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An environmental scan of financial incentives to increase access to healthy foods: How, how much, and how often?

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Abstract

Background Diet quality significantly influences chronic disease prevalence. Interventions that promote healthier food purchases through economic incentives are gaining attention, but there is limited information on the practical aspects of implementing these programs as a health promotion strategy in retail grocery store settings. This study explores common incentive structures, their monetary values, and distribution frequencies.

Methods A structured environmental scan of academic and grey publications from January 2010 to August 2021 was conducted. Sources from Canada, the United States, the United Kingdom, New Zealand, and Australia were included if they described interventions initiated by organizations to reduce the cost of healthier foods in retail grocery stores without requiring a prescription or disease diagnosis. Data were extracted in duplicate and synthesized narratively, focusing on the type, value, and how often incentives were distributed. The median, rather than the mean, was calculated to account for skewed distributions of incentive values across programs. Monetary values were standardized to weekly amounts and adjusted to 2024 US dollars.

Results From 4,953 academic and 40 grey literature sources, 17 programs were identified. These programs featured four incentive structures: price discounts (41%), food vouchers (24%), rewards (18%), and hybrid structures (18%). The median incentive value was $14.38 per week. Incentives were typically provided weekly (29%) or monthly (18%), with some offered per-shop, per-day, or once per program.

Conclusions Considerable heterogeneity was observed in incentive structures, values, and frequencies. Justifications for these designs were often lacking, highlighting the need for further research that directly compares the impact of different incentive structures, amounts, and frequencies on food purchases. Until more empirical evidence is available, program design choices can be guided by precedent, modeled after policy options under consideration (e.g., exempting beneficiaries from general sales tax on fresh produce), or built upon successful existing models, such as the United States Department of Agriculture's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Program.

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Highlights

- This environmental scan identified four main incentive structures for promoting healthy food purchases: price discounts, food vouchers, rewards, and hybrid structures.
- The median weekly incentive value across all programs was $14.38 USD, with significant variation.
- Incentives were most commonly distributed on a weekly basis (29%).
- Few programs provided evidence-based justifications for their chosen incentive structures, values, or distribution frequencies.
- Further research is needed to directly compare the effectiveness of different incentive structures, values, and frequencies in promoting healthier food purchases.

Keywords Diet quality, Economic incentives, Health promotion, Retail food environment

Introduction

Diet quality significantly contributes to chronic disease risk [1, 2]. Higher-quality food, however, often comes with higher costs, creating a significant barrier for many individuals and acting as a disincentive to healthier consumption patterns, which, in turn, increases the risk of chronic disease [3–5]. Studies suggest that economic incentives and supports can improve the quality of grocery purchases and consumption [6–8]. Promoting healthy food purchases through economic interventions is an area of growing experimentation among researchers and health-promoting organizations in high-income countries [8–11]. Various approaches have been implemented to deliver these benefits, ranging from emergency food assistance to medically tailored meals [12].

A recent review systematically examined intervention approaches implemented by healthcare organizations to improve access to healthy food, identifying six overarching modalities among the studies reviewed: cash-back rebates, vouchers, garden-based programs, food boxes, meal home-delivery, and food pantry-clinical collaborations [13]. These models highlight the diverse strategies used to incentivize healthy food purchases, though many rely on healthcare professionals for authorization or implementation, which can add barriers to broader participation and increase program costs [14]. To our knowledge, no studies have taken stock of the approaches that can operate independently of clinical personnel (e.g., to provide prescriptions or diagnoses) in retail settings to address three key pragmatic considerations for health-promoting organizations exploring the implementation of such incentive programs: the intervention modalities [how?], the dollar value of incentives [how much?], and the cadence of their provision [how often?].

Therefore, our objective for this study was to inform decision-makers and health-promoting organizations considering intervention options to improve diet quality by describing the state of the field regarding commonly implemented incentive structures in retail supermarket settings, including the monetary value and frequency of their delivery schedules.

Methods

Design

We conducted an environmental scan of the academic and grey literatures [15–18]. The environmental scan is a flexible methodological process designed to inform decision-making by taking stock of the landscape of approaches commonly being implemented to address a specific need or problem through a structured review of academic and grey literature [17]. This methodology was chosen over a scoping review because it allows for a broader inclusion of non-academic sources to capture practices that may not yet be widely documented in peer-reviewed literature.

Search strategy

The search strategy and screening protocol were developed in collaboration with research librarians (key words used are available in Appendix 1). The search retrieved publications from 2010 to August 2021, the most recent period available to the study team during literature extraction. Academic literature searches were conducted in Ovid MEDLINE, Scopus, and EMBASE. Additionally, a cited reference search was performed on full-text articles meeting the study inclusion criteria until no further relevant articles were found.

The grey literature search used the same key words as the academic literature search (Appendix 1). The first 100 results retrieved from Google were reviewed to identify relevant interventions. Site specific searches were also conducted on Canadian federal (e.g., canada.ca domains), provincial (e.g., alberta.ca domains), and territorial government websites (e.g., gov.nt.ca domains). Finally, websites for the Canadian Institute for Health Information, ClinicalTrials.gov, Current Controlled Trials, and Open Grey were searched for relevant entries. The grey literature findings were then incorporated with the academic sources. Both searches were limited to the English language.

Inclusion and exclusion criteria

Our search focused on adult populations (i.e., individuals 18 years or older), including households with children. No exclusions were applied based on other sociodemographic characteristics, such as low-income or qualification for social assistance. Programs were eligible if they were designed to promote healthy food purchases by reducing food cost, regardless of whether they were administered through research studies, government, non-profit organizations, charities, or health insurance companies. Programs delivered as part of researcher-initiated interventions, such as randomized controlled trials, were included. The settings of interest were year-round retail supermarkets in Canada, the United States (US), the United Kingdom (UK), New Zealand, and Australia. The geographic scope of the study was determined by the prevalence of such programs as well as the linguistic, cultural, and economic similarities of these countries to Canada and their established health promotion systems, which facilitate the implementation of healthy food incentive programs. Educational programs were included if they were administered in conjunction with an intervention to promote healthy food purchases by reducing food cost. All publication types were eligible for inclusion (e.g., academic or non-academic publications, reports, documents, theses, commentaries, and conference abstracts).

Programs were excluded if there was no monetary component designed to reduce food costs or if improving health and/or dietary intake was not an explicit goal (e.g., childcare subsidies, unemployment benefits, disability benefits). Prepared meal programs and all non-food interventions (e.g., vitamin or other supplements) were excluded. Incentives to adhere to specific diets (e.g., high cashew-intake diet) were also excluded. Our focus was on programs designed to encourage the purchase of healthy foods broadly, such as fruits and vegetables, rather than on those promoting highly restrictive or specialized diets. This exclusion ensures our findings remain relevant to interventions with practical applications for general population health promotion. Finally, programs requiring a diagnosis of a health condition, a prescription from a healthcare professional, or enrollment in a social assistance program were excluded. Social assistance programs, such as the Supplemental Nutrition Assistance Program (SNAP) in the US, were excluded because they have been extensively reviewed in other studies, follow a consistent model, and are not primarily driven by a health promotion mandate. Our study instead aims to inform the work of health-promoting organizations designing interventions to encourage healthy eating.

Screening

Screening was conducted by two reviewers using Covidence (Veritas Health Innovation, Melbourne, Australia; covidence.org). Relevance screening was conducted by two reviewers (A.Q. and S.Y.) who independently reviewed titles and abstracts in duplicate followed by full text screening of the remaining sources. The two reviewers met throughout the screening process to resolve conflicts by consensus with two additional reviewers (C.C. and R.B.).

Data synthesis and analysis

Data from all included sources were extracted independently by two reviewers (A.Q. and S.Y.) using a Microsoft Excel extraction table designed to align with the research questions. We considered programs distinct if they differed in timeframe, location, or sponsor. A narrative synthesis was used to summarize the key features of the interventions identified, including the incentive structure, monetary value, and the incentive distribution frequency (e.g., daily, weekly, monthly). The incentive structure categories were determined through consensus among the study team. Three of the 17 studies included in our scan originated outside of the US. To facilitate comparisons of US and non-US programs, all incentive values were recalculated to weekly rates or maximum values over the course of the study and then converted to United States Dollars (USD) using the Organization for Economic Cooperation and Development (OECD) exchange rate calculator [19]. We report the original values as stated in each study, followed by the median amount converted to 2024 USD using the US Bureau of Economic Analysis's Implicit Price Deflator [20], both for all programs and for each specific incentive structure. The overall median, rather than the mean, was calculated to address the skewed distribution of incentive values across interventions. In one instance (i.e., the Supermarket Healthy Options Project) absolute savings varied based participants' weekly spending as it offered a 12.5% discount; as no absolute estimate of the dollar value of the benefit to participants was reported, it was excluded from the calculation of the median of overall incentive value across programs. A Cleveland dot plot of incentive values was created using the ggplot2 package [21] in RStudio 4.3.2 (Public Benefit Corporation, Boston, US; posit.co).

Results

After applying the screening and selection protocol to the 4,953 academic articles and 40 grey literature sources initially found, 17 programs were retained for synthesis (Fig. 1). All but one were described in the academic literature. Two were from Australia, one was from New Zealand, and the remainder were from the US. No sources

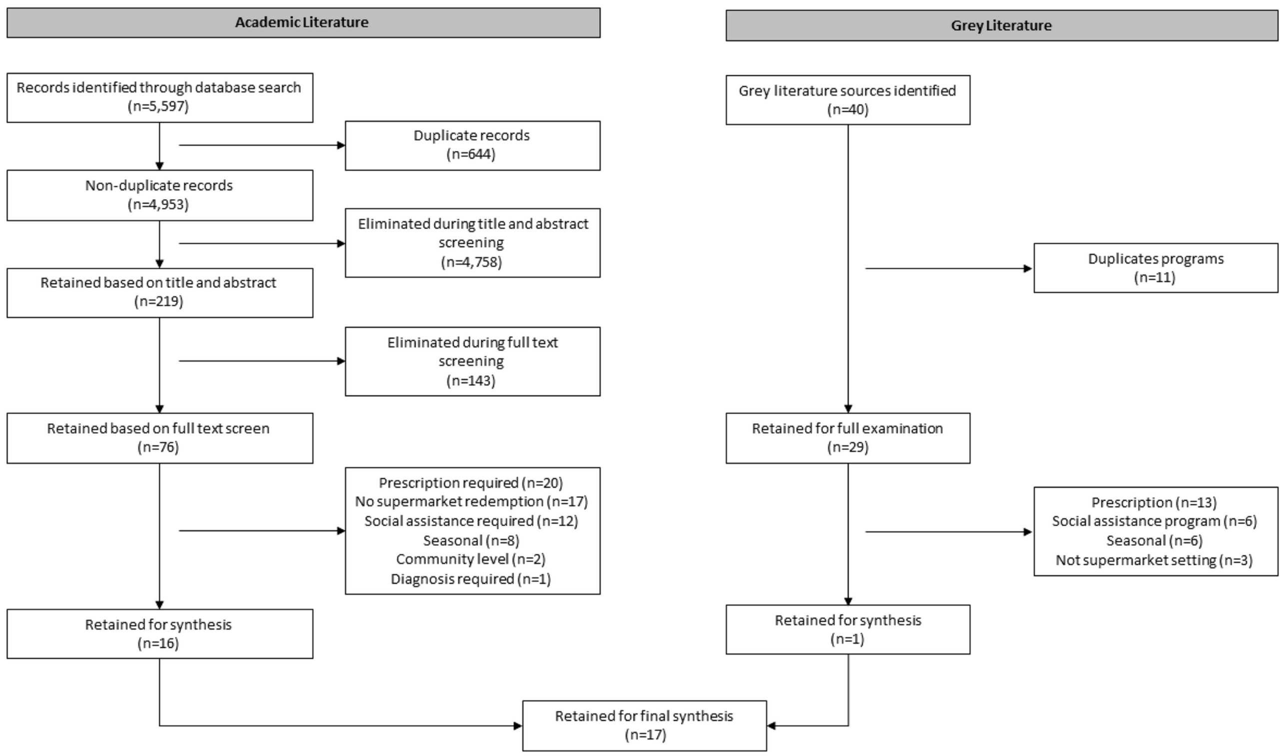

Fig. 1 Environmental scan source inclusion flow diagram

from Canada or the UK were included in the synthesis. There were four broad categories of incentive structures: (i) rewards ($n=3$, 18%), (ii) price discounts ($n=7$, 41%), (iii) food vouchers ($n=4$, 24%), and (iv) hybrid structures that combined rewards with vouchers ($n=2$, 12%) or discounts ($n=1$, 6%) (Table 1). The median incentive amount across all programs was $14.38 USD in 2024 per week (Fig. 2). Incentives were most often offered weekly ($n=7$, 29%), monthly ($n=3$, 18%), or had set limits per visit ($n=3$, 24%) or day ($n=1$, 6%), or over the intervention period ($n=2$, 12%); one study tested a weekly versus monthly frequency in two separate cohorts [22, 23].

Rewards

Three programs had a reward structure [24–27]. Rewards promote healthy food purchases by returning a portion of participants' out-of-pocket spending on eligible food purchases for use in the future. Funds may be returned after the purchase has been made as cash [24, 25] or in the form of store credit [26, 27]. Reward programs often have limits and conditions, such as a minimum spend to qualify and/or a maximum amount returned after purchase. In the 3-week Buying Health Trial in California, participants who returned receipts were reimbursed for fresh foods and produce purchases above a $10 USD minimum spending floor, to a maximum of $50 USD—the most allowed by the study budget (Table 1) [24]. In the 90-day Cash-back Pilot in Philadelphia, participants who returned receipts showing their purchase of qualifying food were reimbursed $1 USD per qualifying item per shop, to a maximum of $100 USD, at the end of the trial [25]. In the Healthy Choice Rewards Program in rural Australia, participants could earn $10 AUD in store credit when spending $10 AUD or $15 AUD on fresh produce [26]. The median full weekly benefit possible among these three programs was $10.29 USD in 2024.

Price discounts

Seven programs had a discount structure [28–38]. Price discounts promote healthy food purchases by reducing the prices of specific eligible items at the point-of-sale. Discounts may be applied when beneficiaries present a loyalty card [28–30], paper coupon [31–33], or benefits card [34–36]. The 12-week SHELf trial in Australia provided a 20% discount on fresh foods and produce via the FlyBuys loyalty program [29, 37]. An economic evaluation estimated the value to participants was $12.29 AUD per week ($158 AUD overall) (Table 1) [38]. In the 24-week Supermarket Healthy Options Project in New Zealand, participants presenting a Shop 'N Go card received a 12.5% discount on qualifying healthy foods (as indicated by the Tick Program Criteria System)—an amount equivalent to removing the General Sales Tax [30]. Participants in the 12-week Smartcart Study in Rhode Island who presented a loyalty card received a 5% discount on fresh foods and produce to a maximum of

Table 1 Summary of programs and studies identified by the environmental scan

Program or study*	Location	Program duration, days	Incentive structure	Incentive value weekly (USD$, 2024)	Incentive frequency**
Cash-back pilot [25]	Philadelphia, US	84	Reward	$10.29	End of pilot
Buying health trial [24]	Palo Alto, US	21	Reward	$22.44	End of trial
Healthy Choice Rewards [26]	Rural Australia	224	Reward	$7.67	Per visit
Healthy Double Study [31, 32]	Rural Maine, US	120	Discount	$12.49	Per visit
SHELf trial [29, 37, 38]	Melbourne, Australia	90	Discount	$13.07	Daily
Supermarket Healthy Options Project (SHOP) [30]	Lower North Island, New Zealand	168	Discount	12.5% off	Per shop
Smartcart Study [28, 39]	Rhode Island, US	90	Discount	$20.29	Weekly
Wisconsin elementary school study [33]	Wisconsin, US	28	Discount	$19.19	Weekly
Healthy Savings Program [35]	New York, US	180	Discount	$12.49	Weekly
Healthy Savings Program [36]	Midwestern US	365	Discount	$13.24	Weekly
Spend Study [40]	Dunedin, New Zealand	28	Voucher	$15.52	Weekly
Frequency vs. Restriction Factorial Trial [22, 23]	San Francisco, US	180	Voucher	$5.79	Weekly vs. monthly
Two Cities Trial [41]	San Francisco and Los Angeles, US	180	Voucher	$5.79	Weekly
Produce With(out) Education Pilot 42]	Minneapolis, US	60	Voucher	$23.14	Weekly
Grocery Assistance Program Study [43–45]	Minneapolis, US	84	Hybrid– Voucher + Rewards	$66.49	Monthly
Grocery Assistance Program Study for Families [46–48]	Minneapolis, US	140	Hybrid– Voucher + Rewards	$81.49	Monthly
Healthy Savings Program [49–51]	US-wide	365	Hybrid– Discount + Rewards	$25.00	Monthly

*We considered programs distinct if they differed in timeframe, location, or sponsor. For example, while Solutran facilitated three distinct Health Savings Program in the US, they were offered at different times, locations, and sponsors

**Refers to how often incentives were provided to participants (e.g., if a program mailed a voucher to participants weekly, its incentive frequency would be weekly)

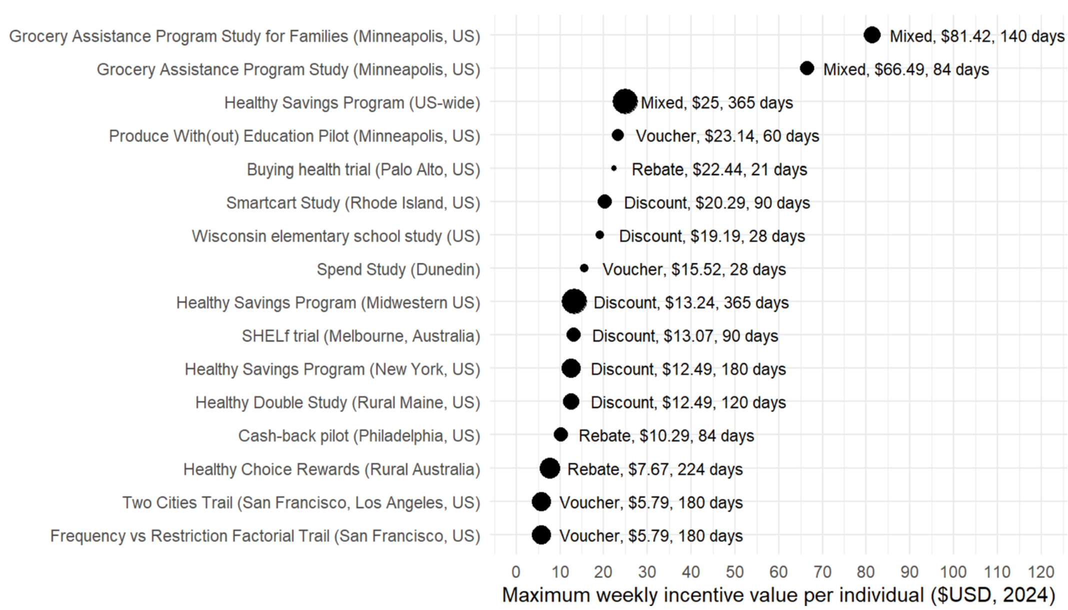

Fig. 2 Sources by incentive value (largest to smallest), intervention model, and duration. Note Cleveland dot plot of incentive values in USD in 2024, with point sizes proportional to program length. Employer-based programs with annual enrollment were 365 days (i.e., annual enrolment). The Supermarket Healthy Options Project is excluded, as it offered a 12.5% discount. In this case, the savings varied according to participants' weekly spending. No estimate of the dollar value of the benefit to participants was reported

$25 USD per month (plus 2 personalized coupons weekly with a combined value of $10 USD [28, 39]. In a study in Wisconsin, families of elementary school students were given 15, $1-off produce coupons each week for four weeks (for a maximum overall savings of $60 USD) that could be redeemed at seven participating grocery stores [33]. Participants in the 16-week Healthy Double Study in rural Maine got 50% off on fresh foods and produce, to a maximum of $10 USD. When their purchases were subtotaled, a coupon was printed that cashiers immediately applied to their bill [31, 32]. Two separate studies in the US [35, 36] were called Healthy Savings and were facilitated by Solutran (solutran.com), a Minnesota-based third-party that works with US health insurers and grocers to promote healthy food purchases [35, 36]. Both programs offered up to $10-off USD per week on fresh foods and produce. The median full weekly benefit possible among these discount programs was $13.16 USD in 2024.

Food vouchers

Four programs had a voucher structure (22, 23, 40, 41). Food vouchers promote healthy food purchases by giving beneficiaries cash-equivalent credit that can be exchanged onsite for qualifying healthy foods. In contrast to rewards or discounts, vouchers do not require an out-of-pocket spend. Vouchers may be delivered in paper form or preloaded onto an electronic benefit or debit card. The 4-week Spend Study in New Zealand mailed participants prepaid voucher cards weekly for their choice of two large supermarket chains and asked them to spend the funds within two weeks fresh foods and produce (Table 1) [40]. Voucher amounts varied according to basic food costs for household members using the New Zealand Estimated Family Food Costs Survey, which was used to produce spending guidelines for people of different ages and sexes to meet their nutritional needs. While the exact amount varied, the typical voucher value was $17.00 NZD. A separate six-month trial in California evaluated the impact of subsidizing produce exclusively versus all foods permitted under SNAP, as well as the effects of distributing vouchers weekly versus monthly [22, 23]. The vouchers provided were valued at $5 USD per week [22, 23]. The weekly, less restrictive arm of this program was replicated in a separate study in San Francisco and Los Angeles [41]. In a 2-month pilot study in Minneapolis, voucher amounts of $5 USD, $10 USD, and $15 USD per week were allocated via a debit card to promote healthy food purchases [42]. The median full weekly benefit possible among all four voucher programs was $13.16 USD in 2024.

Hybrid structures

Three programs had hybrid structures [43–51], combining vouchers or discounts with rewards.

Voucher with rewards

Modeled after the US Department of Agriculture's Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Program, beneficiaries of two different studies in Minneapolis were given an electronic debit card loaded with funds that could be spent on necessities, including food and non-food items (e.g., childcare products). When beneficiaries purchased healthy foods, credit was returned to the card for future purchases. This system was tested in the 12-week Grocery Assistance Program Study (GAPS) [43–45] and in the 16-week GAPS for Families [46–48]. In both studies, participants were given vouchers holding a dollar value that aligned with the WIC program; one arm of the trial also received 30% of all fruit and vegetable purchases credited back to their card for future purchases. The weekly value of the benefit for a single household was $49.40 USD for GAPS [43–45] and was $70.36 USD for the typical household enrolled in the GAPS for Families study [46, 47].

Discounts with rewards

The grey literature scan identified private health and life insurance providers (e.g., UnitedHealth [49], John Hancock [50]) sponsoring an enhanced version of the Healthy Savings Program by a third party vendor called Solutran. Building on the discount program described above [35, 36] and leveraging the same electronic benefits system Solutran developed for WIC, the Healthy Savings App [51] provided discounts on fresh produce and reward points redeemable during future shops. For example, the Vitality and Vitality Plus Programs through John Hancock Insurance provided up to $25 USD of discounts plus the opportunity to earn up 25 reward points (a $25 USD value) per week on qualifying purchases [50]. Purchases qualified if they were contained in the top categories (i.e., 3 stars) of foods according to the Guiding Star nutrition guidance system (guidingstars.com). The median full weekly benefit possible across these three hybrid structure programs was $66.49 USD in 2024.

Discussion

Our environmental scan of the academic and grey literatures identified 17 programs promoting access to healthy foods through financial incentives in Australia, New Zealand, and the US that met our study's inclusion criteria. Weekly discounts delivered via electronic benefit or loyalty cards were the most common, followed by rewards, and vouchers. Three programs had hybrid structures.

Across all programs, the median weekly incentive value was $14.38 USD in 2024.

Although our review uniquely focused on retail grocery stores as intervention settings, other studies examining a broader range of settings found similar incentive structures, suggesting that all widely implemented models were likely identified. For example, Veldheer et al. [13] also identified rewards and vouchers in their scoping review of food prescription programs, although they did not identify any programs that used hybrid structures. While technically challenging and complex to understand, adding reward features to a voucher or discount program offers the advantage of combining an immediate discount with an incentive to promote future healthy food purchases, especially if the rewards are set to expire within a specific timeframe (e.g., 2 weeks). While other reviews [13, 52] identified additional models not captured by our study, we excluded these due to our focus on year-round supermarket settings and programs that do not require healthcare provider enrollment.

There was substantial heterogeneity in the intervention structures, values, and frequencies identified. With few exceptions, no program provided evidence-based justifications for the incentive structure used. While not explicitly stated, the choice of incentive structure may have been driven by the pragmatic realities of working within pre-existing supermarket infrastructures, particularly for programs using loyalty cards as the mode of delivery. There are many compelling advantages of leveraging existing systems, including the efficiency and ability to offer incentives in a manner that does not identify beneficiaries as recipients of a subsidy, which may be stigmatizing. However, this does not preclude the possibility that better systems may exist. Our study identified third party incentive systems, such as the Catalina [31, 32] and Solutran systems [35, 36], that may offer alternatives when local incentive systems are less ideal.

Our environmental scan of the academic and grey literatures was designed to catalogue existing approaches and describe their key features, rather than assess their comparative effectiveness. Nevertheless, we noted that just two of the included studies tested the effectiveness of different incentive structures. Ideally, more studies would be designed to empirically test the impact of different incentive structures directly against each other. Our scan found only two studies that randomized participants to receive different incentive structures (43, 44, 46, 47). The GAPS Study [43, 44] indicated that providing rewards along with a voucher may be more effective in promoting healthy food purchases than a voucher alone. However, this finding was not corroborated by the GAPS for Families Study [46, 47]. This highlights a key area for future research—directly comparing incentive structures, such as rewards versus instant discounts, to evaluate their relative effectiveness in promoting healthier purchases and the persistence of those behavior changes.

Similarly, few studies provided a justification or rationale for the incentive value provided. There were three types of explanations provided. The first type was to meet an estimated monetary need, which was approximated by using rates used by programs that aim to reduce food insecurity [43, 44, 46, 47] or based on observed disparities in food spending between a target and a comparison population using survey data (e.g., food-insecure versus food secure households) [40]. The second type was to match a policy option under consideration, such as removing general sales tax on qualifying foods [30]. The third type was that incentive values were set at the highest level allowed by the study budget [24]. Employer-based incentive programs also face budgetary constraints [35, 36]. While arbitrary, this may be a common experience. There is a need for more dose-response studies that directly test the impact of differing incentive amounts to assess to what extent this can influence healthy food purchasing. Our scan identified only one pilot study that randomized participants to receive varying incentive amounts of $10, $15, and $20 per week for 8 weeks [42]. The study did not find significant differences in incentive usage across the different incentive amounts. However, this may be because even the maximum amount of $20 per week could have been insufficient to motivate behavior change, as only 75% of participants redeemed their incentives in the first week, dropping to 58% by the last week [42]. Larger dose-response studies with longer durations are needed to assess the impact of incentive value in promoting healthier food purchases.

Most commonly, incentives were offered weekly ($n = 5$ programs). Only four programs provided explicit justification for this offer frequency. GAPS and GAPS for Families modelled their monthly frequency after the WIC program [43, 44, 46, 47]. However, the ideal evidence for incentive cycle timeframes would come from trials that directly compare the effectiveness of different incentive frequencies, such as weekly versus monthly. Our scan located one factorial trial in San Francisco that examined the impact of weekly versus monthly vouchers. This was done because policymakers were debating changing the frequency of public programs to better promote healthier food purchases. The study found that rates of voucher redemption were higher when four $5 USD vouchers were distributed once per month versus when one $5 USD voucher was distributed weekly (80% vs. 68%, respectively). However, some of this effect may have been due to the low value of a single $5 voucher, rather than to the offer frequency itself (i.e., weekly versus monthly) [22, 23].

Our study had limitations. First, as our study was an environmental scan to identify existing common practices, it was not designed assess the quality of the included programs or provide insights into the effectiveness of different incentive structures, amounts, or frequencies. A meta-analysis would be needed to examine, for example, the impact of various incentive amounts on purchases of healthy foods.

Second, our search of the academic literature was focused on repositories for the public health, medicine, and health sciences. No searches were performed in repositories specializing in other potentially fields relevant, such as business, marketing, or agriculture.

Third, while our review focused on three key incentive design components, many others exist and warrant future research, including what foods should be eligible, whether there should be a spending minimum, how long interventions should last, how programs should be funded, and how program effectiveness and the persistence of behavior changes should be evaluated as well as assessing participant engagement, participant eligibility, administrative feasibility, and unintended consequences, and the potential implications for health equity, among others.

Fourth, while most of the studies found by our searches were from the US, our approach to standardizing monetary values, while useful for comparison, may have oversimplified program differences by not accounting for inflation dynamics or currency fluctuations over the duration of the study period. Furthermore, food costs vary widely across regions due to differences in local agricultural conditions, distribution systems, and market structures. As a result, our comparisons of the dollar values of incentives should be interpreted cautiously, as they may not fully reflect the economic realities faced by participants in each program.

Finally, our findings may have limited generalizability to other regions. Our study focused on high-income, English-speaking Western countries with well-developed food ecosystems, supported by advanced infrastructure that enables the efficient implementation of mechanisms like discounts, rewards, and digital incentives. Further, most programs included in our study were in the US. Beyond its large population and research output, the US context offers unique opportunities to explore incentive-based interventions, driven by a large private sector fostering innovation and unique public initiatives like SNAP, with spin-offs such as Solutran's Healthy Savings platform. In contrast, several programs identified in Canada and the UK during our search fell outside our inclusion criteria, as they required a prescription or diagnosis for enrollment or were only offered seasonally.

Conclusion

Our environmental scan found that typical incentive programs to promote healthier food purchases provided a weekly discount at the point of sale of $14.38 USD (in 2024 dollars). We found substantial heterogeneity in incentive structures, values, and distribution frequencies. Justifications for incentive design choices were not commonly provided, perhaps due to the constraints of pre-existing supermarket or loyalty program infrastructures and the limited evidence base to inform design decisions. More studies are needed that directly compare the impact of different incentive structures, amounts, and frequencies on promoting healthier food purchases. Until such evidence becomes available, program designs could be based on the target population's needs or preferences (e.g., comparing healthy food spending in the target population to the general population), modeled after existing programs that are regarded as successful (e.g., WIC), or designed with features to inform or catalyze broader policy change (e.g., setting discounts equivalent to removing general sales taxes on qualifying foods).

Supplementary Information

The online version contains supplementary material available at https://doi.org/10.1186/s12889-025-21855-9.

Supplementary Material 1

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Author contributions

The authors' contributions were as follows—all authors: contributed to research design; AQ and SY: developed and conducted the database searches; AQ, SY, RB: analyzed the data, drafted the initial manuscript; RB, DC, DLO, and CC: provided critical revisions; AQ, CC, DC, DLO, and RB: had primary responsibility for the final content and revisions; and all authors: read and approved the final manuscript.

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Data availability

The authors confirm that all data generated or analyzed during this study are included in this published article.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

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