

Reducing Incidents of Tooth Decay and Gum Disease among School-Going Children in Malawi

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Policy Brief

Introduction

Global studies suggest that one in every two children aged 5-9 years old have at least one tooth cavity, and the proportion increases to eight in every ten children 12-17 years old (Harris et al., 2011). This finding concurs with studies done in Malawi. For instance, in Blantyre 34% and 95% of children aged 12-15 years old had caries and bleeding gums, respectively (Seyani & Bailey, 1983). Another study conducted in Mchinji, Ntchisi and Nkhotakota among school-going children showed that 54% had caries and 65% had bleeding gums (Mukiwa et al., 1991).

Some of the contributing risk factors for increased tooth decay and gum disease among children include poor oral hygiene, high sugar diet, poor nutrition and obesity, and poor access to dental care. Unhealthy dietary habits such as consumption of sugar and confectioneries is an important risk factor for tooth decay (Harris et al., 2011). Poor oral hygiene is the result of failure to brush and floss teeth regularly, leading to accumulation of dental plaque, which causes tooth decay. High sugar diet or prolonged contact of teeth with sugar from carbonated drinks, chewing gum, mints and candies easily leads to formation of dental plaque. The plaque contains bacteria that use sugar to produce acids which can eat into the tooth causing cavities. Also, a diet low in important nutrients can compromise the body's immune system and make it harder to fight off infection. Because gum diseases begins as an infection, poor nutrition can worsen the condition of the gums. The excess fatty tissue in obese people is associated with increased chances of inflammation of the gums.

Poor access to care due to lack of highly trained dental health workforce in the country is also contributing to the high incidences of tooth decay. For example, currently the country has only three dentists in public hospitals against an establishment of 44 posts, 121 dental therapists against an establishment of 300 posts, and six dental laboratory technologists of which only three are in public hospitals against an establishment of 40 posts. The problem is made worse by the lack of a national oral/dental health policy guideline.

Consequences of tooth decay and gum diseases in one's health

A decayed tooth may emit bad breath. This directly affects normal social life. Tooth decay may lead to persistent pain which affects one's appetite, studies, work, sleep or even general health. When there is severe tooth decay, the

Key Messages

- Evidence shows that there are considerable high prevalence levels of tooth decay and gum disease among school-going children in Malawi.
- The risk factors that contribute to tooth decay and gum disease among children in Malawi include poor oral hygiene, high sugar diet, poor nutrition and obesity, and poor access to dental health care.
- To respond to this problem, the government should develop and implement an oral health policy, as well as implement a dental health programme in schools, and a national campaign on oral health to increase awareness and promote better oral health in the country.

bacteria may spread from the pulp to the surrounding (periodontal) tissues via the apex of the tooth resulting in inflammation or even the formation of dental abscess. Loss of teeth due to infection of the gums when the support between gums and teeth is lost. Pregnant women with the infection of the gums are more likely to give birth prematurely to low birth weight babies.

The benefits of being free from the two common diseases (tooth decay and gum disease) include avoidance of pain and sepsis. Maintaining healthy gums and teeth can help prevent the formation of plaque that can lead to painful tooth decay and cavities. Maintaining healthy gums and teeth also helps in keeping teeth and gums intact and therefore in retaining good facial appearance.

Keeping teeth and gums healthy has great social economic benefits. It is difficult for anybody suffering from an infection from the teeth and mouth to undertake an income generating activity. Dental procedures such as cavity fillings, root canal treatment and other comprehensive dental treatment methods needed to deal with gum diseases are expensive. By focusing on prevention and keeping healthy gums, one can save money for other uses.

Methodology

This policy brief is based on a comprehensive review of existing literature. The literature reviewed included scientific papers, research reports and government policy documents.

Discussion of Policy Options

Malawi does not have a policy on oral health. Given the high prevalence of tooth decay and gum disease among children reported above, there is urgent need for the government to develop and implement a policy guideline on oral health. Failure to have an oral health policy in Malawi has resulted in failure to have evidence-based oral health strategies for all diseases of the mouth and teeth. As a result, the disease burden is on the increase among the general population. Having an oral health policy in place would also contribute to the improvement of the oral health service delivery through formulation and implementation of evidence-based strategies and guidelines for oral health quality of care.

Besides the policy, it is also necessary for the government to introduce a vibrant schools dental health education programme, as well as, conduct a national coampaign on oral health. This will create awareness of the importance of maintaining oral hygiene practices among learners, their caregivers and the general population. A study on knowledge, attitudes and practice undertaken in Sudan in 2005 showed that there is significant evidence that introduction of such vibrant outreach programmes brings about significant impact and improvement of oral health (Mahmoud K et al., 2005). Similarly in Malawi, introduction of such campaigns is proving to increase awareness of the importance of personal dental health care (based on programme reports from district health offices).

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Formulation of an oral health policy would help in the development of specific intervention strategies, which would have to be derived from the policy that would among other key interventions consider:

- Training of dental health workforce
- Introduction of a vibrant schools dental health education programme

- Enhancement of community oral health education that targets parents and caregivers
- Increase in community access to clinical care for oral anomalies

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Recommendations

Studies have found that the burden of diseases of the teeth and mouth is likely to affect school attendance due to pain and sepsis. This affects quality of life for children suffering from tooth decay and bleeding gums. There is going to be a huge budgetary burden for treatment of many of those affected in the form of medicines and medical supplies, equipment and infrastructure. Preventive approach is the best option to check on the prevalence of the disease burden.

It is recommended that the Ministry of Health should develop and implement a national oral/dental health policy. This will provide strategic direction and strategies that would address the burden of tooth decay and bleeding gums among school-going children in Malawi. Formulation of the policy would help in specific intervention strategies like training of dental health workforce, introduction of a vibrant schools dental health education programme and oral health community mass promotional campaigns.



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