



About Maluk Timor

Maluk means your people, kinsfolk, family, closest friends. Maluk Timor is an Australian and Timorese NGO motivated to advance primary healthcare in Timor Leste by a sense of kinship and solidarity with the Timorese people. Maluk Timor was established 4 years ago to fill an unmet need for health services by providing care in tuberculosis, HIV, malnutrition, rheumatic heart disease and other fields. Since then, Maluk Timor has witnessed tremendous growth in the health services provided by the Timorese Ministry of Health that meet the direct care needs of the people of Timor Leste. This means the role of Maluk Timor has shifted to have a bigger, longer lasting impact by working with Timorese health colleagues and the community to support a stronger health system.

Maluk Timor draws upon international clinical expertise and local experience in healthcare delivery to support the Timor Leste government to deliver quality healthcare in Timorese health facilities, by Timorese health workers. For more information, visit the Maluk Timor website: <https://maluktimor.org/>.

Summary of Oral Health Program:

What: Dental caries prevention and arrest using Silver Diamine Fluoride

Where: Dili

Why: Simple and cost-effective method to prevent the spread of dental caries in low resource settings

- Silver Diamine Fluoride is easy to teach, easy to use, less time consuming and easy to implement in limited resource settings (especially in schools and outreach camps).
- It takes less than 10-12 minutes to complete a successful application per child.
 - Can treat many patients in a single visit
- Does not require extensive equipment and material, hence cheaper when compared to other dental materials

Budget: ICD funding from September 2021 and 2022

Detailed Explanation:

Country Context Timor-Leste:

Currently, the Timorese Ministry of Health (MOH) have registered 18 dentists and 96 dental nurses in Timor Leste, with an average of one dental nurse per 13,541 population. Dental nurses are the main providers of primary oral health care in Timor-Leste, and they are charged with managing oral disease in the population. With comprehensive treatment of dental problems beyond the scope and capacity of the existing dental health workforce; the MOH focuses on oral health promotion and the prevention of oral diseases, while making emergency dental care available throughout the country.

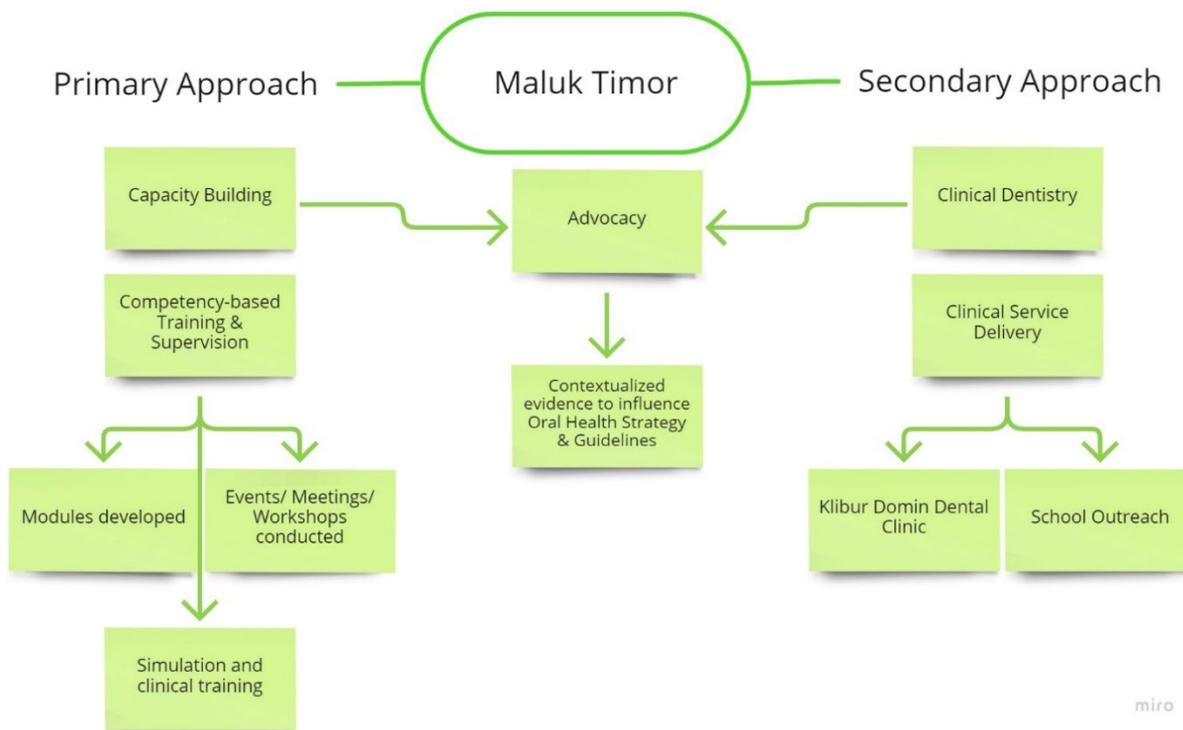
From a comprehensive list of problems towards achieving good oral health outcomes that causes numerous obstacles/ hindrances to the population accessing good quality oral health care in Timor-Leste. We identified a major problem that can be addressed by Maluk Timor which is, dental nurses have received limited professional development and little ongoing support to enable them to carry the burden of providing sustained care for the population. While other parts of the health sector have received much more attention, the oral health workforce remains underserved.

What does our Oral Health Team do:

Maluk Timor's Oral Health program applies two approaches to dental caries prevention in Timor-Leste (*figure 1*). Our primary approach involves capacity building the MOH oral health workforce whereby fundamentally we are developing competency-based modules and leverage relationships with MOH to approve these modules. This guarantees that our modules are accepted by MOH and autonomous bodies of MOH as well as the National Dental Association Timor-Leste and other national and international

organisations. Our secondary approach ensures our team interacts directly with the community (patients) and provides clinical treatment using silver diamine fluoride. This helps us demonstrate that the intervention proposed can be successfully delivered in Timor-Leste (not just on paper but in practice as well). Additionally, providing the service helps us better understand grassroots realities and evolving needs of the population. Together both approaches provide Maluk Timor a strong base to increase our advocacy efforts and influence oral health policy at a health systems level.

Figure 1: Maluk Timor's approach to Oral Health in Timor-Leste



What have we achieved so far:

As part of our primary approach Maluk Timor has successfully organized two Technical Working Group Meetings (TWG-1, TWG-2) that were crucial to eliciting valuable feedback from the wider dental community in Timor-Leste (figure 2). These TWG's were instrumental in improving the social network between national stakeholders as they brought various government and non-governmental organisations to a single forum to discourse on competency-based training and Continuous Professional Development (CPD).



Going forward, our team is working alongside MOH to organize a National Workshop on Silver Diamine Fluoride to be held in Dili on November 25 (figure 2). This will ensure that MOH's oral health workforce at the primary, secondary and tertiary levels are adequately informed about MOH's latest guidance on Silver

Diamine Fluoride upskilling and utilization. This national workshop received funding from The International College of Dentists and Maluku Timor Australia.



On the clinical front our oral health team has successfully collaborated with MOH and SSM Liquisa to deliver Silver Diamine Fluoride interventions to over 1300+ school children in Liquisa. Our team runs a school-based outreach activity whereby school children receive the following:

- Oral Health promotion on tooth brushing, high caries risk vs low caries risk diet, nutritional factors, etc.
 - Incentivized by distribution of tooth brushing kits
 - Children required to brush their teeth prior to Silver Diamine Fluoride application
- Single application of Silver Diamine Fluoride
- Follow-up visit after 6-12 months

A total of 10 schools in Liquisa and children aged 6-8 within these schools have been selected as part of the Silver Diamine Fluoride intervention. The children within these schools will participate in the activity over the next year. Their oral hygiene status and number of Silver Diamine Fluoride applications received will be monitored annually. This group of schools and respective children will serve as the first pilot batch for our school outreach activity in Timor-Leste.

Figure 2: Training module development procedure with MOH



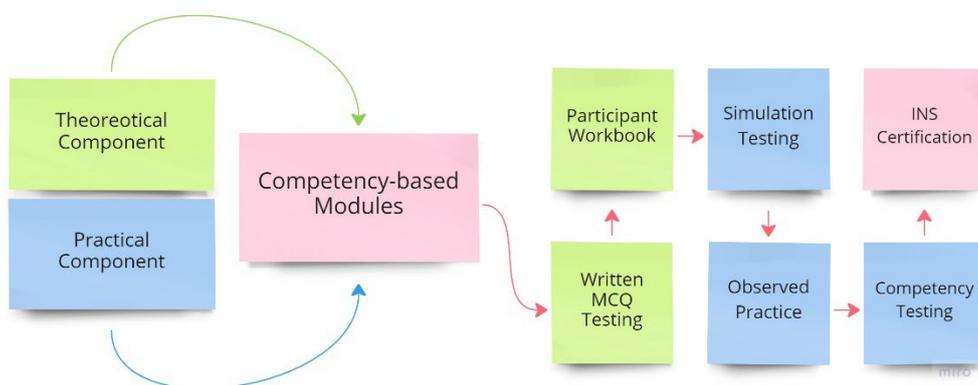
Where are we headed?

To ensure the competency-based module (primary approach) is successfully adopted by MOH, Maluku Timor works with experienced senior officials within MOH and its autonomous bodies and senior dentists from The National Dental Association Timor Leste. These dentists are well respected within Timor Leste and are viewed as senior professionals by their peers (dental nurses). Through our consultations with the MOH, autonomous bodies (i.e., Institute Nasional Saude), National Dental Association Timor Leste, and Municipal Health Services Dili (SSM Dili), we understand that involving the senior dentists within Timor

Leste in the project design, module development and upskilling delivery is crucial to ensure sustainability of the capacity building activity.

Given that the competency-based training has a practical aspect we will collaborate with SSM Dili, i.e., the district health authority for Dili, to deliver the practical component of upskilling at schools across Dili Municipality as part of the INS course completion accreditation (figure 3). We will have access to their oral health workforce that services a population of 37,632 middle school children¹. Hence, through this partnership we would be able to offer professional support in MOH’s clinical practice across six Community Health Centres in Dili. **Our focus is not to achieve successful SDF applications for all school children in Dili but to sustainably upskill the workforce to be competent in their health service delivery.**

Figure 3: Certification Pathway

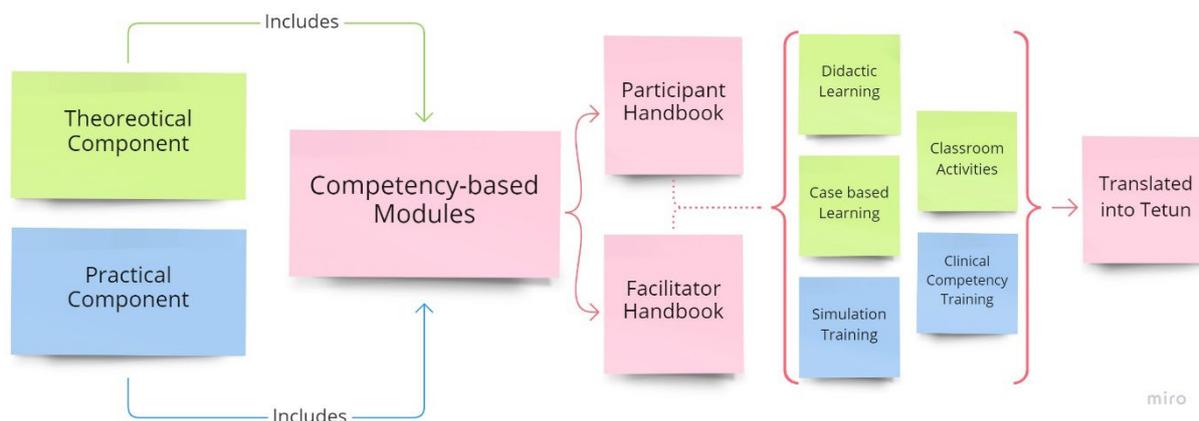


Competency-based Modules & Maluk Timor’s Five-Year Goal:

Maluk Timor’s forte is in increasing the capacity of the MOH’s human resources in Timor-Leste and strengthening health systems through positive influence in oral health policy, (not by building health facilities, fixing logistic and supply chain issues, etc.). Therefore, as part of Maluk Timor’s five-year oral health plan for Timor-Leste, the Oral Health Team designed and developed ‘Projeto Nehan Saudavel’ (Healthy Teeth project) and is working collaboratively with the MOH and partners to establish and implement competency-based modules that can be sustainably delivered by the current MOH systems via Institute Nasional Saude (INS)².

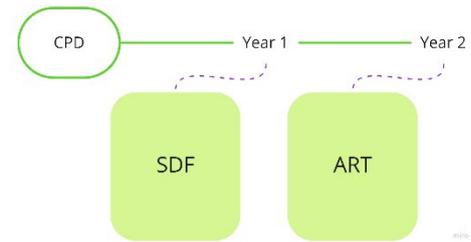
In figure 4, our competency-based modules comprise of two components (theoretical and practical). These components are intertwined through a series of lectures, group discussion and activities, storytelling, card games, simulation and clinical practice. These are adapted into the participant and facilitator handbooks and translated into Tetun.

Figure 4: Overview of Competency-based Modules



Through upskilling, Maluk Timor will trial and assess a competency-based system that could then be replicated for Continued Professional Development (CPD) on various topics over five years. Dental nurses upskilled through this project would be characterized as ‘model’ dental professionals and each year the Maluk Timor training program will increase their scope of practice on a different procedure/ treatment modality, see figure 5.

Figure 5: CPD approach



The target is to upskill dental nurses, assess their competencies and expand their scope of practice in Community Health Centres across Dili municipality to reduce the suffering created from dental caries. Similarly, Community Health Centres that participate in this project will be characterized as ‘model’ health facilities and begin setting standards in providing quality preventative oral healthcare.

Sustainability:

Our view regarding the sustainability of CPD is that INS has a health ‘Training of Trainer’ (TOT) module, whereby health professionals within their respective fields, are trained to be certified trainers and facilitators of specific INS accredited upskilling modules. In partnership with INS, we have established learning material (facilitator and participant handbooks) towards the theoretical and practical components. Maluk Timor trusts that by developing CPD modules to be delivered through the INS and MOH systems, participants will receive INS accreditation which will assure sustainability and efficiency to be carried by these two national bodies into the future.

¹ Number of children reached will be influenced by the amount on funding available. (Costs per child - USD \$3 approx.)

²INS was established in 2005 (previously known as the National Centre for Health Education, established in 2001) as an autonomous body under MOH. INS delivers post-graduate training and upskilling to all health professionals.