

AR Smiles: Arkansas Oral Health Screening, 2010

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Methodology

The sampling frame consisted of a list of the 503 public schools with a third grade class obtained from the Department of Education. A few school districts were covered more than one county. These were assigned to a single county, alternating between the counties.

Since funds were available to survey approximately 125 schools, with at least one participating school in each of the 75 counties, the remaining sample of 50 schools was allocated among counties in proportion to the number of schools in a county in excess of one.

Once a sample size for each county had been computed, the SAS program, PROC SURVEYSELECT selected a simple random sample stratified by county. During analysis, the sample schools were weighted by the inverse of the probability of selection so that the sample represents all schools in the county when compiling state or regional statistics.

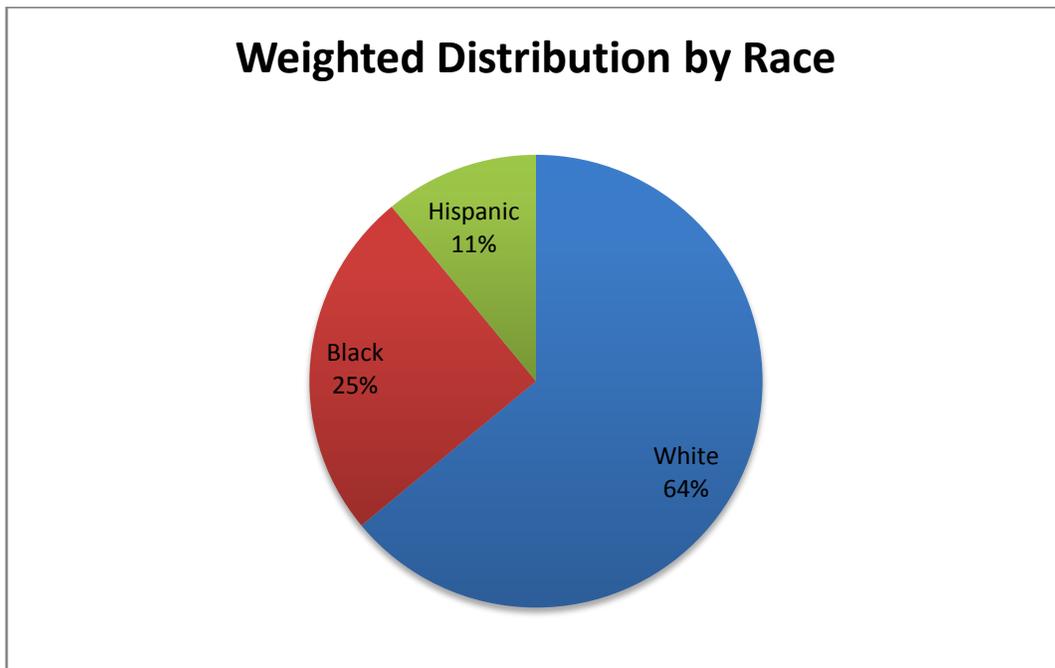
Ten Arkansas licensed registered dental hygienists were placed under contract to conduct the in-school screenings. The dental hygienists were trained by licensed staff of the Office of Oral Health using the ASTDD Basic Screening Survey tools.

Results

Participant Demographics

A total of 4,239 3rd graders participated in the 2010 Arkansas oral health screenings. Schools from each of Arkansas' 75 counties were included. The data were weighted to accurately represent the student population in each school.

- Of those who participated, 50% were female and 50% were male.
- There was little age variation. Among the 3rd graders screened, 42% were 8 years of age, 52% were 9 years of age, and 6% were 10 years of age.
- Among race and ethnic backgrounds reported, 64% were white, 25% were black, and 11% were Hispanic.



2010 Unweighted Oral Health Screening County Participation Map

This map represents the number of 3rd grade students who participated in the screening from each of Arkansas' counties.



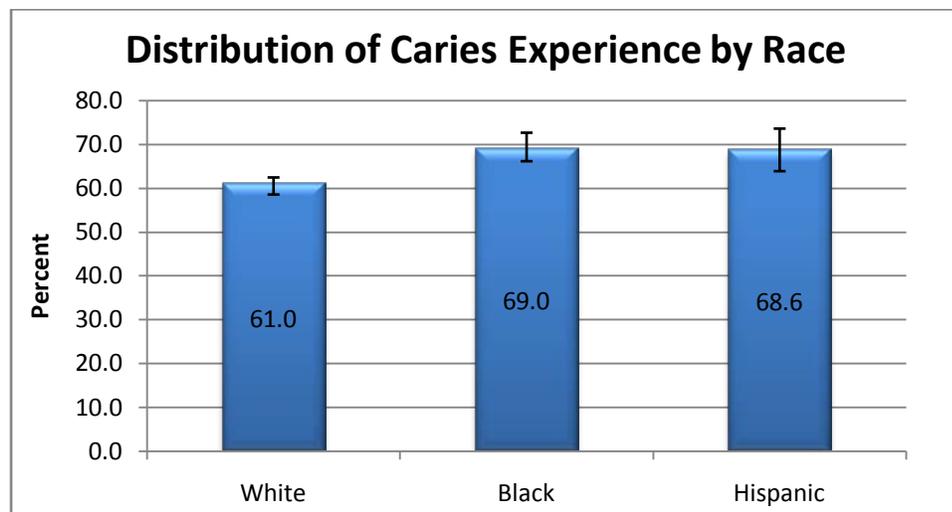
Caries Experience

Evidence of current or previous dental caries, or current decay or any filings or missing teeth due to decay.

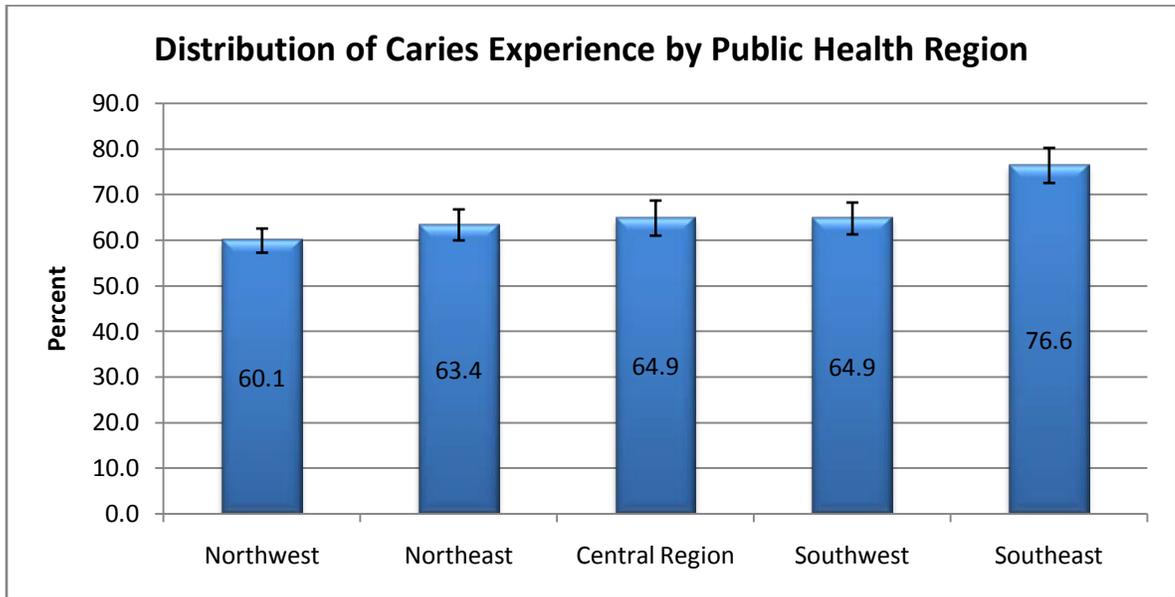
- 64% of screened 3rd graders in Arkansas had evidence of previous or current dental caries in 2010. In 2003, 67% of 3rd graders screened had evidence of caries experience. The 2010 target for the U.S. is 42%.

	AR Screening 2003, unweighted? ¹ (N= 7,138)	AR Screening 2010, weighted (N =4,239)	U.S. Target 2010 ²
Caries Experience	67%	64%	42%

- Among the participants screened in 2010, there was no significant difference in the distribution of dental caries by race. The weighted proportion of 3rd graders with evidence of dental caries was 61% among whites, 69% among blacks, and 68.6% among Hispanics.



- The weighted proportion of Arkansas 3rd grade students in the Southeast public health region were more likely to have evidence of current or previous dental caries than students in any other region.



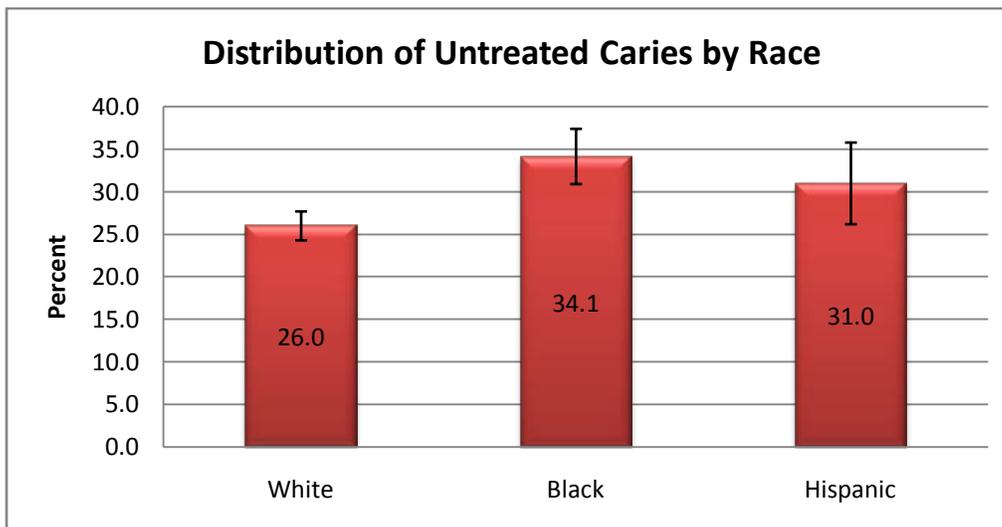
Untreated Caries

The presence or absence of untreated caries, or dental caries present in the primary or permanent teeth.

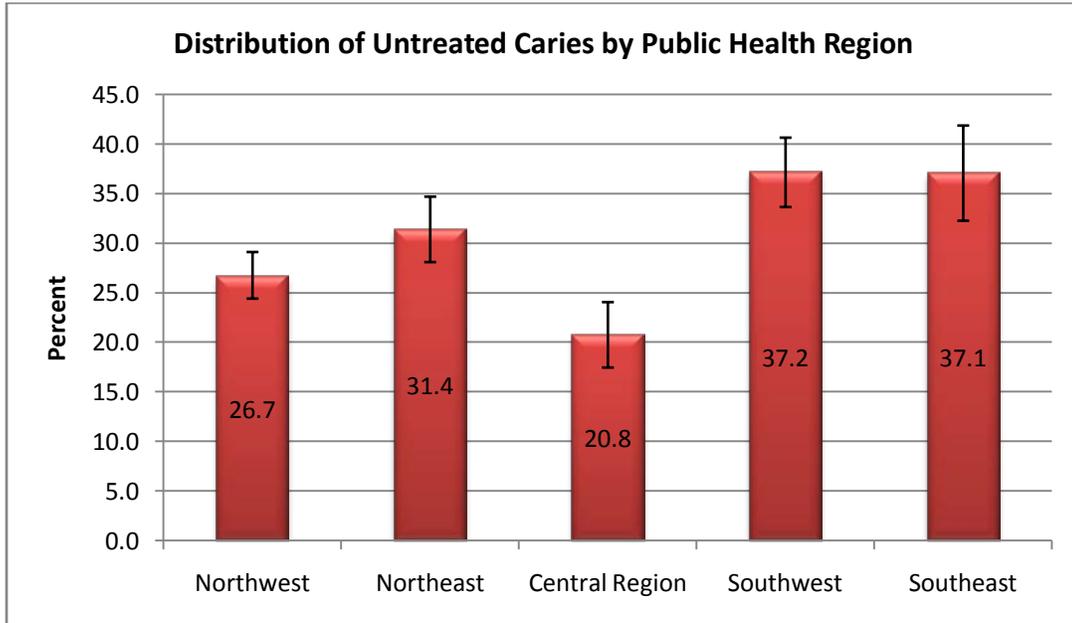
- 29% of screened Arkansas 3rd graders had untreated dental caries in 2010. In 2003, 31% of screened students had untreated caries. The 2010 target for the U.S. is 21%.

	AR Screening 2003, unweighted (N= 7,138)	AR Screening 2010, weighted (N =4,239)	U.S. Target 2010
Untreated Caries	31%	29%	21%

- There was a difference in students with untreated caries by race. Arkansas black 3rd graders were more likely than their white counterparts to have untreated caries, (34.1% and 26.0%, respectively). There was no difference in untreated caries found between Hispanics and the other race groups.



- There was also a difference in students with untreated caries by public health region. The weighted proportion of Arkansas 3rd graders in the Southwest and Southeast regions were more likely than students in the Central, Northeast, and Northwest region to have untreated caries. Students in the Central region were less likely to have untreated caries than any other regions.



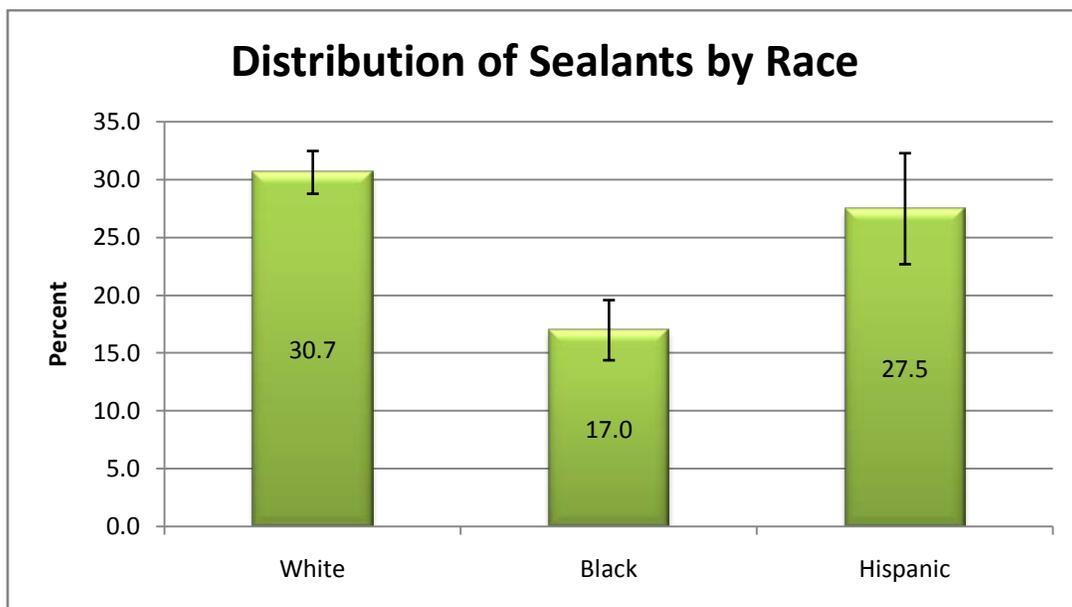
Dental Sealants

The presence or absence of dental sealants on one or more tooth surfaces.

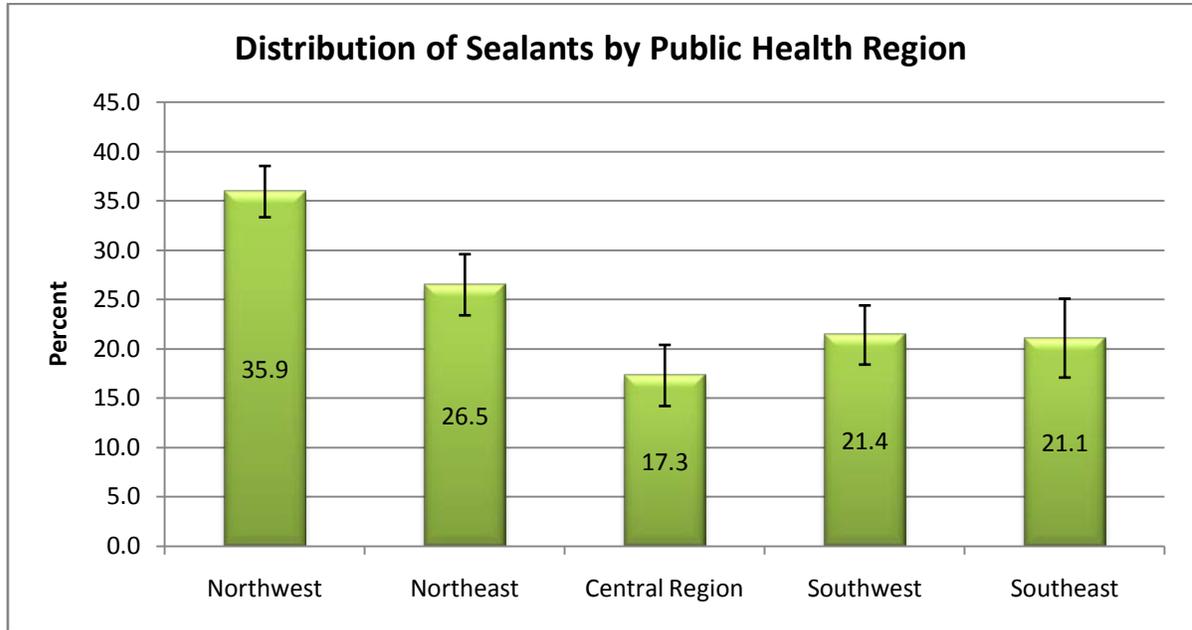
- 27% of Arkansas 3rd graders screened in 2010 had dental sealants on one or more tooth surfaces. In 1999, 23% of students screened had sealants, and in 2003, only 15% of students screened had evidence of sealants. The 2010 target in the U.S. is 50%.

	AR Screening 1999, unweighted (N=275) ³	AR Screening 2003, unweighted (N= 7,138)	AR Screening 2010, weighted (N =4,239)	U.S. Target 2010 ²
Dental Sealants	23%	15%	27%	50%

- There was a difference in sealant prevalence by race. Black Arkansas 3rd graders were less likely to have dental sealants on their teeth than white and Hispanic 3rd graders, (17.0% versus 30.7% and 27.5%, respectively).



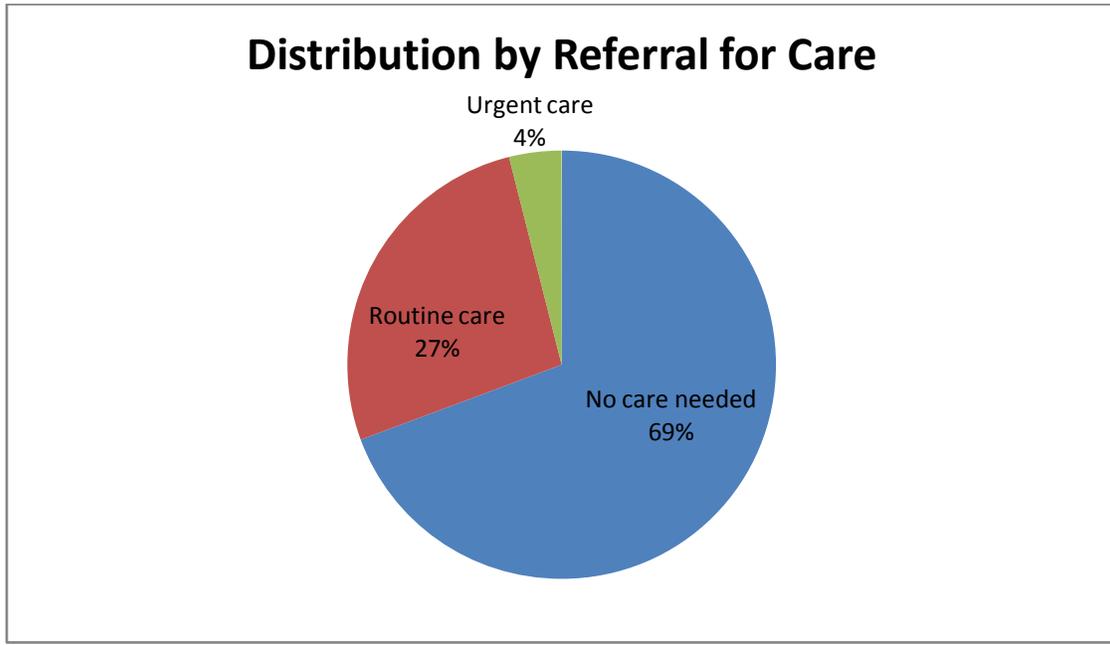
- The weighted proportion of Arkansas 3rd graders in the Central, Southwest, and Southeast regions were less likely to have sealants on one or more molars than those in the Northeast and Northwest regions. Furthermore, student participants in the Northwest public health region were more likely to have dental sealants than students in any other region in the state.



Referral for Care

Routine or urgent care recommended by dental health care provider.

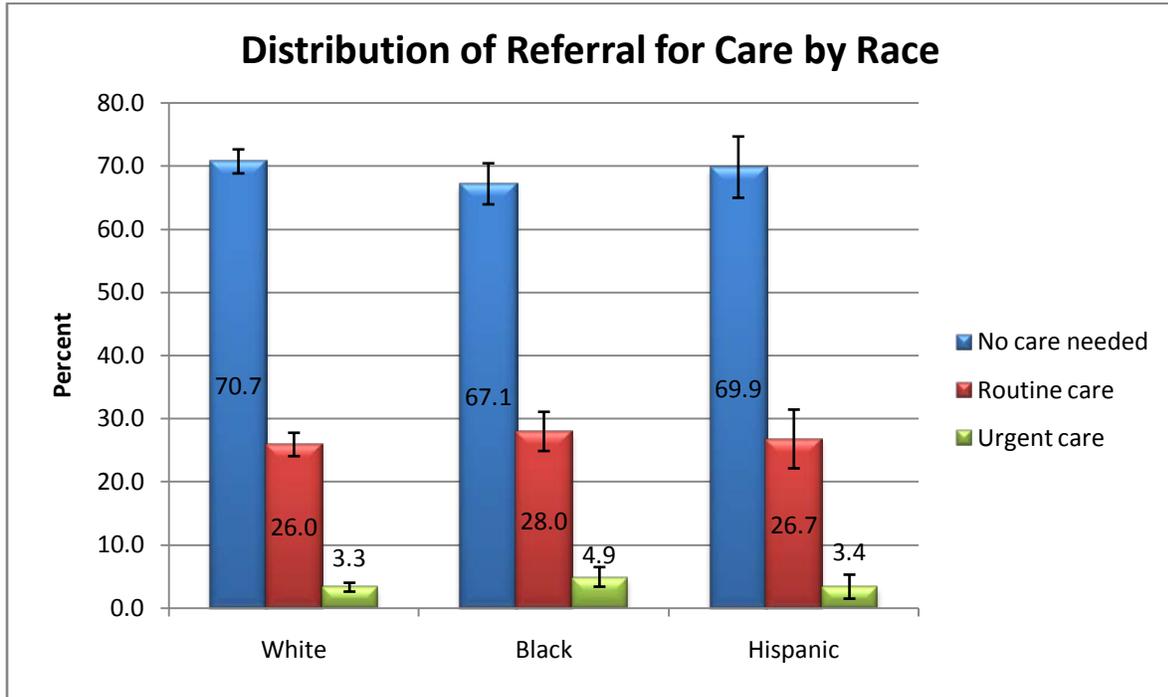
- Of those screened 3rd graders in 2010, 27% were referred for routine dental care and 4% were referred for urgent care.



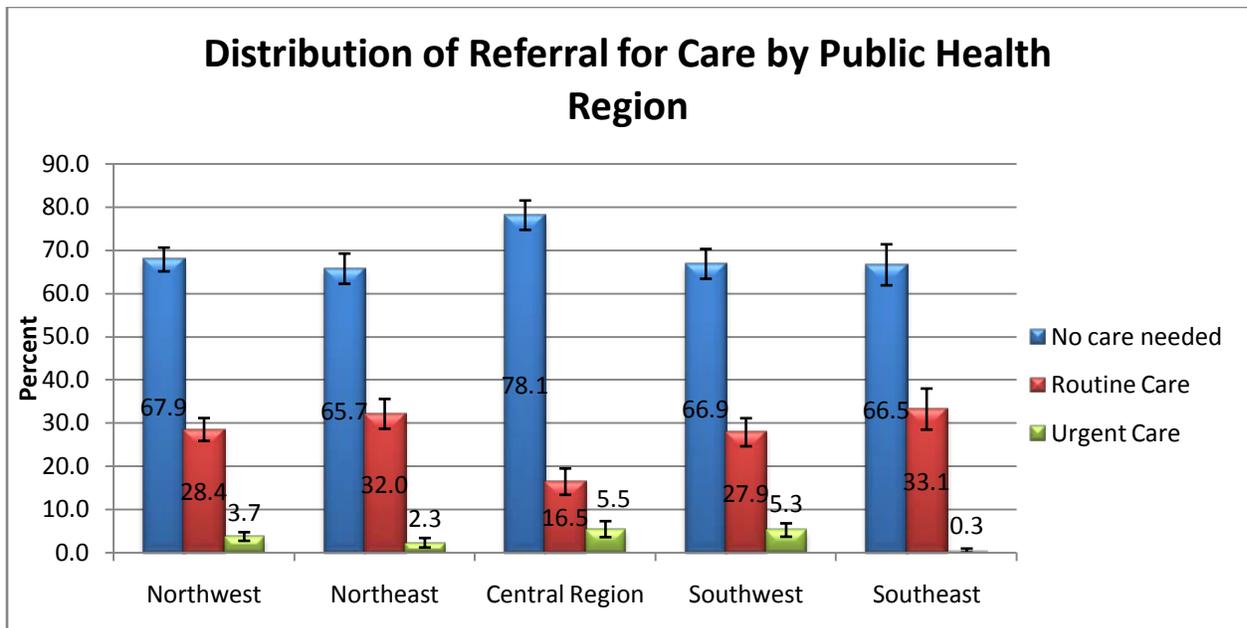
- 31% of screened Arkansas 3rd graders were referred for routine or urgent dental care. In 2003, 27% of students were referred for additional routine or urgent treatment. In 1999, 52% of the students screened were referred for further care.

	AR Screening 1999, unweighted (N=275)	AR Screening 2003, unweighted (N= 7,138)	AR Screening 2010, weighted (N =4,239)
Referred for routine or urgent dental care	52%	27%	31%

- There was no significant difference in the types of oral health referrals by race.



- Arkansas 3rd graders in the Central region were less likely to be referred for routine oral health care than any other region, and more likely referred for urgent care than the Southeast, Northeast, and Northwest regions. The Southeast region was less likely to be referred for urgent care than any other region.



REFERENCES

1. Arkansas Department of Health: Office of Oral Health. Oral health screening, Arkansas, 2003. December, 2004.
2. U.S. Department of Health and Human Services. (2000). Healthy People 2010. 21 oral health. Available at: <http://www.healthypeople.gov/Document/HTML/Volume2/21Oral.htm>. Accessed 6/15/2010, 2010.
3. Arkansas Department of Health, Maternal and Child Health Section & Office of Oral Health. Arkansas oral health sealant study: Findings and conclusions. Summer 1999.