


## Oral Health: Oropharyngeal Cancer, Tobacco, and HPV

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Northwest Tribal Comprehensive Cancer Program  
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Northwest Tribal Dental Conference



Northwest Portland Area  
Indian Health Board  
Indian Leadership for Indian Health

## Objectives

Following the session participants will be able to

- Describe the burden of Oropharyngeal Cancer on Northwest AI/AN
- Create a tobacco assessment/cessation program
- Create a HPV assessment/referral program

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2

## Take home message

- Implement a tobacco screening system
- Advise patients to stop using commercial tobacco
- Refer for tobacco cessation
- Ask patients or their parents if they have the HPV immunization
- Refer for HPV immunization

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3

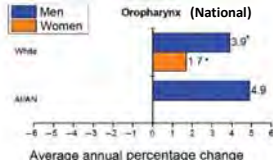
## OROPHARYNGEAL CANCER AND OUTCOMES

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4

## Oral Cavity & Pharynx Cancer Incidence

2008-2012 (Idaho, Oregon, Washington)<sup>1</sup>

	n	Rate (95% CI)
AI/AN	98	10.5 (8.3, 13.3)
NHW	6992	11.7 (11.4, 12.1)



<sup>1</sup>Northwest Portland Area Indian Health Board. Northwest American Indian and Alaska Native Cancer Data. Portland, OR: Northwest Tribal EpiCenter, 2015.  
<sup>2</sup>Jemal, Ahmedin, et al. "Annual report to the nation on the status of cancer, 1975-2009, featuring the burden and trends in human papillomavirus (HPV)-associated cancers and HPV vaccination coverage levels." *JNCI: Journal of the National Cancer Institute* 105.3 (2013): 175-201.

## Oral Cavity & Pharynx Cancer Mortality

2008-2012 (Idaho, Oregon, Washington)<sup>1</sup>

	n	Rate (95% CI)
AI/AN	30	4.4 (2.8, 6.8)
NHW	1644	2.6 (2.5, 2.8)

- 41% lower 5 year survival than NHW<sup>2</sup>

<sup>1</sup>Northwest Portland Area Indian Health Board. Northwest American Indian and Alaska Native Cancer Data. Portland, OR: Northwest Tribal EpiCenter, 2015.  
<sup>2</sup>Jemal, Ahmedin, et al. "Annual report to the nation on the status of cancer, 1975-2014, featuring survival." *JNCI: Journal of the National Cancer Institute* 109.9 (2017): dxj030.

## RISK FACTORS: OROPHARYNGEAL CANCER

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### Risk factors

- Non-modifiable
  - Gender
  - Age
  - Weakened immune system (HIV+)
- Modifiable
  - HPV Immunization
  - Tobacco Use
    - Smoking
    - Smokeless
  - Alcohol Use
  - Poor nutrition

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### Tobacco



8/10/2018 9

### 1988 Smokeless Tobacco Rates

**TABLE 1—Use of Smokeless Tobacco, in Percentages, by Area, Ethnic Group, Grade, and Sex**

Category	(N)	Category of Use		
		Non-User	Former User	Current User
<b>Grade Level</b>				
6	(379)	69	21	10
9	(428)	45	33	21
11	(373)	49	32	18
<b>Ethnic Group and Sex*</b>				
Male Native American	(137)	29	37	34
Male non-native	(438)	46	34	20
Female Native American	(120)	45	31	24
Female non-native	(415)	76	20	4
<b>Total Sample</b>	<b>(1180)</b>	<b>54</b>	<b>29</b>	<b>17</b>

\*Seventy respondents did not list their sex or ethnic group or both; of these, 41 per cent are non-users, 33 per cent are former users, and 26 per cent are users.

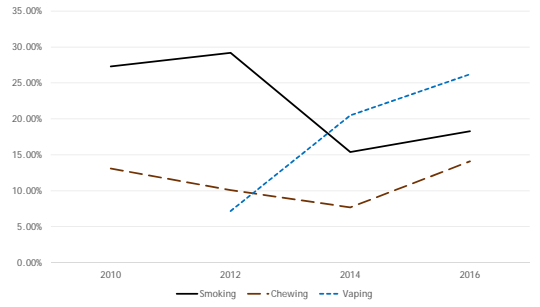
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### Oregon Smoking Rates

Population	Rate	Year(s)	Source
AI/AN 8th Grade Students	21.9%	2015	Oregon Healthy Teens Survey
NHW 8th Grade Students	11.3%	2015	Oregon Healthy Teens Survey
AI/AN 11th Grade Students	40.2%	2015	Oregon Healthy Teens Survey
NHW 11th Grade Students	24.8%	2015	Oregon Healthy Teens Survey
AI/AN Adults	35.3%	2013	Oregon BRFS
NHW Adults	21.4%	2013	Oregon BRFS
AI/AN Pregnant Women	35.7%	2000-2001	2009 PRAMS Analysis
NHW Pregnant Women	18.5%	2000-2001	2009 PRAMS Analysis

8/10/2018 Northwest Portland Area Indian Health Board 11

### AI/AN 12<sup>th</sup> Grade Washington State Tobacco Use in Past 30 days



Year	Smoking (%)	Chewing (%)	Vaping (%)
2010	28	13	7
2012	29	10	8
2014	15	7	21
2016	18	14	26

3/22/2016 Northwest Portland Area Indian Health Board 12

### Washington Smoking Rates

Population	Rate	Year(s)	Source
AI/AN Adults	36.6%	2012-2014	Washington Behavioral Risk Factor Surveillance System
NHW Adults	16.6%	2012-2014	Washington Behavioral Risk Factor Surveillance System

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### AI/AN and NHW smoking and quit rates

2010 to 2011 Tobacco Use Supplement of the Current Population Survey

	Current Cigarette Smoking Prevalence % (95% CI)	Quit Attempt in Past Year % (95% CI)
NHW (n=27,296)	17.5 (17.2, 17.8)	36.2 (35.4, 37.0)
AI/AN (n=589)	28.4 (25.3, 31.5)	36.1 (29.6, 42.6)

Agaku, Israel T., Olalekan A. Ayo-Yusuf, and Constantine I. Vardavas. "A comparison of cessation counseling received by current smokers at US dentist and physician offices during 2010-2011." *American journal of public health* 104.8 (2014): e67-e75.

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### Tobacco Use Screening FY2017 GPRA reporting Medical Clinics

Clinic	% Screened
1	18.4
2	35.2
3	38.3
4	41.5
5	50.8
6	51.4
7	52.0
8	52.8
9	63.2
10	64.2
11	66.9
12	69.0
13	69.3
14	70.1
15	70.6
16	71.1
17	71.2
18	71.3
19	71.4
20	74.2
21	76.6
22	76.8

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### Smoking and Oral HPV

Adjusted Prevalence Ratios for Demographic and Behavioral Associations With Oral HPV Infection in the US Population Aged 14 to 69 Years

- Pack a day smokers
  - 60% higher Oral HPV prevalence in Men
  - 600% higher Oral HPV prevalence in Women

Gillison, Maura L., et al. "Prevalence of oral HPV infection in the United States, 2009-2010." *Jama* 307.7 (2012): 693-703.

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### Oropharyngeal Cancer Trends 1988-2004

Chaturvedi, Anil K., et al. "Human papillomavirus and rising oropharyngeal cancer incidence in the United States." *Journal of clinical oncology* 29.32 (2011): 4294.

8/10/2018 Northwest Portland Area Indian Health Board 17

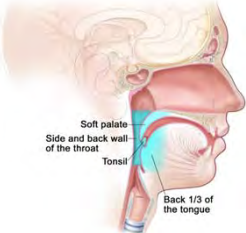
### Prevalence of p16-positive oropharyngeal tumors by age group and calendar period during 1995-2013 at 2 National Comprehensive Cancer Network-designated Comprehensive Cancer Centers

Data from: Windon, M. J., D'Souza, G., Rettig, E. M., Westra, W. H., van Zante, A., Wang, S. J., ... & Koch, W. (2018). Increasing prevalence of human papillomavirus-positive oropharyngeal cancers among older adults. *Cancer*.

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### Oropharyngeal cancer

- ~20 new AI/AN cases annual in Idaho, Oregon, and Washington
- HPV infection rate ~70%



### HPV and the oral cavity

Disease	HPV Type
Oropharyngeal cancer	16, 18, 31, 33, 35, 39, 45, 51, 52, 56, 58, 69, 66, 68, 73
Squamous papilloma	6, 11
Verruca vulgaris	2, 4, 6, 40, 57
Condyloma acuminatum	6, 11, 42, 43, 44, 53, 54, 55, and others
Focal epithelial hyperplasia	13, 32, 55
Oral potentially malignant disorders	6, 11, 16, 18

9 Valent HPV vaccine protects against 6, 11, 16, 18, 31, 33, 45, 52, 58

## INTERVENTIONS

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### ADA Policies and Recommendations on Tobacco Use

- Professional education related to the importance of primary prevention of tobacco use.
- Members to become fully informed about tobacco cessation intervention techniques to effectively educate their patients to overcome their addiction to tobacco.
- Training and education for dental professionals to ensure that all clinicians in the United States have the knowledge, skills and support systems necessary to inform the public about the health hazards of tobacco products and to provide effective tobacco cessation strategies.
- Provide educational materials on tobacco use prevention or cessation to patients and consumers developed by credible and trustworthy sources with no ties to the tobacco industry or its affiliates.

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### Tobacco Use Assessment

**Table 6.5. Meta-analysis (1996): Impact of having a tobacco use status identification system in place on abstinence rates among patients who smoke (n = 3 studies)**

Screening system	Number of arms	Estimated odds ratio (95% C.I.)	Estimated abstinence rate (95% C.I.)
No screening system in place to identify smoking status (reference group)	3	1.0	3.1
Screening system in place to identify smoking status	3	2.0 (0.8-4.8)	6.4 (1.3-11.6)

Tobacco, The Clinical Practice Guideline Treating. "A clinical practice guideline for treating tobacco use and dependence: 2008 update: a US public health service report." *American journal of preventive medicine* 35.2 (2008): 158.

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### Tobacco Cessation Counseling and Medication

**Table 6.24. Meta-analysis (2008): Effectiveness of and estimated abstinence rates for the combination of counseling and medication vs. counseling alone (n = 9 studies)**

Treatment	Number of arms	Estimated odds ratio (95% C.I.)	Estimated abstinence rate (95% C.I.)
Counseling alone	11	1.0	14.6
Medication and counseling	13	1.7 (1.3-2.1)	22.1 (18.1-26.8)

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### Dental Support for tobacco cessation

	Advised to Quit Smoking (n = 10 675), % (95% CI)	Offered Any Additional Assistance (n = 3331), a % (95% CI)	Referred to a Telephone Quit Line (n = 3318), % (95% CI)	Referred to a Smoking Cessation Class, Program, or Counseling (n = 3322), % (95% CI)	Helped to set a definite quit date (n = 3322), % (95% CI)	Advised to Use Medication (n = 3331), b % (95% CI)
NHW	30.5 (29.3,31.7)	23.5 (21.5,25.4)	12.5 (11.0,14.0)	9.2 (7.9,10.5)	9.2 (7.8,10.5)	11.9 (10.4,13.4)
AI/AN	26.9 (17.6,36.3)	22.2 (6.6,37.8)	N/A	3.2 (0.1,7.0)	N/A	N/A

Agaku, Israel T., Otaekan A. Ayo-Yusuf, and Constantine I. Vardavas. "A comparison of cessation counseling received by current smokers at US dentist and physician offices during 2010-2011." *American journal of public health* 104.8 (2014): e67-e75.

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### Dentist can make a difference

**Ask your patients about smoking**  
**Increase quit rates by 20%!**  
**Those who quit had the best**

- **periodontal response.**

**10 years of staying quit = same periodontal status of non- smokers!**

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### Recommendation: Smokeless tobacco

- Smokeless tobacco users should be identified, strongly urged to quit, and provided counseling cessation interventions. (Strength of Evidence = A)
- Clinicians delivering dental health services should provide brief counseling interventions to all smokeless tobacco users. (Strength of Evidence = A)

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### Hope

- Quit cold turkey = 5% success rate
- Provider advise = 18%
- Pharmacotherapy more than **doubles** long term quit rates
- NRT + counseling increases success
  - Safe to double up on patches
  - Safe to use nicotine while using Nicotine replacement



8/10/2018

# TOOLS

8/10/2018 Northwest Portland Area Indian Health Board 29

### Cessation Curriculums

- Second Wind
  - ACS Fresh Start
- AI/AN brief intervention
  - 5 A's
- Beyond the 5 A's
  - Red Star
- Freedom from cigarettes
  - ALA
- N-O-T (teen cessation)
  - ALA
- RX for change
  - 5 A's
- ANTHC/Mayo
  - Tobacco Treatment Specialist Training Programs
  - 5 A's

8/10/2018


### Tobacco Quitlines

- 1-800-QUIT-NOW (1-800-784-8669)
  - Routes patient to quitline provider call center for their state
    - Oregon and Washington - Optum
    - Idaho - National Jewish
  - May provide NRT

8/10/2018 Northwest Portland Area Indian Health Board 31

### Idaho Quit line information


- Clinical Referral System
  - <http://projectfilter.org/hcp>



8/10/2018 Northwest Portland Area Indian Health Board 32

### Oregon Quit Line information


- Clinical Referral System
  - <https://www.quitnow.net/oregon/>



8/10/2018 Northwest Portland Area Indian Health Board 33

### Washington Quitline information


- Clinical Referral System
  - Fax only
    - <http://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/HealthcareProfessionalsandFacilities/ProfessionalResources/TobaccoCessationResources>



8/10/2018 Northwest Portland Area Indian Health Board 34

### Patient Educational materials: HPV and Oral Health

- Washington DOH



8/10/2018 Northwest Portland Area Indian Health Board 35

### Patient Educational materials: AI/AN smokeless tobacco cessation

- Enough Snuff: A Guide to Quitting Smokeless Tobacco for American Indians
  - \$11.95 per copy
  - <http://pub.etr.org/productdetails.aspx?id=100000132&itemno=A087>
- Enough Snuff: A Video Program to Help American Indians Quit Spit Tobacco (DVD)
  - \$49.95 per copy
  - <http://pub.etr.org/productdetails.aspx?id=100000132&itemno=G087>

8/10/2018 Northwest Portland Area Indian Health Board 36



## Dental Records System

From: DENTRIX ENTERPRISE 8.0.5 USER'S GUIDE for Indian Health Service

- OHSS Report (Oral Health Status Survey)
  - Using Tobacco - The total number of patients with a condition code 15203 Tobacco Use in the age group divided by the total number of patients in the age group.
  - Each patient is counted only once.

8/10/2018

Northwest Portland Area Indian Health Board

37



## Dental Records System (continued)

From: David A. Reznik, D.D.S. Chief, Dental Medicine Director, Oral Health Center, Infectious Disease Program President, HIV Dental Alliance

- Dentrix does have the ability to create patient alerts, which can include HPV vaccination information and smoking cessation.
- The icon is a "little guy holding a flag".
- You can determine how often the alert pops up.
- Also, tobacco counseling can be entered into Dentrix under the Preventive section D1320 code, which you can look up.

8/10/2018

Northwest Portland Area Indian Health Board

38

## IMPLEMENTATION

8/10/2018

Northwest Portland Area Indian Health Board

39



## What is your clinic doing

- MA ask
- Provider advises
- Refers to behavioral health, pharmacy, cessation counselor
- Arrange -
  - Group or one on one counseling
  - Follow up - constant (alumni group)

8/10/2018

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40



## Why dental professionals?

- Oral cancer screening examinations
- Frequent visit compared to other health care providers
- Evidence of dentists playing a preventative role has been demonstrated in the area of tobacco cessation

Asian Pacific Journal of Cancer Prevention.2015 16(10) 4429-4434  
Public Health. 2014 March; 128(3): 231-238



## Why dental professionals?

Dentists make a significant difference

- Educating on HPV
- Explaining that HPV causes oropharyngeal cancers
- Showing how to perform oral cancer screenings
- Referring patients to get vaccinated

Public Health. 2014 March; 128(3): 231-238



## Take home message

- Implement a tobacco screening system
- Advise patients to stop using commercial tobacco
- Refer for tobacco cessation
- Ask patients or their parents if they have the HPV immunization
- Refer for HPV immunization

8/10/2018

Northwest Portland Area Indian Health Board

43



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8/10/2018

Northwest Portland Area Indian Health Board

44