Global policy for improvement of oral health in the 21st century – implications to oral health research of World Health Assembly 2007, World Health Organization


Abstract – The World Health Organization (WHO) Global Oral Health Programme has worked hard over the past 5 years to increase the awareness of oral health worldwide as oral health is an important component of general health and quality of life. Meanwhile, oral disease is still a major public health problem in high income countries and the burden of oral disease is growing in many low- and middle income countries. In the World Oral Health Report 2003, the WHO Global Oral Health Programme formulated the policies and necessary actions to the continuous improvement of oral health. The strategy is that oral disease prevention and the promotion of oral health needs to be integrated with chronic disease prevention and general health promotion as the risks to health are linked. The World Health Assembly (WHA) and the Executive Board (EB) are supreme governance bodies of WHO and for the first time in 25 years oral health was subject to discussion by those bodies in 2007. At the EB120 and WHA60, the Member States agreed on an action plan for oral health and integrated disease prevention, thereby confirming the approach of the Oral Health Programme. The policy forms the basis for future development or adjustment of oral health programmes at national level. Clinical and public health research has shown that a number of individual, professional and community preventive measures are effective in preventing most oral diseases. However, advances in oral health science have not yet benefited the poor and disadvantaged populations worldwide. The major challenges of the future will be to translate knowledge and experiences in oral disease prevention and health promotion into action programmes. The WHO Global Oral Health Programme invites the international oral health research community to engage further in research capacity building in developing countries, and in strengthening the work so that research is recognized as the foundation of oral health policy at global level.

Key words: global research priorities; health promotion; integrated oral disease prevention; oral health policy; public health; social determinants of oral disease

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Submitted 2 January 2008; accepted 4 July 2008

doi: 10.1111/j.1600-0528.2008.00448.x

In 2002, the World Health Organization (WHO) Global Oral Health Programme was reoriented according to a new strategy of integration with chronic disease prevention and general health promotion. Chronic diseases, which continue to dominate in middle- and high income countries,
are becoming increasingly prevalent in many of the poorest developing countries. They create a double burden on top of the infectious diseases by which these countries continue to be afflicted (1). A somewhat similar pattern is observed for the unresolved burden of oral disease (2–9). As for the major chronic diseases, socioenvironmental factors are distal causes of oral disease (10), moreover, a core group of modifiable risk factors is common to many chronic diseases and injuries, and most oral diseases. These common risk factors are however preventable as they relate to lifestyles, such as dietary habits, use of tobacco and excessive consumption of alcohol, and the standard of hygiene.

The objectives of the WHO Global Oral Health Programme, one of the technical programmes within the Department of Chronic Disease and Health Promotion, imply that greater emphasis is put on developing global policies based on common risk factors approaches and which are coordinated more effectively with other programmes in public health. The policy of the WHO Global Oral Health Programme emphasizes that oral health is integral and essential to general health, and that oral health is a determinant factor for quality of life. The policy is detailed the World Oral Health Report 2003 (2). The report provides a comprehensive analysis of the global burden of oral disease and additional information of oral health is further described in a Special Theme of the Bulletin of the World Health Organization, September 2005 (11). WHO priority action areas for the improvement of oral health worldwide are as follows:

- Effective use of fluoride (12–15)
- Healthy diet and nutrition (16, 17)
- Tobacco control (18–21)
- Oral health of children and youth through Health Promoting Schools (22, 23)
- Oral health improvement amongst the elderly (24)
- Oral health, general health and quality of life (25)
- Oral health systems (26)
- HIV/AIDS and oral health (9, 27)
- Oral health information systems, evidence for oral health policy and formulation of goals (28–30)
- Research for oral health (31, 32)

Major actions undertaken by the WHO Global Oral Health Programme are detailed in the references given and information is available from the WHO website http://www.who.int/oral_health. Elements of the global priorities are also part of the activities undertaken by the oral health programmes of WHO Regional Offices. The Office for the Americas (http://www.paho.org/, 10-year Regional Plan on Oral Health/CE138/14) and the Office for Africa (http://www.afro.who.int/oralhealth) have distinct oral health programmes whereas the four other regional offices incorporate oral health into programmes for prevention of chronic disease.

Some activities have been carried out in collaboration with the 32 WHO Collaborating Centres in Oral Health, the two nongovernmental organizations in official relationship with WHO, i.e. Federation Dentaire Internationale (FDI)/World Dental Federation, and International Association for Dental Research (IADR), or other organizations such as Aide Odontologique Internationale working for oral health. Several WHO co-sponsored meetings have contributed to sharing of experiences within the oral health community and dissemination of essential messages to the general public, e.g. the WHO/FDI/IADR Global Consultation on use of fluoride for oral health 2006; FDI/WHO/IADR fluoride consultation for China and South-East Asia 2007; WHO/IADR symposium on diet and nutrition 2005; Global conference on tobacco or health 2003; Health Promoting Schools meetings in Thailand, China and India 2003–2005; IADR/WHO fifth global workshop on HIV/AIDS in oral health 2004; WHO/IADR symposium on oral health in elderly; WHO/IADR meeting on oral health in Africa and the Middle-East 2004; WHO/FDI meeting on planning of oral health in Africa 2004; WHO/IADR/BASCD meeting on preventive dentistry 2005, and the WHO/AAPD meeting on preventive dentistry in Asia 2007.

The WHO Global Oral Health Programme works from the principles of the Ottawa Charter for Health Promotion (33). As underlined by the most recent Bangkok Charter for Health Promotion (34), the promotion of health and disease prevention both have established repertoires of evidence-based strategies which need to be fully utilized, especially for low- and middle-income countries. The Liverpool Declaration (35) is an oral health follow-up of the Bangkok Charter, which informs about the needed actions to be undertaken by countries for the improvement of oral health.

The challenge for national health authorities and health care providers is urgently to translate this knowledge into practise for the benefit of the disadvantaged people or nations. Around the globe, people in deprived communities, home-
bound and disabled individuals, old-age persons, and certain ethnic minorities are not sufficiently covered by oral health care. Social inequality in oral health status and use of services is somewhat universal (36). Even in the Nordic countries with public responsibility in financing, and delivery of oral health care remarkable differences in utilization of services are observed by social class (37). Thus, oral health systems should be financially fair and be based on outreach principles in order to cover the whole population. In low-income countries the cost of oral health services is extremely high, consequently, the use of services is often prompted by symptoms, and services are mostly oriented towards relief of pain (38). Oral health care is generally provided by hospitals located in urban centres whereas limited care is offered in rural areas. In the majority of countries in Africa and Asia little attention is given to oral health of people living with HIV/AIDS who are less aware of the oral manifestations of infection than the general symptoms (39). In the future, strong emphasis should be given worldwide to ensure implementation of integrated primary oral health care and that oral health services may better meet the needs of populations. This principle was introduced already in 1979 by the WHO Primary Health Care Concept (40). The WHO Commission on Social Determinants in Health established by the Organization in 2006 compliments this work for equity in health through support to countries and global health partners to address the social factors leading to ill health and inequities and lack of access to health services. The commission initiative also incorporates analysis of the social determinants in oral health.

WHO governance

Progress towards a healthier world requires strong political action, broad participation and sustained advocacy. The WHO Oral Health Programme has worked hard over the years to put oral health high on the health agenda of policy and decision makers worldwide. Recently, the WHO was given the mandate for strengthening the work for oral health by its two governing bodies, i.e. the Executive Board, and the World Health Assembly. The WHO statement will be an impetus for countries to develop or adjust national oral health programmes, and the policy is a strong support to the global actions carried out by the WHO Oral Health Programme.

The World Health Assembly is the supreme decision-making body for WHO. It meets each year in May in Geneva, and is attended by delegations from all 193 Member States. The Executive Board is composed of 34 members technically qualified in the field of health. The main Board meeting, at which the agenda for the forthcoming Health Assembly is agreed upon and resolutions are adopted for forwarding to the Health Assembly, is held in January.

In January 2007, the Executive Board at its 120th session discussed the subject of oral health on the basis of the Secretariat report prepared by the WHO Oral Health Programme (41), and the Board subsequently considered a related draft resolution (EB120.R5.). The Sixtieth World Health Assembly held from 14–22 May 2007 discussed the report which is entitled ‘Oral health: action plan for promotion and integrated disease prevention’. The final Resolution WHA60.17 (42) was subsequently confirmed by the Member States and reads as follows.

Sixtieth World Health Assembly
WHA60.17

Oral health: action plan for promotion and integrated disease prevention

Recalling resolutions WHA22.30, WHA28.64 and WHA31.50 on fluoridation and dental health, WHA36.14 on oral health in the strategy for health for all, WHA42.39 on oral health; WHA56.1 and WHA59.17 on the WHO Framework Convention on Tobacco Control; WHA58.22 on cancer prevention and control; WHA57.14 on scaling up treatment and care within a coordinated and comprehensive response to HIV/AIDS; WHA57.16 on health promotion and healthy lifestyles; WHA57.17 on the Global Strategy on Diet, Physical Activity and Health; WHA58.16 on strengthening active and healthy ageing; WHA51.18 and WHA53.17 on prevention and control of noncommunicable diseases, and WHA58.26 on public-health problems caused by harmful use of alcohol.

Acknowledging the intrinsic link between oral health, general health and quality of life.

Emphasizing the need to incorporate programmes for promotion of oral health and prevention of oral diseases into programmes for the
integrated prevention and treatment of chronic diseases.

Aware that the importance of the prevention and control of noncommunicable diseases has been highlighted in the Eleventh General Programme of Work 2006–2015.

Appreciating the role that WHO collaborating centres, partners and nongovernmental organizations play in improving oral health globally.

URGES Member States
• to adopt measures to ensure that oral health is incorporated as appropriate into policies for the integrated prevention and treatment of chronic noncommunicable and communicable diseases, and into maternal and child health policies;
• to take measures to ensure that evidence-based approaches are used to incorporate oral health into national policies as appropriate for integrated prevention and control of noncommunicable diseases;
• to consider mechanisms to provide coverage of the population with essential oral-health care, to incorporate oral health in the framework of enhanced primary health care for chronic noncommunicable diseases, and to promote the availability of oral-health services that should be directed towards disease prevention and health promotion for poor and disadvantaged populations, in collaboration with integrated programmes for the prevention of chronic noncommunicable diseases;
• for those countries without access to optimal levels of fluoride, and which have not yet established systematic fluoridation programmes, to consider the development and implementation of fluoridation programmes, giving priority to equitable strategies such as the automatic administration of fluoride, for example, in drinking-water, salt or milk, and to the provision of affordable fluoride toothpaste;
• to take steps to ensure that prevention of oral cancer is an integral part of national cancer-control programmes, and to involve oral-health professionals or primary healthcare personnel with relevant training in oral health in detection, early diagnosis and treatment;
• to take steps to ensure the prevention of oral disease associated with HIV/AIDS, and the promotion of oral health and quality of life for people living with HIV, involving oral-health professionals or staff who are specially trained in primary health care, and applying primary oral-health care where possible;
• to develop and implement the promotion of oral health and prevention of oral disease for preschool and school children as part of activities in health-promoting schools;
• to scale up capacity to produce oral-health personnel, including dental hygienists, nurses and auxiliaries, providing for equitable distribution of these auxiliaries to the primary-care level, and ensuring proper service back-up by dentists through appropriate referral systems;
• to develop and implement, in countries affected by noma, national programmes to control the disease within national programmes for the integrated management of childhood illness, maternal care and reduction of malnutrition and poverty, in line with internationally agreed health-related development goals, including those contained in the Millennium Declaration;
• to incorporate an oral-health information system into health surveillance plans so that oral-health objectives are in keeping with international standards, and to evaluate progress in promoting oral health;
• to strengthen oral-health research and use evidence-based oral-health promotion and disease prevention in order to consolidate and adapt oral-health programmes, and to encourage the intercountry exchange of reliable knowledge and experience of community oral-health programmes;
• to address human resources and workforce planning for oral health as part of every national plan for health;
• to increase, as appropriate, the budgetary provisions dedicated to the prevention and control of oral and craniofacial diseases and conditions;
• to strengthen partnerships and shared responsibility among stakeholders in order to maximize resources in support of national oral health programmes.

REQUESTS the Director-General
• to raise awareness of the global challenges to improving oral health, and the specific and unique needs of low- and middle-income countries and of poor and disadvantaged population groups;
• to ensure that the Organization, at global and regional levels, provides advice and technical support, on request, to Member States for the
development and implementation of oral-health programmes within integrated approaches to monitoring, prevention and management of chronic noncommunicable diseases;

• continually to promote international cooperation and interaction with and among all actors concerned with implementation of the oral-health action plan, including WHO collaborating centres for oral health and nongovernmental organizations;

• to communicate to UNICEF and other organizations of the United Nations system that undertake health-related activities, the importance of integrating oral health into their programmes;

• to strengthen WHO’s technical leadership in oral health, including increasing, as appropriate, budgetary and human resources at all levels.

Implications of the WHA60.17 resolution to research for oral health

Research is the systematic process for generating new knowledge and both biomedical and social sciences contribute to public health. Essentially, the causes of oral diseases are known and the major priority for new research is on prevention policy and programme effectiveness. Clinical and public health research has shown that a number of individual, professional and community preventive measures are effective in preventing most oral diseases (43). However, optimal intervention in relation to oral disease is not universally available or affordable because of escalating costs and limited resources in many countries. This, together with insufficient emphasis on primary prevention of oral diseases, poses a considerable challenge for several countries, particularly developing countries and countries with economies and health systems in transition.

The major challenges of the future will be to translate knowledge and experiences of disease prevention and health promotion into action programmes. Advances in oral health science and knowledge have not yet benefited developing countries to the fullest extent possible. Clear disparities in economic strength, political will, scientific resources and capabilities, and the ability to access global information networks have, in fact, widened the knowledge gap between rich and poor countries.

In collaboration with the international oral health research community, the WHO Oral Health Programme can effectively contribute to the process of redressing the imbalance in the distribution of knowledge about oral health, so that the results of research will benefit everyone, including the poor, in a sustainable and equitable manner. As knowledge is a major vehicle for improving the health of poor people in particular, the international research community should focus on stimulating oral health research in the developed and developing world to reduce risk factors and the burden of oral disease, and to improve oral health systems and the effectiveness of community oral health programmes (30). The WHO has indicated the importance of well-designed studies demonstrating cost effectiveness and recommended the establishment of national schemes for surveillance of oral health and monitoring of programmes. In particular, more research should be devoted to:

• Modifiable common risk factors to oral health and chronic disease, particularly the role of diet, nutrition and tobacco.

• Oral health – general health – interrelationships.

• Psychosocial implication of oral health/illness and quality of life.

• Inequity in oral health and disease and the impact of socio-behavioural risk factors.

• Identification of the most indicative oral manifestations of HIV/AIDS for disease control and prevention.

• Population studies of oral mucosal lesions, including epidemiological surveys of HIV/AIDS related oral disease.

• The burden of oro-dental trauma, particularly in developing countries, and related risk factors.

• Evidence in oral health care: clinical care and public health practice.

• Translation of knowledge into clinical and public health practice and operational research on effectiveness of alternative community oral health programmes.

• Health systems research on reorientation of oral health services towards prevention and health promotion. High quality research on oral health systems may be instrumental to adjustment of programmes and services in both developed and developing countries.

• Time-series data for oral health surveillance in developing as well as developed countries.

Building and strengthening research capacity is one of the more effective, efficient and sustainable strategies for enabling developing countries to benefit from advances in knowledge, in particular through the promotion of regional or inter-country
oral health research networks. The international oral health research community and the WHO Oral Health Programme may strengthen oral health research for, with and by developing countries in several ways:

- Supporting initiatives that will strengthen research capability in developing countries so that research is recognised as the foundation of oral health policy.
- Increased involvement of WHO Collaborating Centres on Oral Health in high-priority areas of research within national, regional or interregional centres.
- Encouraging oral health research training programmes at local level or based on interuniversity collaborative ‘sandwich programmes’.
- Providing universities and research institutes in developing countries with easy access to the scientific literature within oral health and on-line access to scientific articles and reports, such as the WHO initiated Health InterNetwork Access to Research Initiative (HINARI) http://www.who.int/hinari/en.
- Facilitating the use of the Cochrane Library which provides systematic reviews about the evidence for public health action. Developing countries do have free access to the Cochrane Library, and the Cochrane systematic reviews are conducted with an international perspective. The fluoride reviews provide useful information on preventive approaches for caries in children for example (The Cochrane Collaboration; The Cochrane Oral Health Group).

Reducing the gap in oral health research cannot take place in an isolated way but may effectively take place through work within the framework of the Global Forum for Health Research (31, 32). This forum provides support to priority-setting methodologies, development of sound measurements, and effective dissemination of results in order to break the vicious circle of ‘ill health and poverty’.

Recently, WHO published the World Report on Knowledge for Better Health (44). The report provides a compass to reorient health research so that it may respond more effectively to public health challenges on a national and global level. This reorientation requires a strengthening of the health research sector, an environment that is more conducive to research-informed policy and practice, and more focus on key priorities for research to improve health systems. The analysis and recommendations of the report apply to oral health systems and oral health research as well. The report proposes the following recommendations:

- More investment is needed in relatively under-funded areas of health research, especially for a new, innovative approach to research on health systems.
- Management of health research should be strengthened if research is to contribute to strengthening health systems and building public confidence and trust in science.
- Stronger emphasis should be placed on translating knowledge into actions to improve health thereby bridging the gap between what is known and what is actually being done.

These recommendations are at the heart of the report’s action plan. It is now a matter of urgency to make health systems the focus of national and international efforts in order to improve their ability to provide health care in an equitable fashion. The WHO World Report on Knowledge for Better Health (44) reaffirms the view that the generation and application of high-quality knowledge is vital to a high performance health system and the socioeconomic development of any given country.

**WHO’s role and responsibilities in health research**

Research plays a crucial role in improving global health and health equity by developing and evaluating interventions, empowering people to alter unhealthy behaviours and informing decision-making in health. It is one of WHO’s functions, as set out in its Constitution, namely, ‘to promote and conduct research in the field of health’ and the WHO responsibilities were revisited by the World Health Assembly in 2007 (45).

WHO has a long tradition of being engaged in research on health issues and in building health research capacity in developing countries. It has taken a strong leadership role in supporting the development of key interventions, disseminating research findings, setting norms and standards, promoting partnerships and engaging in high-level advocacy for research, as exemplified by its convening of the Ministerial Summit on Health Research (Mexico City, 16–20 November 2004). In particular, research to strengthen health systems is fundamentally important for achieving the internationally agreed health-related development

WHO’s primary responsibility is to lead by example – applying best practices in use of research evidence in its own recommendations – and ensuring that ethically sound research is an integral part of all its technical programmes. WHO’s role and responsibilities in health research are underpinned by several principles. These include a commitment to using knowledge gained from appropriate review of existing research that may contribute to improving health, generating essential tools, and evaluating the quality and usefulness of interventions, methodologies, and programmes; to strengthening the role and functioning of co-sponsored research programmes, in areas that are of particular significance to developing countries and for which coordinated global action is required; and to ensuring that all research pursued within the Organization is relevant to the needs of those planning, working in, and using health services, especially neglected populations. In collaboration with key stakeholders, including research sponsors, industry, and civil society, the Organization is dedicated to building long-term and sustainable capacity for health research and use of its findings in order to promote health, prevent and control diseases, strengthen health systems, and improve equity in health.

References


