

ARUSHA SCHOOL DENTAL HEALTH PROGRAMME

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DESCRIPTION OF THE DISTRICT

Arusha District is one of the 6 districts of Arusha region. It consists of an urban part and a suburban part. Arusha Town has a population of 88155 people out of which 7908 are school children attending school at the 9 primary schools in the district.

The main tribe residing in the district are Waarusha mostly doing private business, while the majority of the population are in the low and medium income groups providing most of the unskilled and semi-skilled labour in the industrial sector in Arusha and are from different tribes coming from different parts of the country. The urban sector of the district is administered by the municipal council, while the suburban sector of the district is administered by the district authorities.

HEALTH SERVICES

The pattern is similar to the rest of Tanzania with nearly the same providers of health services. There are three basic levels of health facilities; a Regional Hospital, MCH centres and dispensaries. They are operated by the Regional authorities in co-operation with the Municipal Council.

DENTAL SERVICES

In Arusha dental services are available at Mt. Meru Hospital and Kaloleni Dispensary. Working with Mt. Meru and Kaloleni Dispensary at present are 1 dental surgeon, 3 assistant dental Officers, 1 dental laboratory technician and 2 dental auxiliaries.

Dental services are offered free of charge to the population and mainly consists of emergency type of treatment, while prevention is done mainly in schools.

Services offered are mainly curative; extractions fillings, prosthetic work, prophylaxis etc;

while preventive work is only being done on a smaller scale mainly by the assistant dental officers working with the school dental services.

Working facilities are also inadequate, because of the little equipment available in the country. In Arusha all the dental personnel are working with two dental units.

School dental health services are being offered by the assistant dental officer working with the school dental services.

SETTING PRIORITIES

The magnitude of the problems in the entire Tanzanian population (needs based on epidemiological studies) cannot be established with certainty. Nor are the people's views of the problems and their demand for services known. These questions need further investigations. However, one can state with certainty that the present health resources are insufficient to meet both need and demand.

Thus, plans for future dental services must be made with such restrictions in mind, and priorities must be set that the most immediate problems are met, at the same time as long-term objectives of prevention are kept in the foreground.

From the little resources and insufficient manpower it will not be appropriate to start dental health programmes simultaneously throughout the country, or even in the whole of Arusha Region.

So in the beginning a school health programme was started in the municipality of Arusha.

DENTAL HEALTH PROBLEMS

1. Pain due to advanced caries and periodontal disease.
2. Loss of teeth (function and appearance). This is due mainly to the fact that the majority of the people seek treatment of the final stages of the disease, and secondly the type of treatment is mainly extractions for the relief of pain.

3. Increasing prevalence of caries (mainly pits and fissure caries). This might be due to increased intake of sweets and sweet snacks, and secondly at present there are no organized preventive programs.
4. Poor oral hygiene — from most of the studies done in the country the standard of oral hygiene has always been reported to be very poor. The majority of the people don't brush their teeth at all and if they do, they are not doing it properly, since nobody has instructed them on proper methods of teeth brushing.
5. Premalignant lesions and tumours in the oral cavity and paraoral regions — no studies have examined this problem properly in Tanzania. However, from clinical observations, there seems to be a small part of the population suffering from these disease, but this should be verified by properly performed surveys.

MEANS OF SOLVING THESE PROBLEMS

Problems 1, 2 and 5 are tractable and preventable through regular examinations and early treatment. Problem 3 could be controlled by attempts to restrain production, import and marketing of modern sweets and by encouraging people's use of traditional and less harmful snacks and problem 4 could be improved by increasing awareness of the consequences and the practice of effective methods of keeping teeth clean. Tooth scaling may be necessary in adults to provide proper oral conditions for home care.

OVER-ALL OBJECTIVES

1. Eliminate pain-giving conditions on demand in all age groups.
2. Prevent pain-giving conditions and loss of teeth among children and young adults.
3. Prevent a rise in caries prevalence (and if possible reduce it) among children and young adults.
4. Reduce gingivitis and prevent periodontal breakdown in children and young adults.

STRATEGY

Target groups

There are very few examples of public health programs being able to reach all cases of dental needs in a large population. In Tanzania, resources available from the central government and manpower are inadequate to cover large parts of the population. It is therefore better to give one or more sections of the population an efficient service rather than to spread the little resources too thinly over the whole population. Therefore the program covered selected priority groups of the population.

The main target groups were; school children attending primary school.

School children were given top priority because since the introduction of universal primary education in Tanzania (UPE) in 1977, most of the school age children go to school for seven years (7—14 yrs). It was therefore easy to get them at school. In order to prevent a rise in caries and if possible to reduce it, as well as pain giving conditions and loss of teeth among children and young adults, the program included regular examination and treatment, including health education, and a community action was required involving parents, teachers and dental health personnel.

DENTAL PUBLIC HEALTH PROGRAM FOR SCHOOL CHILDREN IN THE MUNICIPALITY OF ARUSHA

Target population

7,908 school children attending school at 9 primary schools in the municipality of Arusha, aged between 7—14 years.

Dental health care was provided starting with the 7 years olds in the first year of the program, then a new age group was added to the group receiving care each year. For example in 1977 the program provided dental care to 7 year olds (about 1412 from the 9 schools). In 1978 this group aged 8 received maintenance care and a new group of 7 year olds received complete care. 1979 saw maintenance care for new 7 year olds. By this system all age groups in the priority group would be reached by 1984 or 1985.

PROJECTION OF THE TREATMENT AND PREVENTIVE NEEDS, FIRST YEAR

Assessment of treatment needs in the priority 7 year age group, first year

From the survey conducted in Arusha (Bruun 1977) treatment needs could be assessed as follows:—

1. On the average there was one permanent tooth requiring a one surface filling in every child in this age group.
2. There was no need for scaling and polishing of teeth in this age group, because the oral hygiene index is mostly dominated by soft deposits.
3. Primary teeth with cavities, if painful were extracted due to the fact that the manpower situation was inadequate to deal with all cavities in the primary teeth. However, canines were preserved whenever possible.

Prevention and health education

Prevention was a matter for the school children, their teachers and parents. Dental staff were concerned with getting their arousal and co-operation. From the very beginning the dental staff got in touch with the appropriate school authorities to plan the activities needed and get their support. The implementation depended upon establishment of co-operation with the headteachers in the individual schools.

From the survey undertaken in Arusha there seems to be a need to improve the standards of oral hygiene among the school children. Snack habits were discussed and the use of fruits in between meals was encouraged. The children's health related habits need further study so that prevention activities could meet actual needs.

Second year, 7 and 8 year age groups

Second year took up new first grades (class) for treatment and prevention as just described. The second grades (class two — 8 year olds) was reexamined and treated if needed. Prevention activities from the previous year were continued etc.

Older children

Received emergency treatment on demand as the manpower situation did not permit more to be done on them during the first years of the program, but after 3 or 4 years most of the grades will be on regular dental care.

Preliminaries Before the Program was Implemented

Before the program was initiated in Arusha we had to get support from different authorities in the municipal council. These included authorities in education and health sector.

These included the District Education Officer, Headteachers and teachers in the respective schools. Subjects discussed included the program which involved school children in Arusha district. Working time schedule (according to the school time table) so that the program did not interfere with educational activities, secondly if there were other programs going on in the school to discuss how the present program could be integrated with the ones which are already going on. Thirdly the possibility of having the teaching aids made at the schools with the help of the teachers after they have been agreed upon by the school teachers and the dental staff and lastly co-operation of dental staff, headteachers and teachers so that they could work as a group.

Health sector

In the health sector we saw the Municipal Officer of Health and discussions were focused on the program's objectives, assistance for equipment, instruments and supplies and personnel. Secondly about other preventive programs which have been going on and the possibility of integrating the present program with some of the successful programs.

Manpower

Dental Surgeons — two
Their activities included

- (a) getting in contact with the local authorities so as to be in a position to work out, treatment and prevention plans.

- (b) Training of dental auxiliaries, teachers, etc. so that they could participate fully in the program.
- (c) Examination of all school children to determine those who had dental problems.
- (d) Performing fillings on permanent teeth and extraction of all those which were too destroyed for fillings.
- (e) Preventive activities included; dental health education in co-operation with the school teachers and dental auxiliaries.

FACILITIES

Dental personnel had to move from one school to another with portable dental equipment. Examinations were conducted in an empty class room or office using natural daylight with a probe and mouth mirror. All those who had dental problems were recorded on special forms, and then called to dental clinic at a later date for treatment after permission had been received from the parents. Dental health education was conducted at the schools by the dental staff in the beginning and then continued by the dental auxiliaries and teachers.

DIFFICULTIES ENCOUNTERED

1. Non-co-operation of teachers in some schools.
2. Non-co-operation of the parents especially the rich ones.
3. Acute shortage of materials especially filling materials.
4. School shops selling of sweets instead of snacks such as fruits, bananas, roasted casava etc.
5. Lack of funds to buy things like tooth brushes etc. for demonstration purposes. In spite of the fact that the lions club of Arusha promised to help they did very little.

ACHIEVEMENTS

1. Dental caries has not increased or if it has increased only slightly this is because from our last general examination the DMFT is

almost the same and caries is still of the same pattern (pit and fissure caries on first or second molars).

2. There is a general improvement on the standard of oral hygiene and more school children are now using the tooth brush to brush their teeth at least once a day.
3. In some school shops they are no longer selling sweets and biscuits instead they are selling bananas, mangoes, oranges etc.
4. There is great co-operation between the dental authorities and the school teachers.

SUGGESTIONS

TRY what we have done in Arusha and in case you have any difficulties just contact us and we shall help by all means.

A clergyman was preaching to a school about the lack of good samaritan spirit in the world today. To illustrate, he recited an episode that had happened to him.

"During the lunch hour I walked with a friend towards a nearby restaurant when we saw lying in the street a helpless fellow human who had collapsed". After a solemn pause he added, "Not only had nobody bothered to stop and help this poor fellow, but on our way back after lunch we saw him still lying in the same spot".

(Contributor's request: Please withhold my name if this ever gets published).

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Applaud friends, the comedy is over!
— [Ludwig Von Beethoven (on his deathbed)]

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I beg to you to remember that wherever our life touches yours we help or hinder, wherever your life touches ours, you make us stronger or weaker. There is no escape — man drags man down, or lifts man up.

— Booker T. Washington

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Microbes affect man's life in many ways, from the day of his birth, to the day of his death, and even thereafter, since they attack and destroy his mortal remains. Microbes are always with us, in our food, in our clothing and in our habitation, in the soil under our feet, and in the water we drink and bathe in. They are always ready to help us or destroy us. Only circumstances decide which it shall be.

— S. A. Waksman

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It's strange thing how unimportant your job is when you're asking for a rise, but how important it can be when you want to take the day off.

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