

U.S. Consumers' Consumption, Knowledge, and Perceptions of Low-Calorie Sweetener

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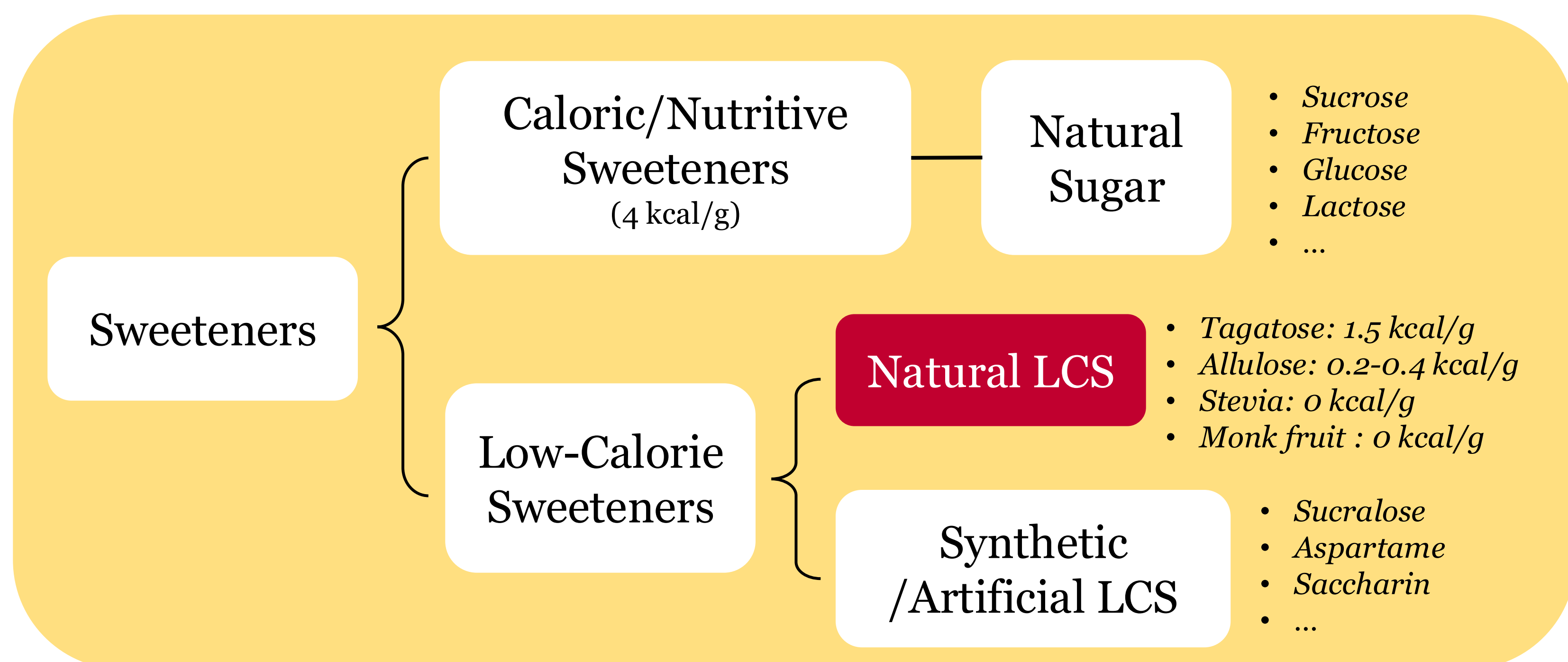
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INTRODUCTION

- The added sugar in American's diet is abundant. 17 teaspoons > 12 teaspoons (Centers for Disease Control and Prevention, 2024).
- The high intake of sugar has been a key dietary driver of obesity, diabetes, and heart disease (Malik & Hu, 2022).
- Low-calorie sweetener (LCS), or non-nutritive sweeteners**, provide negligible calories because they are not metabolized for energy or are absorbed only in very small amounts.



- Consumers' love affair with sugary drinks has been waning over the past decade. 25.1% of children and 41.4% of adults reported consuming LCSs (Sylvetsky et al., 2017).
- Public uncertainty surrounding LCSs persists.** The broader adoption is constrained by consumers' preference for "naturalness" as well as longstanding confusion and controversy, particularly concerns about perceived health risks such as cancer or gastrointestinal discomfort (Harricharan et al., 2015).

THEORETICAL FRAMEWORK

- The **Knowledge, Attitude, Practice (KAP)** framework conceptualizes behavior as a function of individuals' knowledge and attitudes.



RESEARCH QUESTIONS

- The purpose of this study is to investigate the current consumers' ability to accurately interpret and evaluate the characteristics of LCSs, we propose the following research questions:
 - RQ1: What level of knowledge do U.S. consumers have about LCSs?**
 - RQ2: How do U.S. consumers perceive the health impacts of LCSs?**
 - RQ3: How frequently do U.S. consumers consume LCSs?**

METHODOLOGY



Qualtrics, Oct. 2025
Convenience sampling

808
Participants

Female

Under 55

White

Beyond high school

Descriptive statistics

RESULTS/FINDINGS

RQ1

True Knowledge
LOW

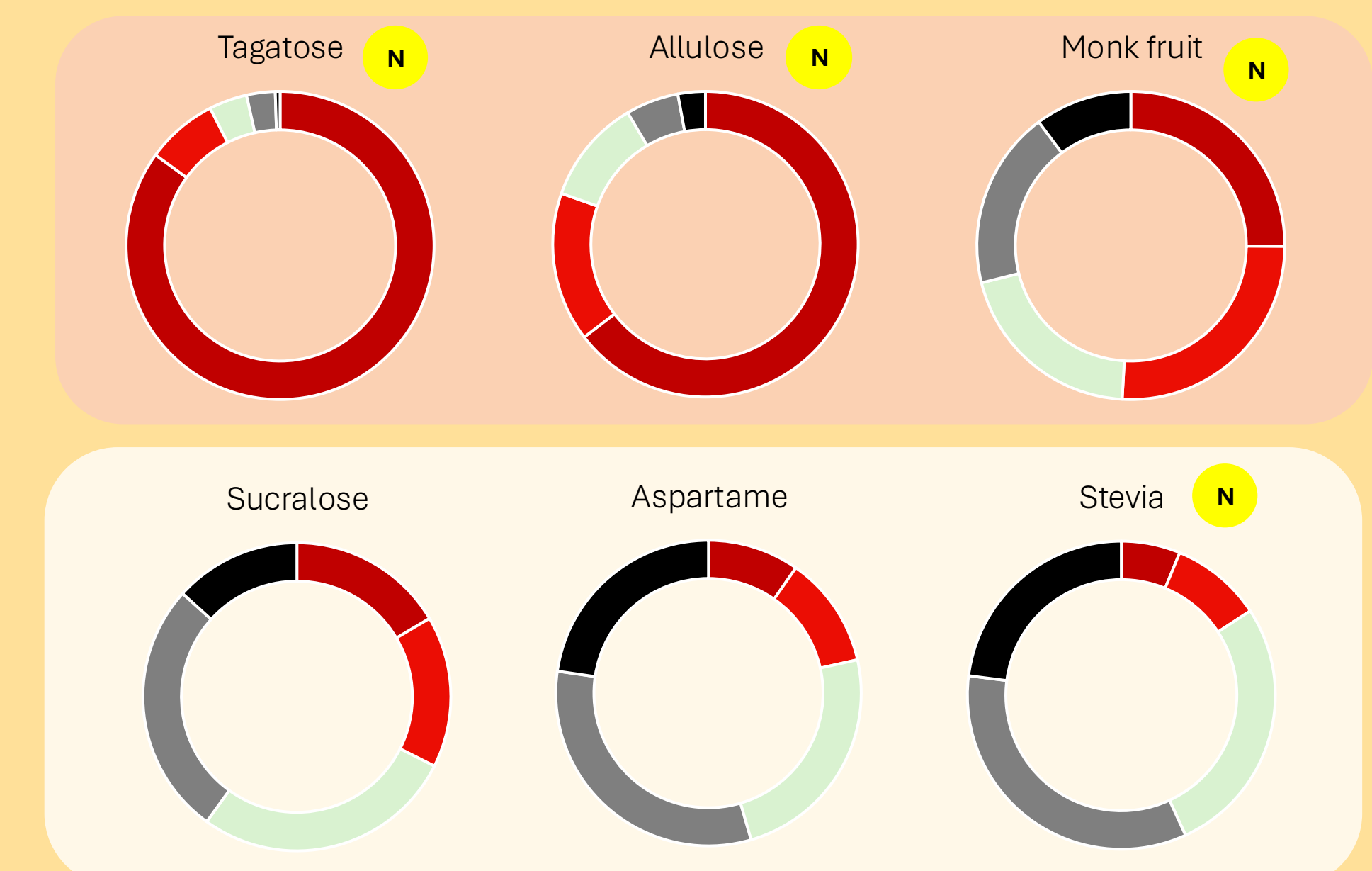
77.1% agreed that "a zero-calorie sugar is artificial".
50% failed to recognize whether LCSs is naturally occurring or not.

Self-assessed Knowledge
MODERATE

47.3% self-reported that they understand the difference between "total sugar" and "added sugar."

Familiarity
LOW

Extremely Not at all



RQ2

Consumers hold predominantly **negative perceptions** toward LCSs, largely driven by health-related concerns.

- Aware of the health cost of excessive sugar intake. Consumers associate high sugar intake with obesity (88.4%), diabetes (91.3%), and tooth decay (82%).
- As for health impact, the majority of consumers perceived LCSs as either unhealthy (42.1%) or felt unclear (35.4%), with **only 22.5% regarding LCSs as healthy.**

RQ3

The consumption of LC sweetened foods or beverages is **frequent**.

- 68.0%** reported consuming LCSs at least weekly.

	Low Calorie Sugar	Artificial Sugar
Unsafe	15.2%	71.1%
Poor taste	60.2%	63.2%
Unhealthy	42.1%	58.4%

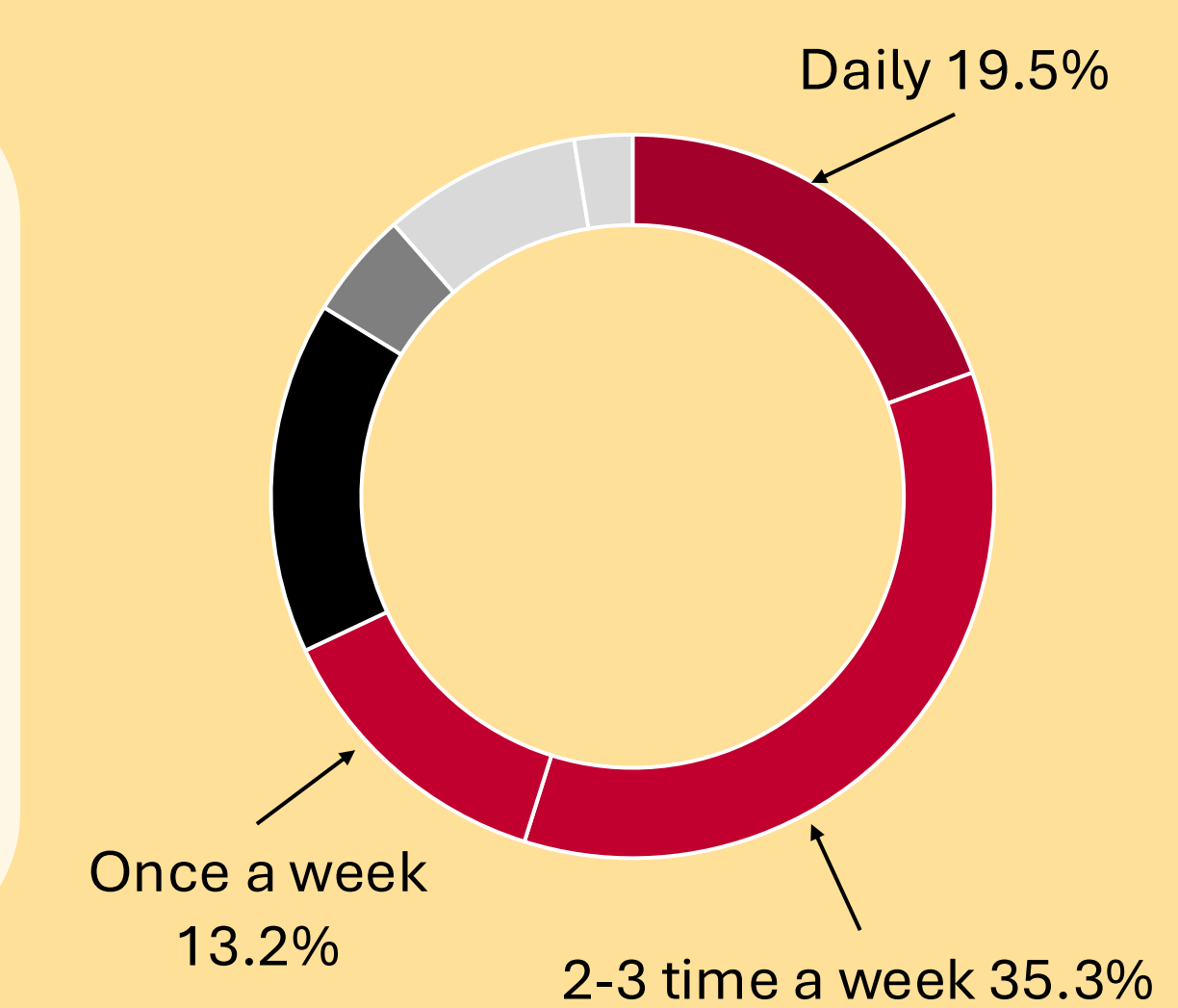


Figure 1. Acceptance of LCS Across Food Categories

	Accept Rate (%)
★ Soft Drink	71.2
Juice	41
Energy Drink	40.1
Baked Goods	39.9
Tea	38.5
Candy	36.6
Yogurt	34.8
Coffee	32.2

CONCLUSION / IMPLICATIONS / RECOMMENDATIONS

- Many consumers' limited knowledge of LCSs (e.g., equating "zero-calorie" with "artificial"), reflecting low awareness of **naturally derived sweeteners** such as stevia and monk fruit. This misconception may contribute to generally negative health perceptions of LCSs, which are mostly associated with artificial sweeteners.
- Consumers' uncertainty and limited true knowledge about the safety and benefits of LCSs appear to constrain their acceptance.
- These knowledge and perception gaps highlight the **need for clearer communication and public education** regarding the nature and health implications of different types of sweeteners.



Please scan for references & contact info.