

Saving Smiles in Sri Lanka

John Krill, Juliana Fekete, Stephan Ribeiro, Mariah Eldredge, Nicole McDonough
Heal The World

BACKGROUND THE NEED THE APPROACH TWO PRONGED-ATTACK

Betel Quid

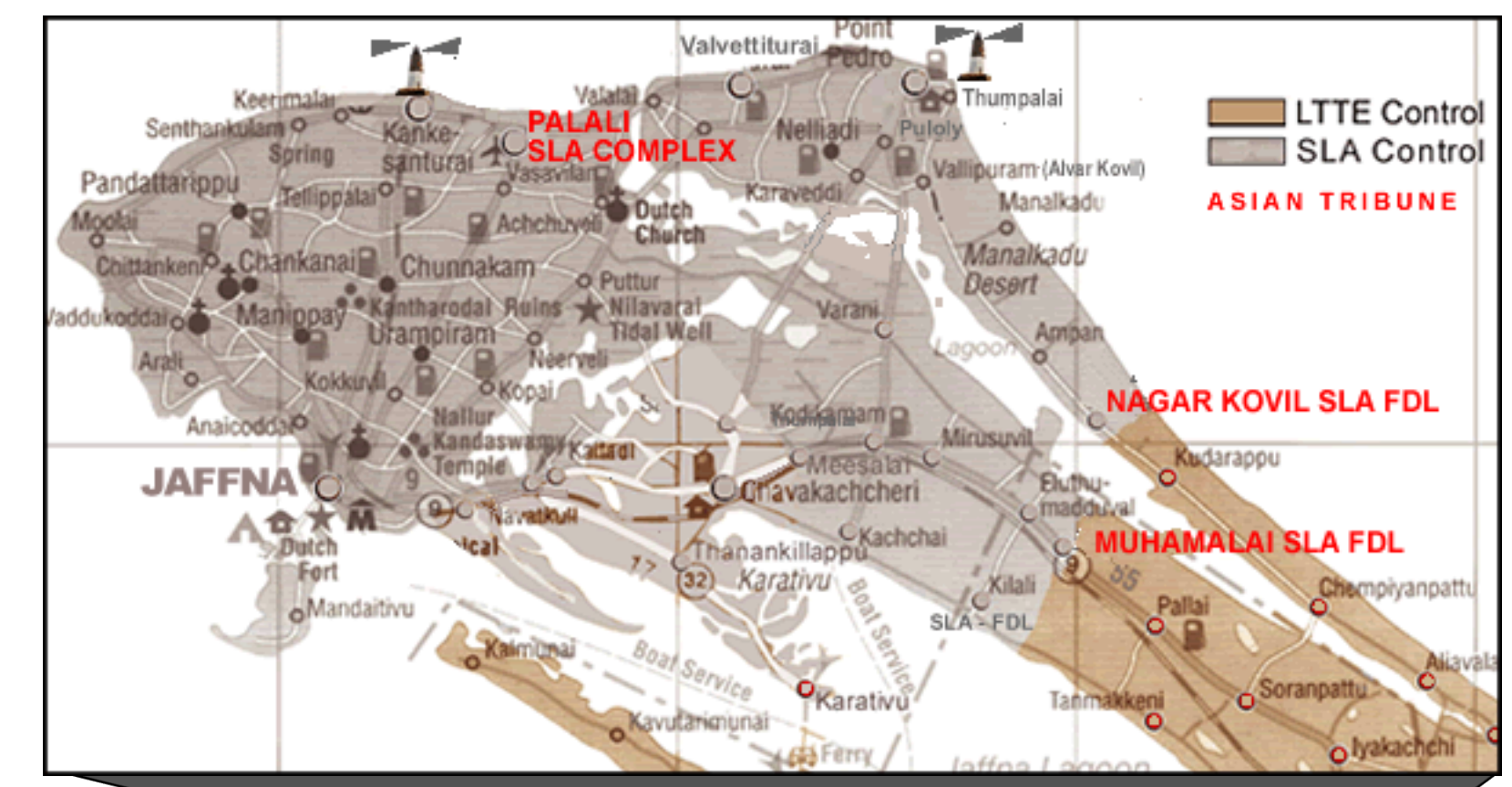
WHAT THEY BELIEVE

- Betel leaf and areca nut are **religious** and **cultural** symbols
- Heavily tied into *Hinduism*
- Habit passed down **many generations**
- Actually *thought* to clean the mouth

WHAT WE KNOW

- **#1** cancer-inducing *killer*
- **Over 1/3** of all cancers affecting the population of Sri Lanka are *oral cancers*
- Used by **52%** of the *population*
- Average daily number of **quids** used per person: **5.5**

To reduce the rate of oral cancers, precancerous conditions, and mouth ulcers, and increase the overall oral hygiene in Sri Lanka.



To educate students in junior secondary school about the health risks of betel quid and the importance of tooth care.

Why Jaffna?

- Large student (young) population (126,638)
- Highly literate district
- Highest rate of betel quid use in Sri Lanka

EDUCATION:

Host lectures across hundreds of junior secondary schools in Jaffna.

First half lecture topics:

- Identifying oral health problems
- The dangers of smoking or chewing tobacco and betel quid
- A pitch convincing students to avoid smoking or chewing

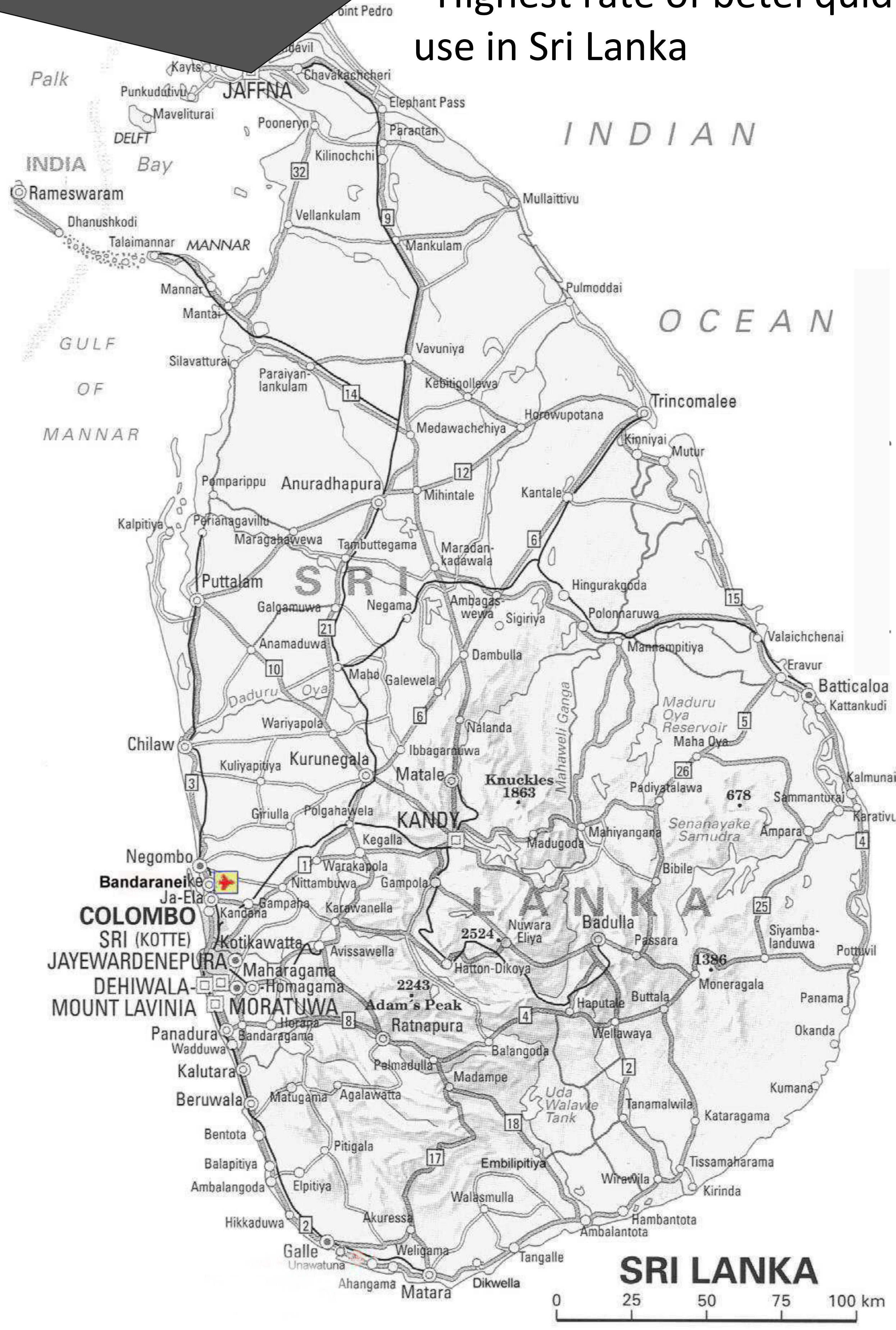
Second half lecture topics:

- General oral health problems (ex. caries and plaque)
- Importance of good oral hygiene
- Methods and suggestions to improve oral hygiene

DISTRIBUTION:

Give out miswak samples and *Salvadora Persica* seeds.

- Each student receives one miswak and two seeds.
- Each school receives fifty seeds to grow on location.



The Magic Twig

Miswak, or chewing stick, is an all-natural toothbrush. It comes from the *Salvadora persica* tree, which grows natively in Sri Lanka

Benefits:

- ✓ Contains antibacterial chemicals, including ethanol and benzene extracts
- ✓ Tough bristles to scrape away plaque
- ✓ Helps prevent caries and gingivitis
- ✓ Removes bad breath
- ✓ Increases salivation, inhibiting dry mouth



World Health Organization recommended!

Economical
Available
Ecological
Reusable
Affordable
Effective



Areca Nut



Jaffna Tobacco



Betel Leaf

What is in betel quid?



Slaked Lime

AgroForestryTree Database
<http://www.worldagroforestrycentre.org/Sea/Products/AFDbases/AF/asp/SpeciesInfo.asp?SpID=1477>
A healthy trade: Kick the cancer stick and pick up the magical twig
http://arabnews.com/lifestyle/food_health/article87760.ece
An Epidemiological Study of Oral and Pharyngeal Cancer in South-East Asia
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2475965/pdf/bullwho00610-0051.pdf>
Betel Quid and Areca Nut Chewing
<http://monographs.iarc.fr/ENG/Monographs/vol85/mono85-6.pdf>

Epidemiology of Betel Quid Usage
<http://www.annals.edu.sg/pdf200409/V33N4p31S.pdf?q=ji-mehta>
Prevention of Betel Quid Chewers' Oral Cancer in the Asian-Pacific Area
http://www.apocp.org/cancer_download/Vol2_No4/Itsuo%20Chiba.pdf
Chewing sticks: timeless natural toothbrushes for oral cleansing
<http://online.library.wiley.com/doi/10.1034/j.16000765.2001.380502.x.pdf>
Sri Lanka: Country Report to the FAO
<http://www.pgrfa.org/gpa/lka/srilanka.pdf>