

A photograph of three people (two women and one man) smiling and toasting with colorful drinks in glasses. They are outdoors, possibly at a cafe or restaurant, with a rustic wooden structure and greenery in the background. The lighting is warm and golden, suggesting late afternoon or early evening. The text is overlaid on the top half of the image.

Innovative Functional Beverages

Harnessing Citrus for Enhanced Health Benefits and Reduced Sugar Content

Cam Parris

September 27, 2024

Objective

Present opportunities to leverage functional claims for driving revenue growth in better-for-you beverage products, which are applicable to all segments within the category, especially citrus-based products

Agenda

- 01 Market trends in beverages
- 02 Proposals for lifting a beverage category with functional claims
- 03 Close

My Role – Market Research-Centric

Ideate within a framework of leveraging premix to provide functional claims in food and beverage products

1 Market Research/Concept Development

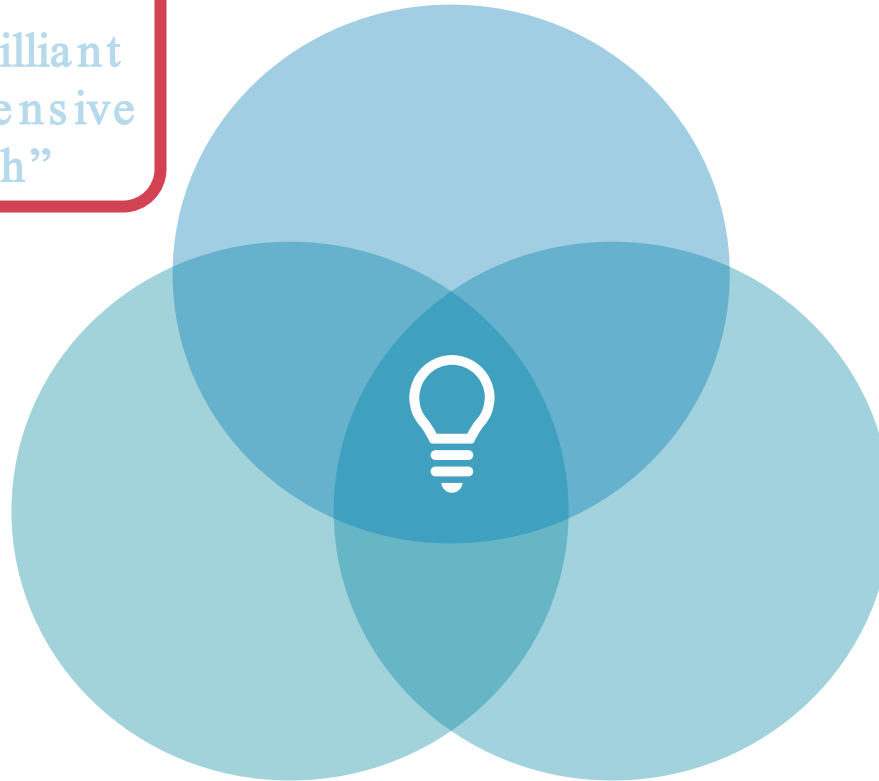
“Hey I have this brilliant idea based on extensive consumer research”

2 Science, Translation, Advocacy + Regulatory

“I will advise if your brilliant idea has legs.”

3 Technical/Prototype Development

“I will advise if your brilliant idea has feet.”

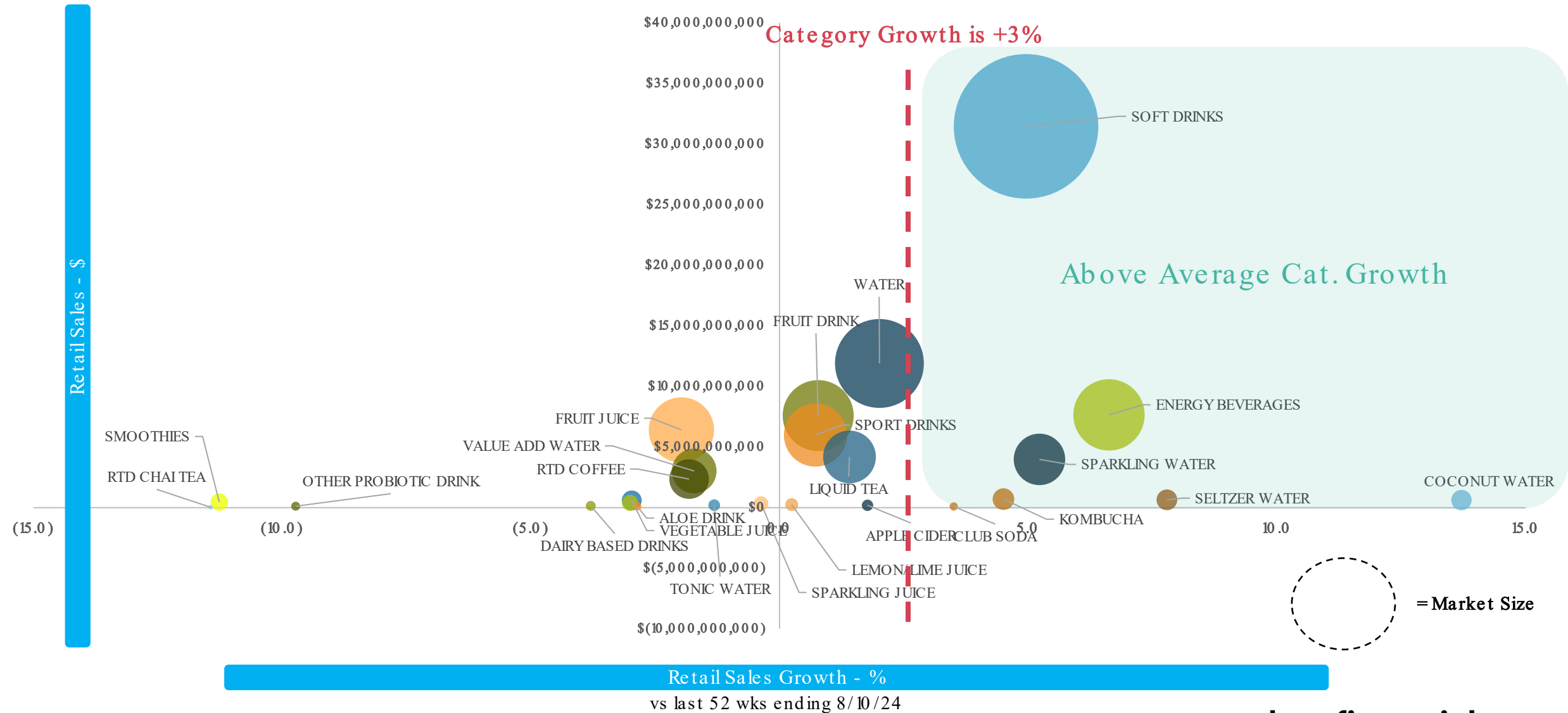


Market Trends in Beverages

Do functional claims drive growth?

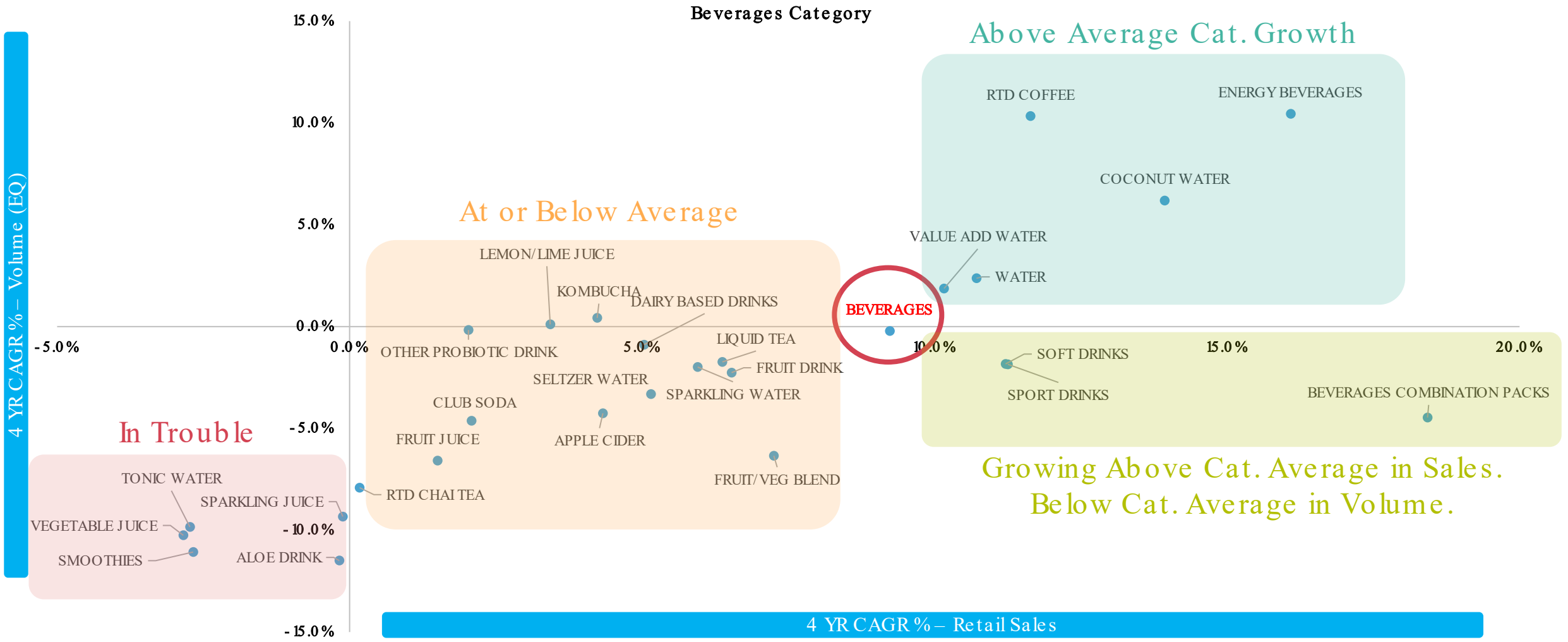
Beverage Sales Captured Over the Past 52 Weeks

Below represents the overall beverage “super category.” ~\$90 bln brick & mortar retail not incl convenience.



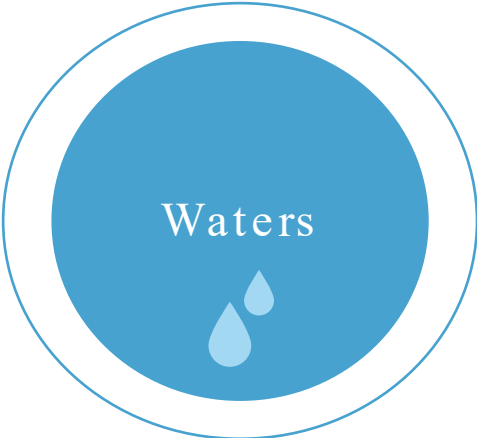
CAGR for the last 4 years on both dollars & volume (EQ)

Waters, RTD coffee, and energy beverages drive above average category growth.



What's Driving Above Category Growth?

Do any of these categories provide a sought-after consumer benefit?



Hydration



Energy



Energy

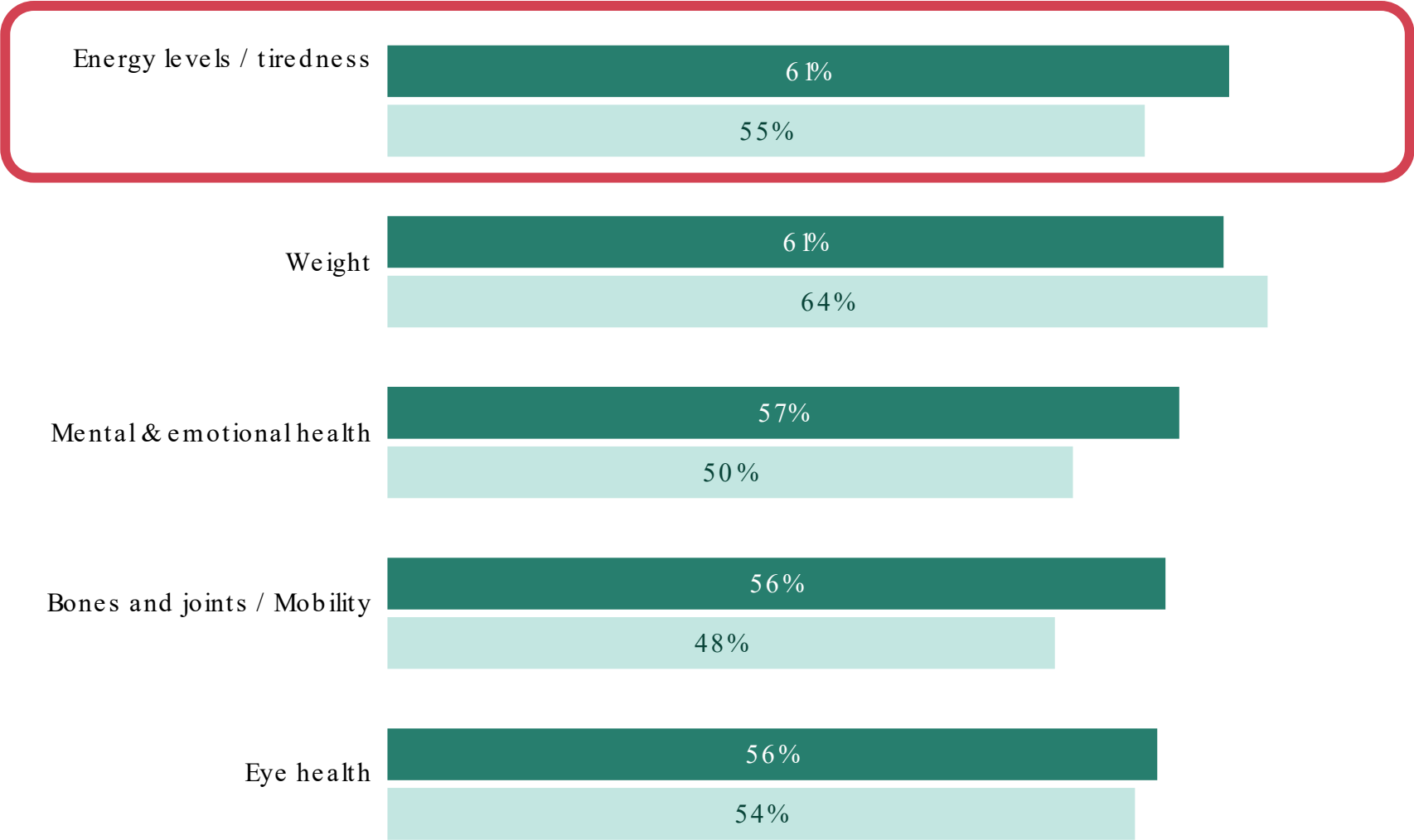


halo benefits

To an Extent..Yes, Especially When Addressing Energy Concerns

Top 5 consumer health concerns in the US according to an internal global health and concerns study

1



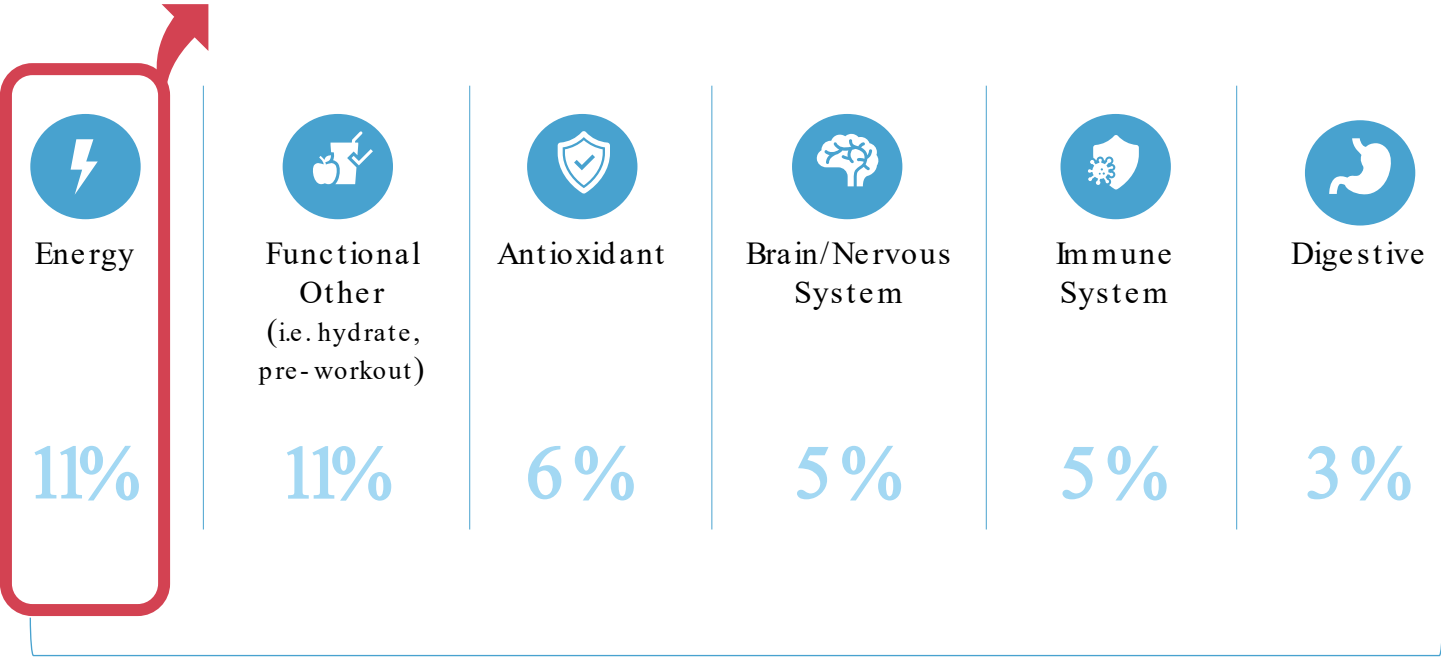
All respondents 2023 - USA = 1500
All respondents 2021- USA = 750

SOURCE: dsm-firmenich Health Concerns Study 2023

Top 5 Functional Claims in Beverages

Based on new product launches over the past 3 years

Driving above average category growth



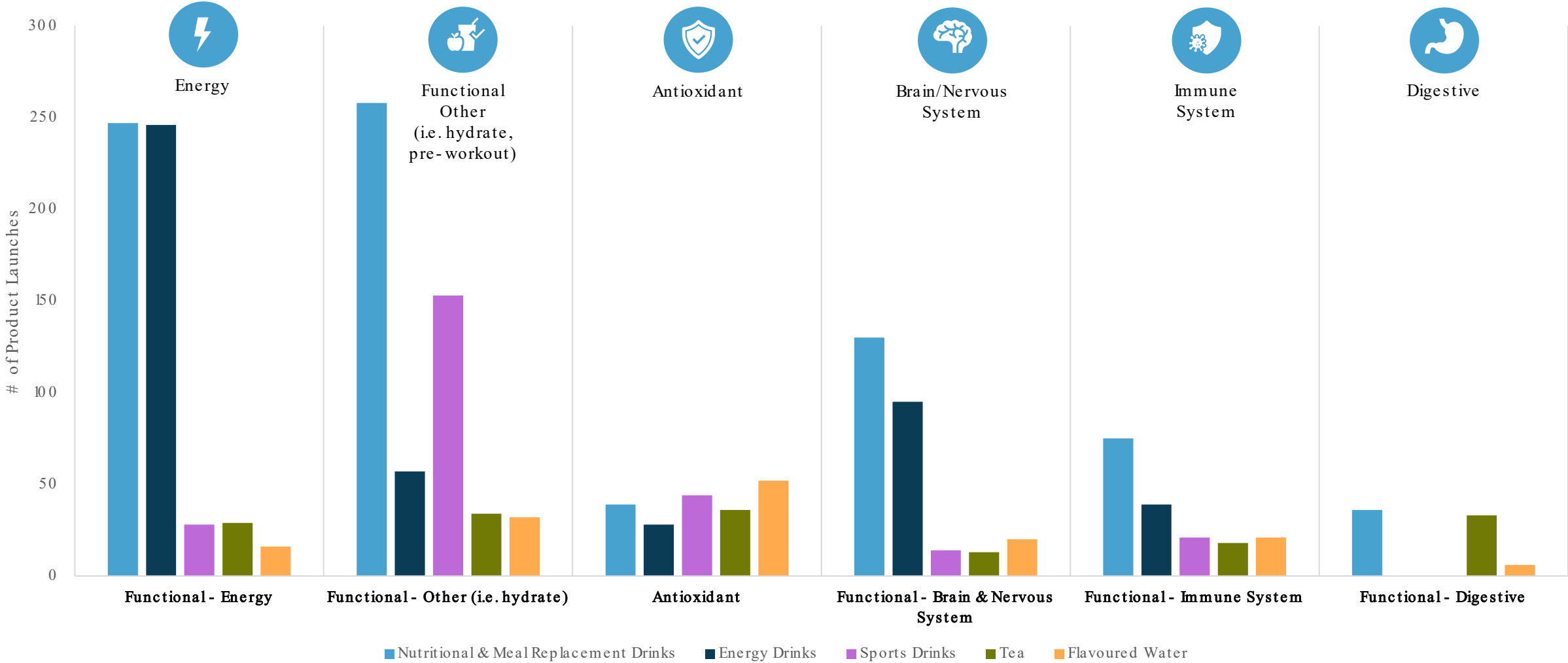
out of 6,000+ new product launches



SOURCE: Mintel GNPD. Search criteria: where Market matches USA, and Category matches one or more of Carbonated Soft Drinks; Hot Beverages; Juice Drinks; Sports & Energy Drinks; Water; RTDs; Nutritional Drinks & Other Beverages and Date Published is between Sep 2021 and current date (Sep 2024). Date accessed: September 9, 2024.

Top 5 Functional Claims in Bev Based On New Product Launches

Nutritional, energy, sports, tea, and flavored water are top end-applications. Based on last 3 years.



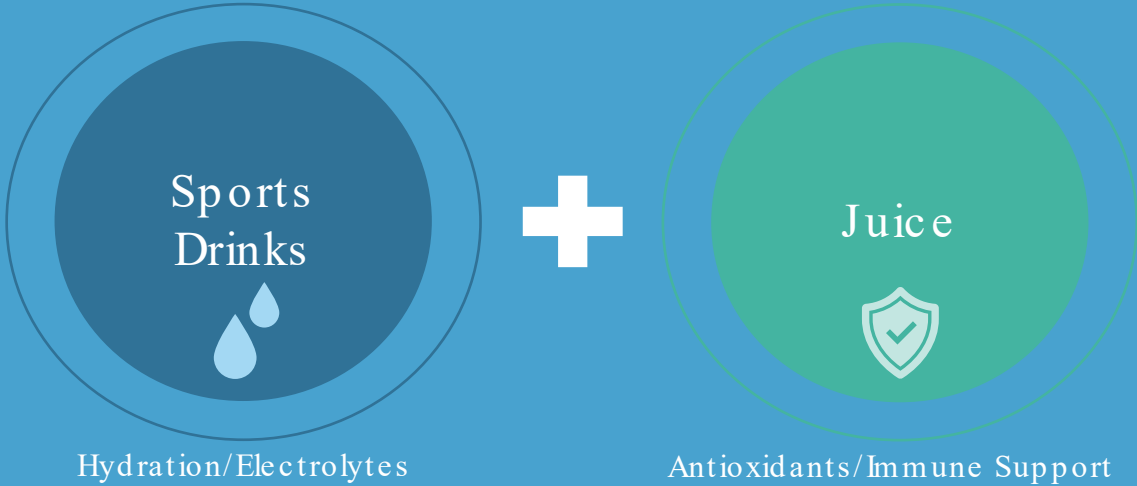
General Takeaways From All This ...

- Proven validity to some health benefit claims supporting revenue growth
- Within beverages, energy claims are attracting benefits conveyed to the consumer in different ways
- Overall, on-pack functional claims are not often used or optimized. Other categories (i.e. nutritional and energy) leverage functional claims more than traditional categories (i.e. juice and juice drinks)

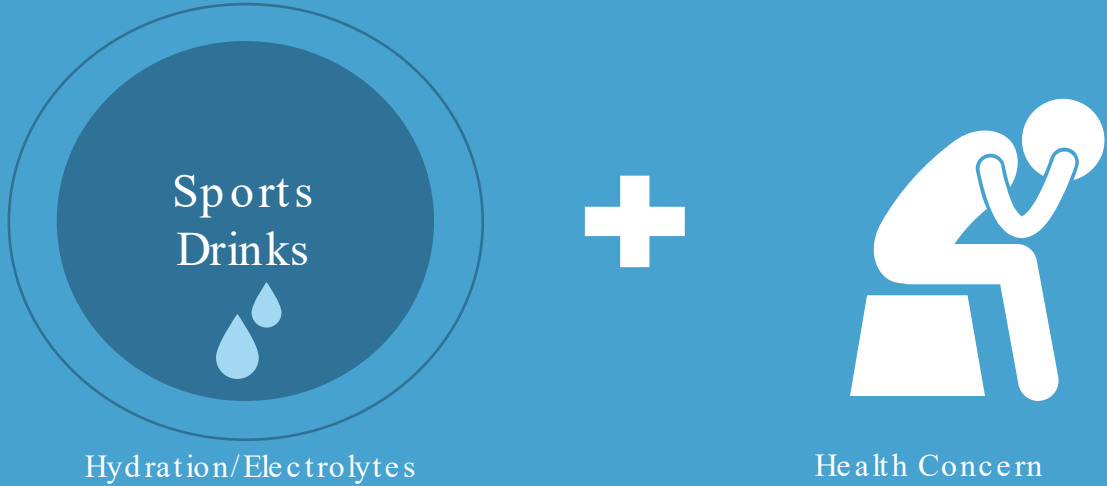
Proposal: create more opportunities to provide validated on-pack health claims that consumers value

Proposals for Lifting a Beverage Category with Functional Claims

1 Blur category lines and borrow from another segment's inherent halo – at times aided by fortification.



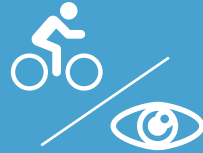
2 Add a health benefit based on evolving consumer health concerns, aided by fortification.



OR

Example Ingredients for Targeting Functional Claims*

With the proper due diligence, category blurring is very possible



Cognitive Performance	Superfoods	Performance & Glare Recovery	Energy	Stress & Mood	Immunity	Antioxidants	Hydration	Digestive Health	Heart Health
DHA	Flaxseed	CoQ10	Caffeine	Chamomile	Beta-carotene (Vitamin A)	Vitamin C	Sodium	Ginger Root	DHA+EPA
L-theanine	Spirulina	Omega-3	Green Tea Extract	L-theanine	Acerola Cherry (Vitamin C)	Vitamin E	Potassium	Inulin	CoQ10
Caffeine	Kale	B-vitamins	Guarana	Rhodiola	Echinacea	Vitamin A	Magnesium		Lycopene
B-Vitamins	Pomegranate	BCAA/amino acids/Taurine	B-Vitamins	Ashwagandha	Vitamin E (Sunflower)	Beta-carotene	Calcium		
Ginseng	Reishi	-----			Elderberry	Elderberry			
	Acai	Eyes/Glare	Green Coffee Bean			Acai			
	Spinach	Lutein/zeaxanthin (Marigolds)	CoQ10		Elderberry	Green Tea Extract			
		Beta-carotene							

Category Blurring

Proposal # 1

Category Blurring Based on Health Halos. An Example.

Consumers have general associations with certain beverages.



Hydration



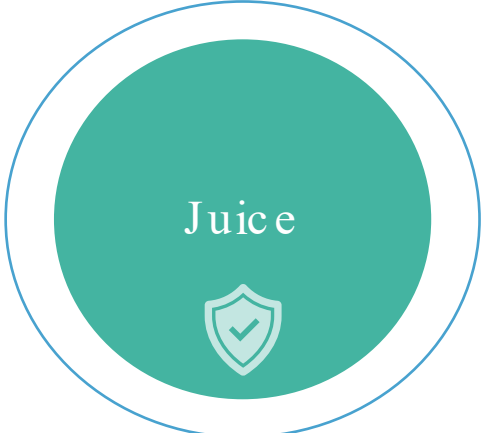
Energy



Energy



Hydration/Electrolytes



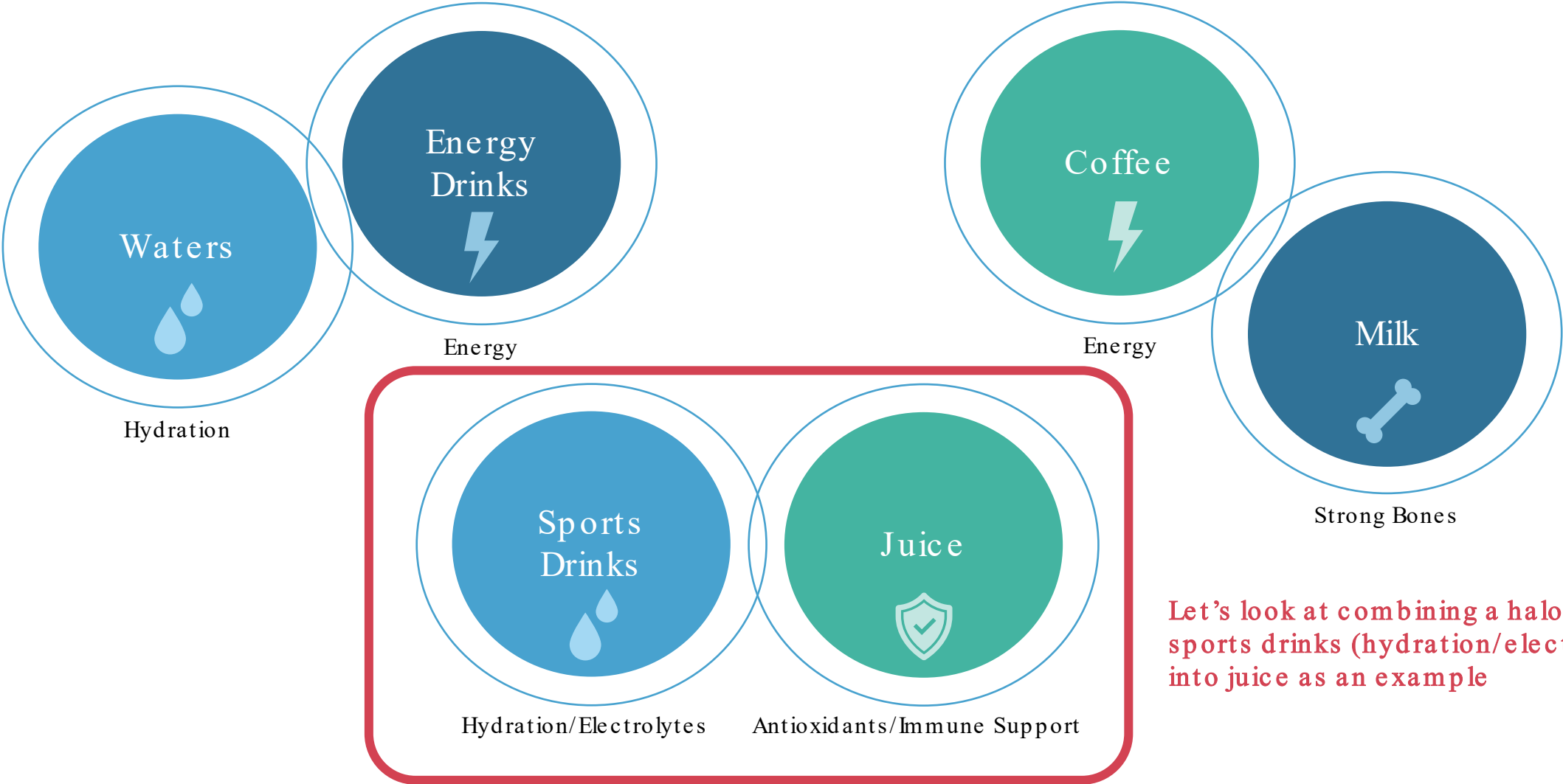
Antioxidants/Immune Support



Strong Bones

Category Blurring Based on Health Halos. An Example.

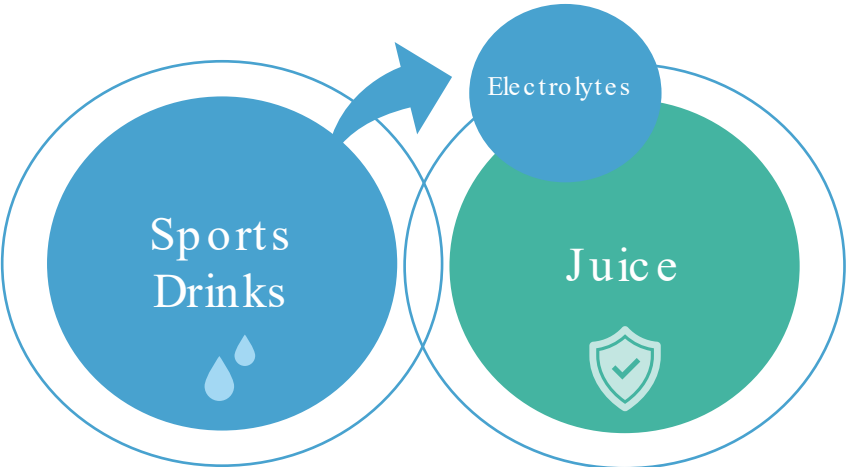
What if you could 'plus-up' from your segment's inherent halo?



Let's look at combining a halo from sports drinks (hydration/electrolytes) into juice as an example

Category Blurring Can Provide Revenue Lift. An Example.

Hydration claims in juice drink sales performance captured in Nielsen. Note: juice category is currently flat.



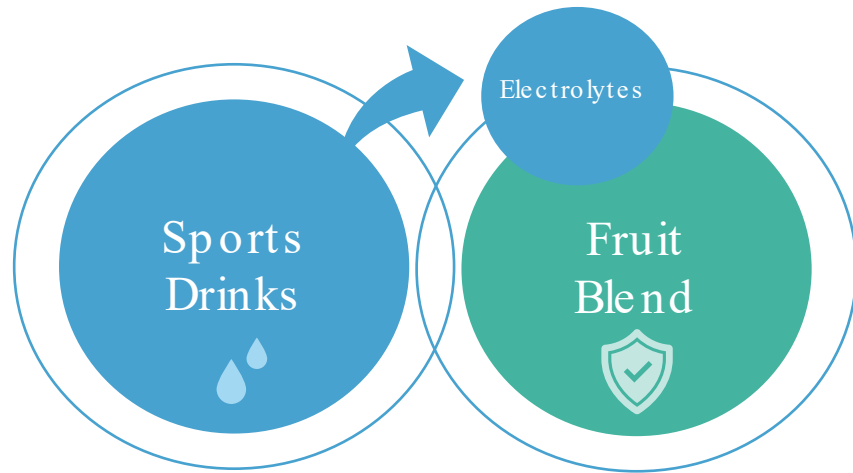
Adding electrolytes from premix or natural sources in juice drinks to make a hydration claim

In some cases, brands are bundling other additional benefits (i.e. energy)

Hydration claims achieved +1,341% Revenue Growth vs the last 52 wks in the juice drinks category

Another Example

This is a brand operating in a very close category to juice: mixed fruit pouches



Adding electrolytes from premix in a fruit blend pouch to make a hydration claim

INGREDIENTS: APPLES, BLUEBERRY PUREE, STRAWBERRY PUREE, ELECTROLYTE AND ANTIOXIDANT BLEND (ASCORBIC ACID [VITAMIN C], SODIUM CITRATE, BETA CAROTENE [VITAMIN A], MAGNESIUM OXIDE, dl-ALPHA TOCOPHERYL ACETATE [VITAMIN E]), LEMON PUREE, BLACKCURRANT PUREE, LEMON JUICE CONCENTRATE.

Aided by the new launch of these functional mixed fruit pouches, this emerging sub-brand is worth ~17 mln with a +12,000% growth over the latest 52 weeks

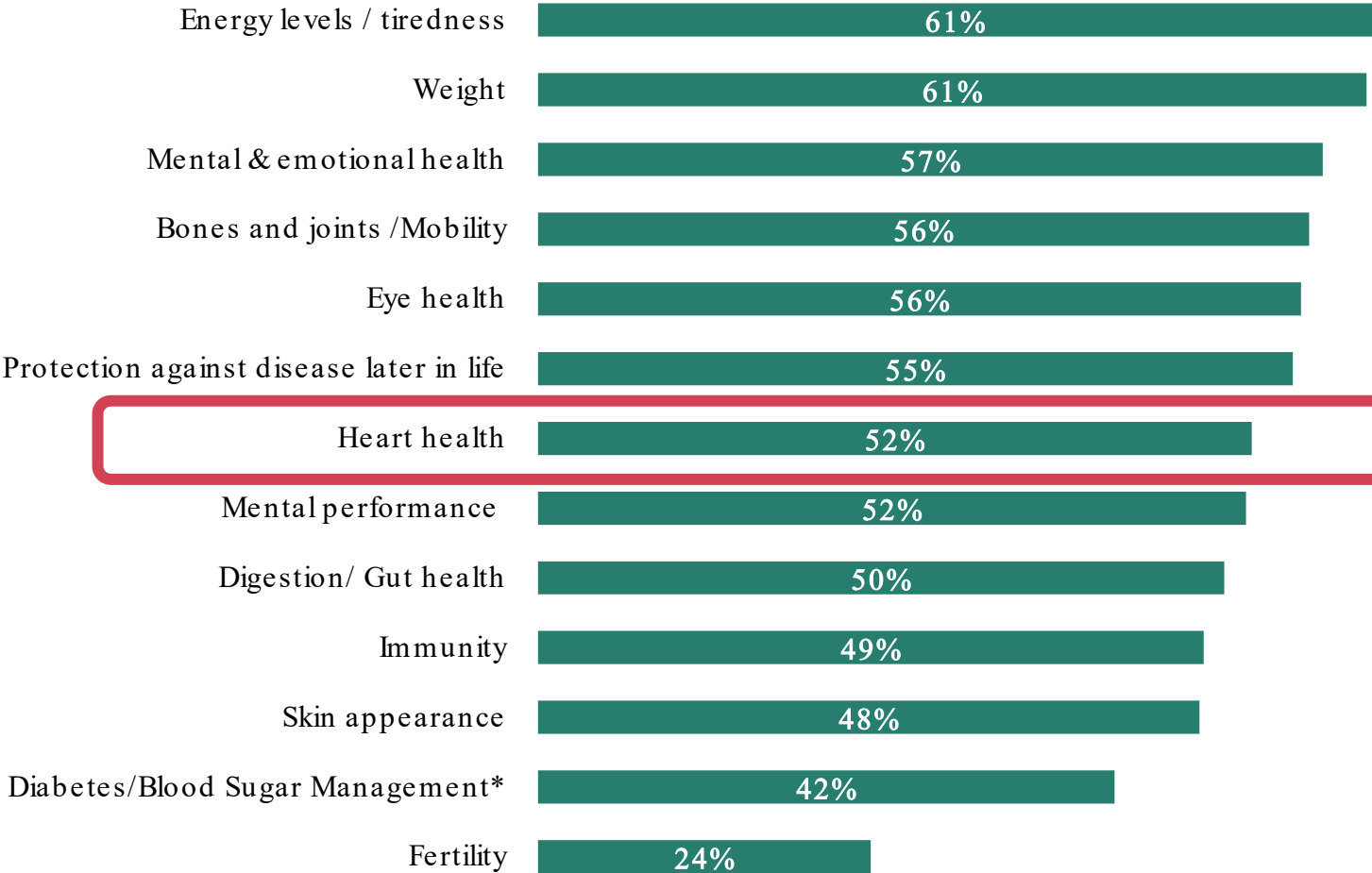
Add Health Benefits Based on Evolving Concerns

Proposal # 2

Top Consumer Health Concerns in US

According to an internal global health and concern study*

Q. How much do you worry about the following? (% worry/worry a lot)



Let's look at heart health as an example.

All respondents 2023 - USA = 1500

SOURCE: dsm-firmenich Health Concerns Study 2023

Example: Cardiovascular Health

Possible growth driver in the very near future

Claims Supporting Cardiovascular Health & Support

- Heart disease is the leading cause of death in the US
- 52% of US adults worry a lot about their heart health – a 5% increase from 2021
- Among the top 5 health benefits sought in food and beverage products



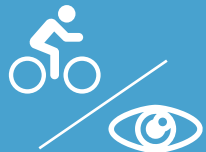







Source: DSM Global Health Concerns Study 2023.

Source: Center for Disease Control

Source: International Food Information Council 2023 Food Health Report

Example Ingredients for Targeting Health Benefits*

Supporting heart health

 Cognitive Performance	 Superfoods	 Performance & Glare Recovery	 Energy	 Stress & Mood	 Immunity	 Antioxidants	 Hydration	 Digestive Health	 Heart Health
DHA	Flaxseed	CoQ10	Caffeine	Chamomile	Beta-carotene (Vitamin A)	Vitamin C	Sodium	Ginger Root	DHA+EPA
L-theanine	Spirulina	Omega-3	Green Tea Extract	L-theanine	Acerola Cherry (Vitamin C)	Vitamin E	Potassium	Inulin	CoQ10
Caffeine	Kale	B-vitamins	Guarana	Rhodiola	Echinacea	Vitamin A	Magnesium		Lycopene
B-Vitamins	Pomegranate	BCAA/amino acids/Taurine	B-Vitamins	Ashwagandha	Vitamin E (Sunflower)	Beta-carotene	Calcium		
Ginseng	Reishi	-----	Green Coffee Bean		Elderberry	Elderberry			
	Acai	Eyes/Glare	CoQ10			Acai			
	Spinach	Lutein/zeaxanthin (Marigolds)				Green Tea Extract			
		Beta-carotene							

Validating a Concept with a Heart Health Benefit

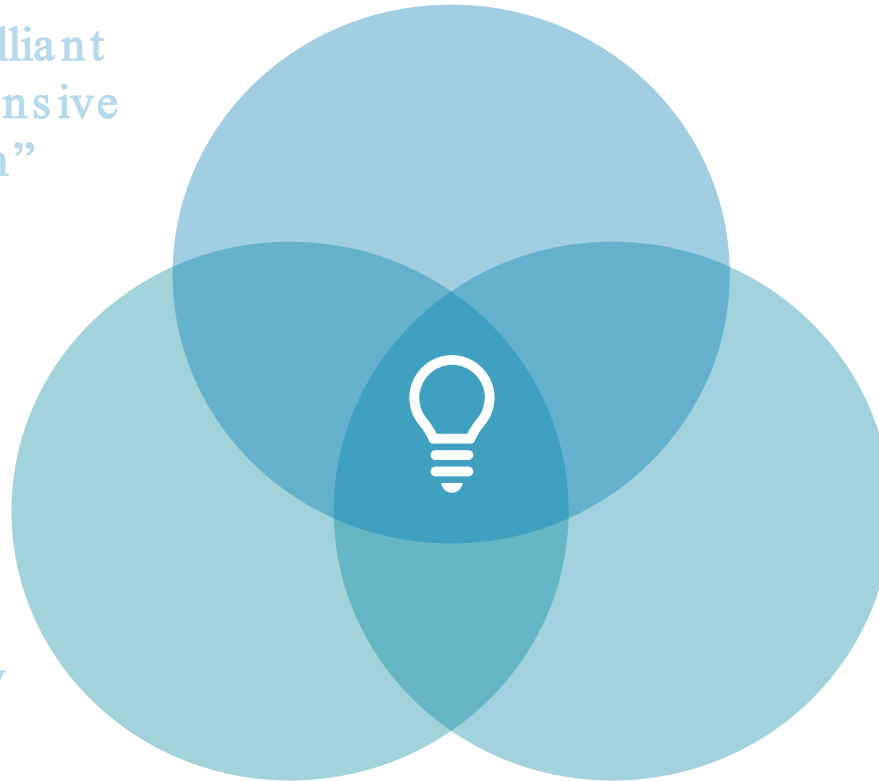
Proper due diligence is required.

1 Market Research/Concept Development

“Hey I have this brilliant idea based on extensive consumer research”

2 Science, Translation, Advocacy + Regulatory

“I will advise if your brilliant idea has legs. Ex. are the proposed claims backed by science and is there regulatory approval for your proposed ingredient(s)”



3 Technical/Prototype Development

“I will advise if your brilliant idea has feet. Ex. will there be stability issues and can I make a product that consumers will enjoy with your proposed ingredient(s)”

Consumer Study – Hydration⁺ Sports Drink

Validating a health benefit with a heart health claim by testing an unbranded paper concept.

Can easily
be juice!

H2omega-3

Hydration + Omega-3s

- Electrolytes
- B- vitamins (10 % DV)
- Omega-3s EPA + DHA for supporting heart health
- 28g of sugar per serving

Nutrition Facts


1 servings per container	
Serving size	16 oz (473ml)
Amount Per Serving	
Calories	160
% Daily Value*	
Total Fat 5g	6%
Saturated Fat 0g	0%
<i>Trans</i> Fat 0g	
Cholesterol 0mg	0%
Sodium 220mg	10%
Total Carbohydrate 28g	10%
Dietary Fiber 0g	0%
Total Sugars 28g	
Includes 28g Added Sugars	56%
Protein 0g	0%
Vitamin D 0mcg	0%
Calcium 0mg	0%
Iron 0mg	0%
Potassium 0mg	0%
Thiamin	10%
Niacin	10%
Vitamin B6	10%
Vitamin B12	10%
Biotin	10%
Pantothenic Acid	10%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.



Consumer Study Results: What Do Consumers Say?

H2omega-3 is significantly perceived as new and different versus the control concept. Not bad, but is there anything further to learn from this study?

Concept Attributes Top Box (Top Two BOX) (N=427)					
	Likelihood to Purchase	Believable	Appealing	New and Different	Is it a better option?
H2Omega-3 Concept (a)	71%	82%	80%	65% b 	58%
LEADING SPORTS DRINK (b)	71%	87%	79%	47% a	54%

 = statistically significant

Concept testing income - \$25K+, Millennials ; N = 427, Female, Millennials & Genx

How likely would you be to purchase this product? Very Likely to Very Unlikely (5 point scale); How believable are the product claims on the package? Believable to Unbelievable (5 point scale); How appealing is this product to you? Very Appealing to Very Unappealing (5 point scale); Is a better option compared to similar products? Source: Qualtrics. Statistical testing at 95% level

Sugar – The 800 lb Gorilla

Back to the drawing board. Plenty of negative consumer feedback about the sugar content.

Nutrition Facts

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Sodium 220mg	10%
Total Carbohydrate 28g	10%
Dietary Fiber 0g	0%
Total Sugars 28g	
Includes 28g Added Sugars	56%
Protein 0g	0%
Vitamin D 0mcg	0%
Calcium 0mg	0%
Iron 0mg	0%
Potassium 0mg	0%
Thiamin	10%
Niacin	10%
Vitamin B6	10%
Vitamin B12	10%
Biotin	10%
Pantothenic Acid	10%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

“I love the DHA and EPA and electrolytes, but I don't want all that added sugar “

- Consumer



RETEST

H2omega-3

Hydration + Omega-3s

- Electrolytes
- B- vitamins (100% DV)
- Omega-3s EPA + DHA for supporting heart health
- 9g of sugar per serving
2/3 less sugar than the previous concept!

 = changes

Nutrition Facts

1 servings per container	
Serving size	16 fl oz (473ml)
Amount Per Serving	
Calories	80
% Daily Value*	
Total Fat 4.5g	6%
Saturated Fat 0.5g	3%
<i>Trans</i> Fat 0.5g	
Polyunsaturated Fat 0.6g	
Monounsaturated Fat 3.2g	
Cholesterol 0mg	0%
Sodium 230mg	10%
Total Carbohydrate 10g	4%
Dietary Fiber 0g	0%
Total Sugars 9g	
Includes 9g Added Sugars	18%
Protein 0g	0%
Vitamin D 0mcg	0%
Calcium 0mg	0%
Iron 0mg	0%
Potassium 89mg	2%
Thiamin	100%
Niacin	100%
Vitamin B6	100%
Vitamin B12	100%
Biotin	100%
Pantothenic Acid	100%

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Supports Heart Health





Unaided Brand Concept




Consumer Study Results: What Do Consumers Say Now?

H2omega-3 is significantly preferred over the control across most attributes. The most significant adjustment to the concept was reducing the sugar content by nearly 67%!

Concept Attributes Top Box (Top Two BOX) (N=303)

	Likelihood to Purchase	Believable	Appealing	New and Different	Is it a better option?
H2Omega-3 Concept (a)	86% b 	88%	88% b 	76% b 	77% b 
LEADING SPORTS DRINK (b)	76% a	86%	79% a	50% a	66% a

 = statistically significant

Concept testing income - \$25K+, Millennials ; N = 308, Female, Millennials & GenX

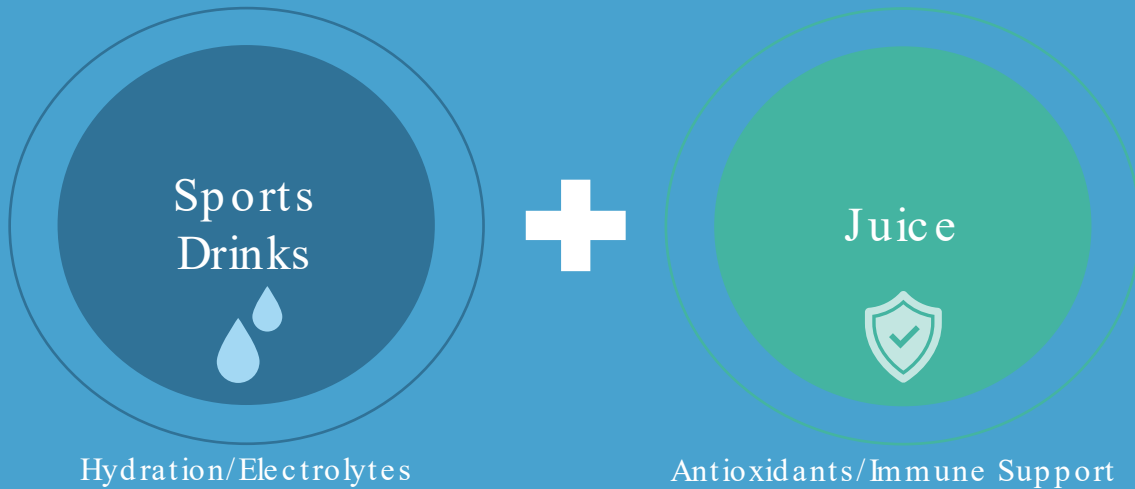
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General Takeaways From All This ...

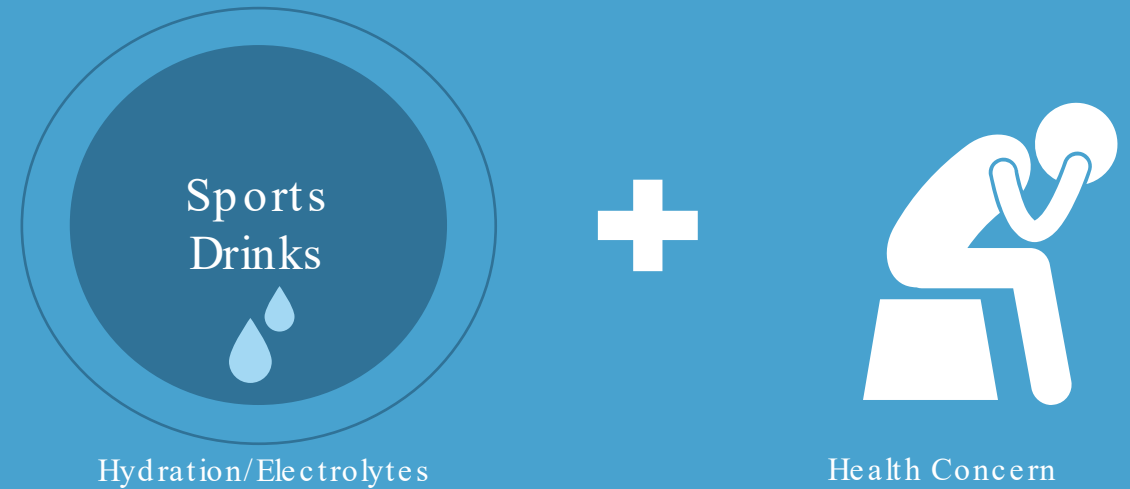
- Evolving health concerns can serve as a foundation for ideation
- When leveraging fortification to produce on-pack claims, proper due diligence is required
- Never ignore the 800 lb gorilla!
- Validated consumer feedback further serves as a direction for new product development

Proposals for Lifting a Beverage Category with Functional Claims

- 1 Blur category lines and borrow from another segment's inherent halo – at times aided by fortification.



- 2 Add a health benefit based on evolving consumer health concerns, aided by fortification.



OR

Final Considerations

- Package formats and positioning (i.e. multi-serve vs RTD)
- Avoiding the kitchen sink – conveying too many benefits
- Regulatory (i.e. ingredients that do not have GRAS)
- Sensory (i.e. masking off notes from certain premix ingredients)
- Demographics and positioning
- On-target claims messaging substantiated by science
- Strategic direction of brand and category

We bring progress to life™

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