Equity, social determinants and public health programmes – the case of oral health


Abstract – The WHO Commission on Social Determinants of Health issued the 2008 report ‘Closing the gap within a generation – health equity through action on the social determinants of health’ in response to the widening gaps, within and between countries, in income levels, opportunities, life expectancy, health status, and access to health care. Most individuals and societies, irrespective of their philosophical and ideological stance, have limits as to how much unfairness is acceptable. In 2010, WHO published another important report on ‘Equity, Social Determinants and Public Health Programmes’, with the aim of translating knowledge into concrete, workable actions. Poor oral health was flagged as a severe public health problem. Oral disease and illness remain global problems and widening inequities in oral health status exist among different social groupings between and within countries. The good news is that means are available for breaking poverty and reduce if not eliminate social inequalities in oral health. Whether public health actions are initiated simply depends on the political will. The Ottawa Charter for Health Promotion (1986) and subsequent charters have emphasized the importance of policy for health, healthy environments, healthy lifestyles, and the need for orientation of health services towards health promotion and disease prevention. This report advocates that oral health for all can be promoted effectively by applying this philosophy and some major public health actions are outlined.

Key words: burden of oral disease; inequality; intervention for oral health for all; policy for oral health; research for oral health

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Social determinants and equity in health

In 2008, the World Health Organization (WHO) Commission on Social Determinants of Health issued a report which challenged conventional public health thinking on several fronts. The report ‘Closing the gap within a generation – health equity through action on the social determinants of health’ (1) responded to a situation in which the gaps, within and between countries, in income levels, opportunities, health status, life expectancy and access to care are greater than at any time in recent history. Improving the health of populations, in genuine and lasting ways, ultimately depends on understanding the causes of these inequities and addressing them. The Commission found abundant evidence that the true upstream drivers of health inequities reside in the social, economic and political environments. These environments are shaped by policies, which make them amenable to change. The distribution of health within a population is a matter of fairness in the way economic and social policies are designed. By showing how social factors directly shape health outcomes and explain inequities, the report challenges public health programmes and policies to tackle the leading causes of ill health at their roots, even when these causes lie beyond the direct control of the health sector. The 2008 World Health Report calls for the return of the holistic primary health care approach to address health inequities (2). This was reiterated in the 2009 World Health Assembly
where Member States were requested to address social determinants to reduce health inequities within and across countries to ‘close the gap in a generation’ (3).

Health equity is a moral position as well as a logically derived principle, and there are both political proponents and opponents of its underlying values. While expecting opposition to the health equity position, it is important to note that most individuals and societies, irrespective of their philosophical and ideological stance, have limits as to how much unfairness is acceptable. To support the equity position in the public policy dialogue, it will therefore be crucial to firmly document the extent of health inequities and demonstrate that they are avoidable, in that there are plausible interventions.

Interventions that aim to increase the general level of education; encourage equal opportunities; improve social benefits and employment; overcome barriers to health care; promote affordable housing; protect minority and vulnerable groups from discrimination and social exclusion must be considered. Global political stability and control of corruption are also significant issues. Initiatives must be linked with the broader international, national and local inequalities programmes and to maximize opportunities to work effectively across disciplines and sectors to reduce inequalities in social circumstances such as income, employment, environment, educational attainment, housing and other factors that have the biggest impact on people’s health. Resources must be targeted appropriately to address health inequalities and to support those with greatest and more complex needs.

In 2010, WHO published another important report on ‘Equity, Social Determinants and Public Health Programmes’ (4). It takes the challenges to public health several steps forward, with the aim of translating knowledge into concrete, workable actions. The public health problems chosen for the report were the following: (i) Alcohol; (ii) Cardiovascular disease; (iii) Health and nutrition of children; (iv) Diabetes; (v) Food safety; (vi) Mental disorders; (vii) Neglected tropical diseases; (viii) Oral health; (ix) Unintended pregnancy and pregnancy outcome; (x) Tobacco use; (xi) Tuberculosis; and (xii) Violence and unintentional injury.

The four main criteria in identifying these priority public health conditions were the following:
• They display large disparities across and within populations.
• They disproportionately affect certain populations or groups within populations.
• They are emerging or epidemic prone.

The burden of oral disease matches the four main criteria of critical public health conditions and it is the first time in the WHO history of oral health that this area of health is given such high-level attention.

Public health programmes

In response to the unresolved public health problems, the Priority Public Health Conditions Knowledge Network was established in 2005, one of the nine Commission on Social Determinants of Health knowledge networks. The priority public health network aimed to collate the evidence across disciplines and translate the knowledge into concrete and workable actions to generate a global movement to improve health equity (1, 4). Using a standardized framework of analysis, the major public health programmes of WHO, organized into 14 programme nodes, examined the evidence of social determinants at play and their contribution to inequities ranging from the overall structure of society, to differential exposure to risks and differential vulnerability within populations, to individual differences in health outcomes and their social and economic consequences (Fig. 1).

Entry-points were identified within existing health programmes for innovative interventions that tackle upstream determinants, taking into account sources of resistance to implementation and potential adverse side effects. Potential interventions were considered for each of the five levels of the analytical framework, focusing on the structured interventions and the two complementary frameworks for assessing obstacles to achieving effective and equitable outcomes of health care interventions. Factors underpinning effective implementation of interventions and implications for measurement were discussed. More importantly, lessons learned were documented. The final synthesis phase established important social determinants that were common across different public health conditions, shared the lessons learned and explored opportunities and potential for collaborative actions and joined-up initiatives between programmes and other sectors.
Oral health programme node

Oral health is fundamental to general health and well-being. Poor oral health affects quality of life as a result of pain or discomfort, tooth loss, impaired oral functioning, disfigurement, missing school time, loss of work hours and death in the case of oral cancer or noma. Despite improvements in oral health in the past few decades in several countries, oral disease remains a global problem and widening inequities in oral health exist among different social groupings between and within countries (5, 6). The World Health Survey covers population health data on 278,872 adults from 73 countries and standardized indicators on oral health were included. The survey shows remarkable global inequities in dentate status, experience of mouth problems and coverage of health care and Figs 2 and 3 illustrate the presence of such differences in oral health by national income (P < 0.001). At present time, the burden of tooth loss is limited among older people of low-income countries; this is because of dental disease being less frequent in adults in these countries. Yet, in low-income countries oral problems tend to grow as facilities for oral health care are scarce. In middle-income countries, the incidence of dental disease at the level of pain and symptoms has grown rapidly during recent years and, in the light of the inadequate services, tooth extraction has become a major treatment of choice. Traditionally, severe dental disease leading to edentulism was profound in adults of high-income countries; nevertheless, over recent years, tooth loss is declining in parallel to the improvement of dental visiting habits. Self-reported oral problems are less frequent among older people in high-income countries, meanwhile, it is worth noting that nearly one-third of older people in these countries claims having problems with teeth or mouth. Finally, unlike the situation in high-income countries, coverage in health care is

Fig. 1. Priority public health conditions analytical framework.

Fig. 2. Percentage of people 65–74 years old in low-, middle- and high-income countries with no natural teeth and percentage of people having experienced problems with mouth/teeth during the past year – The World Health Survey (5).
most inadequate in low- and middle-income countries; this is particularly the case in rural areas.

The social determinants of health are largely universal, affecting a range of oral health outcomes and the exposure to risk factors. Those who are disadvantaged are at a higher risk of disease, particularly in developing countries where living conditions are tremendously poor. For example, tooth loss, oral cancer and the destructive form of periodontal disease are more prevalent among the most deprived populations. Even within the wealthier countries, high levels of oral disease and unmet treatment needs are observed among underprivileged people. Also, the incidence of road traffic accidents, which could lead to oro-facial trauma, is significantly more prevalent among people living in poor physical and social environments. Oral symptoms related to HIV/AIDS is a major burden to people in Sub-Saharan Africa; similarly, many children living in the poorest parts of the world are suffering from noma, a ‘disease of poverty’.

Disadvantaged people are less likely to visit a dentist if available and often have unhealthy habits, or knowledge and attitudes to oral health. The consequences or the impact of ill health are notable. Poor oral health could threaten job security and economic productivity that in turn may exacerbate adverse social, psychological and economic circumstances, resulting in a downward spiral that further damages health.

### Intervention for oral health

Interventions must aim to promote and facilitate long-term sustainable improvements, such as tackling upstream factors, and the environment that cause poor oral health and create inequities. It is clear that actions from the health departments alone have limited impact on the wider determinants of health inequities. Therefore, oral health promotion initiatives to reduce social and health inequities must be linked with the broader international, national and local programmes.

The WHO reports on ‘Equity, social determinants, and public health programmes’ (4) highlights several actions relevant to closing the gap between rich and poor. Interventions for oral health are suggested for each level of analysis, i.e. the socioeconomic context, differential exposure, differential vulnerability, differential health care outcomes and differential consequences. Public health intervention is desirable; the good news is that tools are available for breaking poverty and reduce if not eliminate social inequalities in health. Whether public health actions are initiated simply depends on the political will.

It is necessary to promote social change and to lobby for policy development to tackle unequal distribution of resources and opportunities between and within countries. Foremost, it is essential to advocate oral health and interact with policy makers, health authorities and public health administrators. It is imperative to policy makers to develop equitable policies for oral health, to ensure the establishment of financially fair oral health care and to work for the universal coverage in oral health care as emphasized by the WHO Primary Health Care (PHC) approach. Worldwide, strengthening of oral health systems and PHC must involve health promotion and disease prevention. Multi-disciplinary approaches and working for health across sectors are crucial principals.

Healthy public policies and legislation are important upstream measures to promote oral health, such as legislation to support the implementation of fluoridation programmes (water, milk, salt and toothpaste), and healthy diet policy to create a supportive environment that is conducive to oral health. In particular, water fluoridation is one of the most cost-effective public health measures to improve dental health and reduce inequalities. While it provides benefit to all social groupings, the effects are greater among the most deprived populations; this is particularly the case
where access to oral health services is limited. Fluoridated toothpaste is a major contributing factor for the decline in dental decay observed in industrialized countries during recent years. It is crucial to ensure that fluoridated toothpastes are readily accessible and affordable to all, particularly in developing countries.

Also, removal of taxes for oral health products is fundamental to avoid health inequities. Manufacturers and governments have a key role to play to achieve this, for example to reduce the production cost and taxation. Other healthy public policies that are significant to oral health include food, sugars consumption, personal hygiene, and tobacco and alcohol policies. It is important to capitalize on global and national public health movements, such as tobacco control and healthy choices.

Oral health can be promoted through healthy settings such as healthy cities, community-based healthy living centres and health-promoting workplaces and hospitals. Measures that facilitate health-promoting schools must be encouraged. Oral health of children and adolescents can be promoted through healthy school environment with safe playgrounds and buildings, a tobacco-free and stress-free environment and the availability of nutritious foods, which can help reduce the risk to oral and general health and promote sustainable healthy lifestyles. A ban on unhealthy snacks in canteen, tuck shops and vending machines could be a starting point. Health-promoting schools can help trigger the installation of vital facilities such as safe water and sanitation, facilities that are essential for tooth brushing drills at school and crossinfection control. School oral health promotion must also address the sale of unhealthy foods and drinks as well as tobacco-containing products to students in school or in the vicinity of school premises. Oral health promotion can be easily integrated into general health promotion, school curricula and activities. In some countries, schools may be the only place for children, who are at the highest risk of oral disease, to have access to oral health services, such as emergency care, pain control, tooth extraction and basic restorative and preventive oral health care.

Interventions that take into account the principles of risk factor approaches and the Ottawa Charter for Health Promotion are most effective. Oral diseases share risk factors with several chronic diseases. By addressing these common risk factors such as diet, hygiene, stress, smoking, alcohol consumption and early life exposure, a number of oral diseases and conditions can be addressed at the same time. Following needs assessments, strategies that target certain high-risk groups with complex needs must be considered alongside population approaches. Community actions must be strengthened through community empowerment strategies. Oral health services can be oriented to be more responsive to the needs of the disadvantaged people by application of community-based outreach care.

Conversely, measures that focus on downstream factors only such as lifestyle and behavioural influences have limited success in reducing oral health inequities (7). These victim blaming approaches assume that knowledge and attitudes for health would automatically lead to behavioural change and may be counter productive. Without addressing the upstream factors, the social determinants that cause people to get ill in the first place, these downstream approaches are likely to be ineffective and costly. Similar to educational approaches to health promotion, people in more privileged social positions will benefit from the interventions more than the disadvantaged groups. Hence, inappropriate interventions can widen inequities.

Research for equity in oral health – WHO priorities

In several publications (8), the WHO GOHP emphasized the need for bridging the gap in oral health research between developed and developing countries. In addition to WHO, the International Association for Dental Research recently called upon formulation of a research agenda on global inequalities in oral health. According to WHO, research on inequities in oral health needs strengthening, but also evidence for interventions relevant to closing the gap between the rich and the poor must be considered. The WHO emphasizes that oral health research must better address the following elements:

- Social determinants in oral health, structural factors of society – ‘causes of the causes’.
- Modifiable risk factors to oral health and chronic disease, particularly the roles of diet, nutrition, tobacco use, harmful use of alcohol and personal hygiene.
• Socio-behavioural factors in HIV/AIDS-related oral lesions.
• Social risk factors in oro-dental trauma, particularly in developing countries.
• Evidence for oral health promotion activities and their incorporation into public health practice.
• Research on efficiency of public health intervention programmes in breaking social inequalities in oral health.
• Health systems research for orientation of oral health systems towards health promotion and disease prevention.
• Translation of oral health science into practice.
• Closing the implementation gap – application of oral health research.

Reorienting oral health research is needed so that it can respond effectively to public health challenges on national, regional and global levels. Therefore, more investment is desirable in public health research which is a badly underfunded area of research, especially for a new, innovative approach to research on health systems. 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 performed.

The WHO World Report on Knowledge for Better Health (9) reaffirms the view that the creation and application of high-quality knowledge is vital to a high-performance health system and the socioeconomic development of any given country. Management of health research should be strengthened if research is to contribute to strengthening health systems and building public confidence and trust in science. Access to high-quality scientific literature is essential for formulating evidence-based oral health policies and practice. However, it is also required to do analysis of political neglect. Sound research on oral health inequalities may be rejected or ignored by policy makers. In several high-income countries, the knowledge base on inequality in health is profound; nevertheless some policy makers may deliberately avoid taking the necessary and logic steps in solving existing inequity problems.

Conclusion

Most literature on equity and the social determinants of health is based on data that are from high-income countries and that focus on possible causal relationships. Even in high-income countries, there is limited documentation of experiences with interventions and implementation approaches to halt growing or reduce existing inequities in health. This shortfall is addressed within WHO by the Priority Public Health Conditions Knowledge Network, which aims to widen the discussion on what constitutes public health interventions by identifying the social determinants of health inequalities and appropriate interventions to address the situation. These issues were also discussed recently in 2009; the gap in implementation of the evidence available on health promotion and disease prevention was considered at the 7th WHO Global Conference on Health Promotion (10).

There is an urgent need to raise awareness of the impact of social determinants on oral health outcomes and quality of life of populations. The WHO World Health Assembly in 2007 (11) called upon policy makers and national authorities to take action for strengthening oral health research in relation not only to the existing disease burden and social risk factors but also to interventions that will reduce if not eliminate oral health inequities.

To reduce oral health inequities, action is needed to address the underlying determinants of oral health through the implementation of effective and appropriate oral health policies and interventions. Inappropriate interventions can in fact widen social inequalities. It is suggested by WHO that public health intervention must tackle the root causes of ill health rather than symptoms only, focusing on upstream factors that cause poor oral health and create inequities. It is a huge challenge to the oral health research community around the globe to develop evidence-based interventions for the promotion of long-term sustainable improvements in oral health.

References


