

Adopt-A-School in San Francisco's Chinatown: Gordon J. Lau Elementary School 2018-2019

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INTRODUCTION

In present day, tooth decay is the most common chronic childhood disease which effects the overall health and development of the young individual. The U.S Department of Health and Human Services estimates that more than 51 million school hours are lost each year because of dental-related health problems, making it the primary reason for missing school. Dental caries is a preventable disease with routine and early dental visits but due to lack of oral health education in the public, the problem is more widespread. Here in San Francisco, 33% of kindergarteners have experienced dental caries. The number is higher for children in Chinatown as they are 2-3 times more likely to have dental caries compared to other areas within San Francisco. This is due to the lack of adequate access to dental care in addition to other barriers such as low income, language barrier, and cultural differences. The University of the Pacific School of Dentistry's Student Community Outreach for Public Education (SCOPE) strives to improve the oral health and awareness of the young population through providing education, screenings, and fluoride varnish. As the largest elementary school in the city of San Francisco, Gordon J. Lau Elementary School (GJL) presented an ideal opportunity to reach out to many children in the Chinatown neighborhood. SCOPE hopes to not only offer these services to the students of GJL on a regular basis but also to expand its outreach to more elementary schools throughout the San Francisco.

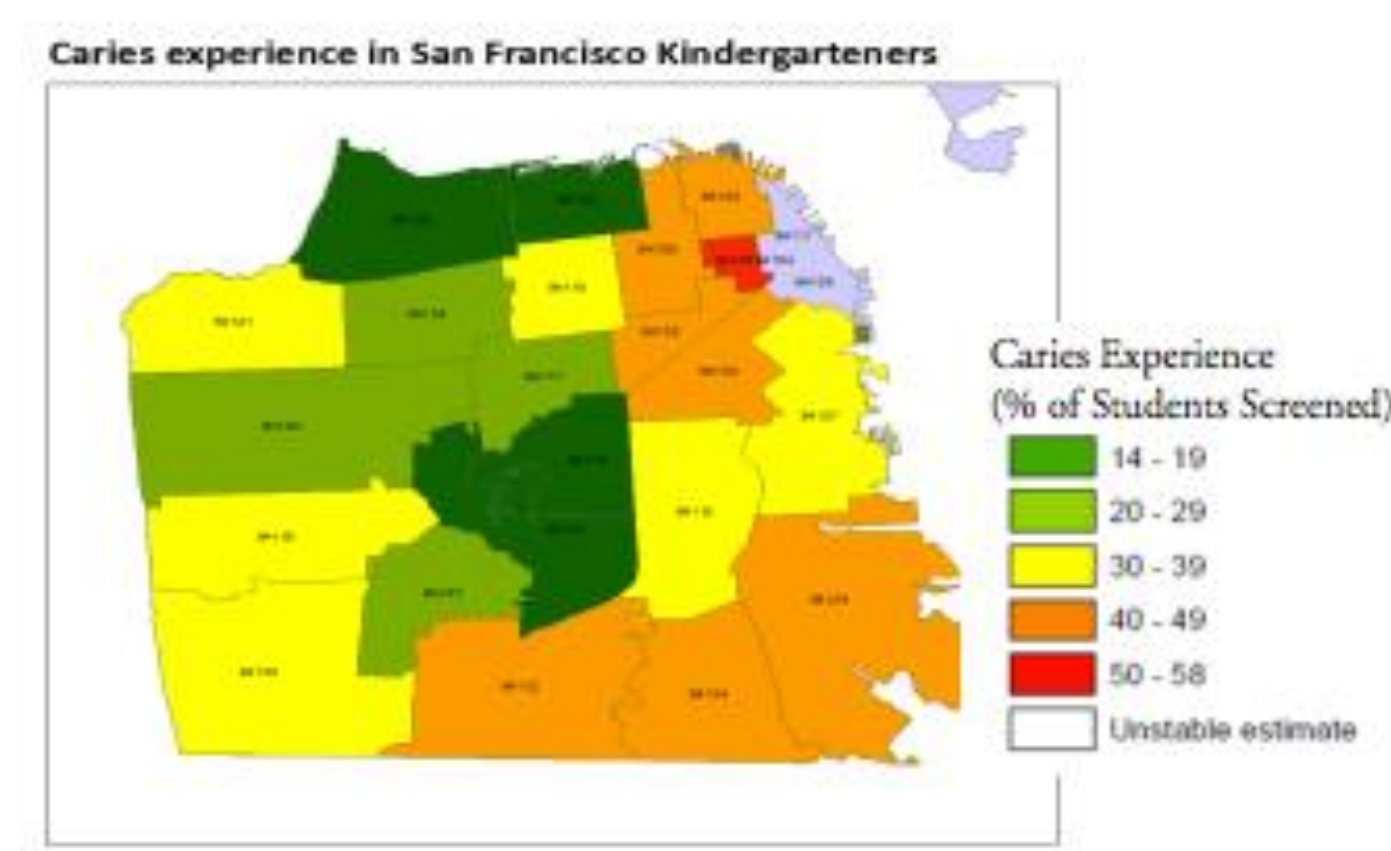


Figure 1. San Francisco Zip Code Map of Caries Experience



Figure 2. SCOPE Volunteers screen and demonstrate various oral hygiene activities to educate first grade students



Figure 3. SCOPE Volunteers for Gordon J. Lau elementary school

MATERIALS AND METHODS

University of the Pacific Arthur A Dugoni School of Dentistry's Student Community Outreach for Public Education (SCOPE) visited Gordon J. Lau Elementary School on two separate days. SCOPE volunteers screened and provided Oral Hygiene Instruction for six first grade classes which totals 120 students.

On April 4th, SCOPE volunteers visited the school and screened six first grade classes. During these screening sessions, the students would rank the students in three categories:

- No obvious problems**- The students have no carious lesions that require immediate attention
- Requires care**- Beginning stages of demineralization are seen in the child's mouth. This requires the child to visit their dentist
- Needs urgent care**- Obvious carious lesions are seen in the child's mouth. The child needs to visit their dentist immediately.

Results showed that there were **31** children in the "no obvious problems" category, **38** children in the "requires care" category, and **11** students in the "needs urgent care" category.

On April 18th, volunteers visited the school again to provide oral hygiene instructions to the same first grade classes seen for screening. Volunteers interacted with the students with the four following activities:

- Dress like a dentist**- Volunteers demonstrate brushing and flossing techniques with students while they dress up like a dentist with gowns and goggles.
- Sugar-acid Activity**- Volunteers show the effect of acid on teeth by dropping a piece of chalk in vinegar. Students were educated about the importance of drinking healthier options, like water, instead of sugary and acidic drinks.
- Marshmallow- flossing Activity**- Volunteers put sticky marshmallow fluff between their gloves while students floss out the "plaque." The objective of this game is to teach kids how to properly floss their teeth to get all the plaque out.
- Magnet Game**- Volunteers demonstrate that magnetic sugary food stick on a whiteboard tooth and cause "sugar bugs," while other foods, like fruits and vegetables don't adhere and discourage the development of cavities.

After the children completed the educational stations, they went home with a goodie bag filled with a toothbrush, toothpaste, floss and a two-minute hourglass timer so they can demonstrate what they learned at the educational stations at home.

SCREENING RESULTS

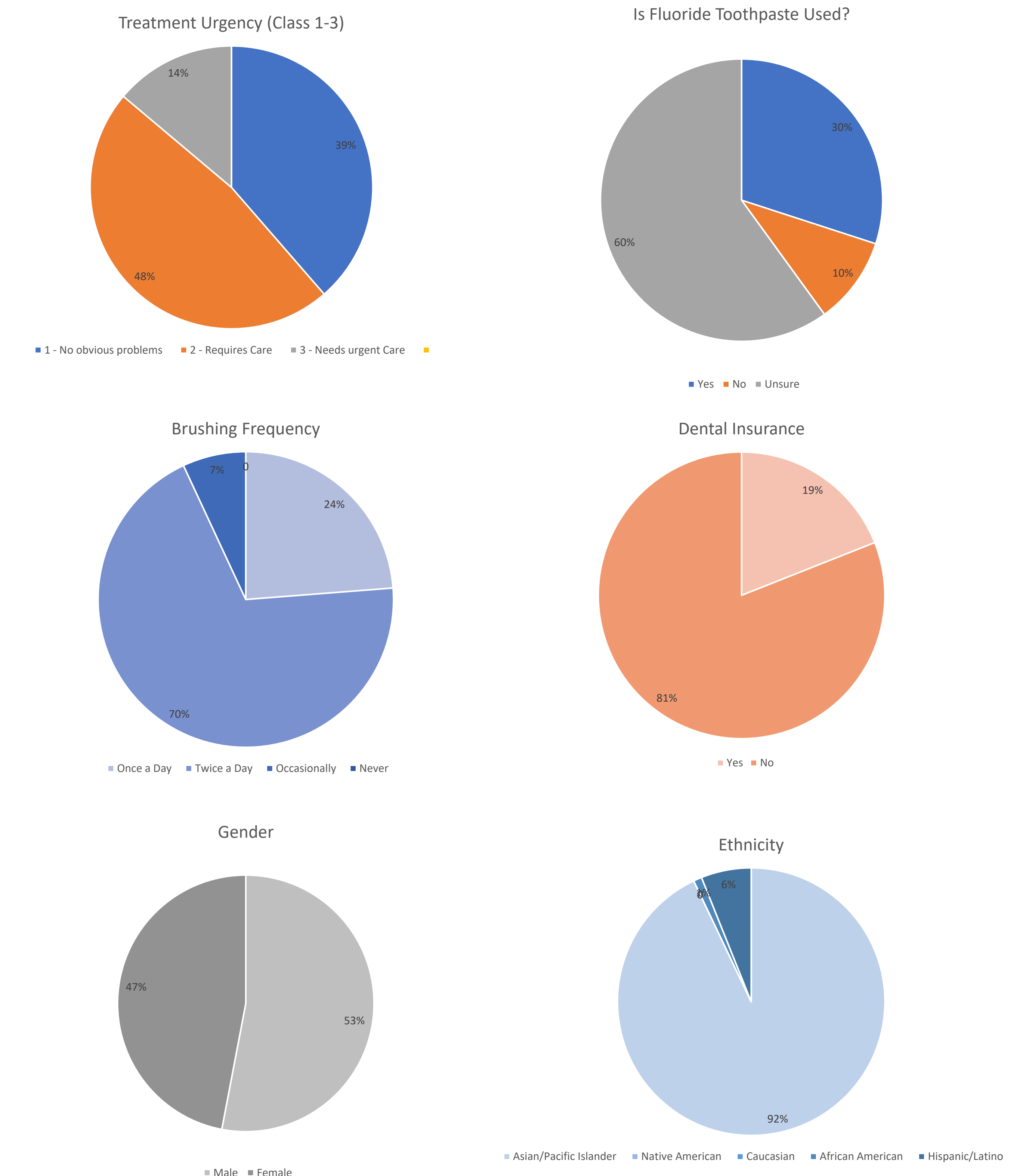


Figure 4. Participant responses regarding fluoride toothpaste use, brushing frequency, dental insurance, gender, and ethnicity. Screening results of treatment urgency (Class 1-3).

CONCLUSION

University of the Pacific Arthur A. Dugoni School of Dentistry's partnership with Gordon J Lau provides an opportunity for us to combat the high percentage of oral disease present in Chinatown. With screening and oral hygiene instructions provided by the students to first grade students, we bring awareness and acknowledgement of the importance of maintaining a healthy mouth. Additionally, our activities encourage students to have excitement toward visiting the dentist for more comprehensive and individualized care. As we continue this volunteering activity, we hope to screen more grades and expand to different elementary schools.

REFERENCES

- San Francisco Children's Oral Health Strategic Plan 2014-1017
- Surgeon General's Report on Oral Health
- U.S. Department of Health and Human Services
- SFDPH-SFUSD-SFDS Kindergarten Oral Health Screening