# Strategy for oral health

## in South-East Asia, 2013–2020

World Health Organization
Regional Office for South-East Asia

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# Introduction

Oral health refers to the health status of the mouth and related structures that enable an individual to eat, speak, and socialize in the absence of active disease, dysfunction, pain, discomfort, or embarrassment. Oral health is an integral component of general health, quality of life and well-being. Poor oral health has a negative impact on work productivity and educational performance and adversely affects growth, development and quality of life. Oral diseases are among the most common chronic diseases worldwide and constitute a major public health problem due to the huge health and economic burden on individuals, families, societies, and health care systems. All oral diseases are related to socioeconomic status and disproportionately affect poor population groups, ethnic minorities and other disadvantaged or vulnerable groups.

In recent years, many high-income countries have achieved significant improvements in the oral health of adults and children. The WHO South-East Asia Region, generally comprising low- and middle-income countries, has not seen similar changes. Oral health inequities within and between Member States of the Region are wide, and mirror the unequal distribution and exposure to common risk factors of noncommunicable diseases (NCDs), inequitable access to health care, as well as widening disparities in socioeconomic status.

The recent emphasis on the role of determinants of health and recognition of common risk factors in the context of the growing burden of NCDs, provide a good opportunity for integrating oral disease and NCD prevention and control efforts. The delivery of equitable services for oral diseases and NCDs requires strengthening of health systems

based on the principles of primary health care. Approaches to health promotion, disease prevention and control applied in managing NCDs are equally relevant in addressing the public health challenge of oral diseases.

The Strategy for oral health in South-East Asia, 2013–2020 presents guidance to Member States in developing national policy and action plans to improve oral health within the existing socioeconomic, cultural, political and health system contexts of the Region, fully in line and integrated with planning for prevention and control of NCDs. It expresses the regional consensus on major strategies in the area of oral health promotion as well as oral disease prevention and control, and aims to reduce the health and socioeconomic burden resulting from oral diseases, as well as reducing oral health inequities and improving the quality of life of the population.

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# Rationale of the strategy

## 2.1 Disease burden

The group of oral diseases has a significant public health impact. The key oral diseases, such as dental caries (tooth decay), periodontal disease (gum disease), and oropharyngeal cancers (oral cancers) are major contributors to the disease burden. In addition, orofacial trauma, congenital malformations and oral manifestations of systemic infections (such as HIV/AIDS) are important problems for individuals and societies.

Dental caries are the most prevalent oral disease in Member States of the South-East Asia Region, affecting 70% to 95% of school-aged children and the vast majority of adults. The mean number of decayed, missing and filled teeth (DMFT) reported in the database of the WHO Oral Health Country/Area Profile Project for Member States of the Region was 1.87 in 2011, although the calculation basis is weak due to the low availability of recent representative survey data. According to surveys, there are huge variations across the Region and within countries where many population groups suffer from high caries burden. The majority of teeth affected by dental caries remain untreated, particularly in children, due to limited access to and high cost of oral health services. Early childhood caries are an increasing problem, with rampant caries leading to rapid decay of deciduous teeth. In older age groups, dental caries prevalence is high with low severity; most disease remains either untreated or affected teeth are extracted.

Periodontal disease is a highly prevalent chronic disease of the gums and tooth-supporting tissues and is the principal cause of tooth

loss. In the South-East Asia Region about 45% of people aged 35–44 years suffer from severe or advanced periodontal disease. Total loss of all teeth (edentulism), although often seen as a natural consequence of ageing, is a preventable impairing condition affecting nutritional status, self-esteem and social functions of individuals affected. While in some high-income countries there has been a trend of reduction in tooth loss among adults in recent years, edentulism remains a common condition of the elderly in many Member States of the Region.

Oropharyngeal cancers, predominantly squamous cell carcinomas, are the eighth most common cancer worldwide. The South-East Asia Region shows the highest incidence rates compared to other WHO regions (oral cancer ranks second for men and third for women among the most common cancers). Oral cancer is primarily related to tobacco use, use of carcinogenic substances, alcohol consumption and dietary factors. Oropharyngeal cancers pose major challenges to health systems in the Region and, despite increased efforts for early detection and appropriate care, survival rates for oral cancer are among the lowest in the world.

Orofacial trauma is among the most common injuries from accidents and violence and often requires specialized maxillofacial surgery interventions, which are not available or affordable everywhere. The same applies to congenital malformations of the jaws and lips. Treatment and rehabilitation are possible with intensive surgery and other interventions, but such services are highly specialized and very often not available or affordable for the individuals affected. Patients with oral manifestations of systemic diseases, such as HIV/AIDS infection, have special oral health care needs and require attention from skilled and appropriately trained health-care professionals.

## 2.2 Risk factors and determinants of health

Most oral diseases are of multifactorial origin; yet they have a core group of modifiable risk factors in common with many NCDs and injuries. The four most prominent NCDs – cardiovascular diseases, diabetes, cancer

and chronic pulmonary diseases – all share key preventable risk factors with oral diseases. Risk factors include tobacco use, alcohol consumption and unhealthy diets rich in sugar, all of which show increasing prevalence in the Region. Addressing these risk factors in an integrated way is key to controlling and preventing the four major NCDs and thereby also improving the oral health status of populations.

## 2.3 Oral health workforce

In most Member States of the South-East Asia Region, national capacity and resources – human, financial and supplies, as well as equipment and infrastructure – are insufficient to ensure availability of, and universal access to, basic oral health care services for all population groups. Dentist to population ratios vary greatly between Member States of the Region. The existing health workforce is not able to address oral health needs comprehensively and is often unequally distributed, with the majority located in urban centres. In addition, approaches are mostly oriented towards curative treatment of disease rather than focused on disease prevention and oral health promotion. There is also a general lack of public health care planners and managers with appropriate knowledge about oral diseases and relevant interventions. Several Member States are increasing their oral health workforce by allowing private dental education institutions, thus creating huge challenges for quality assurance, accreditation and professional legislation.

## 2.4 Oral health care systems

Oral diseases are the fourth most expensive disease entity to treat and often require high out-of-pocket payments for patients. The focus of interventions is generally on restorative care requiring costly equipment, while preventive and upstream interventions aimed at the population at large are neglected. Private oral health care facilities are often unaffordable for large segments of the population. At the same time, people cannot always rely on a functioning public oral health care service to address their essential oral health needs, since public oral health care suffers from low resource allocation and

prioritization. As a consequence, patients either seek treatment from traditional practitioners or illegal providers who provide services with high health risks, or the oral health problem remains untreated. Oral health care coverage among children and adults in Member States of the Region therefore shows substantial variation and inequity related to socioeconomic status.

In Member States with social health insurance schemes, even basic oral health care is often not – or only inadequately – included. The low awareness of oral health problems combined with a lack of up-to-date data on epidemiology and service performance hampers effective planning and management of public oral health care services as part of primary health care systems.

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# Guiding principles

The regional oral health strategy is based on four guiding principles that provide a framework for planning integrated, relevant and appropriate actions to promote oral health and to prevent and control oral diseases.

## 3.1 Equity and respect for human rights principles

The strategy addresses health inequities and is built on respect, protection and fulfilment of human rights of all citizens of the South-East Asia Region. The provision of equitable oral health services for the entire population, particularly including the poor and disadvantaged groups and those living in rural and remote areas, will be of high priority and contributes to the WHO goal of universal health coverage. The participation of all stakeholders including communities, the private sector, public and civil society organizations, and other sectors, is encouraged.

## 3.2 Life-cycle approach

The strategy is based on the life-cycle approach, recognizing the continuum of oral health needs from birth through childhood, adolescence, adulthood, and old age. Therefore, oral health interventions should be tailored to respond to the changing needs of different age groups, while at the same time maintaining a focus on prevention and control of diseases in the early stages of life.

## 3.3 Public health focus

The strategy promotes a public health approach focusing on the major oral health problems that pose the greatest health burden to people.

A population approach is required, which is cost-effective, has a high and sustainable impact, and includes a mix of preventive and curative interventions with a clear focus on health promotion.

## 3.4 Evidence-based practice and alignment with international policies and WHO recommendations

The strategy takes into account relevant international policies and recommendations as well as the best available scientific evidence including:

- World Health Assembly resolution WHA60.17 (2007), Oral health: action plan for promotion and integrated disease prevention, and its 14 action areas;
- the Political Declaration of the High-level Meeting of the General Assembly on Prevention and Control of Non-communicable Diseases, particularly article 19 of the Declaration;
- the Global Action Plan for the Prevention and Control of Noncommunicable Diseases 2013–2020, adopted by the World Health Assembly in May 2013;
- the Global Monitoring Framework for Noncommunicable Diseases, including 25 indicators and a set of 9 voluntary global targets, adopted by the World Health Assembly in May 2013;
- declarations on oral health promotion for school children (such as the Ayutthaya Declaration on Oral Health Promotion for School Children, 2003, and the Bangalore Declaration on Prevention and Promotion of Oral Health through Schools, 2005);
- the Phuket Declaration on Oral Health in HIV/AIDS, 2004;
- the Crete Declaration on Oral Cancer Prevention, 2005;

- the Beijing Declaration: Call to action to promote oral health by using fluoride in China and Southeast Asia, 2007;
- the Asian Framework for Effective Use of Fluoride for Prevention of Dental Caries, Phuket 2011;
- the International Principles of Ethics for the Dental Profession (FDI World Dental Federation);
- the WHO, FDI, and International Association for Dental Research (IADR) Global Goals for Oral Health 2020.

Additional documents are listed in Annex 7.1.

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# Vision, goal and objectives

## 4.1 Vision

For all people of the South-East Asia Region to enjoy the highest attainable status of oral health enabling them to live healthy and productive lives.

## 4.2 Goal

The oral health status and related quality of life for all citizens of the South-East Asia Region are improved through an evidence-based, integrated, multisectoral approach to oral disease prevention and control, oral health promotion, oral health care, health systems development and policy.

To this end, the regional oral health strategy suggests two overall targets, in line with the approach of the Action Plan for the Prevention and Control of Noncommunicable Diseases in South-East Asia, 2013–2020:

**Target 1**

A 25% relative reduction of premature mortality from oral cancer by 2025.

**Target 2**

A 25% relative reduction of prevalence of dental caries by 2025.

## 4.3. Objectives

The strategy proposes a general objective and four areas of specific objectives, namely (1) advocacy and partnerships (2) integration health universal coverage and community involvement (3) oral health promotion, disease prevention and healthy settings, and (4) health systems development.

### *General objective*

To facilitate the development of comprehensive oral health care systems in the South-East Asia Region, fully integrated into general health, education and development policies and based on primary health care principles, with emphasis on integration with NCD prevention and control.

### *Specific objectives*

#### 1. Advocacy and partnerships

#### 1.1. Advocacy

Objective: To advocate at all levels for recognition and integration of oral health in general health policies and public health programmes, including policies related to NCDs, and for increased political and financial commitment to oral health.

Rationale: Improving recognition and awareness of oral health in general health and public policies, as well as strengthening national programming for oral health, requires increased advocacy efforts based on available evidence on impact and best-practice models for integration, programme design and sustainability.

### 1.2. Partnerships

Objective: To promote the establishment and evaluation of effective partnerships in the context of oral health, both inside and outside of the health sector.

Rationale: Functioning collaborations within and outside of the health sector are essential to facilitate the implementation of oral health policies, foster the mobilization of resources and support the goal of addressing the wider determinants of health.

## 2. Integration, universal health coverage and community involvement

### 2.1. Integration

Objective: To ensure effective collaboration, coordination and integration with other government sectors and ministries.

Rationale: Oral health programmes share common goals with other public health interventions, such as NCD programmes. The integration of oral health in other public health measures is likely to yield higher public health gains and increase efficiency.

### 2.2. Universal health coverage

Objective: To improve access to primary oral health care of the entire population, particularly in underserved areas.

Rationale: Working towards universal access to appropriate health care and disease prevention services is an essential strategy to address inequities

in health, and can only be reached through intersectoral efforts. Appropriate oral health care and prevention services should be available and affordable for all, particularly vulnerable, deprived, disadvantaged or remote populations, fully integrated with essential care for NCDs, and aligned with the primary health care system. Basic oral health care includes at least essential services to address oral pain, infection or trauma, and referral with the best possible quality standards.

### 2.3. Community involvement

Objective: To mobilize and facilitate community participation in the planning, implementation and monitoring of appropriate programmes related to oral health care, promotion and prevention.

Rationale: Involving community organizations and civil society groups in the planning, implementation and evaluation of oral health programmes ensures that services meet the need and demand, are appropriate to the social context and take into account the available resources.

## 3. Oral health promotion, disease prevention and healthy settings

### 3.1. Oral health promotion and disease prevention

Objective: To establish national population-wide strategies for oral disease prevention, focusing on risk reduction, oral health promotion and effective exposure to appropriate fluorides; while also taking into account the specific needs of high-risk

and vulnerable groups such as mothers, children, the elderly, refugees and people with disabilities.

Rationale: Reducing common risk factors for oral health, fully integrated with other relevant NCD prevention strategies, is key in addressing the two main oral diseases (oral cancer and dental caries). In addition, exposure to appropriate fluorides is the most important evidence-based measure to address dental caries. Oral health promotion includes skills for healthy behaviour and self-care, as well as the integration of oral health in all policies.

### 3.2. Healthy settings

Objective: To establish health-promoting environments in schools, workplaces and the community.

Rationale: The healthy settings approach to health promotion includes supportive policies and activities specific to common environments in order to facilitate working, learning and living in environments conducive to health. Schools, workplaces and other community settings are of particular relevance since people spend a large proportion of their time in these environments.

## 4. Health systems development

### 4.1. Administration and coordination

Objective: To establish an effective national oral health coordinating entity within the ministry of health, led by a skilled national chief oral health officer.

Rationale: Effective planning and management of resources and programmes for oral health requires a dedicated, qualified, functioning and well-resourced oral health unit within the ministry of health, fully integrated with existing internal structures and working closely with other relevant public health areas such as NCDs, maternal and child health, school health, and others.

## 4.2. Information systems

Objective: To develop integrated, relevant and appropriate information systems for oral health planning and management, including impact assessment of oral health policies as well as monitoring of risk factors.

Rationale: Valid and timely information on the epidemiology of the oral disease burden and risk factors, as well as on the performance of the health care system, are important for planning and management of oral health care services. Focus should be on integration into relevant and existing surveillance systems to minimize the need for additional resource allocation and parallel structures.

## 4.3. Facilities and services

Objective: To ensure that appropriate, affordable, functioning and sustainable facilities are available as an integral part of the primary health care system.

Rationale: In order to ensure availability and provision of oral health services to populations, the number of appropriate, affordable, functioning and sustainable facilities at all levels of the primary

health care system needs to be increased. Focus should be on the universal availability of essential oral health care with functioning referral pathways and facilities appropriate to every level.

### 4.4. Human resources

Objective: To develop and retain a committed oral health workforce that meets the oral health needs of the population.

Rationale: The delivery of oral health care services and disease prevention measures within the primary health care system requires a skilled, dedicated and available oral health workforce. Member States should ensure that workforce planning for oral health is part of overall health workforce planning and takes into account the appropriate skill mix required for different tasks at different levels of the primary health care system, including mid-level providers, auxiliary and non-dental personnel.

### 4.5. Quality assurance

Objective: To ensure the provision of safe, evidence-based, high-quality oral health care at every level.

Rationale: Patient safety in the provision of oral health care services is an important objective for health systems strengthening. This includes suitable training and qualification of oral health professionals and other providers, as well as a functioning comprehensive legal and regulatory framework for the professions involved in the provision of oral health care.

### 4.6. Research

Objective: To strengthen public health and operational research as a basis for evidence-based decision-making, policies and advocacy.

Rationale: Research focusing on implementation and evaluation of oral health interventions is required to inform planning, management, and decision-making related to oral health programmes. Exchange of knowledge and strengthening research capacities should be part of research strategies and planning for oral health.

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## Priority action areas

The specific objectives set out in the regional oral health strategy are important elements in a comprehensive approach to improve the oral health status of the population. However, Member States are encouraged to select and adopt priority action areas relevant to their country context and based on the specific national objectives. National priorities should be determined according to prevailing risk factors, disease burden, health system capacity, available resources and other factors. Such prioritization will maximize the impact of available and new resources through effective allocation to the areas that matter most.

From a regional perspective, five priority action areas and their respective optional indicators are suggested. One overarching priority action area of integrating prevention and control of oral diseases into activities to prevent and control NCDs, and four specific priority action areas.

(1) Integrating oral diseases into prevention and control of NCDs

(2) Addressing oral cancer

(3) Promoting oral health through flurides

(4) Incresing and diversifying the health workforce

(5) Oral health through school health

These priority action areas, which are closely linked to the overall targets of the regional oral health strategy as well as to several of the specific objectives, will support the achievement of the two overall targets.

## 5.1. Integrating oral diseases into prevention and control of NCDs

The recent momentum for increased global, regional and national efforts to prevent and control NCDs provides the opportunity to overcome traditional vertical approaches to oral health. Oral diseases are recognized in the Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases (article 19, 2011); are part of the global policy frameworks for NCDs; and are highlighted in the Action Plan for the Prevention and Control of Noncommunicable Diseases in South-East Asia, 2013–2020. Building on reciprocal links between NCDs and oral diseases, these policies call for integration of oral diseases into the NCD context since they share the same risk factors and determinants and will benefit from interventions aimed at the four main NCDs. Moreover, addressing oral diseases as part of NCDs contributes to achieving the targets defined for the key NCDs.

Addressing oral diseases is coherent with the four strategic action areas outlined in the *action plan for the prevention and control of noncommunicable diseases in South-East Asia, 2013–2020*, as follows.

- *Advocacy, partnerships and leaderships*

  Oral diseases, although among the most prevalent NCDs worldwide, are not prioritized accordingly. Integrating them with NCDs, greater advocacy, new partnerships, and strengthening of management and leadership will increase awareness and recognition among decision-makers and the public, resulting in increased resource allocation and better health outcomes.

- *Health promotion and risk reduction*

  The main NCD risk factors, such as tobacco use, alcohol consumption and unhealthy diets high in sugar, are also key risk factors for oral health. Addressing these risk factors comprehensively in the context of NCDs will benefit oral disease

programmes, as much as addressing them through oral health promotion benefits other NCD programmes as well.

- *Health systems strengthening for early detection and management*

  Many interventions in oral health care and prevention require special skills and a specialized oral health workforce. It is important that planning and development of the oral health workforce is integrated into overall health workforce planning, so that the availability of services strengthens the primary health care system at large towards the goal of universal coverage.

- *Surveillance, monitoring and evaluation, and research*

  Surveillance of oral diseases should be part of epidemiological surveillance of NCDs and their risk factors. Existing NCD surveillance tools, such as the WHO STEPwise approach to Surveillance (STEPS) survey or the global school-based student health survey (GSHS) are increasingly used, and modules related to oral diseases are available and should be applied.

### Suggested optional indicators to assess national progress in this priority action area

1. Availability of a national oral health strategy, integrated into NCDs strategy.
2. Oral health surveillance data collected as part of the national NCD surveillance system.

## 5.2. Addressing oral cancer

Among the WHO regions, the South-East Asia Region has the highest incidence of oropharyngeal cancer. Some of the countries in the Region have the highest incidence, mortality and crude risk rates as well as absolute case numbers globally, both for men and women. In addition,

the key risk factors for oral cancer are of particular relevance in the Region. Oral cancer is linked to socioeconomic status and deprivation, thus disproportionally affecting the poor and marginalized who also have the least access to prevention and care. Common risk factors include tobacco use, culturally determined practices (such as betel nut chewing and consumption of other carcinogenic substances), alcohol consumption, and nutrition deficits.

Oral cancer, despite its high incidence and prevalence in the Region, does not benefit from significant prioritization like other cancer entities. This further worsens a situation where specialized care and surgery are costly and not generally available, resulting in average five-year survival rates below 50%. For those Member States with high incidence rates of oral cancer it is thus suggested to prioritize oral cancer as a public health problem.

Actions relate to primary, secondary and tertiary prevention, as follows.

- Primary prevention – comprehensive risk reduction (tobacco and alcohol control, healthy diet, generally improved hygiene and living conditions); interventions against traditional practices such as areca nut and betel-quid chewing.
- Secondary prevention – screening and early detection of oral cancer and premalignant lesions (self-detection, visual screening of high-risk populations by trained personnel without adjunctive interventions in a primary health care context); establishment of valid cancer registries, with oral cancer an integral part, to strengthen the epidemiological information base.
- Tertiary prevention – access to appropriate care (diagnosis, oncologic surgery, radiotherapy, chemotherapy, rehabilitation); training and capacity building for specialists.

### Suggested optional indicators to assess national progress in this priority action area

1. Unconditional probability of dying between 30–70 years of age due to oral cancer.
2. Age-standardized incidence of oropharyngeal cancer per 100 000 population, disaggregated by sex.
3. Percentage of at-risk population aged 25 years and older screened visually for oral cancer once or more by a trained health worker.

## 5.3. Promoting oral health through fluorides

Access to appropriate fluorides for oral health is part of the basic human right to health. The use of fluorides for oral health has been recognized as one of the public health success stories of the last 100 years and has been rigorously investigated. There is substantial evidence that long-term exposure to an optimal level of fluoride, particularly through fluoride toothpaste, significantly reduces the caries burden of entire populations, especially for children and adolescents. Policies promoting access to safe, effective and affordable fluorides are of the utmost importance and should be part of any national planning for health, oral health, and essential medicines. Sodium fluoride is therefore listed on the WHO model list for essential medicines.

Fluorides can be delivered through different methods including: community fluoridation of water, salt or milk; the self-use of fluoride toothpaste; and, the application of fluoride varnishes or gels at the individual level by dental or other suitably trained personnel. A series of expert workshops co-sponsored by WHO (Geneva 2006, Beijing 2007, Phuket 2011) identified the advantages and disadvantages of these fluoridation methods in a public health context. The selection of the most appropriate vehicle depends on a number of factors in the respective local and national context. Automatic fluoridation mechanisms, through water, salt or milk, are very equitable strategies

as all population groups may benefit. However, challenges arise if such community fluoridation methods are technically not feasible, if infrastructure and control mechanisms are weak, or if the delivery method it is not acceptable or affordable for the population.

Toothpaste is the most common vehicle for fluoride administration, and affordable fluoride toothpaste is recommended by WHO for all countries and all population groups. The utilization of fluoride toothpaste depends on a number of factors, including affordability and individual hygiene behaviour. Public health authorities should ensure that ISO standard 11609 (fluoride dentifrices) as well as regulations for quality and safety of fluoride toothpastes are in place and enforced, in particular the minimal concentration of bioavailable fluoride to ensure anti-caries efficacy. Measures to increase affordability and use of fluoride toothpaste can be taken, such as tax reduction or exemption.

Some Member States in the South-East Asia Region have areas with excessively high levels of fluoride in drinking water. In these areas the incidence and prevalence of enamel fluorosis is elevated and different symptoms of fluorosis can be found, depending on exposure and individual intake. Public health authorities must take appropriate measures such as mapping of fluoride content and local defluoridation at the water source or the point of use, or provision of water from alternative water sources for drinking and cooking. In areas with excessively high levels of fluoride in drinking-water sources such measures can help to minimize potential health risks, while at the same time ensuring equitable access to fluorides for oral health.

Resulting from the Conference on Oral Health through Fluoride for China and Southeast Asia, jointly convened by WHO, FDI, IADR and the Chinese Stomatological Association in 2007, the final expert consensus formulated in the Beijing Declaration was that “fluoride toothpaste remains the most widespread and significant form of fluoride used globally and the most rigorously evaluated vehicle for fluoride use. […] Fluoride toothpaste is safe to use irrespective of low, normal or high fluoride exposure from other sources.” The experts concluded that

"governmental institutions promoting oral health and general health, the medical and dental professions, the educational system (e.g. health promotion in schools) and industry should take action to ensure that populations know the benefits of regular use of fluoride toothpaste and that fluoride toothpaste is made accessible and affordable".

It is thus suggested to prioritize the promotion of oral health through fluorides, particularly focusing on the promotion of fluoride toothpaste, and to increase its availability, affordability and quality through appropriate measures.

### Suggested optional indicators to assess national progress in this priority action area

1. Prevalence of dental caries among children aged 12 years.
2. Percentage of population using fluoride toothpaste or other sources of fluoride.
3. Policies and regulations in place to ensure affordability and quality of fluoride toothpaste.

## 5.4. Increasing and diversifying the oral health workforce

In order to provide safe, affordable and accessible oral health care services, Member States of the Region are encouraged to increase quantity as well as quality of the oral health workforce relevant to primary health care. Workforce planning for oral health must be part of national health planning so that inequities in access and geographic distribution of oral health care services within (rural and urban areas) and between Member States can be addressed. All efforts should aim at ensuring that essential oral health care is available at all levels of the primary health care system. This should include innovative models of workforce composition and training, such as mid-level providers and primary health care workers, as well as appropriate service back-up through dentists.

National authorities must ensure the best possible standards of oral health training and education, particularly in Member States with a growing sector of private dental training institutions. Effective professional legislation must be in place or adopted to regulate the practice of dentistry and related professions.

### Suggested optional indicators to assess national progress in this priority action area

1. Ratio of oral health professionals to population, disaggregated by urban and rural area.
2. Availability of training curricula and professional regulations for a mix of oral health care providers appropriate to the needs of the population.
3. Integration of oral health care providers in national health workforce planning.

## 5.5. Oral health through school health

The environment and settings of everyday life are determining factors for the health of individuals, communities and populations. By creating healthy settings it is possible to effectively promote health. The school as a setting is particularly relevant because school health programmes provide an ideal entry point for health promotion and disease prevention. They can easily reach a large child population within already existing structures, and reach them at a receptive age in an environment conducive to learning. Preventive school health interventions are also highly cost-effective, and not only have an impact on health, but affect educational performance, productivity and chances later in life.

School health programmes are therefore well suited to oral health promotion, which should go beyond oral health education alone. There is insufficient evidence on the impact of education programmes without behavioural intervention. Training of life long healthy skills has thus been recently emphasized as an essential element of successful school

health programmes. Relevant interventions for low- and middle-income countries include, but are not limited to, the following strategies.

- *Prevention – ensuring regular exposure to appropriate fluorides*

  Daily tooth brushing with fluoride toothpaste as a school activity provides regular exposure to fluoride, which is essential for caries prevention. Other modes of fluoride delivery include brushing with high-fluoride containing gel (once a week) and rinsing with fluoride solutions or application of fluoride varnish in schools (by trained health workers or even parents). High-resource settings may consider the application of fissure sealants; these require adequate infrastructure, workforce and financial resources.

- *Sustained behaviour change*

  Integrating and practicing good oral hygiene behaviour as part of the daily school routine is a way of providing essential skills for the child's daily personal hygiene habits. Children may then be the ones introducing such positive hygiene behaviour to their families and the community, thus helping to promote good oral health behaviour as a social norm. Education on other healthy behaviours, such as healthy eating, tobacco use, physical activity, general hygiene and sexual education can complement such skills-based activities.

- *Bridging to the formal health care system*

  A school-based programme can facilitate access to treatment (either school-based treatment or access to treatment in the public and/or private sector). Screening alone, as done in many countries, is ineffective and considered unethical without provision or referral to basic care for those children identified as in need.

- *Providing a healthy environment*

  Schools should be places providing a healthy environment including access to safe water and adequate sanitation, which are key determinants for health. Provision and consumption of sugary foods and drinks should be restricted or banned on the school premises and healthy alternatives should be available. Similarly, smoking and tobacco use should not be allowed. A healthy and safe school environment is also important for the prevention of orodental trauma.

The WHO Health-Promoting Schools initiative (2003) provides guidance on appropriate school health activities and the integration of oral health interventions in existing school health programmes.

## Suggested optional indicators to assess national progress in this priority action area

1. National guidelines for promoting oral health in school adopted.
2. Percentage of school children brushing daily at school with fluoride toothpaste.
3. Percentage of schools with functioning water and sanitation facilities required for tooth brushing at school.

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# Conclusion

This document provides a policy context and gives guidance for reviewing existing, or developing new, national oral health strategies in Member States of the South-East Asia Region. Bearing in mind the guiding principles, objectives and priority action areas of this Regional Oral Health Strategy, national oral health priorities should be based on scientific evidence and best practices, fully integrated with other NCD programmes, and emphasize the importance of oral disease prevention and control in a primary health care context.

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# Annex

## 7.1 Further reading


1. World Health Organization. Ayutthaya Declaration. The 2nd Asian declaration on oral health promotion for school children, February 23, 2003, Ayutthaya. Ayutthaya, 2003. http://www.who.int/oral_health/media/en/orh_asia_declaration.pdf - accessed 14 November 2013.
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## 7.2. Strategy for oral health in South-East Asia, 2013–2020, at a glance

### Strategy for oral health in South-East Asia, 2013–2020

**Vision:** All people of the South-East Asia Region enjoy the highest attainable status of oral health enabling them to live healthy and productive lives

**Guiding principles**

| | | | |
|---|---|---|---|
| **Equity and respect for human rights principles** | **Life-cycle approach** | **Public health focus§** | **Evidence-based practice and alignment with international policies and recommendations** |

**Goal:** The oral health status and related quality of life for all citizens of the South-East Asia Region are improved through an evidence-based, integrated, multisectoral approach to oral disease prevention, oral health promotion, oral health care, health systems development and policy.

| | |
|---|---|
| **Target 1:** A 25% relative reduction of premature mortality from oral cancer by 2025 | **Target 2:** A 25% relative reduction of prevalence of dental caries by 2025 |

**General objective:** To facilitate the development of comprehensive oral health care systems in the South-East Asia Region, fully integrated into general health, education and development policies, and based on primary health care principles, with emphasis on integration with NCD prevention and control.

**Specific objectives**

| 1. Advocacy and partnerships | 2. Integration, universal health coverage, and community involvement | 3. Oral health promotion, disease prevention and healthy settings | 4. Health systems development |
|---|---|---|---|
| **1.1. Advocacy**<br>To advocate at all levels for recognition and integration of oral health in general health policies and public health programmes, including policies related to NCDs, and for increased political and financial commitment to oral health. | **2.1. Integration**<br>To ensure effective collaboration, coordination and integration with other government sectors and ministries. | **3.1. Oral health promotion and disease prevention**<br>To establish national population-wide strategies for oral disease prevention, focusing on risk reduction, oral health promotion and effective exposure to appropriate fluorides; while also taking into account the specific needs of high-risk and vulnerable groups such as mothers, children, the elderly, refugees and people with disabilities. | **4.1. Administration and coordination**<br>To establish an effective national oral health coordinating entity within the ministry of health, led by a skilled national chief oral health officer. |

| | | | |
|---|---|---|---|
| **1.2. Partnerships**<br>To promote the establishment and evaluation of effective partnerships in the context of oral health, both inside and outside of the health sector. | **2.2. Universal health coverage**<br>To improve access to primary oral health care of the entire population, particularly in underserved areas. | **3.2. Healthy settings**<br>To establish health-promoting environments in schools, workplaces and the community. | **4.2. Information systems**<br>To develop integrated, relevant and appropriate information systems for oral health planning and management, including impact assessment of oral health policies as well as monitoring of risk factors. |
| | **2.3. Community involvement**<br>To mobilize and facilitate community participation in the planning, implementation and monitoring of appropriate programmes related to oral health care, promotion and prevention. | | **4.3. Facilities and services**<br>To ensure that appropriate, affordable, functioning and sustainable facilities are available as an integral part of the primary health care system. |
| | | | **4.4. Human resources**<br>To develop and retain a committed oral health workforce that meets the needs of the population. |
| | | | **4.5. Quality assurance**<br>To ensure the provision of safe, evidence-based, high-quality oral health care at every level. |
| | | | **4.6. Research**<br>To strengthen public health and operational research as a basis for evidence-based decision-making, policies and advocacy. |

| Priority action areas | | | | |
|---|---|---|---|---|
| **5.1. Integrating oral diseases and NCDs**<br>Suggested optional indicators to assess national progress in this priority action area<br>(1) Availability of a national oral health strategy integrated into NCDs strategy<br>(2) Oral health surveillance data collected as part of the national NCD surveillance system | **5.2. Addressing oral cancer**<br>Suggested optional indicators to assess national progress in this priority action area<br>(1) Unconditional probability of dying between 30–70 years of age due to oral cancer<br>(2) Age-standardized incidence of oropharyngeal cancer per 100 000 population, disaggregated by sex<br>(3) Percentage of at risk population aged 25 years and older screened visually for oral cancer once or more by a trained health worker | **5.3. Promoting oral health through fluorides**<br>Suggested optional indicators to assess national progress in this priority action area<br>(1) Prevalence of dental caries among children aged 12 years<br>(2) Percentage of population using fluoride toothpaste or other sources of fluoride<br>(3) Policies and regulations in place to ensure affordability and quality of fluoride toothpaste | **5.4. Increasing and diversifying the oral health workforce**<br>Suggested optional indicators to assess national progress in this priority action area<br>(1) Ratio of oral health professionals to population, disaggregated by urban and rural area<br>(2) Availability of training curricula and professional regulations for a mix of oral health care providers appropriate to the needs of the population<br>(3) Integration of oral health care providers in national health workforce planning | **5.5. Oral health through school health**<br>Suggested optional indicators to assess national progress in this priority action area<br>(1) National guidelines for promoting oral health in school adopted<br>(2) Percentage of school children brushing daily at school with fluoride toothpaste<br>(3) Percentage of schools with functioning water and sanitation facilities required for tooth brushing at school |

Oral diseases are among the most common chronic diseases worldwide and constitute a major public health problem due to the huge health and economic burden on individuals, families, societies, and health care systems. The recent emphasis on the role of determinants of health, common risk factors and their recognition in the context of the growing burden of noncommunicable diseases (NCDs) provides good opportunities for integrating oral health into NCD prevention and control efforts. This Strategy for oral health in South-East Asia, 2013-2020, presents guidance to Member States in developing national policy and action plans to improve oral health within existing socioeconomic, cultural, political and health system contexts, fully in line and integrated with planning for prevention and control of NCDs. It expresses the consensus on major strategies in the area of oral health promotion as well as oral disease prevention and control for the South-East Asia Region aiming at reducing the health and socioeconomic burden resulting from oral diseases, reducing oral health inequities, and improving the quality of life of the population.

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