NATIONAL ORAL HEALTH POLICY

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NATIONAL ORAL HEALTH POLICY FOR INDIA

India is a signatory state to the Alma – Ata declaration which defines health for all by the year 2000 A.D. as the ultimate goal. Efforts to ensure the achievement of this goal will have to include approaches and strategies for the improvement of oral health. While the Government of India is fully seized with the formulation of a national health policy, a plan of action aiming at the oral health component of the national health programme needs to be put forward.

In the past, oral health did not find its appropriate place in the national and state health planning due perhaps to the following misconceptions.
Lack of awareness in the masses about the prevalence and severity of dental diseases.
Oral diseases are not life threatening or severely debilitating.
The fact that oral diseases are almost preventable by simple and low cost means is not in the knowledge of authorities responsible for formulating the national health policy.

1. NEED FOR A NATIONAL ORAL HEALTH POLICY

1.1. Increasing prevalence and severity of dental diseases

In India over the last four decades a number of point prevalence studies on dental caries and periodontal diseases have been conducted. A fact emerges from these studies that dental caries has been constantly increasing both in prevalence and severity over the last three decades. In the years 1940-50, its prevalence reported has been 40 to 50 per cent with an

average DMFT of 1.5. In 1980s the point prevalence has increased to about 90 per cent in children with the average DMFT (average number of decayed, missing filled and teeth in an individual) being 5 in Urban areas and 4 in Rural areas at the age of sixteen years. Periodontal disease prevalence has already been in the range of 90-100 per cent in the various age groups and it has already been established that the initiation of this diseases (gingivitis) also starts very early in life. The above facts have also been substantiated and the need for urgent intervention has also stressed by a national workshop on “Oral Health goals for India and strategies to achieve them by 2000 A.D.” which was organized by All India Dental Association.

1.2. Dentist Population Ratio

Dentist population ratio in India is 1:80,000 and more than 80 per cent of these dentists are clustered in urban areas whereas 80 per cent of our population lives in rural areas, resulting in almost no dental treatment facilities available to the rural masses. In order to bring down the disease prevalence and severity it is important to implement organized oral health preventive programmes at community level as has been demonstrated in a number of Western countries where the increasing trend of dental caries has been totally reversed. About 10 years back the average DMFT in Norway was 1.25, in New Zealand 10.7 and in Sweden 14.1 but today with the stringent implementation of organized preventive measures in the community, reversal in the trend of dental caries has started and it has already declined by almost half i.e., 50 per cent during the last 10 years period. In India it is still increasing rapidly.

1.3. Crippling nature of oral diseases

Almost 85% of our children and 95 to 100 per cent of our adult population is suffering from periodontal diseases which are initially painless, chronic, self destructive leading to gradual tooth loss and mostly people accept it as the diseases of old age.

Dental caries is consistently increasing in its prevalence and severity especially in children and today according to a number of investigators 80 to 85 per cent of children suffer from this disease and the average number of decayed, missing and filled teeth per child at the age of 16 years is about 4 in rural areas and 5 in urban areas with almost no dental restorative help available. If this disease keeps on increasing at this pace, there is a possibility that the oral cavities in the young adults may be crippled with no functional molars left for mastication of food within the next 10 to 15 years leading to aggravation of other health and nutritional problems. In addition to the crippling of oral cavities, the oral diseases also have adverse effects on the vital organs of the body. The pus oozing pockets of periodontal disease of adults act as a focus of infection for other vital organs of body such as kidney, heart, lungs, brain etc. The dental caries with its crippling effect on the functional component of oral cavity can lead to more mal-nutrition as the young adults would not be able to chew and digest the coarse food

available to them.

1.4. Impelling economic reasons for early recognition and prevention of oral diseases

Besides the above mentioned health related reasons necessitating the early recognition on these diseases in order to be able to prevent not only the diseases but also the pain, so as to make oral health services more relevant in the field of health, there is also an impelling economic reason as the comprehensive oral health care system that has been developed in highly industrialized countries is extremely expensive.

Dental caries is an expensive disease which causes economic loss both to the individual and to his country. In U.S.A. alone $4,383,000 were spent in 1970 for dental caries with the major expenditure going for restoration of the carious teeth. This expenditure is increasing every year. This sum was approximately one per cent of the total national income and 10 per cent of the nation's health bill. In U.K. in the financial year 1977 approximately £250 million spent in England and Wales alone on dental treatment within the general dental services section for the National Health Service. In addition, it is estimated that loss of time from schools by children visiting dentist is roughly 51 million hours per year. Children suffering from pain of dental origin can cause their parents to loose hours of sleep with debilitating effect.

India is a developing country and spends approximately 1 to 1.5 per cent of the total national budget on health and as such there is no separate allocation for oral health, so we in India cannot afford to spend on the highly expensive dental restorative treatment.

1.5. Prevention of oral diseases – the only alternative

When the oral health situation worsened in the western countries inspite of their spending almost 1 percent of the total national income (United States-1970) on restorative oral health, the condition kept on deteriorating and the expenditure kept on increasing, about 10 years back DMFT in U.S.A. was 11.6, Norway 12.S, Sweden 14.1, England and Wales 10.5, New Zealand 10.7 and Japan 8.7. This upward trend of dental caries could be effectively checked by the implementation of organized oral health preventive programmes at the community level. By means of stringent implementation of the preventive measures during the last decade the upward trend has been reversed and the reduction in dental caries experience has been achieved to a tune of 40-50 percent.

In India with limited resources and manpower once such a situation develops, there would be no going back. This is the historic juncture on which today our country is standing. Even in the face of such a grim situation, there is no national oral health policy and the country is without any plan to provide even the minimum coverage to the rural masses.

There is an urgent need to prevent the rising of dental diseases in India. The method used for primary prevention of dental caries also achieves primary prevention of periodontal diseases. Hence, in the national oral health policy for India, there is a great need for emphasis on prevention.

"The above facts amply justify the need of a National Oral Health Policy".

2. EXISTING ORAL HEALTH SERVICES

At present, there are a total of 8801 dentists serving entire Indian population of 70 cores. Out of these, 5741 are registered 'A' class, whereas 3060 are registered 'B' class dentists. 'A' class registered dentists are those who are professionally qualified from a recognized dental institution. 'B' class registered dentists are those who otherwise do not possess any professional bachelor's qualification in dentistry but are practicing dentistry because of their experience or having some technical qualification in dentistry (Technicians) or are otherwise registered dental practitioners (RDS). If 'A' class and 'B' class registered dentists are combined for calculation of dentist population ratio, then approximately a population of 80,000 comes under a single dentist for catering to the dental treatment requirement of the public. If, however, only 'A' class registered dentists are considered, a population of approximately 1, 21, 000 comes under the preview of each dentist.

A total of 1043 dentists out of these 8801 dentists are employed in Govt. service in rural areas in the States / Union Territories i.e., only 11.8% of total dentists in the country are posted in the rural areas, where 80 per cent of the population lives. Below is a detailed description of the State-wise distribution of dentists in rural areas.

URBAN AREAS

Out of a total of 8801 dentists in India, 7758 dentists (88 %) are working in urban areas in Medical/Dental Colleges, Hospitals, and in private practice. Dentist population ratio in urban areas is approximately 1:18,000. Hence in urban areas at least the services of a dental specialist are available to the masses.

3. EXISTING HEALTH INFRASTRUCTURE

The principal unit of administration in a State in India is a district with an average population of about 3 millions. There are a total of 403 districts. The districts consist of blocks known as community development blocks. Each block comprises of approximately 80,000 - 1,20,000 population in about 100 villages. The health services in the rural areas are being administered through Primary Health Centres which are proposed to be set up, one in each block. At present there are about 5300 Primary Health Centres in the Country, each PHC catering to about 80,000 to 1, 20,000 population in about 100 villages. The PHC occupies a

key position in the nation's health care system through which it is aimed to provide comprehensive (preventive, promotive and curative) health care services to the people living in a defined geographical area of approximately 100-200 sq. miles. The sanctioned strength for each PHC is 2-3 Medical Officers, One Pharmacist, One Sanitary Inspector, Two Health Inspectors, One Extension Educator, One ANM, One Driver, Two Auxiliary staff, one computer and other staff (text book of Social and Preventive Medicine - Park J. K. 1983).

3.1. Functions of PHC

PHC provides a group of services essential to the health of the community i.e., Medical care, Family Planning, improvement of environment sanitation, control of communicable diseases, health education, referred services, training of village health guides, health workers and health assistants.

Each PHC further has 8-10 Sub Centres, each responsible for catering health services to 8,000-12,000 population. The sub centre is the peripheral outpost of the organised health sector. The functionaries sanctioned for the sub centre are:

- Male multipurpose worker - One
- Female multipurpose worker – One
- Supervisor - One
- Health Assistants - Two (one male & one female)

Thus there are available two multipurpose health workers i.e., one male and one female for 10,000 - 12,000 population. The basic qualification for all multipurpose workers is Higher Secondary with 1-2 years training. The multipurpose workers are responsible for all the health services and programme operating in their jurisdiction including providing medical care, maternal and child health care, control of communicable diseases by giving immunization and early reporting of cases, health education in personal hygiene, nutrition and family planning and providing preventive and promotive services to school children. Their services are rendered both at the centre and in the houses. The Medical Officers of the PHCs are responsible for providing continuing and on the spot training to the multipurpose workers, who constitute a link between the village health guides and organised health sector at the periphery i.e., PHC. The proposal is to further train the sanitary inspectors, health inspectors, malaria inspectors for 8-10 weeks to prepare them as health assistants (male and female). One health assistant (male) will supervise the work of four health workers multi- purpose workers (male) and one health assistant (female) will supervise the work of four female health workers multipurpose workers. Each health assistant is responsible for a population of 20,000 - 25,000.

3.2. Functions at the village level:

There are available two functionaries:

(a) Village Health Guide.

(b) Trained Dai.

a. Village Health Guides (Community Health Workers)

Village Health Guides are selected from within the village (preferably a school teacher, or a house wife or an ex-serviceman). He is not a Govt. functionary but he will work on a part time basis in the community to which he belongs. He should possess minimum formal education at least upto 6th standard. Village Health Guides are given a 3 months intensive training in the nearby Primary Health Centres. They are given training in fundamentals of health sciences including treatment of minor ailments, first aid during emergencies and accidents, health education about environmental sanitation, personal hygiene and motivation about family planning. The National target is to have one health guide for each village or one thousand populations.

b. Trained Dai

The target is to train at least one local dai per village or for one thousand population. They are trained for one month. They are required to conduct at least 2 deliveries under supervision and guidance of health worker.

4. EXISTING ORAL HEALTH INFRASTRUCTURE IN THE RURAL AREAS

There are a total of 5300 PHCs in rural areas, one at each community development block providing health services to a population of about 80,000- 1,20,000 people. There are a total of 1043 dentists posted at PHC level in different rural areas of 22 States and 9 Union Territories. Thus not even 20 per cent of the existing Primary Health Centres in India have the services of a dentist available for the population i.e., almost one PRC out of every 5 has a dentist posted, thus bringing the dentist population ratio in rural areas to approximately 1 : 5,00,000. There is also no definite set criteria of posting a dentist at the PHC level in various rural areas in the country.

5. PLAN OF EXTENDING MINIMUM ORAL HEALTH CARE TO THE ENTIRE INDIAN POPULATION.

Health has been declared a fundamental human right. This implies that the state has a responsibility for the health of its people. Oral health is an integral part of general health. rather oral cavity can rightly be called as gateway to the body. The sequelae of crippled oral cavity has already been stressed under the title "Crippling nature of oral diseases" (page 3) and its effect on the general health is well established. Evaluation of the existing oral health care services warrants the following valid criticism.

a. Predominantly Urban oriented.

b. Mostly curative in nature.

c. Accessible mainly to a small part of the population i.e. a privileged few.

The implementation plan would be discussed under following two heads :

5.1. Plan for Rural India.

5. 2. Plan for Urban India.

5.1. Plan for Rural India : As has been discussed earlier, the rural areas are virtually without any dental coverage. The services of a specialist are not even available for need of emergency services. It has therefore been planned to deliver the minimum oral health cover to the entire rural population utilising the existing health infrastructure; Multipurpose workers. Health Assistants. Health Guides and School Teachers are the focal key persons for the delivery of primary preventive strategies at the periphery and village level and medical doctors and other associated staff at the PHC. The whole health team would be trained in the various oral health care strategies by the dentists who have been specially trained for conducting these training programmes in a specially created centre for this purpose (details discussed subsequently).

The implementation plan for whole of the rural population can be divided into following three phases:

PHASE I

To provide primary prevention to the population and handling of emergencies.

PHASE II

Provision of at least one dentist at primary health centre with efficient equipment and the provision of mobile dental clinics.

PHASE III

Provision of oral health auxiliaries attached to the dentist and in the periphery.

PHASE I

To Provide Primary Prevention to the Population and Handling of Emergencies

This would be discussed under the following heads :

A. Preventive package.

B. Methodology of instituting primary prevention.

C. Training of trainers.

A. Preventive Package

The two most common oral diseases viz. dental caries and periodont2l diseases as well as oral cancer are preventable. About 50-60 per cent of the oral diseases can be prevented by early

detection and primary prevention which is not merely prevention of initiation of disease but also the reversal of the oral diseases in their initial stages. The primary prevention package for oral health to be delivered to the rural community should comprise of

A. 1. Oral Health Education

A. 2. Plaque Control- Proper cleaning of the teeth to remove dental plaque.

A.3. Use of Fluorides.

A.4. Dietary Counselling.

A.1. Oral Health Education

MPW's (Multipurpose Workers), Health Guides, School teachers and occasionally the medical doctors employed at the PHC should impart the oral health education to the various groups in the community viz. children of various age groups e.g. upto 5-6 years along with mothers/expecting parents, 7-10 years, 11-15 years and 16 years and above/adult community. The above age groups have been formulated keeping in view the facts that the mental calibre, understanding level and the assimilation and capabilities differ in children of various .age groups. This education programmes should be made a part and parcel of all other health education programmes e.g. family planning, eye care, health care etc. However, an effort should be made that some of these sessions be exclusively devoted to oral health, especially delivered by school teachers and medical officers. The lectures can be imparted with the help of audio-visual aids to small groups of individuals in the community held at regular intervals in different areas of villages when maximum people are. available. Asking of questions should be encouraged giving the feeling to the people of participation. These programmes would be reinforced by school teachers and by person to person talk between various members of the community and the health workers when they visit the families for carrying out various health programmes.

Oral health education would include education on the various oral hygiene measures for removal of dental plaque (microbial mass on teeth) which is the causative agent for both dental caries and periodontal diseases, education on restriction of eating anything sweet to not more than three times a day and suggesting alternatives to in between snacks and regarding the use of fluorides for the prevention of dental caries.

A.2. Plaque Control - proper cleaning of teeth to remove dental plaque

In small groups, children and parents should be demonstrated the plaque by disclosing it in their mouths, the knowledge about which must have already been given in the oral health education programmes.

The method of proper brushing can be demonstrated and each member of the group can be

encouraged to brush their own mouth and each other's mouths. Frequency of brushing should be stressed as three times per day with fluoride tooth paste or with brush dipped in fluoride solution (0.02%).

The families who cannot afford brush can be taught the proper use of chewing stick (dattan) three times a day. .

A.3. Use of Fluoride for prevention of caries

Fluoride has been proved beyond doubt as an anticaries agent and should be used to prevent dental caries in the following forms :

a. Water Fluorination.

b. (i) Fluoride Mouth Rinses.

(ii) Topical Application of Fluoride.

(iii) Fluoride Tooth Paste.

Water Fluoridation

As early as 1945 water supply of Grand Rapids in U.S.A. was artificially fluoridated at 1 ppm. Results after 15 years of fluoridation showed a dramatic caries reduction of 50 per cent. Two other milestone studies in U.S.A. and various others in Canada, New Zealand, Britain etc. have confirmed beyond doubt the caries inhibitory property of 1 ppm fluoride in drinking water.

World Health Organization in 1958 produced the 1st report by an expert committee on water fluoridation and concluded that drinking water containing about 1 ppm fluoride had a marked caries preventive action and that controlled fluoridation of drinking water was a practicable and public health measure.

Artificial fluoridation as a public health measure has become so widespread that by mid 1980' approximately half the population of U.S.A. (105 millions) consumes optimally fluoridated water. Elsewhere in the world approximately 60 million persons in about 40 countries are protected by artificial fluoridation.

Feasibility of water fluoridation in India

The available facts about fluoride concentration in drinking water (Rama Subramaniam et al 1979) reveal that only about 5 per cent of Indian population live in high fluoride areas or known endemic fluoride belts e.g. Bisharharif areas in Bihar, Bhatinda Belt in Punjab, Ittawah area in U.P., Anantpur and Guntakal areas in Andhra Pradesh etc. Only about 5 % of population lives in optimal fluoride areas and the rest about 90 per cent of population consumes water deficient in fluoride.

Based on the already mentioned facts about increasing prevalence of dental caries, developing economy of our country, dentist population ratio of 1 :80,000 and lack of preventive awareness of oral diseases, communal water fluoridation appears to be the most effective practical and economical public health measure for prevention of dental caries, as this measure extends its benefits to all the residents of the community without necessitating any conscious effort on the part of the residents. The only short coming is that it can be implemented only in areas which have central pipe water supply system. Currently most of the cities and towns in India covering more than 30% of the population have piped water supply. An effort should be made to institute water fluoridation atleast in these areas.

b. (i) Fluoride Mouth Rinses

The adult community would be taught by the MPW's to do daily F mouth rinse using. 02 % F-solution.

Children in the various schools in the age group of 5-18 years would do weekly / fortnightly mouth rinse using 0.2% NaF solution.

Method of preparation and dispensing of 0.02 % NaF solution to the community

2 mg NaP tablets would be available in PRCs, in subcentres at the local chemist shops or other shops which sell medicines. The tablets can be procured from either of the above mentioned centres but the community would be encouraged to buy it from the local shops as the cost would be nominal i.e., the monthly cost for a family of 4 would be about Rs. 2/-. One tablet is to be dissolved in l0ml / 2 spoons of cold clean water in a plastic cup with a plastic spoon.

Method of Use

Every adult should keep l0ml / 2 spoons and every child 5 ml/1 spoon of the NaP solution in his/her mouth and swish the solution all around the mouth for 2 minutes and than expectorate. Children below the age of 4 years should be made to do F mouth rinse only once in a week i.e. every Sunday.

Fluoride mouth rinse for school children

Every school can be provided by PRC with a plastic measure which when fil1ed would contain 2 gms of sodium fluoride powder. A plastic semitransparent jug with a capacity of over 1 litre (1,000 ml) should be procured by each school. The jug should be marked to indicate 1,000 ml level and 100 m1 level. School should also buy NaP powder - 500 gms pack available at Chemical and Scientific Stores (The cost of anhydrous NaP 500 gms is Rs. 250/-). The yearly cost of weekly F rinse programme in a school of 1000 children would be approx. Rs. 200/-.

Method of preparation and dispensing

School teachers shall dissolve 2 gms of sodium fluoride from plastic measures in 1,000 cc. of cold clean water in the polythene bottles provided to them. This shall make a prepared fluoride

solution of 0.2% for mouth rinsing.

Method of use

Every child would be instructed to get one personal plastic cup in the school. For younger children, teachers would pour 5-6 ml of prepared solution in the plastic cups but for older children about 10 ml of the solution would be put into the plastic cups. During maths / drawing period when children are busy doing sums / art work the school teachers can pour the solution into their cups. The children can keep the fluoride solution into their mouths for a period of 2 minutes and later can expectorate into the cups. At the end of the period the cups can be emptied by the children themselves.

(ii) Topical Application of Sodium Fluoride

2 % sodium fluoride can be applied by the school teachers on every child's teeth once in every six months.

Method of preparation and dispensing

A plastic measure can be filled with sodium fluoride, which when filled to the desired mark would contain 2 gms of sodium fluoride. Dissolve 2 gms of this sodium fluoride into 100 cc. of cold clean water in plastic jug upto 100 cc. mark. This shall make a sodium fluoride solution of 2% for topical application which has to be applied on children teeth every six: months. School teacher would be trained by Dentist incharge in this procedure.

A number of clinical trials conducted to see the efficacy of sodium fluoride mouth rinses and sodium fluoride topical application have shown the reduction of decayed, missing, filled surfaces to be 30-40 per cent of former and 30 per cent in latter.

(iii) Use of Fluoride Tooth Paste

The people who can afford brush and tooth paste would be advised to use. fluoride tooth paste for brushing their teeth.

Children below 3 years - Not to use. Fluoride tooth paste.

For children 4-8 years - Use fluoride tooth paste only once daily (Tooth paste 1/2 length of brush head).

For children 8-12 years of age - Use fluoride tooth paste twice a day.

For children above 12 years - Fluoride tooth paste to be used thrice a day or more.

A.4. DIETARY COUNSELLING

People should be educated that sugars in the diet (refined sugars) are fermented by bacteria in the mouth leading to the production of acids which makes holes (cavities) in the teeth.

- Rural masses should be educated to reduce the sugary food stuffs (sweet lollies, biscuits, gur, shakkar, cold drinks and other sweets) to not more than 3 times in a day.

- Avoid taking snacks in between meals, and if at all then substitute sugary snacks with protein containing snacks e. g. grams, groundnuts and soyabeans
- A void retentive sugars such as Gachak, Rewari etc.

Education should be given about hidden sugar as well. - Cut down the total diet exposures to 5 times in a day.

- Govt. should issue instructions to put statutory warning on all sugar snacks such as chocolates, toffees and sweets that "eating sweets lead to decay of teeth"

B. METHODOLOGY OF INSTITUTING PRIMARY PREVENTION IN RURAL AREAS

The Multipurpose workers, health assistants, medical officers, health guides, health volunteers and school teachers can be trained for

1. Imparting oral health education to the community.
2. They can be given knowledge about the use of Fluorides, the benefits derived and some knowledge on mode of action of fluorides in the prevention of dental caries.
3. All the categories of health workers can be given practical knowledge about the preparation of solution for fluoride mouth rinses and how to deliver it to the community once every week / fortnight.

Practical knowledge and technical know how can be given to auxiliaries especially school teachers, regarding the preparation of fluoride solutions for mouth rinses in schools and topical application and how the fluoride application has to be done in children every six months

5. The whole medical team can be educated about plaque. The plaque can be demonstrated to them in their own mouths by disclosing it and then the correct method of brushing can be demonstrated so as to remove the plaque. The health workers can further teach and demonstrate it in small groups in the community.
6. Handling of dental emergencies: the whole of the medical team including health auxiliaries can be trained for handling various types of dental emergencies.
7. Diagnosis of oral cancer: All the health auxiliaries i.e. the whole medical team can be trained in early detection and diagnosis of a possible oral cancer such cases to be referred to PRC / the Medical doctors.

C. TRAINING OF THE TRAINERS FOR TRAINING THE HEALTH TEAM

It is important to calibrate the trainers viz. dentists from the various States and Union Territories of India who would be assigned the duty of training the various health teams, posted at the PHCs in their respective states. Indian Council of Medical Research has recently been laying a lot of priority to this area. Union Government with the help of the council can identify a centre which would have the capability of training the existing health infrastucture i.e., Medical Doctors, Multipurpose workers, Health guides, School teachers etc. for this purpose and also would standardise the various education materials, courses, evaluation criteria for the training of different categories of health workers. The education material for the education of the

community by the health guides and multipurpose workers, and school children in various age groups by the school teachers have also to be prepared and standardised. It is proposed that if such a center could be strengthened then it could take the responsibility of training 6 dentists from each State including 2 from each dental college and 4 from each Union Territory in the dynamics of the delivery of primary oral health care to the community. The training capacity of the centre would be a group of 15 dentists at a time with the course duration of 2 months. After a 15 days gap, second group can be undertaken, It would be possible to train about 150 dentists covering almost all the States and Union Territories in a period of about 1 t years. These trained dentists should further be made responsible to conduct training programmes for the health staff at the PHCs in their states. It would also be beneficial to reorient the dentists in their respective States and make them aware and if possible participate in the National Oral Health Policy. One set of the standardised teaching and education material, training manuals for teaching multipurpose workers, school teachers and Medical Officers and teaching material for various categories of the community from expecting mothers and children to the adult community can be handed over to each of the participating dentist, which can be further duplicated in their own States.

PHASE II

Provision of at least one Dentist at PHC with Efficient Equipment by the year 1990

As it is obvious from the data that in the rural areas; one dentist is available for more than 5,00,000 population and in some States even this much of help is not available. It is therefore imperative that initially at least one dentist be posted at each PHC in the country and all the facilities which are being given to the Medical Doctors like house, rural allowances etc. be also given the dentists posted in the rural areas. This is especially important since the number of dentists -available in the country are rather few and the oral disease rate is very high. Qualified dentists, can easily settle in private practice in the urban areas and earn a lot of money. It has also been seen that even the dentist who are posted at the periphery do not have efficient and sufficient equipment available with them to work. This itself is self defeating. Every dentist should be given chair and unit with Air-turbine, Micro motor and Ultrasonic Scalars. This would improve the efficiency of the doctor at least four times. The equipment should also be designed for sit-down dentistry as it leads to more productive schedule of working as it takes away the fatigue of standing and bending.

Mobile Dental Clinics

In order to enable the dentist to reach the remote areas under his jurisdiction, mobile clinics in the form of dental clinics in the vans be made available. This would help the whole dental team to visit various remotes and inaccessible areas at least one day a week and it would also be possible to launch and supervise various preventive programmes.

PHASE III

Provision of Oral Health Auxiliaries Attached to the Dentist and in the Periphery

It is extremely important to attach at least 4 dental hygienists to each dentist working at PHC in phased manner. The Dental Hygienist can take care of most of their periodontal and preventive dentistry regimes by which 50-70 per cent of the oral diseases i.e., dental caries and periodontal diseases can be prevented. The efficiency and the out-put of the doctors at PHC can become not only 6 times more, but also multi-dimensional- as they can extend and supervise primary preventive services in the whole of the PHC with the help of dental hygienist posted with them at the PHC in addition to their working in the clinic. For the 4 dental hygienists, modified oral hygiene equipment which is relatively very inexpensive equipment would be needed in each clinic. A standard prototype of which can be recommended by the training centre.

5.2. STRATEGIES OF ORAL HEALTH CARE IN URBAN AREAS

The dentist population ratio in urban areas is approximately 1:18,000 as compared to 1: 5,00,and 000 in rural areas. However if the prevalence of dental diseases in urban and rural areas is compared, the average number of decayed missing and filled teeth per child by the age of 16 years in urban areas is approximately 5.0 as compared to 4.0 in rural areas, reported by a number of investigators. Almost 55-90 per cent of the children and 100 per cent adults in both urban and rural areas suffer from gingival and periodontal diseases respectively. This clearly indicate that no doubt the services of dental specialists are available to the masses in the urban areas but in reality the oral diseases prevalence has not decreased and is rather high. This is probably due to lack of awareness and motivation of the public as well as the dentists in the primary prevention of the oral diseases. It has been seen in a number of developed countries e. g. Sweden, U. S. A, U. K., etc. that only after institution of organised preventive measures in the community the dental caries could be reduced by almost 50% over a period of ten years. So, there is a need to change the attitude of public as well as the dentists and also to make them aware that the oral diseases are preventable and reversible in the initial stages. To achieve this the following needs to be done :

5.2.1. Involvement and reorientation of the dentists working in urban areas.

5.2.2. Implementation of primary preventive package through the school health schemes in the different urban areas.

5.2.3. Involvement, education and motivation of .the teachers in the various schools/colleges and other educational institutions in the urban areas for the delivery of primary preventive package to the school/college going children and young adults.

5.2.4. Exploration and involvement of other voluntary (Rotary club, Lion's club, YMCA, YWC etc.) and health organization working in different urban areas in achieving the oral health

targets.

5.2.1. Involvement and Reorientation of the dentists working in urban areas.

First of all there is a need to involve the dentists, teaching staff posted in the dental colleges, hospitals as well as the private practitioners. Two months refresher courses in the concept and implementation of primary prevention of oral diseases should be started at some recognized intuitions in the country to reorient them.

This can be started after the training of the dentists from various States for the implementation of the National Oral Health Policy in the rural areas is completed i. e. over a period of 1½ years. After that a group of 15 dentists from the various Dental colleges and the private practitioners from urban areas of the country can be trained at the centre identified for this purpose. This can be a continuous programme. The dentists so trained can further train the dentists in their own States. All the teaching aids and material can be made available to them.

5.2.2. Implementation of primary preventive package through the school health schemes in the different urban areas.

Since very little organised peripheral health system is operative in urban areas it is important to explore all the possible avenues to implement minimum oral health coverage to the urban population. The dentists of the school health schemes are operative in a large number of urban areas. The dentist of the school after proper training can form a good nucleus for the delivery of the preventive package.

5.2.3. Involvement, education and motivation of the teachers in the various Schools/Colleges and other educational institutions in the urban areas for the delivery of primary preventive package to the school/college going children and young adults.

Education is one of the most organised systems prevalent in the urban areas, hence the utilization of this system and involvement of teachers at various levels starting from small school children to young adults in colleges and universities would be ideal to create awareness and motivate the population in the formative years towards developing habits leading to prevention of oral diseases. The dentists employed in school health schemes and other hospitals in the respective areas after proper training can be instrumental in the training of this very important component i.e. teachers in the delivery of the preventive package.

5.2.4. Exploration and involvement of other voluntary and health organizations working in different urban areas in achieving the oral health targets.

The number of other health workers such as family planning workers, social health workers, anganwadi workers and a number of voluntary organisations such as Rotary Club, Lion's club and other health organisations such as child welfare centres are operating and active in the

various urban areas. These are very potential sources which can be utilised for the delivery of the preventive package.

6. Utilization OF THE MASS MEDIA

Since there is a wide spread network of radio and television in our country, the proper utilization of this media will help ensure not only spreading the right message but also would lend authenticity to what the various types of workers would be propagating in the field. For this purpose with the help of the ministry of mass communication some short- 2-3 minute films can be made to be projected in television at peak hours and also with clearly defined radio messages and flashes.

7. REORIENTATION OF DENTAL EDUCATION IN INDIA

There would be a need to reorient some of the dental education programmes in the various dental colleges according to the national oral health policy. As already envisaged in the plan two teachers (dentists) from each dental college would be given the training in the centre identified for this purpose that in turn will be responsible for conducting the reorientation programmes in their own colleges. One of the important components should be that out of one year internship, six months be spent in the rural areas.

8. INVOLVEMENT OF OTHER ALLIED DEPARTMENTS

The departments of education and social welfare should be involved to impart correct oral health promoting information to school' children at an early age which would help to develop proper attitudes in them. It would be preferable to include chapters giving adequate knowledge about oral diseases and their prevention in the text books of class 4th, 7th and 9th.

9. SETTING UP of APEX BODIES OF DENTAL EDUCATION AND RESEARCH

To give a proper lead to the total oral health care system in the country it is important to set up apex bodies of national importance in post graduate dental education and research on the pattern of N/DR (National Institute of Dental Research) in U.S.A. and in India, the AIIMS (All India Institute of Medical Sciences) in New Delhi and P.G.I., Chandigarh. In the beginning at least one such institute of national importance be set up in oral health where meaningful research applicable to Indian conditions can be carried out systematically on a longitudinal basis.

OUTLINE OF PLAN OF ACTION

A. plan of action aiming at achieving the above mentioned objectives should consist of the following:

10.1 Detailed activities

10.2 Targets

10.1 detailed ACTIVITIES

10.1.1. Activities within the sole responsibility of Ministry of Health, Govt. of India

The Ministry of Health, Govt. of India would set up a time schedule for implementation of National Oral Health Policy. The preferable time schedule would be starling of the plan of action within the year 1985.

Oral health would be made an integral part of the curriculum of Multipurpose Workers and other health auxiliaries as well as the Medical Doctors.

In order to implement the National Oral Health Policy the Ministry would identify one centre with the help of ICMR which would be strengthened and augmented and would be charged with the responsibility of

Preparing manuals for the training of Health Auxiliaries and medical doctors in oral health and implementation strategies of the National Oral Health Policy.

Preparation of teaching aids for all training programmes.

Preparation of pre and post evaluation training criteria and systems.

Preparation of standardized oral health education programmes for educating the community: expecting mothers, small children under 6 years, 6-10 years, 10-16 years and above 16 years and the adult community and also development of teaching aids for the above mentioned programmes.

The centre to be also responsible for training at least 6 dentists from each State and two from each dental college in order to implement national oral health policy in a standardized and efficient manner.

The centre could also run reorientation and continuation of education programmes for the dentists in Govt. service and private practice (optional).

The Union Government should send the requisite information regarding the National Oral Health Policy to all the State Governments and also the requirement of sending atleast 6 dentists from each of their States, 2 from each dental college in a State, for the training at the identified centre into the implementation strategies of the National Oral Health Policy.

The Union Government to guide the State Government about making these dentists responsible for training the various health auxiliaries and the medical doctors at the PHC's for the implementation of preventive package to the community. The dentists who are trained from the medical colleges are to be made responsible for training the doctors and the other personnel in the dental colleges.

There should be a statutory warning on the wrappers of all sweets, chocolates and other retentive sugar eatables "Eating sweets leads to decay of the teeth". For this purpose appropriate Ministry to be contacted.

Tooth brush and fluoride tooth paste and 2 mg sodium fluoride tablets are the most essential

components in the prevention of dental caries and periodontal diseases (prevalence over 90 %). The Government should take adequate steps to at least one standardised tooth brush, one fluoride tooth paste and 2 mg sodium fluoride tablets manufactured by one of the Government of India's owned company such as I.D.P.L. and remove all taxes on these three items so that these can be made available at very cheap rates to the whole of Indian population. (appropriate Ministry to be contacted).

Media like Television, Radio etc. should be used to create awareness among the people about oral health. For this purpose with the help of the Ministry of Mass Communication some short 2-3 minute films can be made to be projected on Television at peak hours and also clearly defined radio messages can be flashed. The preparation of these films and radio messages should be standardized at the Centre identified by the Government so that the right type of messages directed at specific goals be conveyed.

There should be an oral health care chapter in school books of 3rd, 7th and 9th classes elaborating on the common dental diseases, their causes and stressing on the ways and means to prevent these by self help. Writing of these chapters would be the responsibility of the Centre identified. For inclusion of this material in text books - the Dept. of Education be contacted.

Dental treatment should be made available to low income groups by rendering subsidized dental services and providing dental insurance to workers.

No sale tax or excise duty on equipment and materials for dentists setting up private practice in rural areas.

The cost of dental treatment should be brought down by reducing excise duty, custom duty and taxes and categorising all dental instruments and materials under the category of 'Dentistry' (Ministry of Commerce and Finance).

Every primary health center should have the services of the dentists available for the community with efficient equipment. Gradually each of these dentists should be provided with four dental hygienists in order to launch effective preventive measures in the community and for the supervision of the other health auxiliaries for this purpose.

In order to narrow the gap of dentist population ratio which at the present moment is 1 : 80,000, at least one dental college be opened in the States where there is no dental college and the existing dental colleges be augmented.

There should be a regular posting of dental students in the rural areas and out of one year internship, six months should be spent in rural areas.

Since the responsibilities of Union Government are quite a few towards the implementation of National Oral Health Policy and also there is not even a single doctor in oral health presently employed in the Directorate of health services therefore its high time that a job of Additional Director General Health Services (oral health) be created in the Directorate of Health Services who should be responsible for looking after the oral health of the country.

Establishment of national coordinating group on oral health.

The Union Government should establish a national co-ordinations group in oral health which should include representatives from All India Dental Association who have been associated with the National Oral Health Policy, representatives from the national center established by Union Government for implementation of National Oral Health Policy, representatives from the Indian Council of Medical Research! Division of oral health, representatives from Directorate of Health Services and Union Ministry of Health, representatives from departments of Finance, Planning, Education and Social Welfare.

10.1.2. Activities within the responsibility of Ministry of Health within the State Governments

(a) The State Governments and Union Territories under the Direction of Central Government would start serious implementation of National Oral Health Policy within a stipulated time schedule, preferably in the year 1986 and would adopt the National Oral Health Policy as a part of their health planning. .

(b) The State Governments would depute or especially employ 4 dentists for training in the dynamics of implementation and strategies of national oral health at the center identified by the Union Government. They would also send 2 representatives from each dental college for such training. .

(c) The State Governments would make the 4-6 dentists from their States who have been trained responsible to train the various health teams at PHC's in the implementation of National Oral Health Policy at the periphery i. e. at the village level and also in various urban areas.

(d) There would be reorientation programmes in each of the dental college towards the National Oral Health Policy to be conducted by the dentists trained from each dental college.

(e) Each State Government would appoint within the next 5 years one dentist at each Primary Health Centre and if in any State dentists are already available at the PHC's, efforts would be made to equip them with efficient and sufficient equipment and to post dentists at the block levels.

(f) Each State Government would train more hygienists and dental auxiliaries and in a phased manner post 4 dental hygienists with each dentist.

(g) The oral health would become an integral part of the health package being implemented by the health team i. e. medical -doctors, health auxiliaries, Multipurpose Workers etc.

(h) Each State Government would get dental health education material published and printed and make it available for mass education at the level of Primary Health Centre and the various dentists and other hospitals. The education material as samples would be provided to the States by the training center.

(i) The State Governments would implement all the activities being listed under the Union Government such as inclusion of oral health care chapters in the text books of different grades of school children etc. as would be applicable to the States from time to time.

10.2. Targets

The action plan of a National Oral Health Policy will have the following targets to be achieved within the stipulated period for a meaningful action plan.

(a) Within one year the Union Government would have appointed the required focal points within the Ministry of Health as recommended in detailed activities especially for oral health.

(b) Within one year the Union Government would have adopted the National Oral Health Policy as an integral part of the National Health Policy.

(c) Within one year the Government of India would have identified, augmented and supported a National Centre for the various tasks assigned under the section of detailed activities for preparing of training manuals and teaching aids for implementation of National Oral Health Policy. The training' center would start conducting the required training of dentists from various States within the 2nd year.

(d) Within one year each State of India's will have adopted the National Oral Health Plan of action in their respective States.

(e) Within 5 years each State of India would have appointed one dentist in each Primary 'Health Centre of their State and would have equipped each clinic with efficient and sufficient, equipment.

(f) Within 3 years all the Medical Health Teams working in all the Primary Health Centers of various States of India would have been trained by the dentists in the delivery of the preventive care to the community.

(g) These dentists varying in number between 4-6 ,depending upon size of State would have already undergone training at National Training Centre in implementation of strategies of National Oral Health.

(h) Each State would appoint a programme officer responsible for organization and supervision of oral health programmes within the second year of the action plan. The programme officer should preferably be at level of joint director in the Directorate of Health in each State.

(i) The Union Government would provide the initial seed money for implementation of action plan of National Oral Health Policy within the 1st year and also subsequently.

(j) Each State will provide the necessary funds: for creating additional support or augmenting the existing oral health services within their States.

(k) The National Oral Health Policy would be fully operational in all the States and Union Territories of India within 5 years.

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