

STATUS OF DENTAL HEALTH IN BLACK AND WHITE AMERICANS

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The status of dental health in the American population has significantly improved during the past 15 years. The prevalence of dental diseases is similar in children when racial comparisons are made. However, the dental treatment needs are greater and much more severe in both black adults and black children. The most recent national dental survey included employed adults only. Therefore, true differences between races may be even more marked when jobless adults are included. This omission is especially significant for blacks, where unemployment rates are twice those of whites, and this subgroup has not been included in the most recent national survey.

Three national surveys have provided the database from which information can be drawn regarding the status of oral health of Americans: The Health and Nutrition Examination Survey (HANES), 1971 to 1974;¹ the National Caries Prevalence Survey, 1979 to 1980;^{2,3} and the National Survey of Oral Health in US Employed Adults and Seniors, 1985 to 1986.⁴ Blacks have been included in these surveys, but have not been studied as a subgroup. Blacks comprise 11.7 percent of the US popula-

tion and are the largest minority group in America.

This discussion will focus on prevalence and dental treatment needs in black adults and children as compared with prevalence and treatment needs in the white population.

DENTAL HEALTH TRENDS

The oral health status of Americans has, in general, improved significantly during the past 15 years, primarily because of effective fluoridation of drinking water and because of increased public awareness of oral health preventive procedures. The 1980 caries survey found 62.8 percent of children aged 5 to 17 years had no dental treatment needs. Approximately 18 million children, however,

still possess a need for dental restorative treatment at an estimated cost of \$1.8 billion—a figure that does not include gingival or orthodontic treatment needs.³

Similarly, the oral health status of employed adult Americans has improved. The adult survey⁴ showed that only 4 percent of working Americans were edentulous (toothless) and 37 percent of adults aged 18 to 64 years still had all of their teeth.⁴ Only 58 percent of the adult population goes to the dentist not for emergency care, but for regular checkups or to have their teeth cleaned. In the general population over 65 years of age, toothlessness and periodontal disease are prevalent, and root caries were present in 63 percent of patients in this age group (Table 1). Seventy-seven percent of adults aged 18 to 64 had periodontal attachment loss, and 24 percent were found to have severe periodontal disease (4 mm or more pocket depth). In the 1974 HANES survey,¹ treatment needs related to gingival and periodontal disease exceeded the needs for decay treatment, bridges, and partial dentures.

COMPARISONS IN THE ADULT POPULATION

The disparity between treatment needs in black and white Americans

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TABLE 1. ORAL HEALTH STATUS OF US ADULTS AND SENIORS, 1985-1986

Condition	Percent	
	Adults (18 to 64 years)	Seniors (65 years and older)
Still had all teeth	37	2
Toothless	4	42
Coronal caries (DFS)	23	20
Root caries	21	63
Calculus (tartar)	84	89
Gingival bleeding	44	47
Periodontal attachment loss	77	95
Severe periodontal attachment loss	24	68

Data from Oral Health of United States Adults.⁴

TABLE 2. DENTAL TREATMENT NEEDS—USA, 1971-1973

Specific Dental Treatment Needed	Percent (both sexes, all ages)	
	White	Black
General (at least one of the following)	62.3	77.9
Removal of debris and calculus	34.4	52.9
Gingivitis treatment	15.7	27.9
Periodontal disease treatment	9.1	16.1
Severe malocclusion treatment	2.1	1.6
Decay treatment (permanent teeth)	34.6	54.2
Extraction due to periodontal disease	2.3	5.5
Extraction due to other reasons	2.7	5.3
Fixed bridge and/or partial denture	15.3	21.3
Decay treatment (primary teeth)	6.3	8.9
Total number of persons*	169,561	22,414

* Population in thousands

Data from Health and Nutrition Examination Survey, 1974.

TABLE 3. PERCENT COMPONENTS OF DECAYED (D) AND FILLED (F) TEETH (T) FOR EMPLOYED ADULTS (aged 18 to 64 years), BY RACE

Adults	DT (%)	FT (%)
All	8.1	91.9
White	6.8	93.2
Black	22.1	77.9

Data from Oral Health of United States Adults.⁴

TABLE 4. MAIN REASON GIVEN BY EMPLOYED PERSONS FOR LAST VISIT FOR DENTAL CARE

Reason Given	Adults and Seniors		
	All	White	Black
No visit	.9	.7	1.4
Regular checkup	41.0	44.0	19.0
Teeth cleaned	17.0	16.0	21.0
Teeth filled/broken tooth	13.0	13.0	14.0
Extraction or other surgery	11.0	9.0	26.0
Toothache	3.0	3.0	4.0

Data from Oral Health of United States Adults.⁴

was significant in the 1974 data, where 77.9 percent of blacks as compared with 62.3 percent of whites (all ages and both sexes) required dental treatment (Table 2).

Three major differences in black and white comparisons were found in the 1985 survey: (1) percent components of decayed and filled teeth; (2) reasons for going to the dentist; and (3) perceived need for dental treatment.

Percent components are presented in Table 3. The percentage of persons with filled teeth in the white population (93.2) is significantly higher than that for blacks (77.9). Likewise, the percentage of persons with decayed teeth in blacks was 22.1 percent as compared with 6.8 percent in whites. Even in the working groups, treatment needs in blacks exceed those of white Americans.

Prevention in the form of regular checkups and cleaning occurs in 58 percent of the population (Table 4). Preventive visits in blacks constitute 40 percent whereas these same visits in whites constitute 60 percent of the dental visits. A surprisingly high percentage of blacks go to the dentist for extractions and other surgery. Twenty-six percent of dental visits by black and 9 percent by whites were related to extractions or other surgery. This figure may represent severity of

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TABLE 5. PERCENT OF EMPLOYED PERSONS WHO FEEL THEY NEED TREATMENT

Adults and Seniors	Yes	No	Unknown
All	50.4	48.8	0.8
White	48.4	51.2	0.4
Black	70.3	29.0	0.7

Data from Oral Health of United States Adults.⁴

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disease because of delayed treatment, postponed treatment, lack of funding, or lack of availability of treatment.

The percentage of employed persons who feel they need treatment was significantly higher in the blacks surveyed (Table 5). Seventy percent of blacks vs 48 percent of whites expressed a need for dental treatment. This difference in perceived needs may be cultural, behavioral, or functional. It merits further study, especially since the perceived need may have an impact on demand for dental services in the future.

Insurance coverage in the adult survey was similar for employed blacks and whites (58.0 for whites and 59.4 for blacks). However, income

and education levels differed for blacks and whites in both the adult and senior (aged 65 to 80 years and older) age groups. Ten percent of employed blacks vs 5 percent of whites earned incomes between \$2,500 and \$7,500 per year. Seventy-five percent of black seniors were in this low income bracket as contrasted to 40 percent of the white seniors. Five percent of blacks vs 2.99 percent of whites had fewer than eight years of education. The percentage of whites in the adult group with 16 or more years of education was more than double that of blacks (22.1 vs 10.8 percent). Forty-five percent of black seniors had fewer than eight years of education vs 17.5 percent of whites.

Income and education continue to be significant correlates in dental treatment comparisons between blacks and whites.

TABLE 6. MEAN DECAYED/MISSING/FILLED SURFACES IN CHILDREN FROM TWO NATIONAL SURVEYS

Children (Ages 5 to 17 years)	Whites		Blacks and All Others	
	NCHS	NIDR	NCHS	NIDR
	1971-1974	1979-1980	1971-1974	1979-1980
All	7.0	4.9	7.1	4.2

Data from Health and Nutrition Examination Survey (HANES),¹ and the National Dental Caries Prevalence Survey.³

NCHS—National Center for Health Statistics; NIDR—National Institute of Dental Research

COMPARISONS IN THE CHILD POPULATION

The prevalence of dental disease in black and white children aged 5 to 17 years was similar in both major surveys, in 1974 and 1980 (Table 6). The mean for decayed/missing/filled (DMF) surfaces in both black and white children was significantly reduced in the 1979-1980 survey when compared with the 1971-1974 survey. It is interesting to note that the means for black and white DMFs were not significantly different—4.9 vs 4.2.

The restorative treatment needs in children, however, showed notable differences when racial comparisons were made in 1980 (Table 7). The treatment needs for black children were significantly higher for all treatment categories. (Racial comparisons for gingival and orthodontic treatment needs, however, were not reported in the survey.) It is clear that dental treatment needs in black children represent a special area of focus

TABLE 7. DENTAL RESTORATIVE TREATMENT NEEDS PER 100 CHILDREN ACCORDING TO RACE

	Total	Whites	Blacks
Primary dentition (ages 5-9 years)			
Restorations	124.4	115.9	167.3
Extractions	11.9	11.5	14.0
Crowns	7.7	7.0	10.8
Permanent dentition (ages 5-17 years)			
Restorations	70.8	63.7	107.6*
Extractions	2.4	1.6	6.6
Replacements	4.3	3.0	10.7
Crowns	2.8	2.1	6.3
Pulpal treatment	2.1	1.4	5.2

Data from The National Dental Caries Prevalence Survey, 1979-80.³

* This number and the numbers that follow in this column apply to blacks (80%) and others.

for health planning since significant regional differences also were reported in the survey.

Literature Cited

1. Health and Nutrition Examination Survey (HANES). National Center for Health Statistics, 1971-74.

2. The Prevalence of Dental Caries in United States School Children, 1979-80. US Department of Health and Human Services, Public Health Service, National Institutes of Health, NIH publication No. 83-2245, December 1981.

3. Dental Treatment Needs of United States Children, 1979-80. The National Dental Caries Prevalence Survey. US Department of Health and Human Services, Public Health

Service, National Institutes of Health, NIH publication No. 83-2246, December 1982.

4. Oral Health of United States Adults. The National Survey of Oral Health in US Employed Adults and Seniors, 1985-86. US Department of Health and Human Services, Public Health Service, National Institutes of Health, NIH publication No. 87-2868, August 1987.

Calendar

Managing Clinical Problems in the Elderly

Date: December 14-16, 1988
Site: NYU Medical Center, New York City
CME: 19.5 Category I credit hours-AMA
Fee: TBA
Description: This program is specifically designed to assist primary care physicians in providing optimal care for older patients. The course format includes lectures and workshops in which there is ample opportunity to have one-on-one interactions with faculty. Upon completion of the course, the registrant should have acquired clinical knowledge useful in the office, hospital, or nursing-home setting. Emphasis will be placed on distinguishing the inevitable changes of aging from medical conditions requiring therapeutic intervention. Participants are encouraged to bring in cases from their own practice for discussion

Contact: NYU Medical Center Post-Graduate Medical School
 550 First Avenue
 New York, NY 10016
 (212)340-5295/24 hr. service

Emory University School of Medicine Postgraduate Course Announcement

Title: New Horizons in Anesthesia
Date: February 11-18, 1989
Location: Copper Mountain, Colorado
Tuition: \$450.00
Credit: 25 Category I AMA Credit Hours
Sponsorship: Emory University School of Medicine, Department of Anesthesiology

Special Feature: Registrants will have the opportunity to present free papers during the conference.
Contact: Continuing Medical Education
 Emory University School of Medicine
 1440 Clifton Rd, NE
 Atlanta, GA 30322
 (404)727-5695

Fourth International Interdisciplinary Conference on Hypertension in Blacks

Sponsored by: International Society on Hypertension in Blacks
Date: June 28-July 2, 1989
Location: Kenyatta International Conference Center, Nairobi, Kenya

Hosts: Kenya Cardiac Society, Kenya Medical Association, Kenya Medical Research Institute, and Pan African Society of Cardiology

Call for abstracts on: Basic Science, Clinical, and Community Research in hypertension in blacks. Awards will be presented for Distinguished Research, Outstanding Community Service, and Outstanding Health Professional Student in hypertension in blacks. Deadline for submission of abstracts and nominations for awards post-marked by December 1, 1988.

Contact: Ms. Cecile Cate, Executive Director
 International Society on Hypertension in Blacks
 69 Butler Street, SE
 Atlanta, GA 30303
 (404)589-3810