

# TONGA MALIMALI ORAL HEALTH PREVENTIVE ACTIVITIES AND HIGH SCHOOL FEATURES



# **PRESENTATION**

- 1. Background**
- 2. South Pacific Medical Team – MALIMALI PROJECT**
- 3. Outcomes-HIGH SCHOOLS SURVEY RESULTS/ DMFT INDEX**
- 4. Interventions**
- 5. Conclusion and Lessons**





**KING OF TONGA**

**OFFICIAL OPENING OF NEW VAIOLA HOSPITAL DENTAL CLINIC BY KING TUPOU VI IN 2012**



**KING OF TONGA AT DENTAL VVIP CHAIR**



**DENTAL DEPT(11 CHAIRS)**

# 1. BACKGROUND

## Tonga Islands

SOUTH PACIFIC



**PROVIDED BY  
GOVERNMENT  
HOSPITALS IN 5 MAIN  
ISLANDS**

Niuafo'ou

Tafahi

Niuaatoputapu

**2NIUAS-1 DENTAL THERAPIST EACH (1% EACH)**

**VAVA'U-1 DENTIST AND 2 THERAPISTS (15%)**

Vava'u

**HAAPAI-1 Dentist, 1 THERAPIST (6%)**

Ha'apai

**TONGATAPU-9 DENTISTS, 15 DENTAL THERAPISTS (73%)**

Tongatapu

Nukualofa

Eua

**EUA-1 DENTAL THERAPIST (5%)**



70 km

# **1. BACKGROUND**

## **TONGA HEALTH CARE SERVICES**

- **Decentralized and Government Health Services are provided FREE OF CHARGE to a population of 105, 323 (mini census 2011)**

## **ORAL HEALTH SECTIONS**

- **Conservative Treatment**
- **Oral Surgery and Oral Pathology**

## **ORAL PUBLIC HEALTH = MALIMALI PROGRAM-SMILE**

- **Prosthodontics**
- **Health Centre Outreach**



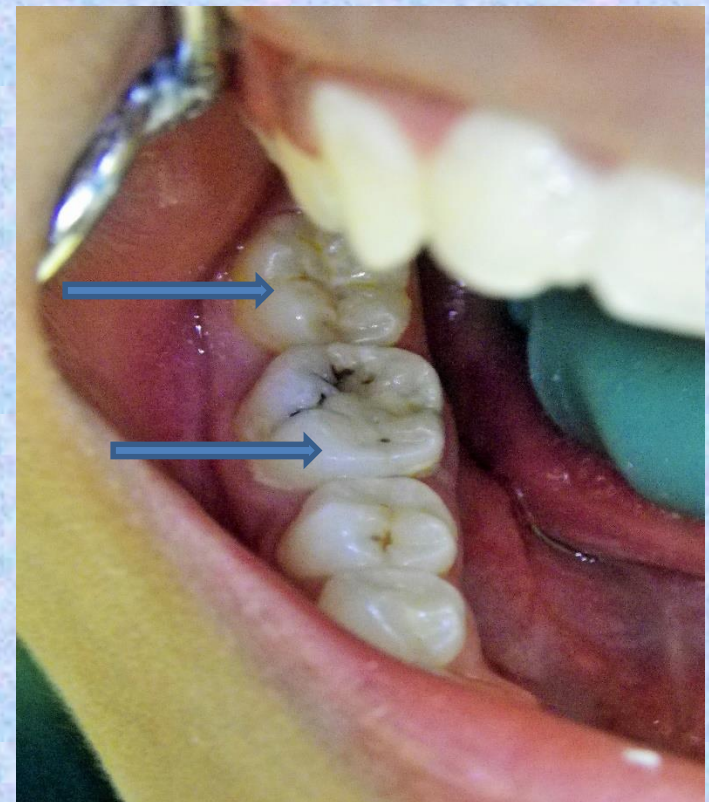
# 1. BACKGROUND

- **1998-2000 SPMT first DMFT**
  - DMFT count 4.10(BOYS) AND 5.48 (GIRLS)
- **2000** - Dental Caries selected to be among the health priority issues, SPMT work in caries prevention was supported.
- **AUSTRALIA ROTARY DENTAL TEAM** survey in 1998 showed DMFT count to be 3.1.



**OBVIOUS DETERIORATION IN ORAL HEALTH IN TONGAN CHILDREN**

SPMT-JAPAN 1 <sup>ST</sup> DMFT SURVEY (2000)		
GENDER(12yrs)	DMFT Person Rate	Mean DMFT
BOYS	89%	4.40-HIGH
GIRLS	91%	5.81-HIGH



## 2. SOUTH PACIFIC MEDICAL TEAM (SPMT)

- Voluntary group of Japanese dentists and therapists
- **Main activity** - planning and administration of a school-based fluoride mouth-rinsing program known as The **MALIMALI PROGRAM** and **Weekly visits to all primary schools-** teaching children about proper use of toothbrushes and fluoride toothpastes
- November 2006 – Ministers of Health & Education signed the working collaborations with SPMT and JICA– **School based Oral Health Program**
- **2013-MALIMALI Part 2 commenced-August 2013-**To Improve Tongan peoples' life style by approaching from oral health and life-style modification-**HIGH SCHOOL ORAL EXAMINATION STARTED**



# PRIMARY SCHOOLS MALIMALI PROGRAM







**PRIMARY SCHOOLS  
MALIMALI  
PROGRAM**







### ***Fluoride mouth-rinsing***

- ***NaF***
- ***0.2% (once/week)***
- ***Primary school      7 ~ 10 ml***
- ***Rinsing      30 ~ 60 sec***
- ***Effect of prevention   40 ~ 60%***

## **PRIMARY SCHOOLS MALIMALI FLUORIDE MOUTHRINSING**



# 2000 AND 2007 TONGATAPU DMFT INDEX

	2000 (SPMT1 <sup>st</sup> survey)				2007 (SPMT 2 <sup>nd</sup> survey)		
Sex(12yrs)	Num	DMFT Person Rate	Mean DMFT	Num	DMF Person Rate	Mean DMFT	
BOYS	45	89%	4.40	44	70%	1.84	
GIRLS	21	91%	5.81	20	70%	2.10	

# TONGA OVERALL 2011 DMFT INDEX

12 years  
old

**F**

**M**

	num	num of teeth	num of DMF	<b>DMF index</b>	DMF holder	DMF person rate	num	num of teeth	num of DMF	<b>DMF index</b>	DMF holder	DMF person rate
<b>Tongatapu</b>	58	1583	157	<b>2.7</b>	49	84%	84	2258	201	<b>2.4</b>	55	65%
<b>Vava'u</b>	20	553	26	<b>1.3</b>	9	45%	28	757	34	<b>1.2</b>	15	54%
<b>Ha'apai</b>	4	109	4	<b>1</b>	2	50%	10	265	18	<b>1.8</b>	8	80%
<b>Eua</b>	8	214	27	<b>3.4</b>	6	75%	11	305	24	<b>2.2</b>	9	82%
<b>Total</b>	<b>90</b>	<b>2459</b>	<b>214</b>	<b>2.4</b>	<b>66</b>	<b>73%</b>	<b>133</b>	<b>3585</b>	<b>277</b>	<b>2.1</b>	<b>87</b>	<b>65%</b>

### **3. THE QUESTION OF *HOW WAS THE ORAL HEALTH CONDITION OF HIGH SCHOOL STUDENTS?---A WONDER!!***



**SO, IN 2014 WE STARTED DMFT SURVEY OF *SOME* HIGH SCHOOLS IN TONGA**

#### **TONGA**

- 48 high schools with a total of over 16,5000 students
- Churches sponsored majority of these schools and GOVT

#### **Malimali Project High Schools DMFT Survey**

- 6 High Schools in Vava'u
- 5 High Schools in Haapai
- 3 High Schools in Eua
- 4 High Schools in Tongatapu



# HIGH SCHOOLS VISIT

## AT HIGH SCHOOLS WE DO

- ORAL HEALTH TALK-  
NCDS
- OE AND DMFT  
INDEX
- WEIGHT N HEIGHT  
MEASUREMENT
- DISTRIBUTION OF  
TOOTHBRUSHES  
AND TOOTHPASTES
- APPNT GIVEN IF  
NEEDED
- QUESTIONNAIRS





# HIGH SCHOOLS ORAL HEALTH VISIT







**ORAL HEALTH TALK**

**QUESTIONNAIRS**

**ORAL EXAMINATION**







## TUPOU COLLEGE ORAL EXAMINATION FORM 1-3-5

### **AT HIGH SCHOOLS WE DO**

- ORAL HEALTH TALK-NCDS
- OE
- WEIGHT N HEIGHT MEASUREMENT
- DISTRIBUTION OF TOOTHBRUSHES  
AND TOOTHPASTES
- APPNT GIVEN IF NEEDED
- QUESTIONNAIRS







## ORAL EXAMINATIONS AT HIGH SCHOOLS



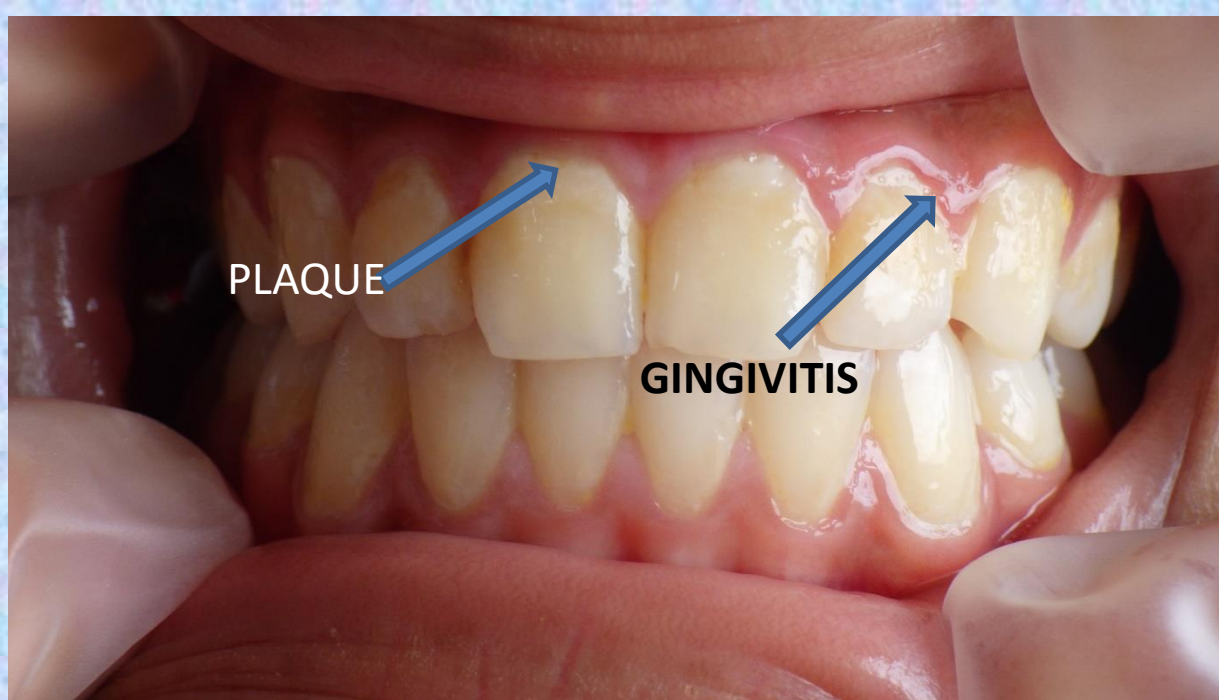




## VISITING TONGA HIGH SCHOOL







## HIGH SCHOOL ORAL FEATURES



3.

A

B

HIGH SCHOOL S	2014 DMFT-INDEX	2015 DMFT INDEX	CARIES FREE No. % (2014)	No. of 1 <sup>st</sup> molar extraction
QSC FORM 1	95 STUDENTS 1.75	162 STUDENTS 1.29	30 (31%)	
QSC FORM 3	25 STUDENTS 1.48	91 STUDENTS 1.85	14 (56%)	
QSC FORM 5	23 STUDENTS 2.13	25 STUDENTS 2.92	8 (35%)	
TC FORM 1	97 STUDENTS 1.67 –	123 STUDENTS 1.12	44 (45%)	14 teeth-10 students 11.4%
TC FORM 3	96 STUDENTS 2.12-	103 STUDENTS 1.87	40 (42%)	14 teeth-10 students 9.7%
TC FORM 5	135 STUDENTS 2.36	74 STUDENTS 2.03	39 (29%)	39 teeth-28 persons 52.7%

### 3. VAVAU HIGH SCHOOL

No. of Students	No. Students MISSING TEETH	No. Students NEED TX	No. Students NEED FLG	No. Students NEED RCT	GINGIVA	NEED SCALING
FORM 1 102	11/102 11%  *9 molars	45/102 44%	39/102 38%	3/102 3%	N-55-54% S-41-40% OM-2-2%	8-8%
FORM 3 61	6/61 10%  *6 molars	21/61 34%	17/61 28%	8/61 13%	NO RECORD	NO RECORD
FORM 5 67	23/67 34%  *molars/ anterior	39/67 58%	36/67 54%	9/67 13%	N-38-57% S-27-40% OM-2-3%	17-25%



## **4. What shall be our INTERVENTIONS for TONGA-High Schools level? What can be applied in High Schools?**

- ➡ MALIMALI ACTIVITIES SHOULD reach out to all High School in Tonga and give oral health dialogue- REINFORCE the message of good and healthy teeth /do DMFT examination in Form1-3 every year
- ➡ Fluoride mouthrinse to be continued in form 1 to form 3
- ➡ ENCOURAGE the need for students and families to practice good hygiene for healthy mouths and healthy smiles at schools and home
- ➡ WHAT else CAN WE DO with High School Oral Health Prevention??
  - cooperation of students/principals/teachers/MALIMALI TEAM
  - oral health prevention program vs treatment-appointments

## 5. CONCLUSION/LESSONS

- Our high schools results have shown us some evidence that oral health interventions should be applied to high schools
- Partnerships-involvement and support from Malimali Team/MOH/MOET and High Schools principals/teachers and students
- Clear Strategy-promote good oral health and good malimali for children in high schools





**MALO 'AUPITO**



**TONGATAPU DENTAL STAFF**