

# PREVENTIVE APPROACH IN DENTISTRY

**Dr. Harish Joshi BDS, MDPH**

Dental Department

Om Hospital and Research Centre Pvt. Ltd

**Dr. Prakash Bhattarai, BDS**

Dental Department, Bir Hospital

Nepal with a dentist population ratio of 1:200000 has no school of training either for dental surgeon or dental auxiliaries. There is a total of about 80 qualified dental surgeons, all of them have been trained outside the country. Oral health has been one of the most neglected regions of all health problems in Nepal. Almost all total qualified dental surgeons are concentrated in the capital or some other urban areas, where as two third of total population belong to rural areas, for them dental awareness and treatment is far more difficult.

Non-government organizations often conduct dental camps in various parts of the country, which is totally a curative one. Till now government does not have any definite plan in this field and so far country does not have any national survey on dental health status, neither there is any separate oral health division in Ministry of Health to look after these problems.

High cost and lack of access are either an actual or potential burden for all developing countries. At present, oral health care is provided either by private dental surgeons or by a centrally controlled systems i.e. government hospitals. In developing countries like Nepal the incidence of dental caries used to be comparatively low, but now it has been found to be on the increase.

This is primarily due to the fact that

organized preventive measures have not been initiated. Priority being given to diseases with high mortality and high morbidity or curative and restorative services. Since there is hardly any oral health cover for the rural areas.

As a matter of fact, due to lack of qualified dental personnel in rural areas we can train dental assistants, dental therapists and dental hygienists within the country who can perform preventive care programs where there is no qualified dental surgeons available or they can work with dentists as helping hand.

Following few preventive steps help bring down the dental problems like dental caries, periodontal diseases etc.

**i. Fluoridation:** Such program is one of the most effective measures in preventive aspect for dental caries. There are various methods to apply fluoride in oral cavity or teeth surface.

**a) Fluoride Dentifrice:** It has obviously a direct protective effect against caries of the erupted teeth. But in a developing country like ours, majority of rural population cannot access and afford to buy such dentifrice and tooth brush. If such dentifrice is made available for many people, it helps a lot to prevent dental caries.

**b) Soluble Tablets of Sodium Fluoride:** These sodium fluoride tablets offer a low cost means of providing the rural populations with simple mouth wash that can protect their teeth from dental caries.

**c) Water Fluoridation:** This method is highly useful in population which has access to large scale drinking water system but it is

again very difficult where people are using water from various sources like river, well and small supplies. There are other several techniques like fluoridating the milk, salt, school water which give alternative to large scale water fluoridation.

**d) Topical Fluoride Application:** It is another very effective method in young children to protect from dental caries both deciduous and permanent teeth. APF gel which is readily available in market can be used by dental surgeon as well as dental hygienists or other dental personnel.

Topical fluoride application can be done in school going children of various age groups like 3 yrs, 7yrs and 11yrs. This procedure takes just few minutes with ready-made disposable tray & isolation done by cottonrolls and applied on teeth surface. It has to be applied and kept for 4 minutes on each arch.

Direct contact of fluoride to the tooth surface gives maximum protective effect against dental caries.

**ii) Oral Hygiene Programme:** School tooth brushing program is commonly popular in various parts of the world. School teacher or dental personnel teach the students correct method of tooth brushing and observe them. This is done in the school during tiffin break. Every student is asked to bring tooth paste and brush in school and perform the tooth brushing besides their regular toothbrushing at home. All the students have to go under periodic oral examination.

**iii) Dental Health Education:** Every school should include Dental health topics in their health education curriculum, which gives student a basic knowledge about dental health and importance of oral hygiene.

**iv) General Awareness:** All the population should be provided basic information about

oral health. There are many modes to distribute but informations on Television, Radio, Newspaper are direct. Apart from these, seminars in community level, posters related to dental education are useful.

**v) Minimal Intervention Techniques:** Few methods which contain little curative procedure but serve high protective value against dental caries. These procedures can be carried out by trained dental therapists, dental assistants and dental hygienists other than dental surgeon.

**a) Pit and Fissure Sealants:** Dental sealants applied to tooth Surfaces with pits, fissures and grooves provide a physical barrier to bacterial acids. This procedure needs just basic hand Instruments and glass ionomer cement. Glass ionomer cement composed of fluoroaluminium silicate has ability to adhere chemically without the need to treat to tooth surface with acid etching. The fluoride slowly releases into the surrounding enamel to help prevent caries.

**b) Atraumatic Restorative Treatment (ART):** This technique is to perform minimal cavity preparation using only hand instrument followed by restoration of the cavity with an adhesive filling material, such as glass ionomer. This approach is useful in management of early carious lesions . This technique requires no anesthesia & has minimal financial cost, also the procedure is little & no patient discomfort is experienced.

All above approaches may not be feasible in our rural population but some of them can be made available and effectively implemented in such rural regions where trained dentists are not available. Any-way prevention rather than cure is easier. It is estimated that prevention takes much less time and money than treatment and is always better.

