FINAL TECHNICAL REPORT INTERAMERICAN HEART FOUNDATION INC

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SCORECARD DIET, OVERWEIGHT AND OBESITY IN LATIN AMERICA AND THE CARIBBEAN.

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I. Introduction

The Pan American Health Organization (PAHO)¹, ² collected evidence from United Nations Parties in the Americas between June 2016 and October 2019 regarding the evaluation of NCD policies and their associated risks, including some general information and that related to non-communicable diseases (NCDs) risks, including inadequate nutrition and obesity.

In addition to the increasing rates of overweight and obesity and the problems related to poor nutrition that has already been of concern to health authorities of the countries and organizations such as PAHO, Food and Agriculture Organization (FAO), United Nations Children's Fund (UNICEF) and World Food Programme (WFP), the onset of the COVD-19 epidemic has generated a potentially more complicated framework for policies in this field. Thus, these multilateral organizations presented an essential document with recommendations in February 2021.³ This document notes that: "The sustained increase in national rates of overweight and obesity is also a cause for concern, especially in light of the increased risk of more serious COVID-19-related diseases and death in people with obesity and other chronic noncommunicable diseases. 60% of women and 58.8% of men in the region are overweight, including 28% and 20%, respectively, who are obese, while 7.5% or 3.9 million children under 5 are overweight or obese". The document also notes that "consumption of ultra-processed foods in the region has grown along with the obesity epidemic and is linked to unhealthy eating habits, which is a critical risk factor for chronic noncommunicable diseases."

The InterAmerican Heart Foundation (IAHF) presents here an updated report on the status of obesity and food environment policies and indicators. The present paper is based on a project originally developed in 2017, aimed at an in-depth monitoring of NCD policies and indicators with a special emphasis on main risk factors tobacco, alcohol, diet, physical activity and air pollution. Countries that participated in the study⁴ were ranked in terms of advances in their policies, with a special critical look from civil society organizations and regional experts on these advances. The data for the study was collected using comprehensive questionnaires submitted to focal points in each participating country who also provided links to the applicable legislation and source data when applicable. The report ranked and discussed the level of implementation and impact of each policy (and not the mere existence of legislation on a particular topic). The study was supported by the World Heart Federation).

The new report was based on a revised questionnaire with updated and some added/substituted questions which was sent during the second half of 2021 to experts and civil society organizations and individuals, maintaining the original methodology and for the most part the original respondents. Questionnaires were sent to 11 countries asking about the essential elements to analyze with a broader vision the progress and success (or failure) about the policies related to the reduction of

¹ NONCOMMUNICABLE DISEASES IN THE REGION OF THE AMERICAS: FACTS AND FIGURES. Pan American Health Bureau. https://iris.paho.org/bitstream/handle/10665.2/51482/OPSNMH19016_spa.pdf?sequence=2&isAllowed=y

² Noncommunicable Diseases-INDICATORS OF PROGRESS 2020 RESULTS TABLE for the Americas. https://iris.paho.org/bitstream/handle/10665.2/51939/printOPSNMH200004_spa?sequence=1&isAllowed=y

³ Joint Statement on Nutrition in the context of the COVID-19 pandemic Latin America and the Caribbean February 2021. Food and Agriculture Organization (FAO) Pan American Health Organization (PAHO) United Nations Children's Fund (UNICEF) World Food Programme (WFP)

⁴ Argentina, Brazil, Chile, Bolivia, Uruguay, Mexico, Jamaica, Costa Rica, Peru, Ecuador, Colombia, Barbados.

overweight and obesity and other diet-related NCDs risk factors. It inquired about compliance with the existing institutional policies and legislation and their perspective on successful implementation, existing policies on surveillance and control of advertising and sale of unhealthy foods in school environments such as sugary non-alcoholic beverages (sugary-sweetened beverages, SSBs) and ultra-processed foods in schools, and mandatory front of package labeling to warn of excessive content of critical nutrients salt, fats and added sugars, among others. The collection of data, clarification, analysis and summary was done centrally by IAHF.

The survey was answered by 10 countries: Argentina, Brazil, Mexico, Peru, Colombia, Uruguay, Ecuador, Bolivia, Jamaica, Chile.⁵ Some indicators included Costa Rica and Barbados, which did not respond to the questionnaire.

II. Results and Analysis

a. Overweight ⁶ (and obesity) in children less than 5 years of age⁷

The global average for overweight and obese children up to 5 years of age is 5.7%. The surveyed countries in the South American region relatively worsened the indicator from the year 2000 (7.5%) to 2020 (8.2%).⁸ (Table 1). All the countries surveyed are outside the range of the overweight target in the Sustainable Development Goals (SDGs) for 2030 for the under 5 years of age group goal (a reduction of more than one and a half percentage points compared to the base year).⁹

⁵ in the case of Costa Rica, an invitation was made, but the questionnaire did not arrive in time for this work. However, it was included for the discussion of obesity indicators and others since this was the only country representing Central America in the current study.

⁶ For adults, WHO defines overweight and obesity as follows:

overweight is a BMI (Body Mass Index) greater than or equal to 25; and obesity is a BMI greater than or equal to 30.

⁷ For children under 5 years of age: overweight is weight-for-height greater than 2 standard deviations above WHO Child Growth Standards median; and obesity is weight-for-height greater than 3 standard deviations above the WHO Child Growth Standards median. Overweight includes obesity

⁸ The global target on childhood overweight implies that the global prevalence of 7% in 2012 should not rise to 11% in 2025 as current trends would predict. Global Nutrition Targets 2025 Childhood Overweight Policy Brief.WHO/NMH/NHD/14.6

⁹ Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture Target 2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons.

Indicator 2.2.1: Prevalence of stunting (height for age <-2 standard deviation from the median of the World Health Organization (WHO) Child Growth Standards) among children under 5 years of age

Indicator 2.2.2: Prevalence of malnutrition (weight for height >+2 or <-2 standard deviation from the median of the WHO Child Growth Standards) among children under 5 years of age, by type (wasting and overweight)

	Mexico	Colombia	Jamaica	Brasil	Costa Rica	Peru	Chile	Bolivia	Uruguay	Ecuador	Argentina
Overweight in children less tha 5Y (%)	6,3%	6,4%	6,8%	7,3%	7,5%	8,1%	9,8%	10,1%	11,4%	11,7%	13,6%

Source: Global Nutrition Report 2021.¹⁰

• Civil society comments on overweight in children under 5 years of age

Respondents assessed as a serious situation the levels of overweight and obesity in this and all age groups and in all the countries surveyed. Dealing with this issue was characterized as a high priority. Respondents felt that these were the most critical results because in all cases the indicators had worsened in recent years and they did not see clearly how changes in trends were going to be achieved.

In general, there was agreement on policy proposals and actions, such as advancing and improving public policies and adapting resources, working a more intersectoral approach, nutritional reeducation issues in all age groups, and strengthening nutrition in early childhood centers and in schools for children.

b. Overweight and obesity in children and adolescents 5 to 18 years of age ¹¹

The global indicators for overweight and obesity in children and adolescents are 21.9% in males and 19% in females ¹². The sample of our LAC countries is well above the global average, led by Argentina with 43.2% in boys and young adolescent men and the lowest in Colombia with 24.1% (also in boys and young men). In girls and adolescent women, the spread of the variability among the studied countries is smaller, with a maximum of 36.8% in Mexico and a minimum of 25.8% in Colombia.

 ¹⁰ https://globalnutritionreport.org/resources/nutrition-profiles/latin-america-and-caribbean/south-america/
 ¹¹ Overweight and obesity are defined for children aged between 5–19 years:

overweight is BMI-for-age greater than 1 standard deviation above the WHO Growth Reference median; and obesity is greater than 2 standard deviations above the WHO Growth Reference median.

¹² Global Nutrition Report 2021. Op.cit

	Colombia	Peru	Bolivia	Ecuador	Jamaica	Brasil	Costa Rica	Mexico	Uruguay	Chile	Argentina
Overweight in children and											
adolescents 5-18Y (%)											
. Boys	24,1%	28,1%	28,5%	29,7%	32,3%	32,5%	33,2%	37,6%	37,8%	39,7%	43,1%
. Girls	27,8%	29,3%	31,7%	31,0%	33,2%	28,1%	35,6%	36,8%	32,1%	35,0%	33,0%
Source: Global Nutrition Report											

Table 2. Overweight in children and adolescents 5 – 18 years of age

Based on the year 2000 for comparison, almost all countries in the sample have doubled or more the percentage of those overweight and obese in the population within this age group. Even in Colombia, which has the lowest levels, the indicator has increased by 50% since 2000.

• Civil society comments about the problem of overweight in children and adolescents 5 – 18 years of age

Some countries highlighted the lack of legislation, particularly relating to taxes on unhealthy beverages and foods, and to the need for implementing subsidies on healthy foods to improve their affordability. This is the case of Colombia, Uruguay and some others.

Some needs and problems mentioned:

- Implementation problems and lack of regulation were noted. Legislation and regulations are present, but there is not enough impact. The need for additional surveillance, inspections, and enforcement was also mentioned by most.
- Need for greater articulation between health and educational authorities, and greater participation of local governments (municipalities, etc.) in surveillance and provision of healthy food and in general in the implementation of policies.
- Necessary to carry out education and awareness campaigns to improve the fight against overweight and obesity.
- Comprehensive programs including healthy school environments are required in most countries, but there are some good experiences in the region (i.e. Brazil has a good health school program as recognized by civil society).
- Bans on the sale of food products that are of low nutritional value in school environments. This is a general suggestion to implement from all respondents.
- Some countries recommended establishing zones around schools where the sale of unhealthy food and beverages is restricted (mentioned as a recommendation by Uruguay, Chile, Argentina, and Peru).

c. Overweight (and obesity) in the adult population over 18 years of age

Not a single country in the sample (also in the region) is on track to reach by 2025 the targets of obesity among men and obesity among women, which consists of no increase from the baseline in 2010. Global target for obesity and diabetes is to halt, by 2025, the rise in the age-standardized adult prevalence at their 2010 levels.¹³ None is either on track to reach the targets for diabetes among men or women.

Table 3. Overweight (including obesity)	in adults 18 years of age and older
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	Jamaica	Bolivia	Ecuador	Peru	Colombia	Brasil	Costa Rica	Mexico	Chile	Uruguay	Argentina
Overweight in adults over 18y											
. Men	50,0%	54,4%	54,6%	56,0%	58,6%	59,8%	62,7%	65,5%	66,5%	66,9%	68,0
. Women	64,9%	61,4%	60,7%	61,5%	52,6%	57,0%	65,4%	67,4%	62,6%	62,0%	60,5

Source: Global Nutrition Report 2021

Table 4. Obesity in adults 18 years of age and older

	Argentina	Brasil	Ecuador	Peru	Colombia	Uruguay	Chile	Costa Rica	Jamaica	Bolivia	Mexico
Obesity in population 18y											
and older Men	30,2%	21,1%	17,1%	17,3%	20,0%	27,7%	23,6%	24,7%	18,1%	16,8%	27,0%
Women	31,7%	, 28,2%	27,3%	26,7%	29,3%	33,3%	33,7%	, 34,2%	, 36,9%	28,4%	35,7%

Source: Global Nutrition Report 2021

It is a widespread problem in the region, especially in countries above global international averages (40.8% men, 40.4% women). Except Brazil, Colombia, Peru and Jamaica in men and Brazil and Colombia in women no country is less than 60% overweight in adult women and men in the region. In turn, the region presents a level 50% higher than the global level.

The trend for overweight and obesity is worsening, as starting on the year 2000 the levels have increased between 50% and 100% in the countries of the region (Jamaica in women and Colombia in men increased 100%). For the majority of countries, the indicator in both men and women is 50% higher than 20 years ago.

Argentina has the highest obesity prevalence in men (30.2%) while the highest obesity in women is in Mexico, where more than a third of adult women are obese. The minimum level of the indicator in men can be seen in Bolivia with 16.8% and in women in Peru with 26.7%.

¹³ Source: https://ncdrisc.org/country-profile.html

• Civil society comments about the problem of overweight and obesity in the adult population (18 years of age and older)

The opinion is clear with questionnaire respondents seeing the level and trends in overweight and obesity as a pressing issue.

Respondents also generally critically observe the attitude of governments. There is no strategy that stands out. In addition, and as noted by many, the problem is multifactorial and requires a comprehensive approach to address it, since isolated measures would have no effect.

Some points suggested are:

- The greatest government's efforts on food policy for NCDs prevention are still basically oriented to breastfeeding and early childhood, focusing as is traditional on the problems of stunting and wasting in children, and much less in the problems of overweight and obesity in all age groups. Summarizing, there is a problem of focus and resource allocation.
- Not enough food policy measures that can adequately address NCDs, overweight and obesity in adolescents and adults are being implemented.
- Importance to promote comprehensive measures to address the obesity pandemic. Measures aimed at individuals without considering obesity to be a multifactorial problem have proven ineffective. For this reason, promoting isolated initiatives will not solve a complex problem.
- It is necessary to increase the supply and availability of healthy foods in healthcare Institutions, public and / or private, restaurants and especially cafeterias in workplaces and educational institutions of the secondary and tertiary level (middle- and high-schools, universities, etc.).
- Carry out consumer education campaigns on the importance of healthy eating to overcome the low consumption of healthy foods.
- Stronger advocacy for good public policies.
- Effective fiscal policies, such as subsidies that encourage increased consumption of fruits and vegetables, and taxes that discourage the consumption of sugary-sweetened beverages (SSBs) and other products high in critical nutrients sodium, sugars, saturated fats, and trans fats.
- Intersectoral work to strengthen agricultural policies to achieve sustainable food systems and public procurement from small land holders and family farmers.

d. Retail prices and excise taxation¹⁴

For the countries in the study, only Mexico since 2014 and Colombia have taxes on unhealthy foods (in Mexico a tax of 8% on non-essential high energy foods, and in Colombia it has not yet been implemented). Therefore, the area of fiscal analysis for this study consisted of gathering data from the questionnaire responses and other official sources to evaluate the existence of taxes on unhealthy

¹⁴ The excise tax levied on the sale or import of a particular product; it differs from the value added tax (VAT) that is a general type of tax on most products and services. Excise taxes may be specific or ad-valorem. A specific tax is levied on the quantity of the good sold, an ad-valorem taxes a price. Both types could be combined.

foods, taxes on sugary-sweetened beverages (SSBs¹⁵) and possible incentives or disincentives that are reflected in the prices to the public and the supply of the products (either through taxes, subsidies, or other mechanisms).

These questions were asked to assess the existence of a fiscal policy with a health focus. ^{16 17}

To this end, this study takes a short-cut: only the case of Coca-Cola (considered here as a model for sodas, in turn just a proxy for SSBs) was compared to bottled water in terms of the tax burden of excise and total taxes on these products, as well as on the relative affordability. ¹⁸

Tax burdens were analyzed by calculating effective rates, considering the different rates and taxable base in the countries surveyed to compare among them.

i. Retail price, tax burden and affordability of a one-liter regular Coca Cola in the sample of countries

- Retail prices per liter range between a low point of USD 0.73 in Bolivia and the highest points of USD 1.72 in Uruguay and USD 1.96 in Barbados. At first sight it seems that the multinationals' marketing policies (in this case, Coca-Cola Company) take into consideration the per capita income, since the lowest price per liter is observed in one of the poorest countries in the region, and those with the highest income present conversely the highest retail prices (the higher the per capita income, the higher the price).
- All countries surveyed have excise taxes on sugary and carbonated beverages, except Jamaica and Colombia. Regarding the Value Added Tax (VAT), the situation is more uniform since all the countries surveyed tax these beverages with VAT.
- It is observed that in the countries surveyed the nominal rates of the excise tax on sodas are all less than 20% (recommended by PAHO) except in Peru, which has a 25% rate. However, these rates differ by country. For example, Colombia and Jamaica have zero excise tax rate. Most countries in the sample have excise tax burdens in the range of 7-15%, Peru has the highest, and Mexico and Brazil have the lowest at 4-5.9%.
- If the incidence of the excise tax on retail price is compared among the countries of the sample, it is not clearly distinguished those countries that have applied increases in the tax to discourage the consumption of SSBs from those countries that have traditionally had high tax burden only for fiscal collection purposes. Argentina and Uruguay have higher total tax burden than Mexico, with no deliberate health-focused tax policy for SSBs.
- Among the group of countries that have a health focused tax policy on SSBs, there is a wide difference in the tax burden. For instance, Chile and Peru (with a tax burden of 15.3% and 20%, respectively) have tax burdens of more than three times that of Mexico. Mexico was the

¹⁵ SSBs (sugar sweetened beverages) comprises a large group of products, any liquids that are sweetened with various forms of added sugars like brown sugar, corn sweetener, corn syrup, dextrose, fructose, glucose, high-fructose corn syrup, honey, lactose, malt syrup, maltose, molasses, raw sugar, and sucrose. Examples are sodas, energy drinks, yoghurts, etc. ¹⁶ A more comprehensive investigation, which goes beyond the objectives of the report, would have to consider the differences in the tax burden and the relative and absolute prices to the public of carbonated and sugar-free beverages, flavored waters, energy drinks, fruit juice drinks and dairy, with and without sugar.

¹⁷ A more descriptive and complete analysis of taxes on SSBs has been done in a recent PAHO paper:

https://iris.paho.org/handle/10665.2/54917. However, no targets are defined.

¹⁸ Fiscal analysis of ultra-processed food was not included because it would be a much broader objective not encompassed in the present study.

pioneer in terms of SSBs taxes in the region in 2014, but has since not updated its tax above inflation.

- Colombia does not have an excise tax on SSBs, which is surprising considering the success of the country in the case of tobacco taxes, where Colombia is one of the leaders in the region in terms of good practices.
- When the value added tax (VAT) is included in the total tax burden calculation, countries such as Brazil, Argentina and Uruguay present higher total tax levels (due to the high impact of VAT but not the excises which are relatively low).

In summary, the diversity of fiscal policies on SSBs among the countries analyzed is partly a product of the lack of a "health policy lens" applied to the field of fiscal taxes as compared to tobacco taxation in some countries like Argentina, Uruguay and Brazil. However, countries that do have a health-focused policy in place also require higher tax rates and a sustainable long-term strategy to update their tax rates and tax burden on SSBs such as Mexico.

ii. Comparative retail price and tax burden of bottled water and sodas

It is in the interest of comparative purposes of SSBs to observe the prices and taxes on bottled water. In bottled water there is also variation in retail prices and tax burden in the countries surveyed.

The highest prices for bottled water are currently observed in Costa Rica and Barbados followed by Uruguay, Mexico, and Ecuador. Between the cheapest water (in Brazil) and the most expensive prices there is a substantial difference of 400%. There is also variability between the price of Coca-Cola and bottled water in the surveyed countries. Retail prices of the soda and bottled water are almost the same in Costa Rica, however pricing of the soda more than doubles that of bottled water in Chile and Brazil and is close to double in Argentina and Uruguay.

Seven countries in the sample do not levy excise taxes on bottled water (Peru, Chile, Colombia, Bolivia, Mexico, Ecuador and Jamaica). In these countries, the lack of this taxation may have been due to health considerations. Alternatively, low or no taxes on bottled water may have also been considered to provide the public with an alternative to tap water in locations where there is uneasiness about drinking from the tap. More research is needed here.

The other five countries in the sample (Argentina, Uruguay, Brazil, Barbados, Costa Rica have excise tax burdens in the 3.3 - 7% range. When comparing the excise tax burden, most countries have between one half and one third less excise taxation in bottled water than in soda.

When including the VAT to complete the calculation of the total tax burden on the retail price of bottled water, the highest level (20-23%) is found in Argentina, Brazil and Uruguay. However, as it was found in the soda, this is mostly due to the contribution of the VAT.

iii. Affordability of SSBs

The analysis above shows the need to include the *affordability* variable to improve the discussion. That is, to consider the prices relative to the income of the population. The affordability index was calculated as the retail price of 100 bottles of 1L of Coca Cola with respect to the Gross Domestic

Product (GDP) per capita of each country surveyed. The affordability index allows to measure the price according to the average purchasing power of the population of the country. Even though it is an imperfect indicator, it allows to make some comparisons.

• The country that has the most affordable Coca Cola is Chile, which indicates that given its health-focused fiscal policy it has a lot of room to increase the excise tax. At the opposite extreme are Ecuador and Peru, with the least affordable prices, countries that also have a health-focused fiscal policy on SSBs but which have succeeded in making these beverages less affordable compared to other countries. Mexico has a relatively larger affordability index in spite of its tax on SSBs; compared to Peru, a bottle of Coca Cola is 50% more affordable in Mexico. This result would indicate that even countries which initially developed a tax strategy on SSBs from a health perspective may later lag behind if the taxable base is not regularly updated.

Findings of the fiscal policy analysis:

- Multinationals' marketing policies (in this case, Coca-Cola Company) take into consideration the per capita income of the country where they sell (the higher the per capita income, the higher the price).
- Use of fiscal tools to reduce consumption of SSBs is still underused and incipient in the region. There is a long way to go, both in terms of increasing the rates of excise taxes and in terms of using the tax to relatively favor the consumption of bottled water compared to sugary drinks. As noted, five countries in the region tax bottled water, and nominal excise tax rates on SSBs are still low, less than 20% in all the surveyed countries with the exception of Peru.
- Civil society members emphasized the need for a more focused and long-term tax policy on SSBs and suggested to include not only carbonated beverages but also fruit juices, yoghurts, and artificially sweetened beverages. Some countries such as Peru and Chile have moved forward with this strategy but there is a need for more research in the region.
- In addition, sugar content should be the main objective of SSB fiscal policy. Countries such as Peru and Chile already started taxing SSBs by levels of sugar content.
- Argentina has developed a standard of support of vulnerable sectors of its population using subsidies¹⁹. The idea set forth in the regulatory framework of the Healthy Food Law of October 2021, implemented in March 2022, is to work with a sectoral approach to strengthen food policies.

e. General policies on food safety and food-related risks for control of NCDs

The questionnaire asked what interventions or policies exist to protect and promote healthy diets, whether the food regulatory authority has incorporated NCD control into its policies, whether the countries surveyed have a national food plan, and whether the plan is multisectoral (whether it

¹⁹ Programa Alimentar. La tarjeta permite comprar carnes, lácteos, legumbres, fruta y verduras fresca, panificados

involves several government ministries and agencies) and intersectoral (whether it involves other stakeholders such as academia and civil society organizations).

Some findings are:

• Existence of well-defined policies and food security plans.

In the case of large countries (Argentina, Colombia, Mexico) they have well defined policies and food security plans. Brazil also. While in almost all countries there are defined policies for healthy nutrition, they are not well coordinated among responsible agencies, and there is a lack of evaluation and focus on the main problems.

• Protection and promotion of healthy diets

All the countries surveyed have made progress in the protection and promotion of healthy diets, but only four countries have comprehensive policies with a good level of implementation according to civil society respondents: Argentina, Ecuador, Costa Rica, and Mexico. The other countries surveyed have limitations, regulations that have not advanced, or only have guidelines without legal power (Brazil), or there is lack of policies in some areas, inadequate budgets, etc. Possibly lack of political priority, more research needed.

• Food regulatory authority has incorporated control of NCDs into its policies?

There is generally a lack of close coordination between health authorities and food policy and food safety authorities, and often not well aligned in their focus. Food policy institutions have not generally included NCDs as a concern. Only a few countries in the sample have incorporated it partially (Chile, Mexico and Jamaica). Partially in Brazil, ANVISA does not include the control of NCDs in its mission but it carries out isolated actions.

• Food plans and multisectoral policies

Multisectoral policies are desirable because they integrate the budgetary and technical resource effort of various ministries and sometimes civil society. The reality of the countries surveyed is that NCD policies remain under the orbit of ministries of health. There are a few countries surveyed (Argentina, Brazil, Colombia, Mexico, Ecuador and Chile) where multisectoral policies are in place. In addition, they include an "all of government" policy approach that correctly addresses the multifactorial nature of the problems.

f. Other key topics in nutrition policy: national food guidelines, nutrition profile and labelling, limits on critical foods, and marketing and advertising control

The survey included questions about the food authority involvement with NCDs prevention and control, general nutritional policies (its existence or level of development), progress in implementation, and about involvement of civil society. It surveyed about the existence of policies to address advertising aimed at children and adolescents, about policies aimed at regulating healthy food environments in schools and about front of package nutritional warning labels (FOPL) regarding excess

levels of salt, saturated fats, sugars; and whether trans fats are banned or have their limits been established in food products. Also inquired about nutrition profile labelling.

Findings:

- We consulted on the existence of a national nutrient profile to classify food and beverage products according to ingredients. In some countries such as Brazil, Mexico, Argentina, Chile the guidelines in place emphasize foods. Other countries such as Colombia, Chile and Ecuador have guidelines based on nutrients.
- Some countries have adopted the PAHO maximum values of sugars, saturated fats, total fats and sodium established such as Argentina (October 2021, in transition for full compliance in two years). Other countries such as Chile have legislation on mandatory detail of nutrients in labels, but the limits are set by the Ministry of Health (MOH) or other government authority. Mexico is another example of an updated regulations based on the 2020 legislation.
- In Brazil, the Guide focuses clearly on foods and pays attention to combination of foods and cultural aspects of eating in addition to the level of processing that foods have. The guidelines for food and nutrition aim to reduce the consumption of ultra-processed and processed foods, privileging fresh and minimally processed foods. As such, according to respondents surveyed, they are an excellent opportunity to use as a tool to promote public policies aligned with the recommendations in the Guide.
- There is a general lack of proper inspection and sanctions for those not complying with the labelling of nutrient components

Some country experiences on national policies:

- WHO Guidance on the Improper Marketing of Commercial Foods for Infants and Children are included in general in the national legislations. Some countries such as Brazil do not include it.
- School food policies. Almost all countries surveyed have them, but subnational policies are
 not explicitly mentioned except in Bolivia. This may be a problem with implementation of
 healthy alternatives such as fresh foods and produce that could be better coordinated at the
 municipal level. Brazil has the National School Feeding Program, which provides meals for all
 children in public schools. Other countries also have similar programs, but Brazil stands out
 for its success according to the respondents. Argentina highlights the need to implement a
 comprehensive policy that promotes healthy environments where children gather, and to
 regulate the advertising and marketing of food and beverages. In Chile products with octagons
 cannot have advertising aimed at children and cannot be sold in schools. The Chilean
 government reports that this policy has led to a 24% reduction in the purchase of sugary drinks
 and a 14% reduction in the purchase of sugary cereals, among others.
- All countries surveyed have responded that they implemented the International Code of Marketing of Breast-milk Substitutes, and in general report that countries apply it. Respondents do not have important observations here. Civil society in Brazil (led by Ibfan Brazil) monitors compliance with the law and denounces companies that are not following it. Argentina proposes that it is necessary to design and implement comprehensive and intersectoral policies and strengthen monitoring and compliance.

- The UNICEF Child-Friendly Hospitals Initiative is applied by most countries surveyed (except Ecuador and Jamaica). However, respondents point out there is not in all cases adequate follow-up and information on the level and success of implementation of the initiative.
- Regarding the question if the country has objectives for reformulating food or beverage products in school, even though almost all countries surveyed report to that have them already in place or that they are about to be implemented, but some still lack proper regulation. In Brazil, the "Resolução Nova do Programa Nacional de Alimentação Escolar" (New Resolution of the National School Food Program) (2020) changes the parameters in all public schools in the country. These recommendations are aligned with the Food and Nutrition guidelines and reduce the consumption of ultra-processed and processed foods, privileging fresh and minimally processed foods.
- In general, recent government policies and developments were recognized as positive in Argentina, Mexico, Peru and Chile.

f. Nutritional policies (its existence or level of development), progress in implementation, and about involvement of civil society.

It surveyed about the existence of policies to address advertising aimed at children and adolescents, about policies aimed at regulating healthy food environments in schools and about front of package nutritional warning labels (FOPL) regarding excess levels of salt, saturated fats, sugars; and whether trans fats are banned or have their limits been established in food products. Also inquired about nutrition profile labelling.

Findings:

- Respondents observed that in some of their countries WHO/PAHO's nutrient profiles are not in place. In some countries such as Brazil, Mexico, Argentina, Chile the guidelines in place emphasize foods. Other countries such as Colombia, Chile (in the process of being updated) and Ecuador have guidelines based on nutrients with the aim to convey a clearer message to consumers. In Chile and Colombia this is in the process of being updated to guidelines based on foods.
- Regarding the existence of national guidelines based on foodstuffs rather than individual nutrients, with the exception of Peru and Bolivia, all others have national guidelines or they are about to be enacted.
- Most countries have legal limits on trans fats but not on salt contents.

We consulted on the existence of a national nutrient profile to classify food and beverage products according to ingredients. Some countries have adopted the PAHO maximum values of sugars, saturated fats, total fats and sodium established such as Argentina (October 2021, in transition for full compliance in two years). Other countries such as Chile have legislation on mandatory detail of nutrients in labels, but the limits are set by the Ministry of Health (MOH) or other government authority. Mexico is another example of an updated regulations based on the 2020 legislation

Some country experiences on national policies:

- Argentina with the recent law passed October 2021 has made substantial progress and civil society recognizes this. Marketing standards prohibit the advertising, promotion, and sponsorship of products with at least one octagon warning label, and which are aimed at children under the age of 18. The law also prohibits the sale and advertising of these products in schools. In addition, it states that the national government will prioritize products without warning labels when comparing similar procurement offers. Civil society seems in agreement and emphasizes the need to have oversight over implementation.
- In Brazil, the Guide focuses clearly on foods and pays attention to combination of foods and cultural aspects of eating in addition to the level of processing that foods have. The guidelines for food and nutrition aim to reduce the consumption of ultra-processed and processed foods, privileging fresh and minimally processed foods. As such, according to respondents surveyed, they are an excellent opportunity to use as a tool to promote public policies aligned with the recommendations in the Guide.
- WHO Guidance on the Improper Marketing of Commercial Foods for Infants and Children are included in general in the national legislations. Some countries such as Brazil do not include it.
- School food policies. Almost all countries surveyed have them; Brazil has the National School Feeding Program, which provides meals for all children in public schools. Other countries also have similar programs, but Brazil stands out for its success according to the respondents. Argentina highlights the need to implement a comprehensive policy that promotes healthy environments where children gather, and to regulate the advertising and marketing of food and beverages. In Chile products with octagons cannot have advertising aimed at children and cannot be sold in schools. The Chilean government reports that this policy has led to a 24% reduction in the purchase of sugary drinks and a 14% reduction in the purchase of sugary cereals, among others.
- All countries surveyed have responded that they implemented the International Code of Marketing of Breast-milk Substitutes, and in general report that countries apply it. Respondents do not have important observations here. Civil society in Brazil (led by Ibfan Brazil) monitors compliance with the law and denounces companies that are not following it. Argentina proposes that it is necessary to design and implement comprehensive and intersectoral policies and strengthen monitoring and compliance.
- The UNICEF Child-Friendly Hospitals Initiative is applied by most countries surveyed (except Ecuador and Jamaica). However, respondents point out there is not in all cases adequate follow-up and information on the level and success of implementation of the initiative.
- Does your country have the following objectives for reformulating food or beverage products in schools? Are they mandatory or voluntary? Even though almost all countries surveyed report to either have them already in place or that they are about to be implemented, some still lack proper regulation. In Brazil, the "Resolução Nova do Programa Nacional de Alimentação Escolar" (New Resolution of the National School Food Program) (2020) changes the parameters in all public schools in the country. These recommendations are aligned with the Food and Nutrition guidelines and reduce the consumption of ultra-processed and processed foods, privileging fresh and minimally processed foods.
- In general terms, recent government policies and developments were recognized as positive in Argentina, Mexico, Peru and Chile.

• In Colombia and in most countries in the region, food packages have been displaying for years a nutritional table on the back of the packaging indicating the percentage of certain ingredients. Likewise, some industries have promoted the famous GDA (Guias diarias de alimentacion) labeling introduced in Great Britain in 2013, which indicates the amount of certain nutrients and their contribution to the intake of an average adult. Both types of labeling have been criticized because their reading requires expert knowledge that almost no one has.

Bans and regulations

Existence of mandatory national policies and regulatory controls on the commercial promotion (e.g., advertising on radio, television, or public billboards) of unhealthy food and beverages for children and adolescents

- Argentina with the recent law passed October 2021 has made substantial progress and civil society recognizes this. Marketing standards prohibit the advertising, promotion, and sponsorship of products with at least one octagon warning label, and which are aimed at children under the age of 18. The law also prohibits the sale and advertising of these products in schools. In addition, it states that the national government will prioritize products without warning labels when comparing similar procurement offers. Civil society seems in agreement and emphasizes the need to have oversight over implementation.
- Prohibition or regulation on trans fats. The reduction of trans fats and the goal of their total elimination is still present in an incipient form in the countries surveyed. Respondents of Uruguay, Chile, Peru, and Mexico answered that there limits; and that Argentina has a limit for trans fats which is currently in the process of being updated to WHO best standards. Colombia has regulations for foods retailed to the public with no more than 2% of trans fats in the total fat content. In processed foods, this is less than 5g/200g. There is a national fat reduction plan. Foods with trans fats greater than 0.5mg for the total declared fats should be noted on the label.
- Sodium regulation. In Argentina, the sodium reduction strategy began with a voluntary initiative to reformulate sodium in baked goods and other processed foods more than a decade ago and ended with the enactment of National Law No. 26905 in 2013 and whose regulation No. 16/2017 joined the Argentine Food Code (CAA) where it has been mandated. In Brazil, on the other hand, there are no national targets for sodium, saturated fats, trans fats. In general, the other countries surveyed report not to have targets either.

g. Mandatory front of package labelling (FOPL)

This inquiry focused on one of the most important policies in recent years which has received substantial support from civil society, PAHO, and some governments of the region. This section was substantially extended from the previous questionnaire sent to countries to expressly expand the FOPL section. Questionnaire enquired about the main organizations involved in the approval or planning of this policy where it is not already present; it also enquired about critical nutrients regulated, and associated regulation of promotion and marketing, of regulations in school environments and government purchases among others. When FOPL is present, in addition to added sugars, salts,

saturated fats, and total fats, it was inquired about warnings on any other critical nutrient or additive present in the warnings (i.e. non-caloric sweeteners, caffeine, trans fats).

Findings:

• Just a few countries surveyed have been able to complete the process of introducing black octagon warnings of "High in" or "Excess in" sugar, salt, saturated fats and trans fats as mandatory interpretive labelling. This kind of front of package labelling (FOPL) has been consistently shown to be the clearest instrument for consumers to differentiate among products quickly and effectively with regards to their healthfulness. Chile, Peru and Uruguay have introduced black octagonal FOPL warnings, Mexico and Argentina more recently with specific legislation in place. Brazil has introduced a different system, the "lupa" or magnifying glass, in 2020 that includes all the "high in" warnings (sugar, fats, salt). This is considered less effective than the octagon warnings.

Challenges remain for countries: for example, the nutrient profile used to set the limits for each warning varies per country and it has been the target of strong interference to weaken the limits; in countries where FOPL has not been implemented, respondents report there are important obstacles to achieve this policy, including industry interference. The Brazilian warning FOPL is considered by the civil society as a concession to industry lobbying efforts.

• In Chile, in June 2016 the new law "on nutritional composition of food and its advertising" constituted a model to follow for the region, introducing black octagons with warnings about excess sugar, salt, saturated fats, trans fats and calories. The legal framework bans health claims such as of "healthy" foods to those with at least one octagon. Follow-up reports showed high compliance with the regulation in terms of use of the warnings, and compliance with the regulation of advertising and sales in schools (reaching an average of 75% compliance by 2017 and 80% in 2018).

• There are clear advances in other countries in FOPL policies: for example, in Argentina the Healthy Food Promotion Law of October 2021. This law is currently one of the best in the region in terms of good practice. The law requires ultra-processed products with excess sodium, sugar, fat, and calories to include black octagon warnings on the front of the package. It is based on the nutrient profile by PAHO; and it also includes a mandatory declaration of sugar on the food label, and it also regulates health claims (no claims are allowed on products that have at least one warning label).

• Mexico is another example of an important advance in legislation. The FOPL warning system will be implemented in three phases. The first is currently ongoing (Sept. 2020-Sept 2023) when warning octagons begin to appear on products with excess sugars, sodium, saturated fats, trans fats and calories, considering only those nutrients that have been added during their manufacture, as well as precautionary legends. In April 2021, the restriction of persuasive elements in the packaging of products containing the warnings and/or precautionary legends on non-caloric sweeteners came into force. By October 2023, the second phase begins where the limits for nutritional criteria will be stricter. This phase will last two years until September 30, 2025. Finally, the last phase will be implemented in October 1, 2025, where the warnings will be applied on the criteria of excess nutrients, taking into account all of those present in the product (regardless of whether they are added or present naturally). However, civil society's perspective is that there is a strong need to keep surveillance on the implementation of this policy.

• Uruguay attempted to develop a system of black octagon FOPL warnings without a clear food security legislation backing the initiative. The nutrient profile does not follow PAHO recommendations and the limits for the critical nutrients have been relaxed in successive decrees regulating this policy and its implementation. Also, there were changes relaxing limits and excluding some dairy industry products due to industry lobbying, which reveals the policy lacks long-term sustainability since, as seen, advances can be reversed rather easily with a new government decree.

Other countries surveyed have not yet been able to complete the process of introducing black "octagon" warnings for different reasons:

• Countries have faced Important political obstacles to achieve this policy, including industry interference and others.

• Some countries such as Ecuador, which was the first in the LAC region with the policy of mandatory interpretative labelling, has kept the traffic light system. The system in Ecuador has in addition some limitations, since the industry has the possibility of locating the warnings in less visible places of the package.

• Bolivia passed legislation in 2016 incorporating FOPL based on the traffic lights system; however, it was never implemented by the government and civil society considers it should be now updated instead of implemented based on older legislation that carries a weaker FOPL system.

• Colombia recently passed Law 2120 in July 2021, introducing FOPL warnings in packaged foods, mandating the Ministry of Health (MOH) to adopt the type of warnings to be used. However, previously the MOH had passed a regulation mandating a circular type of FOPL warnings ("High in") and gave industries 18 months to comply. By July 2022 some industries are already including the circular warnings, but the MOH has not ruled out changing the system as new scientific results come up. As a result, there is a great level of uncertainty as to what system of warnings will prevail.

• Most countries do not have warnings on excess calories, but Chile, Argentina, and Mexico have them.

• Mexico also included caffeine and non-caloric sweeteners and a measure of total sugars (not only added sugars) after October 2025, but other countries do not have these provisions.

• Most countries do not have warnings on excess calories, but Chile, Argentina, and Mexico have them.

FOPL and trans fatty acids (TFA): Some surveyors interpreted the absence of warnings on TFA.

h. Civil society organizations working to achieve or improve food environmens and FOPL

The survey asked about civil society organizations working to improve the food environment in the country. This would include those working to achieve or improve FOPL regulations. Some countries left this question blank, such as Jamaica and Costa Rica. However, with the mapping effort one of the

priorities in the current work, we included some organizations that worked with our own and/or members, affiliates and others to include them by country.

Argentina	Instituto de Efectividad Clínica y Sanitaria (IECS), Fundación
/ in Berneinia	InterAmericana del Corazón Argentina (FIC Argentina), and others
Brasil	ACT Health Promotion, Instituto Brasileiro de Defesa do Consumidor
brash	(IDEC), and others
Bolivia	Fundación InterAmericana del Corazón Bolivia (FIC Bolivia)
Chile	Centro de Investigación en Ambientes Alimentarios y Prevención de
	Enfermedades Crónicas Asociadas a la Nutrición (CIAPEC-INTA),
	Observatorio del Derecho a la Alimentación en América Latina y el
	Caribe, Grupo Transdisciplinario para la Obesidad de Poblaciones
	(GTOP), Sustainable Agrifood Systems Lab (SAS Lab), Corporación 5 al
	día and others.
Colombia	Educar Consumidores
Costa Rica	Costa Rica Saludable
Ecuador	No mention, scientific societies low participation.
Jamaica	Heart Foundation Jamaica, CAHIR (Caribbean Institute for Health
	Research), Diabetes Association of Jamaica (DAJ), Jamaica Association
	of Professionals in Nutrition and Dietetics (JAPINAD), Pediatric
	Association of Jamaica, Medical Association of Jamaica.
México	El Poder del Consumidor,
	https://elpoderdelconsumidor.org/2020/05/todo-lo-que-debes-saber-
	sobre-el-nuevo-etiquetado-de-advertencia/+++ Alianza por la salud
	alimentaria, https://alianzasalud.org.mx/ SaludJustaMx
	https://saludjusta.mx/, Mexico Saludhable,
	https://mexicosaludhable.org/
Perú	Colegio de Nutricionistas del Perú, 'Asociación Peruana de
	Consumidores y Usuarios', 'Plataforma de Alimentación Saludable'
	(PAS) entre otros
Uruguay	Alianza ENT Uruguay

Table: Mapped organizations by country.

There are academic/scientific and civil society organizations in all countries surveyed. In general, they have several such as in Peru, Chile, Argentina, Brazil, Colombia, Mexico. It appears that in some countries, civil society organizations have less influence to reach out to the authorities for the promotion of FOPL. Conversely, in Brazil, Argentina, Mexico, Colombia and Chile, contact with decision-makers appears to be more fluid, especially with parliamentarians.

I. Impact of COVID-19 on obesity prevention and other diet-related policies

Respondents mentioned that there were problems arising from the COVID pandemic regarding diversion of resources, Corporate Social Responsibility (CSR) actions of the industry, industry lobby to

reduce its tax burden, and delays in implementation and control as well as parliamentary treatment of regulations related to FOPL, among others.

III. Conclusions

a. Good practices

Intersectoral approach in the preparation and implementation of food policies and food safety systems, which have an impact on NCDs prevention. The country that would be most comprehensively addressing the problem of obesity is *Mexico*, as it is the country utilizing most of the policy resources to at least some degree. The intersectoral program GISAMAC (Intersectoral Group of Health, Food, Environment and Competitiveness) seeks the articulation, harmonization and progressive evolution of public policies of the Federal Executive branch.

Taxes on SSBs and ultra-processed foods. In Chile, Law 20.780 (2014) of the tax reform determines that the tax rate is 10% on natural or artificial carbonated beverages, energizing or hypertonic, syrups, and mineral or thermal waters to which dyes, flavorings or sweeteners have been added. If their nutritional composition includes high sugar content (more than 15 grams per 240 ml) the rate will be 18% (5 percentage points increase). In terms of taxation of SSBs, *Chile* is an excellent example of differential treatment according to sugar content, which is a very good practice. A study conducted four years after the sugary drinks* tax implementation showed a highly significant decrease of 21.6% in the monthly purchased volume of the higher-taxed sugary drinks. *Peru* follows a similar policy on sugary drinks since regulations were approved in September 2021; and respondents approve of the legislation and find it beneficial. Except for Colombia, no country is implementing excise taxes on ultra-processed food, but it has not yet been implemented there.

* There is a specific list of SSBs taxed.

In the case of Jamaica, the problem of obesity is rampant. Jamaica is the only Caribbean country in this study, but it can be considered as a good representation of what occurs in other Caribbean countries where most of the food is imported since there is little domestic production. There is lack of proper inspection and sanctions for those not complying with the labelling of nutrient components, this means that policies for different taxes and subsidies with a health focus could be easier to implement at the level of custom tariffs and other import taxes.

FOPL warnings. *Chile* was the first to implement black octagon FOPL warnings and has clear and visible messages were implemented. In Argentina the recently approved law (October 2021) includes a mandatory declaration of sugar on the label of foods, the regulation of health claims (no claims are allowed on products that have octagonal warnings) and regulation of food marketing in school settings.

Regulation on marketing standards. *Chile* prohibits the advertising, promotion, and sponsorship of products with at least one octagon warning label aimed at children under the age of 18 years old. The law also prohibits the sale and advertising of these products in schools. Argentina has also stringent provisions in this area, in process of implementation. However, even though mentioned by respondents, no country so far includes regulation of promotion and sales around schools.

Another important aspect of the newly approved FOPL law in *Argentina* is that it has included in the law a restriction on the advertising of products that have at least one octagon. Several other countries have included marketing restrictions in connection to their FOPL regulations (Chile, Mexico, Uruguay).

Salt reduction. In *Argentina*, the salt reduction strategy that began with a voluntary initiative to reduce sodium in baked goods and other processed foods was included in the Argentine Food Code (CAA) in 2013. In 2018 and 2019 two new initiatives were introduced with new sodium mandatory reductions in the National Food Commission (CONAL) were introduced to further reduce the sodium content that certain processed foods, such as baked goods or sausages, may contain. Also incorporated other food groups into the law.

Nutritional Guidelines. In *Brazil* the nutritional guidelines are based on the scope and nature of industrial food processing; the respondents considered that they are an excellent opportunity for civil society to use it as a tool to promote public policies aligned with the health recommendations.

Policies in times of COVID-19. Since 2020, the *Chilean* government has implemented some regulations to mitigate the effects of the pandemic on the national food system. Some initiatives were included in the development of the National Food Security Plan that includes the constant monitoring of food supply chains, financial and technical support to agriculture; targeted measures to favor short food supply chains and the direct delivery of food boxes.

b. Threats

Subnational policies are not explicitly mentioned except in Bolivia. This may be a problem with implementation of healthy alternatives such as fresh foods and produce that could be better coordinated at the municipal level.

The comment of some respondents (such as in Argentina) in respect of mandatory controls for nutrition protection for health is that this policy is only partially achieved, and more based on the protection of consumer rights than on the protection of consumers' health.

The COVID pandemic has had an impact on almost all countries regarding NCD policy and its implementation including those related to improve the food environment. Some threats were present before the COVID-19 pandemic, but the pandemic generated greater challenges in terms of CSR strategies, industry lobbying for its benefit, changes in nutrition and health priorities for governments, etc.

Industry interference. In Uruguay some dairy products with a high sugar content have been specifically exempt from the FOPL.

In Argentina, the "Promotion of Healthy Eating" law approved in 2021 faced various obstacles mainly from the food industry, linked to the production of sugar products. The industrial lobby sought to modify the law to downplay its impact or delay its approval. The government of the main sugar producer province supported the obstacles and delays in Congress. It sought to avoid the approval of

a law and to pass the discussion to the level of state agencies. Industry sought to delay and influence the regulation of the law taking advantage of the limitations of the pandemic.

In Brazil, respondents reported an increase in corporate social responsibility activities and industry interference.

COVID pandemic and promotion of unhealthy food. In Ecuador, the pandemic led to an increase in virtual platforms for the sale of food and beverages at home, promoting, especially fast food or ultraprocessed "junk" food, mainly by generating attractive promotions for sale.

In Colombia, respondents reported there is industry interference using corporate social responsibility strategies such as donations of ultra-processed foods.

Pro-health industry positioning. In Peru, multinationals have tried to position themselves as "pro-health" and against COVID-19. The regulation of octagonal warnings on food and beverages was declared illegal in June 2018 due to industry lobbying; however, in September 2021 after an appeal they were restored.

Exclusions of octagon warnings in some foods. In Uruguay, a modification of the FOPL regulation on octagon warnings excluded several dairy products in 2020, probably due to lobbying of the dairy industry. The FOPL had been originally promoted by a joint agreement between the Ministry of Industry and Energy and the Ministry of Health. However, the final version of FOPL was presented by the Ministry of Industry and changed the limits for the critical nutrients, allowing more products not to be labelled with the warning.

Non-compliance with FOPL. In Uruguay, a recent MOH study determined that in a sample in the rural areas of the country more than 60% of the packaged products did not comply with the FOPL regulations.²⁰

Budgetary issues slowing the implementation. In Brazil respondents reported there is currently greater introduction, acceptance and affordability of unhealthy foods and beverages while concomitantly fresh foods are becoming increasingly expensive. Although the Brazilian school food policy is recommended as an example to follow as good practice, the austere measures that are being developed in the country at present are a threat to the program.

In Chile, there are budgetary problems that have diverted funds originally intended to finance nutrition policies. They were deemed necessary to deal with the Covid 19 crisis, but Cthey changed budget allocations and reorganized priorities in terms of food and nutrition.

Arguments against FOPL and other industry's lobbying efforts. In Mexico, the food industry tried to deny the consensus evidence supporting labeling through industry-paid events and in the media; reused arguments previously seen when regulation was created in Mexico for the regulation of sales of unhealthy food in schools; repeated false arguments linking labeling to barriers to trade and stating that the new regulations contravene the guidelines of the Codex Alimentarius. The food industry also resorted to litigation to delay implementation and tried taking advantage of the COVID-19 pandemic

²⁰ https://www.gub.uy/ministerio-salud-publica/comunicacion/noticias/fiscalizacion-del-rotulado-frontal

to postpone or block implementation of the FOPL law. Fortunately, these attempts did not work, and the FOPL Law was approved.

Delays in implementation of approved legislation. In Bolivia, the government has delayed the regulation of Law 775 passed in 2016, postponing the implementation of a traffic light FOPL warnings system. However, at present the law is obsolete and civil society proposes its updating with a new FOPL legislation.

Lack of a long-term perspective. A long-term perspective involves additional and often incremental requirements for FOPL, bans and regulations for un-healthy foods, limits and new targets on healthy nutrition but also the use of fiscal policy. Countries surveyed do not have in general a long-term perspective on additional requirements for FOPL. In addition, most countries that lack a mandatory target on the elimination of trans-fats.

No country surveyed has a long-term fiscal policy focused on nutrition health promotion, since even countries with excise taxes on SSBs that consider health policy as a foundation to establish tax rates, do not have clear policies to increase the fiscal burden or to decrease affordability, which would be an optimal policy. Earmarking is also lacking; only Bolivia allocates part of the excise tax to nutrition in schools, but it has had implementation problems during the pandemic.

c. Pending topics of further research to support the nutritional strategy

Investigate tax rates and consumer price relationships for non-alcoholic, carbonated, fruity, sugary, and artificially sweetened beverages, also including in the comparison bottled water and some alcoholic beverages that may be used for substitution purchase such as beer. Some specific questions to investigate are how the sugar content in beverages has been treated in the tax legislation in the region; if implementation of higher taxes for some SSBs has stimulated the consumption of juice-based drinks even on drinks with high sugar content; if beverages containing artificial sweeteners receive the same tax treatment as sugary-sweetened ones; and the cross effects of raising taxes on SSBs relative to the consumption of beer.

Healthy eating has a component of fresh fruits and vegetables that have increasingly higher (and seasonal) relative prices compared with high-calorie and low-nutrient dry packaged industrial food products (such pasta, rice, noodles, biscuits, crackers, etc.). The latter have the additional advantage that offer much longer shelf life compared with fresh ones. This high relative price of fresh produce conspires against their consumption by lower-income population groups and has a negative effect on nutrition. A combination of higher taxes and subsidies, more focused farm policies and better distribution of fresh products should be explored.

Discussions about excise taxation of ultra-processed foods are being held in several countries, but so far this remains an underused policy tool for most countries and even those applying it have used it in a limited fashion (have not updated the taxes in many years or have implemented limited tax increases that still render the taxed products relatively affordable).

There is still no clear study on the barriers and of other factors that may also have an impact on the slow implementation and monitoring of food policies such as FOPL and others. Another important area for their success are monitoring and compliance controls by government agencies in those countries which have implemented FOPL as well as those that have been incorporating policy changes to regulate and eliminate TFAs from raw materials and in foodstuffs.

A study that delves into these issues is required to assess the negative impact of the COVID-19 pandemic for the implementation of new good practices of nutrition policies.