# Background

* 1. **Introduction:**
* Obesity in children and adolescents has reached epidemic proportions in the Region of the Americas (1). In adults, the Americas has the highest prevalence rates of all WHO regions (62.5% overweight and 28.6% obesity in the adult population over 18 years of age). Meanwhile, in Guyana, overweight prevalence is 49.4% and obesity prevalence is 20.2% (2). Average daily sugar-sweetened beverage (SSB) consumption in Latin America and the Caribbean is the highest in the world, particularly in the Caribbean with 1.93 daily 8-ounce servings per adult, respectively, compared with 0.58 globally. In Guyana, SSB daily intake is higher than 3 servings (8oz) per day among 20-30 years old (3). Systematic reviews suggest that consuming SSBs is linked with an increased incidence of diabetes and an increased rate of obesity (4,5).
* The Plan of Action for the Prevention of Obesity in Children and Adolescents, unanimously approved by the Ministers of Health of the Region of the Americas, establishes among its lines of action the application of taxes on highly caloric food and food with low nutritional value, meaning those high in sugar, salt or fat, including SSBs (1). In addition, the Updated Appendix 3 of the WHO Global Action Plan to prevent and control NCDs 2013-2020, approved by WHO Member States during the 70th World Health Assembly in 2017, includes reducing sugar consumption through effective taxation on SSBs in its updated menu of policies and cost-effective interventions for prevention and control of major NCDs (6).
* Excise taxes seek to discourage the purchase and consumption of SSBs in the short term and to help prevent the overweight, obesity, and diabetes epidemic in the medium term. There is a growing body of evidence, at global but also regional level of the cost-effectiveness of such fiscal policies in reducing the demand for SSBs (7-12). Nonetheless, not all countries in the Region of the Americas have implemented excise taxes on SSBs and many of the excise taxes already in place are not optimized to incentivize health goals and could be amended in ways that will reduce SSB consumption (13). Guyana currently does not apply excise taxes on SSBs.

Against this backdrop, the Pan American Health Organization (PAHO) Country Office in Guyana is seeking a suitable candidate to conduct an analysis of the demand for SSBs and the tax structure applied on SSBs in Guyana. The proposed service contract will take place within a European Union (EU) funded project entitled “*Health System Strengthening for Universal Health Coverage Partnership*” and will contribute to provide evidence as to determine the impact of implementing an excise tax on the consumption of SSBs and tax revenues in Guyana in order to support the implementation of an excise tax to prevent diseases related to SSBs.

# Key assumptions:

# Methods and data sources:

# Identify, compile, evaluate and clean available databases (incomes and expenditures survey such as the Household Budget Survey (HBS)/Living Condition Survey (LCS) 2018, time series on sales, prices, import volumes, VAT revenues, etc.) to determine the feasibility of the demand analysis and determine the most relevant methodology to use.

# Dissemination:

# The results of this analysis of the demand for SSB and their tax structure is meant to serve as powerful evidence to support the implementation of an excise tax to prevent diseases related to SSBs.

# Scope of Services

# The selected contractor is expected to complete the following Scope of Services:

# Identify, compile, evaluate and clean available databases (incomes and expenditures survey, time series on sales, prices, import volumes, VAT revenues, etc.) to determine the feasibility of the demand analysis and determine the most relevant methodology to use.

# Conduct a demand analysis that includes the calculation of the own price elasticity of demand and income elasticity of demand for SSBs.

# Describe the current tax structure for SSBs and propose different simulation excise tax scenarios and estimate their expected impact on consumption and tax revenues.

# Prepare a final report.

# Qualification/Experience

In order to perform this activity, the contractor must have a university degree in Economics and 8 years of experience conducting economic analysis and research, preferably in the Caribbean context. A graduate degree in Economics is preferred. Additionally, he/she must be fluent in English. Previous experience conducting demand analyses, particularly for SSBs would be an asset.

# Contractor’s responsibilities

# Deliver and report on Contract outputs per completion criteria below.

# PAHO’s responsibilities

PAHO will:

1. Facilitate access to required data sources, as applicable.
2. Provide reference documents to be applied during this assignment, as applicable.
3. Coordinate virtual meetings as necessary with PAHO advisers/professionals from the PAHO Country Offices in Guyana and/or the PAHO Regional Office.
4. Review and approve the draft and final deliverables and provide feedback to the Contractors in a timely manner.

# Completion Criteria

# Deliverable 1: Methodological proposal

* Provide the methodological proposal, including a description of the data and the econometric model to be used for the demand analysis, and a working plan with defined deadlines.

# Deliverable 2: Draft report

* Provide a draft report including descriptions of the market for SSBs, tax structure, rate(s), and base applied to SSBs; own price and income elasticities of demand for SSBs; cross-price elasticities for SSBs (if possible); estimates of the impact on tax revenue and consumption under different rates and excise tax structures scenarios; econometric specifications; and analysis limitations.

# Deliverable 3: Final report

* Provide a final report based on feedback received on Deliverable 2.

# Timeframe

This Contract is expected to be completed within a period of 90 days, inclusive of the submission of the deliverables defined within.The consultancy will commence on 10 May 2021 and end on 30 August 2021.

**Payment Schedule**

Payments will be released once the project officer has certified the satisfactory completion of each deliverable, in accordance with the stages of implementation outlined in these terms of reference.

|  **Payment**  | **Dates** | **Amount G$** | **Product** |
| --- | --- | --- | --- |
| 1 | 21 May 2021 | $291,480.00 | Submission of methodological proposal to guide the conduct of the Demand analysis of SSBs with projected timelines for completion. |
| 2 | 6 August 2021 | $437,220.00 | Submit a draft report including descriptions of the market for SSBs, tax structure, rate(s), and base applied to SSBs; own price and income elasticities of demand for SSBs; cross-price elasticities for SSBs (if possible); estimates of the impact on tax revenue and consumption under different rates and excise tax structures scenarios; econometric specifications; and analysis limitations. |
| 5 | 30 August 2021 | $728,700.00 | Submit a final report incorporating feedback received on Deliverable 2.  |
| **Total** |  | **$1,457,400 ($7,000 USD)** |  |

**Other Criteria**

* All comments on reports should be supplied on digital media.
* Tasks are to be performed accurately and within timeframes specified in work plan.
* Standards, written policies, and procedures are to be well documented and filed for future reference.
* Good human relations skill is to be demonstrated in dealing with all internal and external stakeholders.
* Flexibility is to be demonstrated in meeting the goals and objectives.
* Confidentiality and integrity are to be maintained at all times.

**Ownership**

All products and other materials resulting from this contract will be the property of the PAHO/WHO and subject to the rules and regulations governing copyrights. The Contractor may not make use of information gathered during this project without the written consent of PAHO/WHO.

**Project Manager**

This project will be supervised by Ms. Karen Roberts, Specialist, Non-Communicable Diseases and Family Health, PAHO/WHO Guyana and Mr. Maxime Roche, International Consultant, Economics of Non-communicable Diseases, PAHO/WHO, WDC.

**References**

1. Pan American Health Organization, 2014. *Plan of Action for the Prevention of Obesity in Children and Adolescents.* [Online] Available at: https://iris.paho.org/handle/10665.2/28293
[Accessed 8 February 2021].
2. World Health Organization, 2020. Global Health Observatory data repository. [Online]

Available at: https://apps.who.int/gho/data/view.main.CTRY2450A?lang=en

[Accessed 8 February 2021].

1. Singh GM, Micha R, Khatibzadeh S, Shi P, Lim S, Andrews KG, et al. Global, Regional, and National Consumption of Sugar-Sweetened Beverages, Fruit Juices, and Milk: A Systematic Assessment of Beverage Intake in 187 Countries. PLOS ONE. 2015 Aug 5;10(8):e0124845
2. Malik VS, Pan A, Willett WC, Hu FB. Sugar-sweetened beverages and weight gain in children and adults: a systematic review and meta-analysis. Am J Clin Nutr. 2013 Oct 1;98(4):1084–102.
3. Imamura F, O’Connor L, Ye Z, Mursu J, Hayashino Y, Bhupathiraju SN, et al. Consumption of sugar sweetened beverages, artificially sweetened beverages, and fruit juice and incidence of type 2 diabetes: systematic review, meta-analysis, and estimation of population attributable fraction. Br J Sports Med. 2016 Apr 1;50(8):496–504.
4. World Health Organization. Technical Annex: Updated Appendix 3 of the WHO Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013-2020. Geneva: WHO; 12 April 2017. [Internet] Available from: [www.who.int/ncds/governance/technical\_annex.pdf?ua=1](http://www.who.int/ncds/governance/technical_annex.pdf?ua=1) [Accessed on April 30 2019]
5. Task Force on Fiscal Policy for Health. Health Taxes to Save Lives: Employing Effective Excise Taxes on Tobacco, Alcohol, and Sugary Beverages. Chairs: Michael R. Bloomberg and Lawrence H. Summers. New York: Bloomberg Philanthropies; 2019.
6. Caro JC, Corvalán C, Reyes M, Silva A, Popkin B, Taillie LS. Chile’s 2014 sugar-sweetened beverage tax and changes in prices and purchases of sugar-sweetened beverages: An observational study in an urban environment. PLOS Medicine. 2018 Jul 3;15(7):e1002597.
7. Nakamura R, Mirelman AJ, Cuadrado C, Silva-Illanes N, Dunstan J, Suhrcke M. Evaluating the 2014 sugar-sweetened beverage tax in Chile: An observational study in urban areas. PLOS Medicine. 2018 Jul 3;15(7):e1002596.
8. Alvarado M, Unwin N, Sharp SJ, Hambleton I, Murphy MM, Samuels TA, et al. Assessing the impact of the Barbados sugar-sweetened beverage tax on beverage sales: an observational study. International Journal of Behavioral Nutrition and Physical Activity. 2019 Jan 30;16(1):13.
9. Colchero MA, Popkin BM, Rivera JA, Ng SW. Beverage purchases from stores in Mexico under the excise tax on sugar sweetened beverages: observational study. BMJ. 2016 Jan 6;h6704.
10. Colchero MA, Rivera-Dommarco J, Popkin BM, Ng SW. In Mexico, Evidence Of Sustained Consumer Response Two Years After Implementing A Sugar-Sweetened Beverage Tax. Health Affairs. 2017 Mar 1;36(3):564–71.
11. Sandoval RC, Roche M, Belausteguigoitia I, et al. Excise taxes on sugar-sweetened beverages in Latin America and the Caribbean. Rev Panam Salud Publica. 2021; In Press.