



Fill the Nutrient Gap El Salvador

Summary Report



World Food Programme

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Fill the Nutrient Gap (FNG), is a situation analysis and decision-making tool developed by the World Food Programme (WFP) with inputs from the University of California, Davis; the International Food Policy Research Institute (IFPRI); Epicentre; the United Nations Children’s Fund (UNICEF); Harvard University; and Mahidol University.

It identifies context-specific strategies for improving nutritional intake of vulnerable populations, especially during the first 1,000 days from conception to a child’s second birthday. FNG uses secondary data review and linear programming analysis to understand a country or region’s nutrition situation, compare the potential impact of interventions, and identify programme and policy entry points to ensure consumption of an adequately nutritious diet.

The FNG El Salvador team (Fig. 1) met in October 2015 to launch the FNG process (Fig.2). This coincided with the analysis phase of Cost of the Diet (CotD). National stakeholders were engaged to define the scope of analysis and review national policy and secondary data. The results and recommendations are being used to support the redesign of the national social protection

FNG Team El Salvador	WFP	El Salvador CO HQ Nutrition
	National Government	Secretaria Técnica de la Presidencia
	UN Agencies	WHO FAO
	Other Partners	Plan, FUSAL

Figure 1. Stakeholders involved in the FNG process

policy, identifying ways to make it more nutrition-sensitive.

1) Define Focus

The target groups for analysis were identified in collaboration with stakeholders. They were based on consideration of current malnutrition characteristics across El Salvador.

CHILDREN UNDER 5:



- ⇒ Stunting affects 15 percent of children under 5 (Fig. 3). While this shows a decrease in stunting over the past 20 years, the prevalence of stunting has nearly doubled among children in poorer rural households.
- ⇒ Anaemia affects 30 percent of children under 5 (Fig. 4), an increase in prevalence.

ADOLESCENT GIRLS (10-19 YEARS):



- ⇒ Overweight and obesity are at 29 percent among girls aged 13–15.

PREGNANT AND LACTATING WOMEN (PLW):



- ⇒ Twenty-eight percent of pregnant women are anaemic, as are 23 percent of non-pregnant women (Fig. 4), a decrease in prevalence in both cases.
- ⇒ Among adult women, 66 percent are overweight and 33 percent are obese.

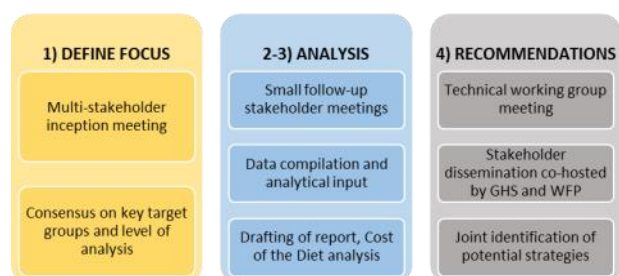


Figure 2. The FNG process

Fill the Nutrient Gap Key Steps

- 1) Define Focus:** Identify target groups and geographical and/or seasonal elements from stakeholder consultation and national nutrition data.
- 2) Policy Analysis:** Determine if there is an enabling environment for access to, and availability of, nutritious foods, and identify relevant entry points and platforms for increased availability and access to nutrients.
- 3) Analysis of Nutrient Availability and Access:** Analyse factors such as local preferences and practices, and estimate nutrient gaps for key target groups and context-appropriate interventions to fill nutrient gaps.
- 4) Recommendations for Interventions:** Identify roles for different sectors and stakeholders, and public platforms for policy and programmes.

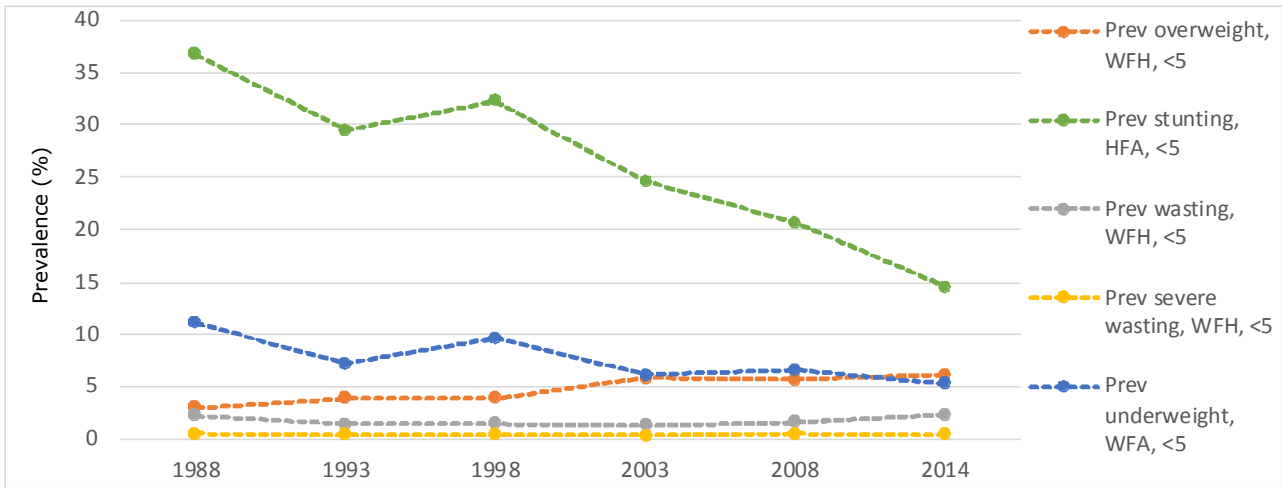


Figure 3: Trends in the key national nutrition indicators (1988-2015) for children under 5 years (Source: World Bank)

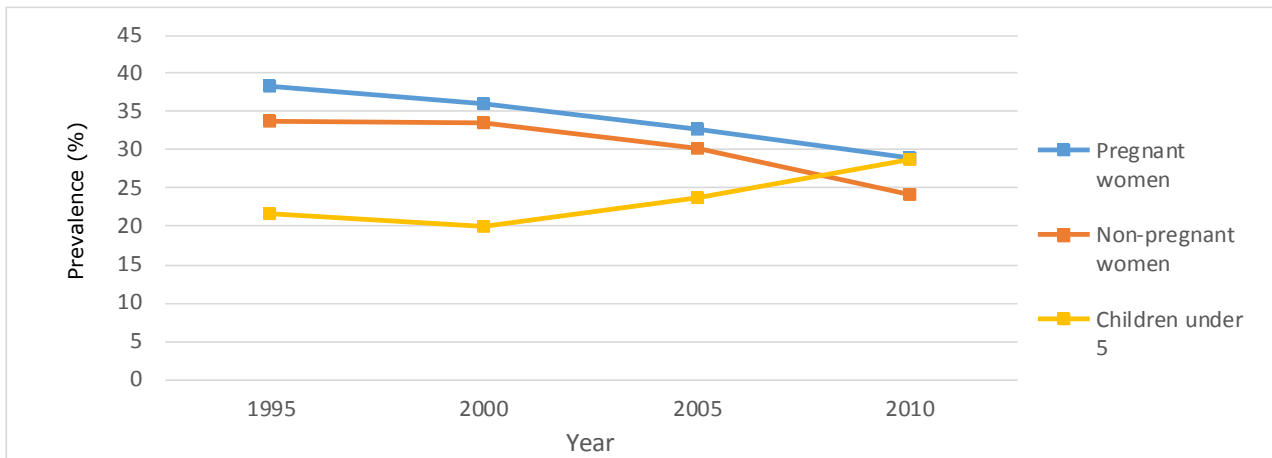


Figure 4: Anaemia prevalence trends in El Salvador (Source: World Bank)

2) Policy Analysis

An enabling policy environment provides entry points for nutrition interventions and promotes eventual implementation. The current legal and policy framework on nutrition in El Salvador is comprehensive and is complemented by national programmes on agriculture, income generation and social protection. Policies and programmes by entry point are:

NATIONAL POLICY AND LEGAL FRAMEWORK:

- A National Food Security and Nutrition Policy was approved in 2011.
- A Bill on Food Sovereignty and Food and Nutritional Security is awaiting approval by Parliament.
- A policy is in place on the Promotion, Protection and Support of Breastfeeding (2011), as is the Breastfeeding Promotion, Protection and Support Act of 2013.
- The National Health Policy of 2009–2014 had food security and nutrition as a strategic pillar.
- The National Strategy for Infant and Young Child Nutrition (2011) is operational.
- There is mandatory fortification under the National Strategy for the Control of Micronutrient Deficiencies (iodine in salt; vitamin A in sugar; iron, folic acid, and B vitamins in wheat flour, maize flour, and pasta). However, compliance varies widely and is especially low for iodized salt and French bread (iron).

- El Salvador became a member of the SUN Movement in 2012.

FORTIFIED COMPLEMENTARY FOODS AND SPECIALIZED NUTRITIOUS FOODS (SNF):

- Imported specialized nutritious foods (Incaparina, Chapuditos – fortified blended food – and Cereal Fortificado) are available through government programmes.
- Incaparina is also commercially available on the market; SuperCereal Plus (SC+, a fortified supplementary food) is sold in Super Selectos supermarkets.
- There is no national standard for nutrient content and geographic availability varies for different foods because programmes are supported by different development partners.

SOCIAL PROTECTION:

- The Law of Development and Social Protection (2014) includes nutrition-sensitive programmes.
- “Comunidades Solidarias”, the main cash transfer programme in El Salvador, doesn’t feature specific nutrition targeting but the conditions of the transfer include the use of health services.



3) Analysis of Nutrient Availability and Access

El Salvador is a country in the midst of a nutrition transition. The main drivers of the nutrient gap are thought to be affordability and dietary habits. There is generally good availability of nutritious foods year round with no real lean season but, because of high income inequality, a nutritious diet is not affordable for a large proportion of the population. Dietary habits may also contribute as even prosperous households consume few fruits and vegetables despite their wide availability. More formative research and qualitative studies on bottlenecks and cultural beliefs would be required to reach a deeper understanding of dietary-related behaviour, and inform effective behaviour change communication and demand-creation strategies.

AVAILABILITY:

- El Salvador relies largely on imports of staple foods therefore does not experience significant seasonality issues.
- Staple foods are maize (tortillas), rice and red beans.
- There is no local production of specialized nutritious foods; there is regional production in neighboring Guatemala.

ACCESS:

- Most households have acceptable Food Consumption Scores (FCS) but high income inequality creates a significant economic barrier to access for poorer households.
- Lack of dietary diversity and a shift in dietary habits toward greater consumption of processed foods may be driven by the high cost of nutritious foods and the lack of adequate fresh food storage.
- The access of vulnerable households has recently decreased because of coffee rust and the El Niño-induced drought, which have reduced incomes and subsistence crop production.

NUTRIENT INTAKE:

- Forty-seven percent of children under six months of age are exclusively breastfed.

- Seventy-five percent are breastfed for the duration of one year and 55 percent are breastfed until they are 2 years of age.
- The Minimum Meal Frequency (MMF) of 86 percent among young children is better than the Minimum Dietary Diversity (MDD) at 78 percent; Minimum Acceptable Diet (MAD) is 66 percent (Fig.5).
- Increasingly, diets are energy dense but not adequately nutrient dense; even wealthier households are not meeting recommended nutrient intakes.
- Poorer households are less likely to purchase foods rich in micronutrients.
- For extremely poor households, cereals and sugars contribute approximately 70 percent of total energy intake.

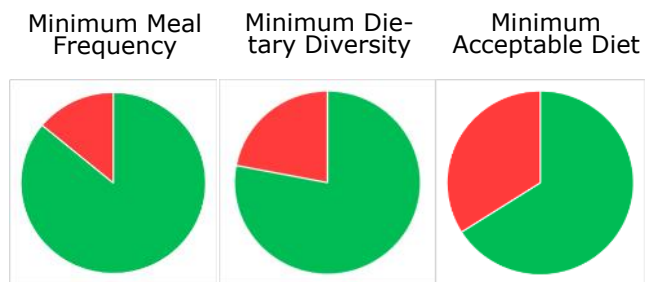


Figure 5. The percentage of children receiving the Minimum Acceptable Diet in El Salvador (Ministerio de Salud (MINSAL)/Instituto Nacional de Salud and UNICEF 2015)

LOCAL PREFERENCES AND PRACTICES:

- In some areas eating fish is taboo among PLW and children under 12 months of age.
- High consumption of cheese and chocolate may be encouraged during lactation because they are believed to increase milk production.
- Knowledge of good Infant and Young Child Feeding (IYCF) practices is generally low.
- Infants are often given maize coffee and rice water as a complement to breast milk.
- Violence on the streets is blamed for a reduction of physical activity contributing to rising overweight and obesity.

4) Modelling Dietary Improvement





Affordability modelling and intervention recommendations were informed by the secondary data on availability and access, and actual nutrient intake and influencing cultural factors. Results from linear programming analyses were used to examine whether optimised diets with locally available foods could meet nutrient needs for target groups.

A CotD market survey was conducted by WFP El Salvador in September 2015 in 49 municipalities within nine departments. CotD software calculates the lowest cost locally available diet that meets nutrient needs when adjusted to incorporate local staple food. This is known as the Staple Adjusted Nutritious Diet (SNUT).

Analysis was conducted in zones representing emergency areas affected by coffee rust or drought, areas with high rates of malnutrition, and principal livelihood zones. Household composition and expenditure data was extracted from Encuesta de Hogares de Propósitos Múltiples 2013.

Modelled households comprised a child of 6–8 months, a child of 6–7 years, a girl of 14–15, a lactating woman, and an adult man. On average, 30 percent of the five-person households modelled could not afford SNUT, ranging from 44 percent non-affordability in Morazán (USD 225 per month) to 9 percent in San Salvador/Santa Ana (USD 178 per month). Non-affordability was generally higher in the Eastern part of the country, where households are more vulnerable to coffee rust and drought.

Interventions Modelled

-  Locally available nutritious foods (vouchers)
-  Multiple-Micronutrient Tablets (MMT) and Micro-Nutrient Powders (MNP) (in-kind)
-  Specialized Nutritious Food (SNF) (market, subsidy, in-kind)
-  Cash transfers

Four types of potential interventions to improve affordability were modelled based on the secondary data analysis, current or planned national interventions, and stakeholder suggestions.

Food-based interventions modelled as part of the CotD analysis showed the same pattern of effectiveness across all livelihood zones and no significant regional differences were found. Specialized nutritious foods were selected based on what was already locally available or would be feasible to import.

The most effective interventions for each target group were:



- **Children 6–8 months:** Of the four SNFs modelled, a voucher for a daily portion of Chapuditos was most effective, reducing daily cost by 90 percent, from USD 0.50 to USD 0.05 (Fig. 6).
- **Adolescent girls:** Because of the high recommended intake of iron, calcium and zinc, girls contributed the largest portion of household cost of SNUT. Vouchers for locally available nutritious foods (fresh fruit and eggs) reduced the daily cost by 12 percent (from USD 1.92 to USD 1.69), and in-kind provision of MMTs reduced the cost by 18 percent, to USD 1.58 (Fig. 7).
- **PLW:** In-kind provision of SC+ was most effective, reducing daily cost by 31 percent, from USD 1.72 to USD 1.18 (Fig. 8).

These interventions were combined to form packages, as shown on page 8. The modelled diets are theoretical and would need to be accompanied by complementary behaviour change interventions. Costs have been modelled from a household perspective. A next step would be to estimate programming costs from the non-market based options.

4) Recommendations

Recommendations were formulated during stakeholder discussions and informed by the secondary data analysis and CotD modelling. They include programme and policy measures to address access, availability and demand for nutrients and nutritious foods. The recommended actions have the potential to increase consumption of nutrient-dense foods, especially by vulnerable target groups.

Recommendations

-  Create demand for healthy lifestyles and dietary diversity through public and private sector initiatives.
-  Provide SNF of an adequate nutrient profile through social protection programming to children under 2.

Recommended interventions are presented on pages 9 and 10.

Cost of the Diet Modelling

Average CotD at the national level for target groups with different interventions provided at market price, in-kind, or subsidized at 50 percent of market price (Fig. 6: child 6-8 months; Fig. 7: Adolescent Girl; Fig. 8: PLW). SNF is provided in-kind in quantities equal to one portion per day. SC+ was modelled at a limit of one portion per day at a subsidized cost (SC+ 1/day), or with an unlimited number of portions that could potentially meet nutrient needs at the same subsidized cost (SC+ no limit).



Figure 6: Comparison of the average national daily cost of the diet of a child 6-8 months when different SNFs are provided



Figure 7: Comparison of the average national daily cost of the diet for an adolescent girl when different interventions are provided

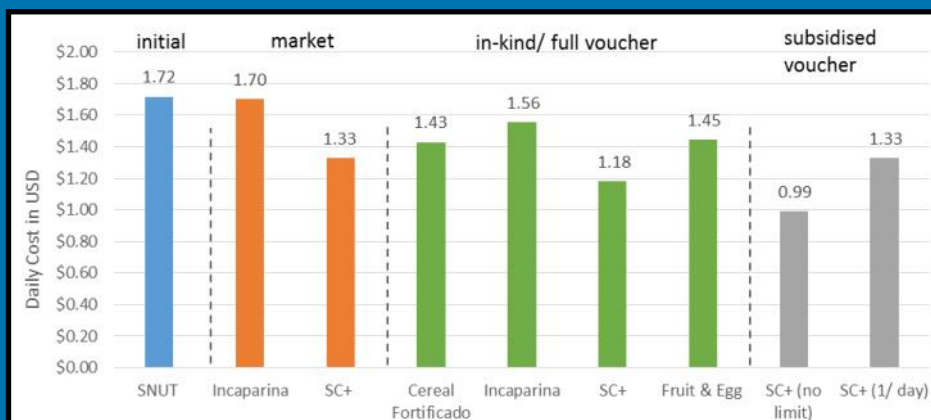


Figure 8: Comparison of the average national daily cost of the diet of a lactating woman when different interventions are provided

Cost of the Diet Modelling

Packages of household level interventions and potential effect on economic access to nutrients for vulnerable groups

Two packages targeting the PLW, the adolescent girl and the 6–23 month old child, were created by combining the most efficient interventions. Package 1 consisted of a daily in-kind provision of SC+ for the PLW and the child, and a daily portion of an MMT for the adolescent girl, which reduced cost by 18 percent from 6.48 to USD 5.31 per household per day. Package 2 consisted of a daily serving of fruit and egg to the PLW and the adolescent girl and a daily ration of Chapuditos to the child. This package reduced the daily cost to USD 5.53, which is equivalent to a 15 percent decrease (Fig. 9).



Figure 9: Average National Daily Cost after interventions for a 5 person household

The two optimal intervention packages (Package 1: SC+ & MMT; Package 2: Fruit and Egg & Chapuditos) were combined with a monthly cash transfer of USD 61.50 to demonstrate the maximum reduction in the non-affordability of SNUT according to the model. Nationally, an average reduction in cost of 19 percentage points – or 63 percent – is possible for an intervention combining Package 1 with a cash transfer. The relative result of these intervention packages is similar across regions, with higher non-affordability in the east (Fig. 10).

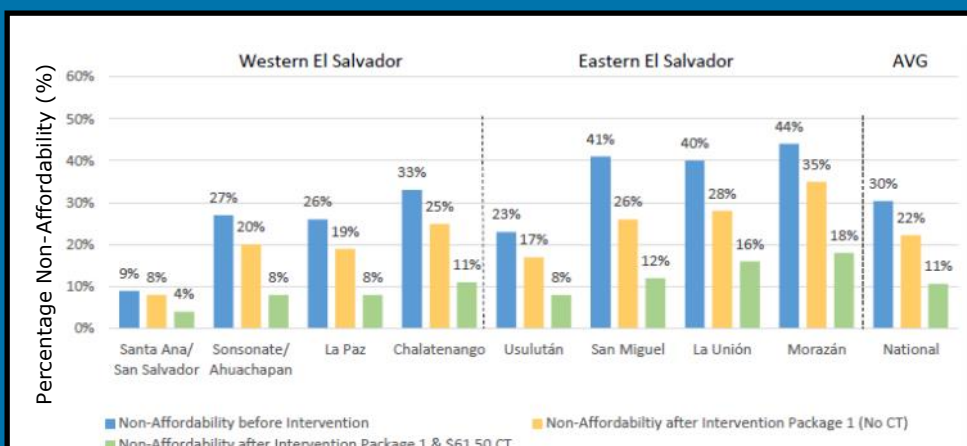


Figure 10: Change in non-affordability of SNUT diet for a five-person household with intervention Package 1 with and without a cash transfer of \$61.50, by region

Summary of Key Recommendations (Developed with Stakeholders)

Programmatic Interventions

Target group: Children under 5:

Address the micronutrient deficiencies in children under 5, especially those aged 6–23 months, through fortifying food and drink commonly consumed by this target group and/or home fortification. Increase dietary diversity and promote good IYCF practices (see “Demand side interventions”).

In light of the problem nutrients identified through the FNG process, re-assess the nutrient profile of the specialized nutritious food provided to children 6–23 months and PLW through the national social protection programme (see “Policy Interventions”).

Target groups - PLW and adolescent girls:

Tailor interventions to improve micronutrient intake without creating overweight and obesity. For example, fortifying commonly consumed food and/or supplementation, and fresh food vouchers tailored at food rich in the problem nutrients identified through the FNG process.

Demand side interventions and Social and Behaviour Change Communication (SBCC):

- Promote the consumption of foods rich in calcium and zinc (milk, cheese, poultry and beef) for children 6–23 months as part of IYCF promotion and SBCC. Do this at community level and through the health system.
- Promote broader efforts to raise demand for good nutrition, dietary diversity and healthy lifestyles at household level. This will contribute to prevention of micronutrient deficiencies and the increasing prevalence of overweight and obesity. Do this through public and private sectors.
- Create demand for healthy lifestyles, particularly among adolescent girls. This requires an innovative approach, possibly linked to other non-nutrition programmes and platforms such as life skills training, employment generation, community mobilisation, and violence prevention.
- Improve access to refrigeration at home. This could improve the purchase and consumption of nutritious fresh foods.

Supply side interventions to improve affordability and availability:

- Improve availability of nutritious complementary foods that have adequate nutrient density and meet quality and safety standards.
- Improve access to nutritious foods among the most vulnerable, either through subsidized prices or through vouchers via a social protection platform.
- Scale up ‘Nutrimos El Salvador’, a programme which places SC+ on supermarket shelves and provides vouchers through health centers. This should be scaled up further to make it more widely available and accessible.
- Consider developing a logo for foods that are adequately nutritious and safe.
- Stimulate private sector initiatives to improve availability of affordable, safe nutritious fresh foods for children 6–23 months and PLW. The SUN business network is a potential platform for this.
- Improve supply chain and household storage of foods with higher nutrient content (such as animal protein), to contribute to increasing intake in remote areas.

Policy Interventions

- Leverage national nutrition-sensitive social protection programmes to incorporate nutrition specific interventions targeted at children 6–23 months and PLW of the most vulnerable households. An example is adding vouchers for a complementary food with adequate nutrient profile through the social protection programme.
- Support national government in the redesign of targeting mechanisms for social protection and social safety net programmes.
- In light of the existing nutrient gap characterization, review the nutrient profile of the SNF provided to children 6–23 months and PLW through the social protection programme; it is currently not adequate. Among the products reviewed and included in the CotD analysis, Chapuditos seems to most effectively address the need for calcium and zinc among children.
- Review nutrient content and composition of food supplements provided to PLW through public programmes to prevent overweight and obesity while addressing micronutrient deficiencies. Consider increasing access and proper storage of fresh food for vulnerable households.
- Pay attention to staple food fortification. There is potential for voluntary rice fortification as a private sector initiative. Ensure compliance with existing mandatory fortification of specific foods to meet the required nutrient target; this can be done with improvements to the quality of analysis.
- Support national government to review standards of complementary foods, snacks and processed foods. Limits should be set for sodium, sugar and trans fat content to prevent overweight and obesity; monitor compliance.

List of Acronyms:

- **CotD** **Cost of the Diet**
- **FNG** **Fill the Nutrient Gap**
- **FCS** **Food Consumption Score**
- **IYCF** **Infant and Young Child Feeding**
- **IFPRI** **International Food Policy Research Institute**
- **MNP** **Micronutrient Powders**
- **MAD** **Minimum Acceptable Diet**
- **MDD** **Minimum Dietary Diversity**
- **MMF** **Minimum Meal Frequency**
- **MMT** **Multiple Micronutrient Tablets**
- **PLW** **Pregnant and Lactating Women**
- **SBCC** **Social and Behaviour Change Communication**
- **SNF** **Specialized Nutritious Food**
- **SNUT** **Staple Adjusted Nutritious Diet**
- **SC+** **SuperCereal Plus**
- **UNICEF** **United Nations Children's Fund**
- **WFP** **World Food Programme**

Special thanks to:

- **Food and Agriculture Organization (FAO)**
- **Fundación Salvadoreña para la Salud y el Desarrollo Humano (FUSAL) (Salvadoran Foundation for Health and Human Development Plan International (PLAN)**
- **Secretaria Técnica de la Presidencia Government of El Salvador (Technical and Planning Secretariat)**
- **World Health Organization (WHO)**

For more information please refer to “Fill the Nutrient Gap Report El Salvador”

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