UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF NEW YORK

METE KARABAS, on behalf of himself, all others similarly situated, and the general public, Plaintiff, v. THE COCA-COLA COMPANY, Defendant.	Case No.: 23-cv-9218 CLASS ACTION **COMPLAINT FOR CONSUMER FRAUD, NEGLIGENT AND INTENTIONAL MISREPRESENTATION, AND UNJUST ENRICHMENT** DEMAND FOR JURY TRIAL

Plaintiff Mete Karabas, on behalf of himself, all others similarly situated, and the general public, by and through his undersigned counsel, brings this action against Defendant, The Coca-Cola Company ("Coca-Cola" or "Defendant"), and alleges the following upon his own knowledge, or where he lacks personal knowledge, upon information and belief, including the investigation of his counsel.

INTRODUCTION

1. Many people grew up believing that drinking fruit juice was healthy, and many parents still believe juice is healthy. Because whole fruit is healthy, it seems sensible that fruit juice, which is derived from whole fruit, would also be healthy.

2. But compelling scientific evidence establishes that fruit juice is actually unhealthy, because drinking it increases the risk of heart disease, type 2 diabetes, metabolic syndrome, and all-cause mortality.

3. Knowing that parents are looking for healthy beverages for their children, Coca-Cola exploits and deceptively perpetuates the misperception that juice is healthy by marketing and

labeling its Minute Maid juice and drink boxes (collectively, the "Products")[1] as being "Good for You!" and "Part of a Healthy, Balanced Diet."

4. These and other representations, together with Coca-Cola's omissions of material facts are, however, false and misleading, because consuming fruit juices and drinks like the Products actually increases the risk of chronic diseases.

5. Plaintiff brings this action against Coca-Cola on behalf of himself and similarly-situated Class Members to enjoin Coca-Cola from deceptively marketing the Products, and to recover compensation for injured Class Members.

JURISDICTION & VENUE

6. This Court has original jurisdiction over this action under 28 U.S.C. § 1332(d)(2) (The Class Action Fairness Act) because the matter in controversy exceeds the sum or value of $5,000,000, exclusive of interest and costs, and at least one member of the class of plaintiffs is a citizen of a State different from Coca-Cola. In addition, more than two-thirds of the members of the class reside in states other than the state in which Coca-Cola is a citizen and in which this case is filed, and therefore any exceptions to jurisdiction under 28 U.S.C. § 1332(d) do not apply.

7. The Court has personal jurisdiction over Coca-Cola because it has purposely availed itself of the benefits and privileges of conducting business activities within New York, including by marketing, distributing, and selling the Products in New York.

8. Venue is proper in the Eastern District of New York pursuant to 28 U.S.C. § 1391(b) and (c), because Coca-Cola resides (*i.e.*, is subject to personal jurisdiction) in this district,

[1] The Products include Minute Maid Apple Juice, Mixed Berry Juice, Fruit Punch Juice, Apple White Grape Juice, and Lemonade. *See* Appendix A (product exemplars). To the extent that Coca-Cola sold any additional varieties during the Class Period that Plaintiff's prefiling investigation was unable to identify, this Complaint should be read to include such varieties.

and because a substantial part of the events or omissions giving rise to the claims occurred in this district.

PARTIES

9. Plaintiff Mete Karabas purchased the Products in New York while residing in Brooklyn, New York and is currently a resident of Hackensack, New Jersey.

10. Defendant, The Coca-Cola Company, is a Delaware corporation with its principal place of business in Atlanta, Georgia.

FACTS

I. COCA-COLA MARKETS THE PRODUCTS AS HEALTHY

11. Coca-Cola is an international conglomerate with a net operating revenue of over $38 billion in 2021.

12. For years and continuing today, Coca-Cola has sold and continues to sell the Products on a nationwide basis, including in New York.

13. Each of the Products are sold in boxes that are 6 fluid ounces, and the Products are typically sold in packs of eight boxes. Depending on flavor, a 6-fluid-ounce serving contains between 19g and 21g of sugar, constituting 80% to nearly 100% of each Product's calories.

14. Coca-Cola is well aware that consumers seek out and prefer healthful foods and beverages, and are willing to pay more for, or purchase more often, products marketed and labeled as healthy. A Nielsen 2015 Global Health & Wellness Survey, for example, found that "88% of those polled are willing to pay more for healthier foods."[2]

[2] Nancy Gagliardi, "Consumers Want Healthy Foods—And Will Pay More For Them," *Forbes* (Feb. 18, 2015) (citing Nielsen, "Global Health & Wellness Survey," at 11 (Jan. 2015).

15. Coca-Cola has taken advantage of this by marketing the Products as healthy beverage options, including by labeling them with health and wellness messages.

16. During the Class Period, Coca-Cola labeled the Products as both "Good for You!" and "Part of a Healthy, Balanced Diet."

17. Coca-Cola also used images of fresh fruit on the Products' labeling to bolster the perception that the Products are healthy.

18. Below is a representative example of the Products' packaging sold during the Class Period.

19. As discussed further below, these images and statements are false or at least highly misleading because the Products are, in fact, not healthy, since regularly consuming the Products would increase the risk of chronic disease.

II. SCIENTIFIC EVIDENCE SHOWS CONSUMING FRUIT JUICE IS UNHEALTHY

A. While Consuming Whole Fruit is Beneficial to Health, Processing it into Juice is Harmful to Health

20. As Susan Jebb, Professor of Diet and Population at Cambridge University, has explained, many "people believe fruit juices . . . have about the same effects as eating fruit. Unfortunately, this is wrong . . . ."[3] That is because processing intact fruit destroys the fruit's natural food matrix thereby concentrating and releasing the fruit's sugar, which "is absorbed very fast, so by the time it gets to your stomach your body doesn't know whether it's Coca-Cola or orange juice[.]'" Ms. Jebb has accordingly cautioned consumers, "don't fall for the fruit juice trap and don't believe the hype that it's a good addition to a balanced meal."[4]

21. The food matrix is "the nutrient and non-nutrient components of foods and their molecular relationships, i.e., chemical bonds, to each other."[5] The food matrix may be viewed as a physical domain that contains and/or interacts with specific constituents of a food (e.g., a nutrient), providing functionalities and behaviors which are different from those exhibited by the components in isolation or a free state. It is, quite literally, the physical geometry of the food.[6]

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[3] *Don't Fall for the Juice Trap*, Apartments For Us (Oct. 15, 2018), at https://www.apartmentsforus.com/dont-fall-for-the-fruit-juice-trap.

[4] *Id.*

[5] United States Department of Agriculture, NAL Agricultural Thesaurus, *available at* https://lod.nal.usda.gov/nalt/17238.

[6] *See* Aguilera, J., *The food matrix: implications in processing, nutrition and health*, 59(22) CRIT. REV. FOOD SCI. NUTR. 3612 (2019).

22. The effect of the food matrix ("FM-effect") has profound implications in food processing, oral processing, satiation, and digestion in the gastrointestinal tract.[7]

23. The FM-effect also explains the counterintuitive reality that consuming two foods with the same chemical composition may lead to significantly different outcomes for health based on their chemical structures.

24. When whole fruit is processed into juice, the fruits' natural food matrix is destroyed. This both concentrates and releases the sugar from its natural fiber encasing so that it becomes "free sugar."[8] And because of the negative health effects of consuming free sugars, a piece of fruit, while perhaps a healthy food choice when it is whole, is transformed into a decidedly *un*healthy food once processed into juice.[9]

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[7] *See id.*

[8] "Added sugars" include sugars added to foods during processing or preparation, such as brown sugar, sucrose, honey, invert sugar, molasses, and fruit juice concentrates. But under some definitions, like the FDA's, added sugars do not include naturally-occurring sugars present in intact fruits, vegetables, and dairy products and—as relevant here—in juiced or pureed fruits and vegetables. "Free sugars," on the other hand, a term used by the World Health Organization (WHO), definitionally excludes only sugars naturally occurring in *intact* fruits, vegetables, or dairy products, such that "free sugars" includes sugars from juice. Thus, the definitional "distinction between added and free sugars is that the latter includes all naturally occurring sugars in nonintact (i.e., juiced or pureed) fruit and vegetables." *See* Mela, D.J. et al., *Perspective: Total, Added, or Free? What Kind of Sugars Should We Be Talking About?*, 9(2) ADV. NUTR. 63, 63-64 (Mar. 2018) ["Mela, *Sugar Perspective*"]. This is, however, merely semantical. "The existence of these different ways of classifying sugars in foods and beverages in authoritative dietary guidance and nutrition communication implies that the distinctions are deemed to be physiologically relevant. But physiologic differentiation between these classes [of sugars] arise[s] mainly from effects of the [food] matrix in which the sugars are found. For example, it has often been shown that the acute metabolic impact is lower and satiety effects greater for intact fruit than for the comparable fruit juices, the latter having effects more similar to other sugar-sweetened beverages (SSBs)." *Id*. at 64. Thus, "the term 'free sugars' best conveys the nature and sources of dietary sugars that are most consistently related to risks of positive energy balance, and that are also associated with diabetes and dental caries." *Id.* at 67.

[9] *See generally* Mela, *Sugar Perspective*, *supra* n.8.

25. For example, "studies show that eating whole fruit gives you the most of this food group's potential benefits, like helping to prevent heart disease, stroke and some types of cancer" and "may significantly lower your risk of type 2 diabetes . . . . Conversely, drinking fruit juice every day had the opposite effect, increasing the chances of diabetes by 21 percent."[10]

26. Numerous studies have similarly found that while consuming whole fruits has a protective effect regarding diabetes, juice consumption has no protective effect and actually increases risk of diabetes.[11]

27. Likewise, while consuming whole fruits is protective and decreases risk of

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[10] McClusky, J., *The Whole Truth About Whole Fruits*, WEBMD (May 31, 2017), https://www.webmd.com/food-recipes/news/20170531/the-whole-truth-about-whole-fruits. *See also* Dreher, M.L., *Whole Fruits and Fruit Fiber Emerging Health Effects*, 12(10) NUTRIENTS 1833, 1833 (Nov. 2018) ("health benefits [of consuming whole fruits] include: . . . reducing risk of cardiovascular disease, type 2 diabetes and metabolic syndrome; defending against colorectal and lung cancers"); Muraki, I., et al., *Fruit consumption and risk of type 2 diabetes: results from three prospective longitudinal cohort studies*, 347 BRIT. MED. J. f5001 (Aug. 2013) ("Greater consumption of specific whole fruits . . . is significantly associated with a lower risk of type 2 diabetes, whereas greater consumption of fruit juice is associated with a higher risk.").

[11] Bazzano, L.A., et al., *Intake of fruit, vegetables, and fruit juices and risk of diabetes in women*, 31 DIABETES CARE 1311 (2008) (cohort study of 71,346 women from the Nurses' Health Study followed for 18 years showed that those who consumed 2 to 3 apple, grapefruit, and orange juices per day (280-450 calories and 75-112.5 grams of sugar) had an 18% greater risk of type 2 diabetes than women who consumed less than 1 sugar-sweetened beverage per month); Drouin-Chatier, J., et al., *Changes in Consumption of Sugary Beverages and Artificially Sweetened Beverages and Subsequent Risk of Type 2 Diabetes: Results From Three Large Prospective U.S. Cohorts of Women and Men*, 42 DIABETES CARE 2181 (Dec. 2019) (finding that increasing sugary beverage intake—which included both sugar-sweetened beverages and fruit juice—by half-a-serving per day over a 4-year period was associated with a 16% greater risk of type 2 diabetes); Imamura, F., 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*, 351 BRIT. MED. J. 3576 (2015) (meta-analysis of 17 prospective cohort studies showed higher consumption of fruit juice was associated with a 7% greater incidence of type 2 diabetes); *WHO urges global action to curtail consumption and health impacts of sugary drinks*, World Health Organization (Oct. 11, 2016), https://www.who.int/news/item/11-10-2016-who-urges-global-action-to-curtail-consumption-and-health-impacts-of-sugary-drinks ("Consumption of free sugars, including products like sugary drinks, is a major factor in the global increase of people suffering from obesity and diabetes[.]").

cardiovascular diseases, consuming juice increases risk of cardiovascular diseases[12] and all-cause mortality.[13]

28. In addition, "fruit juice increases the risk for type 2 diabetes and obesity . . . in contrast to the lowered risk with whole fruit," and "research concurs that eating whole fruit is beneficial to health and prevents a broad category of disease, while fruit juice may be counterproductive to overall health in some categories."[14]

29. As Dr. Robert Lustig, a professor emeritus of Pediatrics, Division of Endocrinology at the University of California, San Francisco, explains, when you drink juice instead of eating whole fruit, you no longer get the suppression of the insulin response, making juice "as egregious a delivery vehicle for sugar as is soda. Studies of juice consumption show increased risk of diabetes and heart disease even after controlling for calories, while whole fruit demonstrates protection."[15]

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[12] Hansen, L., et al., *Fruit and vegetable intake and risk of acute coronary syndrome*, 104 BRIT. J. NUTR. 248 (2010) (finding "a tendency towards a lower risk of ACS [acute coronary syndrome] . . . for both men and women with higher fruit and vegetable consumption," but "a higher risk . . . among women with higher fruit juice intake"); Pase, M.P., et al., *Habitual intake of fruit juice predicts central blood pressure*, 84 APPETITE 658 (2015) (people who consumed juice daily, rather than rarely or occasionally, had significantly higher central systolic blood pressure, a risk factor for cardiovascular disease").

[13] Collin, L.J., et al., *Association of Sugary Beverage Consumption With Mortality Risk in US Adults: A Secondary Analysis of Data From the REGARDS Study*, 2(5) JAMA NETWORK OPEN e193121 (May 2019) (cohort study of 13,440 black and white adults 45 years and older, observed for a mean of 6 years, found each additional 12-oz serving per day of fruit juice was associated with a 24% higher all-cause mortality risk). *See also* Thomas, L., *Differences Between Natural Whole Fruit and Natural Fruit Juice*, NEWS MEDICAL (Feb. 27, 2019) ("In one study, increased fruit juice consumption in early life led to a higher risk of obesity and shorter adult height.").

[14] Thomas, *Differences Between Natural Whole Fruit and Natural Fruit Juice*, *supra* n.13.

[15] Lustig, R.H., M.D., M.S.L., *Metabolical: The Lure and the Lies of Processed Food, Nutrition, and Modern Medicine*, 259-60 (Harper Wave 2021).

30. Barry M. Popkin, PhD, a W. R. Kenan Jr. Distinguished Professor in the Department of Nutrition at University of North Carolina, Gillings School of Global Public Health, explains that "as people change their drinking habits to avoid carbonated soft drinks, the potential damage from naturally occurring fructose in fruit juices and smoothies is being overlooked."[16] "[P]ulped-up smoothies do nothing good for us but do give us the same amount of sugar as four to six oranges or a large coke. It is deceiving."[17]

31. As demonstrated in more detail below, the scientific evidence demonstrates that consuming fruit juice, like the Products, increases the risk of numerous diseases.

B. Juice Consumption Increases the Risk of Cardiovascular Heart Disease

32. Heart disease is the number one killer in the United States. The scientific literature demonstrates that consumption of sugar-containing beverages (SCB), including juices, at amounts typically consumed, has deleterious effects on heart health.

33. In a study published in January 2020, researchers set out to determine whether consumption of SCBs, including juice, is associated with cardiometabolic risk (CMR) in preschool children. They did so using 2007-2018 data from TARGet Kids!, a primary-care, practice-based research network in Canada. After controlling for sociodemographic, familial, and child-related covariates, they found higher consumption of SCB was significantly associated with elevated CMR scores, including lower HDL "good" cholesterol, and higher triglycerides. In addition, when examined separately, juice specifically was significantly associated with lower HDL cholesterol.

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[16] Boseley, S., *Smoothies and fruit juices are a new risk to health, US scientists warn*, THE GUARDIAN (Sept. 7, 2013) ("[R]esearchers from the UK, USA and Singapore found that in large-scale studies involving nurses, people who ate whole fruit, especially blueberries, grapes and apples, were less likely to get type 2 diabetes . . . but those who drank fruit juice were at increased risk. People who swapped their fruit juice for whole fruits three times a week cut their risk by 7%").

[17] *Id.*

The researchers stated that their "findings support recommendations to limit overall intake of SCB in early childhood, in [an] effort to reduce the potential long-term burden of CMR."[18]

34. But juice consumption does not just detrimentally affect children. Analyzing data from the Danish Diet, Cancer and Health cohort study, representing 57,053 men and women aged 50 to 64 years old, researchers found "a tendency towards a lower risk of ACS [acute coronary syndrome] . . . for both men and women with higher [whole] fruit and vegetable consumption," but "a higher risk . . . among women with higher fruit juice intake[.]"[19]

35. In one study, those who consumed juice daily, rather than rarely or occasionally, had significantly higher central systolic blood pressure, a risk factor for cardiovascular disease—even after adjusting for age, height, weight, mean arterial pressure, heart rate, and treatment for lipids and hypertension.[20]

36. Studies of the cardiovascular effects of added sugar consumption further suggest juice consumption causes increased risk for and contraction of cardiovascular heart disease, since the free sugars in juice act physiologically identically to added sugars, such as those in sugar-sweetened beverages.

37. For example, data obtained from NHANES surveys during the periods of 1988-1994, 1999-2004, and 2005-2010—after adjusting for a wide variety of other factors—demonstrate that those who consumed 10% - 24.9% of their calories from added sugar had a 30% greater risk of cardiovascular disease (CVD) mortality than those who consumed 5% or less of their calories

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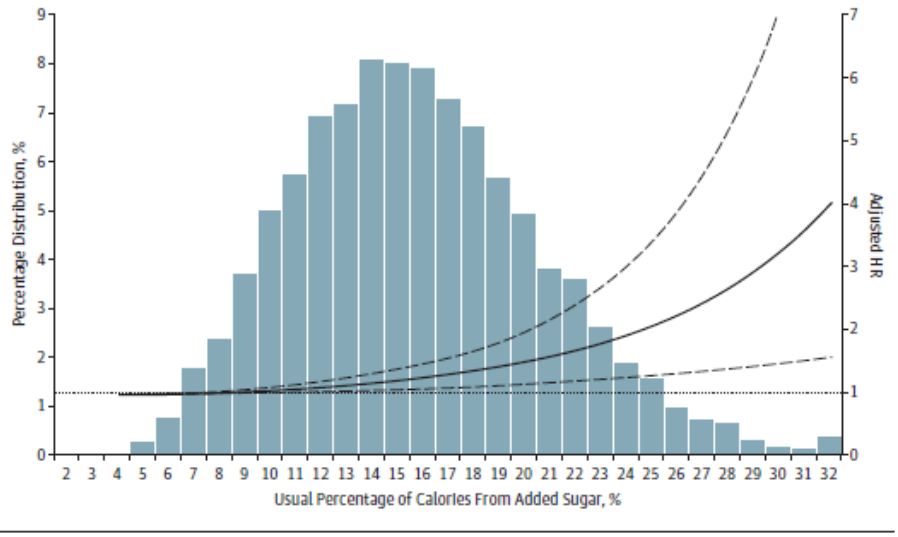
[18] Eny, K.M., et al., *Sugar-containing beverage consumption and cardiometabolic risk in preschool children*, 17 PREV. MED. REP. 101054, 101054 (Jan. 14, 2020).

[19] Hansen, L., et al., *Fruit and vegetable intake and risk of acute coronary syndrome*, 104 BRITISH J. NUTR. 248, 248 (2010).

[20] Pase, M.P., et al., *Habitual intake of fruit juice predicts central blood pressure*, *supra* n.12.

from added sugar. In addition, those who consumed 25% or more of their calories from added sugar had an average 275% greater risk of CVD mortality than those who consumed less than 5% of calories from added sugar. Similarly, when compared to those who consumed approximately 8% of calories from added sugar, participants who consumed approximately 17% - 21% (the 4th quintile) of calories from added sugar had a 38% higher risk of CVD mortality, while the relative risk was more than double for those who consumed 21% or more of calories from added sugar (the 5th quintile). Thus, "[t]he risk of CVD mortality increased exponentially with increasing usual percentage of calories from added sugar," as demonstrated in the chart below.[21]

Figure 1. Adjusted Hazard Ratio (HR) of the Usual Percentage of Calories From Added Sugar for Cardiovascular Disease Mortality Among US Adults 20 Years or Older: National Health and Nutrition Examination Survey Linked Mortality Files, 1988-2006



Histogram of the distribution of usual percentage of calories from added sugar in the population. Lines show the adjusted HRs from Cox models. Midvalue of quintile 1 (7.4%) was the reference standard. The model was adjusted for age, sex, race/ethnicity, educational attainment, smoking status, alcohol consumption, physical activity level, family history of cardiovascular disease, antihypertensive medication use, Healthy Eating Index score, body mass index, systolic blood pressure, total serum cholesterol, and total calories. Solid line indicates point estimates; dashed lines indicate 95% CIs.

38. The NHANES analysis also found "a significant association between sugar-sweetened beverage consumption and risk of CVD mortality," with an average 29% greater risk of CVD mortality "when comparing participants who consumed 7 or more servings/wk . . . with

[21] Yang, Quanhe, et al., *Added Sugar Intake and Cardiovascular Diseases Mortality Among US Adults*, 174(4) JAMA INTERN. MED., 516, 519-20 (2014).

those who consumed 1 serving/wk or less . . . ."[22] The study concluded that "most US adults consume more added sugar than is recommended for a healthy diet. A higher percentage of calories from added sugar is associated with significantly increased risk of CVD mortality. In addition, regular consumption of sugar-sweetened beverages is associated with elevated CVD mortality."[23]

39. Consistent with this result, data from the Nurses' Health Study showed that, after adjusting for other unhealthy lifestyle factors, those who consumed two or more sugar-sweetened beverages per day (280 calories, or 70 grams of sugar or more) had a 35% greater risk of coronary heart disease compared with infrequent consumers.[24]

40. In another prospective cohort study, it was suggested that reducing sugar consumption in liquids is highly recommended to prevent CHD. Consumption of sugary beverages was significantly shown to increase risk of CHD, as well as adverse changes in some blood lipids, inflammatory factors, and leptin.[25]

41. Juice consumption is also associated with several key risk factors for heart disease. For example, consumption of sugary beverages like juice has been associated with dyslipidemia,[26]

[22] *Id.* at 521.

[23] *Id.* at 522.

[24] Fung, T.T., et al., *Sweetened beverage consumption and risk of coronary heart disease in women*, 89 AM. J. CLIN. NUTR. 1037 (Feb. 2009).

[25] Koning, L.D., et al., *Sweetened Beverage Consumption, Incident Coronary Heart Disease, and Biomarkers of Risk in Men*, 125 CIRCULATION 1735 (2012).

[26] Elliott, S.S., et al., *Fructose, weight gain, and the insulin resistance syndrome*, 76(5) AM. J. CLIN. NUTR. 911 (2002).

obesity,[27] and increased blood pressure.[28]

C. Juice Consumption Increases the Risk of Type 2 Diabetes

42. Diabetes affects 34.2 million Americans—just over 1 in 10. From 2001 to 2017, the number of people under age 20 living with type 1 diabetes increased by 45%, and the number living with type 2 diabetes grew by 95%.[29]

43. "Increases in diabetes are always troubling – especially in youth. Rising rates of diabetes, particularly type 2 diabetes, which is preventable, has the potential to create a cascade of poor health outcomes," according to Giuseppina Imperatore, MD, PhD, chief of the Surveillance, Epidemiology, Economics, and Statistics Branch in the Centers for Disease Control (CDC)'s Division of Diabetes Translation.[30] "Compared to people who develop diabetes in adulthood, youth are more likely to develop diabetes complications at an earlier age and are at higher risk of premature death."[31]

44. Diabetes can cause kidney failure, lower-limb amputation, and blindness; doubles

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[27] Faith, M.S., et al., *Fruit Juice Intake Predicts Increased Adiposity Gain in Children From Low-Income Families: Weight Status-by-Environment Interaction*, 118 PEDIATRICS 2066 (2006) ("Among children who were initially either at risk for overweight or overweight, increased fruit juice intake was associated with excess adiposity gain, whereas parental offerings of whole fruits were associated with reduced adiposity gain."); Schulze, M.B., et al., *Sugar-Sweetened Beverages, Weight Gain, and Incidence of Type 2 Diabetes in Young and Middle-Aged Women*, 292(8) JAMA 927 (2004) ["Schulze, *Diabetes in Young & Middle-Aged Women*"]; Ludwig, D.S., et al., *Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis*, 257 LANCET 505 (2001); Dennison, B.A., et al., *Excess fruit juice consumption by preschool-aged children is associated with short stature and obesity*, 99 PEDIATRICS 15 (1997).

[28] Hoare, E., et al., *Sugar- and Intense-Sweetened Drinks in Australia: A Systematic Review on Cardiometabolic Risk*, 9(10) NUTRIENTS 1075 (2017).

[29] Centers for Disease Control and Prevention, *New Research Uncovers Concerning Increases in Youth Living with Diabetes in the U.S.*, (Aug. 24, 2021) https://www.cdc.gov/media/releases/2021/p0824-youth-diabetes.html.

[30] *Id*.

[31] *Id*.

the risk of colon and pancreatic cancers; and is strongly associated with coronary artery disease and Alzheimer's disease.[32]

45. In 2010, Harvard researchers performed a meta-analysis of eight studies concerning sugar-sweetened beverage consumption and risk of type 2 diabetes, involving a total of 310,819 participants. They concluded that individuals in the highest quantile of SSB intake had an average 26% greater risk of developing type 2 diabetes than those in the lowest quantile.[33] Moreover, "larger studies with longer durations of follow-up tended to show stronger associations."[34] Thus, the meta-analysis showed "a clear link between SSB consumption and risk of . . . type 2 diabetes."[35]

46. An analysis of data for more than 50,000 women from the Nurses' Health Study,[36] during two 4-year periods (1991-1995 and 1995-1999), showed that, after adjusting for confounding factors, women who consumed one or more sugar-sweetened soft drink per day (*i.e.*, 140 - 150 calories and 35 - 37.5 grams of sugar), had an 83% greater relative risk of type 2 diabetes compared with those who consumed less than one such beverage per month; and women who

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[32] Aranceta Bartrina, J., et al., *Association between sucrose intake and cancer: a review of the evidence*, 28 NUTRICIÓN HOSPITALARIA 95 (2013); Garcia-Jimenez, C., *A new link between diabetes and cancer: enhanced WNT/beta-catenin signaling by high glucose*, 52(1) J. MOLECULAR ENDOCRINOLOGY R51 (2014); Linden, G.J., *All-cause mortality and periodontitis in 60-70-year-old men: a prospective cohort study*, 39(1) J. CLINICAL PERIODONTAL 940 (Oct. 2012).

[33] Malik, V.S., et al., *Sugar-Sweetened Beverages and Risk of Metabolic Syndrome and Type 2 Diabetes*, 33(11) DIABETES CARE 2477, 2480 (Nov. 2010) ["Malik, *2010 Meta-Analysis*"].

[34] *Id.* at 2481.

[35] *Id.*

[36] The Nurses' Health Study was established at Harvard in 1976, and the Nurses' Health Study II, in 1989. Both are long-term epidemiological studies conducted on women's health. The study followed 121,700 women registered nurses since 1976, and 116,000 female nurses since 1989, to assess risk factors for cancer, diabetes, and cardiovascular disease. The Nurses' Health Studies are among the largest investigations into risk factors for major chronic disease in women ever conducted. *See generally The Nurses' Health Study*, http://www.channing.harvard.edu/nhs.

consumed one or more fruit punch drinks per day had a 100% greater relative risk of type 2 diabetes.[37]

47. The result of this analysis shows a statistically significant linear trend with increasing sugar consumption.[38]

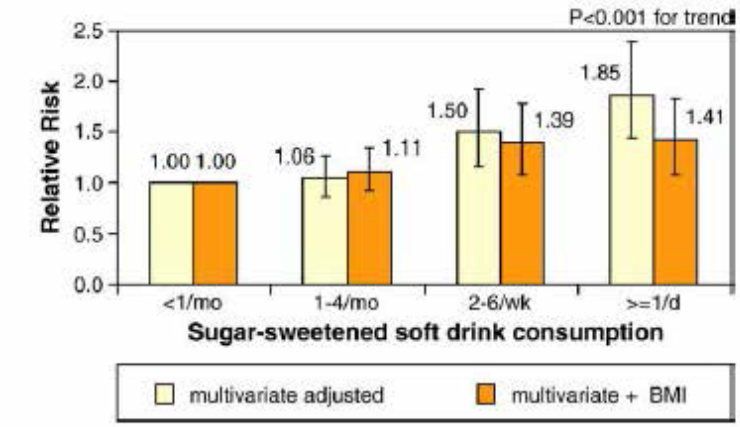

Fig. 4. Multivariate relative risks (RRs) of type 2 diabetes according to sugar-sweetened soft drink consumption in the Nurses' Health Study II 1991–1999 (Multivariate RRs were adjusted for age, alcohol (0, 0.1–4.9, 5.0–9.9, 10+ g/d), physical activity (quintiles), family history of diabetes, smoking (never, past, current), postmenopausal hormone use (never, ever), oral contraceptive use (never, past, current), intake (quintiles) of cereal fiber, magnesium, trans fat, polyunsaturated:saturated fat, and consumption of sugar-sweetened soft drinks, diet soft drinks, fruit juice, and fruit punch (other than the main exposure, depending on model). The data were based on Ref. [50]).

48. A prospective cohort study between 1995 and 2001 of more than 43,000 African American women showed that the incidence of type 2 diabetes was higher with higher intake of both sugar-sweetened soft drinks and fruit drinks. After adjusting for confounding variables, those who drank two or more soft drinks per day (*i.e.*, 140 - 300 calories and 35 - 75 grams of sugar) showed a 24% greater risk of type 2 diabetes, and those who drank two or more fruit drinks per day showed a 31% greater risk of type 2 diabetes than those who drank one or less such drinks

[37] Schulze, *Diabetes in Young & Middle-Aged Women*, *supra* n.27.

[38] Hu, F.B., et al., *Sugar-sweetened beverages and risk of obesity and type 2 diabetes: Epidemiologic evidence*, 100 PHYSIOL. & BEHAVIOR 47 (2010).

per month.[39]

49. A large cohort study of 71,346 women from the Nurses' Health Study followed for eighteen years showed that those who consumed two to three apple, grapefruit, and orange juices per day (280 - 450 calories and 75 - 112.5 grams of sugar) had an 18% greater risk of type 2 diabetes than women who consumed less than one sugar-sweetened beverage per month. The data also showed a linear trend with increased consumption, as demonstrated below.[40]

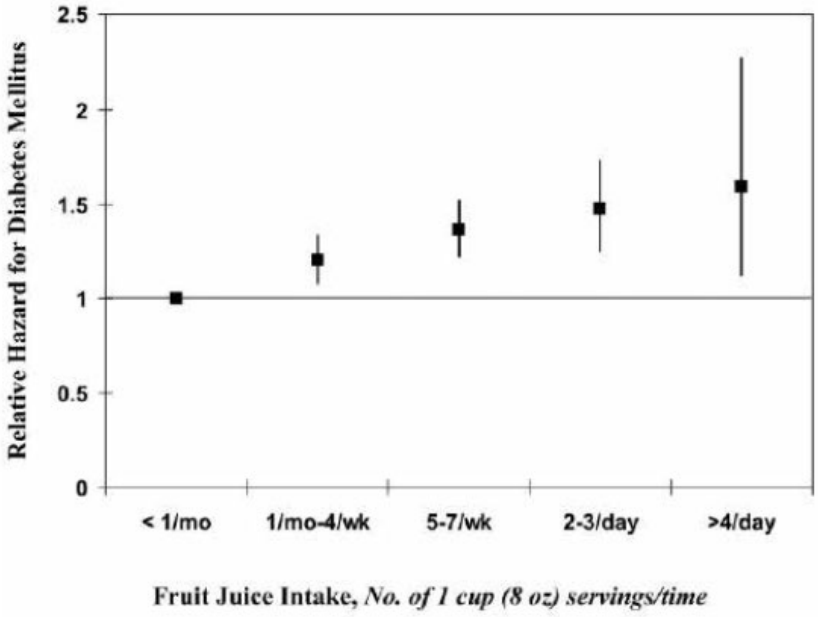

Figure 1—*Multivariate-adjusted relative hazard of diabetes by category of cumulatively updated fruit juice intake. Values were adjusted for cumulatively updated BMI, physical activity, family history of diabetes, postmenopausal hormone use, alcohol use, smoking, and total energy intake. For an increase of 1 serving/day of fruit juice, the multivariate-adjusted relative risk was 1.18 (95% CI 1.10–1.26; P < 0.0001).*

50. An analysis of more than 40,000 men from the Health Professionals Follow-Up Study, a prospective cohort study conducted over a 20-year period, found that, after adjusting for age and a wide variety of other confounders, those in the top quartile of sugar-sweetened beverage

[39] Palmer, J.R., et al., *Sugar-Sweetened Beverages and Incidence of Type 2 Diabetes Mellitus in African American Women*, 168(14) ARCHIVE INTERNAL MED. 1487 (July 28, 2008) ["Palmer, *Diabetes in African American Women*"].

[40] Bazzano, L.A., et al., *Intake of fruit, vegetables, and fruit juices and risk of diabetes in women*, 31 DIABETES CARE 1311, 1316 (2008).

intake had a 24% greater risk of type 2 diabetes than those in the bottom quartile, while consumption of artificially-sweetened beverages, after adjustment, showed no association.[41]

51. In an analysis of tens of thousands of subjects from three prospective longitudinal cohort studies (the Nurses' Health Study, Nurses' Health Study II, and Health Professionals Follow-up Study), researchers found, after adjusting for BMI, initial diet, changes in diet, and lifestyle covariates, that increasing sugary beverage intake—which included both sugar-sweetened beverages and fruit juice—by half-a-serving per day over a 4-year period was associated with a 16% greater risk of type 2 diabetes.[42]

52. In another study of subjects from the Nurses' Health Study, Nurses' Health Study II, and Health Professionals Follow-up Study, researchers set out to "determine whether individual fruits are differentially associated with risk of type 2 diabetes," looking at the associated risk with eating three servings per week of blueberries, grapes and raisins, prunes, apples and pears, bananas, grapefruit, oranges, strawberries, cantaloupe, and peaches, plums and apricots, as well as "the same increment" in fruit juice consumption. They found that "[g]reater consumption of specific whole fruits" was "significantly associated with a lower risk of type 2 diabetes, whereas greater consumption of fruit juice is associated with a higher risk." The increased risk was approximately 8% based on three fruit juice servings per week.[43] Similarly, a meta-analysis of 17 prospective

[41] De Konig, L., et al., *Sugar-sweetened and artificially sweetened beverage consumption and risk of type 2 diabetes in men*, 93 AM. J. CLIN. NUTR. 1321 (2011).

[42] Drouin-Chatier, J., et al., *Changes in Consumption of Sugary Beverages and Artificially Sweetened Beverages and Subsequent Risk of Type 2 Diabetes: Results From Three Large Prospective U.S. Cohorts of Women and Men*, 42 DIABETES CARE 2181 (Dec. 2019).

[43] Muraki, I., et al., *Fruit consumption and risk of type 2 diabetes: results from three prospective longitudinal cohort studies*, 347 BRIT MED. J. 5001 (Aug. 28, 2013).

cohort studies showed higher consumption of fruit juice was associated with a 7% greater incidence of type 2 diabetes after adjusting for adiposity.[44]

53. An econometric analysis of repeated cross-sectional data published in 2013 established a causal relationship between sugar availability and type 2 diabetes. After adjusting for a wide range of confounding factors, researchers found that an increase of 150 calories per day related to an insignificant 0.1% rise in diabetes prevalence by country, while an increase of 150 calories per day in sugar related to a 1.1% rise in diabetes prevalence by country, a statically significant 11-fold difference.[45]

D. Juice Consumption Increases the Risk of Metabolic Disease

54. Excess sugar consumption leads to metabolic syndrome by stressing and damaging crucial organs, including the pancreas and liver. When the pancreas, which produces insulin, becomes overworked, it can fail to regulate blood sugar properly. Large doses of fructose can overwhelm the liver, which metabolizes fructose. In the process, the liver will convert excess fructose to fat, which is stored in the liver and released into the bloodstream. This process contributes to key elements of metabolic syndrome, including high blood fats and triglycerides, high cholesterol, high blood pressure, and extra body fat, especially in the belly.[46]

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[44] Imamura, F., 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*, 351 BRIT MED. J. 3576 (2015).

[45] Basu, S., et al., *The Relationship of Sugar to Population-Level Diabetes Prevalence: An Econometric Analysis of Repeated Cross-Sectional Data*, 8(2) PLOS ONLINE 57873 (Feb. 27, 2013).

[46] Te Morenga, L., et al., *Dietary sugars and body weight: systematic review and meta-analyses of randomized controlled trials and cohort studies*, 346 BRIT MED. J. e7492 (Jan. 2013) ["Te Morenga, *Dietary Sugars & Body Weight*"].

55. Metabolic disease has been linked to type 2 diabetes, cardiovascular disease, obesity, polycystic ovary syndrome, nonalcoholic fatty liver disease, and chronic kidney disease, and is defined as the presence of any three of the following:

a. Large Waist Size (35" or more for women, 40" or more for men);

b. High triglycerides (150mg/dL or higher, or use of cholesterol medication);

c. High total cholesterol, or HDL levels under 50mg/dL for women, and 40 mg for men;

d. High blood pressure (135/85 mm or higher); and

e. High blood sugar (100mg/dL or higher).

56. More generally, "metabolic abnormalities that are typical of the so-called metabolic syndrome . . . includ[e] insulin resistance, impaired glucose tolerance, high concentrations of circulating triacylglycerols, low concentrations of HDLs, and high concentrations of small, dense LDLs."[47]

57. Fifty-six million Americans have metabolic syndrome, or about 22.9% of Americans over the age of 20, placing them at higher risk for chronic disease.

58. In 2010, Harvard researchers published a meta-analysis of three studies, involving 19,431 participants, concerning the effect of consuming sugar-sweetened beverages on risk for metabolic syndrome. They found participants in the highest quantile (consuming 1-2 servings per day) had an average 20% greater risk of developing metabolic syndrome than did those in the lowest quantile (consuming less than 1 serving per day), showing "a clear link between SSB consumption and risk of metabolic syndrome . . . ."[48]

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[47] Fried, S.K., *Sugars, hypertriglyceridemia, and cardiovascular disease*, 78 AM. J. CLIN. NUTR. 873S, 873S (2003).

[48] Malik, *2010 Meta-Analysis*, *supra* n.33.

59. Researchers who studied the incidence of metabolic syndrome and its components in relation to soft drink consumption in more than 6,000 participants in the Framingham Heart Study found that individuals who consumed one or more soft drinks per day (*i.e.*, 140 - 150 calories and 35 - 37.5 grams of sugar or more) had a 48% higher prevalence of metabolic syndrome than infrequent consumers, those who drank less than one soft drink per day. In addition, the frequent-consumer group had a 44% higher risk of developing metabolic syndrome.[49]

E. Juice Consumption Increases the Risk of Liver Disease

60. Sugar consumption causes serious liver disease, including non-alcoholic fatty liver disease (NAFLD), characterized by excess fat build-up in the liver. Five percent of these cases develop into non-alcoholic steatohepatitis (NASH), causing scarring as the liver tries to heal its injuries, which gradually cuts off vital blood flow to the liver. About 25% of NASH patients progress to non-alcoholic liver cirrhosis, which requires a liver transplant or can lead to death.[50]

61. Since 1980, the incidence of NAFLD and NASH has doubled, along with the rise of fructose consumption, with approximately 6 million Americans estimated to have progressed to NASH and 600,000 to NASH-related cirrhosis. Most people with NASH also have type 2 diabetes. NASH is now the third-leading reason for liver transplant in America.[51]

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[49] Dhingra, R., et al., *Soft Drink Consumption and Risk of Developing Cardiometabolic Risk Factors and the Metabolic Syndrome in Middle-Aged Adults in the Community*, 116 CIRCULATION 480 (2007) ["Dhingra, *Cardiometabolic Risk*"].

[50] Farrell, G.C., et al., *Nonalcoholic fatty liver disease: from steatosis to cirrhosis*, 433(2) HEPATOLOGY S99 (Feb. 2006); Powell, E.E., et al., *The Natural History of Nonalcoholic Steatohepatitis: A Follow-up Study of Forty-two Patients for Up to 21 Years*, 11(1) HEPATOLOGY 74 (1990).

[51] Charlton, M.R., et al., *Frequency and outcomes of liver transplantation for nonalcoholic steatohepatitis in the United States*, 141(4) GASTROENTEROLOGY 1249 (Oct. 2011).

62. Moreover, because the liver metabolizes sugar virtually identically to alcohol, the U.S. is now seeing for the first time alcohol-related diseases in children. Conservative estimates are that 31% of American adults, and 13% of American children, suffer from NAFLD.[52]

F. Juice Consumption Increases the Risk of Obesity

63. Excess sugar consumption also leads to weight gain and obesity because insulin secreted in response to sugar intake instructs the cells to store excess energy as fat. This excess weight can then exacerbate the problems of excess sugar consumption because excess fat, particularly around the waist, is in itself a primary cause of insulin resistance, creating a vicious cycle. Studies have shown that belly fat produces hormones and other substances that can cause insulin resistance, high blood pressure, abnormal cholesterol levels, and cardiovascular disease. And belly fat plays a part in the development of chronic inflammation in the body, which can cause damage over time without any signs or symptoms. Complex interactions in fat tissue draw immune cells to the area, which triggers low-level chronic inflammation. This in turn contributes even more to insulin resistance, type 2 diabetes, and cardiovascular disease.

64. Based on a meta-analysis of 30 studies between 1966 and 2005, Harvard researchers found "strong evidence for the independent role of the intake of sugar-sweetened beverages, particularly soda, in the promotion of weight gain and obesity in children and adolescents. Findings from prospective cohort studies conducted in adults, taken in conjunction

[52] Lindback, S.M., et al., *Pediatric Nonalcoholic Fatty Liver Disease: A Comprehensive Review*, 57(1) ADVANCES PEDIATRICS 85 (2010); Lazo, M. et al., *The Epidemiology of Nonalcoholic Fatty Liver Disease: A Global Perspective*, 28(4) SEMINARS LIVER DISEASE, 339 (2008); Schwimmer, J.B., et al., *Prevalence of Fatty Liver in Children and Adolescents*, 118(4) PEDIATRICS 1388 (2006); Browning, J.D., et al., *Prevalence of hepatic steatosis in an urban population in the United States: Impact of ethnicity*, 40(6) HEPATOLOGY 1387 (2004).

with results from short-term feeding trials, also support a positive association between soda consumption and weight gain, obesity, or both."[53]

65. A recent meta-analysis by Harvard researchers evaluating change in Body Mass Index per increase in one serving of sugar-sweetened beverages per day found a significant positive association between beverage intake and weight gain.[54]

66. One study of more than 2,000 2.5-year-old children followed for 3 years found that those who regularly consumed sugar-sweetened beverages between meals had a 240% better chance of being overweight than non-consumers.[55]

67. An analysis of data for more than 50,000 women from the Nurses' Health Study during two 4-year periods showed that weight gain over a 4-year period was highest among women who increased their sugar-sweetened beverage consumption from one or fewer drinks per week, to one or more drinks per day (8.0 kg gain during the 2 periods), and smallest among women who decreased their consumption or maintained a low intake level (2.8 kg gain).[56]

68. A study of more than 40,000 African American women over 10 years had similar results. After adjusting for confounding factors, those who increased sugar-sweetened beverage intake from less than one serving per week, to more than one serving per day, gained the most weight (6.8 kg), while women who decreased their intake gained the least (4.1 kg).[57]

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[53] Malik, V.S., et al., *Intake of sugar-sweetened beverages and weight gain: a systematic review*, 84 AM. J. CLIN. NUTR. 274 (2006).

[54] Malik, V.S., et al., *Sugar-sweetened beverages and BMI in children and adolescents: reanalyses of a meta-analysis*, 29 AM. J. CLIN. NUTR. 438, 438-39 (2009).

[55] Dubois, L., et al., *Regular sugar-sweetened beverage consumption between meals increases risk of overweight among preschool-aged children*, 107(6) J. AM. DIETETIC ASS'N 924 (2007).

[56] Schulze, *Diabetes in Young & Middle-Aged Women*, *supra* n.27.

[57] Palmer, *Diabetes in African American Women*, *supra* n.39.

69. Experimental short-term feeding studies comparing sugar-sweetened beverages to artificially-sweetened beverages have illustrated that consumption of the former leads to greater weight gain. As demonstrated in the chart below, one 10-week trial involving more than 40 men and women demonstrated that the group that consumed daily supplements of sucrose (for 28% of total energy) increased body weight and fat mass, by 1.6 kg for men and 1.3 kg for women, while the group that was supplemented with artificial sweeteners lost weight, 1.0 kg for men and 0.3 kg for women.[58]

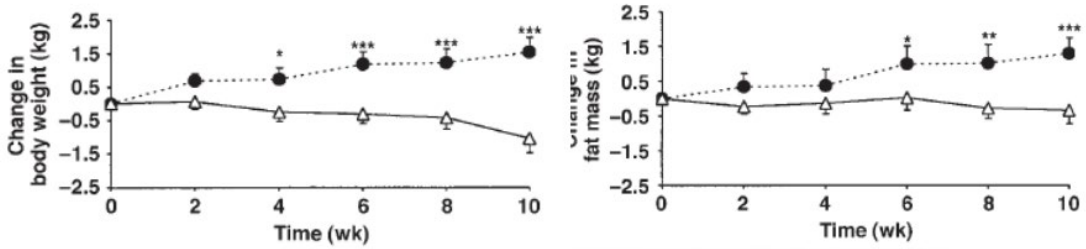

FIGURE 2. Mean (±SEM) changes in body weight, fat mass, and fat-free mass during an intervention in which overweight subjects consumed supplements containing either sucrose (●; $n = 21$) or artificial sweeteners (△; $n = 20$) daily for 10 wk. The diet × time interactions were significant for changes in body weight ($P < 0.0001$) and fat mass ($P < 0.05$) by analysis of variance with Tukey's post hoc tests. At specific time points for changes in body weight and fat mass, there were significant differences between the sucrose and sweetener groups: $^{*}P < 0.05$, $^{**}P < 0.001$, and $^{***}P < 0.0001$ (general linear model with least squares means and adjustment for multiple comparisons).

G. Juice Consumption Increases the Risk of High Blood Triglycerides and Abnormal Cholesterol Levels

70. Cholesterol is a waxy, fat-like substance found in the body's cells, used to make hormones, bile acids, vitamin D, and other substances. The human body manufactures all the cholesterol it requires, which circulates in the bloodstream in packages called lipoproteins. Excess

[58] Raben, A., et al., *Sucrose compared with artificial sweeteners: different effects on ad libitum food intake and body weight after 10 wk of supplementation in overweight subjects*, 76 AM. J. CLIN. NUTR. 721 (2002) ["Raben, *Sucrose vs. Artificial Sweeteners*"].

cholesterol in the bloodstream can become trapped in artery walls, building into plaque and narrowing blood vessels, making them less flexible, creating a condition called atherosclerosis. When this happens in the coronary arteries, it restricts oxygen and nutrients to the heart, causing chest pain or angina. When cholesterol-rich plaques in these arteries burst, a clot can form, blocking blood flow and causing a heart attack.

71. Most blood cholesterol is low-density lipoprotein, or LDL cholesterol, which is sometimes called "bad" cholesterol because it carries cholesterol to the body's tissues and arteries, increasing the risk of heart disease. High-density lipoprotein, or HDL cholesterol, is sometimes called "good" cholesterol because it removes excess cholesterol from the cardiovascular system, bringing it to the liver for removal. Thus, a low level of HDL cholesterol increases the risk of heart disease.

72. Diet affects blood cholesterol. For example, the body reacts to saturated fat by producing LDL cholesterol.

73. When the liver is overwhelmed by large doses of fructose, it will convert the excess to fat, which is stored in the liver and then released into the bloodstream, contributing to key elements of metabolic syndrome, like high blood fat and triglycerides, high total cholesterol, and low HDL "good" cholesterol.[59]

74. A study of more than 6,000 participants in the Framingham Heart Study found those who consumed more than one soft drink per day had a 25% greater risk of hypertriglyceridemia and 32% greater risk of low HDL cholesterol than those who consumed less than one soft drink per day.[60]

[59] Te Morenga, *Dietary Sugars & Body Weight*, *supra* n.46.

[60] Dhingra, *Cardiometabolic Risk*, *supra* n.49.

75. A systematic review and meta-analysis of 37 randomized controlled trials concerning the link between sugar intake and blood pressure and lipids found that higher sugar intakes, compared to lower sugar intakes, significantly raised triglyceride concentrations, total cholesterol, and low density lipoprotein cholesterol.[61]

76. A cross-sectional study among more than 6,100 U.S. adults from the NHANES 1999-2006 data were grouped into quintiles for sugar intake as follows: (1) less than 5% of calories consumed from sugar, (2) 5% to less than 10%, (3) 10% to less than 17.5%, (4) 17.5% to less than 25%, and (5) 25% or more. These groups had the following adjusted mean HDL levels (because HDL is the "good" cholesterol, higher levels are better): 58.7, 57.5, 53.7, 51.0, and 47.7 mg/dL. Mean triglyceride levels were 105, 102, 111, 113, and 114 mg/dL. Mean LDL levels were 116, 115, 118, 121, and 123 mg/dL among women, with no significant trend among men. Consumers whose sugar intake accounted for more than 10% of their calories had a 50% - 300% higher risk of low HDL levels compared to those who consumed less than 5% of calories from sugar. Likewise, high-sugar consumers had greater risk of high triglycerides. All relationships were linear, as demonstrated in the charts below.[62]

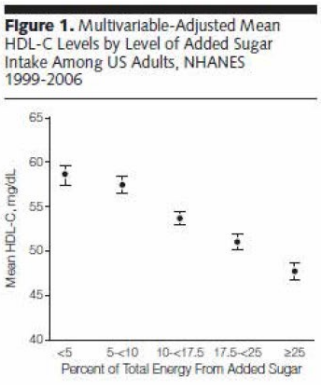

Figure 1. Multivariable-Adjusted Mean HDL-C Levels by Level of Added Sugar Intake Among US Adults, NHANES 1999-2006

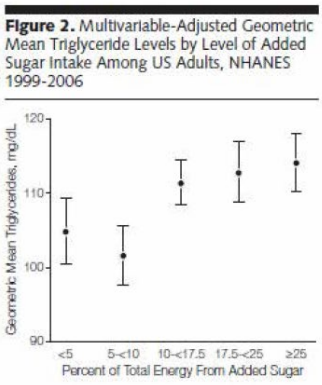

Figure 2. Multivariable-Adjusted Geometric Mean Triglyceride Levels by Level of Added Sugar Intake Among US Adults, NHANES 1999-2006

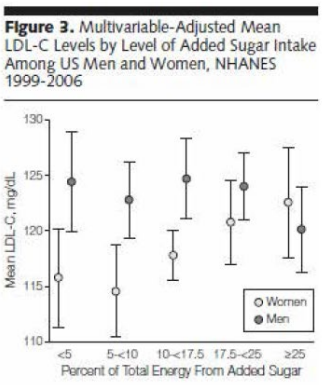

Figure 3. Multivariable-Adjusted Mean LDL-C Levels by Level of Added Sugar Intake Among US Men and Women, NHANES 1999-2006

[61] Te Morenga, L., et al., *Dietary sugars and cardiometabolic risk: systematic review and meta-analyses of randomized controlled trials on the effects on blood pressure and lipids*, 100(1) AM. J. CLIN. NUTR. 65 (May 7, 2014).

[62] Welsh, J.A., et al., *Caloric Sweetener Consumption and Dyslipidemia Among US Adults*, 303(15) JAMA, 1490-97 (2010).

77. One experimental study showed that, when a 17% fructose diet was provided to healthy men, they showed an increase in plasma triacylglycerol concentrations of 32%.[63]

78. Another 10-week experimental feeding study showed that those who were fed 25% of their energy requirements as fructose experienced increases in LDL cholesterol, small dense LDL cholesterol, and oxidized LDL cholesterol, as well as increased concentrations of triglycerides and total cholesterol, while those fed a 25% diet of glucose did not experience the same adverse effects.[64]

79. In a cross-sectional study of normal weight and overweight children aged 6-14, researchers found that "the only dietary factor that was a significant predictor of LDL particle size was total fructose intake."[65]

H. Juice Consumption Increases the Risk of Hypertension

80. An analysis of the NHANES data for more than 4,800 adolescents showed a positive, linear association between sugar-sweetened beverages and higher systolic blood pressure, as well as corresponding increases in serum uric acid levels.[66]

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[63] Bantle, J.P., et al., *Effects of dietary fructose on plasma lipids in healthy subjects*, 72 AM. J. CLIN. NUTR. 1128 (2000).

[64] Stanhope, K.L., et al., *Consuming fructose-sweetened, not glucose-sweetened, beverages increases visceral adiposity and lipids and decreases insulin sensitivity in overweight/obese humans*, 119(5) J. CLIN. INVESTIG.1322 (May 2009).

[65] Aeberli, I., et al., *Fructose intake is a predictor of LDL particle size in overweight schoolchildren*, 86 AM. J. CLIN. NUTR. 1174 (2007).

[66] Nguyen, S., et al., *Sugar Sweetened Beverages, Serum Uric Acid, and Blood Pressure in Adolescents*, 154(6) J. PEDIATRICS 807 (June 2009).

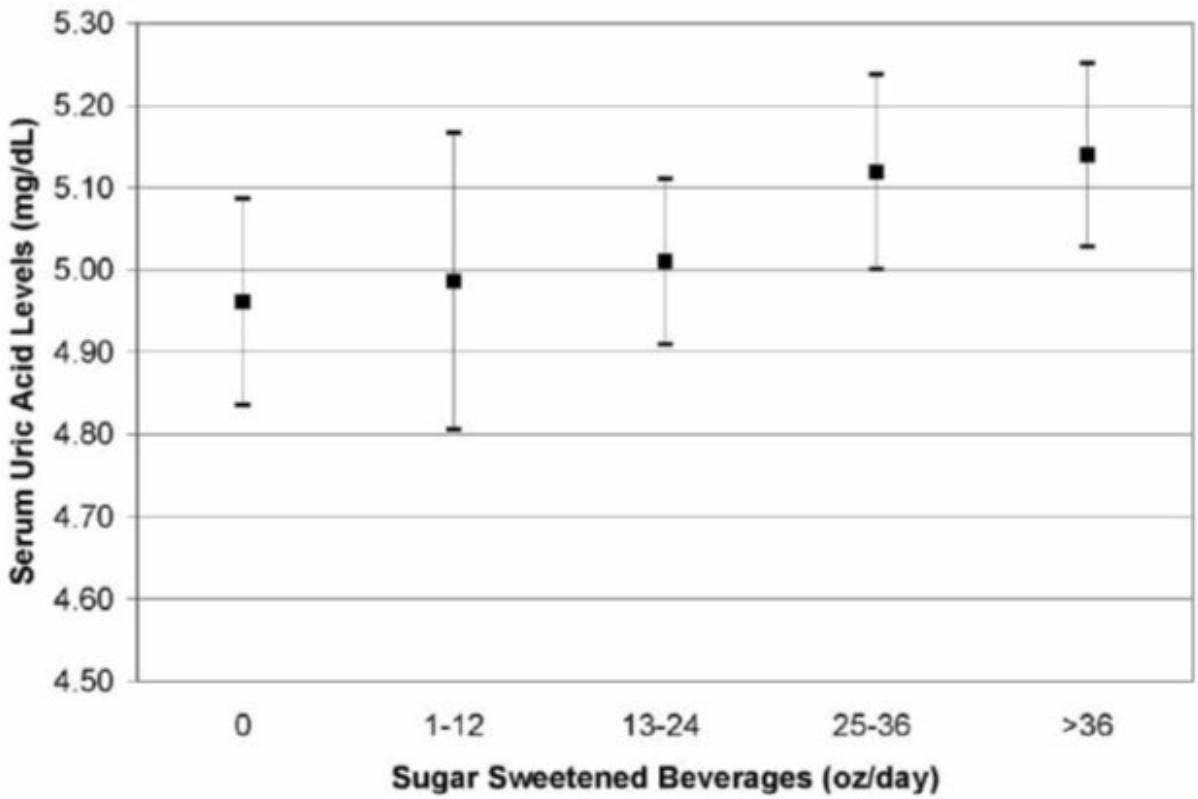

Figure 1.
Sample mean of serum uric acid with 95% confidence intervals by categories of sugar sweetened beverage consumption adjusted for age, race/ethnicity, sex, total calories, BMI z-score, alcohol, smoking, dietary fiber intake, diet beverage consumption, and milk consumption. *P* for trend = 0.01

81. In one study, 15 healthy men drank 500 ml of water containing either no sugar, 60 grams of fructose, or 60 grams of glucose. Blood pressure, metabolic rate, and autonomic nervous system activity were measured for two hours. While the administration of fructose was associated with an increase in both systolic and diastolic blood pressure, blood pressure did not rise in response to either water or glucose ingestion, as demonstrated in the chart below.[67]

[67] Brown, C.M., et al., *Fructose ingestion acutely elevates blood pressure in healthy young humans*, 294 AM. J. PHYSIOL. REGUL. INTEGR. COMPL. PHYSIOL. 730 (2008).

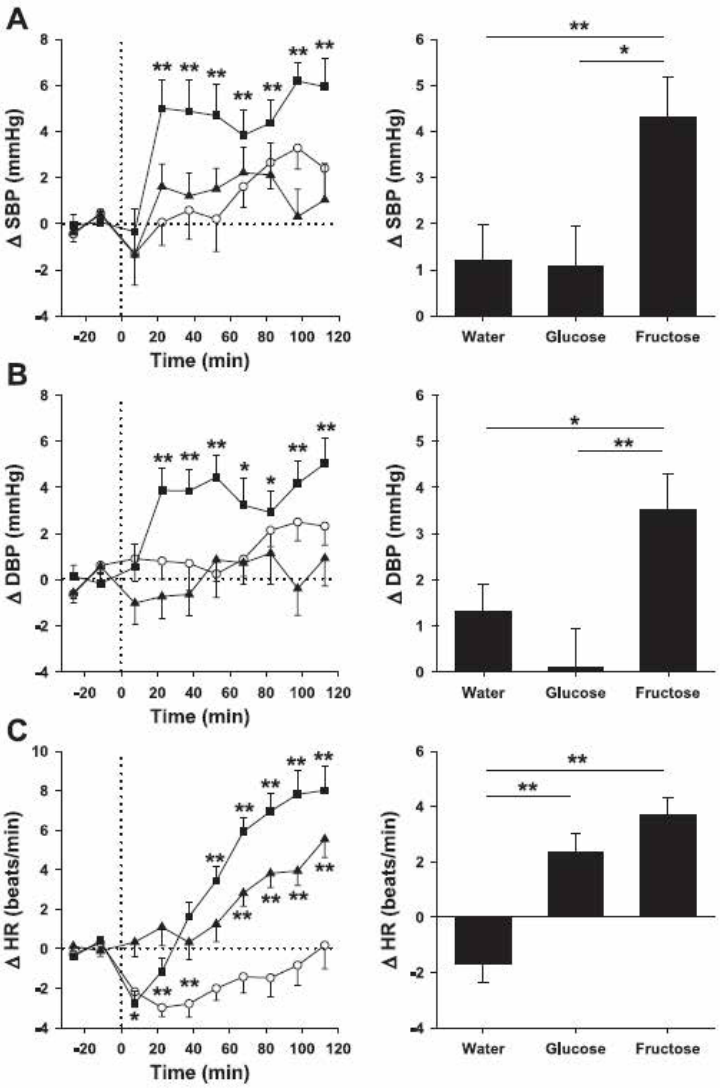

Fig. 1. Time course of the systolic blood pressure (SBP; *A*), diastolic blood pressure (DBP; *B*), and heart rate (HR; *C*) changes (*left*) and mean responses (*right*) to drinking water (○), glucose (▲), and fructose (■). $*P < 0.05$ and $**P < 0.01$, statistically significant differences over time from baseline values (*left*) and differences between responses to the drinks (*right*).

82. In another study, more than 40 overweight men and women were supplemented for 10 weeks with either sucrose or artificial sweeteners. The sucrose group saw an increase in systolic and diastolic blood pressure, of 3.8 and 4.1 mm Hg, respectively, while the artificial sweetener group saw a decrease in systolic and diastolic blood pressure, of 3.1 and 1.2 mm Hg, respectively.[68]

83. Another study took a variety of approaches to measuring the association between sugar intake and blood pressure, concluding that an increase of one serving of sugar-sweetened

[68] Raben, *Sucrose vs. Artificial Sweeteners*, *supra* n.58.

beverages per day (*i.e.*, 140-150 calories, and 35-37.5 grams of sugar) was associated with systolic/diastolic blood pressure differences of +1.6 and +0.8 mm Hg (and +1.1/+0.4 mm Hg with adjustment for height and weight), while an increase of two servings results in systolic/diastolic blood pressure differences of +3.4/+2.2, demonstrating that the relationship is direct and linear.[69]

I. Juice Consumption is Associated with Increased All-Cause Mortality

84. In a cohort study of 13,440 black and white adults 45 years and older, observed for a mean of six years, each additional 12-oz serving per day of fruit juice was associated with a 24% higher all-cause mortality risk. This was significantly higher than the increased risk associated with *all* sugary beverages, including sugar-sweetened beverages like soda, which was 11% for each additional 12-oz serving per day. The researchers from Emory University, University of Alabama, and the Weill Cornell Medical College concluded their findings "suggest that consumption of sugary beverages, including fruit juices, is associated with all-cause mortality."[70]

J. Because of the Compelling Evidence that Consuming Juice is Unhealthy, Authoritative Bodies Recommend Limiting its Consumption

85. The 2015-2020 Dietary Guidelines for Americans (DGA) warned parents to limit giving fruit juice to children, noting that "[t]he amounts of fruit juice allowed in the USDA Food Patterns for young children align with the recommendation from the American Academy of

[69] Brown, I.J., et al., *Sugar-Sweetened Beverage, Sugar Intake of Individuals, and Their Blood Pressure: International Study of Macro/Micronutrients and Blood Pressure*, 57 HYPERTENSION 695 (2011).

[70] Collin, L.J., et al., *Association of Sugary Beverage Consumption With Mortality Risk in US Adults: A Secondary Analysis of Data From the REGARDS Study*, 2(5) JAMA NETW. OPEN 193121 (May 2019).

Pediatrics that young children consume no more than 4 to 6 fluid ounces of 100% fruit juice per day."[71]

86. In September 2019, the American Academy of Pediatrics, the American Heart Association, the Academy of Nutrition and Dietetics, and the American Academy of Pediatric Dentistry published a consensus statement on young children's consumption of drinks, recommending no 100% fruit juice for ages 0-12 months, no more than 4 ounces per day for ages 1-3 years, and no more than 4 to 6 ounces per day for ages 4-5 years. [72]

87. Adopting many of the views from the American Academy of Pediatrics, the American Heart Association, the Academy of Nutrition and Dietetics, and the American Academy of Pediatric Dentistry's 2019 consensus statement, the 2020-2025 DGA narrowed the 2015-2020 DGA's lowered the 4 to 6 fluid ounces range recommendation, stating, "If 100% fruit juice is provided, up to 4 ounces per day can fit in a healthy dietary pattern."[73]

88. Nevertheless, the 2020-2025 DGA clarified that "[a]lthough 100% fruit juice without added sugars can be part of a healthy dietary pattern, it is lower in dietary fiber than whole fruit," and because "[d]ietary fiber is a dietary component of public health concern[,]" "fruit

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[71] U.S. Dep't of Health & Human Servs. and U.S. Dept. of Agric., *Dietary Guidelines for Americans 2015–2020*, at 22 (8th ed.), https://health.gov/sites/default/files/2019-09/2015-2020_Dietary_Guidelines.pdf.

[72] Lott, et al., *Consensus Statement. Healthy Beverage Consumption in Early Childhood: Recommendations from Key National Health and Nutrition Organizations*, HEALTHY EATING RESEARCH (Sept. 2019), https://healthyeatingresearch.org/research/consensus-statement-healthy-beverage-consumption-in-early-childhood-recommendations-from-key-national-health-and-nutrition-organizations.

[73] U.S. Dep't of Health & Human Servs. and U.S. Dept. of Agric., *Dietary Guidelines for Americans 2020–2025*, at 62, https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf.

should mostly be consumed in whole forms."[74] Specifically, "[a]t least half of the recommended amount of fruit should come from whole fruit, rather than 100% juice."[75]

89. The WHO recommends for "both adults and children, the intake of free sugars should be reduced to less than 10% of total energy intake," adding that "[a] reduction to less than 5% of total energy intake would provide additional health benefits."[76]

90. The WHO also recommends "limiting the consumption of foods and drinks containing high amounts of sugars . . . (i.e. all types of beverages containing free sugars – these include . . . fruit or vegetable juices and drinks . . .)."[77]

III. COCA-COLA'S HEALTH AND WELLNESS REPRESENTATIONS ON THE PRODUCTS ARE FALSE AND MISLEADING

91. Coca-Cola's labeling representations that the Products are "Good for You!" and "Part of a Healthy, Balanced Diet," and the Products' depictions of whole fruit, are false, or at least highly misleading, because the scientific evidence demonstrates that consuming fruit juice, like the Products, increases risk of serious chronic diseases. As detailed above, authoritative bodies therefore recommend avoiding or limiting its consumption.

92. Not only is the challenged labeling false from a scientific perspective, it is especially likely to mislead consumers because (1) Coca-Cola preys on preexisting misconceptions that juice is healthy, (2) Coca-Cola and other sugar industry players have waged a longstanding disinformation campaign regarding the health effects of sugar leading to more consumer

[74] *Id*. at 88.

[75] *Id*. at 32.

[76] World Health Organization, *Healthy Diet* (Apr. 2020), https://www.who.int/news-room/fact-sheets/detail/healthy-diet.

[77] *Id.*

confusion, and (3) nothing on the labeling would dispel the express claims that the Products are "Good for You," and "Healthy," so that consumers would have to perform their own research to discover the truth.

93. For decades, Coca-Cola and other fruit juice marketers have perpetuated the idea that juice is healthy, and the challenged labeling exploits this misconception by deceptively claiming that the Products are beneficial to health.

94. As one researcher explained, "beverages like fruit juice are marketed as a healthy and natural source of vitamins," and "[b]ased on the marketing information, consumers may thus often assume that juice has health benefits and may be reluctant to associate fruit juice with other sugary beverages."[78]

95. In addition to express statements conveying the message that juice is healthy, Coca-Cola's use of images of whole fruit on the Products' labels exploits consumers' tendency to believe that juice has health benefits similar to that of whole fruit. In fact, in one survey of parents of young children, 1 in 3 believed that juice was at least as healthy as whole fruit.[79]

96. By using health and wellness marketing, "beverage manufacturers" like Coca-Cola "distract consumers from the health risks associated with some of the other common ingredients in their beverages [such as] sugar . . . often delivered at levels that may have serious negative consequences."[80]

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[78] Sah, A., et al., *Visible sugar: Salient sugar information impacts health perception of fruit juices but only when motivated to be responsible and not when motivated to enjoy*, 164 APPETITE 105262 (Apr. 2021).

[79] Ferris, H., et al., *People think juice is good for them. They're wrong*, WASHINGTON POST (Apr. 26, 2017).

[80] *See* Crawford, P., et al., *Hiding Under a Health Halo: Examining the Data Behind Health Claims on Sugary Beverages*, CALIFORNIA CENTER FOR PUBLIC HEALTH ADVOCACY (Aug. 2014).

97. When the Rudd Center for Food Policy and Obesity surveyed 982 parents of children ages 2 to 17 asking "about the healthfulness of different drink categories for their child, [79%] of parents rated 100% juice . . . as somewhat or very healthy."[81]

98. When a marketer like Coca-Cola exploits this misperception, it is hard to correct, since "[a]t first glance, it is reasonable to think that juice has health benefits. Whole fruit is healthy, and juice comes from fruit, so it must be healthy, too."[82] In other words, ordinary consumers would have no reason to question or scrutinize wellness statements on 100% juice products since such claims are likely to be congruent with "common knowledge." But "[t]he truth is that fruit juice, even if it is freshly pressed, 100 percent juice, is little more than sugar water."[83]

99. Moreover, "Coca-Cola, like other sugar interests, also pours money into misinformation campaigns aimed at casting doubt on the growing body of scientific evidence showing that excessive sugar consumption is harmful to our health."[84]

100. In fact, documents that became public during a lawsuit between rival industry groups show that "sugar interests have, in fact, intentionally and actively worked for more than 40 years to suppress the scientific evidence linking sugar consumption to negative health consequences."[85]

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[81] Harris et al., *Children's Drink FACTS 2019: Sales, Nutrition, and Marketing of Children's Drinks*, UNIVERSITY OF CONNECTICUT RUDD CENTER OF FOOD POLICY & OBESITY, at 7, 13 (Oct. 2019).

[82] Ferris, *People think juice is good for them. They're wrong*, *supra* n.79.

[83] *Id.*

[84] *"The Coke Side of Life"—More Sugar, Less Science*, Union of Concerned Scientists (Aug. 14, 2015).

[85] Goldman, G., et al., *Industry Tactics to Obscure the Science: How Industry Obscures Science and Undermines Public Health Policy on Sugar*, Union of Concerned Scientists (2014) ["Goldman, *Industry Tactics to Obscure the Science*"]. *See also* Kearns CE, et al., *Sugar Industry and Coronary Heart Disease Research: A Historical Analysis of Internal Industry Documents*, 176(11) JAMA INTERN. MED. 1680 (2016).

101. As one article described it, "[i]nternal US sugar industry documents recently revealed the part that the industry, in conspiracy with scientists, and by lobbying public institutions, played in the 1960s and 1970s in determining that public health policy to reduce mortality from coronary heart disease should focus on saturated fats as the main cause of such disease whilst ignoring the impact of sugar consumption."[86]

102. Documents revealed that the sugar industry has engaged in "unscrupulous strategies reminiscent of the tobacco and fossil fuel industries, including manufacturing doubt about the science and engaging in deliberate and elaborate misinformation campaigns."[87]

103. The Union of Concerned Scientists identified five main tactics used by the sugar industry. These include:

a. Tactic 1: Attacking the Science

- Planning to "bury the data" if the science is inconvenient
- Threatening to suspend funding to the WHO
- Seeking to discredit scientific findings by intimidating study authors

b. Tactic 2: Spreading Misinformation

- Emphasizing unknowns while ignoring what is known
- Repeating untruthful claims
- Manufacturing bogus scientific claims
- Widely publishing claims that have not been subjected to scientific scrutiny

[86] Calvillo, A., *Public health sequestered for 50 years by sugar industry*, NCD ALLIANCE (Sept. 29, 2016), https://ncdalliance.org/news-events/blog/new-blog-public-health-sequestered-for-50-years.

[87] Goldman, *Industry Tactics to Obscure the Science*, *supra* n.85.

c. Tactic 3: Deploying industry scientists

- Exploiting science communication and blogging communities
- Failing to disclose scientists' conflicts of interest
- Hijacking scientific language for product promotion

d. Tactic 4: Influencing academia

- Buying credibility through academic scientists
- Funding research to support their preconceived positions
- Paying academic scientists to persuade other scientists of sugar interests' positions

e. Tactic 5: Undermining policy

- Pouring lobbying dollars into sugar policy debates at the federal, state, and local levels
- Supporting political candidates in influential positions
- Influencing rule making at federal agencies

104. One of the main goals of such disinformation campaigns is to "manufacture doubt" so that consumers do not know what to believe.[88]

105. Survey evidence demonstrates this problem is prevalent regarding nutrition. For example, among the "Key Findings" of the 2018 Food & Health Survey from the International Food Information Council (IFIC), which surveyed approximately 1,000 American consumers to

[88] *See* Goldberg, R.F. and Vandenberg L.N., *The science of spin: targeted strategies to manufacture doubt with detrimental effects on environmental and public health*, 20(1) ENVIRON. HEALTH 33 (Mar. 2021) (describing how "[n]umerous groups, such as the tobacco industry, have deliberately altered and misrepresented knowable facts and empirical evidence to promote an agenda, often for monetary benefit, including the sugar industry"); Goldberg R.F. and Vandenberg L.N., *Distract, display, disrupt: examples of manufactured doubt from five industries*, 34(4) REV. ENVIRON. HEALTH 349 (2019).

understand their perceptions, beliefs and behaviors around food and food purchasing decisions, was that 80% of consumers encountered contradictory information about food and nutrition in their search for nutritious foods, making "consumer confusion . . . a prevalent issue."[89]

106. In particular, "Coca-Cola has a history of pouring money into misinformation campaigns aimed at casting doubt on [scientific evidence showing that too much sugar is bad for health]. One of the company's tactics has been to fund its own scientific research through in-house research institutes such as the 'Beverage Institute for Health and Wellness' established in 2004."[90]

107. But scientists have noted that "Coca-Cola's Beverage Institute for Health and Wellness features misleading content on its website. The site confuses the science around sugar consumption and ill-health by focusing on the role of sugar-sweetened beverages in 'hydration' and 'energy balance' while ignoring the negative impacts of sugar-sweetened beverages, including their role in obesity and metabolic diseases."[91]

108. More recently, "Coca-Cola quietly funded a research institute out of the University of Colorado designed to persuade people to focus on exercise, not calorie intake, for weight loss strategies."[92] But "when the institute's motives and funding stream were exposed, Coca-Cola announced it would halt operations due to 'resource limitations.'"[93]

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[89] *2018 Food & Health Survey*, International Food Information Council at 3, 5, https://foodinsight.org/wp-content/uploads/2018/05/2018-FHS-Report-FINAL.pdf.

[90] *How Coca-Cola Disguised Its Influence on Science about Sugar and Health*, Union of Concerned Scientists (Oct. 11, 2017), https://www.ucsusa.org/resources/how-coca-cola-disguised-its-influence-science-about-sugar-and-health.

[91] "*The Coke Side of Life"—More Sugar, Less Science*, Union of Concerned Scientists (Aug. 14, 2015), https://blog.ucsusa.org/deborah-bailin/the-coke-side-of-life-more-sugar-less-science-847.

[92] *How Coca-Cola Disguised Its Influence on Science about Sugar and Health*, Union of Concerned Scientists, *supra* n.90.

[93] *Id.*

109. As we now know, sugar interests, including Coca-Cola specifically, have secretly created an immense amount of public disinformation, making it hard for ordinary consumers to understand the harms of sugar consumption. Thus, simply knowing the amount of sugar in a food or beverage is not sufficient for most consumers to understand the negative impact sugar will have on health, and thus to assess the healthfulness of foods and beverages.

110. Of course, nothing on the labeling dispels the expressly intended message that the Products are "Good For You!" and "Healthy." Looking at the Nutrition Facts Panel ("NFP"), for example, would not necessarily lead consumers to believe that the Products are not good for them or not healthy, since consumers would see there is no added sugar and might consider the sugar content innocuous when, in fact, the free sugar in the Products has the identical physiological effect as added sugar. Thus, to discover the truth, consumers would have to look beyond the label and perform their own research, which Coca-Cola has made all the much harder through its disinformation campaigns.

111. Moreover, numerous studies demonstrate that the mandatory NFP is not sufficient to allow consumers to make accurate assessments of the healthfulness of foods and beverages.

112. First, "[m]any consumers have difficulty interpreting nutrition labels[.]"[94] In fact, the "mandated nutrition labels have been criticized for being too complex for many consumers to understand and use."[95] "Understanding the NFP label requires health literacy, that is, 'the capacity to obtain, process, and understand basic health information and services needed to make

[94] Persoskie A, Hennessy E, Nelson WL, *US Consumers' Understanding of Nutrition Labels in 2013: The Importance of Health Literacy*, 14 PREV. CHRONIC DIS. 170066 (2017).

[95] *Id.*

appropriate health decisions.' However, a sizable proportion of the US population is deficient in health literacy."[96]

113. For example, "[t]he 2003 National Assessment of Adult Literacy found that more than one-third of the US population had only basic or below-basic health literacy, meaning they would have difficulty viewing the nutrition labels of 2 different potato chip packages and determining the difference in the number of calories."[97] And other "studies have found that even high school graduates and college students lack the basic health literacy skills to effectively apply nutrition label information."[98]

114. Most consumers' "ability to interpret nutrition label information [is] poor" and "[e]ven a college education did not ensure nutrition label understanding."[99]

115. In short, "[a] substantial proportion of consumers in this country, including those with a college education, have difficulty understanding NFP labels, which is likely a function of limited health literacy."[100]

116. Not only do many reasonable consumer have difficulty using the NFP, but deciding whether a food or beverage is healthy is complex. This has been studied and found to be true in regard to sugar-containing beverages, specifically. Even though consumers may understand a drink is high in sugar and have some notion that sugar can be harmful, many consumers nevertheless still view such products as being healthy, overall, when there is a health or nutritional claim on a label.

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[96] *Id.*

[97] *Id.*

[98] *Id.*

[99] *Id.*

[100] *Id.*

117. In one study, for example, "[w]hile participants were aware that beverages can contain high amounts of sugar, and that this can be harmful to health, many other factors influence the perceptions of beverage healthfulness *and these can outweigh the perceived harms of consumption*."[101]

118. In fact, "research indicates that consumers hold erroneous views about the healthfulness of certain sugar-containing beverages. For example, previous research has indicated that beverages such as juice, flavoured waters, sports drinks (e.g. Gatorade) and iced teas, are perceived to be healthy, or healthier, and as less likely to lead to disease development, compared to soda (or 'soft drink' e.g. Coca-Cola; Sprite) or energy drinks (e.g. Red Bull)."[102]

119. In one study, "sugar content, nutritional value, naturalness and functionality were important factors participants considered in their conceptualisation of beverage healthfulness. Participants suggested that sugar content was a primary indicator of how healthy a beverage was *but lacked knowledge about the amount of sugar in beverages, and how much should be considered harmful for health*."[103]

120. Crucially, "[m]any participants perceived juice to be a healthier option. Juices were viewed by some participants as equating to fruit consumption or as providing important nutrients to the consumer. While it was common for participants to identify that juice contained sugar, the perceived nutritional benefits appeared to offset concerns about sugar content for some participants."[104]

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[101] Aimee L. Brownbill et al., *What makes a beverage healthy? A qualitative study of young adults' conceptualisation of sugar-containing beverage healthfulness*, 150 APPETITE 104675 (2020) (emphasis added).

[102] *Id.*

[103] *Id.* (emphasis added).

[104] *Id.*

121. In addition, "[b]everages that were perceived as having added nutrients were seen as healthier. Nutritional value appeared to be particularly relevant to participants' ranking of the relative healthfulness of beverages."[105]

122. Likewise, if a beverage purported to provide a functional benefit, "that functionality of beverages may negate concern about sugar content."[106]

123. "[R]esearch has similarly shown that consumers often focus more on added nutrients than unhealthy ingredients and that added nutrients can be seen to counteract the effect of unhealthy ingredients."[107]

124. In short, "health-related marketing . . . may mislead consumers to more positively assess the healthfulness of sugar-containing beverages."[108]

125. That health positioning may mislead consumers is no secret to marketers, as there is a wealth of research showing that all sorts of health-related representations may lead consumers to believe a product is healthier than it actually is—despite consumers being aware of the sugar content.

126. For example, "[n]utrient content claims may lead consumers to mistakenly infer that a product is healthful, regardless of its overall nutritional profile (i.e., the 'health halo effect') and can subsequently increase intentions to purchase the product."[109]

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[105] *Id.*

[106] *Id.*

[107] *Id.*

[108] *Id.*

[109] *Id.* (citations omitted).

127. Likewise, "research that has found that health-related and nutrient content claims make food and beverages seem healthier and more appealing."[110]

128. Health positioning claims also have the specific effect of "decreas[ing] perceptions of the presence of certain less healthful nutrients."[111]

129. In addition, the presence of such claims makes consumers "1) less likely to look for nutrition information on the Nutrition Facts label, 2) more likely to select the product for purchase, 3) more likely to perceive the product as healthier, and 4) less likely to correctly choose the healthier product."[112]

130. One study, testing consumers' ability to determine which of six snack products were the healthiest, found that "[o]nly 9% of Americans could identify the *healthiest* cereal bar," and "81% wrongly identified the healthiest choice."[113]

131. This data shows that identifying real, healthy products appears to be a serious difficulty for American shoppers.[114]

I. COCA-COLA DECEPTIVELY OMITS MATERIAL INFORMATION

132. While representing that the Products are "Good For You" and "Healthy," Coca-Cola regularly and intentionally omits material information regarding the detrimental effects of juice consumption on overall health.

133. Coca-Cola is under a duty to disclose this information to consumers because it is revealing some information about the juice Products—enough to suggest they are healthy—

[110] *Id.* (citations omitted).

[111] Linda Verrill et al., *Vitamin-Fortified Snack Food May Lead Consumers to Make Poor Dietary Decisions*, J. ACAD. NUTR. & DIET., 117:3, 376-385 (2017).

[112] *Id.*

[113] *Id.*

[114] *Id.*

without revealing directly relevant information regarding the harmful effects of juice consumption described herein.

134. Coca-Cola is further under a duty to disclose this information because its deceptive omissions concern bodily health, specifically the detrimental health consequences of regularly consuming the Products.

135. Coca-Cola is further under a duty to disclose this information because it was in a superior position to know of the dangers presented by juice consumption, as it is a large, sophisticated company that holds itself out as having expert knowledge regarding the health impact of consuming the sugar in the Products.

136. Moreover, Coca-Cola is under a duty to disclose this information because, including through the acts alleged herein, it actively concealed material facts not known to Plaintiff and the Class concerning the detrimental effects of regularly consuming the Products.

137. Rather than correct the misconception created by its labeling that the Products are healthy, Coca-Cola continues to leverage consumer confusion to increase its profits, at the expense of consumers' health.

IV. COCA-COLA'S LABELING VIOLATES NEW YORK AND FEDERAL LAW

138. "New York . . . broadly prohibit[s] the misbranding of food in language largely identical to that found in the FDCA." *Ackerman v. Coca-Cola Co.*, 2010 WL 2925955, at *4 (E.D.N.Y. July 21, 2010). "New York's Agriculture and Marketing law . . . incorporates the FDCA's labeling provisions found in 21 C.F.R. part 101." *Ackerman*, 2010 WL 2925955, at *4 (citing N.Y. Comp. Codes R. & Regs. tit. 1, § 259.1).

139. The Products and their challenged labeling statements violate the FDCA and its New York state law equivalent.

140. First, the challenged claims are false and misleading for the reasons described herein, in violation of 21 U.S.C. § 343(a), which deems misbranded any food whose "label is false or misleading in any particular." Coca-Cola accordingly also violated New York's parallel provision of the Agriculture and Marketing law. *See* N.Y. Agric. Mkts. Law § 201.

141. Second, despite making the challenged claims on the Products, Coca-Cola "fail[ed] to reveal facts that are material in light of other representations made or suggested by the statement[s], word[s], design[s], device[s], or any combination thereof," in violation of 21 C.F.R. § 1.21(a)(1). Such facts include the detrimental health consequences of consuming the Products at typical levels.

142. Third, Coca-Cola failed to reveal facts that were "[m]aterial with respect to the consequences which may result from use of the article under" both "[t]he conditions prescribed in such labeling," and "such conditions of use as are customary or usual," in violation of § 1.21(a)(2). Namely, Coca-Cola failed to disclose the increased risk of serious chronic disease and death that is likely to result from the usual consumption of the Products.

143. Fourth, Coca-Cola violates the FDA's fortification policy. *See* 21 C.F.R. § 104.20.

144. The FDA's fortification policy is intended to prevent the "indiscriminate addition of nutrients to foods" that "could [ ] result in deceptive or misleading claims for certain foods." 21 C.F.R. § 104.20(a).

145. Accordingly, the policy permits fortification when such fortification is consistent with and meets the requirements for one of the four following "rationale": (1) "to correct a dietary insufficiency recognized by the scientific community," (2) "to restore such nutrient(s) to a level(s) representative of the food prior to storage, handling and processing," (3) "in proportion to the total

caloric content . . . to balance the vitamin, mineral, and protein content[,]" and (4) "to avoid nutritional inferiority" when replacing a traditional food. 21 C.F.R. §§ 104.20(b)-(e).

146. But Coca-Cola's fortification of the Minute Maid Products with vitamin C (Ascorbic Acid), for example, is not authorized by any of the four "rationale" for fortification.

a. The first "rationale" for fortification, "to correct a dietary insufficiency recognized by the scientific community," does permit Coca-Cola's fortification because there is no insufficiency of vitamin C intake in the United States. *See* 21 C.F.R. § 104.20(b). Instead, the Scientific Report of the 2020 Dietary Guidelines Advisory Committee concluded that the underconsumption of vitamin C "do[es] not appear to pose a public health concern, given the present lack of adverse clinical and health outcome data . . . ."[115] The Centers for Disease Control and Prevention has also reported that a vitamin C deficiency is "rare in the United States."[116] Further, the Products are not an appropriate vehicle for addressing any purported vitamin C deficiency since consuming the Products harms rather than vitamin C deficiency promotes health.

b. The second basis for fortification is not available to Coca-Cola because it would require "[a]ll nutrients . . . that are lost in a measurable amount [be] restored," 21 C.F.R. § 104.20(c), yet the Products do not have all of their nutrients restored, for example, their fiber content has not been restored so that it is equal to that of whole fruit.

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[115] Dietary Guidelines Advisory Committee, *Scientific Report of the 2020 Dietary Guidelines Advisory Committee* at 62, U.S. Department of Agriculture, Agricultural Research Service (July 2020), *available at* https://www.dietaryguidelines.gov/2020-advisory-committee-report.

[116] *See* "Second National Report on Biochemical Indicators of Diet and Nutrition in the U.S. Population," The Centers for Disease Control and Prevention, Division of Laboratory Sciences at the National Center for Environmental Health (2012) at p.74.

c. The third basis for fortification relates to foods that are fortified to contain twenty-one specific nutrients, *see* 21 C.F.R. § 104.20(d)(3), and thus does not apply to the Products.

d. Finally, Coca-Cola cannot rely on the fourth basis for fortification—avoiding nutritional inferiority when replacing a traditional food, 21 C.F.R. § 104.20(e)—because, for example, the Products' fiber content remains inferior to that of whole fruit.

147. Thus, Coca-Cola's fortification of the Products renders them misbranded.

V. PLAINTIFF'S PURCHASE, RELIANCE, AND INJURY

148. Plaintiff Mete Karabas purchased the Apple Juice and Fruit Punch varieties of the Products periodically throughout the Class Period. While he lived in Brooklyn, New York, Plaintiff purchased the Products from local chain stores such as Shop Rite of Avenue I. Plaintiff's final purchases of the Products in New York were in early 2021. In Spring 2021, Plaintiff moved to Hackensack, New Jersey, where he continued to purchase the Products over the next year, with his last purchases taking place in early 2022.

149. When purchasing the Products, Plaintiff was exposed to, read, and relied upon Coca-Cola's labeling claims that were intended to appeal to consumers, like him, who are interested in health and nutrition. More specifically, he relied upon the statements "Minute Maid Juice Boxes Are Good For You!" and "Enjoy Minute Maid Juice Boxes as Part of a Healthy, Balanced Diet," as well as the images of whole fruit.

150. Plaintiff believed these claims regarding the healthfulness of the Products, which were and are deceptive because they convey that consuming the Products promotes good bodily health.

151. When purchasing the Products, Plaintiff was seeking beverages that were beneficial to health when consumed, that is, whose regular consumption would at least not harm health or increase the risk of disease.

152. The health and wellness representations on the Products' packaging, however, were misleading, and had the capacity, tendency, and likelihood to confuse or confound Plaintiff and other consumers acting reasonably because, as described in detail herein, the Products are not healthy and instead are of the type of beverages that increase risk of chronic disease when regularly consumed.

153. Plaintiff is not a nutritionist, food expert, or food scientist, but rather a lay consumer who did not have the specialized knowledge that Coca-Cola had regarding the health effects of consuming the Products. At the time of purchase, Plaintiff was unaware (1) that consuming juice, such as the Products, is unhealthy, and (2) of the extent to which consuming high amounts of free sugar in juices increases risk of metabolic disease, liver disease, heart disease, diabetes, and other morbidity, or what amount of free sugar might have such an effect.

154. The reasonable consumer is unaware that—or at least the extent to which—consuming high amounts of free sugar, like that in the Products, adversely affects digestive health, blood glucose and cholesterol levels; increases inflammation and risk of chronic digestive diseases; and increases risk of metabolic disease, liver disease, heart disease, diabetes, and other morbidity. The reasonable consumer is also unaware what amount of free sugar might have such an effect.

155. Plaintiff acted reasonably in relying on the challenged labeling claims, which Coca-Cola intentionally placed on the Products' labeling with the intent to induce average consumers into purchasing the Products.

156. Plaintiff would not have purchased the Products if he knew that the labeling claims were false and misleading in that the Products were not as healthy as represented.

157. The Products cost more than similar products without misleading labeling and would have cost less absent Coca-Cola's false and misleading statements and omissions.

158. Through the misleading labeling claims and omissions, Coca-Cola was able to gain a greater share of the juice market than it would have otherwise and also increase the size of the market.

159. Plaintiff paid more for the Products, and would only have been willing to pay less, or unwilling to purchase the Products at all, absent the false and misleading labeling complained of herein.

160. Plaintiff would not have purchased the Products if he had known that the Products were misbranded pursuant to New York and FDA regulations or that the challenged claims were false or misleading.

161. For these reasons, the Products were worth less than what Plaintiff and the Class paid for them.

162. Instead of receiving products that were actually healthy, the Products that Plaintiff and the Class received were of the type whose consumption is likely to lead to increased risk of disease when consumed regularly.

163. Plaintiff and the Class lost money as a result of Coca-Cola's deceptive claims, omissions, and practices in that they did not receive what they paid for when purchasing the Products.

164. Plaintiff continues to desire to purchase healthy beverages and continues to see the Products at stores when he shops. He would purchase the Products in the future if they were in fact

healthy as represented, but unless Coca-Cola is enjoined in the manner Plaintiff requests, he may not be able to reasonably determine whether the Products have been reformulated to conform to the misleading claims, or whether Coca-Cola has continued to misrepresent the Products.

165. Plaintiff would purchase the Products if he could trust that the health and wellness claims were true and not false or misleading, but absent an injunction, Plaintiff will be unable to trust the representations on the Products when he encounters the Products in the marketplace.

166. Plaintiff's substantive right to a marketplace free of fraud, where he is entitled to rely on representations such as those made by Coca-Cola with confidence, continues to be violated every time Plaintiff is exposed to the challenged labeling claims.

167. Plaintiff's legal remedies are inadequate to prevent these future injuries.

CLASS ACTION ALLEGATIONS

168. While reserving the right to redefine or amend the class definition prior to or as part of a motion seeking class certification, pursuant to Federal Rule of Civil Procedure 23, Plaintiff seeks to represent a class of all persons in the United States who, at any time from six years preceding the date of the filing of this Complaint to the time a class is notified (the "Class Period"), purchased, for personal or household use, and not for resale or distribution, any of the Products (the "Class").

169. Plaintiff further seeks to represent subclasses of (i) all persons in New York, and (ii) all persons in New Jersey who, at any time during the Class Period, purchased, for personal or household use, and not for resale or distribution, any of the Products (the "New York Subclass" and "New Jersey Subclass," respectively).

170. The members in the proposed Class and each Subclass, are so numerous that individual joinder of all members is impracticable, and the disposition of the claims of all Class Members in a single action will provide substantial benefits to the parties and Court.

171. Questions of law and fact common to Plaintiff and the Class include:

a. whether Coca-Cola communicated a message through the packaging and advertising of the Products that they are healthy;

b. whether that message is material, or likely to be material, to a reasonable consumer;

c. whether the challenged claims are false, misleading, or reasonably likely to deceive a reasonable consumer;

d. whether Coca-Cola's conduct violates state or federal food statutes or regulations;

e. whether Coca-Cola was unjustly enriched;

f. the proper amount of damages, including statutory and punitive damages;

g. the proper amount of restitution;

h. the proper scope of injunctive relief; and

i. the proper amount of attorneys' fees.

172. These common questions of law and fact predominate over questions that affect only individual Class Members.

173. Plaintiff's claims are typical of Class Members' claims because they are based on the same underlying facts, events, and circumstances relating to Coca-Cola's conduct. Specifically, all Class Members, including Plaintiff, were subjected to the same misleading and deceptive conduct when they purchased the Products and suffered economic injury because the Products are

misrepresented. Absent Coca-Cola's business practice of deceptively and unlawfully labeling the Products, Plaintiff and Class Members would not have purchased them or would have paid less for them.

174. Plaintiff will fairly and adequately represent and protect the interests of the Class, has no interests incompatible with the interests of the Class, and has retained counsel competent and experienced in class action litigation, and specifically in litigation involving the false and misleading advertising of foods and beverages.

175. Class treatment is superior to other options for resolution of the controversy because the relief sought for each Class Member is small, such that, absent representative litigation, it would be infeasible for Class Members to redress the wrongs done to them.

176. Coca-Cola has acted on grounds applicable to the Class, thereby making appropriate final injunctive and declaratory relief concerning the Class as a whole.

177. As a result of the foregoing, class treatment is appropriate under Fed. R. Civ. P. 23(a), 23(b)(2), and 23(b)(3).

CAUSES OF ACTION

FIRST CAUSE OF ACTION

Unfair and Deceptive Business Practices, N.Y. Gen. Bus. L. § 349

(On behalf of the New York Subclass)

178. Plaintiff realleges and incorporates the allegations elsewhere in the Complaint as if fully set forth herein.

179. Coca-Cola's conduct constitutes deceptive acts or practices or false advertising in the conduct of business, trade, or commerce or in the furnishing of services in New York which affects the public interest under N.Y. Gen. Bus. L. § 349.

180. As alleged herein, Coca-Cola engaged in, and continues to engage in, deceptive acts and practices by advertising, marketing, distributing, and selling the Products with false or misleading claims and representations, and deceptive omissions.

181. As alleged herein, by misbranding the Products, Coca-Cola engaged in, and continues to engage in, unlawful and deceptive acts and practices.

182. Coca-Cola's conduct was materially misleading to Plaintiff and the Class. During the Class Period, Coca-Cola carried out a plan, scheme and course of conduct which was consumer oriented.

183. As a direct and proximate result of Coca-Cola's violation of N.Y. Gen. Bus. L. § 349, Plaintiff and the Class were injured and suffered damages.

184. The injuries to Plaintiff and the Class were foreseeable to Coca-Cola and, thus Coca-Cola's actions were unconscionable and unreasonable.

185. Coca-Cola is liable for damages sustained by Plaintiff and the Class to the maximum extent allowable under N.Y. Gen. Bus. L. § 349, actual damages or $50 per unit, whichever is greater.

186. Pursuant to N.Y. Gen. Bus. L. § 349(h), Plaintiff and the Class seek an Order enjoining Coca-Cola from continuing to engage in unlawful acts or practices, false advertising, and any other acts prohibited by law, including those set forth in this Complaint.

SECOND CAUSE OF ACTION

False Advertising, N.Y. Gen. Bus. L. § 350

(On behalf of the New York Subclass)

187. Plaintiff realleges and incorporates the allegations elsewhere in the Complaint as if fully set forth herein.

188. Coca-Cola has engaged and is engaging in consumer-oriented conduct which is deceptive or misleading in a material way (both by affirmative misrepresentations and by material omissions), constituting false advertising in the conduct of any business, trade, or commerce, in violation of N.Y. Gen. Bus. L. § 350.

189. As a result of Coca-Cola's false advertising, Plaintiff and the Class Members have suffered and continue to suffer substantial injury, including damages, which would not have occurred but for the false and deceptive advertising, and which will continue to occur unless Coca-Cola is permanently enjoined by this Court.

190. Plaintiff and the Class seek to enjoin the unlawful acts and practices described herein, and to recover their actual damages or $500 per unit, whichever is greater, and reasonable attorney fees.

THIRD CAUSE OF ACTION

Violations of the New Jersey Consumer Fraud Act, N.J.S.A. §§ 56:8-1, *et seq*.

(On behalf of the New Jersey Subclass)

191. Plaintiff realleges and incorporates the allegations elsewhere in the Complaint as if fully set forth herein.

192. Plaintiff and Defendant are "persons" within the meaning of the New Jersey Consumer Fraud Act ("CFA").

193. Plaintiff and the Members of the New Jersey Subclass are "consumers" within the meaning of the CFA.

194. At all relevant times material hereto, Defendant conducted trade and commerce in New Jersey and elsewhere within the meaning of the CFA.

195. The CFA is, by its terms, a cumulative remedy, such that remedies under its

provisions can be awarded in addition to those provided under separate statutory schemes.

196. Defendant's practices violated the CFA for, *inter alia*, one or more of the following reasons:

a. Defendant represented to Plaintiff and the New Jersey Subclass that the Products had approval or characteristics that they did not have;

b. Defendant represented to Plaintiff and the New Jersey Subclass that the Products were of a particular standard, quality, or grade, when they were actually of another;

c. Defendant advertised goods to Plaintiff and the New Jersey Subclass with intent not to sell them as advertised;

d. Defendant engaged in other fraudulent or deceptive conduct, creating a likelihood of confusion or misunderstanding; and

e. Defendant represented that consumers' purchases of the Products conferred or involved rights that the transactions did not have or involve.

197. Defendant consciously omitted to disclose material facts to Plaintiff and the New Jersey Subclass with respect to the Products.

198. Defendant thus used or employed unconscionable commercial practices, deception, false pretenses, or misrepresentations, or it knowingly concealed, suppressed, or omitted material facts, or some combination thereof, in connection with the sale or advertisement of the Products.

199. Had Defendant disclosed all material information regarding the Products to Plaintiff and the New Jersey Subclass, they would not have purchased the Products or would have paid less for the Products. Plaintiff and the New Jersey subclass, in short, paid for a product and

got something less than what had been promised.

200. The foregoing acts, omissions and practices proximately caused Plaintiff and the New Jersey Subclass to suffer an ascertainable loss in the form of monetary damages, and they are entitled to recover such damages, together with appropriate penalties, including treble damages, attorneys' fees and costs of suit.

FOURTH CAUSE OF ACTION

Breach of Express Warranty, N.J. Stat. Ann. § 12A:2-313

(On behalf of the New Jersey Subclass)

201. Plaintiff realleges and incorporates the allegations elsewhere in the Complaint as if fully set forth herein.

202. As an express warrantor, manufacturer and merchant, Defendant was obligated under N.J. Stat. Ann. § 12A:2-313 to conform the Product to its express warranties that the Products were "Good For You" and "Healthy." These representations were "part of the basis of the bargain" in that Plaintiff and other New Jersey Subclass Members purchased the Products in reasonable reliance on those statements.

203. Plaintiff and each New Jersey Subclass Member formed a contract with Defendant at the time they purchased the Products. The terms of the contract include the promises and affirmations of fact made by Defendants on the Products' packaging, as described above.

204. Plaintiff and New Jersey Subclass Members performed all conditions precedent to Defendant's liability under this contract when they purchased the Products.

205. Defendant breached these express warranties about the Products and their qualities because Defendant's statements about the Products were false and the Products do not conform to Defendant's affirmations and promises described above. Plaintiffs and other New Jersey

Subclass Members would not have purchased the Products had they known the true nature of the Products.

206. Defendant received timely notice regarding the problems at issue in this litigation and, notwithstanding such notice, have failed and refused to offer an effective remedy.

207. As a result of Defendant's breach of warranty, Plaintiff and other New Jersey Subclass Members have been damaged in the amount of the purchase price of the Product and any consequential damages resulting from the purchases.

FIFTH CAUSE OF ACTION

Negligent Misrepresentation

(On behalf of the Nationwide Class including the Subclasses)

208. Plaintiff realleges and incorporates the allegations elsewhere in the Complaint as if fully set forth herein.

209. Coca-Cola marketed the Products in a manner conveying to reasonable consumers that the Products promote health and wellness.

210. Coca-Cola's misrepresentations regarding the Products are material to a reasonable consumer because they relate to human health. Reasonable consumers would attach importance to such representations and would be induced to act thereon in making purchase decisions.

211. In selling the Products, Coca-Cola acted in the ordinary course of its business and had a pecuniary interest in Plaintiff and Class Members purchasing the Products.

212. Defendant owed a duty of care to Plaintiff and other Class Members, not to provide them with false information when they were making purchase decisions regarding the Products.

213. For years, Coca-Cola has held itself out, and continues to hold itself out as having

expert knowledge regarding the health impacts of consuming the Products.

214. For example, Coca-Cola claims to "[u]se [its] global scale for leadership, for progress and for good,"[117] and crucially, to "start with facts, based in science."[118]

215. Coca-Cola also created entire organizations the Beverage Institute for Health & Wellness to tout its expertise, representing it as "A Resource for Health Professionals on the Science of Beverages, Hydration & Active Heathy Living."

216. According to Coca-Cola:

> Global in scope, the Beverage Institute for Health & Wellness (BIHW) is part of The Coca-Cola Company's ongoing commitment to use evidence-based science to advance knowledge and understanding of beverages, beverage ingredients, and the important role that active healthy lifestyles play in supporting health and wellbeing.[119]

217. Coca-Cola describes the Beverage Institute for Health & Wellness as:

> a curator of evidence-based information and educational materials on the science, safety and benefits of beverages and their ingredients, energy balance, nutrition, physical activity, and related topics sourced from government agencies, food safety authorities, health professionals and their societies, and other credible sources.[120]

218. It provided "free continuing professional education (CE/CPE) programs led by recognized experts in fields such as nutrition, medicine, nursing, physical activity, behavior

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[117] Coca-Cola Company, "Purpose Summary," *available at* https://www.coca-colacompany.com/content/dam/company/us/en/about-us/purpose-vision/coca-cola-company-purpose-summary.pdf.

[118] Letter from James Quincey to Coca-Cola Employees (last amended Dec. 12, 2023), "The Purpose of our Company," *available at* https://www.coca-colacompany.com/content/dam/company/us/en/about-us/purpose-vision/james-quincey-letter-to-employees-coca-cola-company-purpose-dec-2023.pdf.

[119] Joan Koelemay, RD, "About Us," *Beverage Institute for Health & Wellness* (last modified Feb. 12, 2014), *available at* https://web.archive.org/web/20140213010006/http://beverageinstitute.org/us/about-us/.

[120] *Id.*

change, toxicology and various food science disciplines."[121]

219. The Beverage Institute for Health & Wellness provided a wide scope of information regarding beverages and health, including articles and resources specific to children's health, writing that "[u]nderstanding the role of different beverages in an active, healthy lifestyle can help those who care for children offer beverages in a way that supports children's growth, development, and long-term health.[122]

220. It also provided materials on "Caloric Sweeteners: Safety and Metabolism," subjects not well known to consumers, stating:

> The terms "added" and "naturally occurring" are sometimes used to differentiate the source of sugars found in foods and beverages. However, the body makes no such distinction during digestion, absorption and metabolism. The body cannot tell whether the source of the glucose and fructose it absorbs came from honey, maple syrup, a piece of fruit, a piece of sugar cane, table sugar, a cookie, a soft drink, or other food sweetened with high-fructose corn syrup.[123]

221. In a section titled "Communicating about Science, Health & Wellbeing," the Beverage Institute for Health & Wellness wrote, "Health professionals can play an important role in communicating health and lifestyle information based on sound scientific evidence. In this section, the BIHW has curated great resources to help you perform this vital role."[124]

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[121] *Id.*

[122] Joan Koelemay, RD, "Children's Health," *Beverage Institute for Health & Wellness* (last modified Feb. 12, 2014), *available at* https://web.archive.org/web/20140213011324/http://beverageinstitute.org/us/landing_page/childrens-health.

[123] Joan Koelemay, RD, "Caloric Sweeteners: Safety and Metabolism," *Beverage Institute for Health & Wellness* (last modified Feb. 12, 2014), *available at* https://web.archive.org/web/20140213010503/http://beverageinstitute.org/us/article/caloric-sweeteners-safety-and-metabolism.

[124] Joan Koelemay, RD, "Communicating about Science, Health & Wellbeing," *Beverage Institute for Health & Wellness* (last modified Feb. 12, 2014), *available at* https://web.archive.org/web/20140213003853/http://beverageinstitute.org/us/landing_page/health-communications.

222. That section even noted:

> In today's world of "instant communication", information and advice about health lifestyle choices can spread quickly. Some reports about diet, food safety and physical activity are evidence-based. Others are not. Some reports provide context for new scientific findings and make clear distinctions between commentaries, preliminary findings and consensus science. Others distill complicated research findings into brief headlines or 10-second sound bites. Add to the mix articles and blogs by writers who may, or may not, be credible sources of information and it's not surprising that many people are confused and unsure what to believe.[125]

223. In short, Coca-Cola has in the past, and continues to hold itself out as having specialized scientific- and health-related expertise as it pertains to food and nutrition, and it actively attempts to communicate those messages to others.

224. But Coca-Cola knows, or has been negligent in not knowing, that consuming the Products does not promote health—as consuming whole fruits does—but instead harms the health of the average consumer. Coca-Cola had no reasonable grounds for believing its misrepresentations are not false and misleading.

225. Coca-Cola intends that Plaintiff and other consumers rely on these representations, as evidenced by the intentional and conspicuous placement of the misleading representations on the Products' packaging.

226. Plaintiff and Class Members have reasonably and justifiably relied on Coca-Cola's misrepresentations when purchasing the Products, and had the correct facts been known, would not have purchased the Products at the prices at which they were offered.

227. Therefore, as a direct and proximate result of Coca-Cola's negligent misrepresentations, Plaintiff and other Class Members have suffered economic losses and other general and specific damages, in the amount of the Products' purchase prices, or some portion

[125] *Id.*

thereof, and any interest that would have accrued on those monies, all in an amount to be proven at trial.

SIXTH CAUSE OF ACTION

Intentional Misrepresentation

(On behalf of the Nationwide Class including the Subclasses)

228. Plaintiff realleges and incorporates the allegations elsewhere in the Complaint as if set forth in full herein.

229. Coca-Cola marketed the Products in a manner conveying to reasonable consumers that the Products promote general health and wellness. However, consuming juice beverages like the Products harms, rather than supports, the overall health of the average consumer. Therefore, Coca-Cola has made misrepresentations about the Products.

230. Coca-Cola's misrepresentations regarding the Products are material to a reasonable consumer because they relate to human health. A reasonable consumer would attach importance to such representations and would be induced to act thereon in making purchase decisions.

231. At all relevant times, Coca-Cola knew that the misrepresentations were misleading, or has acted recklessly in making the misrepresentations, without regard to their truth.

232. Coca-Cola intends that Plaintiff and other consumers rely on these misrepresentations, as evidenced by the intentional and conspicuous placement of the misleading representations on the Products' packaging.

233. Plaintiff and members of the Class have reasonably and justifiably relied on Coca-Cola's intentional misrepresentations when purchasing the Products; had the correct facts been known, they would not have purchased the Products at the prices at which the Products were

offered.

234. Therefore, as a direct and proximate result of Coca-Cola's intentional misrepresentations, Plaintiff and other Class Members have suffered economic losses and other general and specific damages, in the amount of the Products' purchase prices, or some portion thereof, and any interest that would have accrued on those monies, all in an amount to be proven at trial.

SEVENTH CAUSE OF ACTION

Unjust Enrichment

(On behalf of the Nationwide Class including the Subclasses)

235. Plaintiff realleges and incorporates the allegations elsewhere in the Complaint as if set forth in full herein.

236. Plaintiff lacks an adequate remedy at law.

237. Plaintiff and others conferred upon Coca-Cola an economic benefit, in the form of profits resulting from the purchase and sale of the Products.

238. Coca-Cola's financial benefits resulting from its unlawful and inequitable conduct are economically traceable to Plaintiff's and other Class Members' purchases of the Products, and the economic benefits conferred on Coca-Cola are a direct and proximate result of its unlawful and inequitable conduct.

239. It would be inequitable, unconscionable, and unjust for Coca-Cola to be permitted to retain these economic benefits because the benefits were procured as a direct and proximate result of its wrongful conduct.

240. As a direct and proximate result of Coca-Cola's unjust enrichment, Plaintiff and other Class Members are entitled to equitable relief including restitution and/or disgorgement of

all revenues, earnings, profits, compensation and benefits which may have been obtained by Coca-Cola as a result of such business practices, and such other relief as the Court deems just and proper to remedy Coca-Cola's unjust enrichment.

PRAYER FOR RELIEF

241. Wherefore, Plaintiff, on behalf of himself, all others similarly situated, and the general public, prays for judgment against Coca-Cola as to each and every cause of action, and the following remedies:

a. An Order declaring this action to be a proper class action, appointing Plaintiff as Class Representative, and appointing Plaintiff's undersigned counsel as Class Counsel;

b. An Order requiring Coca-Cola to bear the cost of Class Notice;

c. An Order compelling Coca-Cola to destroy all misleading and deceptive advertising materials and product labels, and to recall all offending products;

d. An Order requiring Coca-Cola to disgorge all monies, revenues, and profits obtained by means of any wrongful act or practice;

e. An Order requiring Coca-Cola to pay restitution to restore all funds acquired by means of any act or practice declared by this Court to be unjust, plus pre-and post-judgment interest thereon;

f. An Order requiring Coca-Cola to pay compensatory, statutory, and punitive damages as permitted by law, plus pre-and post-judgment interest thereon;

g. An award of attorneys' fees and costs; and

h. Any other and further relief that Court deems necessary, just, or proper.

JURY DEMAND

242. Plaintiff hereby demands a trial by jury on all issues so triable.

Dated: December 15, 2023

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