

# School-based oral health “Malimali” program and additional health promotion activities in the Kingdom of Tonga

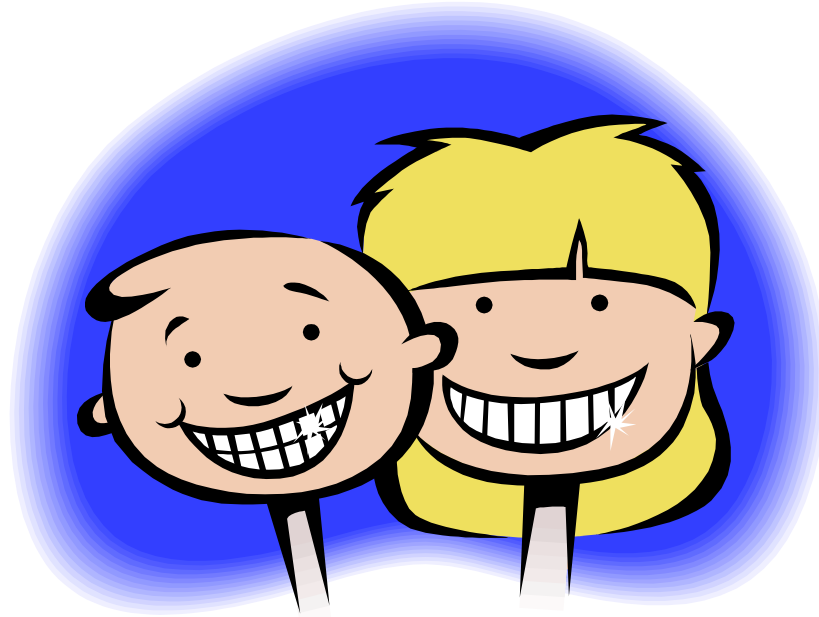
Ministry of Health  
Kingdom of Tonga



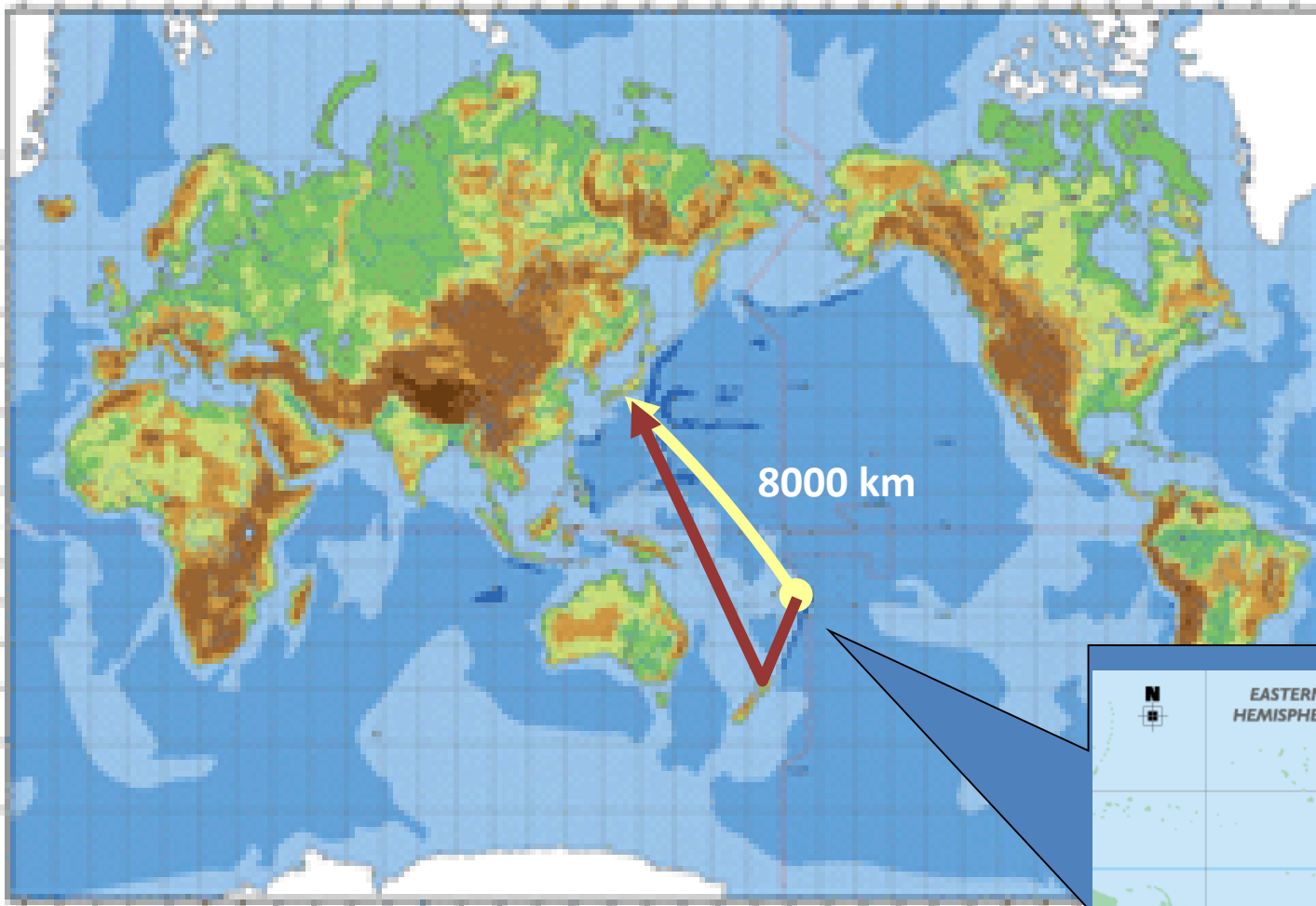
Salote Tu'ihalamaka Tu'iniua

# “Malimali” Program

**“Malimali”** in Tongan  
means  
**“Smile”** in English



Let's smile and be relax together before I start to talk.



**The Kingdom of Tonga is located in the middle of the South Pacific and comprises of 177 islands of which 52 islands are inhabited.**



# Kingdom of Tonga

## General information

- Part of **Polynesia** and neighbors with Fiji, Samoa and New Zealand.
- **Population** : 105,323 (2013)
- **Capital**: Nuku'alofa
- **Official language** : Tongan, English
- **Religion**: Christianity
- **Currency**: Pa'anga (TOP)
- **Foods** : Yam, Taro, Tapioka, Fish, Tropical fruits
- **Life expectancy**: 76 yrs
- Tonga became known as the **Friendly Islands** because of the congenial reception accorded to Captain James Cook on his first visit in 1773



Coat of arms



# Dental staff in Tonga

- There are 11 Dentists with a Dentist to population ratio of about 1:14,000
- 19 Dental Therapists to the population to working dental personnel is about 1:4,000
- 3 Dental Technicians for Prosthetic
- 2 Dental engineering ( for dental equipment)
- 2 sterilizing officer and 3 receptionists

**Tongatapu Group**

Population: 75416

**Niua Group**

Population: 1932

**Vava'u Group**

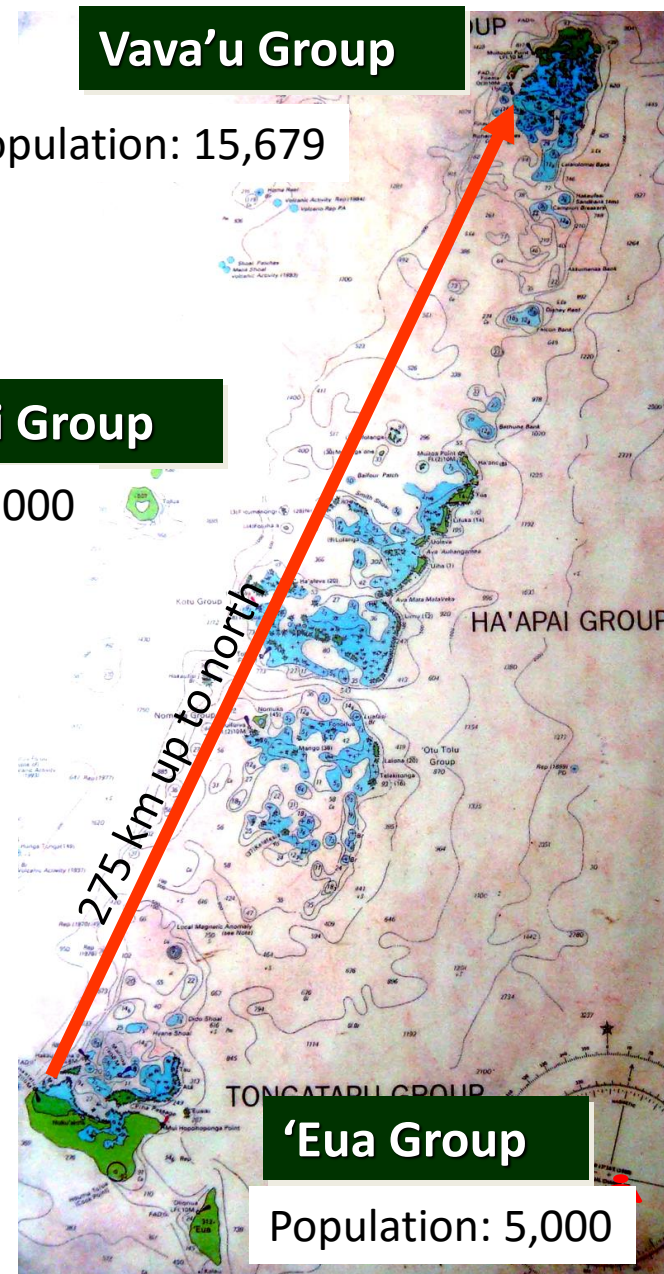
Population: 15,679

**Ha'apai Group**

Population: 8,000

**'Eua Group**

Population: 5,000



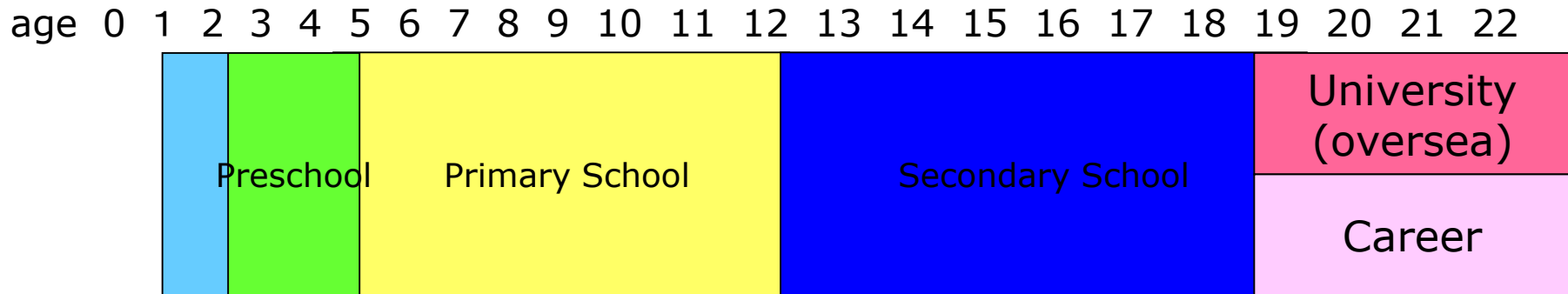




With large families being the norm and young adults often emigrating to benefit from high salaries abroad, one third of Tonga population is under 12 years old.



# Schooling hierarchy



- Education is a core part of Tongan life
- Around the age of 12, students are allocated to schools based on their examination results
- Whilst there is a teacher training college in Tonga, most students qualify abroad.



Number of primary schools in each island's group.

5

Niua Group

● 2007~

Malimali program  
extended to  
Vava'u and 'Eua  
Groups.

33

Vava'u Group

19

Ha'apai Group

● 1998~

South Pacific  
Medical Team  
started Malimali  
Program in  
Tongatapu and  
Ha'apai Groups

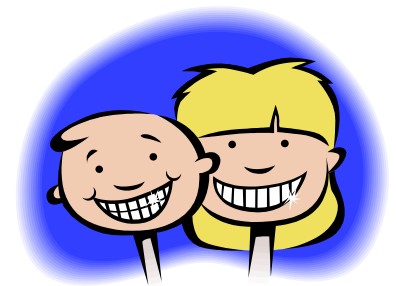
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Tongatapu Group

'Eua Group

6

# History of Malimali Program in Kingdom of Tonga



Number of primary  
school students is  
about 12,000.

The 1<sup>st</sup> DMFT survey for 12 year-old students  
in Tongatapu (main land)  
by Tongan dental team and SPMT-JAPAN  
in 2000

<b>GENDER</b>	<b>Number of students</b>	<b>The prevalence rate of dental caries</b>	<b>Mean DMFT</b>
BOYS	45	89%	<b>4.40</b>
GIRLS	21	91%	<b>5.81</b>

To save the children,

- What should we do?
- What can we do for them?



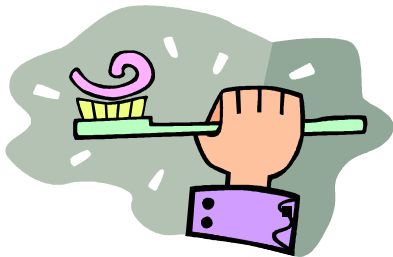


# School-based Malimali Program

1. Brushing teeth everyday
2. Fluoride mouth rinsing for 1 minute once a week

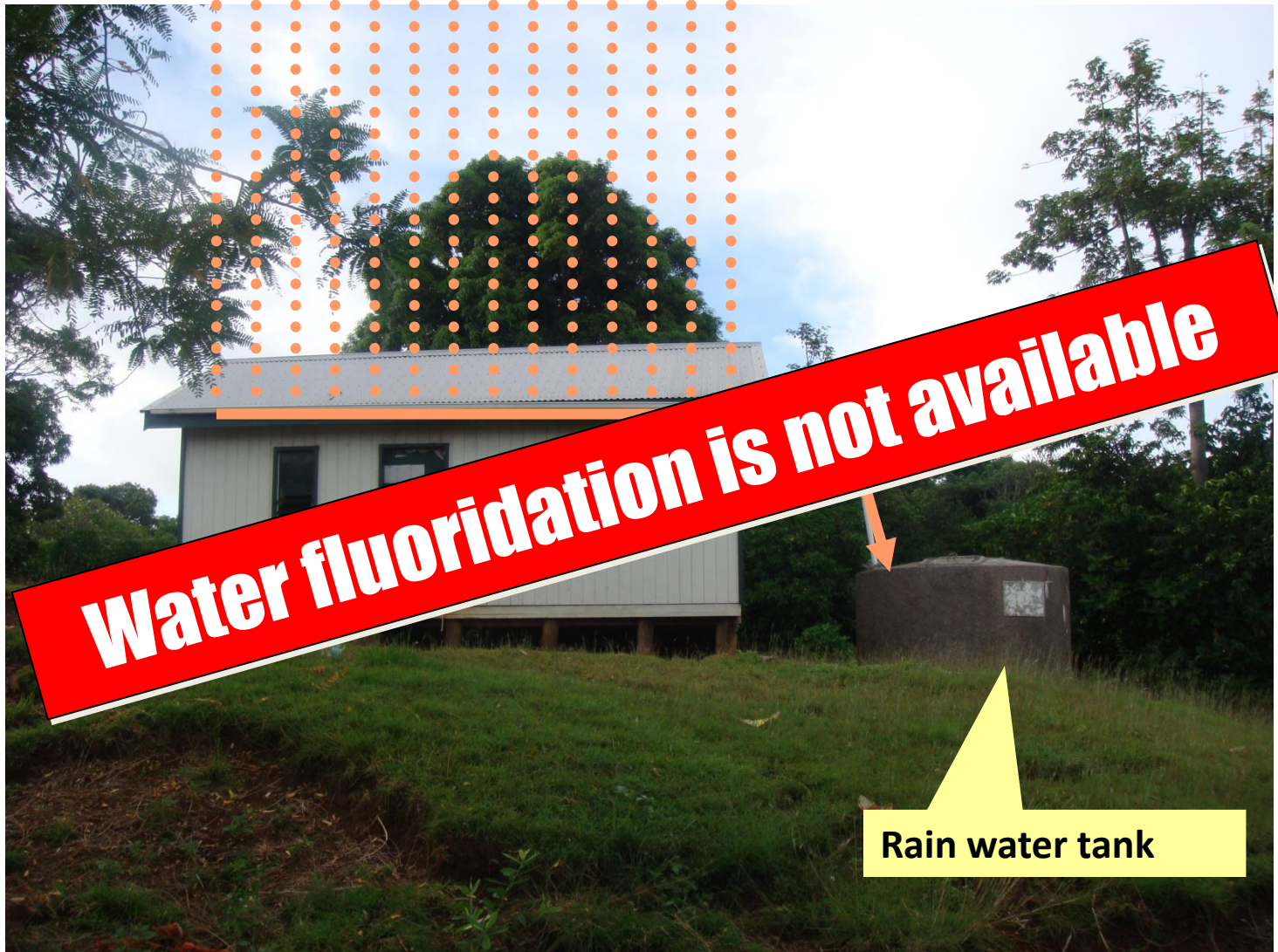


Malimali program  
helps to protect  
children's teeth!!





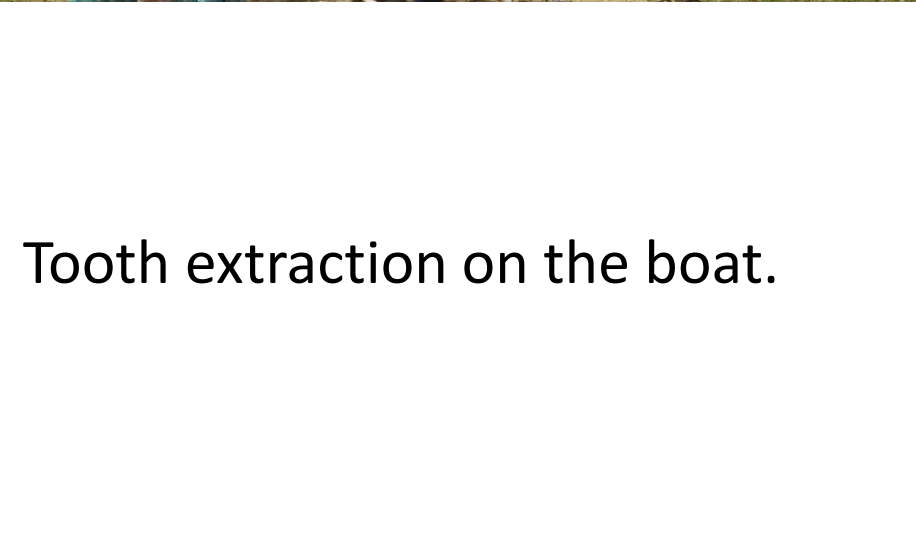
Most families depend on rain water for drinking



# Mobile clinic in remote islands



Mobile clinic opens once three months for the people who live in remote islands.



Tooth extraction on the boat.



Dr Sililo Tomiki, started the Malimali program with aid of the South Pacific Medical Team, Drs.Koji Kawamura & Sayuri Kawamura.



Japanese NGO South Pacific Medical Team has helped and supported the program.





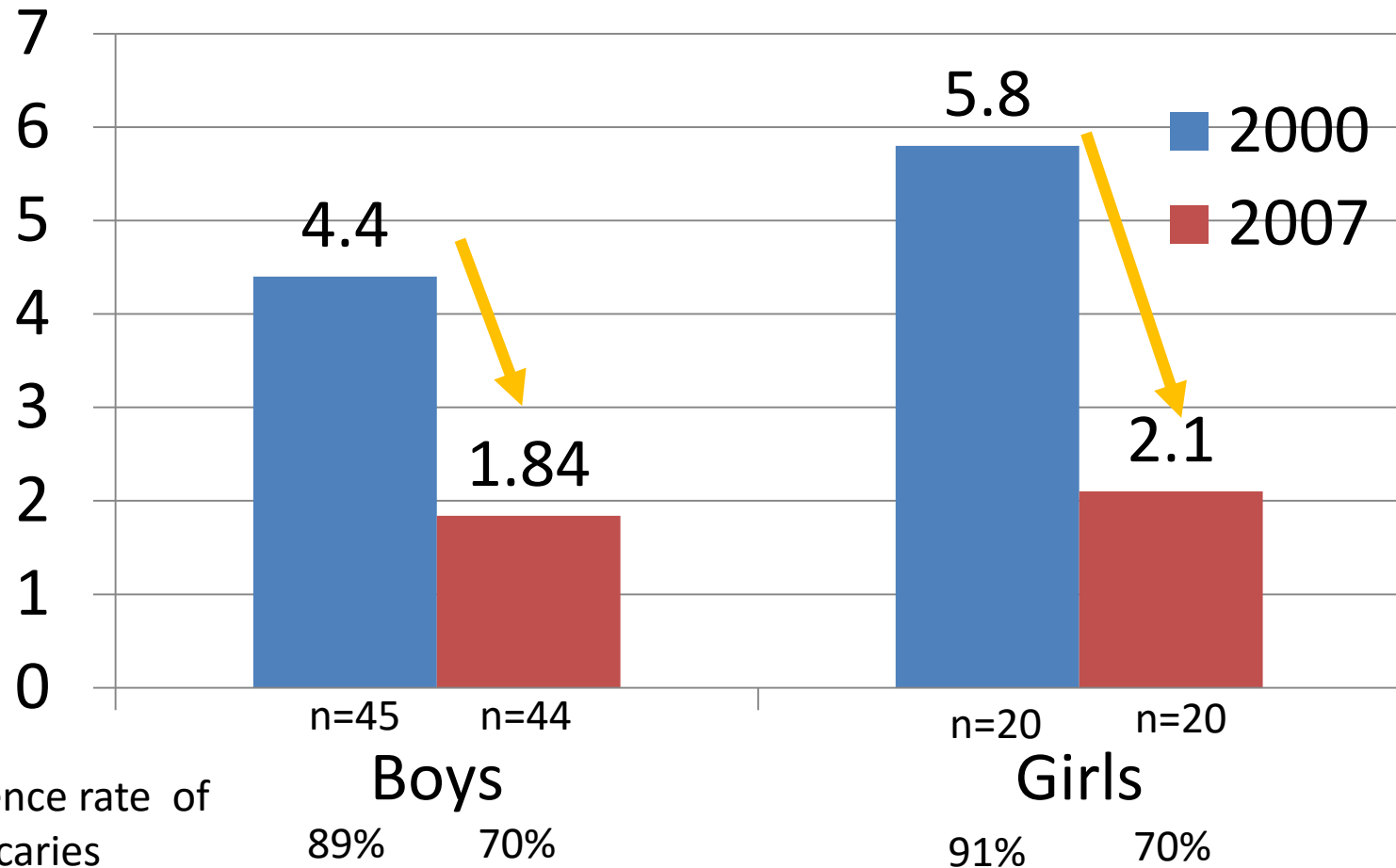
## School Visiting Program (Malimali Program)

1. Brushing teeth
2. Fluoride mouth rinsing

We can meet  
about 700  
students / day !



# The changes of DMFT of 12 year-old students 7 years after Malimali program started in Tongatapu (main land)

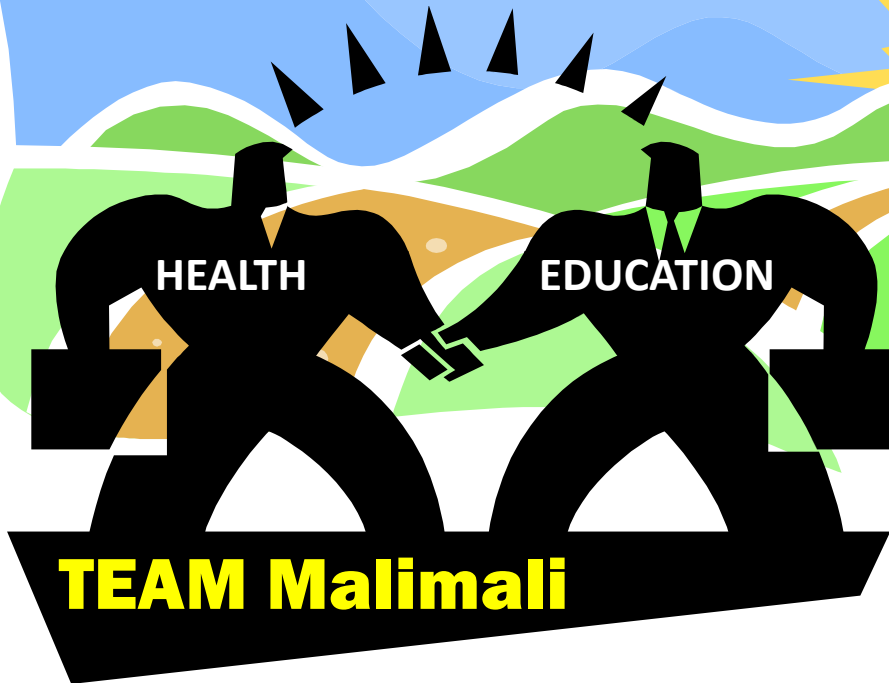




Malimali program started as the joint program of Ministry of Health and Ministry of Education.

It is the 10<sup>th</sup> year since Malimali program has been implemented in Vava'u.

The program has been a part of regular educational program since 2014 .  
Teachers have become very corporative in these days.



**Teachers are the professionals of education.**

**Dentists are the professionals of oral health.**

**Let's work together for brightly smile as a team !**







**Children are great !**



**G.P.S. Tu'anukivale**

**Elder boy teaches younger boy how to brush teeth properly**

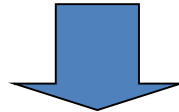


# School Visiting Oral Health Program

- Dental staff teach children at school.



- Children teach children.



- Children teach adults at home.



**Good habit spread from children to children and children to adults.**

# How to keep the bottles and tooth brushes



HINA : bottles

Fufulunifo : toothbrush





# Malimali Program in Preschools

- Tooth brushing instruction
- Fluoride mouth rinsing



0.05% NaF (5mls), 30 sec



It's so easy, but worth to do  
if we keep doing !  
**Prevention is better than cure.**



# Malimali Program has been on the **Second** phase since 2013.

- Toothbrushing everyday at school instructed **by dental staff**
- Fluoride mouth rinsing once a week instructed **by dental staff**
- Delivering fluoride every week



Dr. Sisilia Fifita is the chief in charge of Malimali program of all of Tonga.

- Instruction of toothbrushing , **fluoride mouth rinsing, hand washing and exercise by dental staff once in a week.**





Four JICA (Japan International Corporate Agent) volunteer have worked with us in Vava'u Malimali program in the past.



Takako (2007-2009)



Ai (2009-2012)



Masako (2012-2014)



Misaki (2014-2016)

The acquired good eating habit with good teeth and oral function in their childhood will prevent from suffering life-style related diseases and might be a guarantee on the future healthy life.





# Future plan

- Starting earlier prevention for pregnant women (minus 1 year old) (cleaning, scaling etc.)
- Oral survey for Class 1-6 students in GPS
- Mobile Clinic for the children living in the outer islands

# CONCLUSION

- Malimali Program in Tonga contributed to improving the children's oral condition in 6yrs to 12yrs old, and habit of tooth brush, habit of healthy diet and it is important to promote oral health care strategies for school children life style in Tonga.





**Thank you very much  
for your attention.**

**Malimali Program at Neiafu G.P.S.**