher: Letter Report.* Washington (DC): The National Academies Press, 2015**



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### Genesis of Report

Since 1974, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) has provided federal grants to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and nonbreastfeeding postpartum women, and for infants and children  $\leq 5$  y of age who are at nutritional risk. Participants in the WIC program use cash-value vouchers to purchase specified fresh, frozen, and processed foods. The variety and amount of WIC-eligible foods is determined with the use of the USDA and US Department of Health and Human Services' Dietary Guidelines for Americans, which delineate recommended food intake patterns, coupled with the Institute of Medicine (IOM) DRIs, which define current knowledge about dietary requirements across the lifecycle. The WIC food packages are reviewed periodically by the IOM, with the most recent review based on the 2005 version of the Dietary Guidelines for Americans. With the 2010 Dietary Guidelines for Americans being phased out and the 2015 version being finalized for imminent publication, the USDA requested that the IOM thoroughly reexamine the adequacy of the current WIC food package, given current recommendations and knowledge.

As part of this request, the IOM was tasked with reevaluating a 2009 decision to exclude white potatoes (but not yams and sweet potatoes) from the foods that WIC participants can purchase with their vouchers. To reach this goal and make science-based recommendations, the assembled committee (chaired by Dr. Kathleen Rasmussen, Cornell University) reviewed the scientific and government literature, launched a targeted series of data analyses, and conducted a sensitivity analysis designed to model various outcomes given several reasonable scenarios. Their results and related recommendations were made available in February 2015 in a "letter report" published by The National Academies Press. The results, findings, and conclusions of

this report are briefly summarized here. It is noteworthy that this effort will be followed up with additional work to evaluate the current overall WIC food packages and then to make recommendations based on the 2015 Dietary Guidelines for Americans.

**Tasks, Results, and Conclusions:** The committee was issued 7 main tasks in reconsideration of white potatoes, as follows—

**Task 1:** Compare the consumption of white potatoes in populations of interest before and after enactment of the 2009 regulation, which excluded white potatoes from the WIC food package.

- Although white potatoes are considered to be among the least expensive vegetables available for purchase, national trends suggest a decrease in their consumption per capita over the last 2 decades. About 40% of all potatoes consumed by WIC populations are eaten at home in a form that could originate from WIC-eligible white potatoes. Currently available data on this topic are limited but suggest that including white potatoes in the food package would not substantially alter purchasing patterns for fruits and other vegetables. The committee could not find evidence of a change in potato consumption in response to the 2009 WIC ban on white potatoes.
- In conclusion, the committee was not able to complete this task because of a lack of necessary data. This is because the required data from the 2011–2012 NHANES needed for the analysis were not yet available.

**Task 2:** Determine the nutrient intake for each nutrient for which a DRI has been established; for this task, the committee focused on the nutrients of concern highlighted in the 2010 Dietary Guidelines for Americans.

- Intake of calcium, vitamin D, potassium, and fiber by low-income children was found to be below the estimated average requirement; intake of vitamin C, folate, vitamin D, calcium, potassium, iron, and fiber was low for low-income women. Despite common dogma that potatoes are poor sources of micronutrients and fiber, the committee concluded that the nutrient profile of white potatoes is similar to that of other starchy vegetables, and that potatoes should be considered good sources of potassium and fiber.
- The committee concluded that the positive nutrient profile of white potatoes does not support their exclusion from the WIC food package.

**Task 3:** For WIC populations, determine the mean intake for each food group and subgroup presented in the Dietary Guidelines for Americans, and compare these to the recommended intake.

- Intake of all the vegetable subgroups (including starchy vegetables such as potatoes) was found to be below recommendations for both WIC-participating women and infants; intake of fruit was low for women, but not for infants.
- The committee concluded that the logic behind excluding white potatoes used by the previous committee no longer applies.

Task 4: Determine and interpret overall diet quality of WIC populations.

- Healthy Eating Index 2010 scores were found to be consistently low for both low-income women and children regardless of their participation in WIC.
- The committee concluded that overall diet quality could be improved, especially for greens and beans.

Task 5: Address the health and cultural needs of a widely diverse WIC participant population.

- Review of the available evidence suggested that consumption of fruit and vegetables (including white potatoes) is likely related to long-term health benefits. However, there was insufficient evidence to clearly quantify the effect and magnitude of adding white potatoes to the WIC package among differing racial or ethnic groups.
- The committee concluded that it remains unclear as to whether allowing the purchase of white potatoes would have differential effects on various ethnic groups.

Task 6: Conduct a sensitivity analysis to estimate the effect of including white potatoes in terms of food groups, nutrient intake, and overall diet quality.

- After investigating several possible scenarios, the committee concluded that including white potatoes in the WIC food package would either have no impact or slightly improve the nutritional status of women and children. Including white potatoes would also probably help WIC participants consume the recommended intake for starchy vegetables.

Task 7: Ensure that the program can be administered effectively and efficiently across the nation in a cost-neutral manner.

- The committee concluded that vendors historically have been able to administer the cash-value vouchers when food packages change, and that although most current WIC participants are satisfied with the foods they can purchase, many do not take full advantage of the allotted amount available to them.

## Overall Recommendations

Four overarching recommendations were made by the committee in response to the above findings and conclusions. The committee's main conclusion was that white potatoes should again be allowed as an acceptable food for purchase when using the WIC cash-value voucher. This recommendation is contingent on there being no impactful changes in the 2015 Dietary Guidelines for Americans. The additional 3 recommendations all relate to the gathering of the data and supportive studies needed to understand dietary intake by pregnant, breastfeeding, and postpartum women in the NHANES; the impact of cultural diversity on effectiveness of the current cash-value vouchers; and decision-making patterns of participants and vendors as they relate to purchasing and stocking various WIC-eligible foods.

## For More Information

A free on-line version of this report can be found at <http://iom.nationalacademies.org/Reports/2015/Review-WIC-Food-Packages-Letter-Report.aspx>. A webinar and presentation related to the report is available at <http://iom.nationalacademies.org/Activities/Nutrition/ReviewWICFoodPackages/2015-FEB-03/Video/1-Report-Release-Video.aspx>. Agendas and videos related to the committee's other workshops can be found at <http://iom.nationalacademies.org/activities/nutrition/reviewwicfoodpackages/2014-oct-14.aspx>. Details about the history and purpose of WIC are available at <http://www.fns.usda.gov/wic/women-infants-and-children-wic>.