

The Effect of Mismatch on Dental Health: A Case Study in Madagascar



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Mandena, Madagascar

This project sought to understand how globalization and the introduction of new practices and products in Madagascar is affecting dental health in the rural village of Mandena. Data was gathered through questionnaires and dental examinations of fifty village participants.

Objectives

- Investigate the current state of dental health in Madagascar
- Explore what factors affect dental health and bite force
- Understand how globalization affects dental health

Methodology

The project examined the dental health of twenty five women and twenty five males above the age of eighteen. Each participant responded to a survey of questions about their lifestyle habits and dental practices. The researchers counted and summed the number of decayed, missing, and filled teeth (DMFT) of each participant to measure the DMFT index. In addition, the project measured the left canine bite force of each individual by having participants bite down on a pressure sensor.

EXAMINING A PARTICIPANT'S DENTAL HEALTH

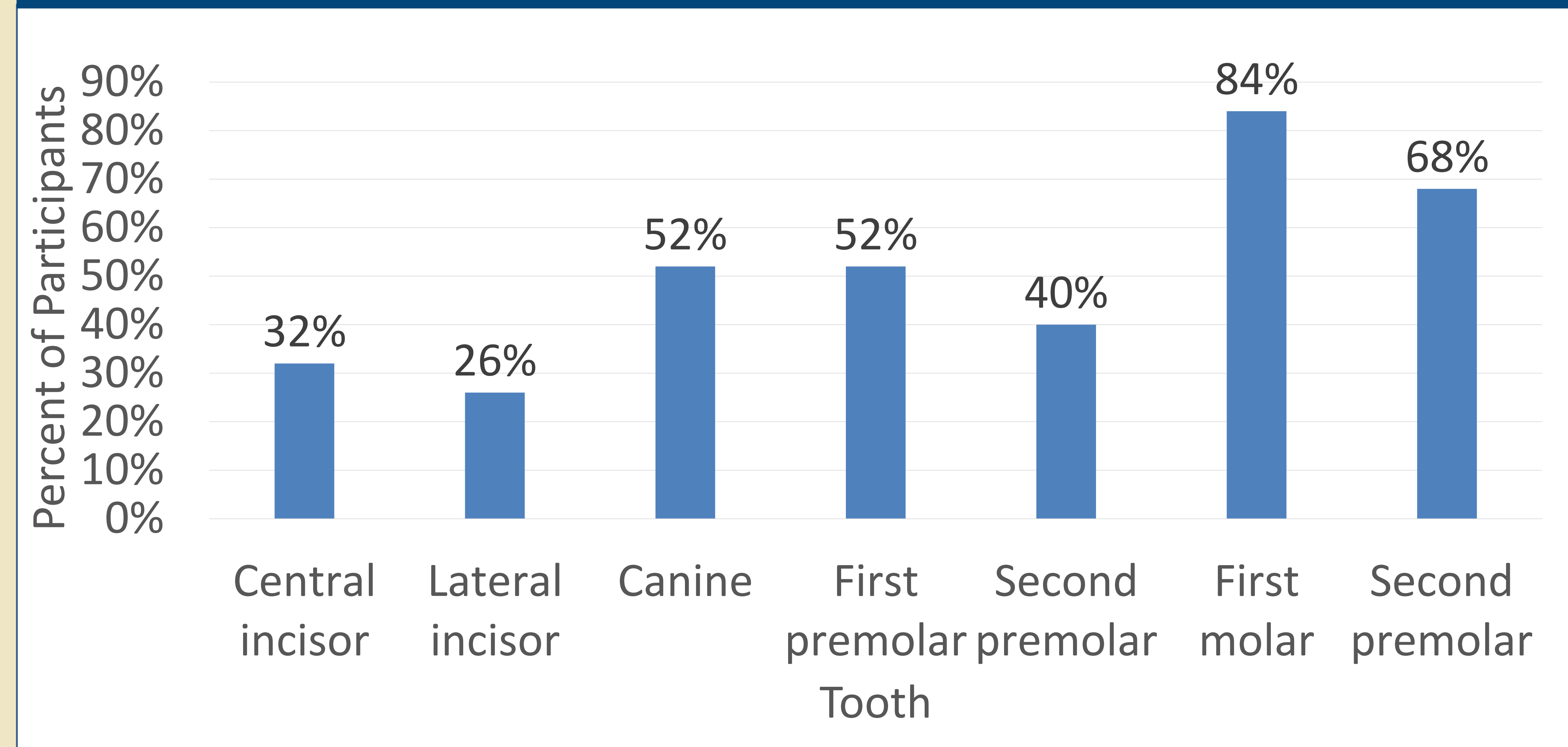


MEASURING A PARTICIPANT'S CANINE BITE FORCE

Conclusions

- Dental health in Madagascar is very poor; the average participant had a DMFT index of 16.
- Loss of molars was most common, and was correlated with consumption of soda and sweets, and chewing products.
- Canine bite force was higher than expected, but decreased exponentially with age.
- Almost all participants had brushed their teeth within the last day and owned toothbrushes and toothpaste.

FIGURE 1: PERCENT OF PARTICIPANTS MISSING ONE OR MORE TEETH FOR VARIOUS TOOTH TYPES



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