Ministério da Saúde

World Health Organization
Timor-Leste

# NATIONAL ORAL HEALTH STRATEGIC PLAN 2025-2030



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# Message

National Oral Health Strategic Plan (2025-2030) is a document intended to guide the efforts in achieving the vision of Delivering Optimal Oral Health Services for all Timorese people.

The Ministry of Health in Timor-Leste is taking a proactive approach to address the limitations of its dental health workforce. Since comprehensive treatment of dental issues is beyond the current capacity, the focus has shifted to promoting oral health and preventing diseases, while ensuring emergency dental care is accessible nationwide.

Implementation of an oral health strategy benefits the community in numerous ways: good dental health protects against gum diseases, gum inflammation, and tooth loss, we can improve our overall quality of life, we can build stronger, healthier communities and reduce the prevalence of oral health issues, preventive care reduces need for costly treatments, improved oral health habits, reduced risk of early childhood caries, improved oral health among elderly will reduce risk of systemic diseases, and enhanced quality of life. Taking care of oral health is crucial for citizens of all ages.

The Ministry of Health commends the contribution of all those who contributed to the development of this Strategic plan and would urge all the implementing partners for successful implementation of this strategy in the field.

**"Take care of your teeth, and they'll take care of you!"**

**dr. Élia A. A. dos Reis Amaral,SH**
**Minister of Health**
**Democratic Republic of Timor Leste**

# Preface

Oral health is a key indicator of overall health, well-being and quality of life. Oral Health Country Profiles by the World Health Organization showed that, the burden of oral diseases and conditions are high in Timor-Leste. The estimated prevalence of untreated caries of deciduous teeth in children aged 1-9 years in 2019 was 44.8% and prevalence of untreated caries of permanent teeth in people of ≥ 5 years was 35.5%. Incidence of lip and oral cavity cancer for all ages in 2020 was estimated as 1.2 per 100,000 population. Oral diseases and conditions also pose a high expenditure on the Government. The total annual national expenditure on dental healthcare in outpatient dental care was estimated as US$ 0.7 million with per capita expenditure on dental healthcare as US$ 0.6 million in 2019.

The growing burden of oral diseases in Timor-Leste coupled with the high prevalence of oral diseases risk factors such as tobacco use, alcohol consumption and diets high in sugar, is a cause of great national public health concern.

The Government has made progress to combat the risk factors through implementation of taxes on sugar- sweetened beverage and tobacco. To improve access to health care, the oral health interventions have been included as part of health benefit package of the Government. However, efforts are needed to strengthen on oral health promotion and prevention, primary curative and restorative oral health care at Community Health Center level along with strengthening of specialized oral health care at higher levels. Enhancing workforce capacity, improving access to essential equipment, essential medicines and improving oral health information systems are the other areas that need to be addressed.

The National Oral Health Strategic Plan 2025-2030 is designed to address the priorities, of Timor- Leste enabling the country to contribute to the collective aim of the South-East Asia Region to achieve Universal Health Coverage for oral health by 2030 and to reach the targets of 33.3% relative reduction in premature mortality from oral cancer and a 25% relative reduction of prevalence of untreated dental caries of permanent teeth. To help promote, monitor and implement the National Oral Health Strategic Plan, the World Health Organization pledges to provide technical support, in collaboration with other partners.

**Dr. Arvind Mathur**
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# Acknowledgment

The development of National Oral Health Strategic Plan (2025-2030) was done through a consultative way, counting on the technical contributions of the World Health Organization (WHO) Timor-Leste, Dental Association of Timor-Leste (ADETIL), and the Ministry of Health. The plan was developed through a collaborative effort, with all team members contributing their ideas and insights to shape the final document.

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# LIST OF ABBREVIATIONS

| | |
|---|---|
| ADETIL | – Dental Association of Timor-Leste |
| CHC | – Community Health Centre |
| CHV | – Community Health Volunteer |
| DMFT | – Decayed, Missing, and Filled Teeth |
| Etch-37 | – 37% Phosphoric acid semi-gel Etchant |
| FS | – Fissure Sealant |
| GDP | – General Dentist Practitioner |
| HP | – Health Post |
| INFPM | – National Institute of Pharmacy and Medical Products |
| INSPTL | – National Institute of Public Health Timor Leste |
| IOPG | – Intraoral Periapical Radiograph |
| MoH | – Ministry of Health, Democratic Republic of Timor-Leste |
| NCD | – Non-Communicable Diseases |
| NGOs | – Non-Governmental Organizations |
| NH | – National Hospital |
| NHSSP | – National Health Sector Strategic Plan |
| OHSS | – Oral Health Surveillance System |
| PEN | – Package of Essential Services in Non-Communicable Diseases |
| POHC | – Primary Oral Health Care |
| IHP | – Integrated Health Program |
| RH | – Referral Hospital |
| SDF | – Silver Diamine Fluoride |
| SWOT | – Strength Weakness Opportunity and Threats |
| UHC | – Universal Health Coverage |
| UNDIL | – University of Dili |
| WHA | – World Health Assembly |
| WHO | – World Health Organization |
| ToR | –Terms of Reference |

# I. INTRODUCTION

Oral health is a key indicator of overall health, well-being and quality of life. It encompasses a range of diseases and conditions that include dental caries, periodontal (gum) disease, tooth loss, oral cancer, oral manifestations of HIV infection, oro-dental trauma, birth defects such as cleft lip and palate.

The Global Burden of Disease Study 2017 estimated that oral diseases affect 3.5 billion people worldwide.[1] According to the International Agency for Research on Cancer, cancers of the lip and oral cavity are among the top 16 most common cancers (1.9%) worldwide, with nearly 188,438 deaths each year.[2]

Most oral diseases and conditions share modifiable risk factors with the leading non-communicable diseases (cardiovascular diseases, cancer, chronic respiratory diseases and diabetes). These risk factors include tobacco use, alcohol consumption and unhealthy diets high in free sugars, all of which are increasing at the global level. There is a proven relationship between oral and general health. It is reported, that diabetes mellitus is linked with the development and progression of periodontitis. Moreover, there is a causal link between high consumption of sugars and diabetes, obesity and dental caries.[3]

Untreated dental caries (tooth decay) in permanent teeth is the most common. Severe periodontal (gum) disease affects almost 10% of the global population and more than 530 million children suffer from dental caries of primary teeth.[4] Oral diseases disproportionally affect the poor and socially disadvantaged populations. Most oral diseases have been linked with other non-communicable diseases such as cardiovascular diseases, diabetes, cancers, pneumonia, obesity and premature birth.

Most oral health conditions are largely preventable and can be treated in their early stages but treatment is often not affordable as it is not usually part of universal health coverage packages. The use of fluoride, which can substantially reduce the risk of dental caries, remains inaccessible in many parts of the world.

The World Health Assembly of 2021 approved a historic Resolution on oral health urging Member States to address key risk factors of oral diseases shared with other non-communicable diseases, such as high intake of free sugars, tobacco use and harmful use of alcohol, and to enhance the capacities of oral health professionals.[4] It also recommended a shift from the traditional curative approach towards a preventive

approach that includes promotion of oral health within the family, schools and workplaces, and includes timely, comprehensive and inclusive care within the primary health-care system. During the discussion, clear agreement emerged that oral health should be firmly embedded within the non-communicable disease agenda and that oral health-care interventions should be included in universal health coverage programs. Subsequently, the 75th WHA in May of 2022 adopted the Global Strategy on Oral Health guides theguiding Member States to:[5]

- Develop ambitious national responses to promote oral health;
- Reduce oral health diseases, other oral conditions and oral health inequalities;
- Strengthen efforts to address oral diseases and conditions as part of UHC; and
- Consider the development of targets and indicators, based on national and sub-national context, building on the guidance to be provided by WHO's global action plan on oral health, in order to prioritize efforts and access the progress made by 2030.

In Timor-Leste, the National Health Sector Strategic Plan (NHSSP) 2011–2030 noted that oral health was a priority within a range of essential health interventions, and that the most common problem was dental caries, but acknowledged that the treatment of the dental problems was beyond the capacity of the existing health system. It recommended ensuring access of the whole population to appropriate oral-health services, reorientation of clinical service delivery from a curative model of care to a blend of promotive, preventive and curative interventions, and promotion of community awareness and participation in priority target groups. The NHSSP also identified as key indicators (a) increased scholarships for oral health professionals, (b) 75% of health centers implementing oral-health programs, (c) baseline data on periodontal diseases and oral cancer, and (d) at least 35% of schools participating in oral-health promotion and education.[6]

Preceding the NHSSP, was the National Oral Health Strategy developed in 2004, which in its essence recommended salt fluoridation, affordable fluoride toothpaste, a school dental service, and integration of oral health into general health promotion, focus on preschool children, pregnant women and mothers of young children, school children and people who smoke or chew betel quid.[7]

Not much information is available regarding the results of the implementation of the 2004 National Oral Health Strategy, as well as the key indicators identified in the NHSSP in Timor-Leste. However, some general information and results of specific

research published in academic papers will form the basis for the rationale of this strategic plan. The preparation and finalization of this Strategic Plan was done by Timor-Leste Dental Association (ADETIL) with technical and financial support by the WHO's country office, involving the participation of a technical consultant and intensive discussions among the experts, including the relevant officials of the Ministry of Health.

# II. SITUATION ANALYSIS AND RATIONALE

## 1. The General Health Context

Timor-Leste is geographically located at the crossroads of Southeast Asia and the Pacific, occupying half the island of Timor. According to Timor Leste Housing and Population Census 2022,the country has a population of1,341,737 million, 70% of whom live in rural and remote areas.

The health system in Timor-Leste, according to Essential Service Package for Primary Health Care for Timor-Leste 2022, has three levels of care namely, Primary Health Care, Secondary Health Care and Tertiary Health Care. Primary health care (PHC) is provided through Health Posts (HPs) and Community Health Centers (CHCs).[8] Secondary health care is provided through four Referral Hospitals and one Regional Hospital. Tertiary care is available at the National Hospital in Dili. Outreach services are delivered through mobile health teams. However, regarding basic oral health care provision, it is currently available at the Community Health Center (CHC) level in the capital of municipalities, referral hospitals and at the National Hospital. Ancillary services, such as laboratory functions and supply chain for medicines, are managed by autonomous entities at the central level.

The Ministry of Health (MoH) serves as the primary institution for governance and stewardship of the health sector, with a broad range of responsibilities that encompass:

- Policy development
- Resource mobilization
- Regulation and standard setting
- Licensing of health practitioners and providers
- Human resources management (including registration, recruitment, and placement of health professionals)
- Monitoring and evaluation

Notably, oral health issues are currently addressed by an under-resourced unit within the Department of Non-Communicable Diseases (NCDs), highlighting the need for enhanced capacity and support in this critical area.

Private providers predominantly operate in Dili, while non-governmental organizations (NGOs) support service delivery in some municipalities, typically financed by external sources of funds. From the financing perspective, the MoH is the primary financier of the public sector health services, except for large capital projects.

Some of the important achievements in the health sector during the last 20 years include,

a) life expectancy improving from around 62.7 years in the year 2000 to 69.06 years in 2022[9]
b) under-five mortality rates decreasing from 111.7 in the year 2000 to 48.6 per 1000 live births in 2022[10]
c) maternal and neonatal tetanus eliminated in 2012[11]
d) elimination of measles in 2018[12]
e) elimination of rubella in 2023[12]
f) elimination of Lymphatic Filariasis in 2024[13]

Despite progress, Timor-Leste's health sector still faces significant public health challenges, including:

a) The persistent public health threat of dengue, with a growing number of cases reported during the rainy season;
b) Tuberculosis incidence rate is 486 per 100,000 population in 2021, driven by poverty, poor living conditions, high smoking rates, chronic malnutrition, lack of awareness, and stigma;[14]
c) 47% of children under five years of age in Timor-Leste are stunted, 8.6 percent suffer from acute malnutrition, attributed to a combination of factors including poverty, poor sanitation, and limited health literacy;[15]
d) A rising burden of Non-Communicable Diseases (NCDs), now responsible for 62% of all deaths in the country. [16]

These challenges underscore the need for sustained efforts to strengthen the health system and address the underlying determinants of health.

According to a 2014 WHO survey, a significant proportion of adults in Timor-Leste exhibit multiple risk factors for Non-Communicable Diseases (NCDs), with approximately one-fifth of adults displaying three or more risk factors, including:[16]

- Smoking
- Inadequate diet
- High blood pressure

- Alcohol use
- Inadequate physical activity.

Notably, the same survey revealed that tobacco consumption is widespread, with 70% of men using tobacco products in some form. A comprehensive national tobacco control legislation was enacted in 2016,[17] featuring one of the largest graphic health warnings on cigarette packaging globally. However, despite these efforts, smoking rates remain persistently high. Furthermore, alcohol use is deeply ingrained in Timor-Leste's culture, posing an additional challenge to public health.

## 2. Oral Health: Magnitude of the problem.

The first National Oral Health Strategy was released in 2004 by the Ministry of Health (MoH) and largely accepted the oral-health policy recommendations of the National Oral Health Survey. It recommended salt fluoridation, affordable fluoride toothpaste, a school dental service and integration of oral health into general health promotion, focus on preschool children, pregnant women and mothers of young children, school children and people who smoke or chew betel quid.[7]

After a decade of adoption of the National Oral Health Strategy, Bobo Soares and colleagues reviewed the progress of the implementation in 2014 and concluded in their research article that:

“Few proposals have been implemented to date, owing to (i) lack of local support for the recommendations, particularly on promotion of oral health; (ii) lack of financial and budgetary provisions for oral health; (iii) lack of focus on services, human resources and dental personnel; (iv) poor focus, design and implementation of policy and planning in oral health; and (v) lack of transport to facilitate health-care workers’ access to remote areas”.[18]

Despite the lack of publicly available data on oral health indicators, published academic research suggests that there has been little to no progress in improving the oral health status of the population, particularly among school-aged children. This is a concerning trend that warrants attention and action to address the ongoing oral health challenges in Timor-Leste.

A study published in 2016, by Babo Soares and colleagues found that in 2014, a lower proportion of children reported brushing their teeth the previous day compared to 2002 (97% vs 100%) and a larger proportion reported having toothache (40% vs 19%) (from sometimes to very often) during the previous 12 months.[19] The mean number of decayed, missing or filled teeth in the primary plus permanent dentition (dmft + DMFT) was greater in 2014 than in 2002 (4.2 vs 3.5). There was no difference in the

prevalence of decay in the primary dentition (39% vs 37%) or the mean number of decayed, missing or filled (dmft) teeth in the primary dentition in 2014 compared to 2002 (2.0 vs 1.8). However, the prevalence of decay in the permanent dentition was greater in 2014 (70% vs 53%) as was the mean DMFT (2.3 vs 1.7). The prevalence of gingival bleeding (65% vs 81%) and calculus (57% vs 86%) was lower in 2014. This study concluded that there was an increase in dental caries experiences in Dili school children between 2002 and 2014, associated with more permanent teeth dental caries experiences.[18]

Another study on school aged children in Dili found that the dmft index for deciduous and permanent teeth was higher in children from mid-to-high socio-economic status than low socio- economic status schools, and that the primary dental caries experience was greater among children from mid-to-high than low socio-economic status schools, a fact that may be explained by high sugar consumption among mid-to-high socioeconomic school children.[20]

A subsequent study undertaken in the Aileu Municipality to investigate the caries status and potential risk factors among primary school children found that in the primary dentition, the overall prevalence of caries was 64% and the mean DMFT score was 2.74. In the permanent dentition, the overall prevalence was 53% and the mean DMFT score was 1.74. Overall, approximately 84% of caries lesions were identified as being active.[21]

Despite the fact that these findings cannot be extrapolated to the whole of Timor-Leste, the available evidence suggest that dental health indicators had been deteriorating, which might be a reflection of the lack of support in the implementation of oral health programs, as identified by Babo Soares and colleagues in 2014.

## 3. Oral Health Services: Human resources for oral health

Effective implementation of oral health programs relies on an adequate workforce, including dentists, dental nurses, and dental technicians. However, data collected by ADETIL as of April 2022 reveals a significant shortage of oral health professionals in Timor-Leste. With only 18 dentists (1:72,223 population ratio) and 96 dental nurses (1:13,541 population ratio) actively providing services, the country lags far behind regional averages:

- Western Pacific region: 1:7,786
- South East Asia region: 1:15,138

- African region: 1:41,943

This stark disparity highlights the urgent need to scale up the oral health workforce in Timor-Leste to meet the population's needs.

In terms of distribution, 45% of the dentists are posted at the referral hospitals and National Hospital, while 80% of dental nurses are posted at community health centers. All the existing Health Post in the territory do not have oral health personnel.

## 4. Oral Health Services: SWOT (Strength, Weakness, Opportunities, Threat) analysis.

A series of workshops organized with relevant stakeholders, MoH officials and oral health workers identified the following strengths, weaknesses, opportunities and threats.

### Strengths

- Commitment from the government to fill human resource posts as per the Timor-Leste strategic development plan is evident.
- MoH officials sent sixty-three Timorese students to study dentistry in a foreign university and they will be joining to serve at various health facilities in one to two years.
- All the medicines required for dental treatment are already available in the Timor-Leste Essential Medicines List, and could be demanded by the health facilities as per the needs.
- Few Public health facilities in Dili and other municipalities areas arew equipped with well functioning dental equipments and people are availing the treatment.
- Dentists are available in Dili, Aileu, Ermera, Covalima/Suai, Liquica and Baucau.

### Weaknesses

- Expenditure on health as a share of gross domestic product (GDP) and further on oral health has been low. For example, from 2019 to 2022, US$184,635.00 was allocated by the MoH to oral health programs in the category of goods and services.
- The specialists in dental care are not able to provide the desired specialized services due to lack of appropriate equipment, instruments and materials for advanced dental care.

- General dentists are not available at Oecusse referral hospitals and almost all community health centers (CHC), except two.
- Out of the 72 Community Health Centers in Timor-Leste, only 23 CHCs have at least a dentist or a dental nurse.
- None of the Health Post in Timor-Leste has dental health personnel.
- lack of skill development and capacity building plan for the posted Dental Health Professionals impacts the enhancement of professional competencies, which inturn can have implications on patient safety.
- Senior dental nurses across various health facilities have not received capacity-building opportunities for an extended period.
- Dental technicians are not being utilized for the purpose they were trained due to the absence of dental laboratory at national hospital and referral hospitals.
- There is no standard format for oral health assessment.
- Health facilities report less availability or shortage of essential medicines, disinfectants, local anesthetics and dental materials.
- Low number of consultations at dental clinics due to lack of people's attention to oral health problems.
- Non-functional orthopantomogram (OPG) machine at National Hospital.
- Non-functional dental chairs and non-availability of hand instruments and other equipment at CHCs.
- Congested working area for oral healthcare professionals for treatment of patients.
- Centralized annual planning process does not involve the relevant oral health units.
- Clear roles, responsibilities, and specialization are needed to ensure a well-structured workforce capable of providing high-quality oral health services.
- No routine inventory and maintenance of dental equipment.
- There is no Standard Operating Procedures (SOPs) for infection control at different levels of dental care (primary, secondary and tertiary).
- Dental health professionals lack access to continuous education and professional development opportunities, hindering their ability to stay updated on best practices, technologies, and research, ultimately affecting the quality of care.
- There is a relatively small amount of budget allocated to Oral Health Unit, within MoH.
- Inadequate oral health data and oral health disease surveillance system and planning.
- Low funding for research for oral health.

## Opportunities

- Focus on oral health promotion and prevention approaches for various age groups.
- Developing training manuals for health workers and school teachers on oral health promotion.
- Developing Standard Operating Procedures for infection control at different levels of dental care to ensure patient safety.
- Integration of oral health with general health programs
  - Non communicable diseases program.
  - Tobacco control program.
  - School health program.
  - Nutrition program.
  - Mother and child health program.
  - Program for elderly.
  - Routine immunization.
- Utilizing the Health Management Information System (HMIS) for gaining useful insights.
- Developing standard oral health assessment forms for children and adult for both government and private health facilities.
- Motivating senior dental nurses with capacity building in area of oral health, tobacco cessation and infection control in dental operatory.
- Developing dental operatory at the level of national and referral hospital to utilize dental technicians and rehabilitate people for missing teeth with dentures, dental Implants or dental bridges.
- Timor Leste Dental Association could be utilized for advocacy and school based primary care.
- Advocate for resource mobilization for Oral Health Program.
- Ascertain the involvement of Oral Health Unit in Annual planning exercise to ensure the allocation of essential medicines, consumables and equipment for dental care.

## Threats

- Tobacco consumption is embedded in socio cultural practices in Timor-Leste.
- High prevalence of tobacco usage among Timorese population.
- High sugar content in food.
- Expensive oral hygiene products.
- Poor health seeking behavior.
- Long travel distances to access referral hospitals for specialized care.

- Multiple visits required for comprehensive treatment.
- Dental equipment and materials are often wasted due to disuse.
- Lack of awareness on Oral health.

The general health context and the specific oral health context helped to shape the goal and objectives of this strategic plan for oral health service delivery in Timor-Leste. The National Oral Health Strategic Plan (2025-30) presents a guidance to improve the oral health of the Timorese population, within the existing socioeconomic, cultural, political and health system, through a more structured and attainable service delivery.

# III. VISION, MISSION, GOAL AND OBJECTIVES

## 1. Vision

“To deliverOptimal Oral Health Services for all Timorese people,were every individual enjoys good oral health, with access to quality, affordable and preventive dental care, ensuring a brighter smile and a better quality of life for all.”

This vision is a sub-set of the overall vision for health in Timor-Leste, ‘’Healthy East Timorese People in a Healthy Timor-Leste’’, which is enshrined in the NHSSP 2011-2030, and is in line with the WHO - Global strategy and action plan on OralHhealth 2023–2030.[22]

## 2. Mission

“To promote and improve oral health services delivery, by ensuringthe support of all the stakeholders, including private oral health service providers, to achieve the vision of delivering optimal oral health services for all Timorese people.”

By acknowledging the importance of collaboration with other stakeholders, the Ministry is recognizing the need for a multi-faceted approach to address the challenges outlined earlier and to ensure equitable access to orla health services.

## 3. Goal

By 2030, at least 50% of the Timorese people to utilize primary oral health services.

## 4. Objectives

In order to achieve the goal, the following are specific intermediary objectives:

1. By the end of 2025, initiate oral health promotion on caries prevention, (healthy diet and tobacco cessation) for specific members of the society (children, pregnant women & elderly people) and by the end of 2030 the proportion of vulnerable groups accessing the services be 50%.
2. By the endof 2025 initiate implementation of oral diseases prevention activities of fluoride and/or Silver Diamine Fluoride application, and by the end of 2030, services reaching at least 50% of the school-aged children.

3. By the end of 2030, all the CHCs to provide primary curative and restorative oral health care.
4. By the year 2030, National Hospital to provide selected specialized oral health care, including the establishment of a Dental Laboratory.
5. By the end of 2027, 4 dentists and 6 dental nurses to be sent to study in identified specialty areas in dentistry.
6. By the end of 2027, 20 dentists and 100 dental nurses to be recruited phase wise to provide services at all the Community Health Centers without dental personnel, and by the end of 2030, at least 50% of all existing health post to have one dental nurse.
7. By the end 2025, an oral health unit to be established within the Ministry of Health, and specific budget be allocated for oral health service delivery.
8. By the end of 2030, all the CHCs and referral hospitals to have the basic equipment, specific medicines and consumables for oral health care provision

# IV. THE STRATEGIC PLAN 2025–2030

## 1. Strategies and Priority Actions

The goal and specific objectives will be achieved through the strategies and priority actions defined in the following table:

| STRATEGIES | PRIORITY ACTIONS | OUTPUTS | OUTCOMES | TIME FRAME | RESPONSIBILITY |
|---|---|---|---|---|---|
| **1. Implementation of oral health promotion prevention and basic treatment.** | 1. Integrated Oral Health Promotion (OHP) through school oral health, integrated health service program, mobile clinics, and other levels of care. | • Increased access to oral health promotion.<br>• Increased access to fluoride and/or Silver Diamine Fluoride (SDF) application by school children | • Behaviour changes in oral health (increased oral hygiene, reduction in sugar consumption, decreased tobacco usage, and reduction in betel nut chewing).<br>• Caries arrested. | 2025 - 2030 | Ministry of Health (Oral Health Unit, Health Education and Promotion Department), Development Partners, Ministry of Education and Other Related Ministries. |
| | 2. Oral disease prevention. | • Increased coverage of treated dental caries. | • Increased number of restored teeth. | | |
| | 3. Basic curative and restorative treatment of dental | • Increased number of CHCs providing primary curative | • Increased access to treatment. | | |

| STRATEGIES | PRIORITY ACTIONS | OUTPUTS | OUTCOMES | TIME FRAME | RESPONSIBILITY |
|---|---|---|---|---|---|
| | caries at CHC level. | and restorative oral health care | | | |
| | 4. Redesign and rehabilitation of the existing dental clinics at the CHCs. | • Minimized working space congestion.<br>• Better implementation of Infection control procedures. | • Better working conditions for the professionals.<br>• Minimize cross infection | | |
| **2. Provision of selected specialised Oral Health Care at National Hospital.** | 5. Reorganization, renovation and development of specialized oral health services at National Hospital, including the establishment of a Dental Laboratory. | • Specialized oral health services will be provided with renovation and reorganization at the National Hospital.<br>• Establishment of dental laboratory at the National Hospital. | • Specialized medical and nursing care available at National Hospital in Maxillofacial Surgery, Operative Dentistry, Periodontology and Prosthodontics. | 2025 - 2030 | Ministry of Health (National Hospital, Department of Human Resources MoH, Oral Health Unit). |
| | 6. Training of oral health professionals in Maxillofacial Surgery, | • Availability of sufficient dental specialists. | | | |

| STRATEGIES | PRIORITY ACTIONS | OUTPUTS | OUTCOMES | TIME FRAME | RESPONSIBILITY |
|---|---|---|---|---|---|
| | Operative Dentistry, Periodontology and Prosthodontics. | | | | |
| **3. Recruitment and development of human resources for the provision of Primary Oral Health Care (POHC).** | 7. Recruitment of dentist and dental nurses to be posted at Health Post and Community Health Centres for the provision of POHC.<br>8. Training of dentists and dental nurses for the provision of POHC. | • Increased number of dental nurses and dentists recruited and trained to provide primary oral health care. | • Primary oral health care provided at all CHCs and to all Timorese people. | 2025 onwards | Ministry of Health (Department of Human Resources, MoH, Oral Health Unit, Department of Finance MoH, INSPTL). |
| **4. Organizational reconfiguration and mobilization of financial resources for oral health care.** | 9. Re-establishment of an oral health unit in accordance with the 5 Functions cited in National Oral Health Strategy | • Oral health unit overseeing the implementation of oral health services. | • Sustainable organizational and financial resources available for the provision of good oral health care. | 2025 onwards | Ministry of Health (Department of Finance, MoH, Oral Health Unit). |
| | 10. Preparation of Annual Action Plans (AAPs) and Annual | • AAPs and ABs prepared for primary, secondary | | | |

| STRATEGIES | PRIORITY ACTIONS | OUTPUTS | OUTCOMES | TIME FRAME | RESPONSIBILITY |
|---|---|---|---|---|---|
| | Budgets (ABs) for oral health. | and tertiary oral health care. | | | |
| | 11. Mobilization of additional resources from development partners for oral health programs. | • Additional financial resources for oral health care made available by development partners. | | | |
| | 12. Definition of additional strategies on financial resource mobilization for oral health. | • Resources mobilization strategy for oral health care available. | | | |
| **5. Timely provision of basic equipment, specific medicines and consumables for oral health care provision.** | 13. Development of essential lists of equipment, specific medicines and consumables for oral health care. | • Essential lists developed. | • Oral health care provided without interruption of equipment, specific medicines and consumables supply. | 2025 - 2030 | Ministry of Health (Department of Finance, MoH, Oral Health Unit, Department of Pharmacy MoH, INFPM). |
| | 14. Provision of equipment, specific medicinesand consumables for | • Increased number CHCs and referral hospitals to have the basic | | | |

| STRATEGIES | PRIORITY ACTIONS | OUTPUTS | OUTCOMES | TIME FRAME | RESPONSIBILITY |
|---|---|---|---|---|---|
| | oral health care. | • equipment, specific medicines and consumables for oral health care provision | | | |

## 1.1 Logical Framework (Log frame)-Timor-Leste's Oral Health Services Delivery Strategic Plan, 2025-2030

**OBJECTIVE 1:** By the end of 2025 initiate oral health promotion on caries prevention, (healthy diet and tobacco cessation) for specific members of the society (children, pregnant women & elderly people) and by the end of 2030 the proportion of vulnerable groups accessing the services be 50%.

**STRATEGY 1:** Implementation of Oral health promotion, disease prevention and basic treatment.

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMANCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| Integrated Oral Health Promotion (OHP) through school oral health. | 2025 -2030 | Number of schools (pre- school, primary, junior-high school, senior- high school); Number of students attending OHP. | Monthly, quarterly and annual report. | Increased access to oral health promotion. | Behaviour change In oral health (increased oral hygiene, reduction in sugar consumption, decreased tobacco usage, and reduction in betel nut | • Ministryof Health (Oral Health Unit, Health Education and Promotion Department),<br>• Development partners, Ministry of Education and other related ministries. |
| Integrated Oral Health Promotion (OHP) through | 2025 -2030 | • Number of Integrated Health Service visits implementing OHP. | Monthly, quarterly and annual report. | | | Ministry of Health (Oral Health Unit, Health Education and Promotion Department), |

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMANCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| Integrated Health Services Program | | • Number of community members attending OHP. | | | chewing). | Development partners, |
| Integrated Oral Health Promotion (OHP) through out reach health camps Integrated Oral Health Promotion (OHP) through mobile clinics | 2025-2030 | • Number of out reach health camps implementing OHP.<br>• Number of household attending OHP.<br>• Number of mobile clinics implementing OHP.<br>• Number of community members attending OHP. | • Monthly, quarterly and annual report.<br>• Quarterly and annual report. | | | • Ministry of Health (Oral Health Unit, Health Education and Promotion Department), Development partners.<br>• Ministry of Health (Oral Health Unit, Health Education and Promotion Department), Development partners |

**OBJECTIVE 2:** By the end of 2025 initiate implementation of oral diseases prevention activities of fluoride and/or Silver Diamine Fluoride application, and by the end of 2030, services reaching at least 50% of the school-aged children.

**STRATEGY 1:** Implementation of Oral Health Promotion, disease prevention and basic treatment

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMA NCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCO ME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| Oral disease prevention. | 2025 -2030 | Number of school children having SDF application. | Monthly, quarterly and annual report. | Increased access to fluoride and/or Silver Diamine Fluorid e (SDF) application by school children | Caries arrested. | Ministry of Health (Oral Health Department, Health Education and Promotion Department), Development partners, Ministry of Education |

**STRATEGY 1:** Implementation of oral health promotion, disease prevention and basic treatment.

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMANCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| Basic curative and restorative treatment of dental caries at CHC level. | 2025 -2030 | Number of dental restorations | Monthly, quarterly and annual report. | Increased number of CHCs providing restorative oral health care. | Increase d access to basic treatment such as dental restoration, extractions and dental emergence. | Ministry of Health (Dental specialist in CHCs), |
| | | Number of dental extractions. | Monthly, quarterly and annual report. | Increased number of CHCs providing dental extraction. | | Ministry of Health (Dental specialist in CHCs), |
| | | Number of dental emergencies attended. | Monthly, quarterly and annual report. | Increased number of CHCs providing treatment for dental emergencies. | | Ministry of Health (Dental specialist in CHCs), |
| | | Number of scaling. | Monthly, quarterly and annual report. | Increased access to scaling | Reduce periodontal disease. | Ministry of Health (Dental specialist in CHCs), |

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMANCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| | | Number of patient having routine annual check-ups. | Monthly, quarterly and annual report. | Increase access to routine annual check-ups. | Early detection of oral diseases. | Ministry of Health (Dental specialist in CHCs), |

**OBJECTIVE 4:** By the year 2030, National Hospital to provide selected specialized oral health care, including the establishment of a Dental Laboratory.

**STRATEGY 2:** Provision of Selected specialist for Oral Health Care at National Hospital.

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMANCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| Reorganization and refurbishment of specialized oral health services at National Hospital, including the establishment of a dental laboratory | 2025 -2030 | • ToR redefined according to tertiary level of care.<br>• Availability of material and equipment for the following specialties Orthodontics, Paedodontics.<br>• Number of Orthodontic - patients treated.<br>• Number of Paedodontic patients treated. | • MoH/Oral Health Department Internal documents.<br>• MoH / Oral Health Department Internal documents.<br>• Monthly, quarterly and annual report.<br>• Monthly, quarterly and annual report. | National Hospital organized and refurbished to provide specialized oral health services. | Specialized medical and nursing care available at National Hospital in Maxillofacial Surgery, Operative Dentistry, Periodontology and Prosthodontics. | • National Hospital<br>• National Hospital & Ministry of Health (Oral Health Unit)<br>• Ministry of Health (Dental specialist in NH) |

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMANCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| | | • Provision of laboratory services to sustain specialized treatment. | • Monthly, quarterly and annual report. | Dental Laboratory established | | National Hospital & Ministry of Health |

**OBJECTIVE 5:** By the end of 2027, 4 dentists and 6 dental nurses will be sent to study in identified specialty areas in dentistry.

**STRATEGY 2:** Provision of Selected specialist for Oral Health Care at National Hospital.

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMA NCE INDICATOR (Number / %) | MEANS OF VERIFICATI ON | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| • Training of 4 general dentist in Maxillofacial Surgery, Periodontology, Operative Dentistry, and Prosthodntics.<br>• Training of 6 general dental nurse in Orthodontics, Pedodontics, Maxillofacial Surgery, Periodontology, Operative Dentistry, and Prosthodontics | 2025 -2030 | • Number of General Dentist Practitioner (GDP) sent overseas to study Maxillofacial Surgery.<br>• Number of GDP sent overseas to study Periodontology.<br>• Number of GDP sent overseas to study Operative Dentistry.<br>• Number of GDP sent overseas to study Prosthodontics.<br>• Number of dental | MoH / Oral Health Department Internal documents. | Availability of specialist to perform tertiary level of oral care. | Specialized medical and nursing care available at National Hospital in Maxillofa cial Surgery, Operative Dentistry, Periodont ology and Prosthod ontics | MoH (Department of Human Resources, Finance, Cooperation), NH and Development partners. |

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMA NCE INDICATOR (Number / %) | MEANS OF VERIFICATI ON | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| | | nurses sent overseas to study specific areas such as Orthodontic, Pedodontics, Maxillofacial Surgery, Periodontology, Operative Dentistry, and Prosthodontics | | | | |

**OBJECTIVE 6:** By the end of 2027, 20 dentists and 100 dental nurses are recruited phase wise to provide services at all the Community Health Centers without dental personnel, and by the end of 2030, at least 50% of all existing health post has 1 dental nurse.

**STRATEGY 3:** Recruitment and development of human resources for the provision of Primary Oral Health Care (POHC).

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMANCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| Recruitment of 20 dentist and 100 dental nurses for the provision of Primary Oral Health Care (POHC). | 2025 -2030 | Number of Health Post and Community Health Centre with a dentist and a dental nurse, or at least a dental nurse. | MoH / Oral Health Department Internal documents. | Increased dental nurses and dentists recruited and trained to provide primary oral health care. | Primary oral health care provide d at all CHCs. | MoH (Department of Human Resources, Finance, CHCs, and Public Administration. |
| Training of dentists and dental nurses for the provision of Primary Oral Health Care (POHC). | 2025 | Number of dentist and dental nurse trained (refreshing training) to provide Primary Oral Health Care (POHC). | MoH / Oral Health Department Internal documents. | | | MoH, Development partners and INSPTL |
| Requalification of the existing | 2025 | Number of dental technician | MoH / Oral Health | Increas ed oral health | Increase d access to oral | MoH (Cooperation, |

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMANCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| dental technician to dental nurse to health in the provision of Primary Oral Health Care (POHC). | | available to provide Primary Oral Health Care (POHC). | Department Internal documents. | workforce. | health care. | Finance and Human Resources department) and local Universities (UNDIL) |

**OBJECTIVE 7:** By the end 2025, an Oral Health Unit is established within the Ministry of Health, and specific budget be allocated for oral health service delivery.

**STRATEGY 4:** Organizational reconfiguration and mobilization of financial resources for Oral Health care.

| PRIORITY ACTION | IMPLEMENTATI-ON TIME FRAME (2025-2030) | PERFORMA NCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| Re-establis hment of an Oral Health Unit | 2025 | Decision making at the National level. | MoH / Oral Health Department Internal documents. | Oral Health Unit overseeing the implemen tation of oral health services. | Sustainable organiza tional and financial resources available for the provision of good oral health care. | MoH (NCDC, Finance, Human resources) and Public Administration. |
| Preparation of Annual Action Plans (AAPs) and Annual Budgets (ABs) for oral health. | 2025 | • Availability of Annual Action Plans (AAPs) and Annual Budgets (ABs) for oral health at Department level.<br>• Specific budget | MoH / Oral Health Department Internal documents. | AAPs and ABs prepared for primary, secondary and tertiary oral health | | MoH (Oral Health Unit, NCDC, Finance) |

| PRIORITY ACTION | IMPLEMENTATI-ON TIME FRAME (2025-2030) | PERFORMA NCE INDICATOR (Number / %) | MEANS OF VERIFICATION | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| | | allocation in accordance with the annual action plan (AAP). | | care. | | |
| Mobilization of additional resource s from development partners for oral health programs. | 2025 | • Number of development partners identified.<br>• Amount of additional resources available to help sustain oral health programs. | MoH / Oral Health Department Internal documents. | Additional financial resources for oral health care made available by developme nt partners. | | MoH (Oral Health Unit, NCDC, Finance and Cooperation) and Development Partners. |

**OBJECTIVE 8:** By the end of 2030 all the CHCs and referral hospitals have the basic equipment, specific medicines and consumables for oral health care provision.

**STRATEGY 5:** Timely provision of basic equipment, specific medicines and consumables for oral health care provision.

| PRIORITY ACTION | IMPLEMENTATION TIME FRAME (2025-2030) | PERFORMA NCE INDICATOR (Number / %) | MEANS OF VERIFICATI ON | OUTPUT | OUTCOME | RESPONSIBILITY |
|---|---|---|---|---|---|---|
| Development of essential lists of equipment, specific medicines and consumables for oral health care. | 2025-2026 | • List of dental equipment available<br>• List of specific medicines and consumables for oral health care. | MoH / Oral Health Departmet Internal documents | Essential lists developed. | Oral health care provided without interruptio n of equipment, specific medicines and consum-ables supply. | MoH (Oral Health Unit, NCDC, and Finance) Health Post, CHCs and NH. |
| Provision of equipment, specific medicines and consumables for oral health care. | 2025 - 2030 | • Dental equipment available.<br>• Specific medicines and consumables for oral health care available. | MoH / Oral Health Departmen t Internal documents | Increased number CHCs and referral hospital s to have the basic equipment, specific medicines and consumables for oral health care provision | | MoH and INFPM |

## 2. Institutional Arrangements for the Implementation of the Strategic Plan

Effective implementation of plans require appropriate organizational arrangement, as well as systems and procedures for proper management of processes and resources. As described in the section of SWOT analysis, currently the delivery of oral health services in Timor- Leste is included as one of the responsibilities of the MoH. Similarly, the mission defined in this strategic plan also confers to MoH the task of leading the provision of oral health services delivery, with the support of other stakeholders, including the private sector.

In order to be able to ‘’lead’’, MoH will reconfigure the organizational framework for oral health delivery, which currently is under one unit staffed by one officer within the Department of Non-Communicable Diseases.

### 2.1. Coordination Framework

Coordinating the delivery of oral health services within the different levels of oral health care (primary, secondary and tertiary levels) is a function of professional authority and managerial position. Officers appointed to coordinate the delivery of oral health services ought to be professionally capable and respected, as well capable of leading and managing. This also implies certain level of hierarchy within the MoH organizational structure. As identified in the intermediatory objective, strategies and priority actions, it is proposed that a unit for oral health services delivery be re-established within the structures of the central services of MoH to oversee the implementation of this strategy, with the following core functions:

2.1.1. Identify and propose policies to support the implementation of oral health service delivery at different levels;

2.1.2. Coordinate the provision of technical, financial and logistical support to the implementation of oral health service delivery at different levels;

2.1.3. Ensure integration and coordination of oral health service delivery with other relevant programs within MoH;

2.1.4. Ensure inter-sectorial coordination to support the implementation of oral health service delivery at different levels.

2.1.5. Identify oral diseases and statistic data compilation done in coordination with other relevant departments within the Ministry of Health.

## 2.2. Implementation Framework

Within the field of implementation science, many theories, models, and frameworks have been created by various disciplines to provide both an explanatory approach and a way to prioritize variables that are essential to achieve implementation success. Such a framework should provide a pathway that clarifies the core phases and steps throughout the implementation process and should highlight the core elements within each phase that need to be defined, acted upon, and reflected upon. These phases and elements should be accessible and user-friendly to those conducting the implementation.[23]

According to Moullin et. al, an organization seeking to implement a program may desire a more prescriptive framework, that outlines all the implementation stages such as the Replication Effective Programs (REP) Framework.[24]

In fact, Kilbourne et. al described that REP is a valuable framework for implementing health care interventions, as it provides a structured approach with specified steps to maximize effective interventions while allowing for flexibility. This flexibility is particularly useful when implementing different health services interventions in various healthcare settings.[25]

In line with the above theoretical thinking, the framework for the implementation of this strategic plan is an adaptation of the REP model as represented below:[25]

## PRE-CONDITIONS SWOT ANALYSIS

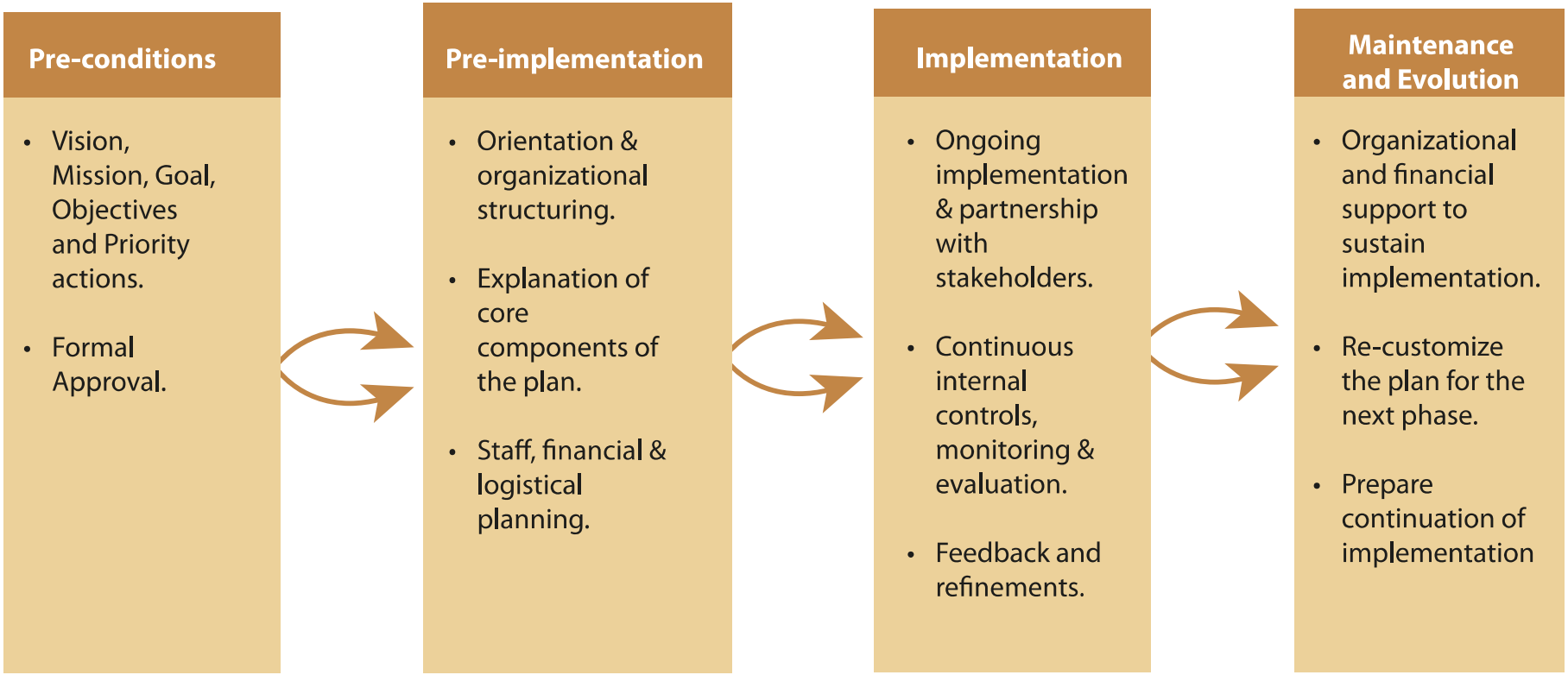


Figure 1. The implementation framework of the Oral Health Strategic Plan, adapted from the REP Framework

## 2.3. Communication Strategy

A communication strategy is critical to the successful implementation of a strategic plan. Strategic plans require the input, commitment, and engagement of a diverse group of stakeholders who need to be informed, involved, and invested in the process from the outset to the achievement of desired results.

The communication strategy comprises of two primary components: internal and external communication. The internal communication component encompasses:

- Ongoing communication with relevant MoH structures and programs to share updates on progress, challenges, and plan adjustments as implementation unfolds.
- Regular engagement with other key stakeholders to ensure they are informed and aligned with the plan's evolution.

Technical meetings or workshops will be convened as and when needed to facilitate these exchanges. Additionally, individuals responsible for achieving specific planned objectives will be required to submit regular progress reports, ensuring transparency and accountability throughout the implementation process.

The external communication component involves regularly sharing information with the with the broader public and specific target groups of oral health service delivery through various media channels and events, including media events such as interviews and talk- shows, distribution of mediagenic materials in the form of media kits (media advisories, news releases, fact sheets, etc.), and public posters and pamphlets.

The implementation of this communication strategy should be the core responsibility of the MoH authority in charge of coordinating oral health services delivery.

## 3. Monitoring and Evaluation Framework

Monitoring involves regularly tracking the progress against the defined objectives, typically through monthly to quarterly reporting on outputs, activities, and resource utilization (including personnel, time, budget, and materials). Its primary purpose is to verify that implementation is proceeding as intended, within allocated resources, and to identify any deviations or areas for adjustment.

Evaluation assesses the effectiveness of the chosen direction and the strategic allocation of resources, examining the outcomes achieved and their correlation with the outputs generated. It determines whether the desired goals were met, and if the strategies employed were successful in achieving the intended results.

The tool to be used for monitoring and evaluation of this strategic plan is the logical framework matrix described in the next section.

### 3.1. Logical Framework Matrix

A logical framework matrix (or log frame) is the output of a program design process where it is described how the activities will lead to the immediate outputs, and how these will lead to the outcomes and goal. The log frame for this strategic plan can be seen in *Annex 1*.

### 3.2. Research and Evaluation agenda

One of the key questions we need to ask ourselves when undertaking evaluation is: *which components of the program are working well, for whom and under what circumstances?* We need to evaluate in order to provide effective performance management, to demonstrate accountability to stakeholders and our local partners, to inform future policy, to help secure resources and to contribute to the evidence base for future planning purposes.

As such, in this strategic plan, there will be:

3.2.1. Continuous monitoring through regular quarterly reports by the relevant bodies in charge of overseeing the implementation of the plan;

3.2.2. A mid-term evaluation at the third year of the implementation period and a final evaluation at the sixth year.

3.2.3. Surveys on oral hygiene, sugar consumption, tobacco usage, and betel-nut chewing, as well as caries prevalence surveys at the beginning and at the end of the implementation period.

## 3.3. Oral Health Indicators

Oral health indicators are commonly designed to monitor the burden of oral disease, the use of oral health care system and the effectiveness of oral health programs and/or oral health plans.
Ideally, Oral health indicators are designed to become part of an Oral Health Surveillance System (OHSS). At the moment, Timor-Leste does not have an OHSS. Nonetheless, the identification of the oral health indicators here, will help set the stage for future OHSS.

Based on WHO Oral health country profile indicators for 2022, which consist of 1) oral disease burden; 2) Risk factors for oral diseases; 3) Economic impact; 4) National Health system response; and with additional information on oral health service in the country, the following oral health indicators are adopted in order to contribute to the evidence-based monitoring and evaluation, as well as to a possible future OHSS.

### 3.3.1. Oral Disease Burden:

3.3.1.1. Prevalence of oral disease (%);

3.3.1.1.1. Prevalence of dental caries in children and adult population(%);

3.3.1.1.2. Prevalence of untreated caries of deciduous teeth in 1-9 years old children (%);

3.3.1.1.3. Prevalence of untreated caries of permanent teeth in people with > 5years old (%);

3.3.1.1.4. Prevalence of severe periodontal disease in people with > 15years old (%);

3.3.1.1.5. Prevalence of edentulism in people with > 20years old (%).

### 3.3.1.2. Lip and oral cavity cancer in all ages

3.3.1.2.1. Number of new cancer cases of lip and oral cavity in Female and Male

3.3.1.2.2. Incidence rate of new cancer cases of lip and oral cavity (per 100.000 population) in Female and Male.

### 3.3.2. Utilization of Oral Health services

3.3.2.1. Basic curative and restorative oral health care. Percentage of people receiving primary and restorative oral health care, such as dental restorations, extractions, dental emergencies, scaling and other periodontal treatments.

3.3.2.2. Dental Visits. Percentage of adults aged 18+ who have visited a dentist

or dental clinic in the past year;

3.3.2.3. School visits. Percentage of primary, pre-secondary and secondary schools visited for Oral health promotion and other preventive measures such as application of Silver Diamine Fluoride and Fissure sealant.

3.3.2.4. Integrated Health Services. Percentage of households visited for Oral health assessment, oral health promotion and other preventive measures such as application of Silver Diamine Fluoride.

### 3.3.3. Fluoridation indicators

3.3.3.1. Percentage of population accessing fluoridated toothpaste.

3.3.3.2. Percentage of population using topical fluoride application

## 4. Risk management matrix

The table below outlines the main risk to the implementation of this strategic plan, the assessment of the likelihood as whether it will occur or not, and the means by which these risks will be managed or reduced.

Table 1. Risk Management Matrix

| S.No | Risk Universe | Type of risk | Scale of the risk | Mitigation strategy |
|---|---|---|---|---|
| 1. | Strategic | Oral health is not yet a priority within the health policy in Timor-Leste. | High | Intensify advocacy at the level of decision makers. |
| | | Too many competing priorities within the health sector. | Medium | Advocate priority setting within the health sector. |
| 2. | Operational | Insufficient qualified human resources to manage oral health programs and to provide oral health services. | High | Accelerate the implementation of strategy 2 and 3 (see table 2) |
| | | Inadequate equipment, other material resources, consumables and logistic support. | Medium | Increased efficiency in the supply chain management and logistic support. |
| | | Lack of good oral health information system | Medium | Develop and mainstream oral health surveillance system into the health surveillance system. |
| 3 | Financial | Insufficient financial resources allocated to oral health programs. | High | Accelerate the implementation of strategy 4 (see table 2) |
| | | Mismanagement of oral health funds | Medium | Adherence to standard protocols of public financial management. |

| S.No | Risk Universe | Type of risk | Scale of the risk | Mitigation strategy |
|---|---|---|---|---|
| 4 | Community | Widespread unhealthy oral health behaviour in the community | High | Intensify implementation of strategy 1 (see table 2). |
| | | Financial and geographical barriers to oral health seeking behaviour. | Medium | Accelerate Integrated Oral Health Promotion (OHP) through school oral health, IHP. |

## 5. Costing, financing and resource mobilization strategy

Globally, oral health expenditure accounts for only approximately 5% of total health expenditure. In high-income countries, around 20% of oral health expenses are paid out-of- pocket, whereas in most low- and middle-income countries, financial constraints hinder the provision of preventive and treatment services for oral health conditions.[26] In the African and Eastern Mediterranean Region, for example, dental expenditure is only 0.3% and 0.2%, respectively.[27]

### 5.1. Implementation Costs of the strategic plan

Given the lack of recorded historical expenditure on oral health in Timor-Leste, it is difficult to provide an accurate estimate of the implementation costs of this strategic plan throughout its life span. However, taking the average health expenditure of the last three years, it is proposed that during the next five years, oral health expenditure in Timor-Leste should be incrementally allocated as described in table 2, below:

Table 2: Suugested allocation of budget for Oral health services [28]

| | Year 2025 | Year 2026 | Year 2027 | Year 2028 | Year 2029 | Year 2030 |
|---|---|---|---|---|---|---|
| **Gradual increase in budget allocation** | 1% allocation to Oral Health | 1% allocation to Oral Health | 1% allocation to Oral Health | 2% allocation to Oral Health | 2% allocation to Oral Health | 2% allocation to Oral Health |
| | US$0.777 million | US$0.777 million | US$0.777 million | US$1.555 million | US$1.555 million | US$1.555 million |

Oral health program should be at least an “activity’’ within the program budgeting structure currently adopted by the state budget, and detailed accounting systems should be in place to trace the unit costs of implementing the strategies outlined in this strategic plan. Annual allocation adjustments should be made accordingly, in line with the annual health expenditure amounts, budget execution capacities and inflation rates.

## 5.2. Financial Sources and Funding Gaps

According to the National Directorate of Human Resources of the Ministry of Health, the allocated budget for oral health workforce salaries from 2021 to 2024 totals US$505,170. This indicates that there were no plans to increase the oral health workforce. Furthermore, the budget allocation for goods and services, minor capital, and infrastructure to support priority actions is unclear. To address these funding gaps, particularly for 2026, a comprehensive planning and budgeting exercise is recommended for 2026.

## 5.3. Resource Mobilization Strategy

Globally, dental care is predominantly funded by private patient payments, exceeding the level of private funding in other healthcare sectors. Notably, voluntary health insurance contributions to dental spending are minimal, while out-of-pocket expenses are significant in many countries. This leads to substantial unmet dental care needs due to financial constraints, disproportionately affecting low-income households.

A comparative analysis of coverage reveals that while most countries prioritize a basic scope of dental care, including emergency services and children's care, there is significant variation in the range of services offered. This variation spans from countries with limited- service packages to those with partial or comprehensive coverage, indicating a diverse approach to dental care provision globally.

A comprehensive review of financing models for oral health services reveals that various financing schemes, including fee-for-item (publicly or privately funded), capitation, and salaried models, influence the behaviors of both patients and dentists. Notably, even when oral health services are readily accessible and free, they are often underutilized by individuals from low socioeconomic backgrounds, highlighting the need to address barriers beyond financial access.

Publicly funded oral health care through taxation may offer a relatively efficient, sustainable, and equitable approach compared to alternative methods like private insurance, voluntary aid, and out-of-pocket payments.

To reduce costs, some oral health programs could be incorporated into existing primary health care programs. For example, tooth brushing with fluoride toothpaste among schoolchildren could be a part of other programs running at the schools by community health care workers.

# V. ANNUAL ACTION PLAN (2025)

| NO. | ACTIVITY | SUB-ACTIVITY | RESPONSIBILITY | PERFORMANCE INDICATORS | MEANS OF VERIFICATION | IMPLEMENTATION PERIOD |
|---|---|---|---|---|---|---|
| 1 | Integration of Oral Health Promotion at all facility- based healthcare, Health Post, CHC-1, CHC-2, CHC-3, School visits, and others. | Identification of IEC materials for Oral Health Promotion. | MoH Stakeholders | OHP's IEC materials identified. | Meeting reports | April - May2025 |
| | | Preparation and printing of IEC materials for Oral Health Promotion. | MoH Stakeholders | OHP's IEC materials ready for use. | Meeting reports | |
| | | Establishment of target list. | MoH | Target list uniformed and ready to use. | Meeting reports | |
| | | Budget calculation and request. | MoH Stakeholders | Budget identified and requested | Meeting reports | April - May 2025 |
| | | Socialization of the program to:<br>• MoH: Saude escolar, IMCI, Tobacco program,<br>• Ministry of Education (national & municipal levels). | MoH | All the relevant Ministries and entities know about the intention and methods of Oral Health Promotion implementation | Meeting reports | June 2025 |

| NO. | ACTIVITY | SUB-ACTIVITY | RESPONSIBILITY | PERFORMANCE INDICATORS | MEANS OF VERIFICATION | IMPLEMENTATION PERIOD |
|---|---|---|---|---|---|---|
| | | • Municipal administrators. | | | | |
| | | Refresher training for dentist and dental nurses. | MoH Stakeholders | Dentist and dental nurses trained. | Meeting reports | |
| | | Oral Health Promotion at all facility-based healthcare, Health Post, CHC-1, CHC-2, CHC-3, School visits, and others. | MoH Stakeholders | Number (%) of targets as indicated in the target list. | Target List | June2025 |
| 2 | Provision of basic curative and restorative treatment, and preventive measures. | Identification of the equipements and consumableswhich are already available and those needed to be procured. | MoH | Already available Equipment and consumables identified. equipment's and consumables to be procured identified. | Meeting reports | April 2025 onwards |
| | | Budget allocation and request | MoH Stakeholders | Budget identified and requested. | Meeting reports | |
| | | Socialization of the Preventive activities program (SFD and | MoH | All the relevant Ministries and entities know | | |

| NO. | ACTIVITY | SUB-ACTIVITY | RESPONSIBILITY | PERFORMANCE INDICATORS | MEANS OF VERIFICATION | IMPLEMENTATION PERIOD |
|---|---|---|---|---|---|---|
| | | Fissure Sealant application) to:<br>• MoH: School, Health Program,<br>• Ministry of Education (national & municipal levels). | | about the intention of the preventive activities. | | |
| | | Refreshing training for dentist and dental nurses. | MoH Stakeholders | Dentist and dental nurses trained. | Meeting reports | April 2025 onwards |
| | | Provision of basic curative and restorative treatment, and preventive measures. | MoH Stakeholders | Number (%) of targeted communities receives basic curative and restorative treatment, and preventive measures. | Target List | April 2025 |
| 3 | Reorganization and refurbishment of specialized oral health services | Liaise with NH Directorate to discuss on the tertiary level of oral Health care provision and relate to the Government | MoH NH Stakeholders | Inclusion of different departments and Dental Lab at the Master Plan. | Meeting reports | April 2025 onwards |

| NO. | ACTIVITY | SUB-ACTIVITY | RESPONSIBILITY | PERFORMANCE INDICATORS | MEANS OF VERIFICATION | IMPLEMENTATION PERIOD |
|---|---|---|---|---|---|---|
| | at NH in order to be able to provide tertiary level of oral health care. | Hospital Master Plan, to include the construction of different dental departments and Dental Laboratory for rehabilitative care. | | | | |
| | | Identification of equipment needed. | MoH<br>NH | Already available equipments and consumables identified.<br>Unavailable equipments and consumables identified. | Meeting reports | |
| | | Budget allocation and request | MoH<br>NH | Budget identified and requested. | Meeting reports | |
| 4 | Training of oral health professionals on Maxillofacial Surgery, | Identification of Dentist for further studies. | MoH | Dentist identified and posted at NH for attachment prior to departure for further studies. | Meeting reports | April 2025 onwards |

| NO. | ACTIVITY | SUB-ACTIVITY | RESPONSIBILITY | PERFORMANCE INDICATORS | MEANS OF VERIFICATION | IMPLEMENTATION PERIOD |
|---|---|---|---|---|---|---|
| | Periodontology, Operative Dentistry, and Prosthodontics. | Identification of Dental Nurses for further studies. | MoH | Dental nurses identified for further studies. | Meeting reports | |
| | | Contact initiation with universities to know about the requirements and the cost. | MoH Stakeholders | Universities identified and contacted. | Meeting reports | April 2025 onwards |
| 5 | Establishment of Oral Health Unit. | Determine the functions of the unit according to the scope of workload (Oral Health Information System, Oral Health Promotion, Logistics, clinical activities, and Research). | MoH | Oral Health Unit with clear functions and tasks distributed. | Meeting reports | May – June 2025 |
| | | Staff recruitment, preferably with Public Health Dentistry background. | MoH | Oral Health Unit staff recruited. | Meeting reports | |
| 6 | Mobilization and utilization of additional resources from | Identification of development partners for oral health programs. | MoH Stakeholders | Development partners for oral health programs identified. | Meeting reports | April 2025 onwards |

| NO. | ACTIVITY | SUB-ACTIVITY | RESPONSIBILITY | PERFORMANCE INDICATORS | MEANS OF VERIFICATION | IMPLEMENTATION PERIOD |
|---|---|---|---|---|---|---|
| | development partners for oral health programs | Establishment of Memorandum of Understanding. | MoH Stakeholders | MoU established | Meeting reports | |
| | | Distribution or allocation of tasks for each development partner. | MoH Stakeholders | Task distributed | Meeting reports | |

# VI. HOW TO MEASURE THE OBJECTIVES

1. **OBJECTIVE I:** By the endof 2025, initiate oral health promotion on caries prevention, (healthy diet and tobacco cessation) for specific members of the society (children, pregnant women & elderly people) and by the end of 2030, the proportion of vulnerable groups accessing the services be 50%.

| ACTIVITY | INDICATOR |
|---|---|
| • Oral health promotion, specifically on dental caries, healthy diet and tobacco cessation. | • Percentage of oral health promotion activities at all levels:<br>✓ The percentage of primary, pre-secondary and secondary school beneficiaries to oral health promotion activity.<br>✓ The percentage of pregnant women, elderly people, and people with special needs.<br>✓ The percentage of household beneficiaries covered by OHP activity. |

2. **OBJECTIVE II:** By the endof 2025 initiate implementation of oral diseases prevention activities of fluoride and/or Silver Diamine Fluoride application, and by the end of 2030, services reaching at least 50% of the school-aged children.

| ACTIVITY | INDICATOR |
|---|---|
| • SDF and FS application to school children. | • Application percentage of:<br>✓ SDF<br>✓ FS |

3. **OBJECTIVE III:** By the end of 2030, all the CHCs to provide primary curative and restorative oral health care.

| ACTIVITY | MEASURE |
|---|---|
| • Consultation / dental check-ups and curative and restorative dental treatments. | • Percentage of Consultation / dental check-ups and curative and restorative dental treatments. |

4. **OBJECTIVE IV:** By the year 2030, National Hospital to provide selected specialized oral health care, including the establishment of a Dental Laboratory.

| ACTIVITY | INDICATOR |
|---|---|
| • Identify the important and much needed clinical specialties in the country.<br>• Budget allocation for the training of dentist in identified clinical specialties.<br>• Establishment of Dental Lab at NH. | • Clinical specialties identified.<br>• Budget allocated.<br>• Dental lab at NH established. |

5. **OBJECTIVE V:** By the end of 2027, 4 dentists and 6 dental nurses to be sent to study in identified specialty areas in dentistry.

| ACTIVITY | INDICATOR |
|---|---|
| • Send dentist and dental nurses to advanced studies. | • The percentage of dentist and dental nurses sent for advanced studies for specialization. |

6. **OBJECTIVE VI:** By the end of 2027, 20 dentists and 100 dental nurses to be recruited to provide services at all the Community Health Centers without dental personnel, and by the end of 2030, at least 50% of all existing health post to have one dental nurse.

| ACTIVITY | INDICATOR |
|---|---|
| • Recruitment of dentists to be posted at referral hospitals and CHCs.<br>• Recruitment of dental nurses to be posted at referral hospital, CHCs, and Health Posts.<br>• Training of dentists and dental nurses on POHC. | • Percentage of referral hospitals and CHCs with dentist.<br>• Percentage of referral hospitals, CHCs and Health Posts with dental nurses.<br>• Percentage of dentists and dental nurses trained on POHC. |

7. **OBJECTIVE VII:** By the end 2025, an Oral Health Unit to be established within the Ministry of Health, and specific budget be allocated for oral health service delivery.

| ACTIVITY | INDICATOR |
|---|---|
| • Establishment of Oral Health Unit.<br>• Recruitment of unit staff according to the needs of the department identified in the Oral Health Strategic Plan.<br>• Budget allocation to the Oral Health Unit. | • Existence of Oral Health Unit.<br>• Number of vacancies in Oral Health Unit.<br>• 1% of the total annual health budget allocated to the Oral Health Unit |

8. **OBJECTIVE VIII:** By the end of 2030, all the CHCs and referral hospitals have the basic equipment, specific medicines and consumables for oral health care provision.

| ACTIVITY | INDICATOR |
|---|---|
| • Identification of the provision of oral health services according to primary and secondary levels of care.<br>• Identification of dental equipment and consumables.<br>• Initiation of purchase of dental equipment's and consumables. | • Total number of school children v/s total number of school children who received annual dental examination under school health program at primary level.<br>• Total number of schools in which oral health promotion activities were organized at primary level.<br>• Total number of dental cases which are treated at primary and secondary level of care.<br>• Total number of Dental equipment and consumables identified at primary and secondary levels of care.<br>• Total number of dental equipment and consumables purchased at primary and secondary levels of care.<br>• Total number of stock out dental equipment and consumables at primary and secondary levels of care. |

# VII. ORAL HEALTH UNIT

As identified in the intermedial objective, strategies and priority actions, it is proposed that a Unit for oral health services delivery be established within the structures of the central services of MoH to oversee the implementation of this strategy, through the following core functions:

- Identify and propose policies to support the implementation of oral health service delivery at different levels;
- Coordinate the provision of technical, financial and logistical support to the implementation of oral health service delivery at different levels;
- Ensure Inter and Intra sectoral coordination to support the implementation of oral health service delivery at different levels.
- Identify oral diseases and statistic data compilation in coordination with other relevant departments within the Ministry of Health.

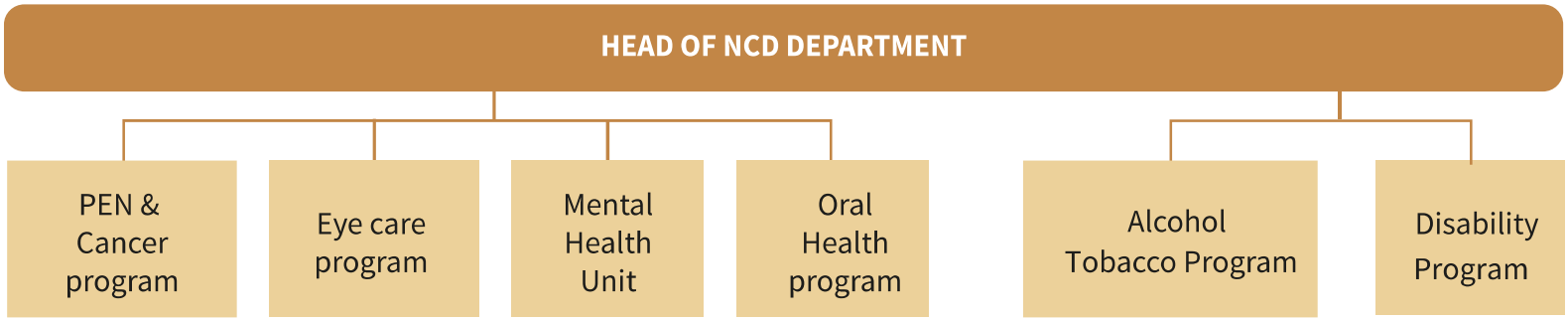


Figure 2: Organogram under NCD Department

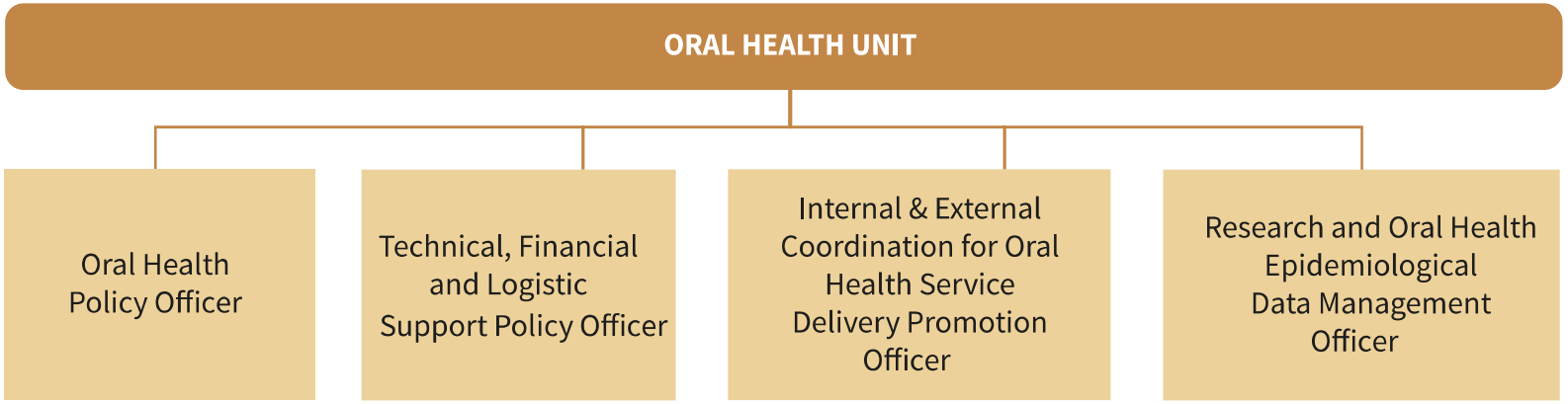


Figure 3: Proposal for creation of Sub-Units under Oral Health Unit

**14** District Oral Health Focal Points and Head of Dentistry department in **4** Referral Hospitals, **1** Regional Hospital and National Hospital

## HUMAN RESOURCE REQUIREMENT UNDER THE ORAL HEALTH UNIT

As of now Oral health is functioning as a program with a focal person looking after the program. It is proposed to start Oral Health as a unit under NCD. The proposed staff in Oral Health Unit is as mentioned below:

- Oral Health Unit Head– 1
- Oral Health Policy Sub-unit – 1
- Technical, financial and logistical support Sub-unit – 1
- Internal & External Coordination for Oral Health Services delivery Promotion Sub-unit -1
- Research and Oral Health Epidemiological Data Management Sub-unit - 1

**Terms of reference of each unit and sub unit within the unit of oral health:**

| Name of Subunit | Roles and responsibilities |
|---|---|
| **Oral Health Unit Head** | • Team leader of the Oral Health Unit.<br>• Responsible forcoordinating with Oral Health Policy Unit, Technical, Financial and Logistics Support Unit, Internal & External Coordination for Oral Health Promotion Unit and Research and Oral Health Epidemiological Data Management Unit.<br>• Responsible fororganizing monthly review meeting within Oral Health Unit.<br>• Responsible forreporting to Head of NCD Department. |
| **Oral Health Policy Officer** | • Thoroughly understand the overall policies of the Ministry of Health;<br>• Able to oversee and implement the Oral Health Strategic Plan (OHSP);<br>• Work with the Research and Oral Health Epidemiological Data Management Unit to find solution for improving Oral Health services.<br>• Understand and interprets MoH legal documents related to Health policies.<br>• Determine and implement the policies related to oral health and general health. |

| | |
|---|---|
| | • Timely review and update of oral health policies.<br>• Internal & External Coordination for oral health services delivery<br>• Prioritize areas for improvement.<br>• Will be reporting to the Head of Oral Health Unit. |
| **Technical, financial and logistical support Officer** | • Able to prepare the oral health budget and annual action plan related to oral health policies.<br>• Establish good coordination with INFPM in relation to the procurement of medicines and consumables.<br>• Establish good coordination with DNEM in relation to the procurement of dental equipment's and consumables (including installation, Annual maintenance).<br>• Maintenance of dental equipment at all levels of service provision (primary, secondary and tertiary).<br>• Help to obtain funds for the implementation of oral health programs.<br>• Will be coordinating with Oral Health Policy Unit for the implementation of annual action plan.<br>• Will be reporting to the Head of Oral Health Unit. |
| **Internal & External Coordination for Oral Health Services delivery Promotion Officer** | • Establish good coordination with all directory and departments within the MoH in order to have good implementation of the programs.<br>• Responsible for coordinating with the Department of Health Education and Promotion in MOH for the implementation of Oral health activities.<br>• Responsible for coordinating with the Department of School Education and School health unit in MOH for effective |

| | |
|---|---|
| | implementation of oral health in school children.<br>• Establish good coordination with development partners such as: NGOs, International Agencies, Health professional Associations, Private clinics, Relevant Ministries, National Universities (public and private) and foreign universities.<br>• Will be reporting to the Head of Oral Health Unit. |
| **Research and Oral Health Epidemiological Data Management Officer** | • Implement and supervise the epidemiological researches in oral health area or those related to oral health.<br>• Gather, manage and interpret oral health national data.<br>• Recap all the data from all levels of oral health services provision (primary, secondary and tertiary).<br>• Responsible for working with the stakeholders in exploring the areas where intervention is needed in Oral health.<br>• Responsible for sharing the monthly data analysis to Oral health policy unit and to the Head of NCD.<br>• Responsible for holding quarterly review meeting with focal points of oral health in all health facilities.<br>• Able to suggest policies and interventions to the problems.<br>• Will be reporting to the Head of Oral Health Unit. |

# VIII. LIST OF CONSUMABLES, EQUIPMENTS AND MEDICINES REQUIRED

## I. COMMUNITY HEALTH CENTER

| S.No. | MATERIAL | QUANTITY PER ANNUM FOR EACH CHC |
|---|---|---|
| 1 | Sharp container 5 Litres | 5 |
| 2 | Autoclave sterilization bag 90x260mm (200 pcs/pack) | 15 |
| 3 | Autoclave sterilization bag 135x255mm (200 pcs/pack) | 15 |
| 4 | Disinfection liquid 5 Litres | 12 |
| 5 | Cotton roll (pack 600) | 4 |
| 6 | Alcohol swab 1kg | 6 |
| 7 | Paper cup dispenser (100 pcs/pack) | 36 |
| 8 | Micro brush (100 pcs/pack) | 3 |
| 9 | Articulating paper (12 x 12 sheets / book) | 2 |
| 10 | Glass ionomer cement manual mix | 24 |
| 11 | Spongostan (12 pieces/ box) | 2 |
| 12 | Celluloid matrix strip | 3 |
| 13 | Wedge (pack) | 1 |
| 14 | Vaseline (jar 200 ml) | 1 |
| 15 | Calcium hydroxide cement | 1 |
| 16 | Dentin conditioner | 24 |
| 17 | Hydrogen peroxide 3% for root canal irrigation | 1 |
| 18 | Ethylene diamine tetra acetic Acid (EDTA) 17% | 1 |
| 19 | Gutta percha various size | 3 |
| 20 | Zinc oxide powder | 1 |
| 21 | Paste sealer for root canal obturation | 1 |
| 22 | Pulp devitalizing paste | 2 |
| 23 | Bonding agent | 2 |

| S.No. | MATERIAL | QUANTITY PER ANNUM FOR EACH CHC |
|---|---|---|
| 24 | Etch 37% | 2 |
| 25 | Paper point various size | 6 |
| 26 | Eugenol | 3 |
| 27 | Temporary filling material | 5 |
| 28 | Handpiece lubricant spray | 2 |
| 29 | Packable Composite of various shades | 4 |
| 30 | Formo cresol | 1 |
| 31 | Dental needle 27G x38mm (100 in a box) | 24 |
| 32 | Dental needle 30Gx25mm (100 in a box) | 24 |
| 33 | Gauze (roll 80cm) | 3 |
| 34 | Alveogyl (paste for dry socket dressing) | 1 |
| 35 | Tricresol formalin | 1 |
| 36 | Silver Diamine Fluoride (SDF) | 2 |
| 37 | Topical Fluoride | 2 |
| 38 | Lidocaine 2% adrenaline 1:80.000 cartridge (50 in a box) | 72 |
| 39 | Topical anaesthesia gel | 1 |
| 40 | Ethyl chloride spray | 1 |
| 41 | Catgut with needle | 12 |
| 42 | Disclosing solution | 1 |
| 43 | Endo irrigation needles | 2 |
| 44 | Non consumable equipment (based on need) | 1 |

## II. SCHOOL ORAL HEALTH PROGRAM (Promotion & Prevention)

| S.No. | MATERIAL | QUANTITY PER ANNUM |
|---|---|---|
| 1 | Topical fluoride | 2 |
| 2 | SDF | 2 |
| 3 | Poster/flipchart (set) | 1 |
| 4 | Phantom (IC) | 1 |
| 5 | Gasoline | 1 |
| 6 | Case sheet | 10000 |
| 7 | Oral Diagnostic set (reusable) | 3 |
| 8 | Kidney tray | 4 |

| | | |
|---|---|---|
| 9 | Cotton Gauze roll | 10 |

## III. IHP (Promotion & Prevention)

| S.No. | MATERIAL | QUANTITY PER ANNUM |
|---|---|---|
| 1 | Poster/flipchart (set) | 1 |
| 2 | Phantom (IC) | 1 |
| 3 | Gasoline | 1 |
| 4 | Case sheet | 1000 |
| 5 | Oral Diagnostic set (reusable) | 3 |

## IV. MOBILE DENTAL CLINIC (Every 3 months)

| S.No. | MATERIAL | QUANTITY PER ANNUM |
|---|---|---|
| 1 | Sharp container 5 Litres | 1 |
| 2 | Disinfection liquid 5 Litres | 1 |
| 3 | Cotton roll (pack 600) | 1 |
| 4 | Alcohol swab 1kg | 1 |
| 5 | Paper cup dispenser (100 pcs/pack) | 2 |
| 6 | Articulating paper (12 x 12 sheets / book) | 1 |
| 7 | Glass ionomer cement manual mix | 2 |
| 8 | Spongostan (12 pieces/ box) | 1 |
| 9 | Celluloid matrix strip | 1 |
| 10 | Wedge | 1 |
| 11 | Vaseline | 1 |
| 12 | Dentin conditioner | 2 |
| 13 | Zinc oxide powder | 1 |
| 14 | Eugenol | 1 |
| 15 | Temporary filling material | 1 |
| 16 | Dental needle 27G x38mm (100 in a box) | 2 |
| 17 | Dental needle 30Gx25mm (100 in a box) | 2 |
| 18 | Gauze (roll 80cm) | 1 |
| 19 | Silver Diamine Fluoride (SDF) | 1 |
| 20 | Topical Fluoride | 1 |
| 21 | Lidocaine 2% adrenaline 1:80.000 cartridge (50 in a box) | 2 |

| | | |
|---|---|---|
| 22 | Topical anaesthesia gel | 1 |
| 23 | Chlor ethyl spray | 1 |
| 24 | Non consumable equipment (based on need) | 1 |

## V. REFERRAL HOSPITAL

| S.No. | MATERIAL | QUANTITY PER ANNUM PER HOSPITAL |
|---|---|---|
| 1 | Sharp container 5 Litres | 2 |
| 2 | Autoclave sterilization bag 90x260mm (200 pcs/pack) | 12 |
| 3 | Autoclave sterilization bag 135x255mm (200 pcs/pack) | 12 |
| 4 | Disinfection liquid 5 Litres | 12 |
| 5 | Cotton roll (pack 600) | 4 |
| 6 | Alcohol swab 1kg | 6 |
| 7 | Paper cup dispenser (100 pcs/pack) | 36 |
| 8 | Micro brush (100 pcs/pack) | 3 |
| 9 | Articulating paper (12 x 12 sheets / book) | 4 |
| 10 | Glass ionomer cement manual mix | 24 |
| 11 | Spongostan (12 pieces/ box) | 5 |
| 12 | Celluloid matrix strip | 2 |
| 13 | Wedge | 1 |
| 14 | Vaseline | 2 |
| 15 | Calcium hydroxide cement | 2 |
| 16 | Dentin conditioner | 24 |
| 17 | Hydrogen peroxide 3% for root canal irrigation | 1 |
| 18 | EDTA 17% | 1 |
| 19 | Guttap percha various size | 6 |
| 20 | Zinc oxide powder | 1 |
| 21 | Paste sealer for root canal obturation | 2 |
| 22 | Pulp devitalizing paste | 2 |
| 23 | Bonding agent | 2 |
| 24 | Etch 37% | 2 |
| 25 | Paper point various size | 10 |
| 26 | Eugenol | 1 |
| 27 | Temporary filling material | 2 |
| 28 | Handpiece lubricant spray | 1 |

| S.No. | MATERIAL | QUANTITY PER ANNUM PER HOSPITAL |
|---|---|---|
| 29 | Composite packable various shade | 4 |
| 30 | Formo cresol | 1 |
| 31 | Dental needle 27G x38mm (100 in a box) | 24 |
| 32 | Dental needle 30Gx25mm (100 in a box) | 24 |
| 33 | Gauze (roll 80cm) | 3 |
| 34 | Alveogyl (paste for dry socket dressing) | 2 |
| 35 | Tri cresol formalin | 1 |
| 36 | Silver Diamine Fluoride (SDF) | 2 |
| 37 | Topical Fluoride | 2 |
| 38 | Lidocaine 2% adrenaline 1:80.000 cartridge (50 in a box) | 72 |
| 39 | Topical Anaestesia gel | 1 |
| 40 | Chlor ethyl spray | 1 |
| 41 | Catgut with needle | 50 |
| 42 | Disclosing solution | 1 |
| 43 | Endo irrigation needles | 4 |
| 44 | Non consumable equipment (based on need) | 1 |
| 45 | Dental PA X-ray machine (based on necessity) | 1 |

## VI. NATIONAL HOSPITAL

| S.No. | MATERIAL | QUANTITY PER ANNUM |
|---|---|---|
| 1 | Sharp container 5 Litres (not disposable) | 5 |
| 2 | Autoclave sterilization bag 90x260mm (200 pcs/pack) | 15 |
| 3 | Autoclave sterilization bag 135x255mm (200 pcs/pack) | 15 |
| 4 | Disinfection liquid 5 Litres | 12 |
| 5 | Cotton roll (pack 600) | 4 |
| 6 | Alcohol swab 1kg | 6 |
| 7 | Paper cup dispenser (100 pcs/pack) | 36 |
| 8 | Micro brush (100 pcs/pack) | 3 |
| 9 | Articulating paper (12 x 12 sheets / book) | 4 |
| 10 | Glass ionomer cement manual mix | 24 |
| 11 | Spongostan (12 pieces/ box) | 6 |

| S.No. | MATERIAL | QUANTITY PER ANNUM |
|---|---|---|
| 12 | Celluloid matrix strip | 2 |
| 13 | Wedge | 1 |
| 14 | Vaseline | 1 |
| 15 | Calcium hydroxide cement | 2 |
| 16 | Dentin conditioner | 24 |
| 17 | Hydrogen peroxide 3% for root canal irrigation | 1 |
| 18 | EDTA 17% | 1 |
| 19 | Guttap percha various size | 6 |
| 20 | Zinc oxide powder | 1 |
| 21 | Paste sealer for root canal obturation | 2 |
| 22 | Pulp devitalizing paste | 2 |
| 23 | Bonding agent | 2 |
| 24 | Etch 37% | 2 |
| 25 | Paper point various size | 10 |
| 26 | Eugenol | 1 |
| 27 | Temporary filling material | 2 |
| 28 | Handpiece lubricant spray | 1 |
| 29 | Composite packable various shade | 4 |
| 30 | Formo cresol | 1 |
| 31 | Dental needle 27G x38mm (100 in a box) | 30 |
| 32 | Dental needle 30Gx25mm (100 in a box) | 30 |
| 33 | Gauze (roll 80cm) | 3 |
| 34 | Alveogyl (paste for dry socket dressing) | 2 |
| 35 | Tri cresol formalin | 1 |
| 36 | Silver Diamine Fluoride (SDF) | 2 |
| 37 | Topical Fluoride | 2 |
| 38 | Lidocaine 2% adrenaline 1:80.000 cartridge (50 in a box) | 100 |
| 39 | Topical Anaestesia gel | 1 |
| 40 | Chlor ethyl spray | 1 |
| 41 | Catgut with needle | 100 |
| 42 | Disclosing solution | 1 |
| 43 | Endo irrigation needles | 4 |
| 44 | Non consumable equipment (based on need) | 1 |
| 45 | Dental PA X-ray machine (based on necessity) | 1 |
| 46 | OPG machine | 1 |

**Note:** These list of equipments, medicines and consumables was provided by

ADETIL for general oral health care provision . After the launch of this strategy, these equipments will be added to the Standard List of the Health Post and Health Center. Medicines will be added in Essential Medicines List of Timor Leste and consumables will be added in the National Consumables List of Timor Leste. Efforts will be undertaken to ensure that all health care facilities have the desired dental medicines and equipments as per their scope of services.

# IX. LEVELS OF ORAL HEALTH CARE

| Oral Health Care Through | Total population targeted | Provision of Oral Health Care | Responsibility | Consumable and non-consumables |
|---|---|---|---|---|
| **PRIMARY HEALTH CARE** | | | | |
| IHP | 250-1500 | • Oral Health Promotion and Education.<br>• Oral Screening<br>• SDF Application<br>• Pain Relief (medication)<br>• Referral to advance health care facility | Dentist, dental nurse and also CHV's to help with health promotion activities. | • Poster<br>• Flipchart<br>• Phantom<br>• Tooth brush and toothpaste<br>• Social media Booklet<br>• Oral Diagnostic set<br>• Disinfectant for sterilization<br>• Patient status<br>• NSAID Antibiotic<br>• SDF Referral slip |
| Mobile Dental Clinic | <150 | • Oral Health Promotion and Education.<br>• Oral Screening<br>• SDF<br>• Application<br>• Pain Relief (medication)<br>• Referral to advance health care facility | Dentist, dental nurse and also CHV's to help with health promotion activities. | • Poster<br>• Flipchart<br>• Phantom<br>• Tooth brush and toothpaste<br>• Social media Booklet<br>• Oral Diagnostic set<br>• Disinfectant for sterilization<br>• Patient status<br>• NSAID Antibiotic |

| Oral Health Care Through | Total population targeted | Provision of Oral Health Care | Responsibility | Consumable and non-consumables |
|---|---|---|---|---|
| | | | | SDF Referral slip |
| School Visit | Students | • Oral Health Promotion and Education.<br>• Oral Screening<br>• SDF<br>• Application<br>• Pain Relief (medication)<br>• Referral to advance health | Dentist, dental nurse, CHVs and also school teachers to help with health promotion activities. | • Poster<br>• Flipchart<br>• Phantom<br>• Tooth brush and toothpaste<br>• Social media Booklet<br>• Oral Diagnostic set<br>• Disinfectant for sterilization<br>• Patient status<br>• NSAID Antibiotic<br>SDF Referral slip |
| Health Post | **At the suco level and covers population between 1,500 –2,000** | • Oral Health Promotion and Education.<br>• Oral Screening<br>• SDF<br>• Application<br>• Pain Relief (medication)<br>• Referral to advance health care facility | Dentist and dental nurse to help with health promotion activities. | • Poster<br>• Flipchart<br>• Phantom<br>• Tooth brush and toothpaste<br>• Social media Booklet<br>• Oral Diagnostic set<br>• Disinfectant for sterilization<br>• Patient status<br>• NSAID Antibiotic<br>SDF Referral slip |
| Community Health Center | At the level of Administrative | • Oral Health Promotion and Education. | Dentist and dental nurse to help with | • Poster Flipchart<br>• Phantom |

| Oral Health Care Through | Total population targeted | Provision of Oral Health Care | Responsibility | Consumable and non-consumables |
|---|---|---|---|---|
| level 1 | Post. In rural area to cover population of around 7,500 – 12,000<br>At urban area to cover population around 15,000 | • Oral Screening<br>• SDF<br>• Application<br>• Pain Relief (medication)<br>• Referral to advance health care facility<br>• Extraction<br>• Scaling<br>• Simple dental obturation case | health promotion activities. | • Tooth brush and toothpaste<br>• Social media booklet<br>• Oral Diagnostic set<br>• Disinfectant for sterilization Patient status<br>• NSAID Antibiotic SDF<br>• Topical Anesthesia gel<br>• Topical Anesthesia spray Local anesthesia medication Alvogyl dental needle syringe cotton & gauze Saline<br>• Povidone Iodine<br>• Spongostan & hemostatic agent<br>• Minor surgery kit<br>• Glass ionomer cement<br>• Composite Etching Bonding agent<br>• Calcium Hydroxide cement<br>• Arsenic Temporary filling<br>• Eugenol Hand instrument set (scalers) Referral slip |
| Community Health Center | • At Municipality level | • Oral Health Promotion and Education. | Dentist, dental nurse and also CHVs to | • Poster Flipchart<br>• Phantom Tooth brush and |

| Oral Health Care Through | Total population targeted | Provision of Oral Health Care | Responsibility | Consumable and non-consumables |
|---|---|---|---|---|
| level 2 | • Covers total population of around 20,000 | • Oral Screening<br>• SDF<br>• Application<br>• Pain Relief (medication)<br>• Referral to advance health care facility<br>• Extraction<br>• Scaling<br>• Simple dental obturation case | help with health promotion activities. | toothpaste<br>• Social media Booklet<br>• Oral Diagnostic set<br>• Disinfectant for sterilization<br>• Patient status<br>• NSAID Antibiotic<br>• SDF Topical Anesthesia gel<br>• Topical Anesthesia spray<br>• Local anesthesia medication<br>• Alvogyl dental needle syringe cotton & gauze Saline<br>• Povidone Iodine<br>• Spongostan & hemostatic agent<br>• Minor surgery kit<br>• Glass ionomer<br>• Cement Composite<br>• Etching Bonding agent<br>• Calcium Hydroxide cement<br>• Arsenic Temporary filling Eugenol Hand instrument set (scalers)<br>• Referral slip |

| Oral Health Care Through | Total population targeted | Provision of Oral Health Care | Responsibility | Consumable and non-consumables |
|---|---|---|---|---|
| Community Health Center level 3 | • In the capital of the Municipality<br>• Covers total population of around 50,000 | • Oral Health Promotion and Education.<br>• Oral Screening<br>• Pain Relief (medication)<br>• Referral to advance health care facility<br>• Extraction<br>• Scaling<br>• Simple dental Obturator case | Dentist and dental nurse to help with health promotion activities. | • Poster Flipchart<br>• Phantom<br>• Tooth brush and toothpaste<br>• Social media Booklet<br>• Oral Diagnostic set<br>• Disinfectant for sterilization Patient status<br>• NSAID Antibiotic<br>• SDF<br>• Topical Anesthesia gel<br>• Topical Anesthesia spray<br>• Local anesthesia medication<br>• Alvogyl, dental needle, syringe cotton & gauze Saline<br>• Povidone Iodine<br>• Spongostan & hemostatic agent<br>• Minor surgery kit<br>• Glass ionomer cement Composite<br>• Etching Bonding agent<br>• Calcium Hydroxide cement<br>• Arsenic Temporary filling Eugenol |

| Oral Health Care Through | Total population targeted | Provision of Oral Health Care | Responsibility | Consumable and non-consumables |
|---|---|---|---|---|
| | | | | • Hand instrument set (scalers)<br>• Referral slip |

| Levels of Oral Health Care | Total population targeted | Provision of Oral Health Care | Responsibility | Consumable and non-consumables Materials |
|---|---|---|---|---|
| **SECONDARY HEALTH CARE** | | | | |
| Referral Hospital | 250-1500 | • Education and promotion for oral health<br>• Oral Screening<br>• Pain relief (medication)<br>• Extraction of clinically unrestorable tooth.<br>• Tooth Restoration (all type of cases)<br>• Simple periodontal Treatment.<br>• Emergency treatment<br>• Endodontic treatment<br>• Intraoral Periapical Radiograph (IOPA) x-ray<br>• Referral to advance health care center | Dentist with the help of dental nurse | • Poster Flipchart<br>• Phantom<br>• Tooth brush and toothpaste<br>• Social media Booklet<br>• Oral Diagnostic set<br>• Disinfectant for sterilization<br>• Patient status<br>• NSAID Antibiotic<br>• SDF<br>• Topical Anesthesia gel<br>• Topical Anesthesia spray<br>• Local anesthesia medication<br>• Alvogyl, Dental needle, Syringe<br>• Cotton & gauze Saline<br>• Povidone Iodine<br>• Spongostan & hemostatic agent<br>• Minor surgery kit<br>• Glass ionomer cement<br>• Composite<br>• Etching and Bonding agent<br>• Calcium Hydroxide cement<br>• Arsenic Temporary filling Eugenol |

| Levels of Oral Health Care | Total population targeted | Provision of Oral Health Care | Responsibility | Consumable and non-consumables Materials |
|---|---|---|---|---|
| | | | | • Hand instrument set (scalers)<br>• Sterilization root canal medication<br>• Gutta percha Paper point Obturation paste<br>• Hand instrument set for Ultrasonic Endodontic scaler<br>• Drugs for anaphylactic shock<br>• Oxygen<br>• Digital PA X-ray machine<br>• Referral slip |
| **National Hospital** | | • Chair-side Oral health promotion and education<br>• Oral Screening<br>• Pain Relief (medication)<br>• Extraction of clinically unrestorable tooth.<br>• Extraction of Mobile and non- restorable decayed firm tooth<br>• Restoration of tooth<br>• Cleaning of teeth<br>• Emergency treatment<br>• Root canal treatment | • Dental Specialist such as Orthodontist, Paedodonti st, Endodontist , Maxillo facial surgeon, Prosthodontist<br>• Specialist Dental nurse<br>• Dental technician | • Poster Flipchart Phantom<br>• Tooth brush and toothpaste Social media Booklet<br>• Oral Diagnostic set Disinfectant for sterilization<br>• Patient status<br>• NSAID<br>• Antibiotic SDF<br>• Topical Anesthesia gel Topical Anesthesia spray<br>• Local anesthesia medication.<br>• Alvogyl Dental needle Syringe<br>• Cotton & gauze Saline |

| Levels of Oral Health Care | Total population targeted | Provision of Oral Health Care | Responsibility | Consumable and non-consumables Materials |
|---|---|---|---|---|
| | | • IOPA X ray<br>• OPG X ray<br>• Specialized treatment related to orthodontics, pedodontics, oral and maxillofacial surgery and other specialities<br>• Complete/ partial removable dentures<br>• Crown & bridges<br>• Inlay & onlay<br>• Maxillo facial Surgery | | • Povidone Iodine<br>• Spongostan & hemostatic agent Minor surgery kit<br>• Glass ionomer cement Composite<br>• Etching Bonding agent<br>• Calcium Hydroxide cement<br>• Arsenic Temporary filling Eugenol<br>• Hand instrument set (scalers)<br>• Sterilization root canal medication<br>• Gutta percha Paper point Obturation paste<br>• Hand instrument set for Ultrasonic Endodontic scaler<br>• Drugs for anaphylactic shock<br>• Oxygen<br>• Digital PA X -ray machine<br>• Referral slip |

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