

# NATIONAL ORAL HEALTH POLICY

## 1. INTRODUCTION

Oral diseases have a significant impact on the health and well being of the nation through pain, morbidity and mortality and through lost capacity to undertake school, social and economic activities. The oral disease, dental caries, is the most common disease of childhood and one of the most common diseases of adults. Oral cancer is one of the leading causes of mortality and morbidity; and is the most common form of cancer in men and the third most common cancer in females.

At present the prevention and treatment of oral diseases is virtually unavailable to the population outside of the Kathmandu Valley. A National Oral Health Policy and a National Strategic Plan for Oral Health is needed to improve the oral health of the people of Nepal.

This policy provides a summary of the National Strategic Plan for Oral Health to assist senior planning personnel and funding groups in their management and support of the development of oral health in Nepal.

The primary aim of the National Oral Health Policy is the provision of high quality, effective, basic oral health care to all of the people of Nepal. This includes the emphasis on promotive, preventive, curative and rehabilitative care. Particular emphasis is placed on the development of human resources for oral health; the development of appropriate curative care at all levels of the primary health care system; the development of national preventive and promotive strategies; and the development of public-private sector co-operation as a particular focus of the multi-sectorial approach to the improvement of oral health.

The National Oral Health Policy is based on the guiding principals and action areas of:

1. Health For All, the Declaration of Alma Ata (WHO, 1978)
  - Equitable access to health care
  - Community participation in health services
  - Focus on prevention
  - Appropriate technology and personnel in the delivery of health care
  - Multisectoral approach involving other sectors of society
  
2. The Ottawa Charter For Health Promotion (WHO, 1986)
  - Building healthy public policy
  - Creating supportive environments
  - Strengthening community action
  - Developing personal skills
  - Reorienting health services

The National Oral Health Policy also augments the primary objective of the Nepal National Health Policy's, 1991 to extend the primary health care system to the rural population so that they can benefit from modern medical care and trained health care providers.

## **2. HEALTH OUTCOMES**

The goal of the National Oral Health Policy is to prevent and control the determinants of oral disease and promote oral health amongst the Nepalese people. It recognises that most oral diseases are preventable and better oral health can be facilitated through a variety of health promotion interventions using appropriate technology and personnel employed in the Primary Health Care system, the private sector and other government sectors.

The National Oral Health Policy and the National Strategic Plan for Oral Health addresses the following health outcomes:

- Reduced incidence and prevalence of dental caries (decay)
- Reduced incidence of oral cancers
- Reduced incidence and prevalence of periodontal diseases (gum disease)
- Reduced disability and handicap resulting from oro-facial defects (cleft lips and cleft palates)
- Reduced incidence of oral and facial trauma

## **3. SUMMARY SITUATIONAL ANALYSIS**

The National Oral Health Policy and the National Strategic Plan for Oral Health was developed after a thorough analysis of the situation of oral health in Nepal. A summary of the major oral diseases and conditions is provided:

### **1. Dental Caries**

#### **a. Prevalence and Severity**

The caries prevalence and mean dmft of 5-6-year-olds is 67% and 3.3 (urban 64% and 2.9; rural 78% and 4.0). The caries prevalence and mean DMFT score of 12-13-year-olds is 41% and 1.1 (urban 35% and 0.9; rural 54% and 1.5).

Comparison of data over the last 20 years shows an increasing trend of untreated dental caries.

#### **b. Aetiology**

Causes of dental caries include increasing sugar consumption, lack of fluoridation of the mouth, malnutrition and poverty.

### **2. Oral Cancer**

#### **a. Incidence and Severity**

Data from GLOBOCAN (2001) reveals that oral cancer is the most common form of cancer in men in Nepal. The reported age-standardised rate is 13.03 with approximately 950 new cases in year 2000 and 547 deaths. In Nepalese females,

the oral cancer is the third most common form of cancer. The age-standardised rate is 8.58 with approximately 639 new cases and 366 deaths in year 2000.

b. Aetiology

Causes of oral cancer include cigarettes, khaini, supari, surti, gutka, paan, alcohol, malnutrition, Vitamin A and Vitamin C deficiency and viral infections.

3. Periodontal Diseases

a. Prevalence and Severity

Approximately 31% of Nepalis age 35-44 years surveyed in a study had developed deep periodontal pockets. This ranks Nepal as one of the top 15% of the countries in the world where this age group suffers from deep periodontal pocketing.

b. Aetiology

Poor oral hygiene, use of tobacco products, malnutrition, psychosocial factors, compromised immune system and poverty are some of the risk factors for periodontal diseases.

4. Oro-facial Clefts

a. Incidence

Reported incidence may be as high as 1 in 500 live births, which makes Nepal as one of the countries with the highest incidence of orofacial clefts.

b. Aetiology

Risk factors include lack of folic acid, nicotine, genetic-environment interaction, older women giving birth.

5. Oral and Maxillofacial Injuries

a. Prevalence

No data available; however, it has been suggested that the incidence of injuries is increasing.

b. Aetiology

Traffic accidents, falls, poor roads, alcohol consumption.

## 4. IMPACT OF ORAL DISEASES

The burden of oral disease due to associated pain and discomfort may result in loss of teeth, difficulty in eating, poor diet and consequently affect one's appearance, self-esteem and quality of life. Good oral health is integral to general health and improvements in oral health will directly result in improvements in general health, and psychological and social well being.

### 4.1 Impact on General Health

Untreated dental caries in young Nepalese children is more prevalent than malnutrition and Vitamin A deficiency which is reported to affect 53% and 58% of the child population respectively. In the context of absolute poverty, there is a greatly increased risk of the development of life threatening sequelae to dental infections due to poor

nutrition, chronic disease and the lack of availability of oral health care. It is not uncommon for dental infections to result in osteomyelitis, cavernous sinus thrombosis, infection of the floor of the mouth and neck space and even death in both children and adults.

A disease of high morbidity (pain, dysfunction and impairment) and mortality in Nepal is oral cancer. Since many cases are diagnosed in the advanced stage, treatment results in poor quality of life and poor survival rates. Metastasis to other parts of the body is also common.

Although periodontal diseases are common and seems innocuous, periodontal conditions have an effect on general health. Periodontal diseases are strongly associated with cardiovascular disease, rheumatic heart disease, cerebrovascular disease and diabetes. Mothers with severe periodontal disease give birth to low-birth weight babies. Periodontal disease is also strongly associated with respiratory infections such as tuberculosis, chronic bronchitis, pneumonia and emphysema.

#### **4.2 Impact on the Quality of Life**

Many of the oral diseases in the advanced stages lead to pain, discomfort and handicap. In a cross-sectional survey of 106 schools in different parts of Nepal, 45% of 4770 school children from age 8 to 14 years experienced toothache. Major impacts include inability to eat (61%), loss of sleep (14%), financial burden (7%), inability to play (6%), missed school (5%), inability to do homework (2%) and all the above (6%).

Cleft lips and plates result in impairment (loss of oral tissues), functional limitation (of speech, hearing, breathing feeding), disability (physical, emotional and social disability for both child and parents) and handicap (poor self esteem, inability to marry, social isolation and inability to gain employment).

#### **4.3 Impact on Finances**

Dental caries is the most expensive human disease to treat in terms of direct costs. To treat 9.3 million Nepalese children from the age of 6 to 14 years using western technology would cost the health care system more than \$US 5 million a year. It is also costly for Nepalese families. The estimated cost to treat a 6-year-old child with 3 decayed teeth is approximately 800NRs., not including loss wages, travel and accommodations. This is enough money for food for a month.

The treatment and rehabilitative costs for other conditions such as oral cancer, clefts and trauma are also expensive to the health care system and for the individual.

#### **4.4 Impact on Economic Productivity**

One of the objectives of the Nepal Government's Tenth Plan is to alleviate poverty by increasing personal incomes through a healthy workforce. If the Nepalese workforce, age 15-49 years (13 million) lost one hour per person per annum due to oral diseases or conditions, total lost days per annum is estimated to be 541, 666. Improvements in the

oral health of the Nepalese people will have a direct impact on Tenth Plan to alleviate poverty and improve prosperity.

## **5. NATIONAL ORAL HEALTH POLICY**

In order to improve the oral health of the people of Nepal, the National Oral Health Policy of His Majesty's Government, Ministry of Health will be as follows:

1. Establishment of a Focal Point for Oral Health in the Ministry of Health. Its functions will be:
  - a. To plan and evaluate oral health promotion, prevention and education programmes.
  - b. To plan for oral health curative care at all levels.
  - c. To improve general health through better oral health care.
  - d. To promote collaboration between the public sector with INGOs, NGOs and the private sector.
  - e. To implement national strategic plans for oral health.
  - f. To prioritise oral diseases.
  - g. To establish a monitoring and surveillance system.
  - h. To develop human resource for oral health.
  - i. To identify trends in oral diseases.
  - j. To evaluate the effectiveness of implemented strategies to improve oral health
2. Periodic oral health surveys will be carried out with the involvement of the Nepal Dental Association.
3. Salt fluoridation will be carried out with the cooperation of the National Salt Trading Corporation and affordable quality fluoridated toothpaste will be encouraged to be produced with the cooperation of the toothpaste manufacturers
  - a. To ensure the fluoridation of the whole population
  - b. To reduce the incidence and prevalence of dental caries and periodontal diseases.
4. A Dental Council will be formed
  - a. To regulate and monitor the standard of dental education.
  - b. To regulate the practice of dentists and specialists.
  - c. To evaluate dental graduates from foreign dental institutions entering to work in Nepal.
5. Provision of dental surgeons with necessary supplies and equipment will be made in selected district hospitals and primary health care centres by year 2017
  - a. To monitor and evaluate oral health care provided by primary health care workers
  - b. To conduct school and community oral health programmes.
  - c. To provide oral health care at different levels.

6. Training of primary health care workers will be carried out
  - a. To promote oral health at the grass roots level.
  - b. To provide basic oral health care.
  - c. To provide referral to the proper centres after primary care.
7. Oral health promotion will be included in the school syllabus at the different levels of education
  - a. To reduce the incidence and prevalence of oral diseases such as dental caries, periodontal disease and oral cancer.
  - b. To improve general health.
  - c. To improve the quality of life.

## **6. NATIONAL STRATEGIC PLAN FOR ORAL HEALTH**

Oral health has an impact on general health, quality of life, education, health budgets, personal finances and economic productivity. In response to the increasing incidence and prevalence of oral diseases, severity of the burden of oral diseases and lack of a coordinated plan to stem the tide of disease, stakeholders in oral health in Nepal have undertaken a two year (2001-2002) strategic planning process leading to the development of the National Strategic Plan for Oral Health for Nepal. This Plan identifies the priority national strategies to improve oral health for the nation and the action plans needed to implement these strategies. It is based on recent scientific research, developments in oral health promotion and on the WHO recommended Basic Package of Oral Care:

- Oral health promotion
- Affordable fluoridation of the mouth
- Oral urgent treatment (emergency care)
- Basic curative treatment using the Atraumatic Restorative Treatment approach

### **6.1 Objectives**

The objectives of the National Strategic Plan for Oral Health are in alignment with His Majesty's Government, Ministry of Health Second Long Term Health Plan, 1997-2017 and lends support to the concept of Essential Health Care Services which address the most essential health needs of the population, are highly cost-effective, health promotion and prevention oriented, and based on Primary Health Care principles.

The objectives are as follows:

- To improve the oral health status of the population of the most vulnerable groups, particularly those whose oral health needs are often not met - women, children, the rural population, the poor, the underprivileged, and the marginalised population.
- To provide cost-effective public health measures and essential curative services for the appropriate treatment of common oral diseases and conditions to the whole population.

- To provide oral health promotion and quality basic oral care throughout the country, particularly in the under-served areas through technically competent and socially responsible health personnel.
- To improve the management and to increase the efficiency and effectiveness of the delivery of oral care.
- To involve INGOs, NGOs, the public and private sectors in providing and financing oral health services.
- To improve inter-and intra-sectoral coordination in oral health promotion and provision of oral health services.

## 6.2 Targets

The targets of the National Strategic Plan for Oral Health are:

- To reduce the prevalence of dental caries to 50% or less for children aged 5-6 years.
- To reduce the mean index of decayed, missing or filled permanent teeth to 0.9 or less in children aged 12 years.
- To reduce the prevalence of toothache amongst children aged 8-14 –years to 35%.
- To reduce the number of new cases of oral cancer to less than 800 annually in males and less than 500 in females.
- To reduce the prevalence of deep periodontal pocketing experienced by the age group 35-44-years to less than 25%.
- To increase the training of Auxiliary Health Workers in the Primary Health Care system to provide basic oral health care to 200 annually.
- To increase the training of auxiliary nurse midwives, maternal child health workers, traditional birth attendants, female community health volunteers and traditional healers in oral health promotion to 300 annually.

Other targets will be set once a national baseline survey has been completed in 2004.

## 6.3 Priority Oral Health Strategies

The following are the priority oral health strategies along with the objectives:

*Oral Health Promotion and the Prevention of Oral Disease.*

Strategy 1. The prevention of dental caries and periodontal diseases:

Objectives include:

- The fluoridation of toothpastes.
- The fluoridation of salt.
- The development of community oral health education to prevent periodontal diseases.
- The reduction in consumption of tobacco and alcohol products.

Strategy 2. The strengthening of community oral health education:

Objectives include:

- The integration of oral health education into the school curriculum.
- The provision of oral health education through mass media.

Strategy 3. The prevention of oral cancer, oral submucous fibrosis, developmental defects, and oral trauma.

Objectives include:

- The collection of data on the prevalence and incidence of these oral diseases and conditions in Nepal.
- The establishment of goals for the reduction of these oral diseases and conditions.
- The development of community oral health education to prevent the above diseases and conditions and reduce the risk factors.
- The development of healthy public policy to control consumption of tobacco products and alcohol.

Strategy 4. The establishment of data collection and research procedures needed to support evidence based oral health policy development.

Objectives include:

- The development of a Health Management Information System (HMIS) for oral health.
- Networking with other organisations to collect data to support oral health policy development.
- The conduct of research necessary to support oral health policy development

#### *Appropriate Curative Care of Oral Disease*

Strategy 1. The expansion of basic oral health care to rural communities.

Objectives include:

- The development of a coordinated training programme for primary health care workers in basic oral health care.
- The development of guidelines for the management and referral of common oral diseases and conditions.
- The establishment of training and managerial support for district dentists responsible for primary health workers providing basic oral health care in their districts.
- The establishment of logistic support (including supply of materials) for the expansion of basic oral health care within rural areas.
- The encouragement of GOs, NGOs, INGOs and the private sector, along with the VDCs and DDCs, to support the expansion of basic oral health services in rural areas.
- The provision of specialised oral health care support at the district, regional and zonal levels.

Strategy 2. The strengthening of quality assurance programs to ensure the proper practice of infection control and occupational health and safety protocols.

Objectives include:

- The establishment of a Dental Council to assure quality of practice of oral health personnel.
- The development of an Infection Control Protocol (ICP) for oral health care and the provision of IC workshops.

Strategy 3. The development of infrastructure for oral health.

Objectives include:

- The development of a set of guidelines for dental infrastructure, equipment and supplies for District, Zonal, Regional and Central Hospital Dental Departments.
- The development of a maintenance schedule for dental equipment within all hospital dental departments.
- The collaboration with other organisations in the development of dental infrastructure

### *The Development of Human Resources for Oral Health*

Strategy 1. Establish a Dental Council to assure quality education of oral health personnel

Strategy 2. Establish undergraduate and post graduate dentistry courses within Nepal.

Objectives include:

- Determine the appropriate number of dentists and number and type of dental specialists for Nepal
- The establishment of dental colleges outside of Kathmandu to enable improved access to dental care in rural areas.
- The development of a uniform dental curriculum and examination procedures.
- The development of criteria for government approved dental postgraduate training programmes.

Strategy 3. The integration of oral health into the training of health workers.

Objectives include:

- The review of the curricula of allied health worker training institutions
- The review of the curricula of primary health care worker training institutions.

### *The Development of Public/Private Sector Co-operation.*

Strategy 1. The establishment of increased funding for oral health.

Objectives include:

- The mobilisation of external resources for oral health.
- The development of support from private sector for oral health.
- The examination of the development of health insurance including insurance for oral health.

#### **6.4 Action Plan**

The following is an overview of the activities which will be implemented and the tentative time schedule:

##### *Saun 1, 2060 to Asar 32, 2061*

- Establish a Dental Council – to assure quality of education of oral health personnel.
- Encourage the fluoridation of salt.
- Strengthen quality assurance programs to ensure the proper practice of infection control and occupational health and safety protocols.
- Define the oral health care duties of auxiliary dental personnel.
- Mobilise international resources for oral health.
- Define basic oral health care duties for primary health care workers (AHW (CMA), HA, ANM, MCHW, FCVHW, Peons, VHW, Traditional Birth Attendants, Traditional Healers)
- Ensure advocacy for the development of oral health policy.
- Ensure the development of oral health policy within general health policy development.
- Facilitate the implementation of oral health policy.
- Establish the data collection and research procedures needed to support evidence based oral health policy development.
- Develop and integrate oral health education into the school curriculum.
- Advocate for the inclusion of Oral Health Section in the Health Organogram
- Encourage the appropriate level of fluoridation of toothpastes.
- Encourage the manufacture of affordable fluoridated toothpastes.
- Improve the quality of toothpastes.
- Define and encourage an appropriate oral health education role of traditional healers

##### *Saun 1, 2061 to Asar 32, 2062*

- Establish of the training of primary health workers in rural areas in basic oral health care.
- Establish training workshops and managerial support systems for district dentists responsible for primary health workers providing basic oral health care in their districts.
- Establish training and managerial support by district dentists of primary health care workers in the provision of basic oral health care.
- Establish logistic support systems (including supply of materials) for the expansion of basic oral health care within rural areas.
- Provision of basic clinical oral health care using existing primary health care workers at the village level.
- Develop the prevention of dental caries
- Develop the prevention of periodontal disease.
- Develop the prevention of oral cancer.

- Develop the prevention of oral trauma.
- Develop the prevention of oral facial developmental defects
- Establish the provision of oral health education to village communities.
- Develop and facilitate the provision of oral health education through mass media.
- Develop and integrate oral health into general health personnel training

*Saun 1, 2062 to Asar 32, 2063*

- Facilitate the provision of dental surgeons to deliver advanced oral health care at the district level.
- Facilitate the provision of specialised oral health care at the regional and zonal levels.
- Facilitate the provision of specialised oral health care support at the regional and zonal levels.
- Facilitate the development of infrastructure for oral health.
- Improve the management of periodontal disease.
- Improve the management of acute oral abscesses.
- Improve the management of oral cancer and oral submucous fibrosis.
- Improve the management of oral and facial trauma.
- Improve the management of oral developmental defects

*Saun 1, 2063 to Asar 32, 2064*

- Encourage agencies including NGOs and INGOs to serve in rural areas.
- Encourage rural VDCs and DDCs to be involved in the expansion of basic oral health care within their areas.
- Encourage VDCs and DDCs to financially support the improvement of the oral health of their community.
- Encourage VDCs and DDCs to be involved in the expansion of basic oral health care within rural areas.
- Encourage the private sector to serve in rural areas through the provision of appropriate incentives.

*Saun 1, 2064 to Asar 32, 2065*

- Facilitate the DC's coordination of the development of auxiliary dental personnel.
- Facilitate the establishment of undergraduate and post graduate dentistry training within Nepal.
- Facilitate the DC's co-ordination of the training of allied oral health workers (dental assistants, hygienist, etc.).
- Seek support from private sector for the development of oral health.
- Examine the development of health insurance including insurance for oral health