

Racial Disparity in Sugar-Sweetened Beverage (SSB) Consumption Among UCSD Students

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Background

- Excessive sugar-sweetened beverage (SSBs) consumption is linked to various chronic health outcomes.
- High consumption of SSBs can increase insulin and glucose concentrations leading to various chronic diseases over time.
- Although trends have shown a decrease in added sugar by manufacturers, intake remains a concern due to ample marketing strategies.
- With less regulations placed in universities, monitoring SSB intake in young adults is imperative

Objective

To determine whether the prevalence & consumption of sugar-sweetened beverage (SSBs) intake among UCSD students is racially disparate.

Methods

- A cross-sectional study among UCSD students (n=100) was conducted in April 2022 across various online platforms (Discord, Reddit, Facebook)
- A 16 question Qualtrics survey collected information regarding participants' SSB use and ways of acquisition
- Analysis was conducted through Qualtrics results software
- Using the Qualtrics software we were able to take each question asked during the survey and correlate to the race identification question to see how different races of UCSD students responded to them
- We also made sure to take only the respondents who completed the questionnaire, so we had N=100 students fully complete our survey
- No open-ended questions were asked as the study focused on getting mainly qualitative data in order to see the prevalence and consumption of SSBs

Results

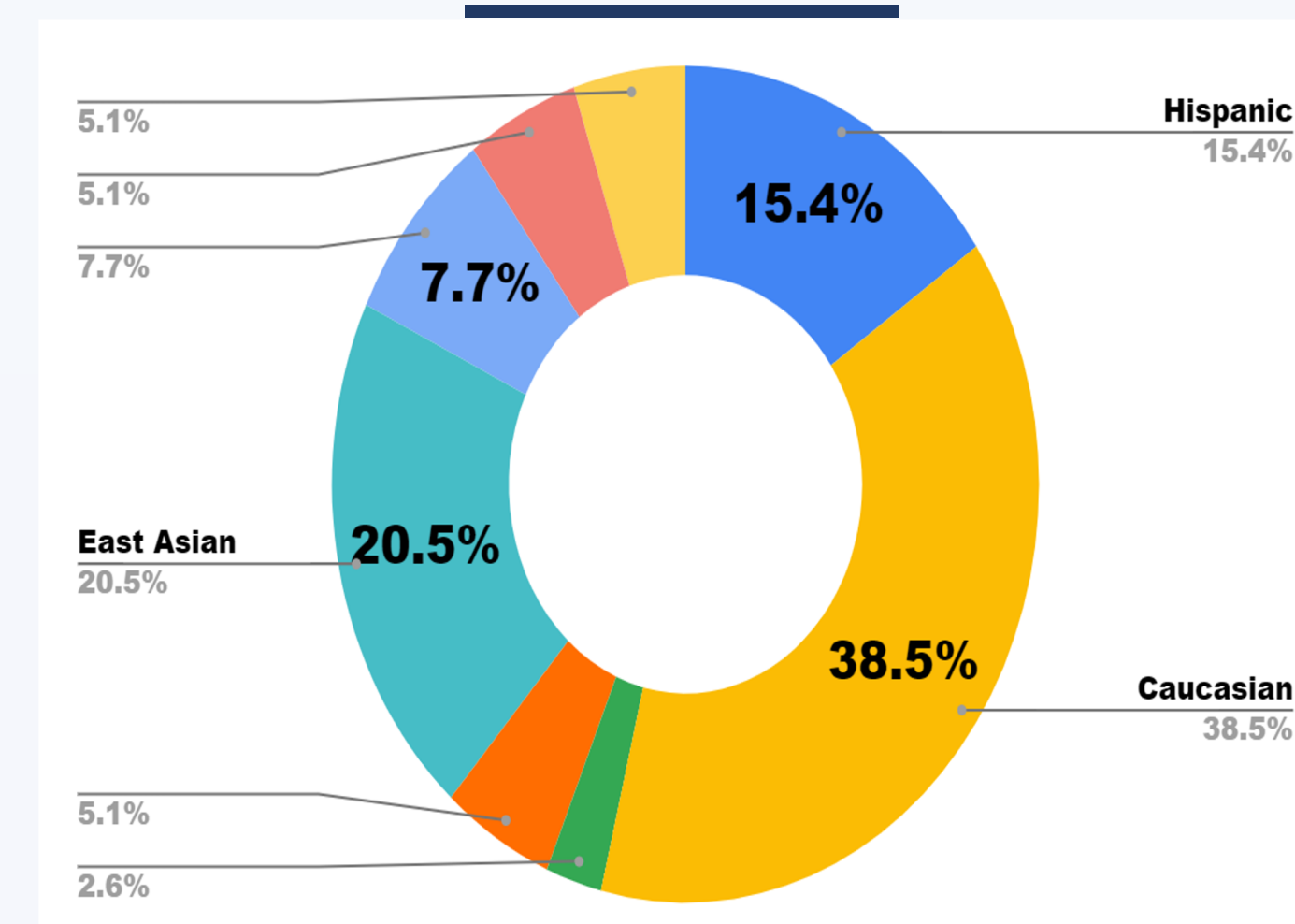


Fig 1: Students who consumed 0 SSBs daily

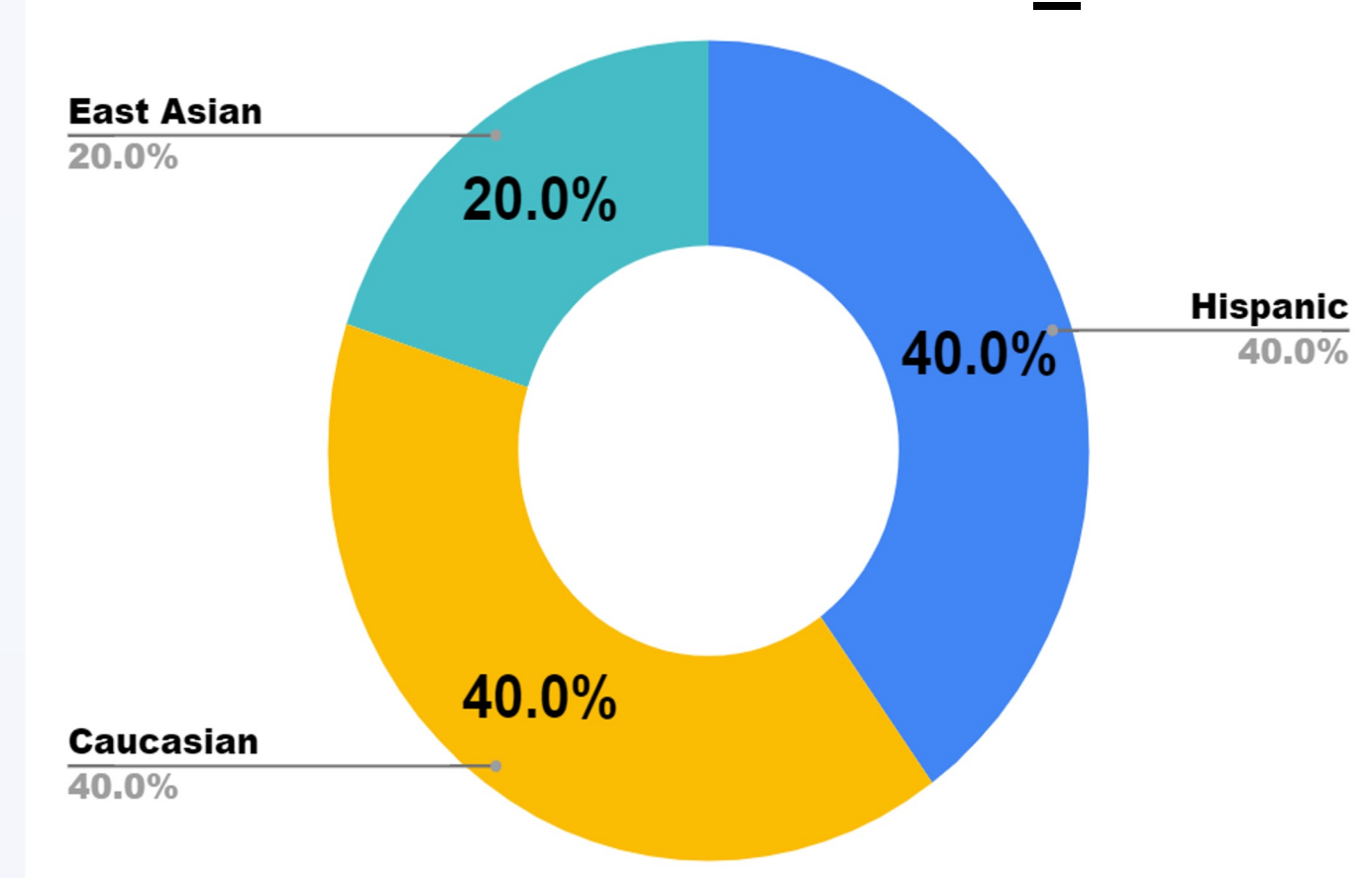


Fig 2: Students who consumed 4+ SSBs daily

Figure 1 & 2 show the increase in SSBs consumed in the Hispanic student population as only 15% reported to drink 0 SSBs daily compared to 40% who drank 4+ SSB daily. Approximately equal percentages (39-40%) of Caucasian students reported drinking 0 SSBs and 4 SSBs daily.

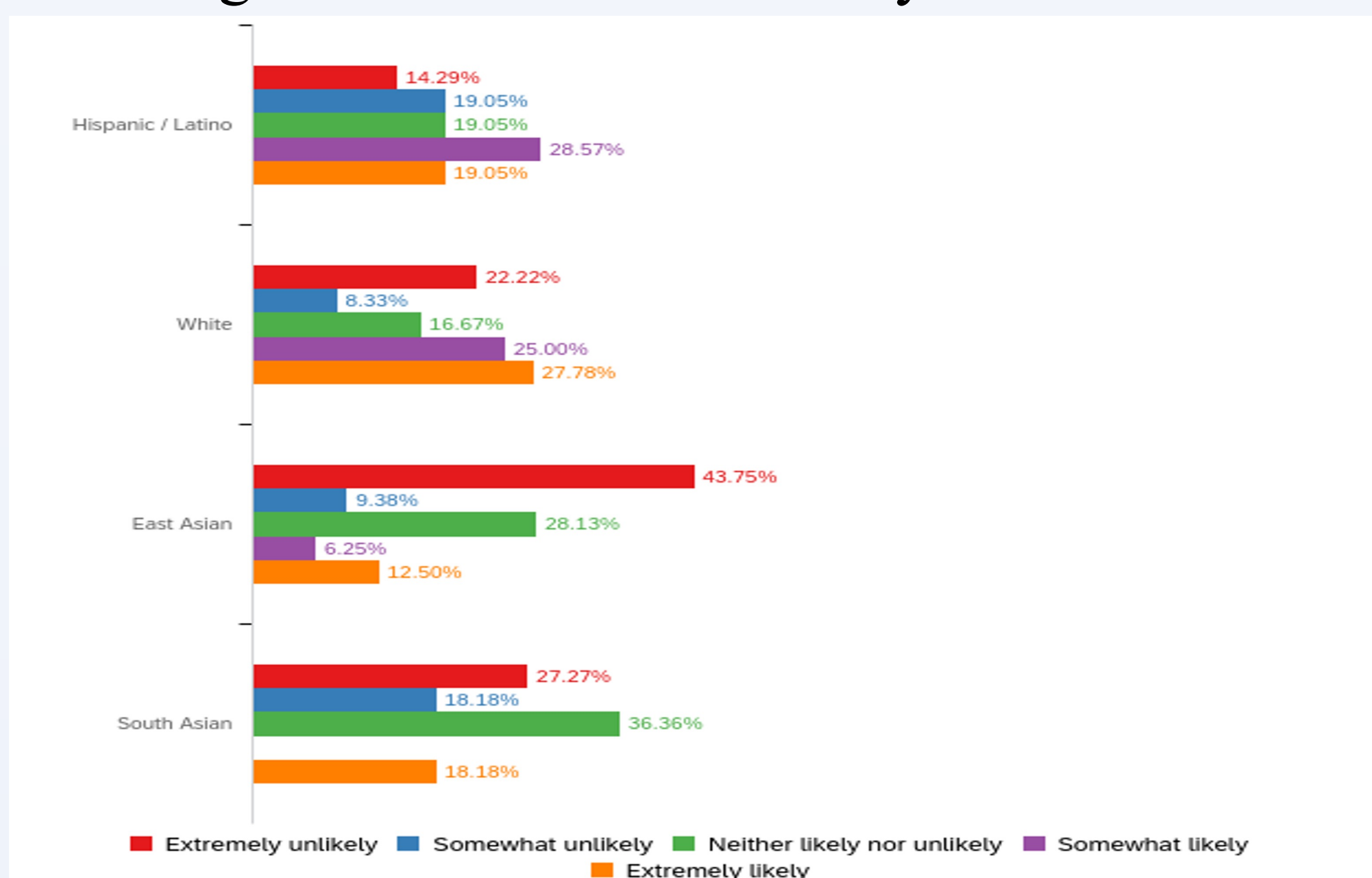


Fig 3: How likely are students to replace SSBs with zero sugar options

Results indicate that 43.78% of East Asians were extremely unlikely to replace SSBs with the alternative zero-sugar option in Figure 3. Results in Figure three also indicate that comparatively the White/Caucasian students at UCSD were the most open to being 'extremely likely' to replace SSBs with sugar options

Results

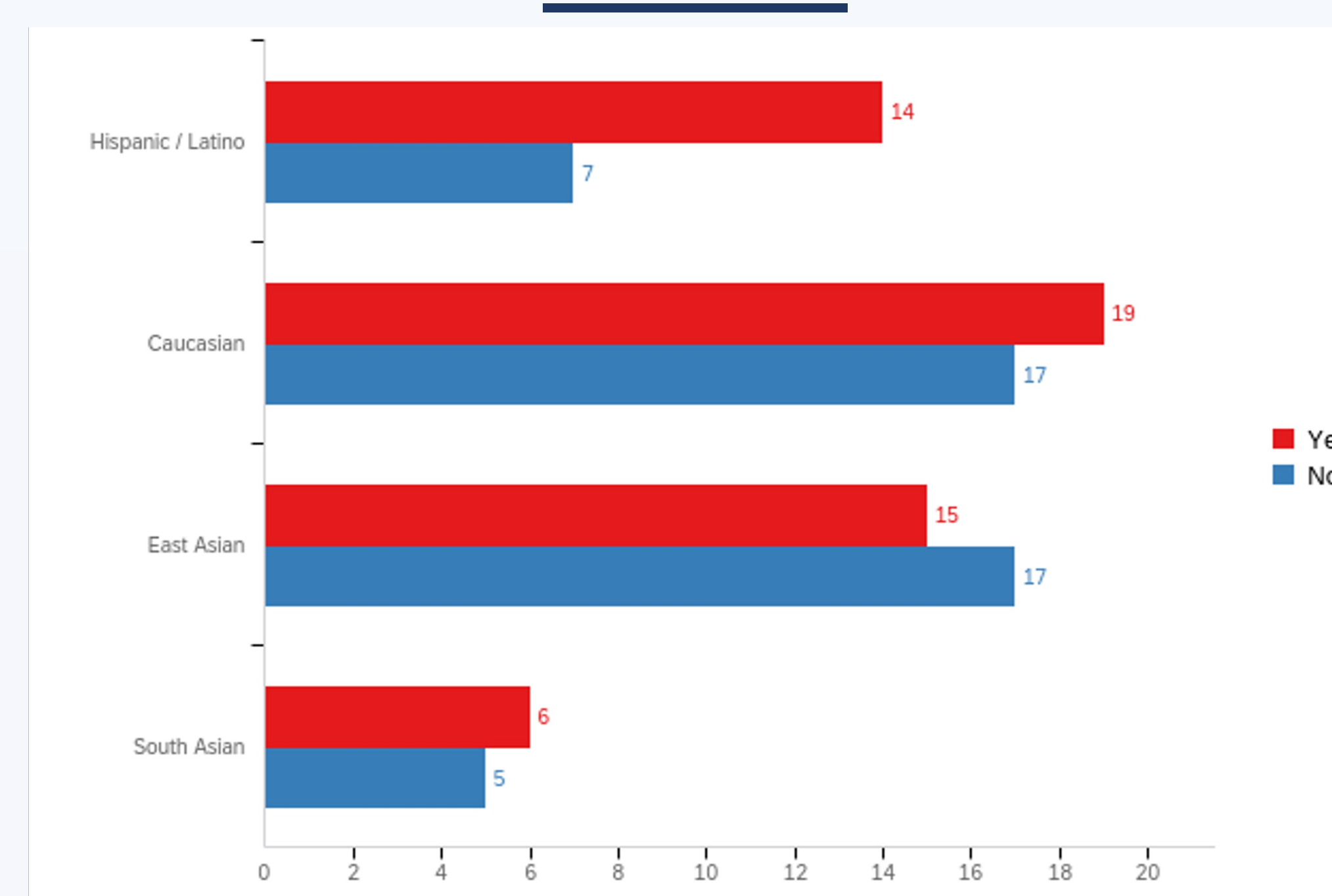


Fig 4: UCSD students stores SSBs at residence

66.7% of the Hispanic/Latino group had stored SSBs, compared to 52.8% of Caucasians, 46.9% of East Asians, and 54.5% of South Asians. Overall, it was seen that there was a higher proportion of storage of SSBs within the Hispanic community. Results also showed that East Asians were the only group to have higher # of students saying no to storing SSBs at their residence.

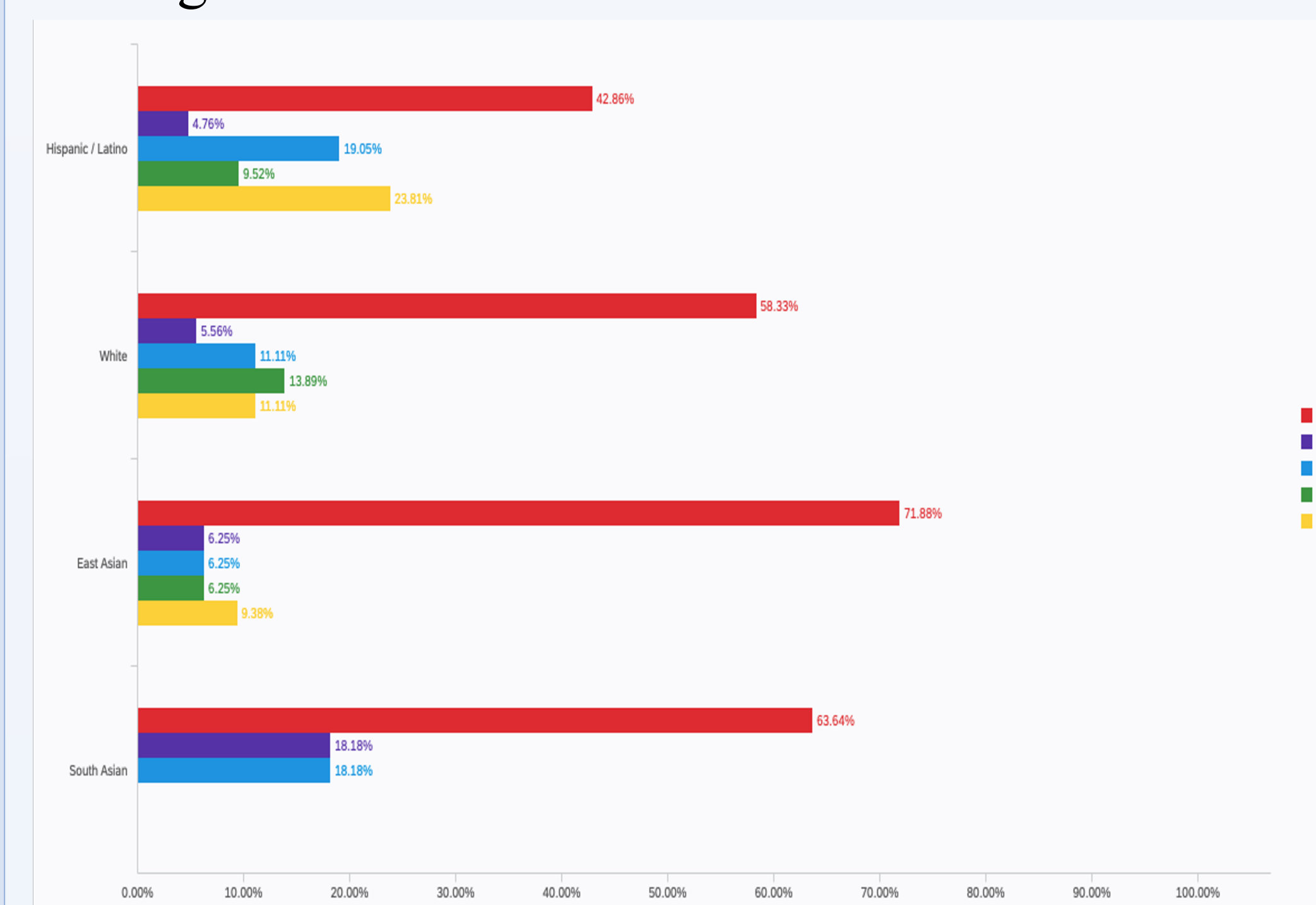


Fig 5: # of energy drinks (SSBs) students consumes per week.

23.8% of the Hispanic/Latino group consumed 4+ energy drinks (SSB) weekly. 11.1% of white people, 9.4% of East Asians, and 0% of South Asians consumed as much. 71.9% of East Asians compared to only 42.9% of Hispanic students reported having reported having 0 energy drinks (SSBs) per week. Overall Figure 5 also indicated that East Asians alongside with South Asians had the least amount of energy drinks per week.

Conclusion

- Among all the racial groups, the Hispanic/Latino group were by far the most likely to store SSBs at their residence
 - Storing them at their residence makes them readily available as an everyday drink rather than other students who opted to only have them at settings such as a restaurant/vending machine
- Hispanic/Latino group consumes significantly more energy drinks than the other racial groups
 - Energy drinks were one of the highest form of consumption of SSB alongside with coffee and this may be correlated to the fact that students feel like they need this caffeine for school
- Among the Hispanic/Latino, the gap between the two daily SSB consumption (0 vs. 4+) was larger compared to Caucasian students
- Furthermore, East Asians are not actively open to the idea of replacing their SSBs with a zero-sugar option.
 - This could also because of confounding results that showed that most east Asians consumed SSBs through drinks such as "Boba Tea" which are harder to substitute for a zero-sugar option

Policy Implications

- Clear warning signs are needed to mitigate racial disparity in SSB consumption and to reduce overall consumption of SSBs among UCSD students
- Furthermore, promoting SSBs through the form of energy drinks should be strictly regulated, along with SSB sponsorships like Coca-Cola
- There should be more education to incoming students about nutrition labeling and the dangers of increased SSB consumption

References

Palmer, J. R., Boggs, D. A., Krishnan, S., Hu, F. B., Singer, M., & Rosenberg, L. (2008). Sugar-sweetened beverages and incidence of type 2 diabetes mellitus in African American women. Archives of internal medicine, 168(14), 1487-1492. <https://doi.org/10.1001/archinte.168.14.1487>

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