Simsurveys

Food & Health Survey Validation Study

Simulated Data vs. Live Study Results

Reference Study: IFIC 2025 Food & Health Survey

Live: n = 3,000 U.S. adults | Simulated: n = 1,000 simulated respondents

February 03, 2026

Executive Summary

This report presents a validation study designed to answer a practical research question: would a marketing research team analyzing simulated survey data generated by Simsurveys reach the same conclusions and make the same recommendations as one analyzing live respondent data?

To evaluate this, simulated survey responses generated by Simsurveys were compared against results from the IFIC 2025 Food & Health Survey, a nationally representative study of 3,000 U.S. adults conducted by the International Food Information Council. The IFIC survey is one of the longest-running and most widely cited annual benchmarks in the food and nutrition research space, covering consumer attitudes toward dietary guidelines, nutrient awareness, sugar and sodium concerns, self-assessed diet quality, food processing perceptions, and packaging information usage.

Synthetic results were generated to match the live study's respondent population and topic coverage. The analysis spans 26 survey items across 16 question groups, including single-select attitudinal and behavioral questions as well as multi-select items. For each item, simulated and live response distributions are shown side by side to allow direct comparison. The final synthetic dataset used for this analysis consisted of n = 1,000 simulated respondents.

Alignment is assessed using established distribution-comparison metrics. Kullback–Leibler (KL) Divergence is applied to single-select questions to evaluate distributional similarity, while Rank-Biased Overlap (RBO) is used for multi-select questions to assess similarity in response ordering. KL values below 0.15 and RBO values above 0.70 indicate that insights derived from simulated data would be substantively equivalent to those derived from live respondents, meaning they would lead to the same strategic conclusions and business recommendations.

Across the questions evaluated, simulated results demonstrate strong directional alignment with live findings on the core patterns that matter for decision-making: the rank ordering of consumer attitudes, the relative magnitude of concern segments, and the overall shape of behavioral distributions. While some individual-item deviations are observed—particularly where simulated respondents show somewhat stronger stated preferences or awareness—the overall level of agreement indicates that Simsurveys generates research-grade data suitable for marketing analysis, insight generation, and decision support in the food and health domain.

Familiarity with Dietary Guidelines for Americans

KL Divergence = 0.041

I have never heard of them — 11% (IFIC 2025 Live), 14% (Simulated)

I have heard of them, but know very little about them — 45% (IFIC 2025 Live), 34% (Simulated)

I know a fair amount about them — 37% (IFIC 2025 Live), 38% (Simulated)

I know a lot about them — 7% (IFIC 2025 Live), 14% (Simulated)

Legend: IFIC 2025 (Live), Simulated

Percentage (%)
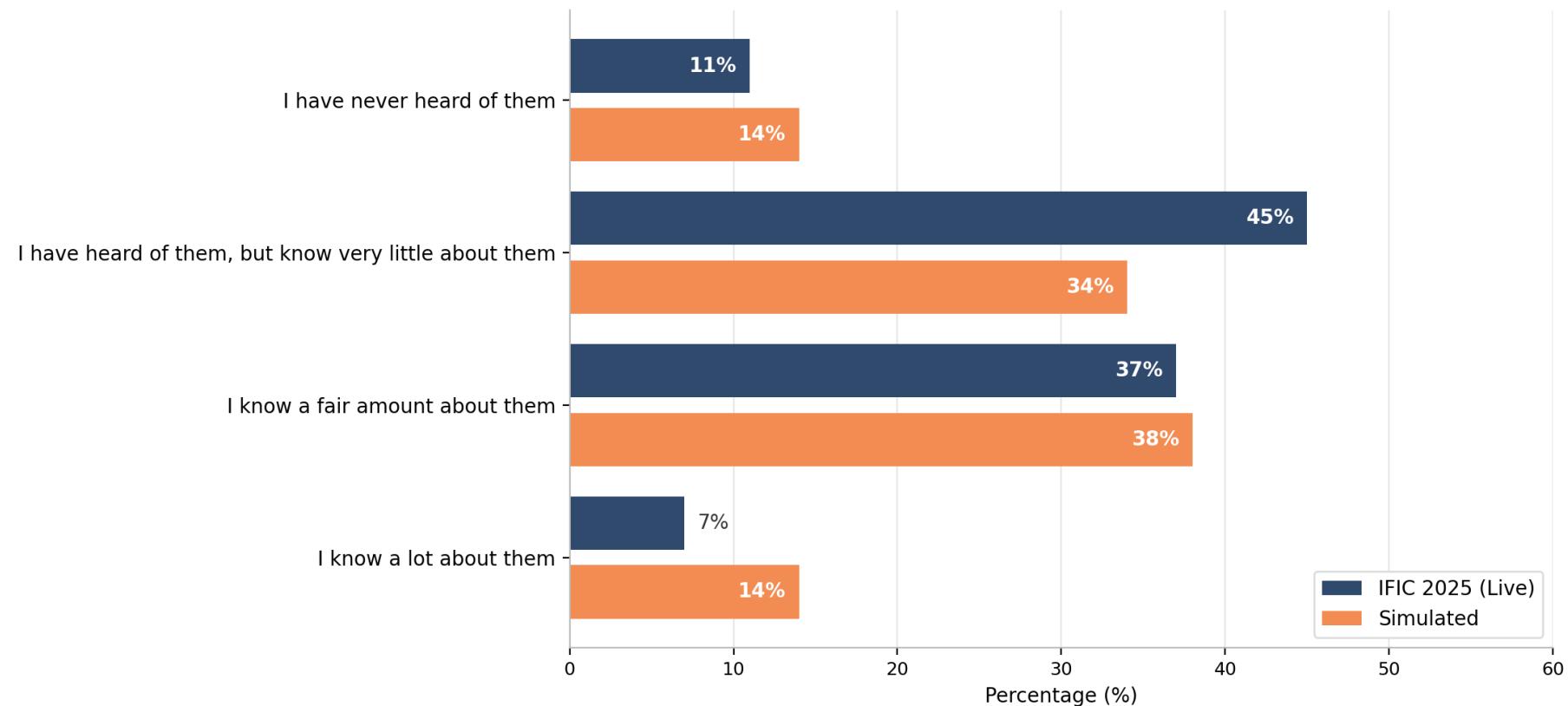
Try to consume or avoid: Protein

KL Divergence = 0.009

Not sure: IFIC 2025 (Live) 2%, Simulated 3%
Don't consider: IFIC 2025 (Live) 7%, Simulated 5%
Neither: Just try to be aware: IFIC 2025 (Live) 15%, Simulated 15%
Try to limit or avoid: IFIC 2025 (Live) 5%, Simulated 7%
Try to consume: IFIC 2025 (Live) 70%

Legend: IFIC 2025 (Live), Simulated

X-axis: Percentage (%)
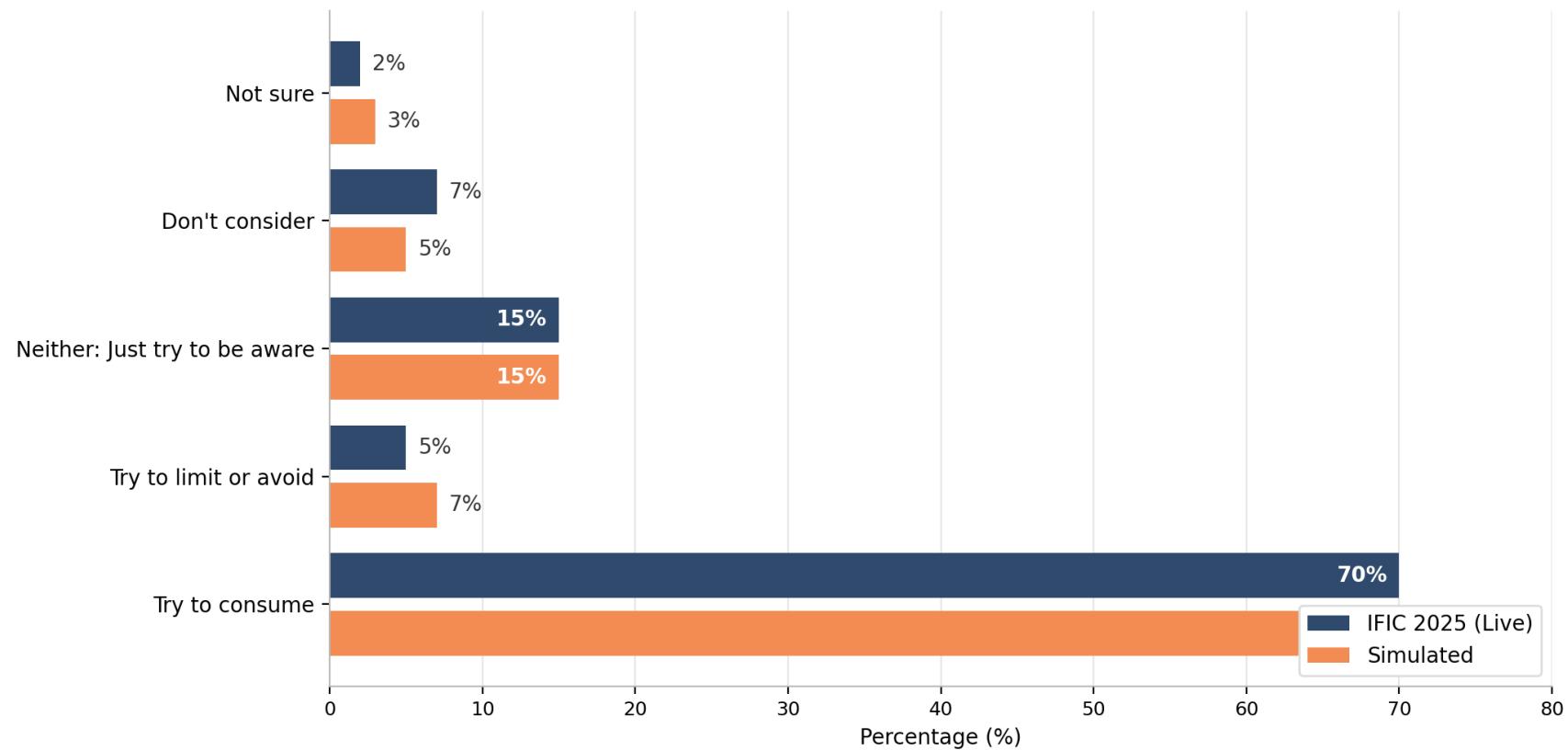
Try to consume or avoid: Fiber

KL Divergence = 0.008

Legend: IFIC 2025 (Live), Simulated

| Category	IFIC 2025 (Live)	Simulated
Not sure	3%	4%
Don't consider	9%	7%
Neither: Just try to be aware	17%	20%
Try to limit or avoid	7%	8%
Try to consume	64%	—

X-axis: Percentage (%)
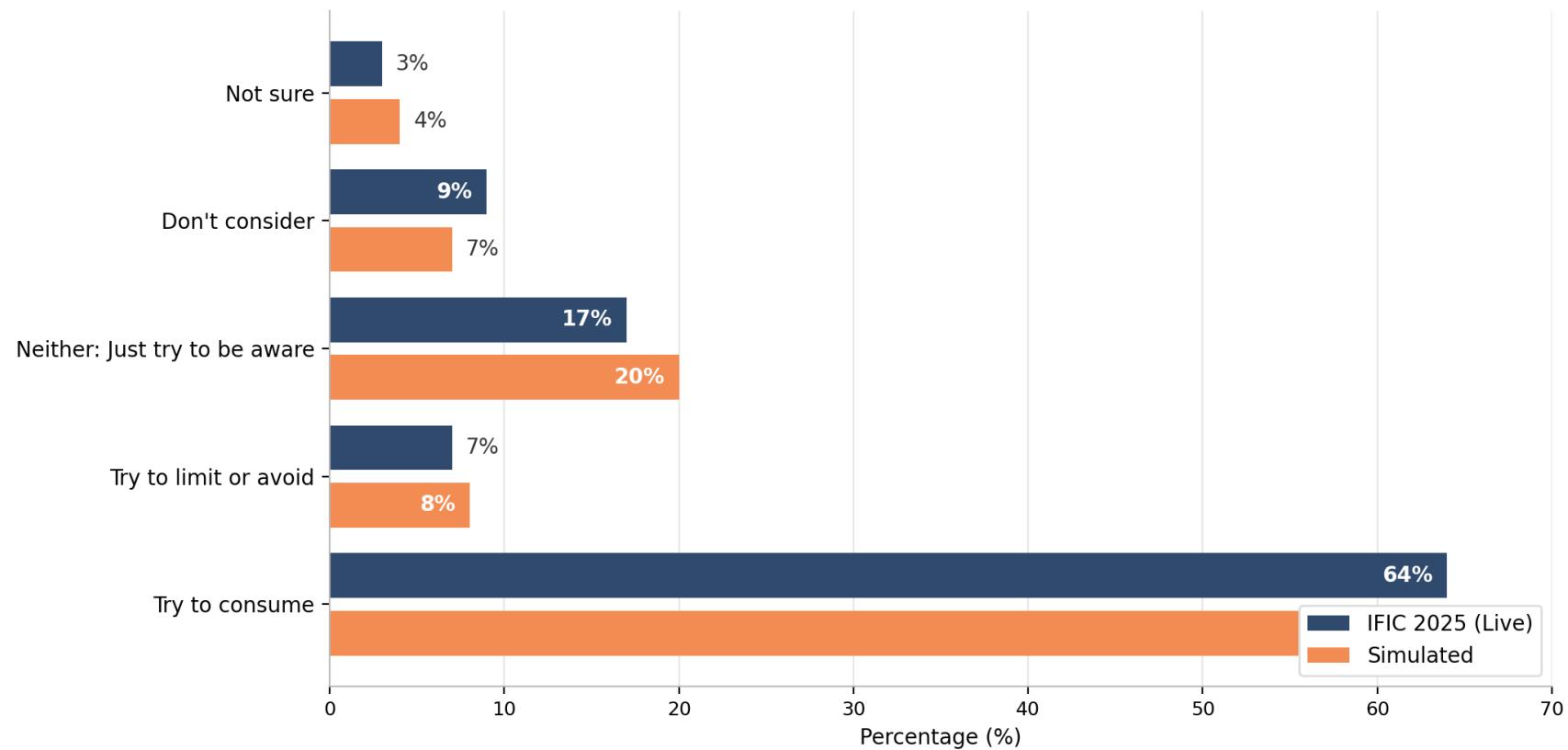
Try to consume or avoid: Vitamin D

KL Divergence = 0.042
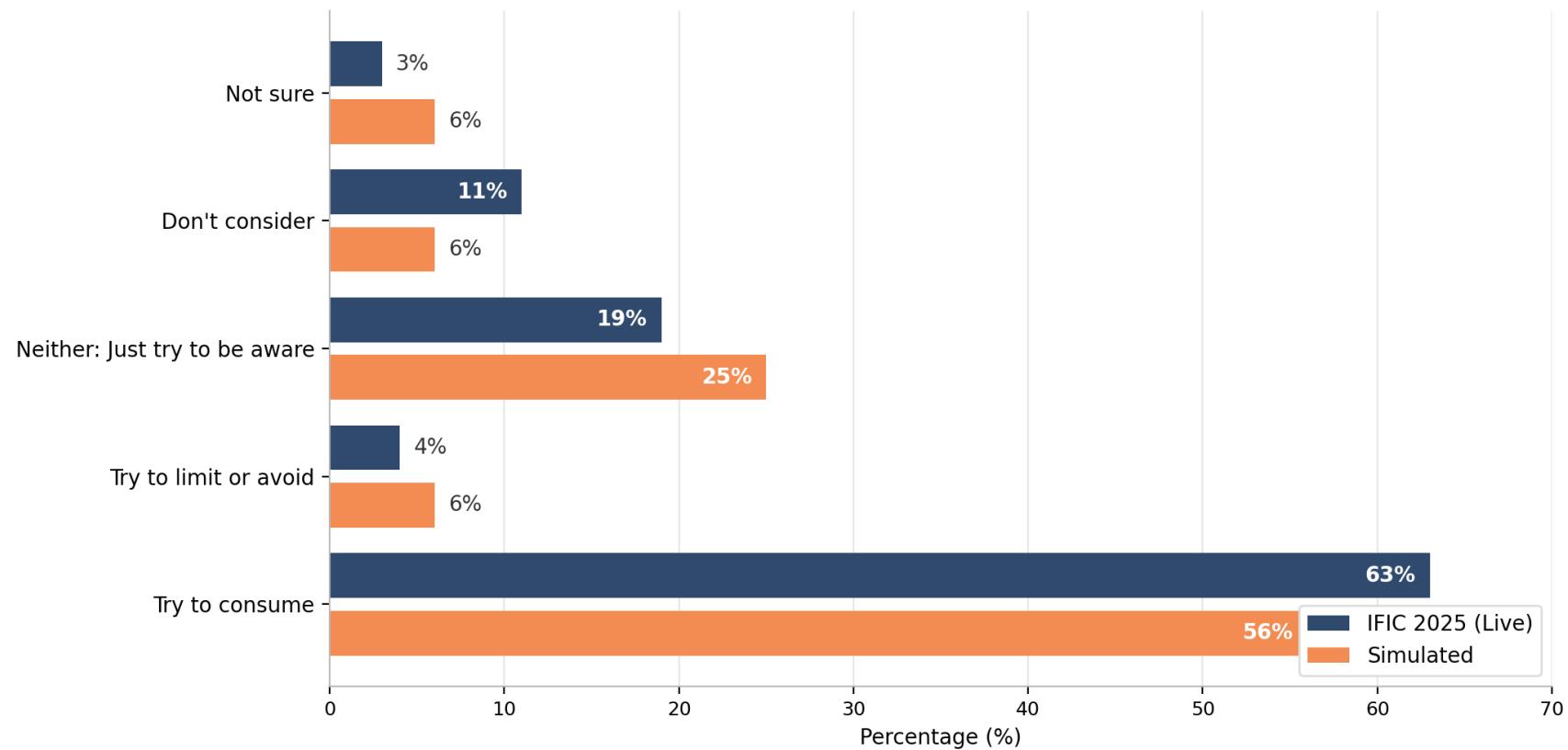
Try to consume or avoid: Calcium

KL Divergence = 0.050
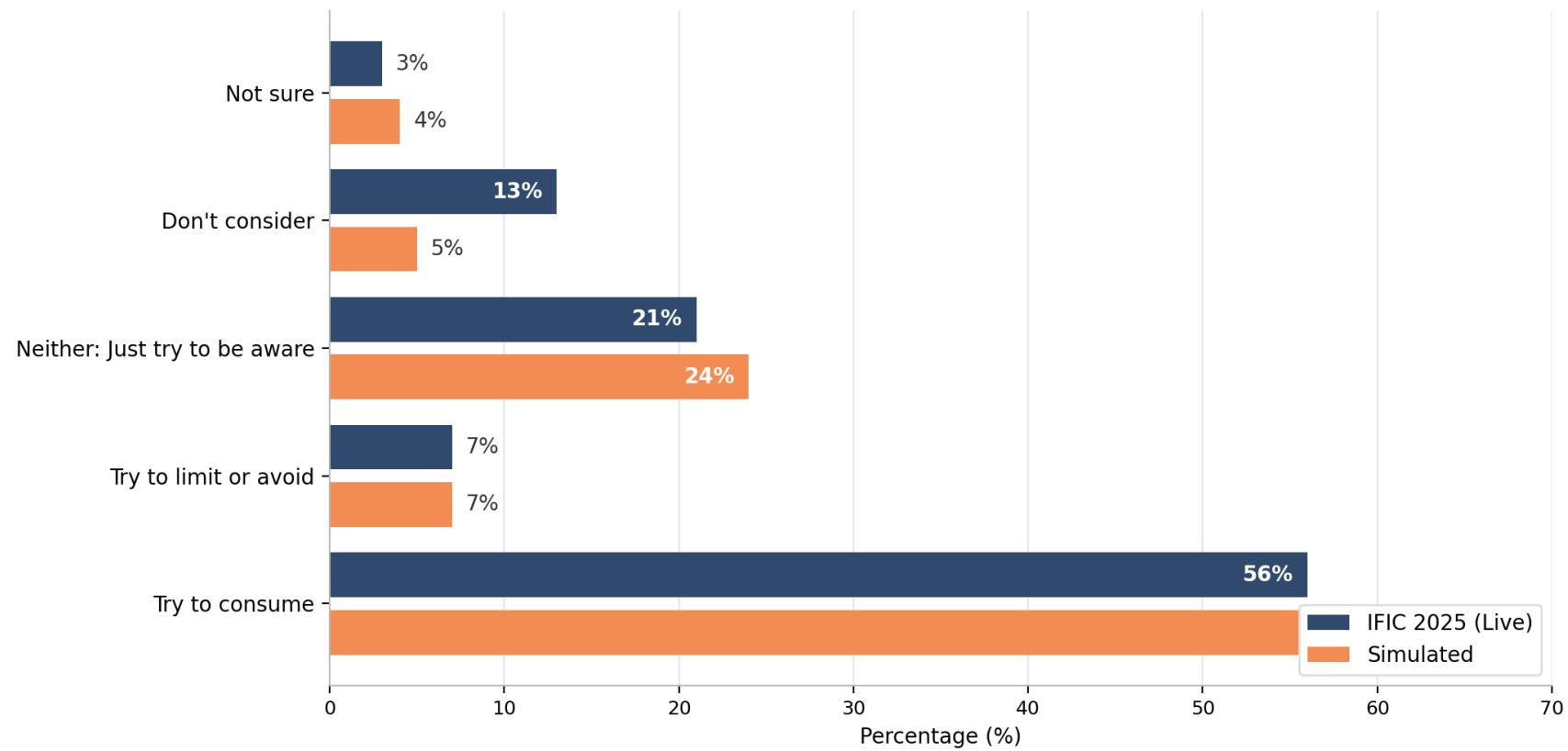
Try to consume or avoid: Vitamin B12

KL Divergence = 0.063

Legend:
- IFIC 2025 (Live)
- Simulated

Category	IFIC 2025 (Live)	Simulated
Not sure	5%	9%
Don't consider	16%	11%
Neither: Just try to be aware	23%	36%
Try to limit or avoid	6%	4%
Try to consume	50%	40%

Percentage (%)
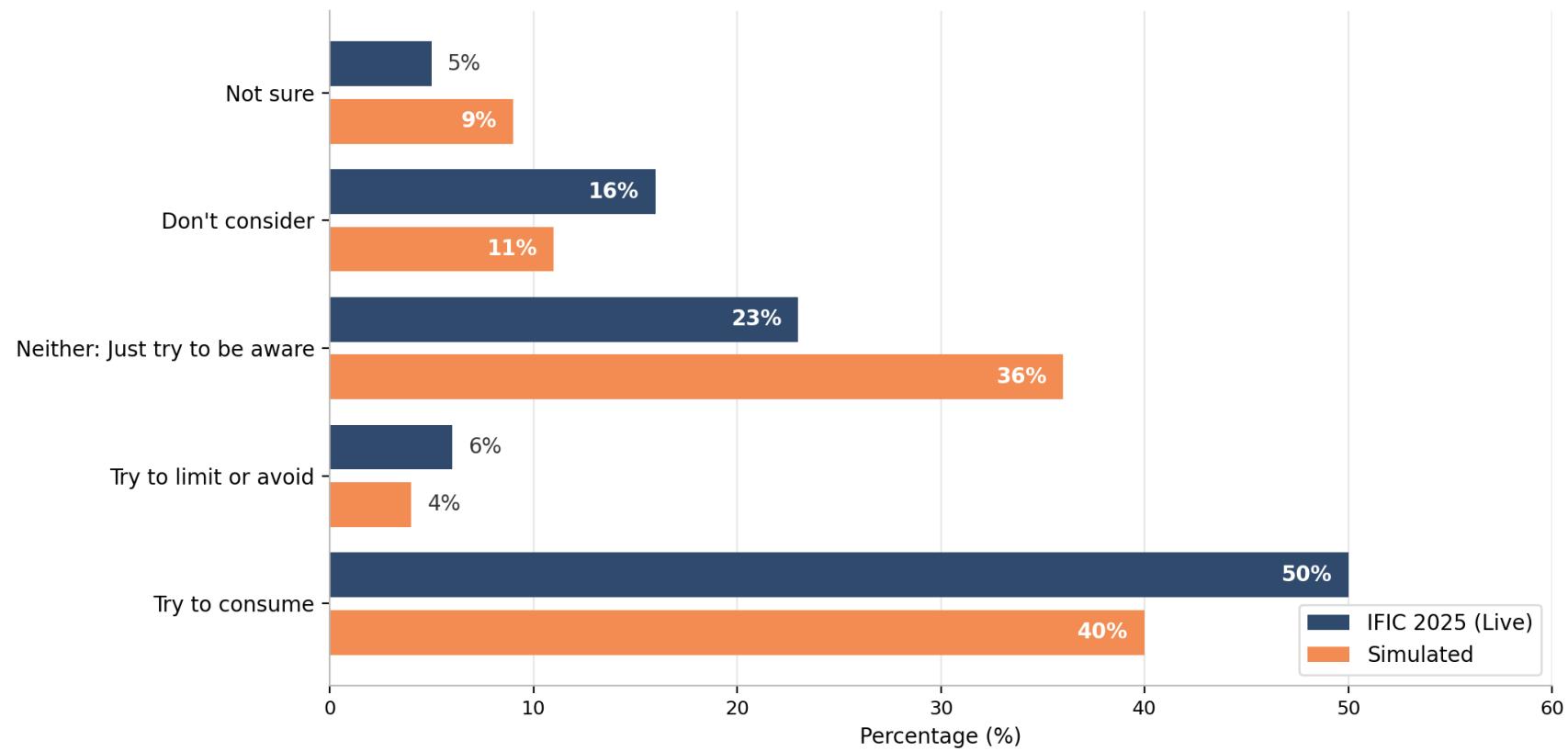
Try to consume or avoid: Iron

KL Divergence = 0.051

Legend:
- IFIC 2025 (Live)
- Simulated

| Category	IFIC 2025 (Live)	Simulated
Not sure	4%	8%
Don't consider	14%	10%
Neither: Just try to be aware	26%	35%
Try to limit or avoid	8%	11%
Try to consume	48%	37%

Percentage (%)
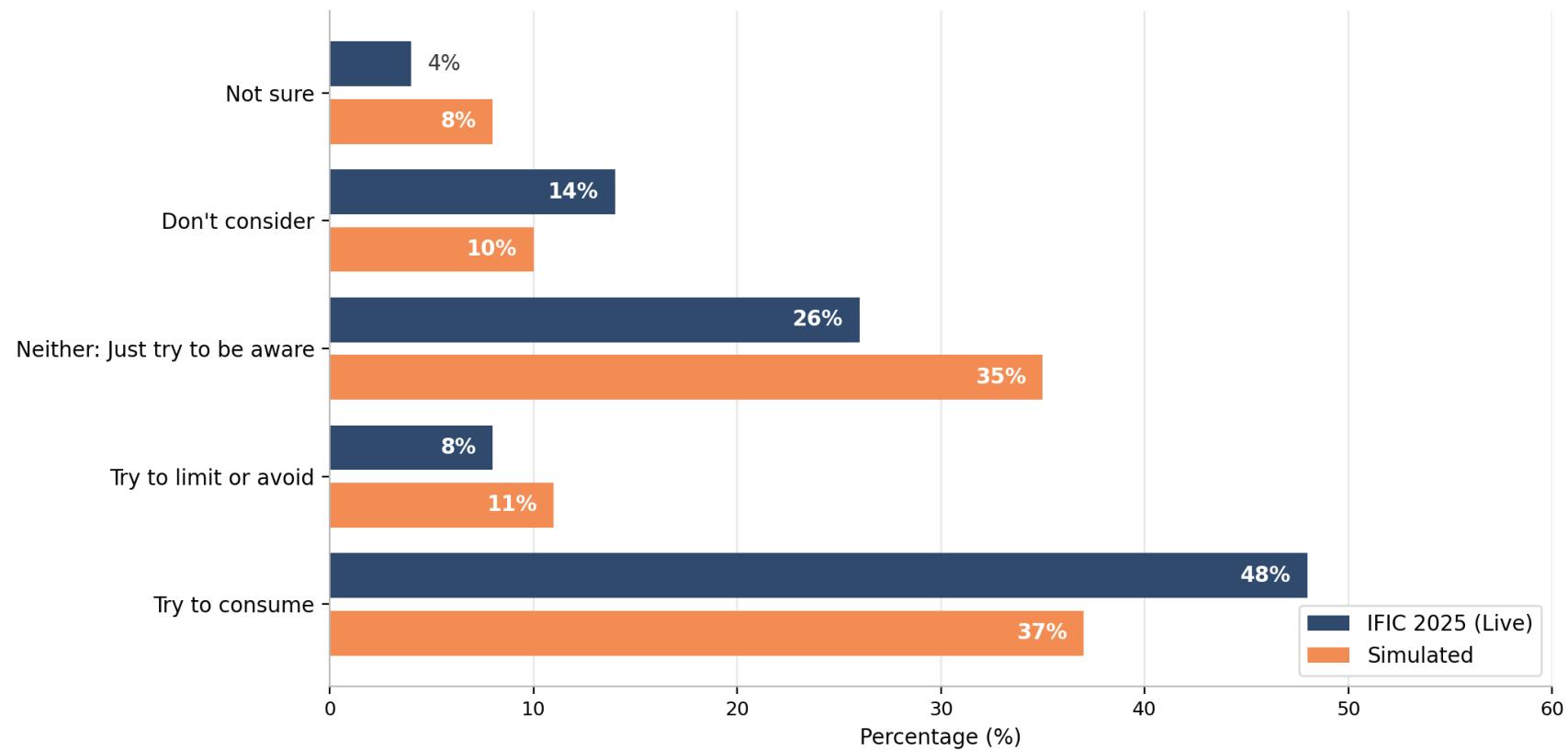
Try to consume or avoid: Potassium

KL Divergence = 0.032
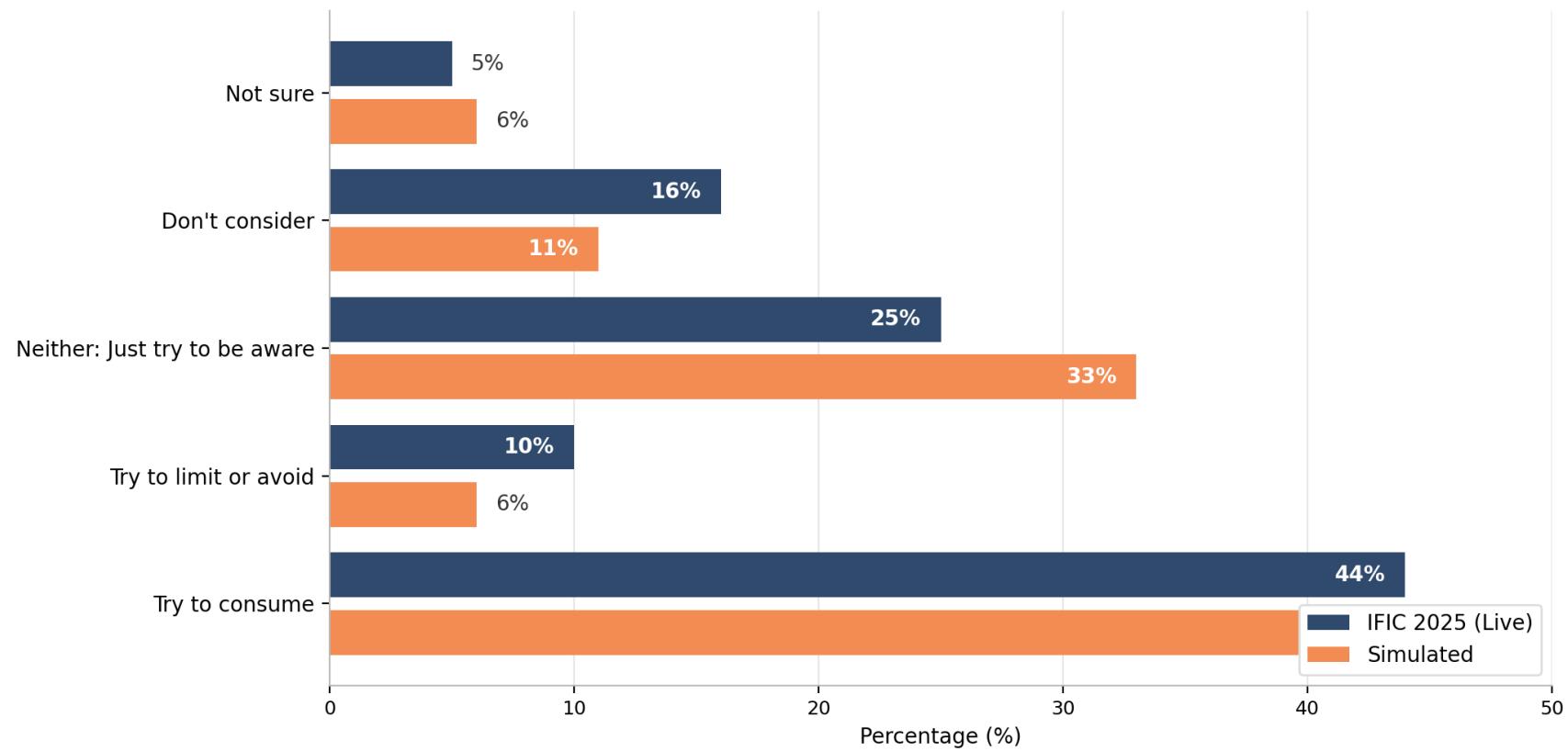
Try to consume or avoid: Folic acid

KL Divergence = 0.034

Legend:
- IFIC 2025 (Live)
- Simulated

Category	IFIC 2025 (Live)	Simulated
Not sure	11%	13%
Don't consider	24%	17%
Neither: Just try to be aware	31%	41%
Try to limit or avoid	9%	10%
Try to consume	25%	20%

Percentage (%)
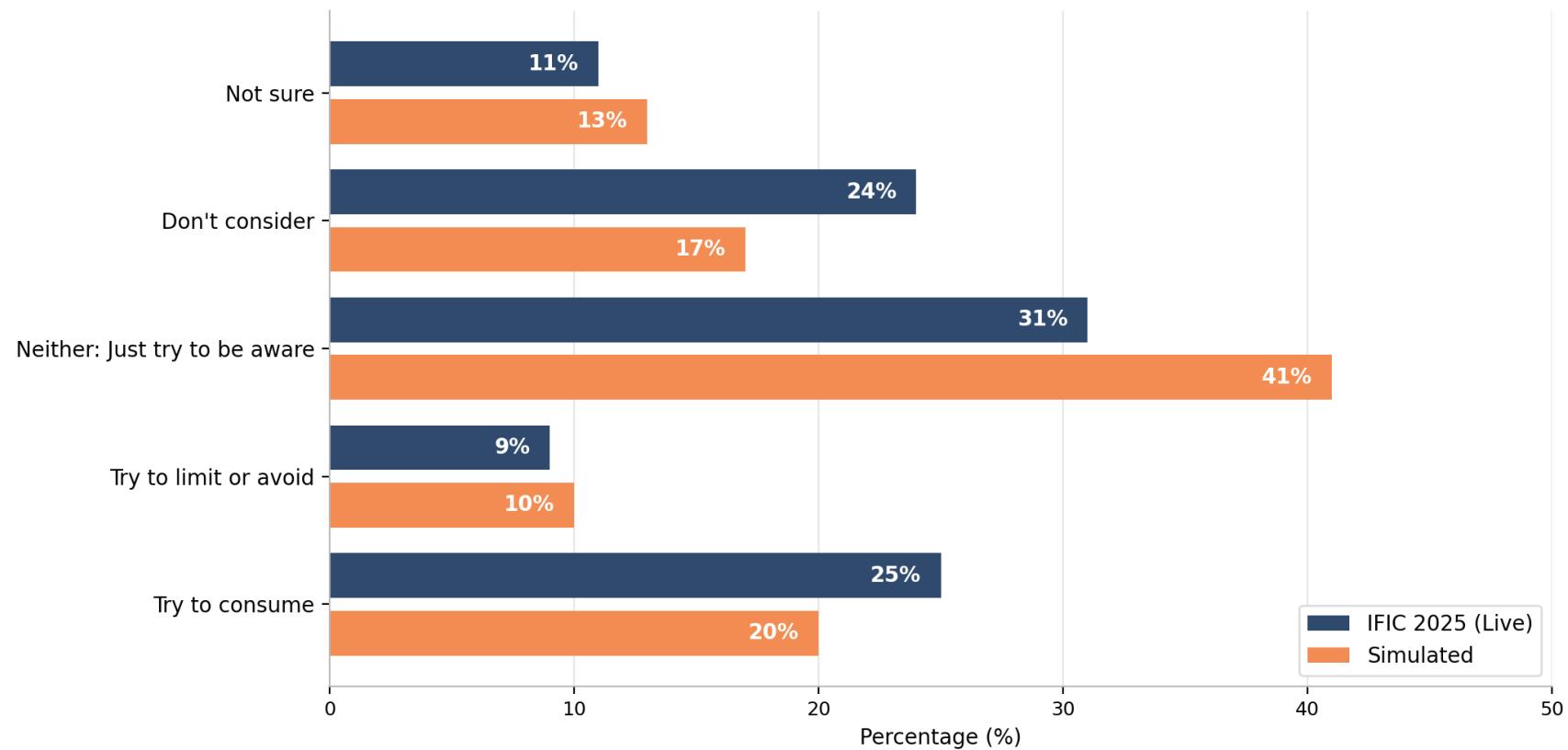
Try to consume or avoid: Iodine

KL Divergence = 0.037

Legend:
- IFIC 2025 (Live)
- Simulated

Category	IFIC 2025 (Live)	Simulated
Not sure	12%	15%
Don't consider	27%	20%
Neither: Just try to be aware	33%	42%
Try to limit or avoid	14%	9%
Try to consume	14%	13%

Percentage (%)
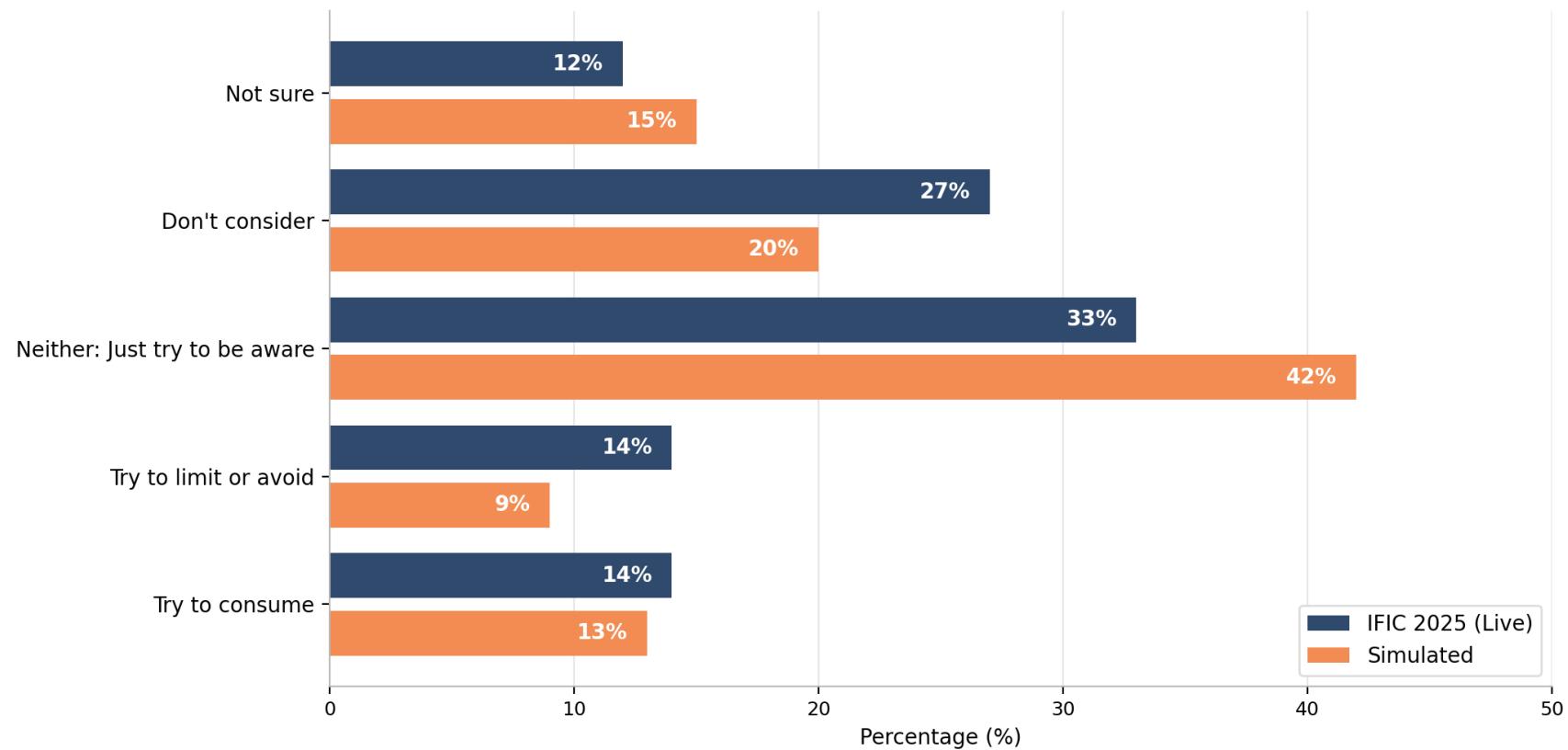
Try to consume or avoid: Sodium

KL Divergence = 0.047

Legend:
- IFIC 2025 (Live)
- Simulated

| Category	IFIC 2025 (Live)	Simulated
Not sure	3%	4%
Don't consider	11%	6%
Neither: Just try to be aware	25%	19%
Try to limit or avoid	52%	65%
Try to consume	9%	6%

Percentage (%)
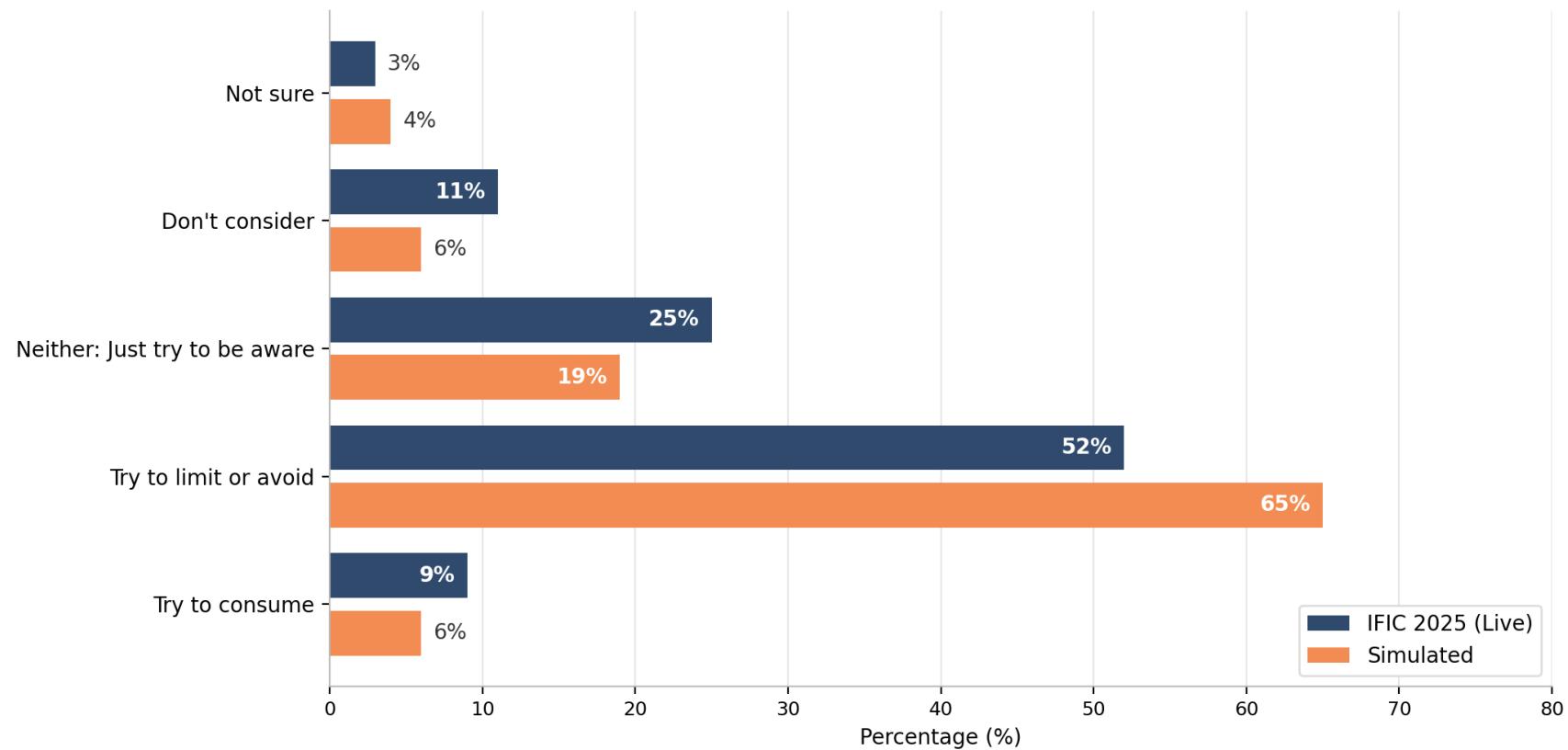
Try to consume or avoid: Choline

KL Divergence = 0.010
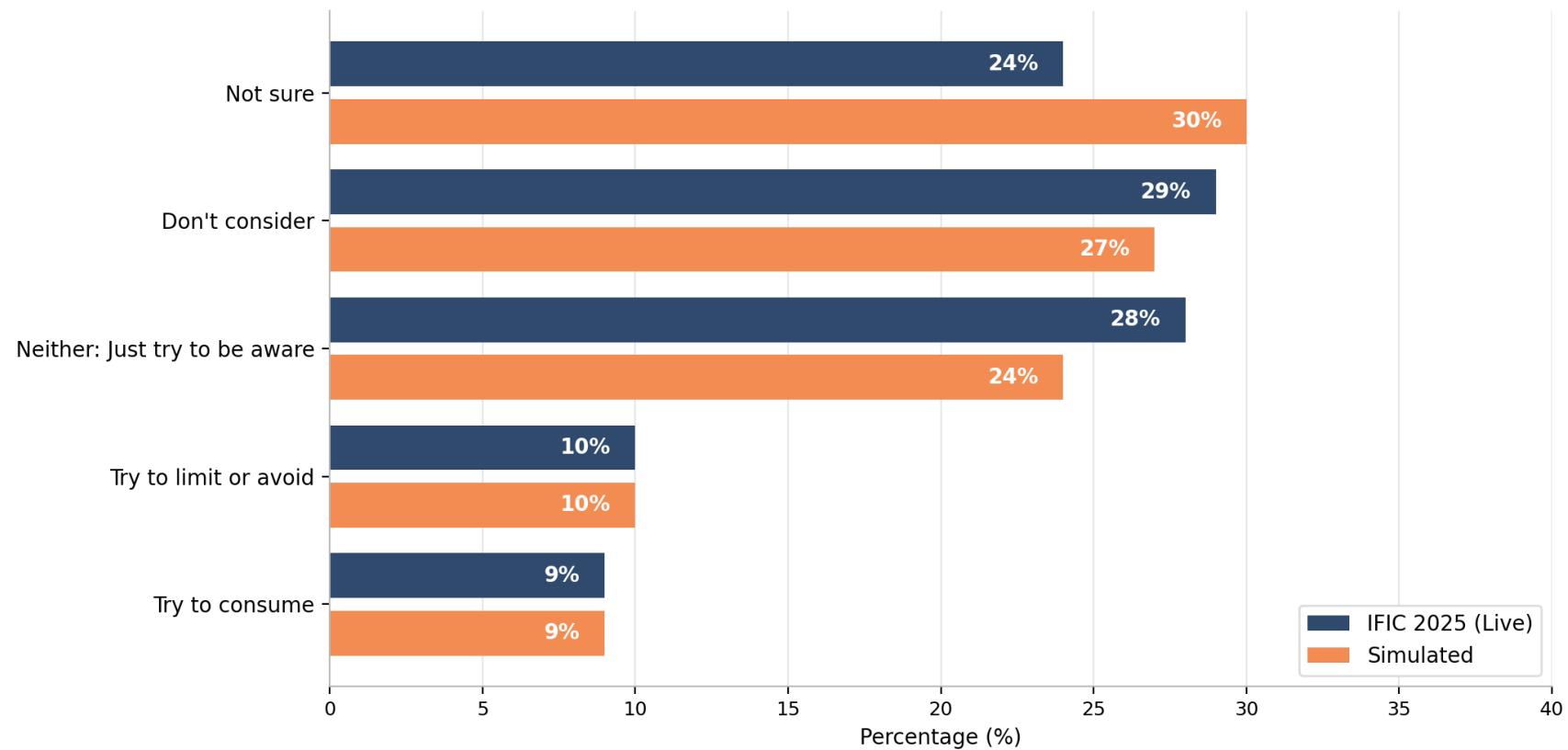
Q2-G12

## Try to consume or avoid: Saturated fat

KL Divergence = 0.090
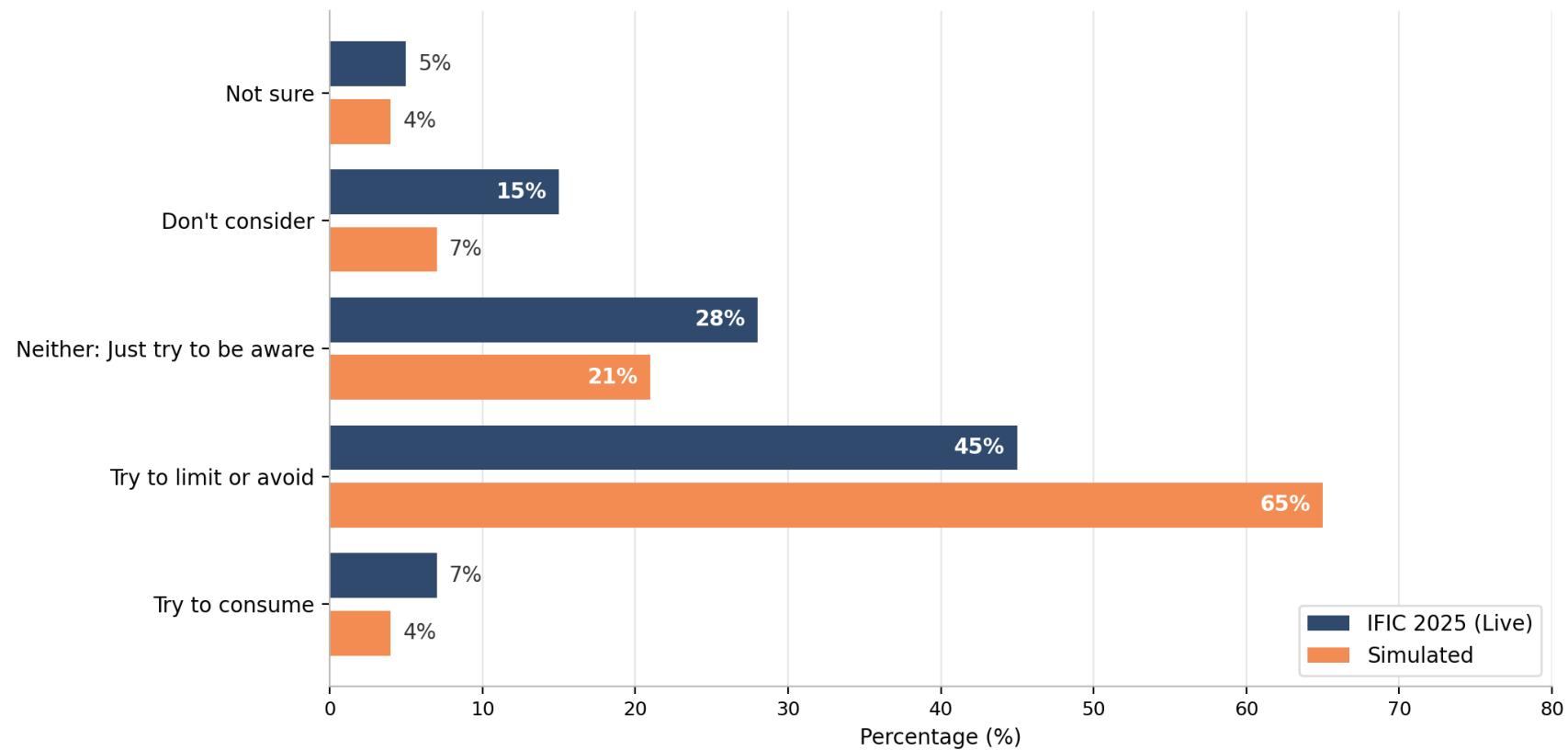
Concern with amount of sodium in diet

KL Divergence = 0.060

Q4
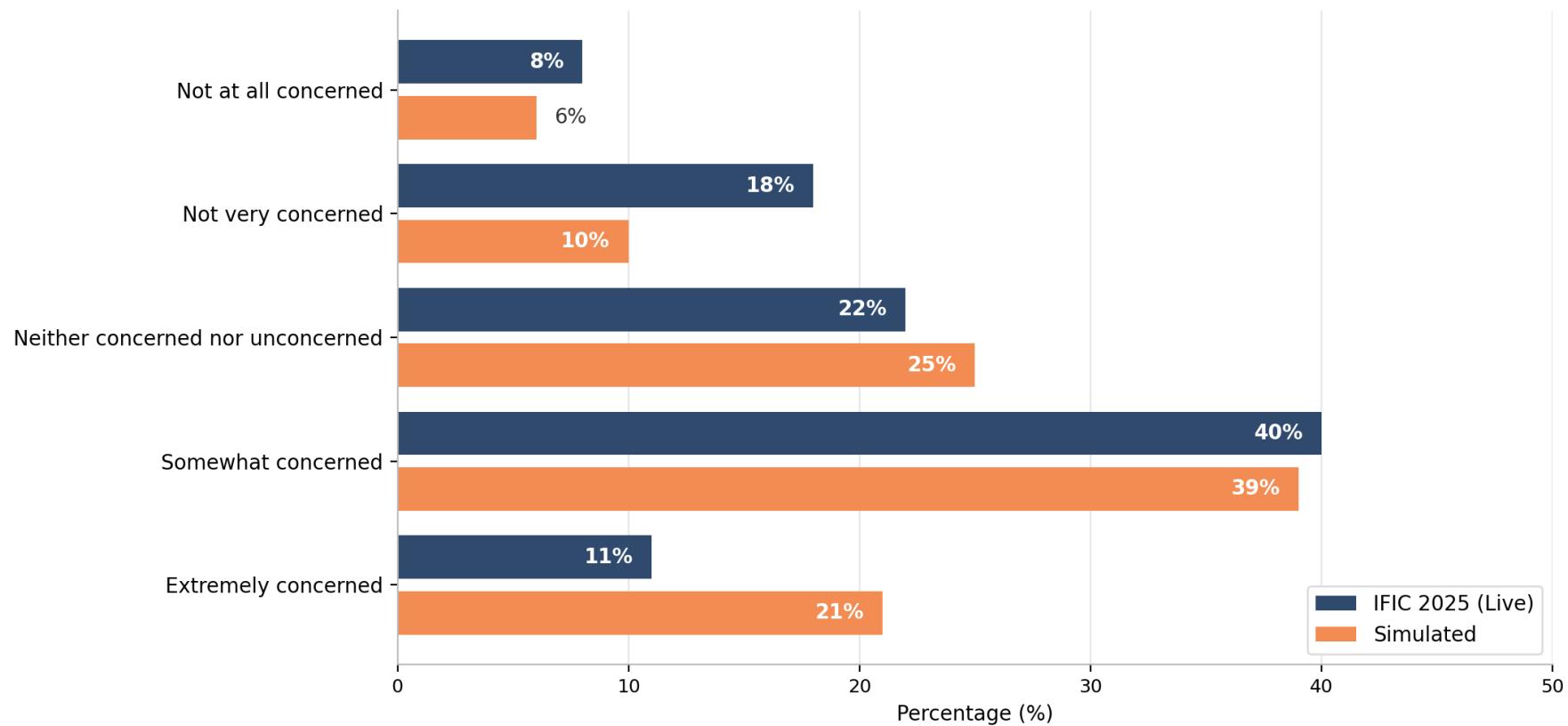
Concern with amount of sugar consumed

KL Divergence = 0.017
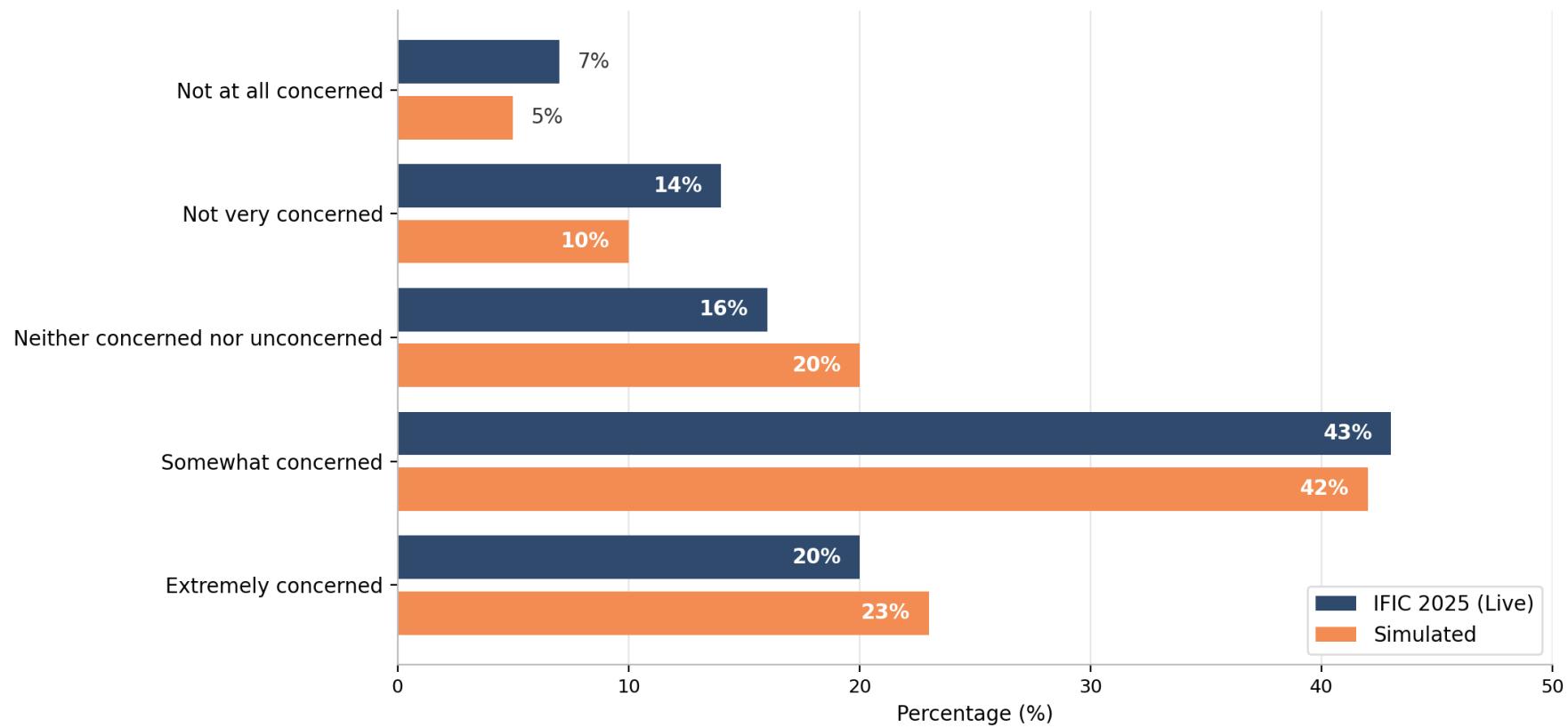
Q5

Concern with type of sugar consumed

KL Divergence = 0.009
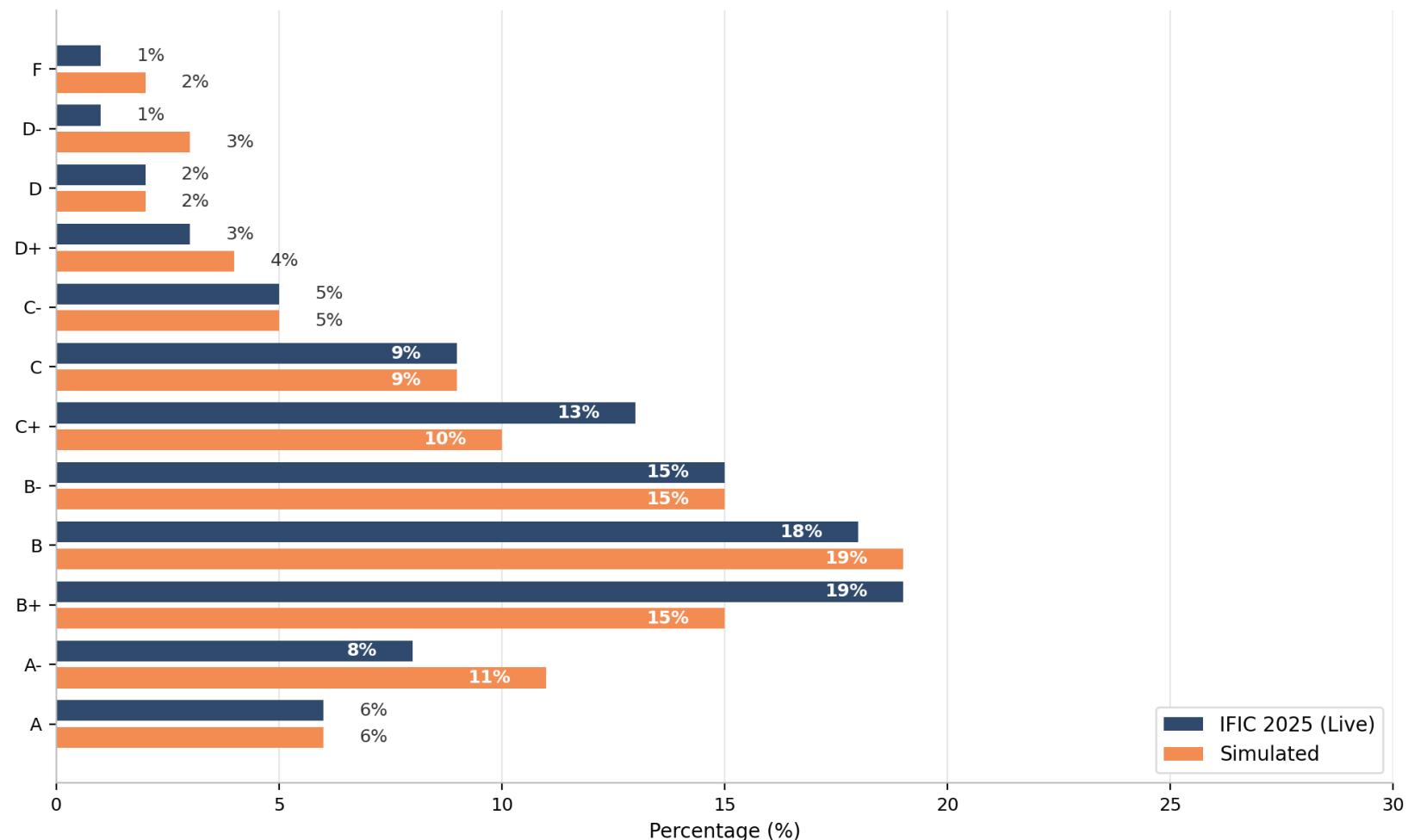
	IFIC 2025 (Live)	Simulated
Not at all concerned	8%	9%
Not very concerned	13%	14%
Neither concerned nor unconcerned	23%	27%
Somewhat concerned	38%	32%
Extremely concerned	19%	18%

Percentage (%)

Q6

Grade your own diet (healthfulness)

KL Divergence = 0.027

Grade average American's diet (healthfulness)

KL Divergence = 0.116

Grade	IFIC 2025 (Live)	Simulated
F	5%	5%
D-	5%	5%
D	10%	5%
D+	12%	7%
C-	16%	11%
C	17%	17%
C+	12%	13%
B-	6%	11%
B	6%	11%
B+	5%	11%
A-	3%	3%
A	4%	1%
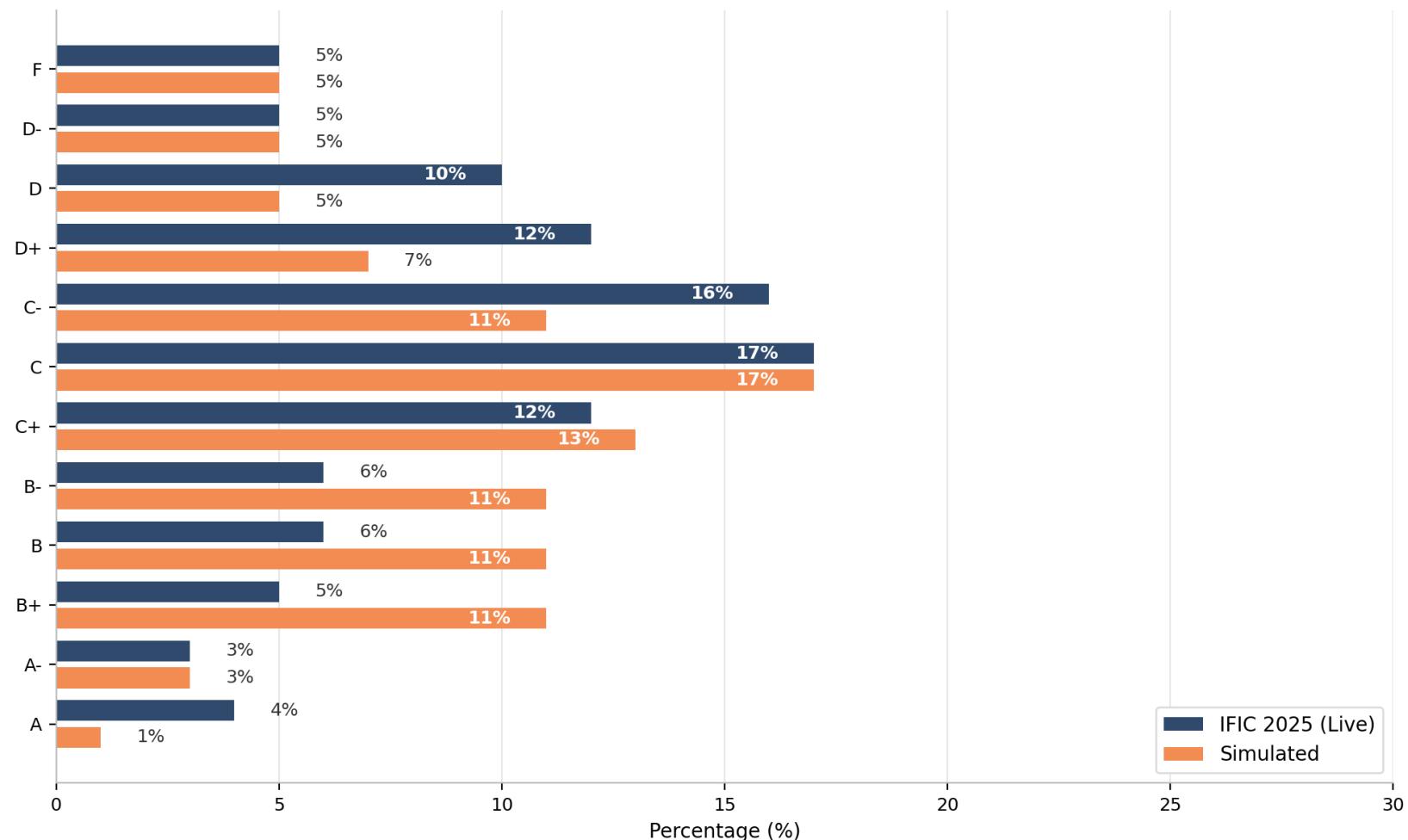
Servings of fruits & vegetables per day

KL Divergence = 0.093
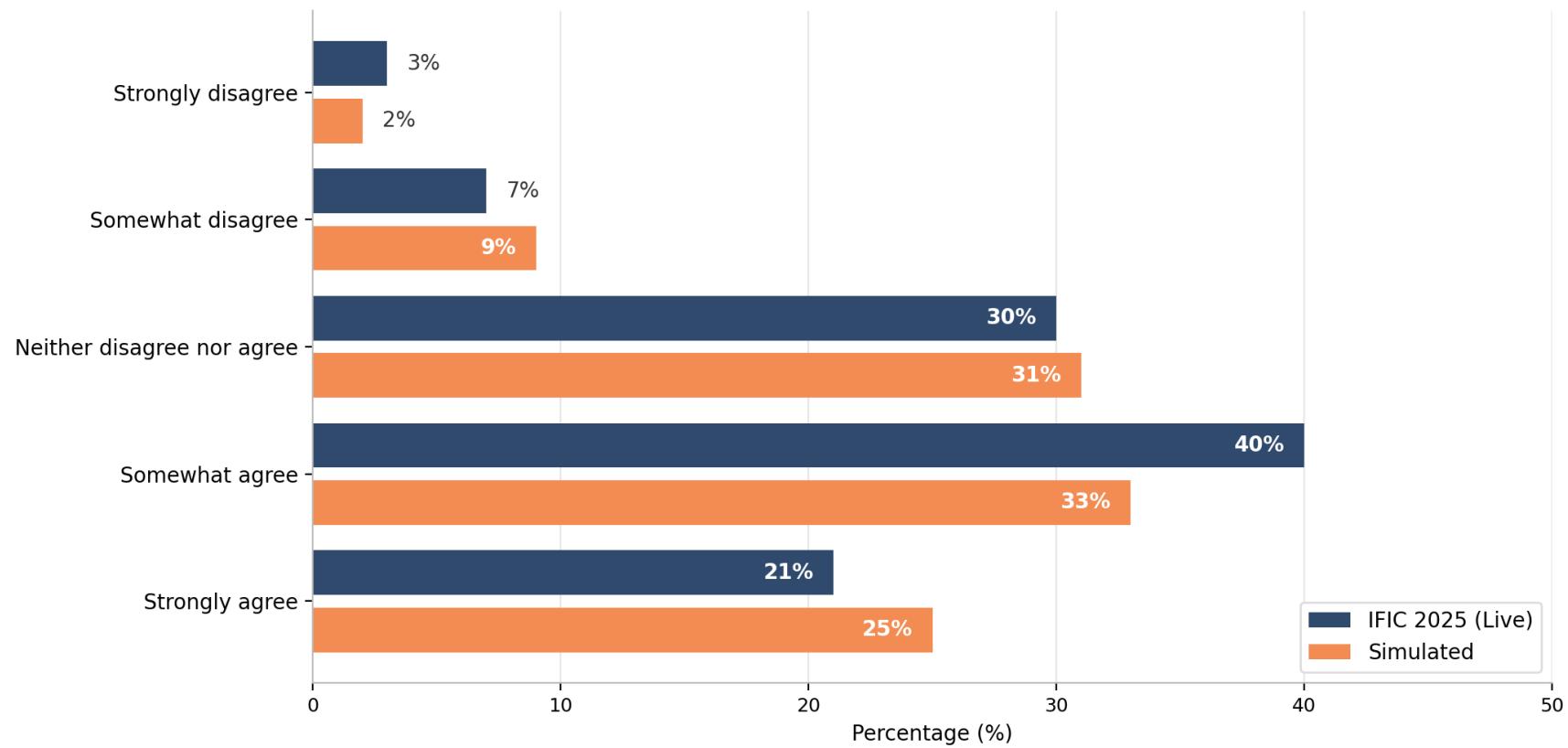
Chart: Horizontal bar chart comparing "IFIC 2025 (Live)" (dark blue) and "Simulated" (orange) percentages by servings of fruits & vegetables per day.

Servings	IFIC 2025 (Live)	Simulated
10+	2%	6%
9		2%
8	2%	2%
7	2%	2%
6	5%	6%
5	8%	9%
4	11%	18%
3	18%	17%
2	30%	21%
1	18%	12%
0	4%	7%

Percentage (%)

More interested in what TO eat vs. what NOT to eat

KL Divergence = 0.015

Q10

More interested in HOW to eat vs. what NOT to eat

KL Divergence = 0.029

| Response	IFIC 2025 (Live)	Simulated
Strongly disagree	5%	3%
Somewhat disagree	11%	7%
Neither disagree nor agree	32%	30%
Somewhat agree	35%	37%
Strongly agree	16%	23%

Q11
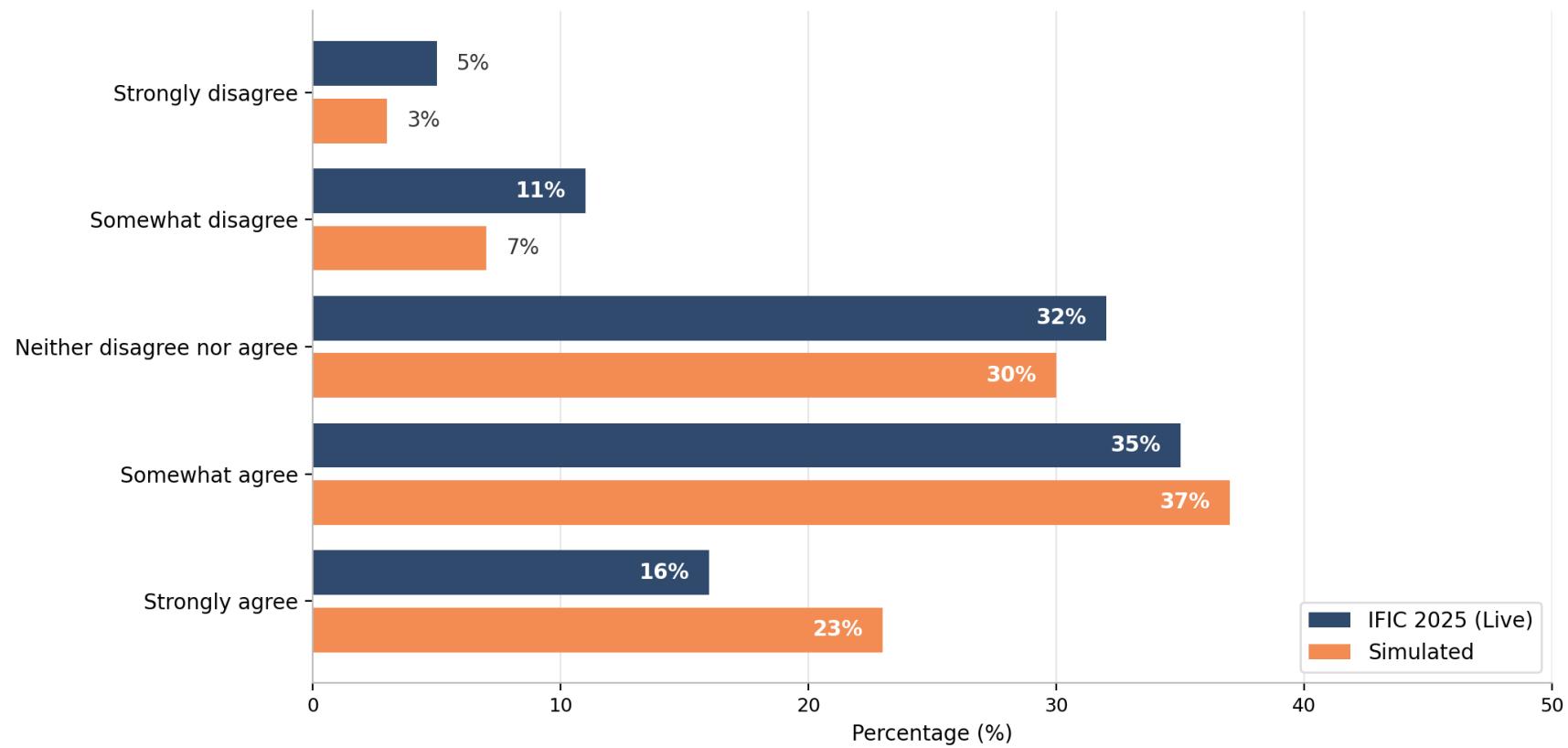
Familiar with the term 'ultraprocessed food'?

KL Divergence = 0.058
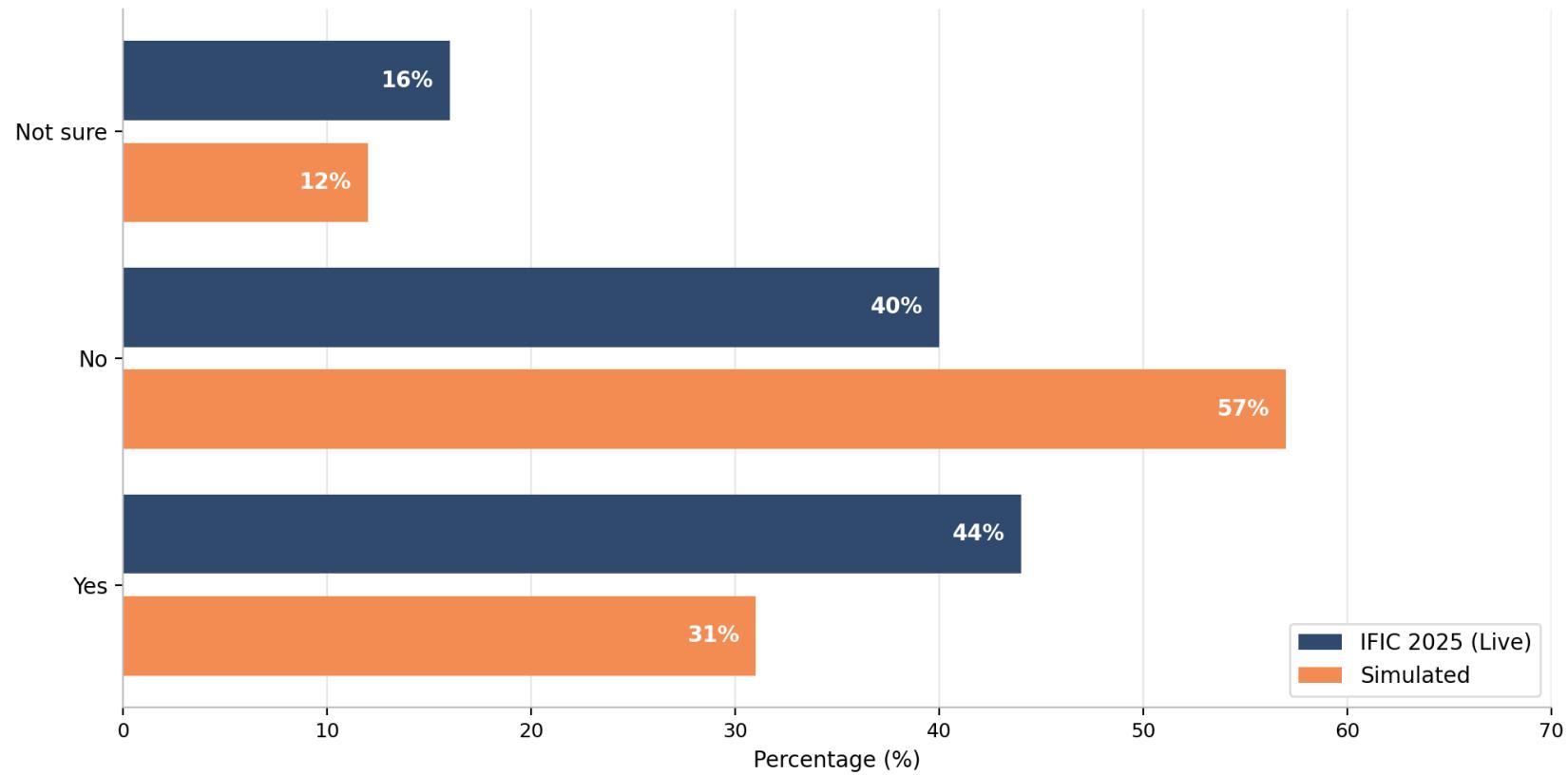
Consider whether food is processed before purchasing?

KL Divergence = 0.045
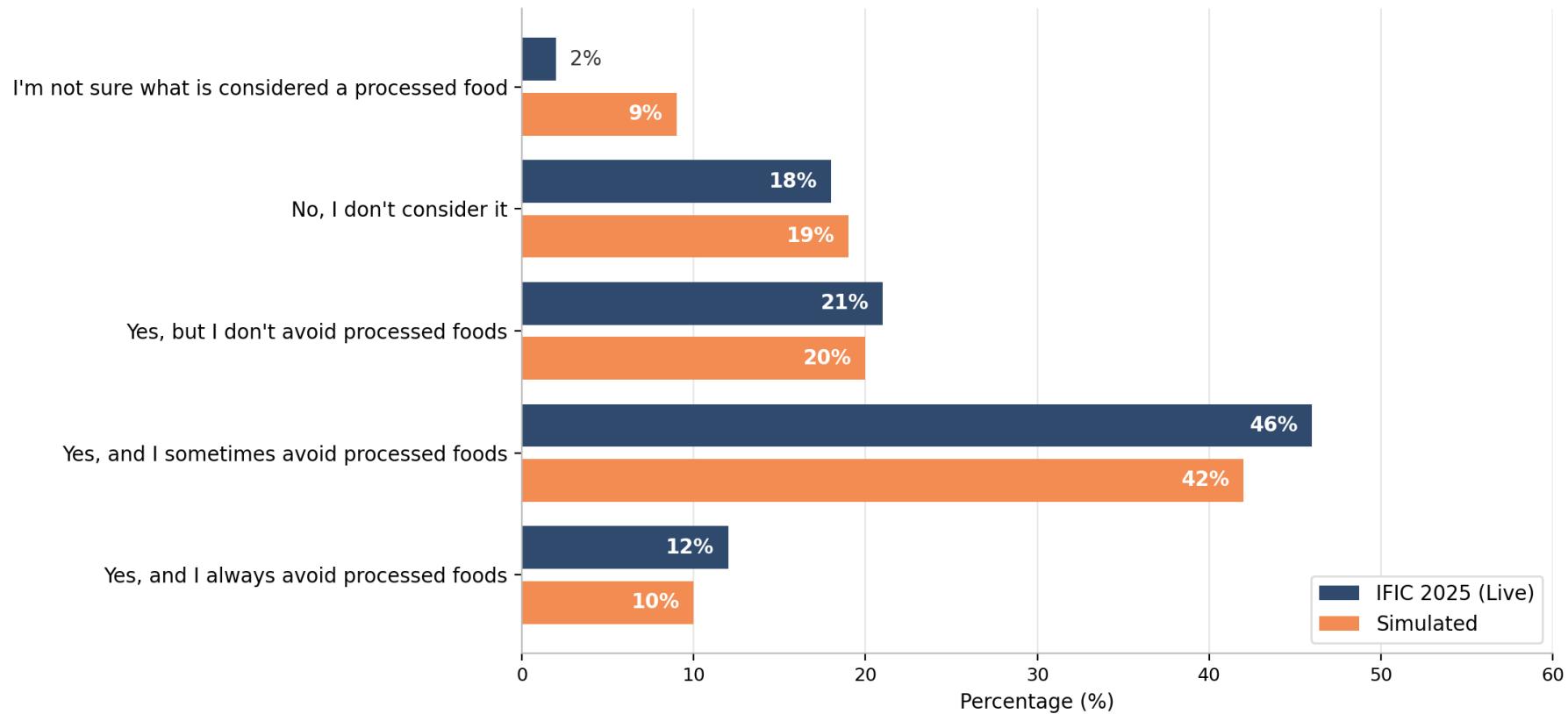
Opinion of amount of nutrition info on packaging

KL Divergence = 0.090

Legend:
- IFIC 2025 (Live)
- Simulated

Category	IFIC 2025 (Live)	Simulated
I do not use food and nutrition information on packaging	10%	24%
There is too much information	10%	7%
The amount of information is just right	59%	43%
There is not enough information	21%	26%

Percentage (%)
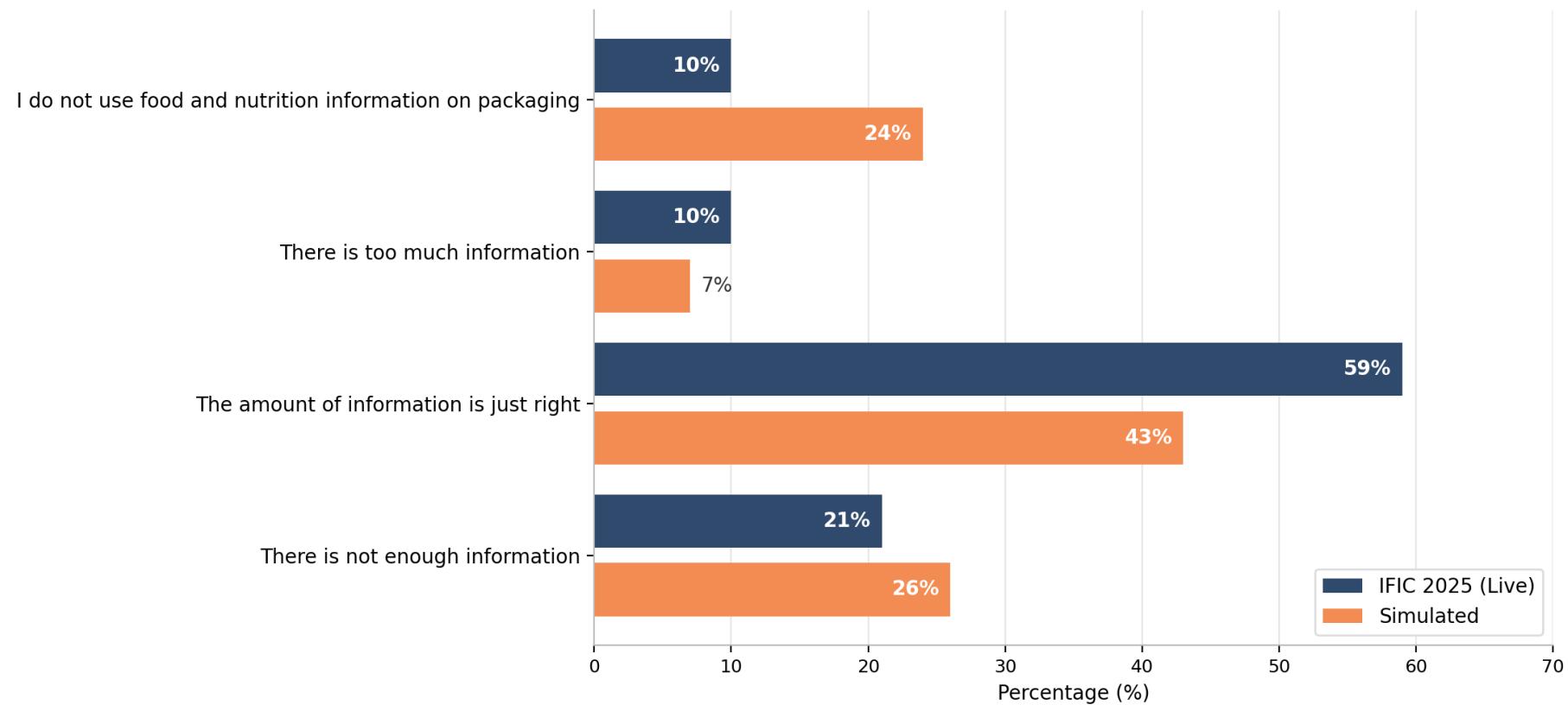
How decide if food is 'ultraprocessed'? (select all that apply)

RBO Similarity = 0.51 (multi-select)

Legend:
- IFIC 2025 (Live)
- Simulated

Category	IFIC 2025 (Live)	Simulated
Not sure	3%	27%
Ask a friend or family member	9%	5%
Look at a food app	11%	10%
I just know when I see it	11%	20%
Ask a food professional	12%	14%
Look at the location in the store where it is sold	12%	13%
Look for specific symbols on front of package	17%	10%
Ask Google, ChatGPT, Siri, or Alexa	19%	8%
Look for an official definition of 'ultraprocessed'	19%	23%
Look for specific statements on front of package	25%	14%
Look at the Nutrition Facts label	49%	56%
Look at the ingredients list	53%	53%

Percentage (%)

When using nutrition info on packaging, focus on...

KL Divergence = 0.070
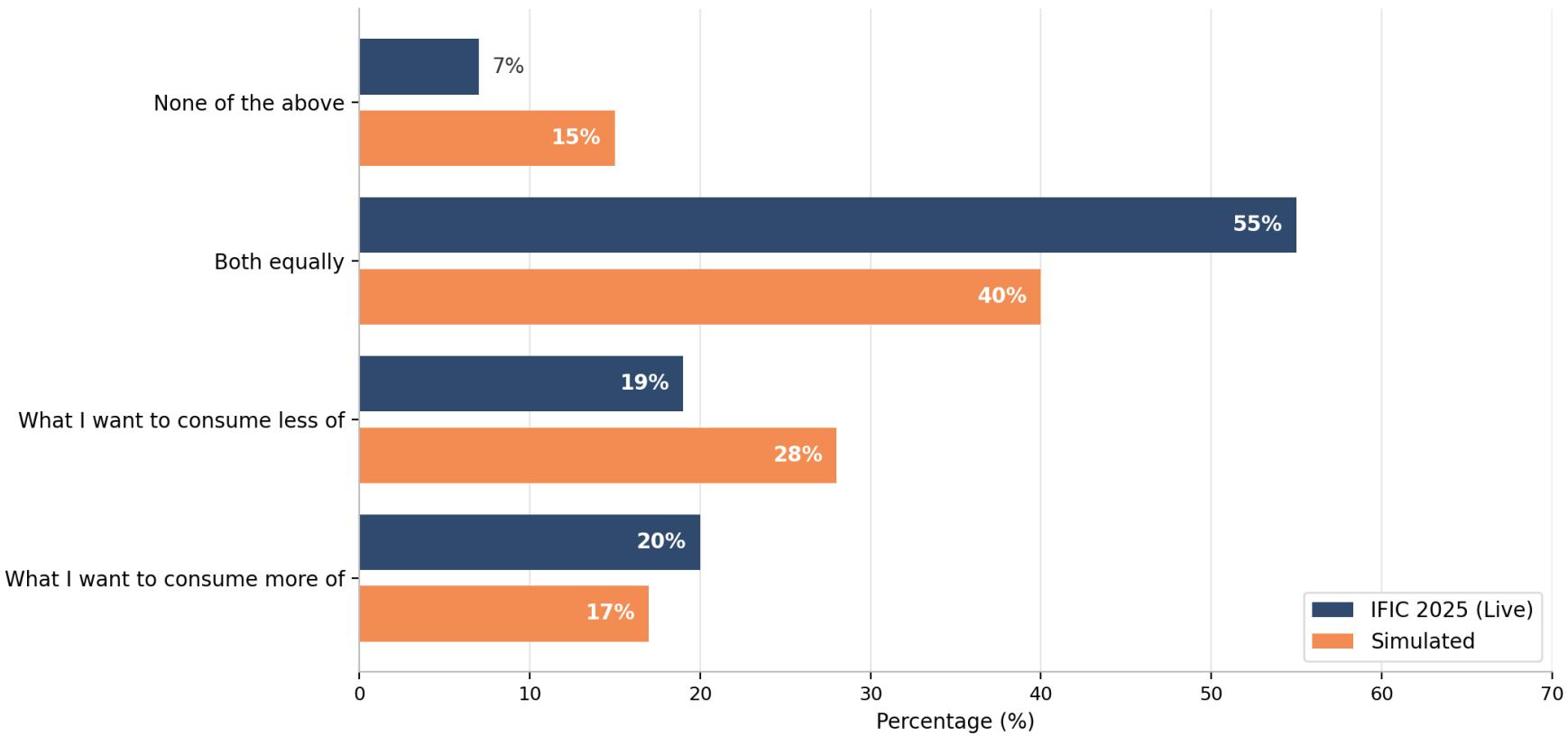
Info looked at on package when deciding to buy (select all that apply)

RBO Similarity = 0.45 (multi-select)

Category	IFIC 2025 (Live)	Simulated
None of the above	4%	8%
Country of origin labeling	16%	16%
Statements about absence of certain ingredients	19%	25%
Statements about health benefits	21%	39%
Statements about nutrition benefits	30%	36%
Brand name	32%	25%
Cooking instructions/ preparation time	35%	16%
Serving size and amount per container	37%	51%
Calorie/nutrition info on front via icon or graphic	38%	38%
Ingredients list	48%	59%
Nutrition facts panel	51%	61%
Expiration date	58%	55%

Appendix: Survey Questions

Q1: Familiarity with Dietary Guidelines for Americans

Responses: I know a lot about them | I know a fair amount about them | I have heard of them, but know very little about them | I ha...

Q2-G1: Try to consume or avoid: Protein

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G2: Try to consume or avoid: Fiber

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G3: Try to consume or avoid: Vitamin D

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G4: Try to consume or avoid: Calcium

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G5: Try to consume or avoid: Vitamin B12

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G6: Try to consume or avoid: Iron

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G7: Try to consume or avoid: Potassium

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Appendix: Survey Questions (continued)

Q2-G8: Try to consume or avoid: Folic acid

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G9: Try to consume or avoid: Iodine

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G10: Try to consume or avoid: Sodium

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G11: Try to consume or avoid: Choline

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q2-G12: Try to consume or avoid: Saturated fat

Responses: Try to consume | Try to limit or avoid | Neither: Just try to be aware | Don't consider | Not sure

Q3: Concern with amount of sodium in diet

Responses: Extremely concerned | Somewhat concerned | Neither concerned nor unconcerned | Not very concerned | Not at all concerned

Q4: Concern with amount of sugar consumed

Responses: Extremely concerned | Somewhat concerned | Neither concerned nor unconcerned | Not very concerned | Not at all concerned

Q5: Concern with type of sugar consumed

Responses: Extremely concerned | Somewhat concerned | Neither concerned nor unconcerned | Not very concerned | Not at all concerned

Q6: Grade your own diet (healthfulness)

Responses: A | A- | B+ | B | B- | C+ | C | C- | D+ | D | D- | F

Q7: Grade average American's diet (healthfulness)

Responses: A | A- | B+ | B | B- | C+ | C | C- | D+ | D | D- | F

Q8: Servings of fruits & vegetables per day

Responses: 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10+

Q9: More interested in what TO eat vs. what NOT to eat

Responses: Strongly agree | Somewhat agree | Neither disagree nor agree | Somewhat disagree | Strongly disagree

Q10: More interested in HOW to eat vs. what NOT to eat

Responses: Strongly agree | Somewhat agree | Neither disagree nor agree | Somewhat disagree | Strongly disagree

Q11: Familiar with the term 'ultraprocessed food'?

Responses: Yes | No | Not sure

Q12: Consider whether food is processed before purchasing?

Responses: Yes, and I always avoid processed foods | Yes, and I sometimes avoid processed foods | Yes, but I don't avoid processed fo...

Q13: Opinion of amount of nutrition info on packaging

Responses: There is not enough information | The amount of information is just right | There is too much information | I do not use...

Q14: How decide if food is 'ultraprocessed'? (select all that apply)

Responses: Look at the ingredients list | Look at the Nutrition Facts label | Look for specific statements on front of package | As...

Q15: When using nutrition info on packaging, focus on...

Responses: What I want to consume more of | What I want to consume less of | Both equally | None of the above

Q16: Info looked at on package when deciding to buy (select all that apply)

Responses: Expiration date | Nutrition facts panel | Ingredients list | Calorie/nutrition info on front via icon or graphic | Ser...