

Oral Health Risk Factors and Overall Dental Treatment Needs for Incoming Air Force Recruits, Air Force Recruit Oral Health Study 2018



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Background:

- Air Force recruits' oral health unchanged over the last 30 years
- represents large, unknown pool of dental treatment needs of basic military training graduates.
- Prior recruit oral health survey studies have not explored known oral health risk factors associations with dental treatment needs
- represents a large gap knowledge gap that impacts unit readiness

Methodology:

- Air Force Recruit Oral Health Survey (ROHS) on BMT recruits—Feb 2018-Jan 2019, n = 1330
- *Outcome variables:* Total dental treatment needs (excluding routine prophylaxis)
- *Predictor variables:* Age, gender, race, education level, dental insurance coverage, home state, service component (i.e. AF Reserves), self-reported oral health, dental treatment need urgency, utilization of dental care, oral hygiene, tobacco product use, and sugar intake (by serving)
- Negative binomial modeling with normalized weights

Results:

- Overall median dental treatment needs: 7 (IQR: 4-11)
- “Poor” self-reported oral health the highest median treatment needs: 13 (IQR 8.5-20) “Excellent” lowest: 5 (IQR 2-7)
- Final adjusted model showed lack of insurance coverage, worse self-reported oral health, lack of dental care utilization, tobacco product use, and sugar intake associated with higher rates of treatment needs

Conclusion:

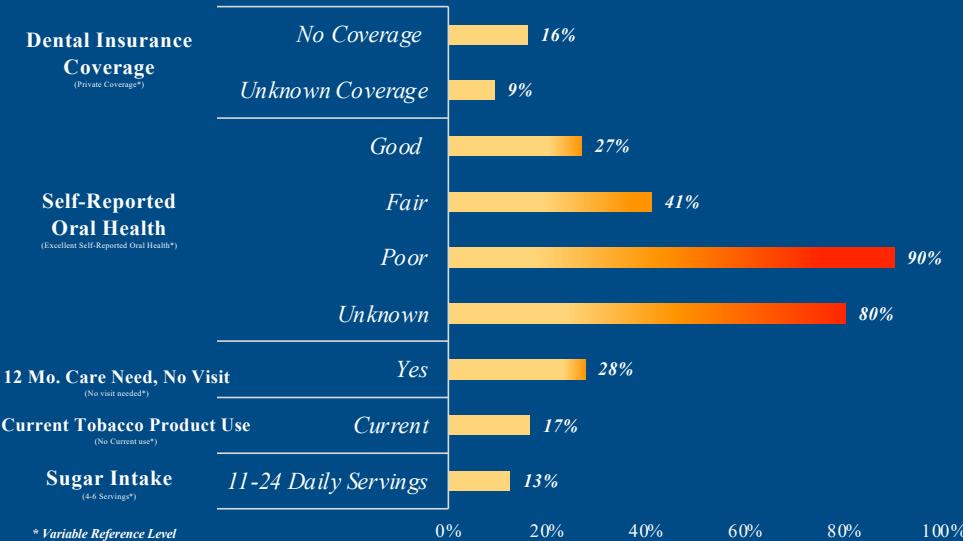
Increased dental treatment needs for incoming Air Force recruits appears driven by both lack of access and failure to utilize care, factors that are harder to control versus habit-based risks, such as excessive sugar intake and tobacco use.

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Elevated dental treatment needs in Air Force recruits *prior to entering active duty* are driven by lack of access and utilization of dental care

Percentage Increase in Rates for Recruit Dental Treatment Needs



* Variable Reference Level



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Characteristics of Incoming Air Force Recruit Population		% (n)
Overall	100.00 (1330)	Component
Age		
Q1 (18 or younger)	29.5 (393)	Region
Q2 (19)	25.1 (334)	AD 83.5 (1110)
Q3 (20-22)	25.4 (337)	AFRES 5.8 (78)
Q4 (23+)	20.0 (267)	ANG 10.7 (142)
Gender		
Male	76.2 (1012)	Northeast 12.6 (167)
Female	23.8 (316)	Midwest 21.9 (291)
Race		South 39.7 (527)
White	59.9 (796)	West 31.2 (415)
Black	19.9 (265)	Territories 4.4 (59)
Asian	2.5 (33)	
Hispanic	13.7 (182)	
Other	4.1 (54)	
Education		
HS Grad or less	58.0 (772)	Self Reported Oral Health
Some College/Technical	42.0 (558)	Excellent 8.4 (112)
Insurance		Good 54.1 (720)
Private	49.9 (663)	Fair 31.2 (415)
TriCare	7.8 (104)	Poor 4.4 (59)
Gov Subsidized	8.2 (109)	Don't Know 1.8 (24)
No Coverage	11.3 (150)	
Unknown	22.8 (304)	
Time Since Last Dental Visit		
Within 1 year	62.3 (799)	Self Reported Oral Hygiene Level
1-2 years	22.1 (299)	Optimal 89.9 (1198)
3+ years	9.4 (124)	Not Optimal 10.1 (132)
Any Tobacco Product Use		
No	54.6 (726)	Time Since Last Dental Visit
Former	35.6 (473)	Within 1 year 8.5 (113)
Yes	9.8 (130)	Within 6 months 21.5 (285)
Sugar Intake (servings)		Over 6 months 18.8 (250)
Q1 (4-6)	28.2 (376)	
Q2 (5-8)	33.0 (440)	
Q3 (9-10)	19.4 (258)	
Q4 (11-24)	19.4 (256)	

*Normalized weighted percent representing all incoming recruits for CY2019

^Actual sample size

