

## ORIGINAL ARTICLE

# Oral Health in the African Region: Progress and perspectives of the Regional Strategy

**Charlotte Faty Ndiaye.** Regional Adviser Oral Health WHO/AFRO.  
Cite du Njouc BP 06, Braxxaville, Congo.Tel: 47-241.39372. Fax: 47-241 39514.  
Email: [ndiayec@afro.who.int](mailto:ndiayec@afro.who.int)

### SUMMARY

**Objectives:** According to The World Oral Health Report 2003, oral diseases remain a major public health problem worldwide. However, oral health is seen as a very low priority in the African Region, where extreme poverty means that the limited resources available to the health sector are directed towards life-threatening conditions such as HIV/AIDS, tuberculosis and malaria. The mission of the Oral Health Programme at the Regional Office of WHO for Africa is to assist Member States to achieve those goals by means of a Regional Strategy. In fact in September 1998, the WHO Regional Committee for Africa adopted a ten year (1999-2008) Oral Health Plan for the African Region (AFR/RC48/9) with the aim of fundamentally improving community oral health. Its cornerstone is provision of the technical and managerial resources to efficiently and effectively deliver affordable intervention that matches the oral health needs of the community.

**Data Sources:** This review presents major achievements made since the WHO Regional Strategy was launched in 1998 and priority actions which should be taken to further implement the Regional Strategy.

**Conclusions:** WHO/AFRO recommends more commitment at country level to improve oral health and to reinforce partnerships in order to mobilize and coordinate the human, financial, material and institutional resources needed to implement, monitor and evaluate the Regional Strategy.

**Key words:** Oral health, Africa, World health, Strategy, Epidemiology.

### Introduction

According to the World Oral Health Report 2003, oral diseases remain a major public health problem worldwide. However, oral health is seen as a very low priority in the African Region, where extreme poverty means that the limited resources available to the health sector are directed towards life-threatening conditions such as HIV/AIDS,

tuberculosis, and malaria.

The mission of the Oral Health Programme at the Regional Office of WHO for Africa is to assist Member States to achieve those goals by means of a Regional Strategy. In September 1998, the WHO Regional Committee for Africa adopted a ten year (1999-2008) oral health plan for the African Region (AFR/RC48/9) with the aim of fundamentally improving community oral health. Its cornerstone is provision of the technical and managerial resources necessary to efficiently and effectively deliver affordable intervention that matches the oral health needs of the community.

**Correspondence: Professor C. F. Ndiaye**  
Regional Adviser Oral Health WHO/AFRO.  
Cite du Njouc BP 06, Braxxaville,  
Congo.Tel: 47-241.39372. Fax: 47-241  
39514. Email: [ndiayec@afro.who.int](mailto:ndiayec@afro.who.int)

**Oral health status of people in Africa**

Although not always life-threatening, oral diseases represent a major public health problem because of their high prevalence and significant impact on general health. Reliable data are scarce, but oral diseases appear to be increasing in the African Region, as does associated morbidity.

**Dental caries**<sup>2</sup>: Data from 39 African countries show that DMFT among 12-year-olds is very low in 13 (33%), low in 19 (44%), and moderate in the remaining seven (23%). Most of this represents untreated caries and reflects the inadequacy of the response to the problem by current oral health services.

**Periodontal diseases**<sup>3</sup>: Available data indicate that the prevalence of periodontal diseases is very high in several African countries. It affects all age groups, and since the end of the 1970s has become common among children (50%) and adults (75%). In addition to these widespread infections, the populations of African countries are subject to other oral diseases, the prevalences of which are largely unknown. They include noma, precancerous lesions and cancers, oral manifestations of HIV/AIDS, craniofacial injuries, congenital malformations such as cleft lip/palate, and oral-facial pain.

**Noma**: (cancrum oris)<sup>4,5</sup>: The most recent annual incidence figure for noma is 20 cases per 100 000. Children aged 3-6 years in sub-Saharan Africa are predominantly affected, and about 90% die without having received treatment. Increasing poverty and high levels of immunocompromise due to malnutrition or undernourishment are likely to result in a rise in the prevalence of conditions such as noma.

**Oral manifestations of HIV/AIDS**<sup>7</sup>: Most people infected by HIV live in sub-Saharan Africa and have limited access to treatment. Studies conducted in countries such as Senegal, Kenya and South Africa report a high prevalence (80%) of the oral

manifestations of HIV/AIDS. Most common are oral candidiasis, oral hairy leukoplakia, perleche, and Kaposi's sarcoma.

**Oral cancers and precancerous lesions:**

Annual incidence rates are estimated at 25 cases per 100 000 in Africa. Rapid urbanization and increasing use of tobacco and alcohol are considered to be the leading causes.

In summary, the African Region faces a number of oral health conditions characterized by their increasing prevalence or/and their seriousness and impact on general health.

**Current status of oral health care systems.**

Despite efforts to promote and organize the oral health sector, and the adoption of relevant resolutions at the World Health Assembly and Regional Committees over recent years, oral health is still not an integral part of existing health services, even at the important primary health care level.<sup>7</sup>

Proceedings of regional and international meetings, and reports from individual countries, allow the following conclusions to be drawn:

- previous approaches to oral health in Africa have failed to take account of the epidemiological priorities of the region, and to identify reliable and appropriate strategies to address them;
- there is an acute lack of recent, valid, reliable and comparable data for the African Region;
- oral health care available in Africa is almost exclusively curative and largely directed towards combating dental caries and periodontal diseases;
- access to oral health services that are affordable and of appropriate quality is limited;

- distribution of infrastructure and personnel varies geographically;
- the dentist to population ratio varies widely, but is generally low;
- a number of African countries have created institutions where students in the oral health sciences receive training in sophisticated and inappropriate techniques, but others offer little or no training;
- some training programmes for oral health workers are inappropriate;
- few countries in the region have a national oral health plan: as of 1999, the figure was 14 of 46;
- not all Ministries of Health incorporate an oral health department;
- the predominantly Western model of oral health care adopted by many African countries fails to address important determinants. These oral health systems are characterized by the predominance of dentists, most of whom are in private practice in urban settings. Those public or private oral health services that are available tend to be treatment-oriented, mainly providing for the relief of pain and other curative forms of care;
- a very small proportion of overall health care expenditure is reserved for oral health.

### **The Regional Oral Health Strategy 1999-2008**

**Long-term objective of the *Regional Strategy*:** Within the next 25 years, all populations in the African Region should enjoy improved levels of oral health and function as a result of significant reductions

in locally prevalent oral disorders, equitable access to cost-effective, high-quality oral health care, and adoption of healthy lifestyles.

#### **1. Guiding principles**

Effective implementation and maintenance of this strategy will require:

- assignment of a high priority to the promotion of oral health and prevention of oral diseases;
- focus of oral health interventions on the district and its communities, with particular emphasis on children, pregnant women and other vulnerable groups;
- use of only those interventions with proven efficacy;
- integration of oral health programs across all appropriate sectors;
- participation of communities in oral health activities that affect them.

#### **2. Strategic framework**

##### **Country targets**

By 2008, all countries of the African Region should have:

- national oral health strategies and implementation plans focusing on the district and the community levels;
- oral health activities that are integrated in other health and related programs and institutions (e.g. maternal and child health, nutrition, schools, water related programs);
- strengthened their health facilities with appropriate oral health technologies, methods, equipment and human resources;
- integrated training in essential oral health skills into the curricula of health personnel and others responsible for oral health promotion;
- established effective oral health management information systems;
- begun to carry out essential research on oral health priority issues and needs.

**Regional objective**

To assist countries to develop and implement oral health strategies and plans that will ensure equitable and universal access to quality oral health services through the district health system.

**3. Priority programmatic areas**

The following programmatic areas have been identified:

- Development of national oral health strategies and implementation plans
- Integration of oral health in other programs
- Delivery of effective and safe oral health services
- Regional approach to education and training for oral health
- Development of effective oral health management information systems.

**4. Strategic orientations**

- **Advocacy and social mobilization**

Continued advocacy for oral health in order to mobilize support from policy-makers, political and community leaders, training institutions, NGOs, professional associations, business and social groups, and industry.

- **Capacity building**

Development of human resources through appropriate training and re-training programs related to the highest priority oral health problems. Training needs and processes should be coordinated and standardized as far as possible, and draw upon the combined expertise and resources of countries in the Region.

- **Information and education**

Information promoting appropriate oral health behavior and lifestyle issues should be provided to individuals, families and communities. People should be involved in all stages of the development of oral health education, promotion and information materials.

- **Equitable access to quality oral health services**

Achievement of greater equity in oral health and access to quality oral health services- particularly for rural, periurban and underserved communities. Recent technical advances must be adapted economically, technologically and culturally for use in the African Region.

- **Promotion of operational research**

In order to strengthen research capacity and promote investigations relevant to the oral health needs of the communities concerned, national oral health programs should incorporate a research element and a means of widely disseminating the findings for planning purposes.

**5. Implementation framework**

- **At country level**

The district remains the location with the greatest potential for successful integration of oral health programme planning and implementation with other health and development programmes.

- **At intercountry regional level**

In collaboration with international partners, WHO will provide technical support to Member countries in the following areas:

- development of comparable national data systems on oral health and disease trends for use in planning, including the identification of suitable indicators with which to evaluate progress.
- development of effective interventions for the promotion of oral health
- development of national oral health strategies and implementation plans
  - estimation of personnel needs and development of suitable training programmes for the effective delivery of oral health programmes.

**6. Monitoring and Evaluation**

WHO has a particularly important role in facilitating the implementation process as well as monitoring and evaluating the progress of the strategy. Periodic reviews

and evaluations will be undertaken and regular reports will be made available in accordance with WHO resolutions.

### **Progress and achievements of the Regional Strategy**

#### ***The following major achievements have been made since the WHO Regional Strategy was launched in 1998:***

- The Regional Office continues to promote advocacy for oral health in Africa and to intensify efforts to mobilize resources for its implementation;
- In March 1999, a consultative meeting was held in Harare, Zimbabwe, in order to identify concrete ways in which to help countries implement the strategy and the resolution. The meeting brought together chief dental officers from 17 African countries, regional experts in oral health, representatives of oral health partners, and the heads of some WHO oral health collaborating centers. The outcomes of the meeting included a framework to address priority areas of prevention, and other interventions at country level;
- Twenty-two countries have developed national oral health strategies and implementation plans that emphasize the need for prevention, and the early detection and management of oral diseases;
- The provision of preventive oral health care in districts was supported in the following countries: Benin, Cameroon, Ivory Coast, Democratic Republic of the Congo, Ethiopia, Ghana, Guinea, Malawi, Rwanda, Uganda, and Zimbabwe;

- Consultative meeting on management of Noma Programme in the African Region - Harare, Zimbabwe, 19-21 April 2001
- \* A training workshop on atraumatic restorative treatment (ART) techniques was attended by 34 participants from 16 countries (Botswana, Burkina Faso, Cameroon, Eritrea, Ethiopia, Gambia, Kenya, Lesotho, Malawi, Mozambique, Namibia, Nigeria, Rwanda, Seychelles, Sierra Leone and Swaziland) at Intercountry Centre for Oral Health (ICOH), Jos Nigeria, October 2001.
- The WHO Regional Office for Africa collaborated with the Faculty of Dentistry, University of the Western Cape in South Africa to organize a Consultative Meeting on 'New Approach to Oral Health Training, Education and Research in Africa (Cape Town, South Africa, 23-26 April 2002);
- Intercountry Workshop on Noma prevention and control held in Bamako, Mali - 23-26 June 2003
- The Intercountry Centre for Oral Health (ICOH) in Jos, Nigeria, has been given additional resources and WHO support, and is now designated the Regional Centre for Oral Health Research and Training Initiatives (RCORTI);
- Increasing awareness of the importance of noma led 35 countries to submit case reports. The Regional office currently provides technical and financial support to 12 countries implementing national noma plans;
- New teaching materials have been developed in the areas of oral health, HIV/AIDS-related aspects of

oral health, and traditional methods of oral hygiene;

- Research has begun on fluoride and dental fluorosis, and on the efficacy and safety of traditional practices;

Considerable progress has been made since the 1974 resolution (AFR/RC24/R9) requesting the WHO Regional Director for Africa to provide for the establishment of dental advisory services within the Regional Office. Nevertheless, the Region still has immense challenges to face in a rapidly evolving field.

### **Perspectives and recommendations**

Despite the progress made so far, the *Regional Strategy* is not yet sufficiently implemented in the countries concerned.

There is still an urgent need to translate its objectives and recommendations into concrete actions, including assessment of the situation at country level, monitoring and evaluation of activities, exchange of experiences, and collaboration at national, regional and international levels.

In order to accelerate implementation of the *Regional Strategy*, the WHO/AFRO will, in collaboration with its international partners, continue to provide technical and financial support to:

- Develop standardized instruments and tools for assessment and evaluation
- Identify country-specific needs
- Design and implement appropriate interventions
- Strengthen national capacities and partnerships

Priority actions in the African Region are as follows:

#### **❖ *Inventory of oral health programs and related activities in the African Region***

This is in accord with the programmatic area “Development of effective oral health management

information systems” and the strategic objective “to gather and coordinate the collection of information needed for planning, monitoring and evaluating oral health activities”.

Implementation of the strategy requires that countries of the Region use similar techniques to:

- Compile information on existing oral health-related activities and programs
- Collect and disseminate best practices and lessons learned
- Make accessible the expertise and knowledge available in the Region

#### **❖ *Integrated Approach of Oral Health***

By 2008, all countries of the African Region should have integrated:

- oral health activities in other health and related programs and institutions e.g. maternal and child health, nutrition, schools, water related programs;
- oral health in all primary health care programs and in the training of primary and pre-school teachers.

Principal components of the Integrated Approach:

- Integration of oral health messages in existing programs: IMCI, school health, nutrition...
- Establishment or expansion of oral health services to all districts as part of existing health services
- Promotion and implementation of the WHO Basic Package of Oral Care at the primary health care level
- Training of all district health personnel and school teachers on: oral health education and promotion,

recognition of oral diseases, their management and referral.

- Community participation
- Mobilization of non-health sectors to promote oral health

#### ❖ **Noma**

Intensification of the fight against noma and integration of all related activities into existing national oral health programmes.

#### ❖ **Traditional medicine**

Various practices such as the use of chewing sticks for oral hygiene are very common. In the African Region, there is a political commitment to help promote traditional medicine through the adoption of resolutions and declarations. Collaboration on some health issues, such as AIDS and malaria, is now officially sanctioned. In the field of oral health, further research is needed:

- to provide information about the role of traditional healers in the prevention and treatment of oral diseases, and the implications of their involvement.
- to identify and promote current good practices.

### **CONCLUSION**

The WHO/AFRO has many challenges to overcome if it is to achieve the *Regional Strategy* objectives by 2008.

There is an urgent need to strengthen the capacity of the Oral Health Unit to provide technical and financial support to Member States.

It is now more necessary than ever for Governments to create the political, social and economic conditions required for implementation of the *Regional Strategy*.

WHO/AFRO can provide effective support to Member States if requested to do so by the Ministry of Health of concerned countries.

Strong partnerships are essential in order to mobilize and coordinate the financial, human, material and institutional resources needed to implement, monitor and evaluate the *Regional Strategy*. Greater cooperation is called for between WHO/AFRO and WHO collaborating centres for oral health, Federation Dentaire Internationale (FDI), International Association of Dental Research (IADR), Commonwealth Dental Association, NGOs, professional associations, and the healthcare industry.

### **REFERENCES**

1. Petersen PE. The World Oral Health Report 2003. Continuous improvement of Oral Health in the 21<sup>st</sup> century and the approach of Oral Health programme. Geneva: World Health Organization 2003; 1-39
2. Hobdell M.H., E.R.Oliveira, .Bautista.N.G.Myburgh et al. Oral Diseases and socio-economic status (SES) British Dental Journal 2003; 194:91-96
3. Kamagate A., Coulibaly N.T., Kone D., Brou E., Bakayoko Ly R. Prévalence des parodontites. Les parodontites en Afrique Noire. Influence des facteurs socio-économiques et habitudes culturelles. Revue d'Odontostomatologie Tropicale 2001.N94
4. Peter Berthold Noma: a forgotten disease. DENT Clin N Am 47 2003 559-574
5. Odenise Baratti-Mayer et al. Noma: an infectious disease of unknown aetiology THE LANCET Infectious Disease Vol 3 July 2003.

6. Sheiham A., Watt RG  
The common risk factor approach: a rational basis for promoting oral health  
Community Dent Oral Epidemiol 2000; 28:399-406.
7. Ndiaye C., Critchlow C. Periodontal status of HIV1 and HIV2 seropositive and HIV seronegative female commercial sex workers in Senegal.  
Journal of Periodontology, Sept. 1997, 68(9), 82-86
8. World Health Organization/AFRO. Oral Health in the African Region. A Regional Strategy 1999-2008. WHO Report office for Africa, Congo Brazaville 1999.