

Global Scan: Food subsidies

Funding mechanisms that provide subsidies to improve food access and equity



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Glossary

Definitions

Community Food Enterprise

Community Food Enterprises (CFEs) are locally-owned/-controlled food businesses or ventures founded around a desire to create positive outcomes for the communities they serve. This may be in the form of improved social or environmental outcomes, increased access to healthy food and support of local producers by providing fair farm gate prices.

Community Supported Agriculture

Community Supported Agriculture (CSA) is a model of food production and distribution that directly connects farmers and eaters.¹ CSAs can take many forms and the essence is that CSA members cover all, or part of a farm's yearly operating budget by purchasing a portion of the harvest upfront, over a set-period (e.g. season, year, harvest) with regular deliveries received. The model enables farmers and eaters to share risk with members willing to support this; rain, hail, drought or shine!²

Food Justice

Food Justice is an approach to food that provides eaters equitable access to culturally relevant, ecologically sustainable food, in addition to supporting food sovereignty for First Peoples and paying a fair price to farmers.

Food with Dignity

Food with dignity occurs when people have equitable access to food that is culturally appropriate and meets their needs in a way that is respectful and empowering.

Food security

Food security "is defined when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life."³

Funding mechanism

Funding mechanism is referred to in this report as an umbrella term to describe the way that funding is made available for food subsidies(e.g. policy, grant funding, strategy, program)

Values based supply chain

Values-based supply chains (VBSCs) involve partnerships between producers, processors, distributors, retailers, and/or food service operators who share environmental, economic and/or social values.⁴

Regenerative agriculture

Agricultural practices that build ecological function. Regeneratively grown produce and fair food internalises the social and environmental costs that are routinely externalised by mainstream food systems.

Food Hub

A food hub is a business or organisation that actively manages the aggregation, distribution and/or marketing of source-identified food products primarily from local and regional producers in order to satisfy wholesale, retail, and institutional demand.

Introduction

Food insecurity is acutely experienced by our most disadvantaged communities and populations who are often unable to access high quality, fresh food - in a dignified way. In Australia, the number of people experiencing food insecurity has been growing significantly.⁵ This is exacerbated by the rising food prices and living expenses, such as price of fuel, mortgage repayments and rental costs.

Food access - both economic and physical access - is one of four interrelated pillars that contribute to, and influence food security.⁶ As outlined by the Thunder Bay + Area Food Strategy:

"A wide range of factors impact access to a nutritious and dignified diet, including poverty, social and geographic isolation, the high cost of fuel, inadequate housing, lack of transportation, lost or fragmented skills, and access to land..."⁷

There is a strong need for capacity and capability building within established and/or start-up Community Food Enterprises (CFEs) in Australia to improve equitable access to culturally relevant, nutritious fair food for their diverse communities. This has become evident amongst the Open Food Network community with increasing numbers of Australian CFEs wanting to increase food access to vulnerable groups within their communities but challenged by how they can also continue to procure regional, ecologically sound, fair food at an affordable price.

Open Food Network Australia received funding from the Lord Mayor's Charitable Foundation to lead the Food with Dignity project throughout 2022/23. In partnership with two Victorian-based enterprises, the Merri Food Hub and High Rise Community Bakery, we are testing and activating pathways to enhance their ability to provide food with dignity, while supporting values-based short supply chains. This is being achieved by:

- Conducting a needs analysis to inform recommendations to provide technical and non-technical improvements to customer experience on the Open Food Network e-commerce platform.
- Investigating opportunities for funding mechanisms (via a global scan report) that support food with dignity offerings.

This report focuses on funding mechanisms that improve economic access to food. It includes a rapid global scan of existing food subsidy models and programs, along with case studies and recommendations relevant to the context of the Australian CFE sector.

Research question

What models/mechanisms exist to subsidise the cost of food to increase equitable food access, and simultaneously retain a fair price for farmers?

Sub-questions:

- What are the characteristics of these models/mechanisms?
- What has been learnt from these models?
- What design principles can we derive relevant to the CFE sector in Victoria?

Methodology

The following methodological approach was adopted :

1. A rapid review of existing global academic and grey literature (refer to References section), with a focus on meta-analyses and systematic reviews of food subsidy programs. This provided an overview and process for identifying models and best practice along with key needs yet to be addressed.
2. Using the rapid review process, a group of keywords (refer to Appendix 1. Keywords) were derived to conduct a structured internet search for past and existing food subsidy models, programs, pilots, initiatives etc to input into a database.
3. A database was developed to provide a high level, structured overview of each case study (refer to Models section). The database informed the selection of highlighted case studies included in this report, and overall recommendations. It was most useful to draw on the food subsidy models and programs from the United States due to the relevance in application to the Australian context, and the accessibility and availability of information online for this rapid scan.

Rapid literature review

Food subsidies can have a direct or indirect effect on the price of food pending the mechanism that is adopted e.g. policy initiatives, transport and infrastructure subsidies.^{8 9} Funding mechanisms are also influenced by varying factors across different scales, i.e. international trade agreements may limit government ability to implement policies for health /

food system outcomes.¹⁰ Such complexity therefore requires comprehensive, careful planning and program design to achieve the desired, and not perverse outcomes (e.g. spending less on healthy food that leads to increased capacity to purchase more unhealthy foods).¹¹

The priority objectives of food subsidy interventions have been primarily centred on public health outcomes (e.g. lowering the rates of non-communicable diseases (NCDs) and malnutrition) and increasing food security (e.g. food access and affordability). Therefore literature and program evaluation tends to focus on consumer outcomes, and not other areas of impact on the food system. It is important to note that the majority of studies available investigate the effectiveness and impacts of food subsidies based on disadvantaged groups in high-income countries, especially those already accessing certain supports, low-socioeconomic households, women and children.¹² Pilot food subsidy programs in Australia have been focused on remote Aboriginal communities, given their disproportionate levels of preventable disease.¹³ It was also noted that rural and remote Australians have poorer diets, and an increased burden of disease.¹⁴

Comprehensive grey literature available, mostly from the United States (US), discusses the positive impacts of food subsidy programs activating local food economies and supporting farmers and the majority of the testing grounds for program implementation has been in the space of farmers' markets. There is limited academic literature available to evaluate this impact however two studies reference local markets and stakeholders (farmers, retailers, markets etc) as beneficiaries of fresh food vouchers / incentive programs.^{15 16} with Thilmany et al. (2021) drawing on the local multiplier effect economic model to demonstrate the broader outcomes of US healthy food incentive programs:

"...healthy food incentive programs do far more than just reduce hunger and improve nutrition. These programs also support economic development and jobs. They provide increased purchasing power for low-income families who can stretch their food budgets further. These food dollars drive additional sales at grocery stores and farmers markets. And those sales, in turn, circulate in the local economy, providing a boost to workers, businesses, farmers, and communities all throughout the supply chain." (p. vii)¹⁷

The following categories broadly describe different food subsidy approaches. These differ in how they are funded, designed, delivered, and the target groups that they are focussing on:

- **Food voucher programs:** These programs provide low-income individuals and families with vouchers in the form of paper, token, or electronic cards (such as electronic benefit transfer (EBT) cards) that can be used to purchase food at participating retailers. They may be cash- (set value) or commodity- based (set volume) vouchers¹⁸ and can also be medically prescribed.¹⁹ The United States (US) Supplemental Nutrition

Assistance Program (SNAP) is one example of a food voucher program (refer to the case study below).

- **Food distribution programs:** Food distribution programs collect and share purchased or donated food to people in need, often via food banks and pantries (such as FoodBank Australia ²⁰) but also through models such as Community Support Agriculture (CSA) and school meal programs (such as The Food Basket's Keiki Backpacks and Da Box Program programs in Hawaii²¹). They often receive funding from governments, foundations, and individual donors and partnerships with large retail companies.
- **Food procurement programs:** These programs work across government and institutions to better connect farms to enable the procurement of fresh, locally-grown produce to consumers. Programs include farm to school programs (such as World Food Program funded the pilot project in the Philippines during the Covid-19 pandemic²²), and are often underpinned by supportive social procurement policies.

Program outcomes vary depending on the specific goals, approach and design. Outcomes identified across the literature include:

1. **Improved food security:** Programs that aim to improve economic food access and equity can help to reduce food insecurity and improve nutrition for low-income individuals and families. This can have a range of positive impacts on health and well-being, including reduced rates of NCDs, chronic diseases and improved cognitive development in children.
2. **Increased access to healthy and sustainable food:** Programs that aim to increase the availability of healthy and sustainable food in underserved communities can help to improve access to these types of food for low-income individuals and families, who may otherwise have limited options for purchasing fresh and nutritious food.²³ One report²⁴ states food access as the pillar of food security is most commonly improved through food subsidies.
3. **Support for local and regional food systems:** Programs that support the development of local and regional food systems, such as CSA programs or initiatives that promote the procurement of locally-produced food, can help to create economic opportunities for small-scale farmers and food producers, and can also help to build stronger and more resilient food systems in underserved communities.

4. **Increased economic self-sufficiency:** Programs that support the development of local and regional food systems or that provide training and support to low-income individuals and families can help to increase economic self-sufficiency and reduce reliance on government assistance.

Based on the rapid literature review, several **key needs** were identified as current gaps and future opportunities for food subsidy program design and delivery:

1. **Increased community participation in design.** Beneficiaries and key stakeholders need to be involved in design for interventions to be effective (i.e. to address behaviours, food types, cultural-relevance, community ownership & sensitivities.)^{25 26}
2. **Increased collaboration and cross-intervention approaches** to grow impact. This was particularly emphasised with the need for promotion and education of food subsidy programs amongst participating consumers, retailers/vendors and other stakeholders, such as health promotion and public health officers, that can advocate on behalf of the program.^{27 28 29}
3. **Improved design and rigour in impact measurement and evaluation frameworks,** particularly with reference to evidence of multiple outcomes and sustainable, longer-term outcomes on consumer dietary behaviour as a result of food subsidy programs as there is currently very limited and low quality data available.^{30 31 32 33}

Models

A database captured the high-level overview of varying food subsidy programs, models or initiatives reviewed as part of this global scan. It is important to note that due to the rapid assessment, the database is not comprehensive. Access the Airtable database [here](#) - we encourage comments and suggestions for additional case study data so we can continue to improve this resource for other practitioners and researchers. Please also refer to Appendix. 2 Models for the table of global funding mechanisms and programs rapidly reviewed.

Case Studies

SNAP in a local food setting

The Supplemental Nutrition Assistance Program (SNAP) is a nutrition program (previously known as food stamps) that provides eligible low-income individuals and families with financial support to buy healthy foods and beverages. In June 2020, this was assisting 43 million individuals.³⁴ The cash-based intervention is administered through the US Federal Farm Bill with recipients receiving monthly payments via an electronic benefits transfer (EBT) card that can be used in authorised retail outlets.³⁵

Within a local food setting, SNAP recipients can redeem their benefits via a specialised point of sale (POS) terminal at an authorised outlet. The Farmers Market Coalition estimated that in 2017, more than \$22.4 million of SNAP benefits was spent in farmers' markets across the US.³⁶ SNAP is usually administered through an authorised, centralised farmers' market operator (e.g. the market manager) with the recipient receiving 'scrip' (tokens, coupons etc) to then spend at stalls within the market. Market vendors take scrip as payment from customers and get the full dollar reimbursement from the market operator, who holds the responsibility for reconciling SNAP benefit transactions in the marketplace. Careful administration of SNAP benefit transactions is required and while there are a significant number of resources available, it is strongly recommended that operators/outlets seek legal and accounting advice to ensure sound practice.³⁷



A parallel coupon system has also been adopted by some farmers' market operators where shoppers can also use credit/debit cards at the POS terminals to get scrip (slightly different to SNAP) as a form of cash to then spend within the market.³⁸ This can help to reduce underlying stigma often associated with food assistance programs as scrip becomes a normalised method of payment.

One of the biggest challenges noted is that authorised market operators do not have the marketing or communication channels or capacity to engage with their SNAP recipients in their communities to let them know they can use their benefits within the marketplace.³⁹ This reflects one of the earlier key needs identified in the literature: an increase in cross-intervention approaches for successful and effective uptake of the food subsidy.

In April 2019, the SNAP Online Purchasing Pilot was launched in several states and then rapidly expanded to most US states due to the impact of Covid-19.⁴⁰ In comparison to in-person redemptions, online use of SNAP benefits is still small and as one study outlined, there is a strong need for improved and transparent communications across all levels (government,

retailers etc) on how the SNAP Online Purchasing program works and for example, any additional fees that may be incurred for transport or delivery.⁴¹ As of July 2021, only a small number of independent retailers and farmers' markets were participating in the Online Purchasing Pilot due to limited financial resources, regulatory/administrative paperwork and processes and technological barriers.⁴² In January 2023, 'Hub on the Hill' in New York became the first food hub in the US to offer online payments with EBT cards. It was noted that several partners provided critical and necessary technical, financial and administrative support in order to work through the complexities in making it possible.⁴³



Image courtesy of [Iowa Healthiest State Initiative](#)

Incentive programs to increase purchasing power

Incentive programs have been established in at least 28 US States to help increase SNAP recipients' access to healthy, local food options. These programs not only provide recipients with increased purchasing power of healthy foods, but they can also play an important role in activating local food economies and supporting farmers. For example in California, SNAP recipients have 1:1 matched funds up to the value of \$10 to use within participating marketplaces. This Market Match program is overseen by The Ecology Centre and includes a network of 60 community-based organisations and farmers' market operators that offer this matched funding.⁴⁴ Incentive programs are commonly known as: Double Up Food Bucks, Food Bucks, Health Bucks, Bonus Bucks.

Incentive programs are funded through public and/or philanthropic funding.⁴⁵ The Gus Schumacher Nutrition Incentive Program provides Federal funding of \$56 million annually to enable establishment of incentive projects across the country. While it is powerful in improving connection of low income households to locally grown produce, the competitive grant program has also been criticised for inequitable distribution of funds with an imbalance and struggle between states with 'merit-versus-need'.⁴⁶ Another limitation of the Federal grant for incentive

projects outlined was the criteria for matched 1:1 funding by either state or philanthropy. Some states (like California) have a greater amount of philanthropic resources available and can therefore pitch for larger projects which may seem to be more impactful than smaller incentive projects.⁴⁷

Studies show that complementary financial incentive programs at farmers' markets do have a positive effect on market expenditure and fruit and vegetable consumption of SNAP recipients.⁴⁸
⁴⁹



Image courtesy of [The Community Grocer](#)

The Community Grocer - Grocer Gift

The Community Grocer (TCG) is a not-for-profit social enterprise operating since 2014 to provide fresh produce markets and programs across Melbourne, Victoria that increase social, economic and physical access to fresh food.

The Grocer Gift Community Partnership Program is an innovative partnership-based voucher program that aims to increase access to high quality, culturally appropriate and nutritious produce and products via TCG markets. Grocer Gift was launched in 2021, following funding from Moving Feast and the Victorian Government, and with research support from Monash University. It was a refined iteration of a basic voucher scheme developed prior to the pandemic, a period in which a dramatic increase in demand for these vouchers was seen.

The Grocer Gift is a web platform that generates QR-coded paper vouchers of any denomination for distribution by partners to community members in need. Current partners include CoHealth, Cardinia Shire Council, the Salvation Army and Windermere. Community members can scan

their vouchers at any of the markets run by The Community Grocer, and redeem them in part or in full for fruit and vegetables. The system is integrated through the Square POS and reporting of sales spent through Grocer Gift funds is available at each market.

To date, partners have provided \$27,000 of funding to enable the community to access Grocer Gift funds.⁵⁰

Recommendations

1. Based on our scan, the following **design principles** are suggested for any food subsidy program:
 - **Minimising the administrative burden of CFEs** to set up and implement a food subsidy program, whether the program is on-line or in-person. For example, a limitation of the Australian Healthy Choice Rewards pilot was that the retail stores could not easily incorporate the paper vouchers into their business point of sale system.⁵¹ Care must be taken to reduce reporting burden placed on CFEs, with the focus being on data that can be easily/passively collected through the administration of the system itself.
 - **Minimising or removing initial infrastructure or equipment costs** involved in setup and CFE participation in a food subsidy program.
 - **Co-designing and trialling with the community** and stakeholders for how the food subsidy program can best be implemented in each unique community. In Australia, the example of the ineffective and problematic pilot of the basics card as a form of income management, initially rolled out in remote Aboriginal communities, demonstrates the strong need for co-design.⁵² There needs to be a certain level of flexibility with food subsidy program implementation to account for the specific context of each community, and to be sensitive to, and embedded in the broader customer experience (not a “one size fits all” approach).
 - Ensure the food subsidy program is applicable to both **online and in-person marketplaces** to meet the varying needs within target audiences and prepare for future shocks like the Covid-19 pandemic lockdowns.
2. **Build on the strength, knowledge and activities** already existing within Australia, and continue to enable future innovation. For example, explore opportunities to expand / replicate The Community Grocer ‘Grocer Gift’ model to other CFEs.
3. **Understand and provide for capacity building needs of CFEs to sustainably implement food subsidy programs** (e.g. administrative, legal, accounting support and advice). For example, in the US there are intermediary bodies that provide training, technical assistance and administration of food subsidy programs that enable CFEs to focus on effectively delivering the food subsidy program on the ground (such as the Nutrition Incentive Hub⁵³ by Fair Food Network in Michigan, and the Market Match program⁵⁴ facilitated by The Ecology Centre in California).
4. **Strengthen and build further opportunities for policy integration and synergies of programs that are designed around food and food systems.** For example,

ensure programs designed to meet healthy eating priority objectives (referenced in the Victorian Government Public Health & Wellbeing Plan 2019-2023)⁵⁵ are also complementary and integrated with objectives supporting broader food systems resilience. Equitable access and public 'healthy eating' outcomes are complex and multi-causal in their interactions. The long-term, sustainable achievement of healthy eating outcomes such as increased consumption of fruit and vegetables are only achievable if the broad range of intersectional barriers to food security are also adequately addressed. Addressing economic barriers to food security through food subsidies are only one part of an integrated and comprehensive response.

5. An **ongoing, sustainable source of funding from the public and philanthropic sectors** will be required for food subsidy programs to be effective and have long-term outcomes. Flexibility is needed for individual CFEs to draw a funding mix to suit their situation, for example, a CFE in a small town needs to be able to draw on donations from local businesses and philanthropy, alongside access to a larger funding pool potentially drawing from philanthropists and government agencies working at a state or national level.
6. Food subsidy program design needs to have a **fit-for-purpose evaluation framework** in place to measure behaviour change (e.g. customer reported eating more fresh produce) and not just purchasing habits (i.e. changes in sales of fresh produce), where possible. However, the framework must also be designed so as not to burden or impose extra reporting on already resource-constrained CFEs. This is about efficient design but also the need for funders to provide the additional resource required for data collection and analysis.

Conclusion

This report has explored how food subsidies across the globe have been used to meet the parallel and intersecting social and ecological needs. In Australia, there is an urgent need to increase equitable access to food (including regeneratively grown food) that meets people's needs for adequate, culturally relevant, nutritious food while simultaneously supporting the ecological capacity to continue to produce food indefinitely into the future. To address these needs, we will need to build out a more systemic response to the achievement of food justice for all, including farmers.

Endnote References

1. See: <https://afsa.org.au/csa/>
2. See: <https://about.openfoodnetwork.org.au/project/community-supported-agriculture-csa/>
3. Definition from:
<https://www.worldbank.org/en/topic/agriculture/brief/food-security-update/what-is-food-security>
4. Hardesty, S., Feenstra, G., Visher, D., Lerman, T., Thilmany-McFadden, D., Bauman, A., ... & Rainbolt, G. N. (2014). Values-based supply chains: Supporting regional food and farms. *Economic Development Quarterly*, 28(1), 17-27.
5. See:
<https://melbourneinstitute.unimelb.edu.au/data/taking-the-pulse-of-the-nation-2022/food-insecurity>
6. See:
<https://aifsc.aciar.gov.au/food-security-and-why-it-matters.html>:
<https://aifsc.aciar.gov.au/food-security-and-why-it-matters.html>
7. See: <https://tbfoodstrategy.com/pillars/food-access/>
8. Andreyeva, T., Marple, K., Moore, T. E., & Powell, L. M. (2022). Evaluation of economic and health outcomes associated with food taxes and subsidies: a systematic review and meta-analysis. *JAMA Network Open*, 5(6), e2214371-e2214371.
9. Black, A. P., Brimblecombe, J., Eyles, H., Morris, P., & Vally, H. (2012). Food subsidy programs and the health and nutritional status of disadvantaged families in high income countries: a systematic review. *BMC public health*, 12(1), 1-24.
10. Friel, S., Hattersley, L., & Ford, L. (2015). Evidence review: Addressing the social determinants of inequities in healthy eating. The Australia National University. Accessed from:
<https://www.vichealth.vic.gov.au/-/media/ResourceCentre/PublicationsandResources/Health-Inequalities/Fair-Foundations/Full-reviews/HealthEquity-Healthy-eating-review.pdf>
11. Afshin A, Peñalvo JL, Del Gobbo L, Silva J, Michaelson M, O'Flaherty M, et al. (2017) The prospective impact of food pricing on improving dietary consumption: A systematic review and meta-analysis. *PLoS ONE* 12(3): e0172277. doi:10.1371/journal.pone.0172277
12. Ibid.
13. Brown, C., Laws, C., Leonard, D., Campbell, S., Merone, L., Hammond, M., ... & Brimblecombe, J. (2019). Healthy Choice Rewards: a feasibility trial of incentives to influence consumer food choices in a remote Australian Aboriginal community. *International Journal of Environmental Research and Public Health*, 16(1), 112.
14. Osborne SR, Piper D, coordinating editors, on behalf of the Spinifex Network Rapid Review Subcommittee. Beyond the black stump: rapid reviews of health research issues affecting regional, rural and remote Australia. *Med J Aust* 2020; 213 (11Suppl): S1-S32; doi: 10.5694/mja2.50881
15. Pietzsch, S., Calo, M., Jacob, J., & Morel, J. (2012). Fresh food vouchers: findings of a meta-evaluation of five fresh food voucher programmes. Accessed from:
<https://odihpn.org/publication/fresh-food-vouchers-findings-of-a-meta-evaluation-of-five-fresh-food-voucher-programmes/>
16. Thilmany, D., Bauman, A., Love, E., & Jablonski, B. B. (2021). The Economic Contributions of Healthy Food Incentives. Colorado State University: Fort Collins, CO, USA. Accessed via:
https://www.spur.org/sites/default/files/2021-02/economic_contributions_incentives_2_2_21.pdf

17. Thilmany, D., Bauman, A., Love, E., & Jablonski, B. B. (2021). *The Economic Contributions of Healthy Food Incentives*. Colorado State University: Fort Collins, CO, USA. Accessed via: https://www.spur.org/sites/default/files/2021-02/economic_contributions_incentives_2_2_21.pdf
18. ACF International (2012), *Emerging Good Practice In The Use Of Fresh Food Vouchers*. Accessed: <https://www.calpnetwork.org/wp-content/uploads/2020/01/ACF-Fresh-Food-Voucher-Good-Practice-Guide-2012.pdf>
19. Newman, T., Lee, J. S., Thompson, J. J., & Rajbhandari-Thapa, J. (2022). Current landscape of produce prescription programs in the US. *Journal of Nutrition Education and Behavior*, 54(6), 575-581.
20. See: <https://www.foodbank.org.au/>
21. See: <https://www.hawaiifoodbasket.org/>
22. See: <https://www.wfp.org/stories/philippines-how-farm-school-meals-are-bringing-children-back-class-post-covid>
23. See: <https://www.belfasttelegraph.co.uk/news/uk/food-vouchers-for-sustainable-uk-food-could-replace-farmers-eu-benefits/35370984.html>
24. The Community Grocer. (2021). *Rapid Fire Evidence Review: Fresh, Nutritious Voucher Systems in Australia and Internationally Report*. Unpublished.
25. Osborne SR, Piper D, coordinating editors, on behalf of the Spinifex Network Rapid Review Subcommittee. *Beyond the black stump: rapid reviews of health research issues affecting regional, rural and remote Australia*. *Med J Aust* 2020; 213 (11Suppl): S1-S32; doi: 10.5694/mja2.50881
26. Pietzsch, S., Calo, M., Jacob, J., & Morel, J. (2012). *Fresh food vouchers: findings of a meta-evaluation of five fresh food voucher programmes*. Accessed from: <https://odihpn.org/publication/fresh-food-vouchers-findings-of-a-meta-evaluation-of-five-fresh-food-voucher-programmes/>
27. Black, A. P., Brimblecombe, J., Eyles, H., Morris, P., & Vally, H. (2012). Food subsidy programs and the health and nutritional status of disadvantaged families in high income countries: a systematic review. *BMC public health*, 12(1), 1-24.
28. Brown, C., Laws, C., Leonard, D., Campbell, S., Merone, L., Hammond, M., ... & Brimblecombe, J. (2019). *Healthy Choice Rewards: a feasibility trial of incentives to influence consumer food choices in a remote Australian Aboriginal community*. *International Journal of Environmental Research and Public Health*, 16(1), 112.
29. ACF International (2012), *Emerging Good Practice In The Use Of Fresh Food Vouchers*. Accessed: <https://www.calpnetwork.org/wp-content/uploads/2020/01/ACF-Fresh-Food-Voucher-Good-Practice-Guide-2012.pdf>
30. Andreyeva, T., Marple, K., Moore, T. E., & Powell, L. M. (2022). Evaluation of economic and health outcomes associated with food taxes and subsidies: a systematic review and meta-analysis. *JAMA Network Open*, 5(6), e2214371-e2214371.
31. Black, A. P., Brimblecombe, J., Eyles, H., Morris, P., & Vally, H. (2012). Food subsidy programs and the health and nutritional status of disadvantaged families in high income countries: a systematic review. *BMC public health*, 12(1), 1-24.
32. Osborne SR, Piper D, coordinating editors, on behalf of the Spinifex Network Rapid Review Subcommittee. *Beyond the black stump: rapid reviews of health research issues affecting regional, rural and remote Australia*. *Med J Aust* 2020; 213 (11Suppl): S1-S32; doi: 10.5694/mja2.50881

33. Pietzsch, S., Calo, M., Jacob, J., & Morel, J. (2012). Fresh food vouchers: findings of a meta-evaluation of five fresh food voucher programmes. Accessed from: <https://odihpn.org/publication/fresh-food-vouchers-findings-of-a-meta-evaluation-of-five-fresh-food-voucher-programmes/>
34. See: <https://healthyeatingresearch.org/wp-content/uploads/2021/07/HER-Online-Purchasing-Brief-FINAL.pdf>
35. See: <https://farmersmarketcoalition.org/advocacy/snap/>
36. See: <https://farmersmarketcoalition.org/advocacy/snap/>
37. See: <https://farmersmarketlegaltoolkit.org/snap/legal-topics/who-administers/>
38. Rothwell, P. (2018). A Study of the Farmers' Market Sector in the United States. International Specialised Skills Institute.
39. See: <https://farmersmarketcoalition.org/advocacy/snap/>
40. See: <https://www.ers.usda.gov/amber-waves/2021/july/online-supplemental-nutrition-assistance-program-snap-purchasing-grew-substantially-in-2020/>
41. Dunn, C. G., Bianchi, C., Fleischhacker, S., & Bleich, S. N. (2021). Nationwide assessment of SNAP Online Purchasing Pilot state communication efforts during the COVID-19 pandemic. *Journal of nutrition education and behaviour*, 53(11), 931-937.
42. See: Moran, A., Headrick, G., Khandpur, N. (2021). Promoting Equitable Expansion of the SNAP Online Purchasing Pilot. Healthy Eating Research. Accessed: <https://healthyeatingresearch.org/wp-content/uploads/2021/07/HER-Online-Purchasing-Brief-FINAL.pdf>
43. See: <https://www.thehubonthehill.org/pages/snap-online>
44. See: <https://marketmatch.org/about/>
45. See: <https://farmersmarketlegaltoolkit.org/snap/legal-topics/incentives/>
46. See: <https://civileats.com/2020/05/14/op-ed-with-food-insecurity-on-the-rise-nutrition-incentives-should-be-more-equitable/>
47. Ibid
48. <https://pubmed.ncbi.nlm.nih.gov/35742692/>
49. Bowling, A. B., Moretti, M., Ringelheim, K., Tran, A., & Davison, K. (2016). Healthy Foods, Healthy Families: combining incentives and exposure interventions at urban farmers' markets to improve nutrition among recipients of US federal food assistance. *Health promotion perspectives*, 6(1), 10-16. <https://doi.org/10.15171/hpp.2016.02>
50. The Community Grocer (2023). Personal communications
51. Brown, C., Laws, C., Leonard, D., Campbell, S., Merone, L., Hammond, M., Thompson, K., Canuto, K., & Brimblecombe, J. (2019). Healthy Choice Rewards: A Feasibility Trial of Incentives to Influence Consumer Food Choices in a Remote Australian Aboriginal Community. *International journal of environmental research and public health*, 16(1), 112. <https://doi.org/10.3390/ijerph16010112>
52. See: <https://www.theguardian.com/australia-news/2022/apr/19/cashless-welfare-labor-vows-to-end-compulsory-use-of-basics-card>
53. See: <https://www.nutritionincentivehub.org/about/nutrition-incentive-hub>
54. See: <https://marketmatch.org/>
55. See: <https://www.health.vic.gov.au/health-strategies/increasing-healthy-eating>

Appendix

1. Keywords

Keywords used in the google search engine & google scholar to find examples of existing models or trials of food subsidy programs:

- Food, grocery, healthy, nutrition
- Voucher, credit, discount, subsidy, stamp, incentive, 'healthy food incentive', aid, assistance
- Market, online, farmer's market, hub, non-profit, local
- Fund, pilot, scheme
- Security, justice, access, equitable
- Low income, insecure, low socio-economic status, disadvantage, vulnerable, poverty

2. Models

Table: a global summary of rapidly reviewed funding mechanisms and food subsidy models.

Country / Region	Funding mechanism
UNITED STATES & CANADA	<ul style="list-style-type: none"> • Supplemental Nutrition Assistance Program (SNAP) • Women, Infants, Children Program (WIC) & Commodity Supplemental Food Program (CSFP) (People over 60 years) <ul style="list-style-type: none"> ◦ Farmers' Market Nutrition Program • Nutrition North Canada Program - subsidised food program • Eat SF: Vouchers for Veggies program • Sustainable Food Center Texas Food Access Programs: Double Up Bucks, Seasonal WIC vouchers, Mobile Markets. • British Columbia Farmers' Market Nutrition Coupon Program (FMNCP) • Healthy Incentives Pilot (HIP), Massachusetts • Healthy Foods, Healthy Families (HFHF), Rhode Island • UC San Diego Mas Fresco Program • Healthy Food Incentives, Nourish Colorado • The Food Basket Hawaii Food Assistance Programs and Healthy Food Access Programs • Iowa Healthiest State Initiative - Double Up Food Bucks • Field and Fork Network New York - Double Up Food Bucks • The Veggie Project Super Shopper Vouchers • Healthy Food Financing Initiative • Iowa Healthiest State Initiative - Specialty Crop Promotion And Capacity Building Grant • USDA - Food Insecurity Nutrition Incentive Grant Program (FINI) • Fair Food Network - Nutrition Incentive Hub • Fair Food Network - Fair Food Fund

	<ul style="list-style-type: none"> • USDA Agricultural Marketing Service - Local Food Promotion Program • USDA Agricultural Marketing Service - Local Food Purchase Assistance Cooperative Agreement • Nutrition North Canada Program - Harvesters support grant and community food programs fund, food security research grant • National Produce Prescription Collaborative (PRx programs) <ul style="list-style-type: none"> ◦ Wholesome Wave Produce Prescription Program: https://stakeholderhealth.org/food-prescriptions/ ◦ Reinvestment Partners North Carolina Produce Prescription Program ◦ SPUR advocacy coalition - California
AUSTRALIA	<ul style="list-style-type: none"> • Healthy Choice Rewards • Our Shout • The Community Grocer - Grocer Gift • Outback Stores • Stores Healthy Options Project in Remote Indigenous Communities (SHOP@RIC) • Kere to Country
EUROPE	<ul style="list-style-type: none"> • FEAD - European Union countries • Alexandra Rose Vouchers - UK • Healthy Start (FKA Welfare Food Scheme Program) - UK • Best Start Foods - Scotland • Social Supermarkets - Europe <ul style="list-style-type: none"> ◦ Emporia of Solidarity shops - Italy • FoodCloud - Ireland • The Scottish Pantry Network - Scotland • City of Milan temporary food hub installations during Covid-19 lockdowns - Italy
GLOBAL SOUTH	<ul style="list-style-type: none"> • World Food Program (WFP): Food assistance • Public Distribution System - India • Vitality HealthyFood Program - South Africa