



ORAL CANCER in the USAPI: *A rising epidemic*

Why is it important to raise the awareness of Oral Cancer?

- ❑ The incidence of oral cancer has increased in the USAPI due to betel nut chewing primarily associated with tobacco additives
- ❑ There has been a rise in children as young as 6-8 years old chewing betel nut with tobacco, which increases the risks.
- ❑ Because betel nut chewing is considered part of the cultural norm,
- ❑ Lack of regular dental or health visits make it difficult to detect early stages of an aggressive cancer.

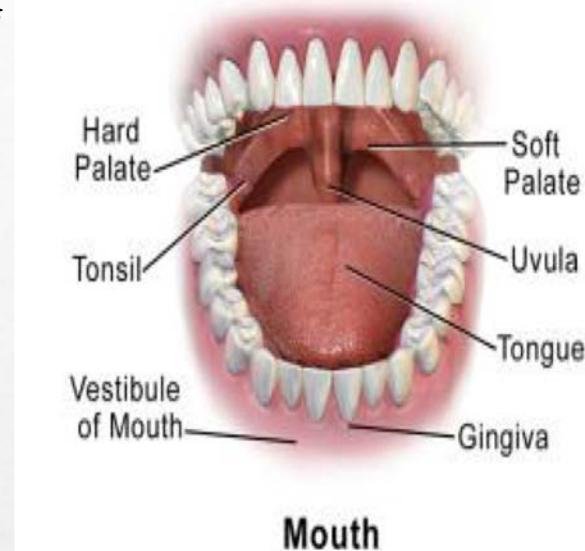


Chewing betel nut with additives such as lime and tobacco increases incidence of oral cancer



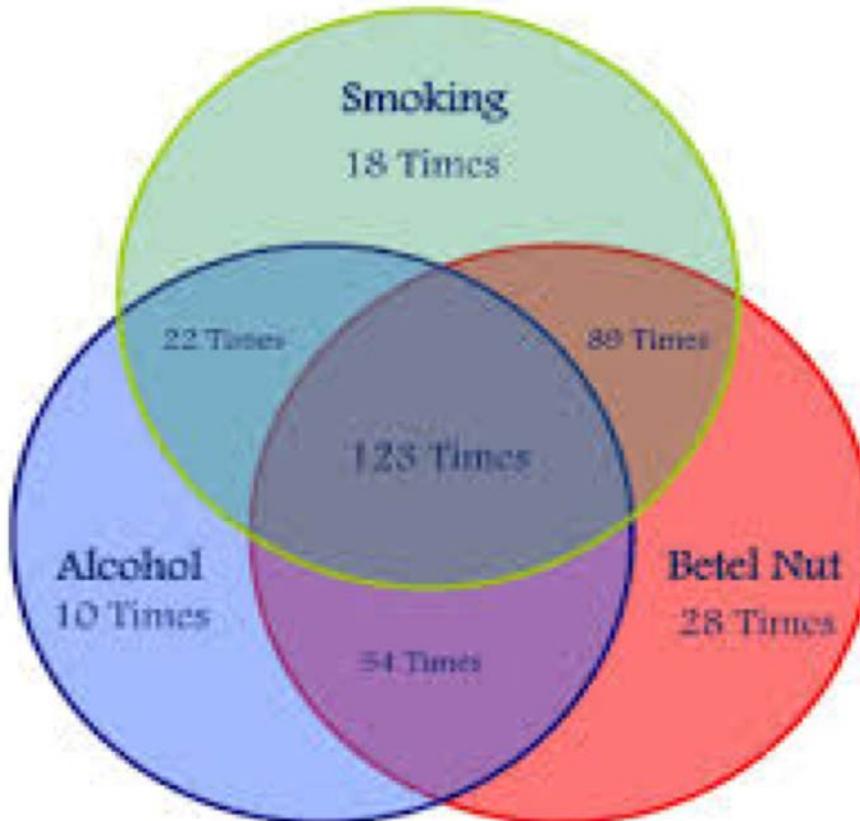
FACTS about ORAL CANCER

- It is listed as **TOP 13 of cancers in USAPI (2015 stats** from CCPI – pacific cancer)
- **As of November 2018, it has risen to TOP 8 of cancers in USAPI (not verified by CDC as of yet; information given by CCCP)**
- It has TRIPLED in ages under 40
- Major cause of morbidity (death in head & neck region) which is due to late identification and the spread of the cancer.



WHAT CAUSES ORAL CANCER?

1. Betel Nut
(leading cause of oral cancer in CNMI)
2. Tobacco
3. Alcohol
4. HPV – rising cause of oral cancer in United States



Combinations of these habits increases the chance of getting oral cancer!

CNMI cancer data

Top 10 ADULT CANCERS CNMI	# of Cases	Crude rate	Incidence rate Adj to US Std population	Incidence Rate Adj to World Std population	US incidence rate
All Sites	325	102.4	116.7	89.8	449.0
Breast	54	33.7	27.6	22.3	124.7
Colon & Rectum	33	10.4	11.3	8.9	39.2
Lung & Bronchus	32	10.1	16.4	11.6	60.2
Uterus	28	18.2	18.5	15.9	26.2
Tobacco-related Oral Cavity & Pharynx	25	7.9	5.6	5.0	12.0
Prostate	21	12.9	15.8	12.7	109.5
Liver	16	5	6.1	4.8	8.1
Cervical Cancer, invasive	16	10.4	9.3	7.2	7.5
Leukemia	11	3.5	-	-	14.0
Stomach	10	3.2	-	-	7.0

As of Nov. 20, 2018

Palau Cancer Data 2007-2015

Top 10 ADULT CANCERS Palau	# of Cases	Crude rate	Incidence rate Adj to US Std population	Incidence Rate Adj to World Std population	US incidence rate
All Sites	250	192.8	185.2	143.5	456.7
Lung & Bronchus	38	29.3	30.5	23.3	62.5
Liver	34	26.2	23.6	18.3	7.6
Prostate	22	31.0	41.8	30.2	123.2
Tobacco-related Oral Cavity & Pharynx	20	15.4	14.0	10.5	10.9
Uterus	19	37.4	35.3	27.2	25.6
Colon & Rectum	17	13.1	14.1	10.6	40.6
Breast	16	27.2	23.5	19.2	123.4
Cervical Cancer, invasive	13	22.1			7.6
Thyroid	10	7.7			14.0
Stomach	10	7.7			6.7

Source: Incidence Data reported from Guam to Pacific Regional Central Cancer Registry, 2007-2015

Palau Cancer Data 2007-2015

	Count	Tobacco related	Obesity related	Screening test available	Early Physical diagnosis	% dead within 5 yrs of diagnosis	% diagnosed stage 1	% diagnosed stage 2	% diagnosed stage 3 or higher
Adult cancers (20 years and older)	250	55%	21%	27%	16%	65%	8%	5%	87%
65 other tobacco related cancers: (38) lung; (20) tobacco-related oropharynx; (6) esophagus, (1) pharynx	65	✗				78%	8%	3%	89%
Liver	34					100%	6%	3%	91%
Prostate	22			✗	✗	32%	9%	9%	82%
Uterus	19	✗	✗			26%	16%		84%
Colorectal	17	✗	✗	✗		41%	12%	12%	76%

Cancer Data

CNMI – 325 cases

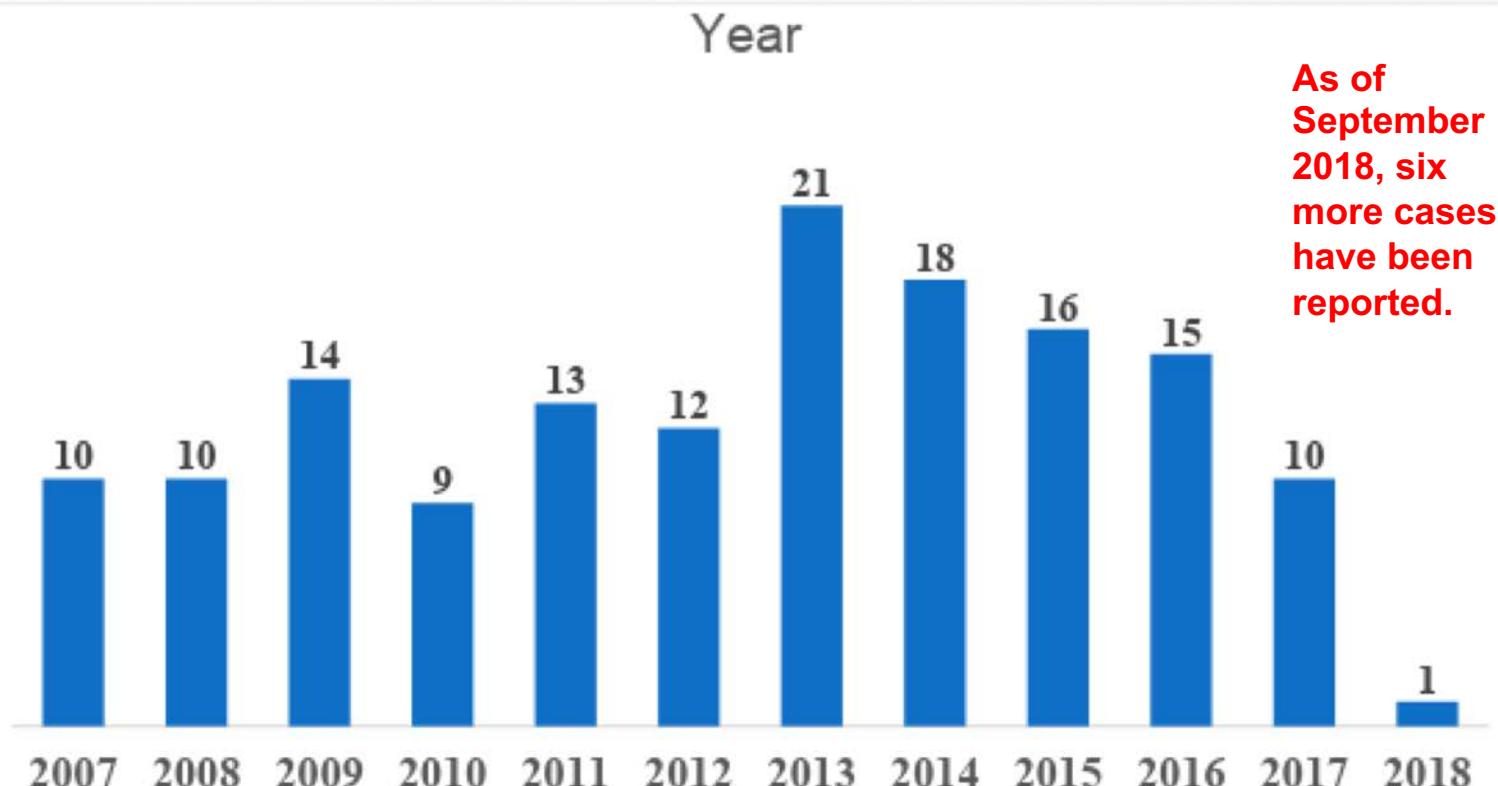
- ❑ 34% of adult cancer patients passed away within 5 years of diagnosis
- ❑ 65% of CNMI's adult cancers are tobacco-related
- ❑ 35% of CNMI's adult cancers are obesity-related

Palau – 250 cases

- ❑ 65% of adult cancer patients passed away within 5 years of diagnosis
- ❑ 56% of Palau's adult cancers are tobacco-related
- ❑ 21% of Palau's adult cancers are obesity-related

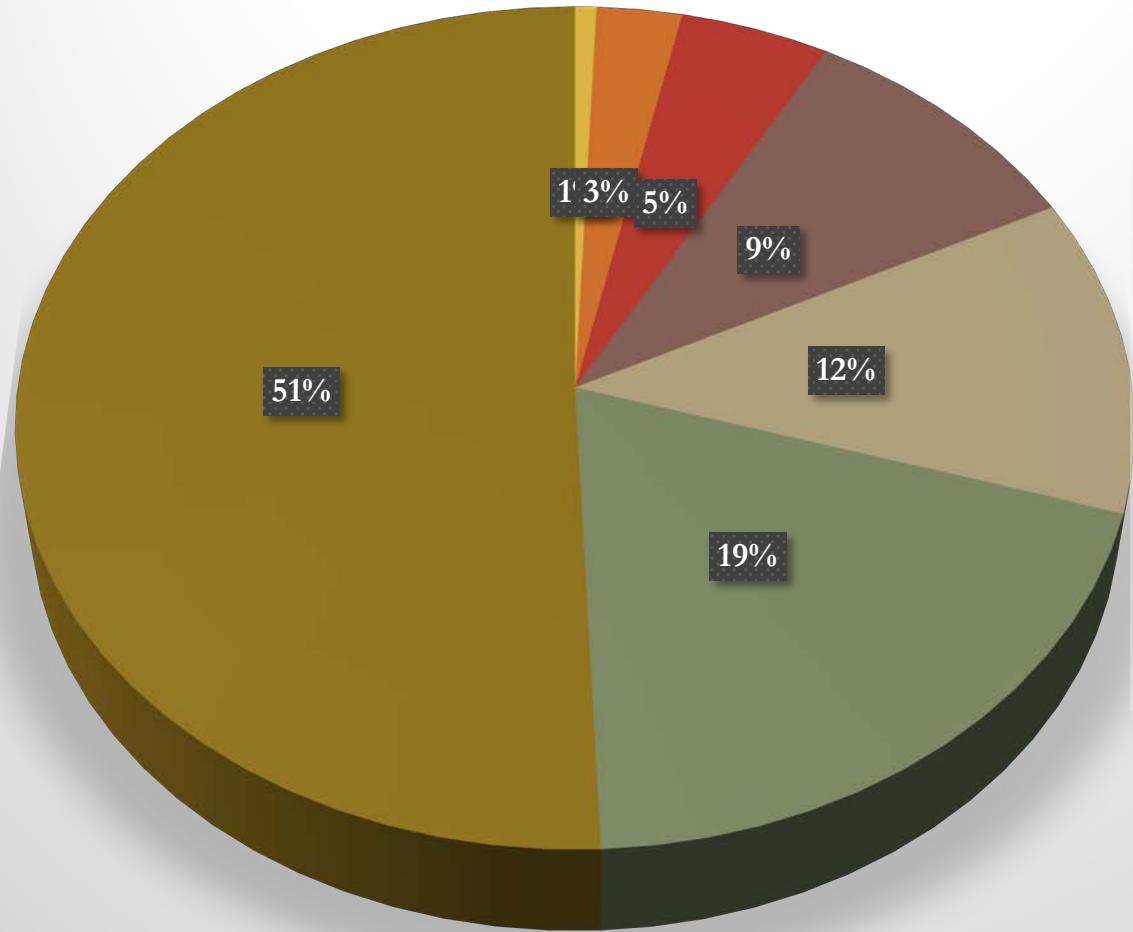
Source: *Incidence Data reported from Guam to Pacific Regional Central Cancer Registry, 2007-2015*

Head and Neck Cancer in the CNMI



*The data is collected and entered into the CNMI Cancer Registry database on a daily basis. Therefore, database is updated daily and data subject to change when other cases are identified. Information can be retrieved in real time.

**based on in office record of patients diagnosed with squamous cell carcinoma

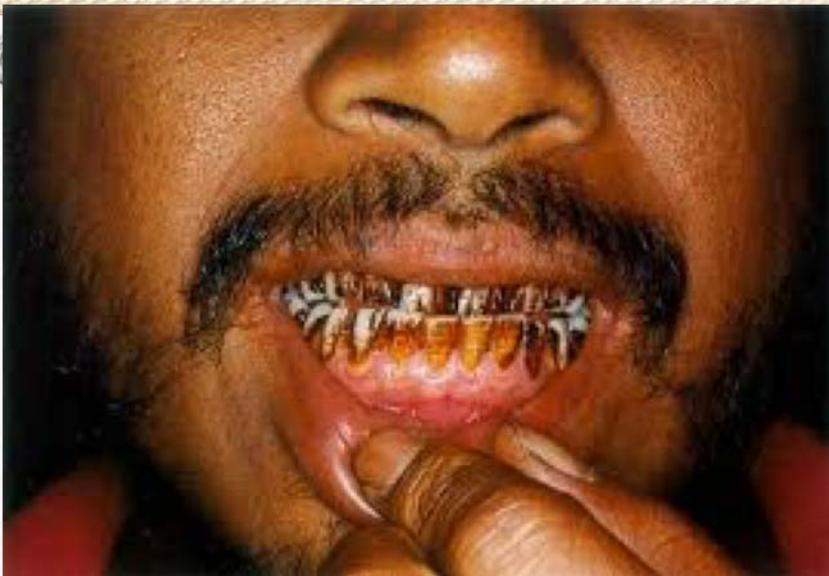


1) NOS – Not otherwise specified or no info collected;

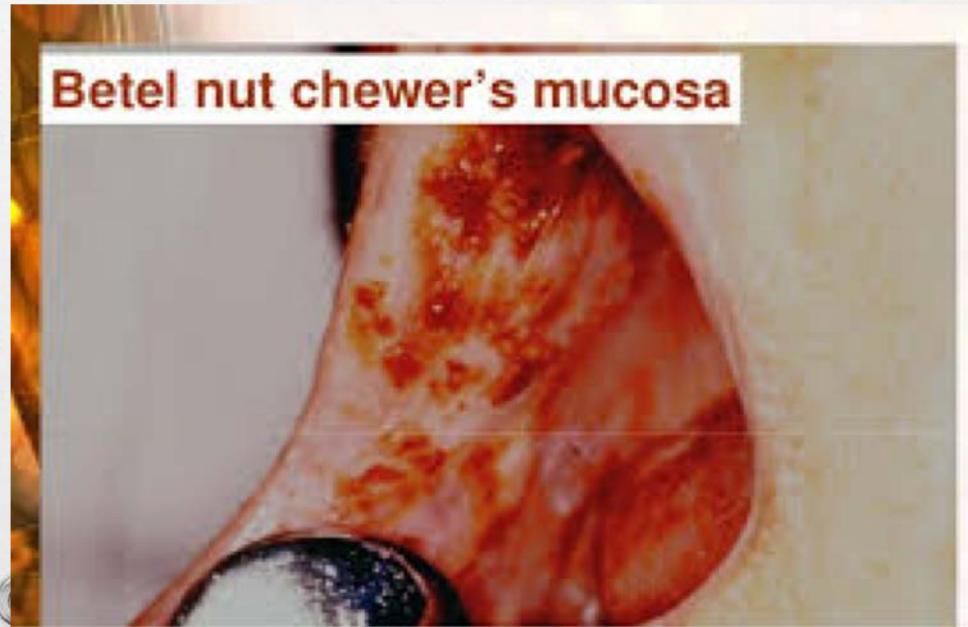
2) Micronesian – reflects Carolinian, FSM Nationals and Palauan and Marshallese

What does
the mouth of
a normal
betel nut
chewer look
like?





Normal Betel Nut Chewer:
appearance – external and
intra-oral



What
does
oral
cancer
look
like?



Signs and Symptoms of Oral Cancer



1. Mouth sore that doesn't heal
2. Persistent red and/or white patches
3. Unexplained bleeding in mouth
4. Difficulty chewing, swallowing, speaking or moving tongue
5. Hard, raised lesions (LUMP), eroded areas (ulcerations) in mouth

Images of Oral Cancer in the CNMI

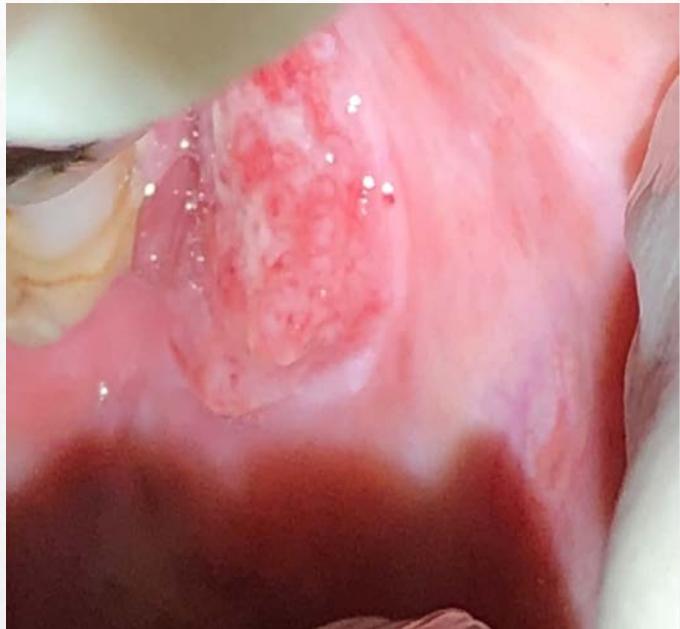


Diagnosed in January 2018
Passed away August 2018



In Patient:

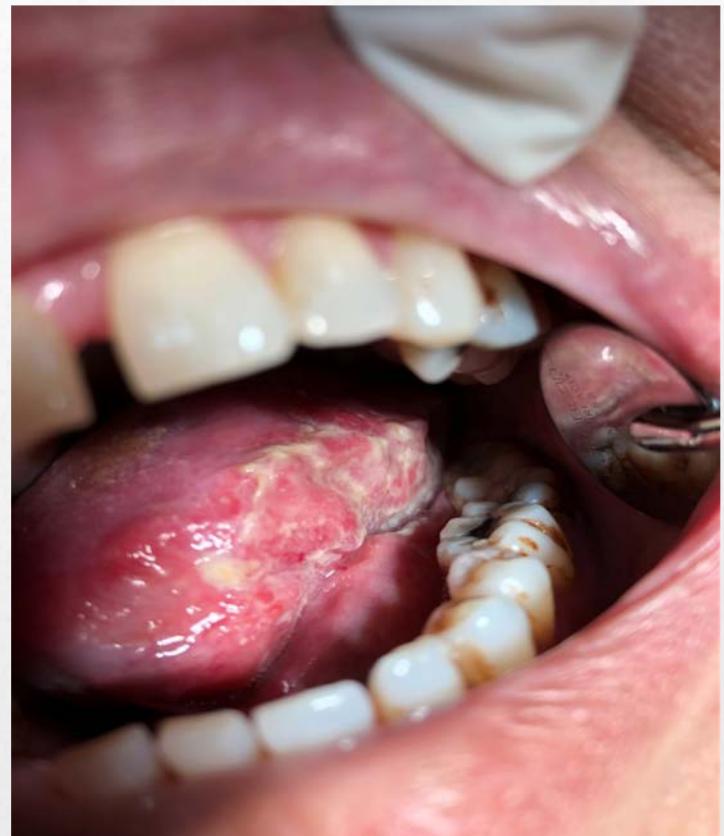
Diagnosed: May 29, 2018
Passed away: August 2018



Squamous Cell Carcinoma of Cheek
diagnosed: April 16, 2018
treatment: May - present



Squamous Cell Carcinoma of Tongue
diagnosed:
treatment: current
Intubation of the patient for referral



Squamous Cell Carcinoma of the Tongue
diagnosed August 22, 2018
surgical treatment Sept 2018



Oral Lesion:
Biopsied
March 23, 2019
Rota Health
Center

Detection of Oral Cancer:

1. **Oral Examination**
 1. **Visual Inspection**
 2. **Biopsy**
2. Brush Cytology
3. Toluidine Blue – staining abnormal white cells
4. Chemiluminescence – usage of blue-white light
5. Tissue fluorescence – differentiates normal (green) to abnormal (darker) cell
6. Salivary Diagnosis –usage of salivary biomarkers



Most effective tool as of today for EARLY detection is ORAL EXAMINATION, visually inspecting the oral cavity and recognizing suspicious lesions. These areas are then biopsied.

What happens when Oral Cancer is confirmed?

1. Surgical Removal of Tumor Site
2. Chemotherapy – used to shrink tumor to remove or as palliative
3. Radiation



before



after surgery



before



after surgery

PUBLIC AWARENESS FOR ORAL CANCER PREVENTION

What can YOU do?



- ✓ DON'T start chewing betel nut (IF you have not started)
- ✓ STOP chewing betel nut
- ✓ SEE your LOCAL dentist OR physician to get a FREE Oral Cancer Screening (an collaborative initiative by your local dentists)
- ✓ Get REGULAR oral exam check ups

Thank you, Si Yu'us Ma'ase, Sulang,
Kamagar, Komol Tata, Fa'afatai tele, Kalahngan,
Kinisou, Kulo

Pacific Basin Dental Association

