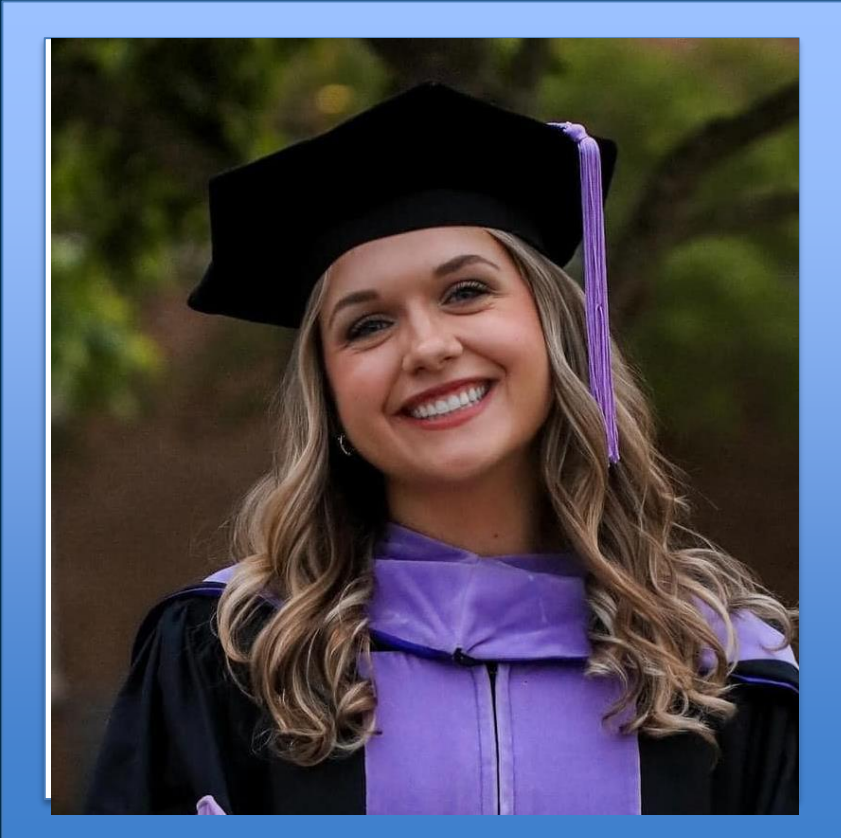




Regional Variation in Pediatric Dental Website Readability and Informativeness

Kendall Bodah, DMD; Tara Schafer, DMD, MS; Todd Schoenbaum, DDS, MS

Department of Pediatric Dentistry
Dental College of Georgia, Augusta University, Augusta, GA USA



Kendall Bodah, DMD
kbodah@augusta.edu

INTRODUCTION

Pediatric dental practice websites serve as an important source of information for caregivers seeking guidance on their child's oral health. The American Academy of Pediatric Dentistry (AAPD) emphasizes the establishment of a dental home as a foundational component of pediatric oral healthcare, ideally by age one, to promote preventive care, early risk assessment, and continuity of care.¹ Clear communication of this concept is essential for caregiver understanding and engagement. However, patient education materials should be written at or below a sixth-grade reading level to ensure accessibility for the general population.² Prior studies suggest that healthcare websites frequently exceed recommended readability levels, which may limit comprehension and utilization of care. The purpose of this study was to evaluate the readability and informativeness of pediatric dental practice websites across AAPD district societies and to assess regional variation in the communication of key oral health concepts, including the dental home.

METHODS

Data collectors were each assigned 5–6 states and evaluated 6–10 websites per state, resulting in a total sample of 232 websites. States were grouped into five regional district chapters (Northeastern, Southeastern, North Central, Southwestern, and Western) according to the American Academy of Pediatric Dentistry. Website content was analyzed for readability using the Flesch-Kincaid Grade Level (FKGL) and Flesch Reading Ease (FRE) metrics. Informativeness was assessed based on the presence or absence of key pediatric oral health topics, including the age 1 dental visit, emergency services, fluoride treatment, and the dental home concept. Descriptive statistics were calculated for all variables.

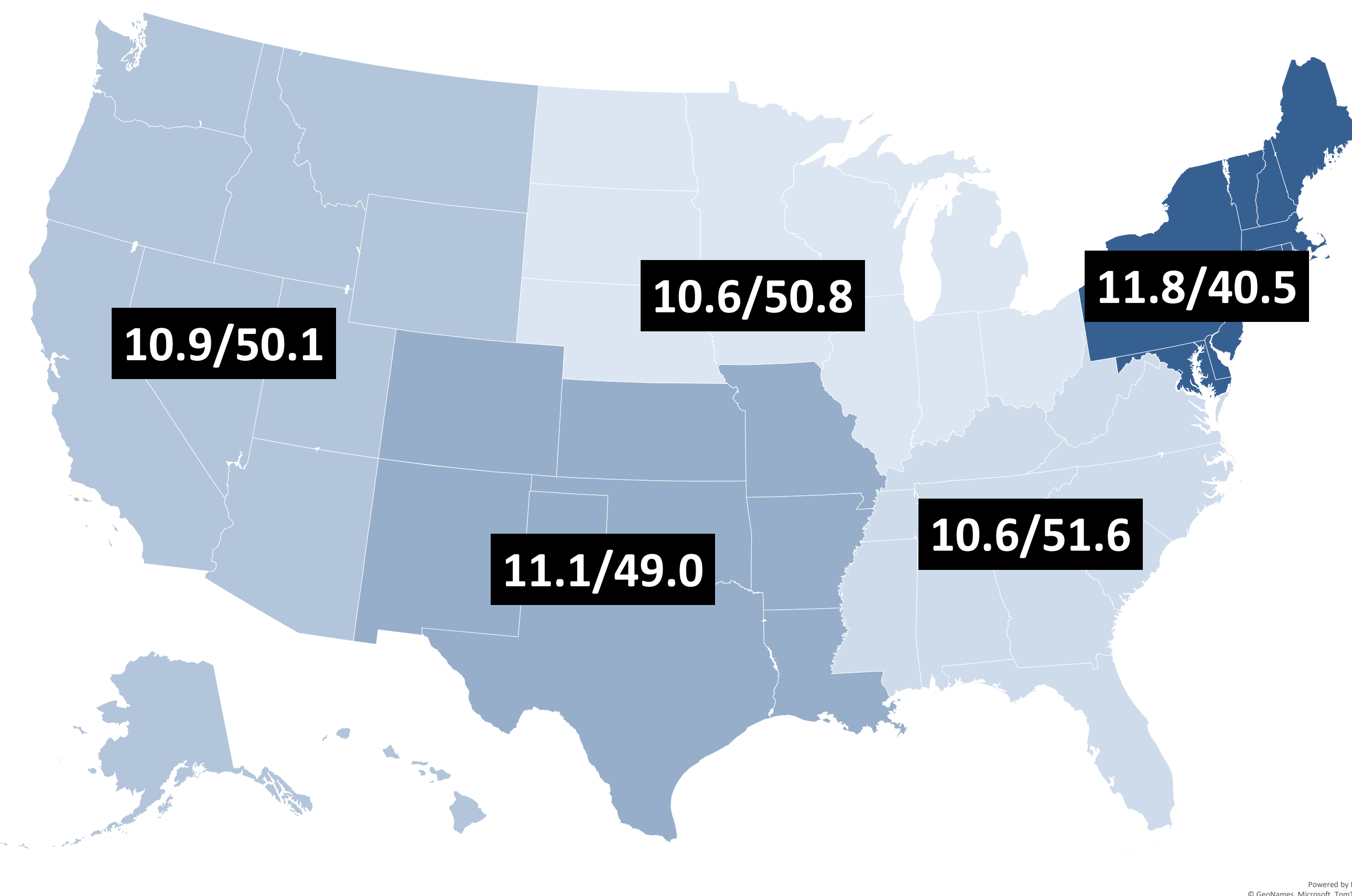
LEARNING OBJECTIVES

Upon review of this material, the observer will be able to...

1. Evaluate the readability of pediatric dental practice websites across the United States using standardized measures (Flesch–Kincaid Grade Level and Flesch Reading Ease).
2. Assess the informativeness of these websites by determining whether they include content on key pediatric oral health topics, including the age-one dental visit, emergency services, dental home, and fluoride recommendations.
3. Compare website readability and informativeness across American Academy of Pediatric Dentistry District Chapters.

RESULTS

Mean FKGL/FRE of AAPD District Chapters



Flesch Kincaid Grade Level Interpretations³

FKGL score	School Level	Age Range (US)
0-3	Kindergarten / Elementary	5-8
3-6	Elementary	8-11
6-9	Middle School	11-14
9-12	High School	14-17
12-15	College	17-20
15-18	Post-grad	20+

Flesch Reading Ease Interpretations³

FRE Score	Readability
90-100	Very easy to read (suitable for young children)
60-89	Standard readability (understandable by most teenagers and adults)
30-59	Difficult to read (better suited for college-level readers)
0-29	Very difficult (appropriate for technical or academic texts)

Informativeness Findings

Variable	Key Findings	p-value
Age 1 Dental Visit	High inclusion across all regions	p = 0.7764
Emergency Services	Consistently mentioned	p = 0.4462
Dental Home	Varied significantly between regions	p=0.0003
Fluoride Stance	Consistently pro fluoride	p = 0.2167

CONCLUSION/DISCUSSION

Based on limitations imposed by the methods of this study, the following conclusions may be made:

1. Pediatric dental practice websites demonstrated significant regional variation in readability; however, all regions exceeded the recommended sixth-grade reading level, indicating limited accessibility for many caregivers.
2. Inclusion of the age 1 dental visit and emergency services was consistent across regions, while communication of the dental home concept varied significantly, suggesting inconsistent dissemination of a key recommendation of the AAPD.
3. To improve reproducibility in future studies, standardized website selection criteria, calibration of data collectors, and use of multiple readability assessment tools are recommended to reduce variability and enhance consistency in data collection.

ACKNOWLEDGEMENTS

Thank you to all the Dental College of Georgia dental students who served as data collectors on this study: Elizabeth Angel, Sarah Brandt, Macy Capps, Max Choi, Lillian Fantz, Laura Lally, Rubani Pannu, Kathryn Rothenhofer, Liza Spratling, and Brooke Weeks.

REFERENCES

- ¹American Academy of Pediatric Dentistry. (2025). *Policy on the dental home*. https://www.aapd.org/globalassets/media/policies_guidelines/d_dental--home.pdf
- ²Eltorai, A. E., Ghanian, S., Adams, C. A., Jr, Born, C. T., & Daniels, A. H. (2014). Readability of patient education materials on the american association for surgery of trauma website. *Archives of trauma research*, 3(2), e18161. <https://doi.org/10.5812/atr.18161>
- ³Readable.com. (n.d.). *Flesch reading ease & Flesch-Kincaid grade level*. Readable. <https://readable.com/readability/flesch-reading-ease-flesch-kincaid-grade-level/>