**Supplementary Materials**

# Manuscript: The equitable impact of sugary drink taxation structures on sugary drink consumption among Canadians: a modelling study using the 2015 Canadian Community Health Survey-Nutrition

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This supplementary material has been provided by the authors to give readers additional information about their work.

**Supplementary Table 1: Tiered tax level classification of sugary drinks**

For the tiered taxation approach, we made assumptions based on availability of model inputs for our data:

1. Respondents may consume beverages from multiple tiers in a single dietary recall, therefore we incorporated consistent cross-price elasticity estimates assuming a 20% taxation structure;
2. We imputed beverages with missing sugar (n=16) by applying the mean sugar from beverages in the specific beverage category (e.g., soft drinks) available from the CNF database. For each tier we estimated the baseline energy intake (kcal) across sociodemographic characteristics;
3. For dairy products we removed sugar from lactose, which is not considered a free sugar2, by subtracting the mean amount of sugar in unsweetened dairy products from the total amount of sugar in sweetened counterparts;
4. For concentrates (e.g., powders) we assumed a dilution of 250ml water when calculating total sugar.

| **Nutrient Survey System Code** | **Canadian Nutrient File Description** | **Free Sugar****(grams per 100ml)** |
| --- | --- | --- |
| ***Tier level: 0 (<2 grams of free sugar/100ml)*** |
| 504733 | Juice drink, fruit punch, frozen concentrate, diluted with 3.5 parts water | 0.00 |
| 504734 | Juice drink, fruit punch, frozen concentrate, diluted with 4 parts water | 0.00 |
| 504735 | Juice drink, fruit punch, frozen concentrate, diluted with 5 parts water | 0.00 |
| 1595 | Lime juice, canned or bottled | 1.37 |
| 1594 | Lime juice, raw | 1.69 |
| ***Tier level: 1 (2-4.99 grams of free sugar/100ml)*** |
| 5287 | Juice drink, mixed vegetable and fruit | 2.10 |
| 1590 | Lemon juice, canned or bottled | 2.40 |
| 1591 | Lemon juice, frozen | 2.40 |
| 1589 | Lemon juice, raw | 2.52 |
| 2464 | Juice, tomato, canned | 2.58 |
| 6287 | Juice, tomato, canned, no salt added | 2.58 |
| 7176 | Energy drink, coffee flavours, light | 2.60 |
| 500037 | Malted milk, NS as to flavour, enriched, powder, milk added | 2.65 |
| 7421 | Vegetable juice cocktail, canned, low sodium | 2.81 |
| 500036 | Malted milk, chocolate, enriched, powder, milk added | 2.85 |
| 2473 | Vegetable juice cocktail, canned | 2.89 |
| 502123 | Mixed vegetable juice (vegetables other than tomato) | 2.94 |
| 55 | Eggnog, 7% M.F., Canadian product, 4% to 8% M.F. | 3.11 |
| 7478 | Plant-based beverage, coconut, enriched, sweetened, all flavours | 3.12 |
| 7480 | Plant-based beverage, cashew, enriched, sweetened | 3.12 |
| 2868 | Juice, tomato clam cocktail, canned | 3.31 |
| 502440 | Coffee and cocoa (mocha), instant, with whitener, pre-sweetened, powder, water added | 3.54 |
| 502439 | Coffee, instant, pre-sweetened, no whitener, powder, water added | 3.64 |
| 6720 | Plant-based beverage, soy, enriched, all flavours | 3.65 |
| 2928 | Coffee, instant, sweetened, cappucino flavour, powder, water added | 3.70 |
| 5589 | Chocolate flavour drink, whey and milk based | 3.74 |
| 5586 | Juice, tomato and vegetable, low sodium | 3.80 |
| 2312 | Carrot juice, canned | 3.91 |
| 7224 | Beverage, coconut water, unsweetened, ready-to-drink | 3.92 |
| 500035 | Malted milk, natural flavour, enriched, powder, 2% milk added | 4.06 |
| 7230 | Juice drink, orange, Calorie-reduced | 4.17 |
| 500038 | Eggnog, made with 2% milk | 4.20 |
| 1485 | Acerola juice, raw | 4.50 |
| 69 | Milk, fluid, chocolate, whole | 4.60 |
| 504974 | Milk, chocolate, NFS | 4.61 |
| 70 | Milk, fluid, chocolate, partly skimmed, 2% M.F. | 4.61 |
| 7237 | Vitamin water, flavours not lemon/orange, sweetened | 4.82 |
| 7185 | Vitamin water, all flavours, sweetened | 4.89 |
| 502454 | Tea, NS as type, sweetened, NS as to sweetener, decaffeinated | 4.97 |
| 7187 | Vitamin water, lemon/orange flavours, sweetened | 4.99 |
| 502441 | Coffee, regular, presweetened with sugar, pre-lightened | 4.99 |
| ***Tier level: 2 (5-7.99 grams of free sugar/100ml)*** |
| 7055 | Drink, fruit flavour, vitamin C added, ready-to-drink | 5.00 |
| 4711 | Milk, fluid, chocolate, partly skimmed, 1% M.F. | 5.00 |
| 504363 | Coffee, mocha, with whipped cream | 5.07 |
| 5962 | Sports drink, fruit flavour, ready-to-drink | 5.24 |
| 4780 | Plant-based beverage, rice, enriched | 5.28 |
| 500025 | Chocolate flavour mix beverage, whole milk added | 5.48 |
| 500026 | Chocolate, flavour mix beverage, powder, 1% milk added | 5.49 |
| 7189 | Vitamin water, tropical citrus flavour, sweetened, with caffeine | 5.51 |
| 504387 | Daiquiri mix, frozen concentrate, diluted | 5.61 |
| 504847 | Coffee, mocha, without whipped cream | 5.67 |
| 500043 | Milk-based fruit drink | 5.69 |
| 500027 | Chocolate flavour mix beverage, skim milk added | 5.75 |
| 502759 | Chocolate flavour mix beverage, powder, 2% milk added | 5.76 |
| 504722 | Blended coffee beverage, decaffeinated coffee, sweetened | 5.93 |
| 5963 | Sports drink, lemon-lime flavour, ready-to-drink | 6.11 |
| 504359 | Chocolate syrup, skim milk added | 6.25 |
| 7225 | Plant-based beverage, almond, enriched, sweetened, vanilla flavoured | 6.25 |
| 504695 | Chocolate syrup, 1% milk added | 6.33 |
| 504686 | Carbonated citrus juice drink | 6.52 |
| 5424 | Drink, breakfast type, orange, ready-to-drink | 6.56 |
| 2965 | Drink, lemonade flavour, vitamin C added, powder, water added | 6.64 |
| 2983 | Drink, lemonade flavour, powder, water added | 6.64 |
| 504696 | Chocolate syrup, whole milk added | 6.66 |
| 6994 | Yogourt beverage, vanilla flavoured | 6.77 |
| 7120 | Yogourt beverage, vanilla flavoured, with added Vitamin D | 6.77 |
| 504729 | Blended coffee beverage, regular coffee, sweetened | 6.80 |
| 504731 | Orange juice, frozen concentrate, diluted with 4 parts water | 6.84 |
| 7178 | Energy drink, with fruit juice | 6.85 |
| 502453 | Tea, NS as to type, sweetened, NS as to sweetener (Lemon-flavoured) | 6.87 |
| 502760 | Chocolate syrup, 2% milk added | 6.93 |
| 500024 | Chocolate flavour mix beverage, powder, milk added, NS as to type of milk | 6.94 |
| 504976 | Chocolate syrup, milk added, NS as to type of milk | 7.21 |
| 1725 | Orange juice, frozen concentrate, diluted | 7.42 |
| 505188 | Carbonated juice drink, NS as to type of juice | 7.50 |
| 504732 | Orange juice, frozen concentrate, diluted with 3.5 parts water | 7.57 |
| 6993 | Yogourt beverage, fruit flavoured | 7.67 |
| 7119 | Yogourt beverage, fruit flavoured, with added Vitamin D | 7.67 |
| 5389 | Blackberry juice, canned | 7.70 |
| 502452 | Tea, NS as to type, presweetened with sugar | 7.78 |
| 6329 | Plant-based beverage, soy, enriched, chocolate | 7.86 |
| 504980 | Milk, flavors other than chocolate, skim-milk based (strawberry, vanilla, powder and syrup) | 7.86 |
| 504977 | Milk, flavors other than chocolate, NFS (strawberry, vanilla, powder and syrup) | 7.89 |
| 502770 | Milk, flavors other than chocolate, 2% milk-based (strawberry, vanilla, powder and syrup) | 7.89 |
| 504979 | Milk, flavors other than chocolate, 1% milk-based (strawberry, vanilla, powder and syrup) | 7.89 |
| 504978 | Milk, flavors other than chocolate, whole milk-based (strawberry, vanilla, powder and syrup) | 7.89 |
| 1632 | Passion fruit juice, yellow, raw | 7.96 |
| 6203 | Orange juice, chilled, includes from concentrate, fortified with added calcium and vitamin D | 7.96 |
| 6440 | Grapefruit juice, pink, raw | 7.96 |
| 7573 | Orange juice, frozen concentrate, diluted, with added calcium and Vitamin D | 7.96 |
| 7173 | Energy drink, coffee flavours | 7.98 |
| 504478 | Orange juice, frozen concentrate, with calcium and vit. D added, diluted | 7.99 |
| ***Tier level: 3 (≥ 8 grams of free sugar/100ml)*** |
| 504171 | Milk fruit drink (Smoothie) | 8.00 |
| 2929 | Coffee, instant, sweetened, French flavour, powder, water added | 8.07 |
| 2930 | Coffee, instant, sweetened, mocha flavour, powder, water added | 8.07 |
| 2889 | Juice drink, citrus fruit, frozen concentrate, water added | 8.13 |
| 502472 | Citrus fruit juice drink, frozen concentrate, diluted (40-50% fruit juice) | 8.13 |
| 502456 | Tea, made from powdered instant, presweetened with sugar (NS as to sweetener, iced tea) | 8.20 |
| 2896 | Malted milk, natural flavour, enriched powder | 8.24 |
| 2900 | Malted milk, chocolate flavour, enriched powder | 8.24 |
| 1620 | Orange juice, chilled, includes from concentrate | 8.31 |
| 2915 | Tea, instant, sweetened, lemon flavour, powder, water added | 8.33 |
| 505189 | Carbonated noncitrus juice drink | 8.34 |
| 1619 | Orange juice, raw | 8.40 |
| 504477 | Orange juice, frozen concentrate, unsweetened, diluted | 8.47 |
| 504730 | Tea, chai latte | 8.60 |
| 7179 | Energy drink, caffeine free | 8.61 |
| 501855 | Orange and banana juice | 8.62 |
| 505135 | Orange juice, NFS | 8.65 |
| 502479 | Fruit-flavoured drink, made from powdered mix (lemonade) | 8.68 |
| 2855 | Carbonated drinks, ginger ale | 8.70 |
| 7226 | Plant-based beverage, almond, enriched, sweetened, chocolate flavoured | 8.75 |
| 1723 | Orange juice, canned | 8.76 |
| 2860 | Carbonated drinks, tonic water (quinine) | 8.80 |
| 1716 | Grapefruit juice, canned, no added sugar | 8.86 |
| 504145 | Fruit smoothie drink, made with fruit or fruit juice only (no dairy products) | 8.86 |
| 501927 | Fruit juice, NFS (Mixed fruit juices) | 8.94 |
| 2920 | Carbonated drinks, cola, fast-food cola | 8.97 |
| 2857 | Carbonated drinks, lemon-lime soda | 8.98 |
| 500028 | Hot chocolate, made from dry mix, water added | 8.99 |
| 502480 | Lemonade, drink, powder, with sugar and vitamin C added, water added | 9.01 |
| 4908 | Tea, iced, lemon flavour, ready-to-drink | 9.09 |
| 1572 | Grapefruit juice, white, raw | 9.10 |
| 502464 | Fruit punch, made with fruit juice and soda | 9.25 |
| 504779 | Hot chocolate, made from dry mix, milk added | 9.33 |
| 6470 | Juice drink, orange | 9.36 |
| 501862 | Pineapple-orange juice, NFS, includes from concentrate | 9.37 |
| 7419 | Apple juice, canned or bottled, unsweetened, calcium and Vitamin C and D added | 9.47 |
| 501857 | Pineapple-grapefruit juice, fresh | 9.54 |
| 505134 | Grapefruit juice, frozen (reconstituted with water) | 9.55 |
| 5472 | Orange-strawberry-banana juice | 9.58 |
| 1495 | Apple juice, canned or bottled, without added vitamin C | 9.62 |
| 1752 | Apple juice, canned or bottled, added vitamin C | 9.62 |
| 504002 | Apple cider | 9.62 |
| 1717 | Grapefruit juice, frozen concentrate, diluted | 9.63 |
| 504386 | Blended coffee beverage, regular coffee, sweetened, with whipped cream | 9.66 |
| 504981 | Fruit smoothie drink, NFS | 9.76 |
| 502468 | Lemonade, frozen, diluted with water | 9.84 |
| 1624 | Tangerine (mandarin) juice, raw | 9.90 |
| 1657 | Pineapple juice, canned, added vitamin C | 9.98 |
| 2893 | Lemonade, white, frozen concentrate, water added | 9.98 |
| 1622 | Orange grapefruit juice, canned | 10.18 |
| 504190 | Pineapple, orange and banana juice | 10.19 |
| 2856 | Carbonated drinks, grape soda | 10.43 |
| 2858 | Carbonated drinks, orange soda | 10.43 |
| 2859 | Carbonated drinks, pepper type | 10.43 |
| 501866 | Pineapple-orange juice, frozen, diluted with water | 10.53 |
| 7051 | Orange pineapple juice | 10.57 |
| 4980 | Carbonated drinks, cola, decaffeinated | 10.58 |
| 2861 | Carbonated drinks, root beer | 10.60 |
| 7070 | Juice drink, fruit, ready-to-drink | 10.69 |
| 404292 | Juice drink, fruit, without added vitamin C, ready-to drink | 10.69 |
| 5293 | Carbonated drinks, chocolate | 10.70 |
| 5288 | Carbonated drinks, cola | 10.75 |
| 501853 | Grapefruit and orange juice, fresh, with sugar | 10.88 |
| 6662 | Juice, apple and grape, with added vitamin C | 10.92 |
| 1497 | Apple juice, frozen concentrate, diluted, without added vitamin C | 10.93 |
| 1754 | Apple juice, frozen concentrate, diluted, added vitamin C | 10.93 |
| 7175 | Energy drink, various flavours | 10.97 |
| 1570 | Grapefruit juice, canned, sweetened | 11.03 |
| 2967 | Drink, orange, vitamin C added, canned | 11.03 |
| 2885 | Juice drink, cranberry and apricot, bottled | 11.14 |
| 2955 | Juice drink, cranberry-grape, vitamin C added, bottled | 11.14 |
| 2958 | Drink, fruit punch flavour, vitamin C added, powder, water added | 11.14 |
| 2976 | Juice, cocktail, cranberry, vitamin C added, frozen concentrate, water added | 11.14 |
| 2981 | Drink, fruit punch flavour, powder, water added | 11.14 |
| 504173 | Milk shake, homemade or fountain-type, flavours other than chocolate | 11.18 |
| 2959 | Drink, fruit punch, vitamin C added, ready-to-drink | 11.29 |
| 502465 | Fruit punch, made with soda, fruit juice, and sherbet or ice cream | 11.30 |
| 504388 | Fruit juice blend, 100% juice, with added Vitamin C | 11.40 |
| 2922 | Juice drink, fruit punch, frozen concentrate, water added | 11.40 |
| 404283 | FRUIT JUICE BLEND, 100% JUICE, WITH VITAMINS AND MINERALS | 11.40 |
| 2968 | Juice drink, pineapple and grapefruit, vitamin C added, canned | 11.52 |
| 2969 | Juice drink, pineapple and orange, vitamin C added, canned | 11.59 |
| 6437 | Drink, fruit punch, frozen concentrate, water added | 11.66 |
| 1625 | Tangerine (mandarin) juice, canned, sugar added | 11.80 |
| 2972 | Drink, orange flavour, vitamin C added, powder, water added | 11.80 |
| 2956 | Juice, cocktail, cranberry, vitamin C added, bottled | 11.87 |
| 2974 | Drink, orange, vitamin C added, frozen concentrate, water added | 11.91 |
| 2904 | Juice drink, orange and apricot, canned | 12.06 |
| 5593 | Cranberry juice, unsweetened | 12.10 |
| 504189 | Pineapple juice-non-citrus juice blend, unsweetened, with added vitamin C | 12.34 |
| 6204 | Guava, nectar, canned | 12.37 |
| 6205 | Mango, nectar, canned | 12.45 |
| 1659 | Pineapple juice, frozen concentrate, diluted | 12.47 |
| 1720 | Grape juice, frozen concentrate, sugar and vitamin C added, diluted | 12.65 |
| 6661 | Pomegranate juice, ready-to-drink | 12.65 |
| 76 | Milk shake, vanilla, thick | 12.81 |
| 7429 | Carbonated drinks, lemon-lime soda, with caffeine | 12.90 |
| 7180 | Energy drink, tea flavoured | 12.92 |
| 502784 | Milk shake, restaurant type, vanilla, thick | 13.04 |
| 2960 | Juice drink, grape, vitamin C added, canned | 13.06 |
| 2895 | Limeade, frozen concentrate, water added | 13.27 |
| 2854 | Carbonated drinks, cream soda | 13.30 |
| 1644 | Peach nectar, canned | 13.32 |
| 1631 | Passion fruit juice, purple, raw | 13.40 |
| 500064 | Ice cream soda, flavours other than chocolate (root beer float) | 13.58 |
| 1694 | Apricot nectar, canned | 13.79 |
| 1629 | Papaya nectar, canned | 13.91 |
| 500042 | Milk shake, restaurant type, NS as to flavour (Thick shake mix, milk added) | 13.96 |
| 2961 | Drink, grape, vitamin C added, canned | 14.11 |
| 504558 | Shirley Temple | 14.19 |
| 1576 | Grape juice, canned or bottled, without added vitamin C | 14.20 |
| 6660 | Grape juice, canned or bottled, unsweetened, with added vitamin C | 14.20 |
| 501936 | Banana nectar | 14.26 |
| 500065 | Ice cream soda, chocolate (root beer float) | 14.48 |
| 504172 | Milk shake, homemade or fountain-type, chocolate | 14.50 |
| 2954 | Juice drink, cranberry-apple, vitamin C added, bottled | 14.50 |
| 502783 | Milk shake, restaurant type, chocolate, thick | 15.14 |
| 1652 | Pear nectar, canned | 15.16 |
| 502469 | Lemon-limeade | 15.19 |
| 501937 | Cantaloupe nectar | 15.55 |
| 75 | Milk shake, chocolate, thick | 15.91 |
| 501941 | Soursop (Guanabana) nectar | 16.00 |
| 1673 | Prune juice, canned | 16.45 |
| 500039 | Milk shake, NS as to flavour or type | 17.03 |
| 501940 | Passion fruit nectar | 17.34 |
| 502470 | Limeade, frozen concentrate, diluted | 17.43 |
| 500040 | Milk shake, homemade or fountain-type, NS as to flavour | 17.78 |
| 501935 | Prune juice, with sugar | 18.12 |
| 505183 | Blended coffee beverage, decaffeinated coffee, sweetened, with whipped cream | 18.85 |
| 500041 | Milk shake with malt (Malted milk with ice cream) | 19.81 |
| 2914 | Tea, instant, sweetened, lemon flavour, powder | 23.82 |
| 5291 | Tea, instant, sweetened, lemon flavour, powder, decaffeinated | 23.82 |
| 5628 | Cocktail mix, non-alcoholic, concentrated, frozen | 24.53 |
| 504510 | Pina Colada, non-alcoholic | 25.49 |

**Supplementary Table 2: Deriving income-specific price elasticities**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Sugary drinks, own-price elasticity** | **Milk, cross-price elasticity** | **Diet beverages, cross-price elasticity** |
| **Income**  | Kao et al., (2020) | Percentage change (%) from Quintile 3 | Andreyeva et al., (2022) | Kao et al., (2020) | Percentage change (%) from Quintile 3 | Andreyeva et al., (2022) | Kao et al., (2020) | Percentage change (%) from Quintile 3 | Andreyeva et al., (2022) |
| Quintile 1 (low) | -0.9178 | 5.31 | -1.46 (-1.96, - 0.96) | 0.0227 | -71.59 | 0.12 (-0.89, 0.38) | -0.0695 | -113.83 | -0.06 (-1.11, -0.19) |
| Quintile 2 | -0.8946 | 2.65 | -1.43 (-1.91, -0.93) | 0.0513 | -35.79 | 0.27 (-0.71, 0.87) | 0.2165 | -56.92 | 0.18 (-0.82, 0.58) |
| Quintile 3 | -0.8715 | 0.00 | **-1.39 (-1.86, - 0.91)\*** | 0.0799 | 0.00 | **0.42 (-0.52, 1.35)\*** | 0.5025 | 0.00 | **0.42 (-0.52, 1.35)\*** |
| Quintile 4 | -0.8763 | 0.55 | -1.40 (-1.87, - 0.92) | 0.0584 | -26.91 | 0.31 (-0.66, 0.99) | 0.3173 | -36.86 | 0.27 (-0.71, 0.85) |
| Quintile 5 (high) | -0.8919 | 2.34 | -1.42 (-1.90, - 0.93) | 0.0368 | -53.94 | 0.19 (-0.80, 0.62) | 0.132 | -73.73 | 0.11 (-0.90, 0.35) |

1. We estimated the percentage change in price elasticities from income adequacy quintile 3 leveraging Kao et al., (2020) estimates.
2. The percentage change was then applied to Andreyeva et al., (2022) price elasticities(\*), assuming the average elasticity represented income adequacy quintile 3
3. (not shown in table) Each price elasticity was then multiplied by a factor of 0.79 to represent a 79% pass-through of the tax to consumer

References

Kao, Kai-Erh, Amanda C. Jones, Arto Ohinmaa, and Mike Paulden. “The Health and Financial Impacts of a Sugary Drink Tax across Different Income Groups in Canada.” *Economics & Human Biology* 38 (2020): 100869. <https://doi.org/10.1016/j.ehb.2020.100869>.

Andreyeva, Tatiana, Keith Marple, Samantha Marinello, Timothy E. Moore, and Lisa M. Powell. “Outcomes Following Taxation of Sugar-Sweetened Beverages: A Systematic Review and Meta-Analysis.” *JAMA Network Open* 5, no. 6 (June 1, 2022): e2215276. <https://doi.org/10.1001/jamanetworkopen.2022.15276>.

**Supplementary Table 3: Absolute mean energy intake and proportion of daily energy intake from sugary drinks with a 79% pass-through rate, for each modelled taxation scenario, by sociodemographic characteristics**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Baseline (CCHS-N)** |  |  |  | **Flat-rate (20%) Tax** |  |  |  | **Tiered Tax** |  |  |
|  | **Absolute energy intake** **(kcal)** | **Relative contribution** **(%)** |  | **Absolute energy intake (kcal)** | **Relative contribution** **(%)** |  | **Absolute energy intake (kcal)** | **Relative contribution** **(%)** |
|  | **Mean** **(95%CI)** | **Mean Difference (95%CI)** | **Mean** **(95%CI)** | **Mean Difference (95%CI)** |  | **Mean** **(95%UI)** | **Mean Difference (95%UI)** | **Mean** **(95%UI)** | **Mean Difference (95%UI)** |  | **Mean** **(95%UI)** | **Mean Difference (95%UI)** | **Mean** **(95%UI)** | **Mean Difference (95%UI)** |
| **Overall** |  |   |  |  |  |  |   |   |   |  |   |   |   |   |
| Sugary drinks | 127 (122, 132) |   | 6.7 (6.4, 7.0) |   |  | 98 (86, 110) |   | 5.4 (4.9, 5.9) |   |   | 87 (72, 103) |   | 4.9 (4.2, 5.6) |   |
| Sugar-sweetened beverages | 93 (88, 98) |  | 4.8 (4.6, 5.1) |  |  | 72 (63, 81) |   | 3.9 (3.5, 4.3) |   |   | 64 (53, 76) |   | 3.6 (3.1, 4.1) |  |
| 100% juice | 34 (32, 36) |  | 1.9 (1.7, 2.0) |  |  | 26 (23, 29) |   | 1.5 (1.3, 1.7) |   |   | 23 (18, 27) |   | 1.3 (1.1, 1.5) |  |
| **Age** |   |   |  |   |  |   |   |  |   |  |   |   |  |   |
| 2-18y | 173 (163, 184) | 57 (46, 68) | 9.4 (8.9, 10.0) | 3.4 (2.8, 3.9) |  | 133 (116, 151) | 44 (34, 54) | 7.6 (6.8, 8.4) | 2.7 (2.2, 3.2) |   | 120 (98, 142) | 40 (31, 50) | 6.9 (5.9, 7.9) | 2.5 (2.0, 3.0) |
| 19+ | 116 (111, 121) | Ref | 6.1 (5.8, 6.3) | Ref |  | 89 (78, 100) | Ref | 4.9 (4.4, 5.4) | Ref |   | 80 (65, 94) | Ref | 4.4 (3.8, 5.1) | Ref |
| **Sex** |   |   |  |   |  |   |   |   |   |   |   |   |   |   |
| Male | 151 (143, 159) | 47 (38, 56) | 7.0 (6.7, 7.4) | 0.6 (0.1, 1.1) |  | 116 (101, 130) | 36 (28, 44) | 5.6 (5.0, 6.2) | 0.5 (0.0, 0.9) |   | 104 (85, 123) | 32 (24, 41) | 5.1 (4.4, 5.9) | 0.4 (0.0, 0.9) |
| Female | 104 (99, 109) | Ref | 6.4 (6.0, 6.8) | Ref |  | 80 (70, 90) | Ref | 5.1 (4.6, 5.7) | Ref |   | 71 (58, 84) | Ref | 4.7 (4.0, 5.4) | Ref |
| **Education** |  |  |  |  |  |   |   |   |   |   |   |   |   |   |
| Less than High School | 117 (94, 140) | -1 (-24, 22) | 6.5 (5.6, 7.4) | 0.2 (-0.8, 1.1) |  | 90 (69, 110) | -1 (-19, 16) | 5.2 (4.3, 6.1) | 0.1 (-0.7, 0.9) |   | 80 (58, 101) | -2 (-18, 14) | 4.7 (3.8, 5.7) | 0.1 (-0.7, 0.9) |
| High School Diploma | 136 (123, 149) | 18 (4, 32) | 7.4 (6.7, 8.0) | 1.0 (0.2, 1.8) |  | 104 (89, 120) | 13 (3, 24) | 5.9 (5.2, 6.7) | 0.8 (0.2, 1.5) |   | 93 (74, 112) | 11 (2, 21) | 5.4 (4.5, 6.3) | 0.8 (0.2, 1.4) |
| Below Bachelor’s Degree  | 135 (126, 143) | 17 (4, 29) | 6.9 (6.5, 7.3) | 0.5 (0.0, 1.1) |  | 103 (90, 117) | 13 (3, 23) | 5.5 (4.9, 6.1) | 0.4 (0.0, 0.9) |   | 93 (76, 110) | 11 (2, 20) | 5.0 (4.2, 5.8) | 0.4 (-0.1, 0.8) |
| Bachelor's Degree or Above  | 118 (110, 126) | Ref | 6.3 (6.0, 6.7) | Ref |  | 91 (79, 103) | Ref | 5.1 (4.5, 5.6) | Ref |   | 81 (66, 97) | Ref | 4.6 (3.9, 5.3) | Ref |
| **Food Security** |   |   |  |   |  |   |   |   |   |   |   |   |   |   |
| Food Insecure | 166 (141, 191) | 43 (15, 70) | 9.0 (7.9, 10.1) | 2.5 (1.2, 3.7) |  | 127 (103, 151) | 32 (11, 53) | 7.2 (6.1, 8.4) | 2.0 (1.0, 3.1) |   | 114 (89, 140) | 30 (10, 49) | 6.7 (5.4, 7.9) | 1.9 (0.9, 3.0) |
| Food Secure | 124 (118, 129) | Ref | 6.5 (6.2, 6.8) | Ref |  | 95 (83, 107) | Ref | 5.2 (4.7, 5.7) | Ref |   | 85 (69, 100) | Ref | 4.7 (4.0, 5.4) | Ref |
| **Income**  |   |   |  |   |  |   |   |   |   |   |   |   |   |   |
| Quintile 1 (low) | 137 (123, 151) | 15 (-5, 35) | 7.7 (7.0, 8.3) | 1.9 (0.8, 3.0) |  | 104 (88, 120) | 10 (-5, 26) | 6.1 (5.4, 6.9) | 1.5 (0.6, 2.4) |   | 93 (74, 112) | 9 (-4, 23) | 5.6 (4.7, 6.5) | 1.4 (0.5, 2.3) |
| Quintile 2 | 122 (107, 137) | 0 (-16, 17) | 6.6 (6.0, 7.3) | 0.9 (0.2, 1.5) |  | 94 (78, 109) | 0 (-13, 13) | 5.3 (4.6, 6.0) | 0.7 (0.1, 1.2) |   | 85 (67, 102) | 1 (-10, 13) | 4.9 (4.1, 5.7) | 0.7 (0.2, 1.2) |
| Quintile 3 | 129 (118, 139) | 7 (-9, 23) | 6.8 (6.4, 7.3) | 1.1 (0.1, 2.0) |  | 100 (86, 113) | 6 (-6, 18) | 5.5 (4.9, 6.1) | 0.9 (0.1, 1.7) |   | 89 (72, 106) | 6 (-5, 17) | 5.0 (4.3, 5.8) | 0.8 (0.1, 1.6) |
| Quintile 4 | 126 (114, 139) | 4 (-10, 19) | 6.6 (6.0, 7.3) | 0.9 (0.0, 1.7) |  | 97 (83, 112) | 4 (-8, 15) | 5.3 (4.6, 6.0) | 0.7 (0.0, 1.4) |   | 87 (70, 105) | 4 (-6, 14) | 4.9 (4.1, 5.7) | 0.7 (0.1, 1.3) |
| Quintile 5 (high) | 122 (111, 133) | Ref | 5.8 (5.1, 6.5) | Ref |  | 93 (80, 107) | Ref | 4.6 (3.9, 5.3) | Ref |   | 83 (66, 100) | Ref | 4.2 (3.4, 5.0) | Ref |

**\*** Income-specific price elasticity of adapted from Andreyeva T, Marple K, Marinello S, Moore TE, Powell LM. Outcomes Following Taxation of Sugar-Sweetened Beverages:

A Systematic Review and Meta-analysis. JAMA Netw Open. 2022;5:e2215276. See main paper for methods.

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Flat-rate (20%) Tax**  |  | **Tiered Tax**  |
|  | **Absolute Energy reduction** **(kcal)** | **Relative Contribution Reduction****(pct-age points)** |  | **Absolute Energy Reduction (kcal)** | **Relative Contribution Reduction****(pct-age points)** |
|  | **Mean****(95%UI)** | **Mean****(95%UI)** |  | **Mean****(95%UI)** | **Mean****(95%UI)** |
| **Overall** |  |  |  |  |  |
| Sugary drinks | 29 (18, 41) | 1.3 (0.8, 1.8) |   | 40 (24, 55) | 1.8 (1.1, 2.5) |
| Sugar-sweetened beverages | 22 (13, 30) | 0.9 (0.6, 1.3) |   | 29 (17, 40) | 1.3 (0.8, 1.7) |
| 100% juice | 8 (5, 11) | 0.4 (0.2, 0.5) |   | 11 (7, 15) | 0.5 (0.3, 0.7) |
| **Age** |   |   |  |   |   |
| 2-18 years | 40 (24, 56) | 1.9 (1.2, 2.6) |   | 53 (32, 74) | 2.5 (1.6, 3.5) |
| 19 years or older | 27 (16, 37) | 1.2 (0.8, 1.6) |   | 36 (22, 51) | 1.6 (1.0, 2.3) |
| **Sex** |   |   |   |   |   |
| Male | 35 (21, 49) | 1.4 (0.9, 1.9) |   | 47 (29, 66) | 1.9 (1.2, 2.6) |
| Female | 24 (15, 33) | 1.3 (0.8, 1.7) |   | 32 (20, 45) | 1.7 (1.1, 2.4) |
| **Education** |   |   |   |   |   |
| Less than high school | 28 (16, 39) | 1.3 (0.8, 1.8) |   | 37 (21, 53) | 1.8 (1.1, 2.4) |
| High school | 32 (19, 44) | 1.4 (0.9, 2.0) |   | 43 (26, 60) | 1.9 (1.2, 2.7) |
| Certificate below bachelor’s degree | 31 (19, 43) | 1.4 (0.9, 1.9) |   | 42 (25, 59) | 1.9 (1.2, 2.6) |
| Bachelor’s degree or higher  | 27 (17, 38) | 1.3 (0.8, 1.7) |   | 37 (22, 51) | 1.7 (1.1, 2.3) |
| **Food Security** |   |   |   |   |   |
| Food insecure | 39 (23, 55) | 1.7 (1.1, 2.4) |   | 52 (30, 73) | 2.3 (1.4, 3.2) |
| Food secure  | 29 (17, 40) | 1.3 (0.8, 1.8) |   | 39 (24, 54) | 1.8 (1.1, 2.4) |
| **Income**  |   |   |   |   |   |
| Quintile 1 (low) | 33 (20, 46) | 1.5 (1.0, 2.1) |   | 44 (26, 62) | 2.1 (1.3, 2.9) |
| Quintile 2 | 28 (17, 40) | 1.3 (0.8, 1.8) |   | 38 (22, 53) | 1.8 (1.1, 2.4) |
| Quintile 3 | 29 (18, 41) | 1.3 (0.8, 1.8) |   | 40 (24, 55) | 1.8 (1.1, 2.5) |
| Quintile 4 | 29 (17, 40) | 1.3 (0.8, 1.8) |   | 39 (23, 54) | 1.8 (1.1, 2.4) |
| Quintile 5 (high) | 28 (17, 39) | 1.2 (0.7, 1.6) |   | 39 (23, 54) | 1.6 (1.0, 2.2) |

**Supplementary Table 4 (supporting documentation for Figure 1 and 2): Reduction in mean per-capita intake and proportion of daily energy intake from sugary drinks with a 79% pass-through rate, and 95% confidence uncertainty intervals for each modelled taxation scenario, by sociodemographic characteristics**

**Supplementary Table 5: Sensitivity Analyses: Mean per-capita energy intake and proportion of daily energy intake from sugary drinks with a 79% pass-through rate, for each modelled taxation scenario using consistent price elasticity of across household income, by sociodemographic characteristics**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  | **Flat-rate (20%) Tax** |  |  |  | **Tiered Tax** |  |  |
|  |  | **Absolute energy intake (kcal)** | **Relative contribution** **(%)** |  | **Absolute energy intake (kcal)** | **Relative contribution** **(%)** |
|  |  | **Mean** **(95%CI)** | **Mean Difference (95%CI)** | **Mean** **(95%CI)** | **Mean Difference (95%CI)** |  | **Mean** **(95%CI)** | **Mean Difference (95%CI)** | **Mean** **(95%CI)** | **Mean Difference (95%CI)** |
| **Sugary drinks** |  |  |   |   |   |  |   |   |   |   |
| **Overall** |  | 99 (95, 103) |   | 5.4% (5.2, 5.7) |   |  | 89 (86, 93) |   | 5.0% (4.8, 5.2) |   |
| **Age** |  |   |   |  |   |  |   |   |  |   |
| 2-18y |  | 135 (127, 144) | 45 (36, 53) | 7.6% (7.2, 8.1) | 2.7 (2.3, 3.2) |  | 123 (115, 130) | 41 (34, 49) | 7.0% (6.6, 7.5) | 2.5 (2.1, 2.9) |
| 19+ |  | 91 (87, 95) | Ref | 4.9% (4.7, 5.2) | Ref |  | 82 (78, 85) | Ref | 4.5% (4.3, 4.7) | Ref |
| **Sex** |  |   |   |  |   |  |   |   |  |   |
| Male |  | 118 (111, 124) | 37 (30, 44) | 5.7% (5.4, 6.0) | 0.5 (0.0, 0.9) |  | 106 (100, 112) | 33 (27, 39) | 5.2% (4.9, 5.5) | 0.4 (0.0, 0.9) |
| Female |  | 81 (77, 85) | Ref | 5.2% (4.9, 5.5) | Ref |  | 73 (69, 77) | Ref | 4.8% (4.4, 5.1) | Ref |
| **Education** |  |  |  |  |  |  |  |  |  |  |
| Less than High School |  | 91 (74, 109) | -1 (-18, 17) | 5.3% (4.5, 6.1) | 0.1 (-0.7, 1.0) |  | 82 (66, 99) | -1 (-17, 15) | 4.8% (4.1, 5.6) | 0.1 (-0.6, 0.9) |
| High School Diploma |  | 106 (96, 116) | 14 (3, 25) | 6.0% (5.4, 6.6) | 0.9 (0.2, 1.5) |  | 95 (86, 105) | 12 (2, 22) | 5.5% (5.0, 6.0) | 0.8 (0.2, 1.4) |
| Below Bachelor’s Degree  |  | 105 (99, 112) | 13 (3, 23) | 5.6% (5.2, 5.9) | 0.4 (0.0, 0.9) |  | 95 (89, 100) | 12 (2, 21) | 5.1% (4.7, 5.4) | 0.4 (-0.1, 0.8) |
| Bachelor's Degree or Above  |  | 92 (86, 98) | Ref | 5.1% (4.8, 5.4) | Ref |  | 83 (77, 89) | Ref | 4.7% (4.4, 5.0) | Ref |
| **Food Security** |  |   |   |  |   |  |   |  |   |   |
| Food Insecure |  | 130 (110, 149) | 33 (12, 54) | 7.4% (6.4, 8.3) | 2.1 (1.0, 3.2) |  | 118 (100, 136) | 31 (12, 51) | 6.8% (5.9, 7.7) | 2.0 (0.9, 3.0) |
| Food Secure |  | 96 (92, 101) | Ref | 5.3% (5.0, 5.5) | Ref |  | 87 (83, 91) | Ref | 4.8% (4.6, 5.1) | Ref |
| **Income**  |  |   |   |  |   |  |   |  |   |   |
| Quintile 1 (low) |  | 107 (96, 117) | 12 (-4, 27) | 6.3% (5.7, 6.8) | 1.6 (0.6, 2.5) |  | 96 (87, 105) | 11 (-3, 25) | 5.7% (5.2, 6.2) | 1.5 (0.6, 2.4) |
| Quintile 2 |  | 95 (84, 107) | 0 (-13, 13) | 5.4% (4.9, 5.9) | 0.7 (0.2, 1.3) |  | 87 (76, 97) | 1 (-10, 13) | 5.0% (4.5, 5.5) | 0.7 (0.2, 1.2) |
| Quintile 3 |  | 100 (92, 109) | 5 (-7, 17) | 5.6% (5.2, 6.0) | 0.9 (0.1, 1.7) |  | 90 (83, 98) | 5 (-6, 17) | 5.1% (4.7, 5.4) | 0.8 (0.1, 1.5) |
| Quintile 4 |  | 98 (89, 108) | 3 (-8, 15) | 5.4% (4.9, 5.9) | 0.7 (0.0, 1.4) |  | 89 (80, 98) | 4 (-6, 14) | 4.9% (4.4, 5.4) | 0.7 (0.0, 1.3) |
| Quintile 5 (high) |  | 95 (87, 103) | Ref | 4.7% (4.1, 5.2) | Ref |  | 85 (77, 93) | Ref | 4.3% (3.7, 4.8) | Ref |

**\*** Price elasticity from Andreyeva T, Marple K, Marinello S, Moore TE, Powell LM. Outcomes Following Taxation of Sugar-Sweetened Beverages:

A Systematic Review and Meta-analysis. JAMA Netw Open. 2022;5:e2215276.

**\*\*** 95% confidence intervals account for the sampling variation in the CCHS-N, however do not account variability in own- and cross-price elasticities as in the main results.

**Supplementary Table 6: Sensitivity analysis: Mean per-capita energy intake and proportion of daily energy intake from sugary drinks with a 79% pass-through rate, for each modelled taxation scenario using lower price elasticity (-1.00) of across household income, by sociodemographic characteristic**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **20% Flat-rate Tax, 100% pass-through** |  | **Tiered Tax, 100% pass-through** |
|  | **Absolute energy intake (kcal)** | **Relative contribution** **(%)** |  | **Absolute energy intake (kcal)** | **Relative contribution** **(%)** |
|  | **Mean** **(95%CI)** | **Mean Difference (95%CI)** | **Mean** **(95%CI)** | **Mean Difference (95%CI)** |  | **Mean****(95%CI)** | **Mean Difference (95%CI)** | **Mean** **(95%CI)** | **Mean Difference (95%CI)** |
| **Sugary Drinks** |  |  |  |  |  |  |  |  |  |
| **Overall** | 109 (105, 113) |  | 5.9 (5.7, 6.1) |  |  | 102 (99, 107) |  | 5.6 (5.4, 5.9) |  |
| **Age** |  |   |   |   |  |   |   |   |   |
| 2-18y | 149 (140, 158) | 49 (40, 59) | 8.3 (7.8, 8.8) | 3.0 (2.5, 3.4) |  | 141 (132, 149) | 47 (38, 56) | 7.9 (7.5, 8.4) | 2.8 (2.4, 3.2) |
| 19+ | 100 (95, 104) | Ref | 5.3 (5.1, 5.6) | Ref |  | 94 (90, 98) | Ref | 5.1 (4.8, 5.3) | Ref |
| **Sex** |  |  |  |  |  |  |  |  |  |
| Male | 129 (122, 136) | 40 (33, 48) | 6.2 (5.9, 6.5) | 0.5 (0.1, 1.0) |  | 122 (115, 128) | 38 (31, 45) | 5.9 (5.6, 6.2) | 0.5 (0.0, 1.0) |
| Female | 89 (85, 93) | Ref | 5.6 (5.3, 6.0) | Ref |  | 84 (80, 88) | Ref | 5.4 (5.0, 5.7) | Ref |
| **Education** |  |  |  |  |  |  |  |  |  |
| Less than High School | 100 (81, 120) | -1 (-20, 18) | 5.7 (4.9, 6.5) | 0.1 (-0.7, 1.0) |  | 94 (75, 113) | -1 (-20, 17) | 5.4 (4.6, 6.2) | 0.1 (-0.7, 1.0) |
| High School Diploma | 116 (105, 127) | 15 (3, 27) | 6.5 (5.9, 7.1) | 0.9 (0.2, 1.6) |  | 109 (99, 120) | 14 (3, 25) | 6.2 (5.6, 6.8) | 0.9 (0.2, 1.5) |
| Below Bachelor’s Degree  | 116 (108, 123) | 14 (3, 25) | 6.0 (5.7, 6.4) | 0.5 (0.0, 0.9) |  | 109 (102, 115) | 13 (3, 24) | 5.7 (5.4, 6.1) | 0.4 (0.0, 0.9) |
| Bachelor's Degree or Above  | 101 (94, 108) | Ref | 5.6 (5.3, 5.9) | Ref |  | 95 (89, 102) | Ref | 5.3 (5.0, 5.6) | Ref |
| **Food Security Status** |  |  |  |  |  |  |  |  |  |
| Food Insecure | 142 (121, 163) | 36 (13, 59) | 7.9 (6.9, 8.9) | 2.2 (1.1, 3.4) |  | 134 (114, 154) | 35 (13, 57) | 7.6 (6.6, 8.6) | 2.1 (1.0, 3.3) |
| Food Secure - ref | 106 (101, 110) | Ref | 5.7 (5.4, 6.0) | Ref |  | 100 (95, 104) | Ref | 5.4 (5.2, 5.7) | Ref |
| **Income**  |  |  |  |  |  |  |  |  |  |
| Quintile 1 (low) | 117 (105, 128) | 12 (-5, 29) | 6.7 (6.2, 7.3) | 1.7 (0.7, 2.7) |  | 119 (99, 120) | 11 (-5, 28) | 6.4 (5.9, 7.0) | 1.6 (0.6, 2.6) |
| Quintile 2 | 105 (92, 117) | 0 (-14, 15) | 5.8 (5.3, 6.4) | 0.8 (0.2, 1.4) |  | 99 (87, 111) | 1 (-12, 14) | 5.6 (5.0, 6.1) | 0.8 (0.2, 1.3) |
| Quintile 3 | 111 (102, 120) | 6 (-7, 20) | 6.0 (5.6, 6.5) | 1.0 (0.1, 1.8) |  | 104 (96, 113) | 6 (-7, 19) | 5.7 (5.3, 6.2) | 0.9 (0.1, 1.7) |
| Quintile 4 | 108 (98, 119) | 4 (-9, 17) | 5.8 (5.3, 6.4) | 0.8 (0.0, 1.5) |  | 102 (92, 113) | 4 (-7, 16) | 5.6 (5.0, 6.1) | 0.8 (0.0, 1.5) |
| Quintile 5 (high) | 104 (95, 114) | Ref | 5.1 (4.5, 5.7) | Ref |  | 98 (89, 107) | Ref | 4.8 (4.2, 5.4) | Ref |

**\*** Price elasticity from Teng AM, Jones AC, Mizdrak A, Signal L, Genc M, Wilson N. Impact of sugar-sweetened beverage taxes on purchases and dietary intake: Systematic review and meta-analysis. Obesity reviews : an official journal of the International Association for the Study of Obesity. 2019; 20(9):1187-1204. See main paper for methods.

**\*\*** 95% confidence intervals account for the sampling variation in the CCHS-N, however do not account variability in own- and cross-price elasticities as in the main results.

**Supplementary Table 7: Sensitivity analysis: Mean per-capita energy intake and proportion of daily energy intake from sugary drinks with a 100% pass-through rate, for each modelled taxation scenario, by sociodemographic characteristics**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **20% Flat-rate Tax, 100% pass-through** |  | **Tiered Tax, 100% pass-through** |
|  | **Absolute energy intake (kcal)** | **Relative contribution** **(%)** |  | **Absolute energy intake (kcal)** | **Relative contribution** **(%)** |
|  | **Mean** **(95%CI)** | **Mean Difference (95%CI)** | **Mean** **(95%CI)** | **Mean Difference (95%CI)** |  | **Mean****(95%CI)** | **Mean Difference (95%CI)** | **Mean** **(95%CI)** | **Mean Difference (95%CI)** |
| **Sugary Drinks** |  |  |  |  |  |  |  |  |  |
| **Overall** | 104 (101, 108) |  | 5.7 (5.5, 5.9) |  |  | 97 (93, 100) |  | 5.3 (5.1, 5.6) |  |
| **Age** |  |   |   |   |  |   |   |   |   |
| 2-18y | 143 (134, 151) | 47 (38, 56) | 8.0 (7.5, 8.5) | 2.8 (2.4, 3.3) |  | 132 (124, 140) | 44 (36, 52) | 7.5 (7.1, 8.0) | 2.7 (2.3, 3.1) |
| 19+ | 95 (91, 100) | Ref | 5.2 (4.9, 5.4) | Ref |  | 88 (84, 92) | Ref | 4.8 (4.6, 5.1) | Ref |
| **Sex** |  |  |  |  |  |  |  |  |  |
| Male | 124 (117, 130) | 39 (31, 46) | 5.6 (5.6, 6.3) | 0.5 (0.1, 1.0) |  | 114 (108, 121) | 36 (29, 43) | 5.6 (5.3, 5.9) | 0.5 (0.0, 0.9) |
| Female | 85 (81, 89) | Ref | 5.4 (5.1, 5.8) | Ref |  | 79 (75, 83) | Ref | 5.1 (4.8, 5.4) | Ref |
| **Education** |  |  |  |  |  |  |  |  |  |
| Less than High School | 96 (77, 115) | -1 (-20, 17) | 5.5 (4.7, 6.3) | 0.1 (-0.7, 1.0) |  | 88 (71, 106) | -1 (-19, 16) | 5.2 (4.4, 5.9) | 0.1 (-0.7, 0.9) |
| High School Diploma | 111 (101, 122) | 14 (3, 26) | 6.3 (5.7, 6.9) | 0.9 (0.2, 1.6) |  | 103 (93, 113) | 13 (2, 24) | 5.9 (5.3, 6.4) | 0.8 (0.2, 1.5) |
| Below Bachelor’s Degree  | 111 (104, 118) | 14 (3, 24) | 5.8 (5.5, 6.2) | 0.4 (0.0, 0.9) |  | 102 (96, 109) | 12 (3, 22) | 5.4 (5.1, 5.8) | 0.4 (0.0, 0.8) |
| Bachelor's Degree or Above  | 97 (91, 103) | Ref | 5.4 (5.1, 5.7) | Ref |  | 90 (84, 96) | Ref | 5.0 (4.8, 5.3) | Ref |
| **Food Security Status** |  |  |  |  |  |  |  |  |  |
| Food Insecure | 136 (116, 156) | 34 (12, 57) | 7.7 (6.7, 8.6) | 2.1 (1.0, 3.3) |  | 126 (108, 145) | 33 (12, 53) | 7.2 (6.3, 8.1) | 2.1 (1.0, 3.1) |
| Food Secure - ref | 102 (97, 106) | Ref | 5.5 (5.3, 5.8) | Ref |  | 94 (89, 98) | Ref | 5.2 (4.9, 5.4) | Ref |
| **Income**  |  |  |  |  |  |  |  |  |  |
| Quintile 1 (low) | 111 (100, 123) | 11 (-5, 28) | 6.5 (5.9, 7.1) | 1.6 (0.6, 2.6) |  | 103 (93, 113) | 11 (-4, 26) | 6.1 (5.6, 6.6) | 1.5 (0.6, 2.4) |
| Quintile 2 | 100 (88, 112) | 0 (-13, 14) | 5.6 (5.1, 6.2) | 0.7 (0.2, 1.3) |  | 93 (82, 105) | 1 (-11, 14) | 5.3 (4.8, 5.8) | 0.7 (0.2, 1.3) |
| Quintile 3 | 106 (98, 115) | 6 (-7, 19) | 5.8 (5.4, 6.2) | 0.9 (0.1, 1.7) |  | 98 (91, 106) | 6 (-6, 19) | 5.5 (5.1, 5.8) | 0.9 (0.1, 1.7) |
| Quintile 4 | 104 (94, 114) | 4 (-8, 16) | 5.6 (5.1, 6.2) | 0.7 (0.0, 1.5) |  | 96 (87, 106) | 4 (-7, 15) | 5.3 (4.8, 5.8) | 0.7 (0.0, 1.4) |
| Quintile 5 (high) | 100 (91, 109) | Ref | 4.9 (4.3, 5.5) | Ref |  | 92 (83, 101) | Ref | 4.6 (4.0, 5.1) | Ref |

**\*** Income-specific price elasticity of adapted from Andreyeva T, Marple K, Marinello S, Moore TE, Powell LM. Outcomes Following Taxation of Sugar-Sweetened Beverages:

A Systematic Review and Meta-analysis. JAMA Netw Open. 2022;5:e2215276. See main paper for methods.

**\*\*** 95% confidence intervals account for the sampling variation in the CCHS-N, however do not account variability in own- and cross-price elasticities as in the main results.