



COVID-19 Impact on Childrens' Nutrition and Oral Health

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Introduction/Background

- COVID-19 impacted schools, access to dental care, family income and daily routines. Lifestyle behaviors, such as nutrition and oral health, were greatly impacted by prolonged school closures and stay at home orders.
- Routine dental care was suspended and dental offices were viewed as high risk sites for viral spread, given COVID-19 is transmitted in close contact via aerosols.
- Even as dental offices started to reopen, many parents continued to remain hesitant about pursuing care and failed to implement preventative dental care strategies.
- The purpose of this study was to assess the impact of COVID-19 on childrens' nutrition and oral health behaviors.

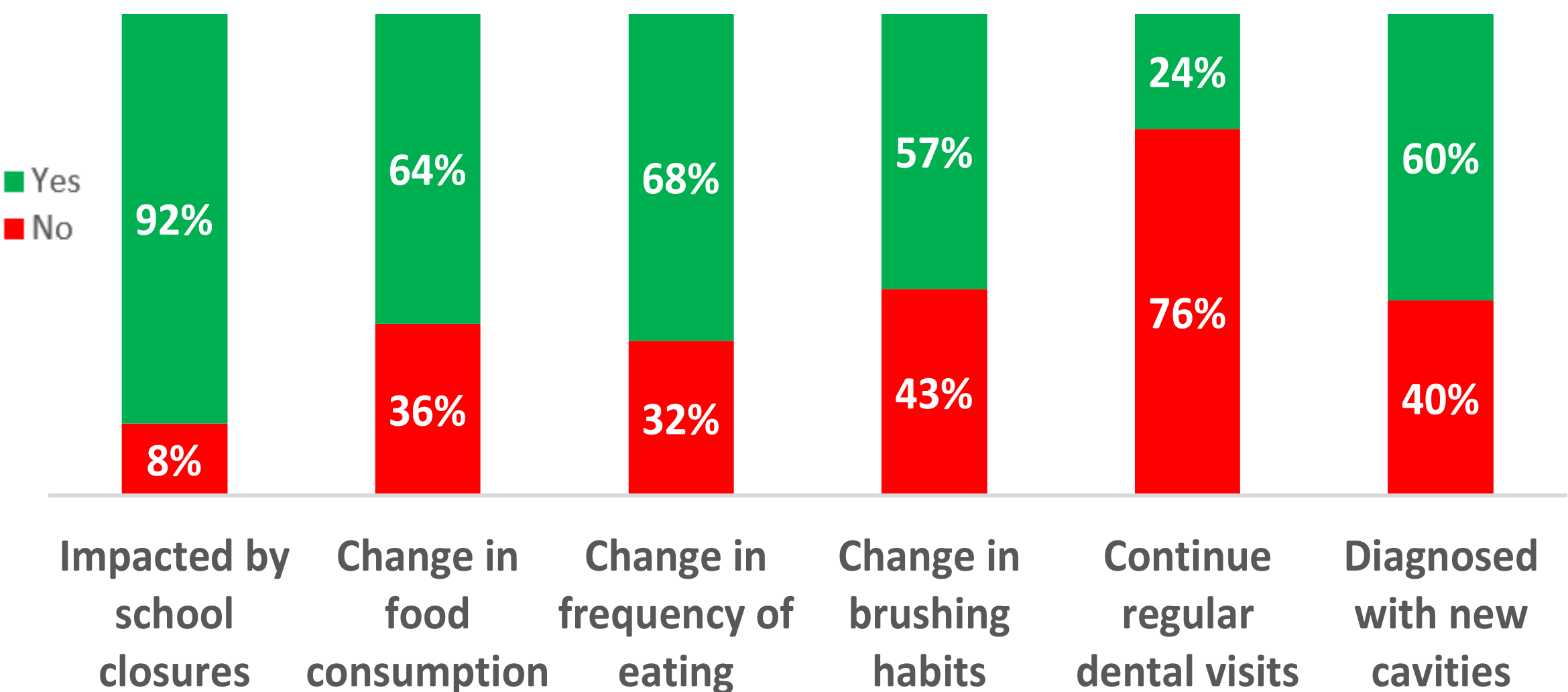
Methods

- This research was approved as an exempt study by the NYU IRB (#FY2021-5509). Survey questionnaires were distributed from August-December 2021 to parents or guardians of children aged 2-14 presenting to NYU Dentistry's Pediatric Dental Clinic. Questionnaires were available in both English and Spanish and consisted of 25 items assessing changes in consumption, frequency and quality of food, as well as changes in brushing habits, dental visits and caries incidence.

Results

- A total of 92 subjects participated and 84 subjects were included in the analysis due to incomplete responses. Data analysis was completed using JASP.

Figure 1: Parental Reported Changes in School, Nutrition and Oral Health Habits During COVID-19 (N=84)



Results Continued

Figure 2: Parental Reported Changes in Eating Habits During the Pandemic (N=84)

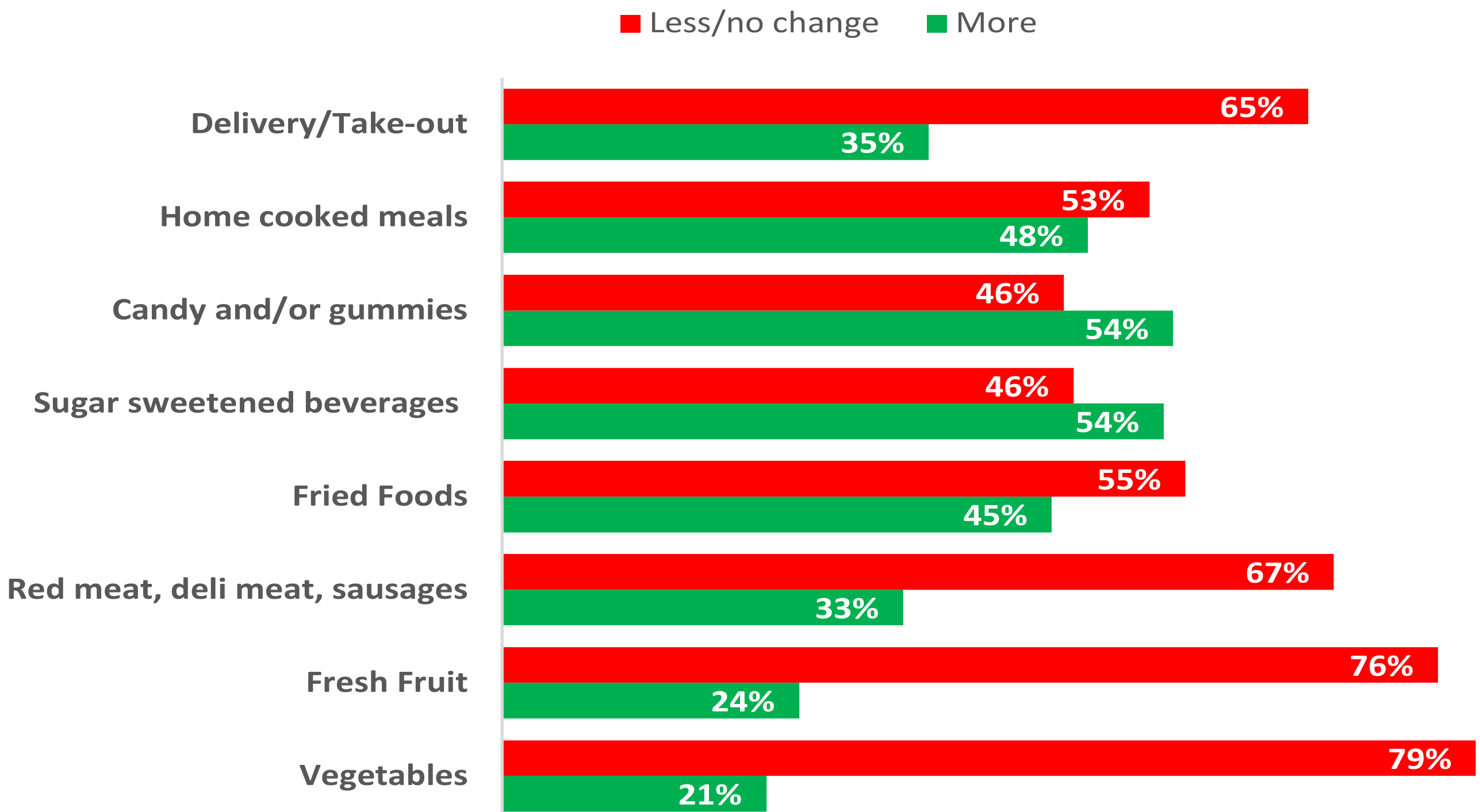
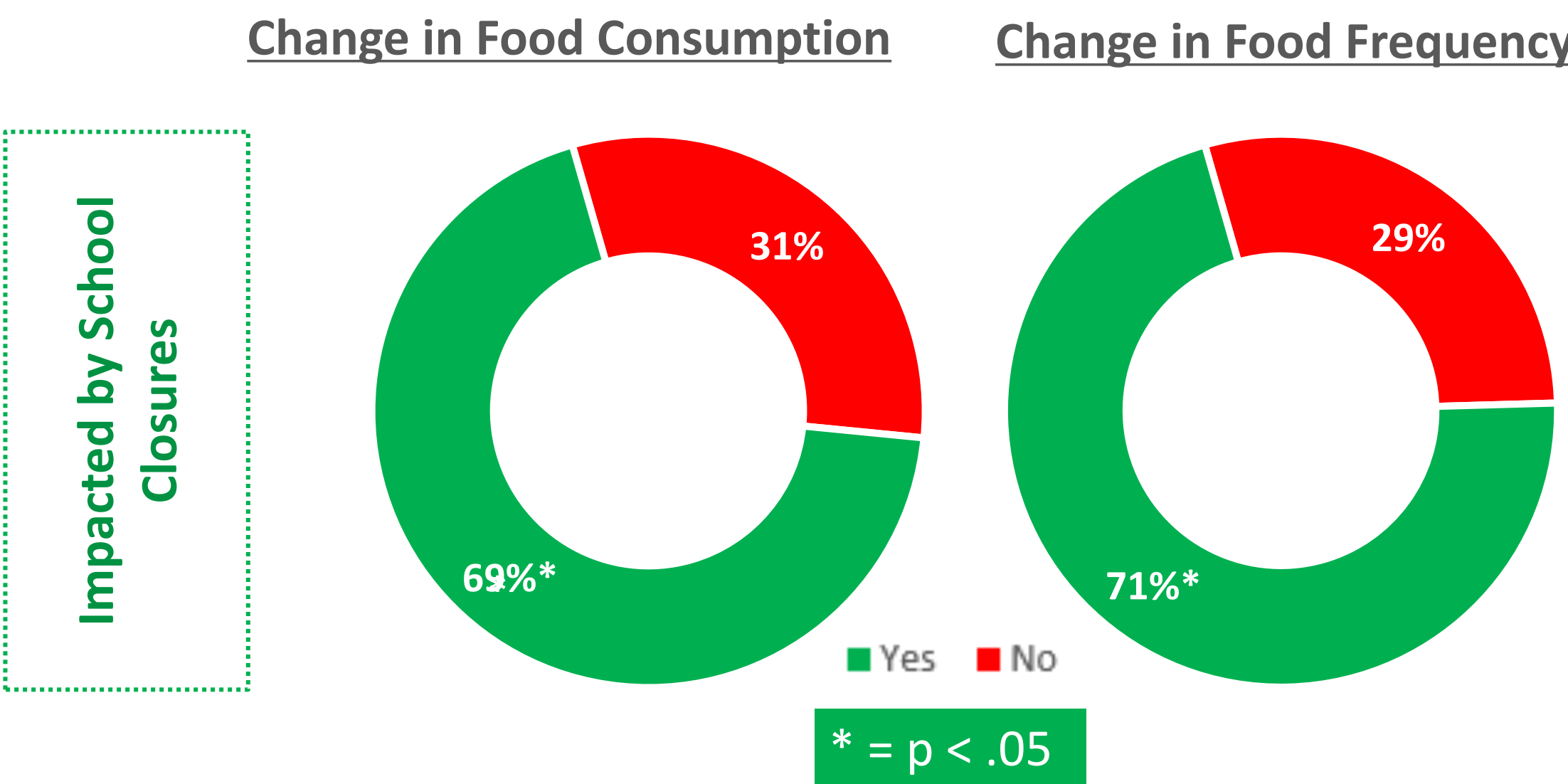
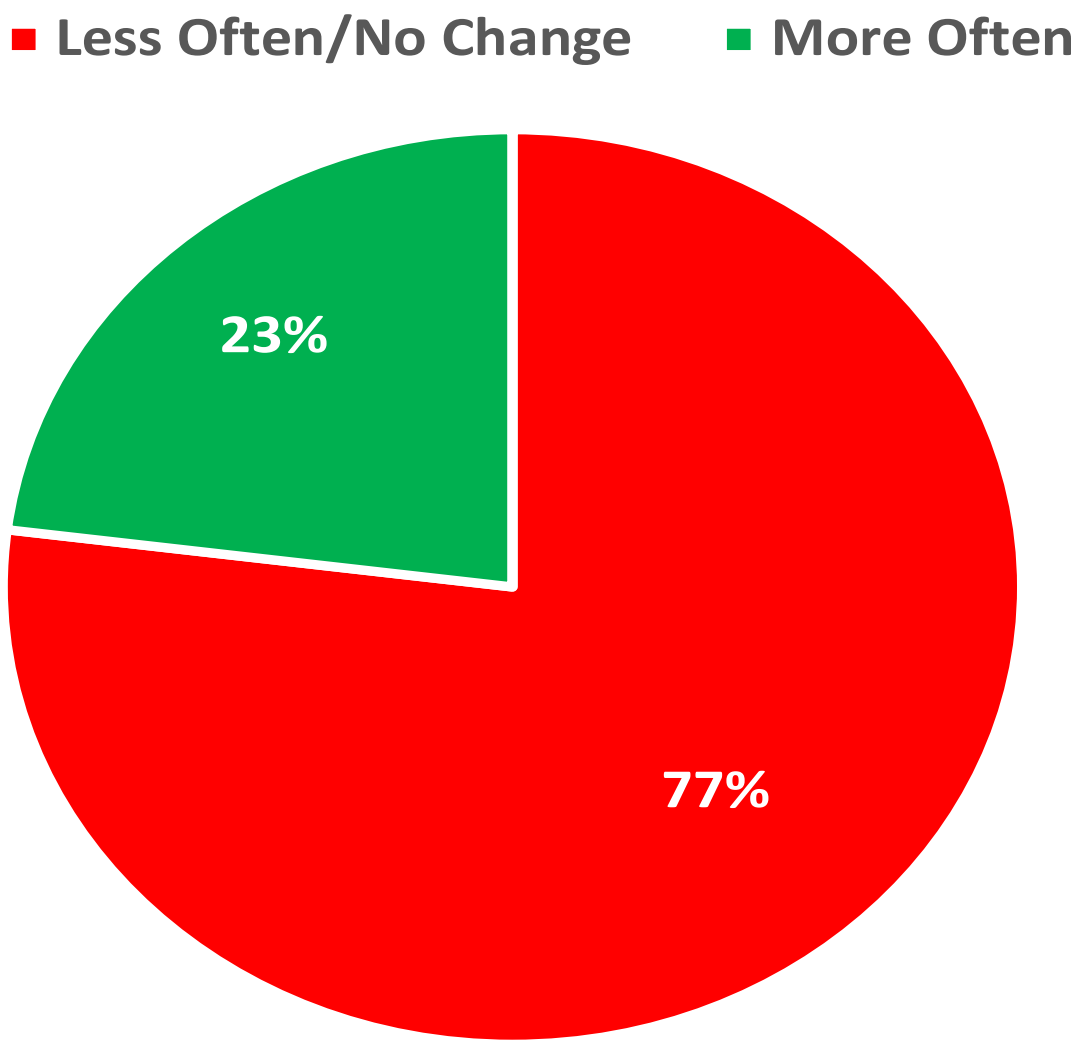


Figure 3: School Closures, Food Consumption, and Eating Frequency (N=84)



- 92% of children were reported to be affected by school closures, in that there was a decrease in the number of days they were attending in person school. School closures were significantly associated with a change in food consumption (*p = .04) and food frequency (*p = .02).
- 52% of those impacted by school closures reported increased food consumption, compared to 48% who reported less/no change (**p= .05). 58% of those impacted by school closures reported increased frequency of eating, compared to 42% who reported less/no change (*p = .03)

Figure 4: Parental Reported Changes in Oral Health Habits During the Pandemic (N=84)



- The majority of parents reported their child was brushing less often/the same amount and failing to visit the dentist regularly during the pandemic. The most important reasons parents cited for not continuing regular dental visits were fear of catching COVID, the office being closed and cost of a dental visit.
- 60% reported their child was diagnosed with new cavities since the start of the pandemic. Brushing less and failing to visit the dentist regularly made this diagnosis more likely, but not enough to be significant. Diagnosis of new caries was significantly associated with an increased frequency of eating during the pandemic (*p < .001) and more specifically, an increased consumption of sugar sweetened beverages (*p = .005) and candy and/or gummies (*p < .001).

Conclusions

- Dentists should prioritize nutrition counseling and collaborate with nutritionists to facilitate low cariogenic diets in their pediatric patients.
- Parents and dentists should be aware of the effect that a disruption in routine such as a school closures, can have on childrens' diet and brushing habits and intervene accordingly. Dentists should implement more frequent recall schedules and parents should re-establish their dental homes.
- Results are consistent with a 2021 JADA report that found associations between increased frequency of eating and drinking, decreased frequency of tooth brushing and postponing oral health care during the pandemic.

References

Available upon request