

## 2755 Prevalence of Enamel Fluorosis Among 12-19 Year-Olds, U.S., 1999-2004

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**Objective:** To describe the prevalence of enamel fluorosis among adolescents aged 12 to 15 and 16 to 19 years using data from the three most recent cycles of the National Health and Nutrition Examination Surveys (NHANES) in the U.S: 1999-2000, 2001-2002, and 2003-2004. **Methods:** NHANES is an ongoing survey of representative samples of the civilian non institutionalized U.S. population. Intraoral examinations were conducted by seven trained dentists using standardized criteria, with no examiner serving in all three cycles. Enamel fluorosis was assessed in all permanent teeth using Dean's Fluorosis Index (DFI). Data were analyzed in SAS and SUDAAN to account for the complex sample design. **Results:** Table below presents percentages (standard errors) and prevalence of fluorosis, including very mild or higher severity.

Cycle:	1999-2000		2001-2002		2003-2004		1999-2004	
Age:	12-15	16-19	12-15	16-19	12-15	16-19	12-15	16-19
Unaffected & questionable	60.63 (4.66)	66.25 (4.32)	65.95 (3.18)	70.57 (3.33)	51.58 (3.78)	55.10 (4.59)	60.12 (2.28)	64.55 (2.40)
Very Mild	26.17 (2.99)	21.16 (2.94)	24.82 (2.62)	20.63 (2.32)	34.58 (2.65)	31.96 (3.75)	27.98 (1.61)	24.10 (1.76)
Mild	8.67 (1.49)	6.98 (0.84)	6.57 (1.14)	6.47 (1.05)	10.31 (1.57)	9.67 (0.88)	8.34 (0.81)	7.58 (0.53)
Moderate & severe	4.53 (1.22)	5.61 (1.44)	2.66 (0.40)	2.33 (0.61)	3.52 (0.85)	3.27 (0.94)	3.56 (0.51)	3.78 (0.64)
Prevalence	39.37 (4.66)	33.75 (4.32)	34.05 (3.18)	29.43 (3.33)	48.42 (3.78)	44.90 (4.59)	40.60 (2.23)	36.29 (2.45)

**Conclusions:** Between 1999 and 2004, approximately 41% of adolescents aged 12 to 15 and 36% aged 16 to 19 years had enamel fluorosis. Moderate and severe fluorosis was observed in less than 4% in both age groups. Considering the little historical change in fluoride sources and practices at the age these adolescents were at risk for fluorosis, differences among data cycles suggest inter-examiner variability.

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