

## 136 Increase fruit and vegetable consumption through consumer-level subsidies

**The Solution:** The solution is a subsidy for fruits and vegetables (F&V), in the form of a payment card or mobile phone application that could be used to purchase F&V. Taking into account different national and subnational contexts from a food systems approach, this card or application could be used to purchase F&V from different vendors, including street markets, small-scale and family farmers, and if necessary imported F&V. While an application might be more convenient for certain contexts, the payment card, similar to a credit card, would ensure that even people without access to smart phones would be able to access the benefit.

Criteria for receiving this card could include households with high levels of food insecurity or malnutrition, including low-income households, rural households, and female-headed households with children. This card would be accompanied by food education that raises awareness of the benefits of fruits and vegetables and the importance of their consumption. This could be provided through the application itself and/or through social marketing, television, and in-person activities. These two measures (card/application and education) would form key components within a nutrition-sensitive social protection framework for a timeframe of at least three months.

**Source(s) of the Solution:** The Elige Vivir Sano Secretariat, part of the Ministry of Social Development and Family in Chile, proposed this solution.

**Problem addressed within food systems:** This solution seeks to aid vulnerable populations like low-income households and children by facilitating access to fruits and vegetables, while at the same time supporting F&V vendors—thus helping to increase access to nutritious foods. Low-income populations struggle to access fruits and vegetables due to their high prices, and consequently consume them less frequently than high-income populations, exacerbating health disparities and inequalities. Healthy diets cost 60% more than nutrient-adequate diets and are almost five times as expensive as energy-sufficient diets.<sup>1</sup> At the same time, it is essential that everyone in the population is able to access fruits and vegetables, as these foods play a fundamental role in population health. They are essential for healthy development in children as well as the prevention of NCDs like cardiovascular diseases and many types of cancer. The WHO estimated that 3.9 million deaths worldwide in 2017 were due to inadequate fruit and vegetable consumption.<sup>2</sup> The lack of access to nutritious foods, already present under normal circumstances, can be exacerbated during times of crisis, as the COVID-19 pandemic has demonstrated.

**How this solution will address that problem:** This solution would provide people at risk of food insecurity with a payment card or app that could be used to purchase F&V, thereby encouraging the consumption of healthy foods in low-income populations. To achieve these goals, the payment card or app would need to be developed, produced, and distributed to a population that had been educated about the initiative. Vendors would simultaneously need the corresponding machinery or system in order to process the payments as well as training in the usage of these items. Once these tasks have been accomplished, low-income households would be able to increase their purchases and consumption of fruits and vegetables while at the same time supporting the F&V market. A major assumption is that high prices are one of the primary obstacles to accessing F&V (rather than a lack of availability, for instance); it is also assumed that providing people with a payment card or application will lead them to purchase more F&V than they had previously.

This strategy would be implemented by the government, specifically the part of government in charge of nutrition-sensitive social protection programmes (in the case of Chile, this would correspond to the

---

<sup>1</sup> FAO, IFAD, UNICEF, WFP and WHO. 2020. The State of Food Security and Nutrition in the World 2020. Transforming food systems for affordable healthy diets. Rome, FAO. <https://doi.org/10.4060/ca9692en>

<sup>2</sup> WHO (2019) Increasing fruit and vegetable consumption to reduce the risk of noncommunicable diseases. E-Library of Evidence for Nutrition Actions. [https://www.who.int/elena/titles/fruit\\_vegetables\\_ncds/en/](https://www.who.int/elena/titles/fruit_vegetables_ncds/en/)

Ministry of Social Development and Family at a national level, but in other countries the main actor might be the Ministry of Food and Agriculture, or Ministry of Health and Family Welfare, or could perhaps be delegated to state or local governments).

The general objective is to improve diet quality for vulnerable households, while the specific objective is to increase purchases and consumption of F&V. Depending on the country context, the card or app could include other nutritious foods like legumes and milk, but the current focus on F&V is due to the fact that in many contexts these items are often more expensive and thus less accessible than other healthy products.

**Solution's alignment to the 'game changing and systemic solution' criteria:** This solution is a feasible, evidence-based, multi-sectorial initiative that would support vulnerable populations, which would at the same time be supporting different vendors of F&V. In regards to impact potential, Flores and Rivas (2016) argue that subsidies offer 'the best balance between effectiveness and monetary benefits to society' and can also 'lead to a significant surplus considering the savings they cause in the long term to the social security system.'<sup>3</sup> In terms of sustainability, this proposal could be implemented either as a short-term initiative for a period of a minimum of three months as an emergency relief measure, or as a long-term programme within a social protection system to assist low-income families in accessing healthy foods. Regarding actionability, the proposal would require political will and the participation of different ministries and services. This idea behind this solution is currently being developed in a joint initiative with the Chile-Mexico Cooperation Fund, in which actors in the public sector and academia in both countries are working to implement a pilot programme on social benefits for the promotion of F&V consumption in vulnerable populations.

**Existing evidence:** There is a wide range of evidence to support this solution. Subsidies have been shown to significantly increase the purchase and consumption of healthy foods<sup>4</sup>, and F&V subsidies directed at low-socioeconomic-status households may change eating behaviour and reduce weight.<sup>5</sup> It is also worth noting that the WHO recommends the use of economic tools like subsidies that create incentives for healthy behaviours and improve the affordability of healthy foods to encourage their consumption.<sup>6</sup>

Additionally, initiatives similar to the one proposed have been implemented successfully at scale, such as the Supplemental Nutrition Assistance Program in the United States providing financial assistance for food purchases to approximately 40 million people.<sup>7</sup> However, the present proposal differs in its emphasis on F&V and its support for different vendors of F&V. To our knowledge a subsidy of this kind has never been implemented on a national scale, and similar measures have been evaluated primarily in pilot programs and small-scale studies in countries like Australia, where F&V consumption increased among disadvantaged Aboriginal children thanks to a subsidy programme<sup>8</sup>, and New Zealand, where researchers carried out a modelling study of a F&V subsidy in conjunction with taxes on saturated fat, sugar, and salt and found that such an initiative could have considerable positive health effects.<sup>9</sup>

---

<sup>3</sup> Flores, M. and Rivas, J. (2017), CASH INCENTIVES AND UNHEALTHY FOOD CONSUMPTION. *Bulletin of Economic Research*, 69: 42-56.

<sup>4</sup> An, R. (2012). Effectiveness of subsidies in promoting healthy food purchases and consumption: a review of field experiments – CORRIGENDUM. *Public health nutrition*. 16. 1-14. 10.1017/S1368980012004715.

<sup>5</sup> Powell, L. M., & Chaloupka, F. J. (2009). Food prices and obesity: evidence and policy implications for taxes and subsidies. *The Milbank quarterly*, 87(1), 229–257. <https://doi.org/10.1111/j.1468-0009.2009.00554.x>

<sup>6</sup> WHO (2013) Follow-up to the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. [https://apps.who.int/gb/ebwha/pdf\\_files/WHA66/A66\\_R10-en.pdf?ua=1](https://apps.who.int/gb/ebwha/pdf_files/WHA66/A66_R10-en.pdf?ua=1)

<sup>7</sup> Marion Nestle, 2019: The Supplemental Nutrition Assistance Program (SNAP): History, Politics, and Public Health Implications. *American Journal of Public Health* 109 1631\_1635, <https://doi.org/10.2105/AJPH.2019.305361>

<sup>8</sup> Black, A. P., Vally, H., Morris, P., Daniel, M., Esterman, A., Karschimkus, C. S., & O'Dea, K. (2013). Nutritional impacts of a fruit and vegetable subsidy programme for disadvantaged Australian Aboriginal children. *The British journal of nutrition*, 110(12), 2309–2317.

<sup>9</sup> Blakely, Tony & Cleghorn, Christine & Mizdrak, Anja & Waterlander, Wilma & Nghiem, Nhung & Swinburn, Boyd & Wilson, Nick & Mhurchu, Cliona. (2020). The effect of food taxes and subsidies on population health and health costs: a modelling study. *The Lancet Public Health*. 5. e404-e413. 10.1016/S2468-2667(20)30116-X

**Current/likely political support:** The COVID-19 pandemic has thrown into sharp relief the necessity of nutrition-sensitive social protection programmes and has seen political support shifted to interventions that focus on food distribution and other measures that seek to ensure food security. However, measures like the shipment of food boxes to vulnerable families, which have been implemented by many national governments, can present logistical challenges, particularly when they involve perishable foods. Consequently, a simple system in which vulnerable families could receive payment cards or use applications that would allow them to access healthy foods within their own neighbourhoods, without the need to coordinate complicated nation-wide food deliveries, is likely to garner considerable support. Political support would need to be directed simultaneously at farmers and the producer community to ensure a consistent supply of F&V.

**Contexts where this is well/not well suited:** In the case of Chile, the country context is defined by a strong agricultural sector as well as an extensive system of street markets that offer F&V at much lower prices than supermarkets and are consequently frequented by low-income families. However, even countries without these factors could adapt the proposal as necessary, for instance enabling the use of the card or application in supermarkets, or other types of retailers. The F&V supply would need to be ensured to allow cardholders or app users to purchase them. One option in this respect is to implement and support areas known as “green points”, which refer to options like street markets that offer healthy foods in convenient areas and allow payment by card or application. The timeframe for the solution is flexible, as it could be implemented as a long-term project or be applied as part of emergency relief measures.