Pan American Journal of Public Health

SUPPLEMENTARY FIGURE 1. Affordability trends of SSB tax, current and diverse scenarios, nationally by income tercile in Mexico 2010-2022.[a]
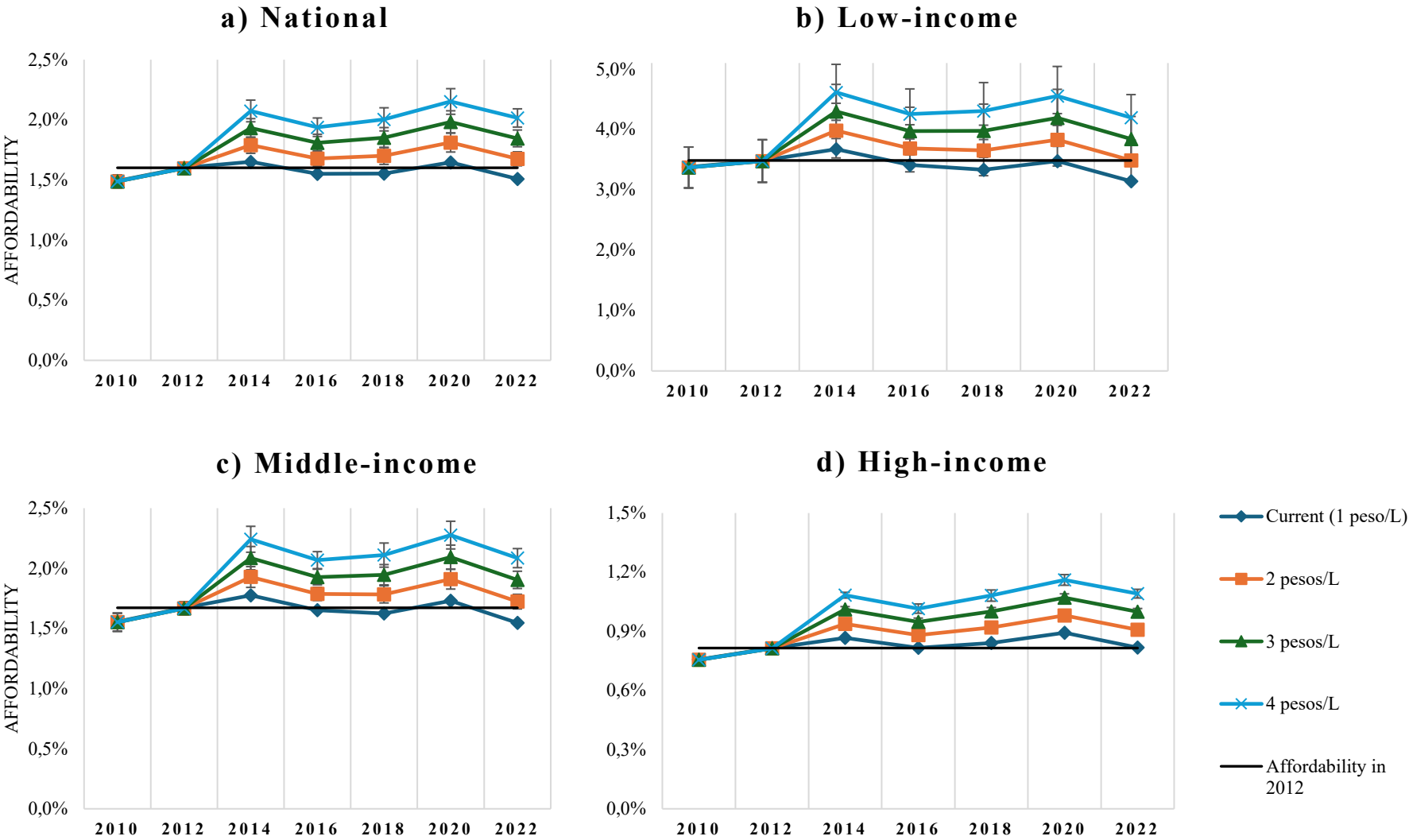
[a] Affordability shows the % of monthly income required to purchase 16L of SBB. Source: Mexican National Household Income and Expenditure Survey 2010-2022. SSB: sugar-sweetened beverages, MXN/L: Mexican pesos/Liter.

SUPPLEMENTARY FIGURE 2. Affordability trends of NEDF tax, current and diverse scenarios, nationally by income tercile in Mexico 2010-2022.[a]
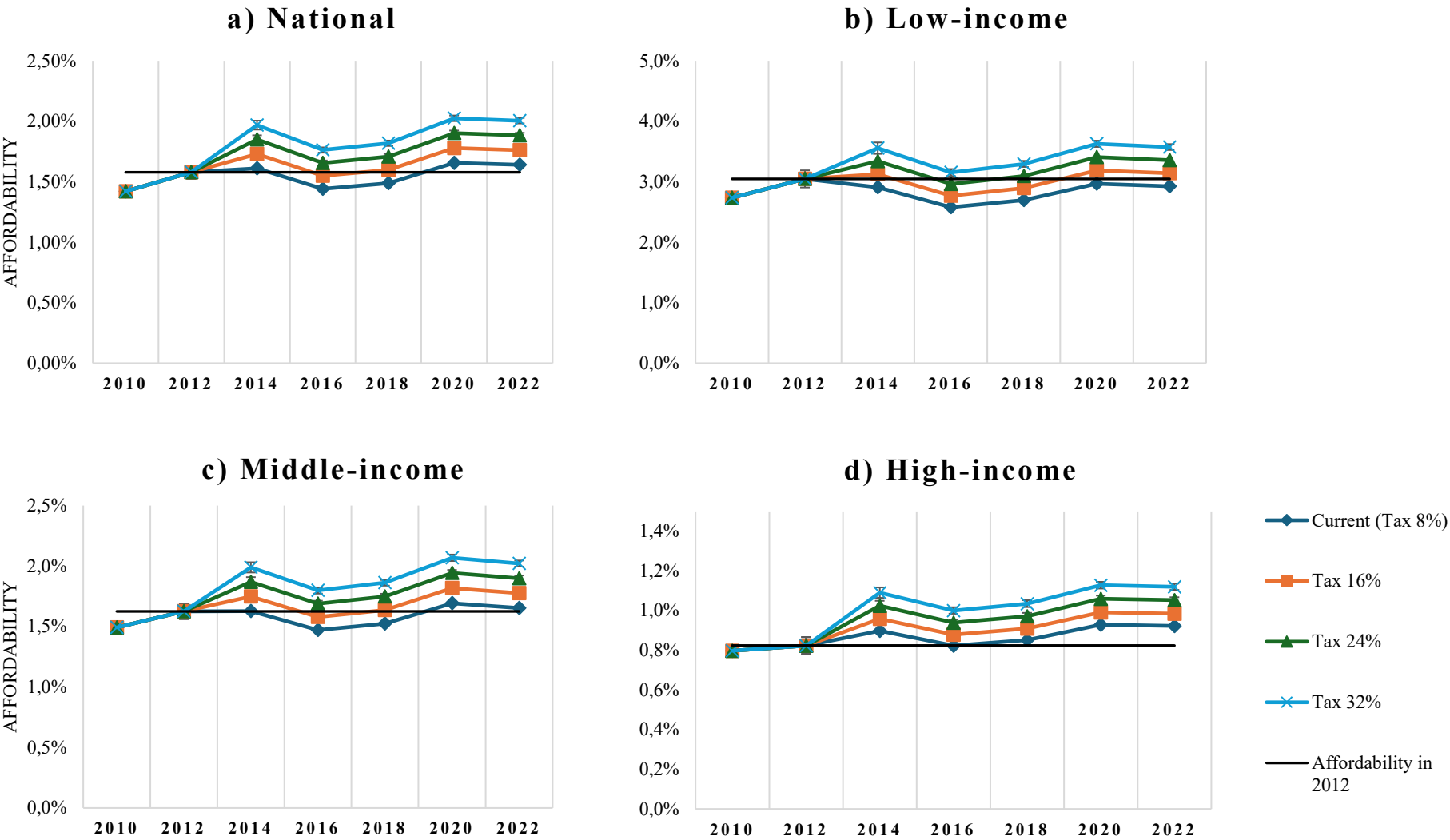
[a] Affordability shows the % of monthly income required to purchase 2.8kg of NEDF. Source: Mexican National Household Income and Expenditure Survey 2010-2022. NEDF: nonessential energy-dense foods.

SUPPLEMENTARY TABLE 1. Descriptive statistics of households in Mexico 2010-2022

MNHIES round	2010	2012	2014	2016	2018	2020	2022
Sample size (Households)	*27 445*	*9 002*	*19 479*	*70 311*	*74 647*	*89 006*	*90 102*
Sugar sweetened beverages (SSB)[a]							
Percent households with purchases >0	65,70%	65,60%	64,00%	63,00%	62,80%	60,30%	63,90%
Median income on purchasers (US$/month)[b]	1 559.66	1 486.61	1 487.96	1 628.39	1 636.27	1 567.96	1 745.03
Median cost to purchase 16 liters of SSB (US$)[b]	23,27	23,80	24,57	25,28	25,40	25,80	26,35
Affordability	1,49%	1,60%	1,65%	1,55%	1,55%	1,65%	1,51%
Nonessential energy-dense food (NEDF)[a]							
Percent households with purchases >0	61,30%	63,90%	62,10%	62,30%	61,40%	58,10%	58,00%
Median income only on purchasers (US$/month)[b]	1 488.68	1 421.25	1 372.02	1 518.19	1 523.08	1 472.69	1 626.16
Median cost to purchase 2.8 kg of NEDF (US$)[b]	21,38	22,59	22,20	22,10	22,79	24,55	26,86
Affordability	1,44%	1,59%	1,62%	1,46%	1,50%	1,67%	1,65%

Notes:

[a] SSB: sugar sweetened beverages, NEDF: nonessential energy-dense food.

[b] Median income and cost to purchase are expressed in international dollars at purchasiong power parity (US$).

[c] Own elaboration using The Mexican National Household Income and Expenditure Survey. The complex sample design was considered to calculate medians and proportions.

SUPPLEMENTARY TABLE 2. Sugar-sweetened beverages price structure in Mexico

	Before 2014	After 2014 [f] Current (1 peso/L)	Scenario 1 (2 pesos/L)	Scenario 2 (3 pesos/L)	Scenario 3 (4 pesos/L)
SSB[a] price structure (US$)[b]					
Retail price per liter	$1,14	$1,11	$1,11	$1,11	$1,11
Volumetric tax	$0,00	$0,10	$0,21	$0,31	$0,41
Retail price after tax [c]	$1,14	$1,22	$1,32	$1,42	$1,53
Retail benefit (10.27%)	$0,12	$0,13	$0,14	$0,15	$0,16
Price before VAT [d]	$1,27	$1,35	$1,46	$1,58	$1,69
VAT (16%)	$0,21	$0,22	$0,24	$0,25	$0,27
Final price	$1,47	$1,57	$1,69	$1,82	$1,96
Tax respect to final price (%)	0,00%	6,60%	12,20%	16,90%	21,00%
After 2014 absolute change (US$)	NA[e]	$0,09	$0,23	$0,36	$0,48
After 2014 relative change (%)	NA[e]	6,30%	15,30%	24,30%	33,30%

Notes:

[a] SSB: sugar sweetened beverages,

[b] US$: international dollars at purchasiong power parity

[c] Cost to purchase SSB= (Retail purchase cost SSB (1+retail benefit))+VAT+excise tax

[d] VAT: Value added tax.

[e] Not applicable

[f] After 2014 refers to 2014-2022 MNHIES rounds.

Source: own elaboration using The Mexican National Household Income and Expenditure Survey. The complex sample desgin was considered

SUPPLEMENTARY TABLE 3. Nonessential energy-dense foods price structure in Mexico

		After 2014 [e]			
	Before 2014	Current (8%)	Scenario 1 (16%)	Scenario 2 (24%)	Scenario 3 (32%)
NEDF[a] price structure (US$)[b]					
Retail price per kilogram	$7,16	$7,08	$7,08	$7,08	$7,08
Ad valorem tax	0%	8%	16%	24%	32%
Retail price after tax[c]	$7,16	$7,65	$8,22	$8,77	$9,34
Retail benefit (10.27%)	$0,77	$0,82	$0,88	$0,94	$1,00
Final price	$7,94	$8,46	$9,09	$9,72	$10,35
Tax respect to final price (%)	0,00%	6,70%	12,50%	17,50%	21,90%
After 2014 absolute change (US$)	NA[d]	$0,53	$1,15	$1,78	$2,41
After 2014 relative change (%)	NA[d]	6,70%	14,60%	22,50%	30,40%

Notes:

[a] NEDF: Nonessential energy-dense foods

[b] US$: international dollars at purchasiong power parity

[c] Cost to purchase NEDF= (Retail purchase cost NEDF*((1+retail benefit)*(1+ad valorem tax))

[d] Not applicable

[e] After 2014 refers to 2014-2022 MNHIES rounds.

Source: own elaboration using The Mexican National Household Income and Expenditure Survey. The complex sample desgin was considered

SUPPLEMENTARY TABLE 4. SSB and NEDF affordabilityunder diverse scenarios, national and by income level 2010-2022

	Affordability per simulation scenario			
	SSB [a] Affordability			
National	**Current (1MXN/L)**	**Scenario 1 (2MXN/L)**	**Scenario 2 (3MXN/L)**	**Scenario 3 (4MXN/L)**
Year	**Median [95%CI]**	**Median [95%CI]**	**Median [95%CI]**	**Median [95%CI]**
2010	1.51% [1.48% 1.54%]	1.51% [1.48% 1.54%]	1.51% [1.48% 1.54%]	1.51% [1.48% 1.54%]
2012	1.58% [1.54% 1.63%]	1.58% [1.54% 1.63%]	1.58% [1.54% 1.63%]	1.58% [1.54% 1.63%]
2014	1.66% [1.62% 1.70%]	1.81% [1.77% 1.86%]	1.96% [1.92% 2.01%]	2.11% [2.06% 2.16%]
2016	1.58% [1.56% 1.60%]	1.72% [1.70% 1.74%]	1.86% [1.83% 1.88%]	1.99% [1.96% 2.02%]
2018	1.59% [1.57% 1.61%]	1.75% [1.73% 1.77%]	1.91% [1.89% 1.94%]	2.08% [2.05% 2.10%]
2020	1.69% [1.67% 1.70%]	1.87% [1.85% 1.89%]	2.05% [2.03% 2.08%]	2.23% [2.21% 2.26%]
2022	1.54% [1.52% 1.56%]	1.72% [1.70% 1.73%]	1.90% [1.88% 1.92%]	2.07% [2.05% 2.09%]
Low-income	**Current (1MXN/L)**	**Scenario 1 (2MXN/L)**	**Scenario 2 (3MXN/L)**	**Scenario 3 (4MXN/L)**
Year	**Median [95%CI]**	**Median [95%CI]**	**Median [95%CI]**	**Median [95%CI]**
2010	3.61% [3.52% 3.71%]	3.61% [3.52% 3.71%]	3.61% [3.52% 3.71%]	3.61% [3.52% 3.71%]
2012	3.68% [3.53% 3.83%]	3.68% [3.53% 3.83%]	3.68% [3.53% 3.83%]	3.68% [3.53% 3.83%]
2014	4.01% [3.90% 4.12%]	4.33% [4.22% 4.43%]	4.64% [4.54% 4.75%]	4.97% [4.87% 5.08%]
2016	3.72% [3.65% 3.78%]	4.02% [3.95% 4.08%]	4.31% [4.25% 4.37%]	4.61% [4.55% 4.67%]
2018	3.65% [3.59% 3.71%]	4.01% [3.95% 4.07%]	4.36% [4.30% 4.42%]	4.71% [4.65% 4.78%]
2020	3.81% [3.75% 3.86%]	4.20% [4.15% 4.26%]	4.60% [4.53% 4.66%]	4.98% [4.91% 5.04%]
2022	3.39% [3.34% 3.45%]	3.77% [3.71% 3.83%]	4.16% [4.09% 4.22%]	4.52% [4.47% 4.58%]
Middle-income	**Current (1MXN/L)**	**Scenario 1 (2MXN/L)**	**Scenario 2 (3MXN/L)**	**Scenario 3 (4MXN/L)**
Year	**Median [95%CI]**	**Median [95%CI]**	**Median [95%CI]**	**Median [95%CI]**
2010	1.60% [1.57% 1.63%]	1.60% [1.57% 1.63%]	1.60% [1.57% 1.63%]	1.60% [1.57% 1.63%]
2012	1.68% [1.64% 1.72%]	1.68% [1.64% 1.72%]	1.68% [1.64% 1.72%]	1.68% [1.64% 1.72%]
2014	1.82% [1.79% 1.85%]	1.98% [1.95% 2.01%]	2.14% [2.11% 2.18%]	2.31% [2.27% 2.35%]
2016	1.67% [1.65% 1.69%]	1.82% [1.80% 1.84%]	1.97% [1.95% 1.99%]	2.12% [2.10% 2.14%]
2018	1.66% [1.65% 1.68%]	1.84% [1.82% 1.85%]	2.01% [2.00% 2.03%]	2.19% [2.17% 2.21%]
2020	1.78% [1.77% 1.79%]	1.97% [1.96% 1.99%]	2.17% [2.15% 2.19%]	2.37% [2.35% 2.39%]
2022	1.58% [1.57% 1.60%]	1.77% [1.76% 1.78%]	1.96% [1.94% 1.98%]	2.15% [2.13% 2.16%]
High-income	**Current (1MXN/L)**	**Scenario 1 (2MXN/L)**	**Scenario 2 (3MXN/L)**	**Scenario 3 (4MXN/L)**

Year	Median [95%CI]	Median [95%CI]	Median [95%CI]	Median [95%CI]
2010	0.75% [0.73% 0.76%]	0.75% [0.73% 0.76%]	0.75% [0.73% 0.76%]	0.75% [0.73% 0.76%]
2012	0.80% [0.77% 0.83%]	0.80% [0.77% 0.83%]	0.80% [0.77% 0.83%]	0.80% [0.77% 0.83%]
2014	0.85% [0.83% 0.86%]	0.93% [0.91% 0.95%]	1.01% [0.99% 1.03%]	1.08% [1.06% 1.10%]
2016	0.82% [0.81% 0.83%]	0.89% [0.88% 0.90%]	0.96% [0.94% 0.97%]	1.03% [1.01% 1.04%]
2018	0.84% [0.83% 0.85%]	0.92% [0.91% 0.93%]	1.01% [1.00% 1.02%]	1.10% [1.09% 1.11%]
2020	0.88% [0.87% 0.89%]	0.98% [0.97% 0.99%]	1.08% [1.07% 1.09%]	1.18% [1.16% 1.19%]
2022	0.81% [0.80% 0.82%]	0.91% [0.90% 0.92%]	1.01% [1.00% 1.02%]	1.10% [1.09% 1.11%]

NEDF [b] Affordability

National	Current (8%)	Scenario 1 (16%)	Scenario 2 (24%)	Scenario 3 (32%)
Year	Median [95%CI]	Median [95%CI]	Median [95%CI]	Median [95%CI]
2010	1.43% [1.40% 1.46%]	1.43% [1.40% 1.46%]	1.43% [1.40% 1.46%]	1.43% [1.40% 1.46%]
2012	1.53% [1.48% 1.58%]	1.53% [1.48% 1.58%]	1.53% [1.48% 1.58%]	1.53% [1.48% 1.58%]
2014	1.56% [1.53% 1.59%]	1.67% [1.64% 1.71%]	1.79% [1.76% 1.82%]	1.91% [1.87% 1.94%]
2016	1.42% [1.40% 1.44%]	1.53% [1.51% 1.55%]	1.63% [1.61% 1.65%]	1.74% [1.72% 1.76%]
2018	1.48% [1.46% 1.50%]	1.59% [1.57% 1.61%]	1.70% [1.67% 1.72%]	1.80% [1.78% 1.83%]
2020	1.64% [1.62% 1.65%]	1.76% [1.74% 1.78%]	1.88% [1.86% 1.90%]	2.00% [1.98% 2.02%]
2022	1.63% [1.61% 1.65%]	1.75% [1.73% 1.77%]	1.87% [1.85% 1.89%]	1.99% [1.97% 2.01%]

Low-income	Current (8%)	Scenario 1 (16%)	Scenario 2 (24%)	Scenario 3 (32%)
Year	Median [95%CI]	Median [95%CI]	Median [95%CI]	Median [95%CI]
2010	2.91% [2.84% 2.98%]	2.91% [2.84% 2.98%]	2.91% [2.84% 2.98%]	2.91% [2.84% 2.98%]
2012	3.29% [3.15% 3.43%]	3.29% [3.15% 3.43%]	3.29% [3.15% 3.43%]	3.29% [3.15% 3.43%]
2014	3.08% [3.01% 3.16%]	3.31% [3.23% 3.39%]	3.54% [3.45% 3.63%]	3.77% [3.67% 3.86%]
2016	2.79% [2.74% 2.83%]	2.99% [2.94% 3.04%]	3.20% [3.14% 3.25%]	3.40% [3.35% 3.46%]
2018	2.87% [2.83% 2.91%]	3.08% [3.04% 3.13%]	3.29% [3.25% 3.34%]	3.51% [3.46% 3.56%]
2020	3.16% [3.11% 3.20%]	3.39% [3.34% 3.44%]	3.62% [3.57% 3.67%]	3.86% [3.81% 3.91%]
2022	3.06% [3.02% 3.10%]	3.28% [3.24% 3.33%]	3.51% [3.46% 3.56%]	3.74% [3.69% 3.79%]

Middle-income	Current (8%)	Scenario 1 (16%)	Scenario 2 (24%)	Scenario 3 (32%)
Year	Median [95%CI]	Median [95%CI]	Median [95%CI]	Median [95%CI]
2010	1.51% [1.47% 1.54%]	1.51% [1.47% 1.54%]	1.51% [1.47% 1.54%]	1.51% [1.47% 1.54%]
2012	1.63% [1.57% 1.69%]	1.63% [1.57% 1.69%]	1.63% [1.57% 1.69%]	1.63% [1.57% 1.69%]
2014	1.61% [1.57% 1.64%]	1.73% [1.69% 1.77%]	1.85% [1.81% 1.89%]	1.97% [1.92% 2.01%]

Year			
2016	1.46% [1.44% 1.49%]	1.57% [1.55% 1.60%]	1.68% [1.66% 1.71%]	1.79% [1.76% 1.82%]
2018	1.52% [1.50% 1.54%]	1.63% [1.61% 1.65%]	1.75% [1.72% 1.77%]	1.86% [1.83% 1.88%]
2020	1.68% [1.66% 1.70%]	1.81% [1.78% 1.83%]	1.93% [1.91% 1.96%]	2.06% [2.03% 2.08%]
2022	1.65% [1.63% 1.67%]	1.78% [1.75% 1.80%]	1.90% [1.87% 1.92%]	2.02% [2.00% 2.05%]

High-income	Current (8%)	Scenario 1 (16%)	Scenario 2 (24%)	Scenario 3 (32%)
Year	Median [95%CI]	Median [95%CI]	Median [95%CI]	Median [95%CI]
2010	0.73% [0.72% 0.75%]	0.73% [0.72% 0.75%]	0.73% [0.72% 0.75%]	0.73% [0.72% 0.75%]
2012	0.76% [0.71% 0.80%]	0.76% [0.71% 0.80%]	0.76% [0.71% 0.80%]	0.76% [0.71% 0.80%]
2014	0.82% [0.80% 0.84%]	0.88% [0.86% 0.90%]	0.94% [0.92% 0.97%]	1.00% [0.98% 1.03%]
2016	0.75% [0.74% 0.77%]	0.81% [0.80% 0.82%]	0.87% [0.85% 0.88%]	0.92% [0.90% 0.94%]
2018	0.78% [0.77% 0.79%]	0.84% [0.82% 0.85%]	0.90% [0.88% 0.91%]	0.95% [0.94% 0.97%]
2020	0.87% [0.86% 0.89%]	0.94% [0.92% 0.95%]	1.00% [0.99% 1.02%]	1.07% [1.05% 1.08%]
2022	0.88% [0.86% 0.89%]	0.94% [0.93% 0.96%]	1.01% [0.99% 1.02%]	1.07% [1.05% 1.09%]

Notes:

[a] SSB: sugar sweetened beverages

[b] NEDF: nonessential energy-dense food.

Source: own elaboration using The Mexican National Household Income and Expenditure Survey, the complex sample design of MNHIES was considered to calculate medians and 95% confidence intervals.