

# **Topic Brief:** Produce Prescription Programs

### **Date:** 12/23/2021 **Nomination Number:** 0965

**Purpose:** This document summarizes the information addressing a nomination submitted on November 18, 2021 through the Effective Health Care Website. This information was used to inform the Evidence-based Practice Center (EPC) Program decisions about whether to produce an evidence report on the topic, and if so, what type of evidence report would be most suitable.

**Issue:** Consuming fruits and vegetables can improve health. Assistance benefits for the purchase of fruits and vegetables could improve markers of health in adults with diet-related chronic conditions.

Findings: The nominators decided not to pursue an evidence product at this time.

## Background

The health benefits of consuming fruits and vegetables are widely recognized, but consumption is below what is recommended.<sup>1</sup> The percentage of Americans who consume a fruit or a vegetable in a day decreases with decreasing income.<sup>2</sup> Poor nutrition can lead to conditions such as obesity, heart disease, diabetes, and cancer. Forty percent of adults in the U.S. experience obesity and health care for obesity costs \$147 billion per year.<sup>3</sup>

Produce prescription programs provide assistance to individuals with diet-related health risks or conditions, or food insecurity. A healthcare provider or health insurance plan prescribes participation in the program. The participant can then access fruits and vegetables through food retailers.<sup>4</sup> The nominator is interested in promoting the implementation of produce prescription programs.

### **Nomination Summary**

The nominator originally requested an evidence product evaluating the comparative effectiveness of produce prescription programs as a preventive intervention for adults with mild diet-related chronic conditions versus standard of care (e.g., statins, nutrition education). After discussion as a part of the topic development process, they decided that a new evidence review would not best serve their needs and decided to take alternative approaches to promote the adoption of the produce prescription program.

## **Assessment Methods**

We assessed nomination for priority for a systematic review or other AHRQ EHC report with a hierarchical process using established selection criteria. Assessment of each criteria determined the need to evaluate the next one.

1. Determine the *appropriateness* of the nominated topic for inclusion in the EHC program.

- 2. Establish the overall *importance* of a potential topic as representing a health or healthcare issue in the United States.
- 3. Determine the *desirability of new evidence review* by examining whether a new systematic review or other AHRQ product would be duplicative.
- 4. Assess the *potential impact* a new systematic review or other AHRQ product.
- 5. Assess whether the *current state of the evidence* allows for a systematic review or other AHRQ product (feasibility).
- 6. Determine the *potential value* of a new systematic review or other AHRQ product.

## **Related Resources**

We identified additional information in the course of our assessment that might be useful.

The nominators shared a 2021 systematic review that assessed the effect of healthy food prescription programs on diet quality and/or health outcomes such as body mass index (BMI), diastolic blood pressure, glycated hemoglobin (HbA1c), and blood lipids. Supplemental foods were not restricted to produce, and recipients were not restricted to those with health conditions, as in the nominator's key questions. The investigators found thirteen qualifying studies, most of which did not include a control group. Together, the studies indicated an increase in fruit and vegetable consumption, a decrease in BMI and HbA1c, and no changes in other health outcome measures.<sup>5</sup>

Additionally, an AHRQ systematic review to evaluate outcomes for women and children participating in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is in progress. The WIC program includes supplemental nutritious foods, including fruits and vegetables. The review will include health-related outcomes for the mother and child.<sup>6</sup> While the WIC program is broader than the produce prescription program, the review will provide an assessment of a large nutritional supplement program, which may be of interest to those seeking information about effectiveness of supplemental nutrition programs.

### References

1. Wallace TC, Bailey RL, Blumberg JB, et al. Fruits, vegetables, and health: A comprehensive narrative, umbrella review of the science and recommendations for enhanced public policy to improve intake. Crit Rev Food Sci Nutr. 2020;60(13):2174-211. doi:

https://doi.org/10.1080/10408398.2019.1632258. PMID: 31267783.

 2. Fruit and Vegetable Consumption Among Adults in the United States, 2015-2018. Centers or Disease Control and Prevention. doi: <u>https://www.cdc.gov/nchs/products/databriefs/db397.htm</u>.
3. Poor Nutrition. Centers or Disease Control and Prevention. doi:

https://www.cdc.gov/chronicdisease/resources/publications/factsheets/nutrition.htm.

4. National Produce Prescription Collaborative. doi: https://nationalproduceprescription.org/.

5. Bhat S, Coyle DH, Trieu K, et al. Healthy Food Prescription Programs and their Impact on Dietary Behavior and Cardiometabolic Risk Factors: A Systematic Review and Meta-Analysis. Adv Nutr. 2021 Oct 1;12(5):1944-56. doi: <u>https://doi.org/10.1093/advances/nmab039</u>. PMID: 33999108.

6. Maternal and Childhood Outcomes Associated with the Special Supplemental Nutrition Program or Women, Infants and Children (WIC). AHRQ Effective Health Care Program. doi: <u>https://effectivehealthcare.ahrq.gov/products/outcomes-nutrition/protocol</u>.

## Author

Emily Gean Lisa Winterbottom **Conflict of Interest:** None of the investigators have any affiliations or financial involvement that conflicts with the material presented in this report.

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