

Review title and timescale

1. **Review title:** Fruit and Vegetable Incentive Programs for Supplemental Nutrition Assistance Program (SNAP) Participants: A Scoping Review of Program Structure
2. **Abstract:** Low intake of fruits/vegetables (FV) by Supplemental Nutrition Assistance Program (SNAP) participants is a persistent public health challenge. Fruit and vegetable incentive programs use inducements to encourage FV purchases. The purpose of this scoping review is to identify structural factors in FV incentive programs that may impact program effectiveness, including i.) differences in recruitment/eligibility, ii.) incentive delivery and timing , iii.) incentive value, iv.) eligible foods, and v.) retail venue. Additionally, FV incentive program impact on FV purchase and/or consumption is summarized. Using the PRISMA guidelines for scoping reviews, a search of four bibliographic databases resulted in the identification of 45 publications for consideration; 19 of which met the pre-determined inclusion criteria for full-length publications employing a quasi-experimental design and focused on verified, current SNAP participants. Data capturing study objective, study design, sample size, incentive program structure characteristics (participant eligibility and recruitment, delivery and timing of incentive, foods eligible for incentive redemption, type of retail venue), and study outcomes related to FV purchases/consumption were entered in a standardized chart. Eleven of 19 studies had enrollment processes to receive the incentive, and most studies (17/19) provided the incentive in the form of a token, coupon, or voucher. The value of the incentives varied, but was usually offered as a match. Incentives were typically redeemable only for FV, although three studies required a FV purchase to trigger delivery of an incentive for any SNAP-eligible food. Finally, most studies (16/19) were conducted at farmers' markets. Eighteen of 19 studies reported a positive impact on participant purchase and/or consumption of FV. Overall, this scoping review provides insights intended to inform the design, implementation, and evaluation of future FV incentive programs targeting SNAP participants; and demonstrates the potential effectiveness of FV incentive programs for increasing FV purchase and consumption among vulnerable populations.
3. **Anticipated or actual start date:** 9/01/2018
4. **Anticipated completion date:** 5/28/2020
5. **Stage of review at time of this submission:** This review is in the final stage of revisions

Review Stage	Started	Completed
Preliminary searches		X
Piloting of the study selection process		X
Formal screening of search results against eligibility criteria		X
Data extraction		X
Risk of bias (quality assessment)		(N/A)
Data analysis		X

Review author details

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12. **Funding sources/sponsors:** N/A
13. **Conflicts of interest:** Authors have no known conflicts of interest to declare.

Review Methods

14. **Review objective:** The objective of this scoping review is to characterize factors in program structure which may impact the effectiveness of incentive programs
15. **Review question:** What are the differences in structural factors, including recruitment and eligibility criteria, delivery and timing of incentives, financial value of incentives, foods eligible for incentive redemption, and type of retail venue, reported among FV incentive programs?
16. **Literature search:** Focused searches were conducted by one author (K.E.) using Google Scholar, ProQuest, PubMed, and Sage Journals Online. The search terms that were used include “SNAP incentives,” “WIC incentive,” “food benefits incentive,” and “food assistance incentive.” Results were limited to English language publications and indexed up to 7 November 2019. In addition to the use of these search terms, papers were identified by examining the articles cited by the papers found in the preliminary search. Full-text articles identified in the search were imported into Mendeley reference management software and duplicates were manually removed.
17. **URL to search strategy:** Not applicable
18. **Condition or domain being studied:** Fruit and vegetable incentive programs as a strategy for improving dietary quality of SNAP participants
19. **Participants/Population:** Current, verified SNAP participants of all ages from various geographic regions in the United States
20. **Intervention/Exposure:** FV incentives include a variety of inducements to offer low-income participants funds to purchase these foods. FV incentive programs have been designed and implemented for a number of different populations, including WIC and SNAP participants, and venues, such as farmers’ markets and grocery stores. In addition, the types and value of incentives that have been developed vary widely from point-of-sale (POS) discounts to coupons, vouchers, and tokens.

21. **Comparator(s)/Control(s):** Any comparator is relevant for inclusion, such as studies comparing FV incentive programs with differing structures. In addition, studies without a comparator are eligible for inclusion.
22. **Types of studies to be included:** The types of studies to be included are full-length publications in peer-reviewed journals or government reports with a quasi-experimental design and targeted focus on verified, current SNAP participants. Studies that solely examined the use of FV vouchers as part of the WIC foods package were excluded for the following reasons: 1.) FV vouchers became a standard part of the WIC Foods Package following a final rule published in May 2014, and 2.) WIC FV vouchers can only be used for FV and therefore are not used to incentivize the purchase of FV over other foods within the WIC Food Package.
23. **Context:** All periods of time, geography, and duration of study are eligible for inclusion.
24. **Primary outcome(s):** Primary outcomes of interest include: 1.) factors in program structure which may impact the effectiveness of incentive programs, including differences in: recruitment and eligibility, delivery and timing of incentives, financial value of incentives, foods eligible for incentive redemption, and type of retail venue. 2.) outcomes of existing FV incentive programs with respect to the purchase and/or consumption of FV among SNAP participants, with specific attention to the quality of the assessment methods for FV purchase and/or consumption.
25. **Secondary outcome(s):** Not applicable
26. **Data Extraction:** Data were extracted from eligible papers into a standardized Google Doc chart to capture study objective, study design, number of participants, incentive program structure characteristics (participant eligibility and recruitment, delivery and timing of incentive, foods eligible for incentive redemption, type of retail venue), and study outcomes related to FV purchases and FV consumption.
27. **Risk of bias (quality) assessment:** Since this is a scoping review, we did not conduct quality appraisal, which is consistent with the framework proposed by Arksey and O'Malley, as well as the Joanna Briggs Institute methodological guidance for Scoping Reviews.
28. **Strategy for data synthesis:** The synthesis focused on providing: 1.) a description of the factors in FV incentive program structure including differences in: recruitment and eligibility, delivery and timing of incentives, financial value of incentives, foods eligible for incentive redemption, and type of retail venue. 2.) outcomes of existing FV incentive programs with respect to the purchase and/or consumption of FV among SNAP participants, with specific attention to the quality of the assessment methods for FV purchase and/or consumption.
29. **Analysis of subgroup or subsets:** Not applicable

Review General Information

30. **Review Type:** Scoping review
31. **Language:** English
32. **Country:** United States
33. **Other registration details:** Not applicable

34. **Reference and/or URL for published protocol:** Submitted to Nutrients. Revising based on peer-reviewed feedback.
35. **Dissemination plans:** Submitted for publication to Nutrients.
36. **Keywords:** Incentive programs; Supplemental Nutrition Assistance Program (SNAP), fruits and vegetables; low-income; farmers' markets; dietary quality, produce intake, produce purchasing
37. **Details of any existing review of the same topic by the same authors:** Not applicable
38. **Current review status:** Submitted for publication to Nutrients and undergoing revisions based on peer-reviewed feedback.
39. **Any additional information:** Not applicable
40. **Details of final report/publication:** Not applicable