

Introduction

Adverse childhood experiences also known as ACEs are defined as "any traumatic experience that occurs before the age of 18." The nine ACEs include: physical, emotional, or sexual abuse, domestic violence, alcohol or drug use or misuse, mental illness, or parental incarceration or separation/ divorce.¹

Developmental disabilities are a diverse group of conditions that cause physical, mental, learning or behavioral impairments. About 1 in 6 children ages 3 to 17 have one or more developmental disabilities.⁵

Previous studies show that ACEs negatively impact oral health.^{1,2,3,4} Other studies also show that having developmental disabilities negatively impact oral health.¹

The purpose of this study was to assess the differences in reported chronic difficulty with tooth decay among children 1 to 17 years with developmental disabilities (DDs) and 4 or more adverse childhood experiences (ACEs) compared to children with no DDs or ACEs.

Materials & Methods

Cross-sectional data were analyzed from 4 consecutive years of the National Survey of Children's Health (2016-2020).

In this representative survey of 168, 691 respondents, parents provided information about their children's ACEs, developmental disabilities, and demographics.

Statistical data analysis was performed using Bivariate and multivariable logistic regression analyses with significance set at p-value < 0.05 to examine the relationship between ACEs, DDs, and reported chronic difficulty with tooth decay.

Results

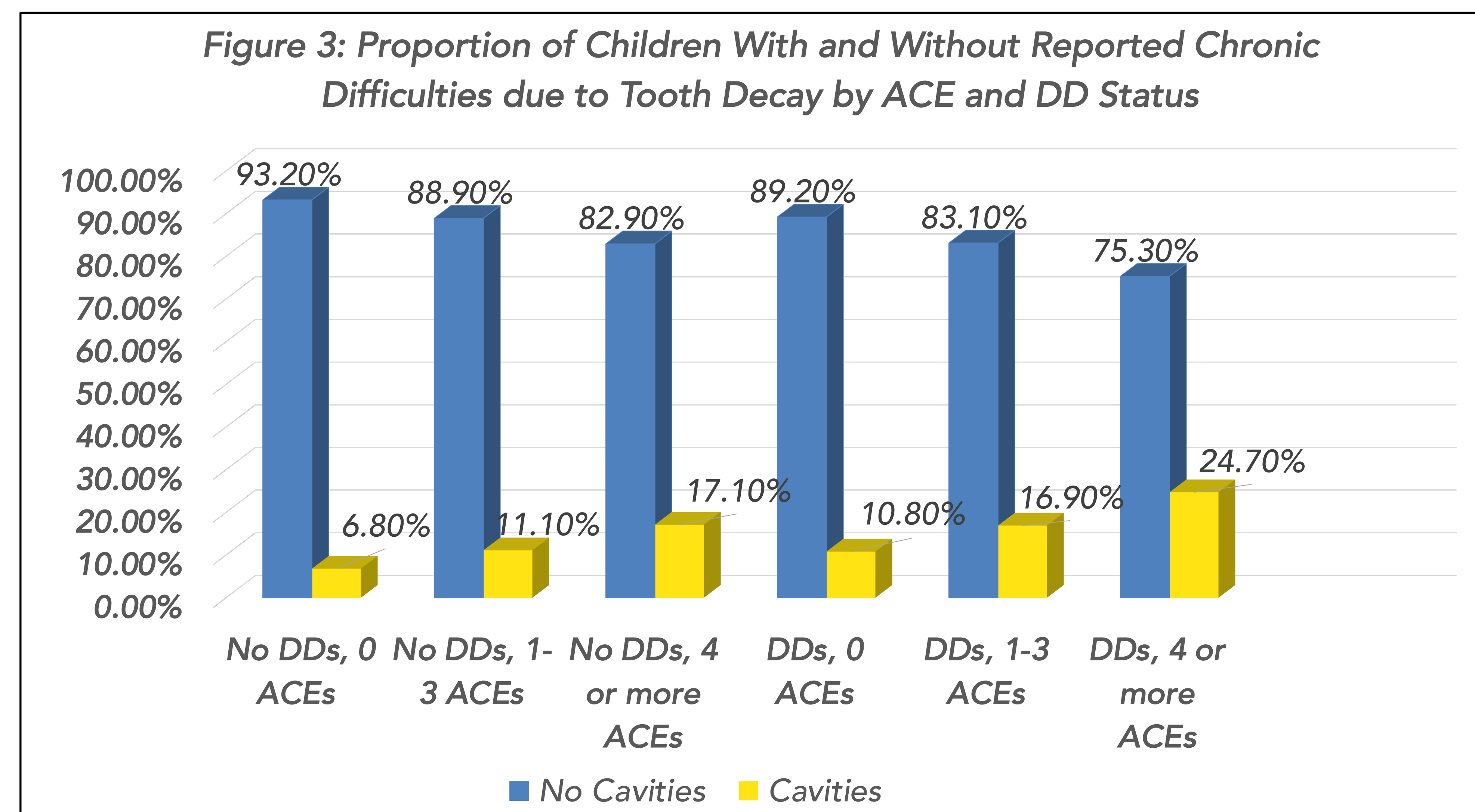
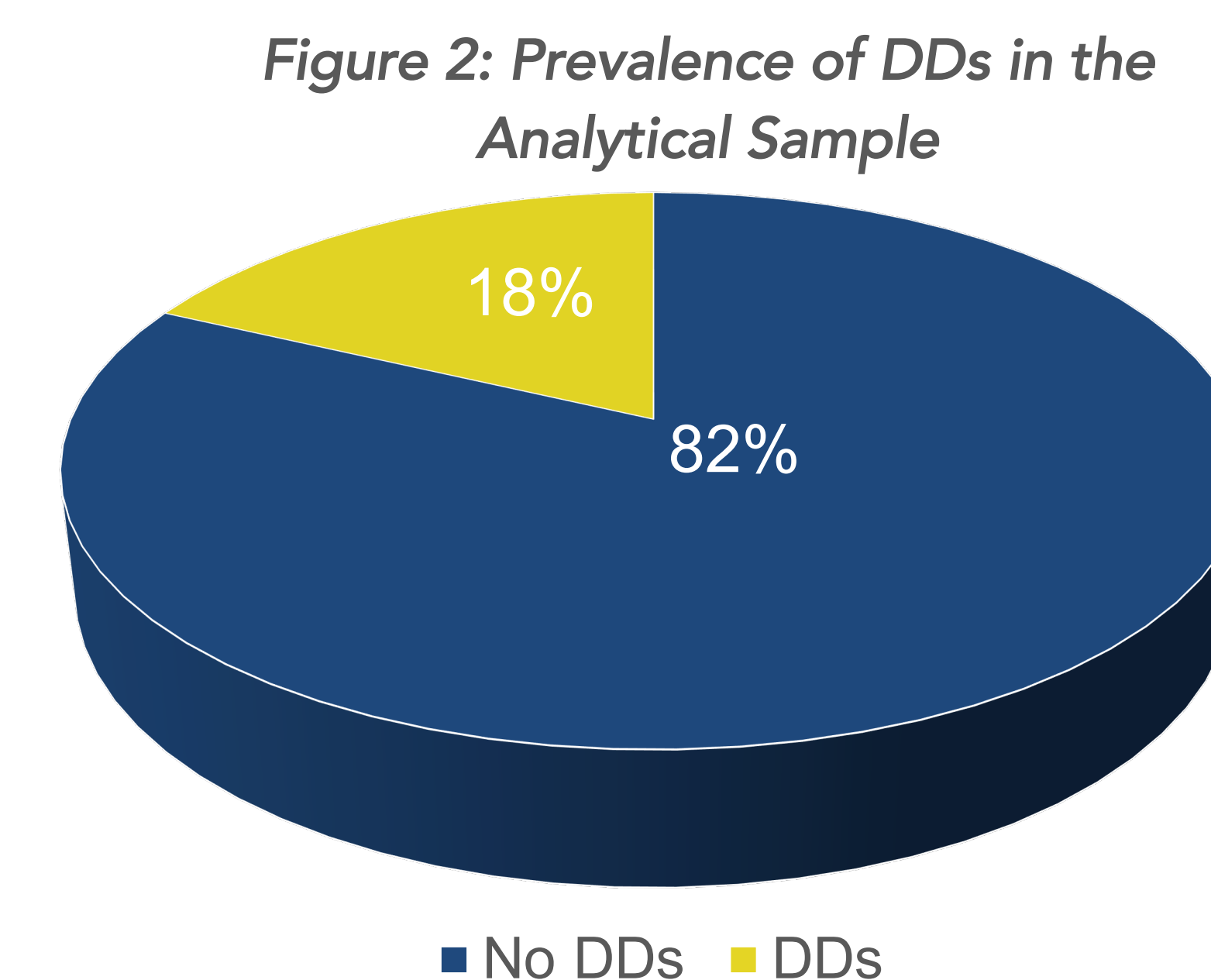
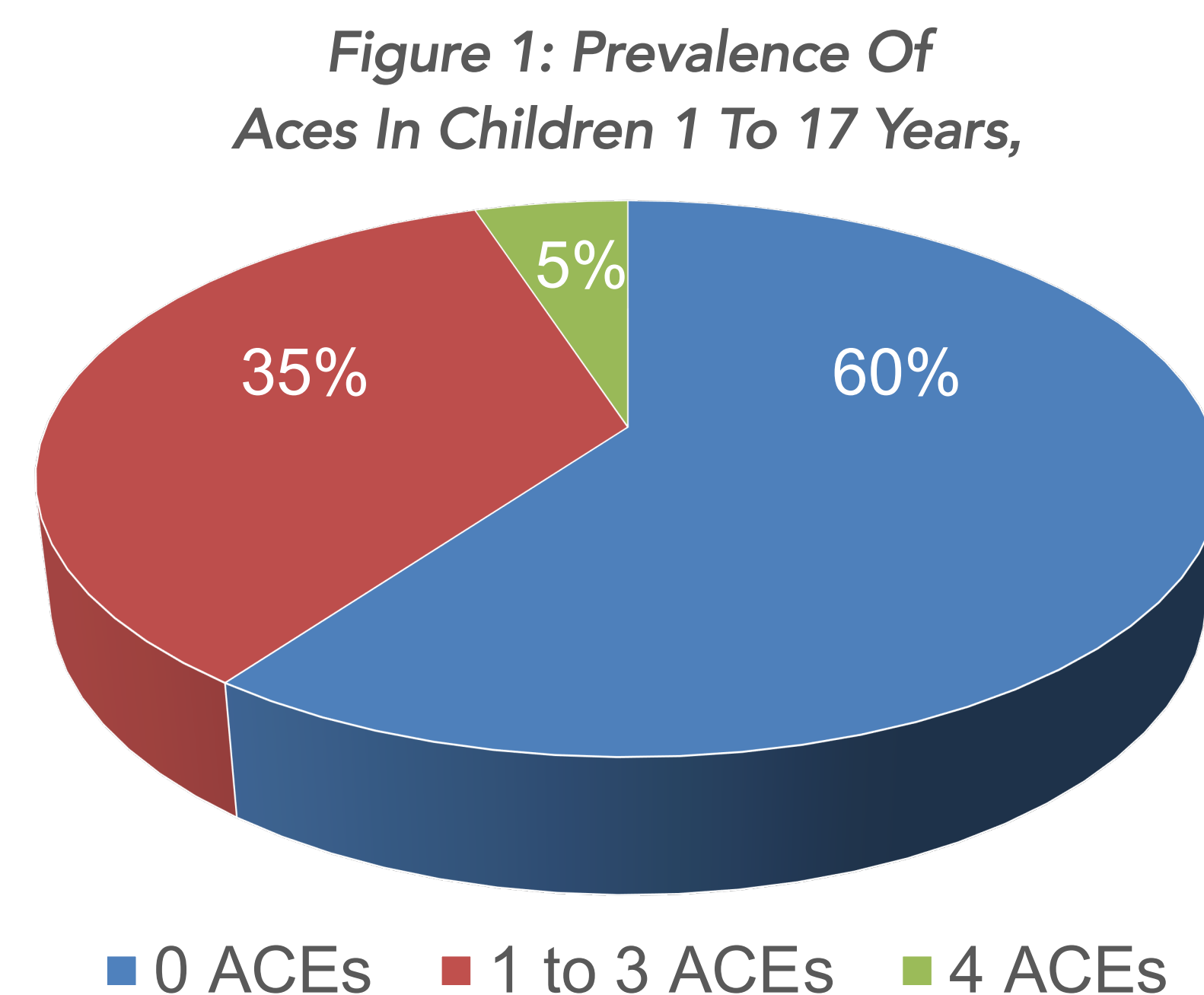


Table 1: Multivariable Logistic Regression Model Predicting the Association Between ACE And DD Status With Difficulty With Tooth Decay

	Odds Ratio	95% Confidence Interval	P> t
No DDs, 1-3 ACEs	1.51	1.35, 1.67	<0.0001
No DDs, 4 or more ACEs	2.22	1.83, 2.69	<0.0001
DDs, 0 ACEs	1.42	1.19, 1.69	<0.0001
DDs, 1-3 ACEs	2.14	1.86, 2.45	<0.0001
DDs, 4 or more ACEs	3.38	2.75, 4.16	<0.0001
No DDs, 0 ACEs	REF		

Table 1: Children with DDs and 4 or more ACEs (OR: 3.38, 95% CI: 2.75-4.16, P< .0001) and those with 1-3 ACEs and DDs (OR: 2.14, 95% CI: 1.86-2.45, P< .0001) were more likely to have experienced reported chronic difficulty due to tooth decay in the past 12 months compared to those with no DDs or ACEs.

Conclusion

-Children with one or more ACEs are significantly impacted by reported tooth decay irrespective of developmental disability status.

-However, in combination, ACEs and DDs can negatively impact one's oral health, especially reported tooth decay.

References

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