

# Periodontal Health and Disease

**A practical guide to reduce the global burden of periodontal disease**



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## Overview

This advocacy toolkit is produced as part of the FDI Global Periodontal Health Project (GPHP), launched in 2017 with the aim of reducing the global burden of periodontal disease. Based on considerations from the White Paper on Prevention and Management of Periodontal Diseases for Oral Health and General Health<sup>1</sup> and from the World Oral Health Forum 2017<sup>2</sup>, it aims to assist FDI National Dental Associations (NDAs) in designing, conducting and evaluating advocacy campaigns to advance the implementation of innovative policies to effectively prevent and

manage periodontal disease, also known as gum disease.

This toolkit provides background information in a language which you can use with policymakers; a series of key messages; and practical guidance to assist you in designing and implementing successful advocacy campaigns which promote better periodontal health. It concludes with a series of case studies which could serve as examples for the implementation of innovative programmes.

### Periodontal health and disease in a nutshell

Even though it is largely preventable, periodontal disease remains a major public health issue in all countries around the world.

Periodontal disease is defined in this document as chronic inflammatory diseases of bacterial aetiology that affect the tooth-supporting soft and hard tissues. Among the different conditions included within the term of periodontal diseases, plaque-induced gingivitis and periodontitis are of

special relevance to periodontal healthcare and general health<sup>1</sup>.

Periodontal disease shares many risk factors with other noncommunicable diseases (NCDs) and can adequately be addressed through a common risk factor approach (CRFA). Periodontal disease is both preventable and treatable through adequate prevention and treatment strategies.

## Periodontal health as a priority area for policy

Although oral health is recognized as an integral component of the right to health, it is still largely absent from governmental and intergovernmental health agendas. In particular, public awareness of periodontal health remains low<sup>3</sup>, and periodontal disease is still too often considered as a purely 'cosmetic' problem rather than a medical condition. However, in contemporary societies which praise emotional and social well-being, good oral and periodontal health deserve to be given high priority\*.

In summary, periodontal disease is a very widespread, yet largely preventable, condition which negatively affects people's overall well-being and quality of life. Because of its preventable nature, rapid improvements could be achieved through easy-to-implement and cost-effective measures, yielding a strong return on investment. This argument can weigh heavily on policymakers' final decisions. This is why periodontal disease needs to be given visibility and priority.



### *On a positive note*

The role of oral health as a contributor to overall health has been increasingly acknowledged in recent years, culminating in the integration of oral diseases in the Political Declaration which was issued after the United Nations (UN) High-Level Meeting on NCDs in 2011. As a new High-Level Meeting is planned in 2018, sustained efforts are needed to ensure that oral health remains included in future Declarations.

## Key messages

### Primary message:

Periodontal disease is not a cosmetic issue, it is a health issue. Periodontal disease is among humanity's most common diseases, **affecting up to 50% of the global population**, and can have serious consequences such as tooth loss<sup>4</sup>. Periodontal disease is however **both preventable and treatable** if appropriate and timely management is undertaken. It is therefore necessary to foster **prevention, early management and control of the disease**, and to define the roles and responsibilities of oral health professionals, in particular dentists and hygienists, as well as other health professionals.

### Secondary messages:

**Good oral hygiene is an essential component of a healthy lifestyle**, similarly to diet and exercise, and it is necessary to curb the global burden of periodontal disease. Comprehensive and integrated action, led by governments, to **include good oral hygiene in official healthy lifestyle recommendations**, is necessary to reduce the risk of periodontal disease and other NCDs.

Given the risk factors periodontal disease shares with other NCDs, the oral health profession is committed to contributing its longstanding experience to joint prevention efforts. It therefore needs to be recognized and included as a full partner in the development of national NCD action plans that use the common risk factor approach.



## Setting the context: the global burden of periodontal disease

Periodontal disease is a very widespread, yet largely preventable, condition which negatively affects people's overall well-being and quality of life

### What is periodontal disease?

#### Nature of the disease

Periodontal disease (gum disease) is a multifactorial systemic disorder. It is defined as an inflammatory disease that affects tooth-supporting gums and bones. Periodontal disease begins as gingivitis, which is a chronic inflammation of the gums. In some cases, it may progress to periodontitis, a serious condition that destroys tooth-supporting

tissues and bone, and then to severe periodontitis, which leads to rapid tooth loss<sup>5,1</sup>.

Periodontal disease has been found to contribute to systemic inflammation<sup>6</sup>. Bidirectional relationships between periodontal disease and other NCDs like diabetes have attracted increasing attention since the early 2000s.

### Magnitude of the disease

Gingivitis - the mildest form of periodontal disease, is 'almost ubiquitous in all populations'<sup>6</sup>; periodontitis affects approximately 50% of adults in the USA, and severe periodontitis affects approximately 11% of the population worldwide,

with no significant changes in prevalence between 1990 and 2010<sup>7</sup>. Notably, the 2010 Global Burden of Disease study shows that severe periodontitis is the sixth most prevalent medical condition among all 291 diseases investigated. Lower socio-economic groups are more often affected, as are older individuals<sup>8</sup>.



**MECHANIC**  
54 YEARS OLD



I started smoking in my late teens to impress a girl. What began as a social habit quickly turned into a daily routine and for years I smoked one pack a day. Smoking was a fashionable trend at the time, so I didn't think I had anything to worry about. I was healthy, good-looking, successful in my job. In short, life was great.

I was around 40 the first time I noticed gaps between my teeth. It did not cause any pain though, so I didn't think it was anything serious. One day I noticed that some teeth looked longer than they did before. I saw that my gums were swollen and often bleeding when I brushed my teeth. Then, some of my front teeth started to feel loose.

Suddenly concerned, I rushed to the dentist who told me I had suffered major bone loss and had severe periodontal disease. I was scared of what that meant: Would I lose all my teeth? Would I be able to bite into an apple again? Would this affect my speech? Could I afford the dental treatment? I am coping with the disease now, but looking back, I wish I had made different lifestyle choices.

### Impact and consequences of the disease

The consequences and impact of periodontal disease fall into three categories.

**Local consequences** include bleeding gums, bad breath<sup>9</sup>, formation of abscess, receding gums, spaces between teeth, tooth mobility and displacement, and tooth loss.

**The impact on daily living** includes tooth loss, edentulism, aesthetic impairment and chewing

impairment, which affects nutrient intake and accounts for impaired oral health-related quality of life<sup>10</sup>, increased anxiety and feelings of shame and vulnerability.

Further **impacts on systemic health** may include an increased level of systemic inflammation and dysbiosis. In addition, there are various shared risk factors with cardiovascular (heart) disease, diabetes and its complications.



**SALES ASSISTANT**  
34 YEARS OLD



I got my first job in retail in my early twenties. I've always loved it, and I was good at it because I very much enjoyed the contact with my customers. At the time I was in great shape, everyone complimented me on my fantastic smile.

Quite early on though, I noticed that I often had bleeding when brushing my teeth. My gums were always a bit irritated and swollen. Then, at 26, I had my first child, and my second one followed just 15 months later. During my pregnancies, the problems with my gums worsened, and my smile stopped being so fantastic because several of my teeth had become loose. Because I had decided to stay home with my kids for a few years, I did not pay that much attention to my problem – anyway we didn't have much money to go to the dentist.

However, by the time I decided to go back to work, I felt ashamed about my looks and had lost much of the self-confidence which made me a good salesperson. I started to use diversion tactics – wearing very colourful scarves or shirts, dying my hair crazy colours, to distract attention from my mouth. This shame I felt about my smile also affected my social life, and I slowly withdrew from most of the social activities I had enjoyed so much.

Then, one night, I went to sleep, and suddenly awoke, clenching my teeth very hard, and one loose front tooth just fell out on my pillow. The next morning, I called in sick and finally gathered the courage to call a dentist. I have since undergone intensive treatment, and I now strictly adhere to my dentist's recommendations about oral hygiene. I have changed my lifestyle for the sake of my teeth, my job, my children and my own health. Today I feel much better, and I have regained a normal work and social life.

### **Risk factors and the common risk-factor approach**

Oral conditions, including periodontal disease, share a wide range of risk factors with other conditions. Some, such as age, gender, genetics, race, some immunosuppressive conditions, e.g. HIV/AIDS, and some systemic conditions, e.g. osteoporosis, cannot be modified. Other risk factors are considered modifiable because individual action on a specific behaviour is possible. These factors are often related to lifestyle, e.g. smoking and alcohol, metabolic

factors, e.g. diabetes and obesity, dietary factors, e.g. dietary calcium and vitamin D, or stress.

Local factors such as levels of plaque and/or calculus, defective restorations and wearing partial dentures can also constitute risk factors.

In addition to individual behaviours and lifestyle risk factors, a range of external factors on which individuals have only marginal influence may also affect people's health and oral health, e.g. limited access to education, safe water and sanitation, healthy food choices and healthcare.

These major risk factors are also shared with all other major NCDs such as cardiovascular disease, chronic respiratory disease, cancer and diabetes. The CRFA therefore provides the basis for the inclusion of oral diseases in NCD prevention and control programmes.

Note: In reality, it can prove difficult to change behaviours towards a healthier lifestyle without additional supportive interventions. Therefore, policy approaches which focus only on changing individual behaviour often have limited effectiveness. When designing an advocacy campaign which aims at inducing policy changes that tackle risk factors, you should therefore always consider the broader determinants of risk behaviours.

### How can periodontal disease be prevented and treated?

The good news is that periodontal disease is both preventable and treatable if appropriate action is taken. This message is one you should not hesitate to use repeatedly as taking appropriate and timely action will yield positive outcomes, something which is always very important to policymakers, who need to prioritize cost-effective public health measures and who must seek a good return on investment.

#### Prevention

**Primary prevention** aims at preventing a disease before it occurs. Regarding periodontal disease, the aim of primary prevention is to inhibit the development of gingival inflammation, or its recurrence, and to maintain good oral health. Primary prevention therefore predominantly consists of communicating good oral hygiene practices to patients (about toothbrushing for example). Professional oral hygiene instruction (OHI) is therefore a core pillar of primary prevention. To maximize efficiency, periodontal health education should start in pre-school years

and be repeated at regular intervals in a life-course approach.

In addition, professional mechanical plaque removal (PMPR) can have significant beneficial effects, and the use of flosses may be beneficial as well.

**Secondary prevention** occurs in the early stages of a disease. It aims to reduce the impact of periodontal disease as early as possible. It is done through early detection and prompt care in order to halt, slow or reverse disease progression, by fostering personal strategies to prevent deterioration or recurrence and by taking measures to restore people's original health and function, while continuing to prevent new lesions.

The role of secondary prevention in periodontal disease is to prevent disease recurrence in patients who were successfully treated. Such secondary prevention measures include the same measures as in primary prevention, accompanied by an evaluation of oral hygiene and, if necessary, repeated OHI. It further includes subgingival debridement to the depth of the sulcus/pocket.

Primary and secondary prevention measures also include delivering messages pertaining to a healthy lifestyle, and smoking cessation support.

#### Treatment

Periodontal treatment aims to restore periodontal health, the key target for clinically healthy periodontal sites being no bleeding on probing and shallow residual pockets (<5 mm)<sup>11</sup>.

Standard treatment includes anti-infective mechanical therapy to reach an effective removal of supra- and subgingival biofilm. In addition, the use of antiseptics, and antibiotics in severe cases, improve the efficiency of local non-surgical treatment<sup>12,13</sup>.

In most severe cases, surgical treatment might be necessary if inflammation persists. The



objective is then to remove remnants of the bacterial biofilm and calculus from the infected root surfaces, and to eliminate niches through resective or regenerative measures to establish the prerequisites for long-term successful self-management. Depending on the situation, surgical therapy can consist of conservative surgical interventions, resective surgical treatment or regenerative surgical procedures<sup>12,14,15</sup>.

### What are the main issues your advocacy campaign should address?

#### Introduction

A whole range of issues jeopardize efficient prevention and management of periodontal disease. Your advocacy campaign will likely not address them all in one go. Depending on the situation in your country, you might wish to prioritize one issue over the others.

#### Lack of awareness

Low awareness of periodontal disease is a common phenomenon among both the public and the healthcare community worldwide. **The majority of patients who suffer from periodontitis are not aware of their condition**<sup>3</sup>. One reason for such a lack of awareness may be related to the fact that oral health and oral care, including self-care and hygiene, are not included in the healthy lifestyle recommendations issued by the World Health Organization (WHO). In any case, it is challenging to change an issue which is not perceived as one.

#### Lack of access to care

Socio-economic barriers, lack of oral healthcare facilities, and the fact that, in many countries, oral care is not part of public health services, mean that **access to periodontal screening, diagnosis and treatment services is far from universal**.

#### Unadapted remuneration

Tooth extraction and the placement of a dental implant are often more profitable to the dentist than the treatment of periodontitis per se. Similarly, **prevention done by a dentist is seldom profitable**, hence encouraging a purely curative rather than a preventive approach to periodontal disease.

#### Periodontal negligence

A survey conducted by FDI in 2017 showed that **periodontal screening is often not included in a routine dental check-up**. In addition, in half of the countries where periodontology is a registered specialty, other oral health professionals do not provide any periodontal care.

#### Ageing populations

With age, functional decline occurs, and the incidence and prevalence of chronic diseases increase, such as dementia. As use of dental services becomes scarce, oral and periodontal health often deteriorate. **Maintaining access to healthcare, managing functionally declining patients and multiple-drug therapies are challenging issues for dentists and for the health system**.



# Advocacy Goals

## Planning: establishing advocacy goals and objectives

This chapter describes a range of advocacy goals and objectives which can help reduce the burden of periodontal disease in your population. Depending on local circumstances, only some suggested objectives and measures might apply.

When planning your advocacy campaign, select objectives which seem important and timely in your specific setting, depending on the issues you wish to address (see previous section).

### What are your goals and objectives?

A successful advocacy campaign should have a specific purpose, or goal (what is it you want to obtain/change?) as well as a set of objectives for short-term implementation (the steps you need to take to reach your goal).

For example, if you wish to address the issue of low awareness by including good oral hygiene in official healthy lifestyle recommendations, then your short-term objective might be to set up a meeting with representatives of high-level officials to present your case. Another might be to organize a public event on common risk factors together with other relevant medical disciplines.

As another example, if your focus is ageing populations, and your goal is a 30% reduction in the prevalence of severe periodontal disease among nursing home residents in your community, then your short-term objectives might be to roll out an education campaign for nursing home personnel, and another to initiate a meeting with the oral health professionals in your community to identify possibilities to offer regular dental check-ups to nursing home residents (such as a mobile clinic for example). A third might be to meet with high-level officials to discuss reimbursement issues.

When setting your advocacy plan, try to refrain from being overly ambitious. Setting SMART objectives

(Specific, Measurable, Achievable, Realistic and Time-bound) is an easy way to structure your<sup>16</sup>.

In the next section we have listed a range of goals and objectives which could make a difference in improving the periodontal health of your population. An efficient advocacy campaign cannot possibly pursue them all. When designing your campaign, you will have to carefully select a few key goals and objectives which are relevant, timely and implementable in your setting. The goals and objectives listed below cover different fields of intervention and might require completely different streams of action and address different target audiences. Taken together, they can be considered as a map towards optimal periodontal health.

### Possible fields of intervention

#### Awareness and literacy

There is currently a lack of awareness of gingivitis and periodontitis and their consequences among both health professionals and the public. Hence there is a great need to communicate that periodontal disease is not only a 'cosmetic' problem, but a health problem, and that a healthy tooth is superior to implant therapy. In addition, in order to raise the profile of periodontal disease, it is important to communicate that it is a chronic NCD which shares several risk factors with other NCDs. Desirable advocacy results include a range of possible outcomes, such as:

- ▶ The benefits of a healthy mouth: quality of life, nice smile, healthy gums, better taste, good breath, less personal costs, and less burden on the immune system, are promoted through a **national awareness campaign**.
- ▶ Good oral hygiene is included in **official healthy lifestyle recommendations** as a core element of a healthy lifestyle alongside

recommendations pertaining to nutrition, physical activity, alcohol, tobacco and stress.

- ▶ **Oral health education programmes** are available, targeting specifically vulnerable groups, in particular:
  - ▶ School children
  - ▶ Pregnant women
  - ▶ Minority groups
  - ▶ Ageing populations, especially frail or institutionalised, and their carers
- ▶ Periodontal disease is included as a risk factor in your official national recommendations and guidelines for other NCDs such as cardiovascular disease or diabetes.

#### Health system

Currently, most health systems consider dentistry and medicine as two worlds apart, which tends to jeopardize efficient communication and collaboration between oral health and medical professionals. This separation fails to acknowledge associations and interactions between oral health and general health, and blurs communication towards patients. In addition, the roles and responsibilities of the different dental professions can also influence periodontal health outcomes and should therefore reflect periodontal care needs. Desirable advocacy results include a range of possible outcomes, such as:

- ▶ **Periodontal screening** is included in routine dental check-ups.
- ▶ The **role and function of dental hygienists** are recognized and promoted.
- ▶ Associations between oral diseases, in particular periodontal disease, and general disease are stressed to medical professions to foster the development of **interdisciplinary teams**.

- ▶ The importance of periodontal disease prevention, including smoking cessation, is **shared with other health or oral health professions**, e.g. nurses, hygienists and GPs.
- ▶ The **specific needs of ageing populations**, in particular of those suffering from functional decline and dementia, are accounted for.

### Professional education

Professional education is an important element of health systems. Again, current educational systems often neglect the need for collaboration and interdisciplinary practices, and lack focus on health promotion and disease prevention. Desirable advocacy results include a range of possible outcomes, such as:

- ▶ **Dental education curricula** are reviewed to account for new advances in science, in particular concerning periodontal disease prevention and management.
- ▶ All **general dentists** are able to diagnose periodontal disease, provide basic care and refer to a specialist.
- ▶ **Interprofessional education** is provided in undergraduate and graduate schools in order to shape a collaborative-practice workforce
- ▶ **Basic oral healthcare packages** including periodontal disease prevention and detection are introduced in undergraduate curricula for all the health sciences, e.g. medical school and nursing school.

### Economics and finance

Current fee-for-service models fail to encourage a preventive approach to periodontal health. Costly procedures such as implants are often more profitable than a preventive approach based on early diagnosis, and disease management. In addition, when excluded from public health

services, oral care is often unaffordable to large segments of the population. Desirable advocacy results include a range of possible outcomes, such as:

- ▶ Economic barriers to access care are reduced by **including oral care in public health services**
- ▶ **Outcome-based remuneration systems** have replaced fee-for-service models to avoid any perverse incentives (e.g. implants being more lucrative than treatment of periodontitis),
- ▶ **Reliable data on the economic impact** of periodontal disease are available, e.g. lost productivity and treatment costs.

### Partnerships

Collaborating with others is necessary to ensure an optimal use of resources, as well as a clear and unified message for patients. Desirable advocacy results include a range of possible outcomes, such as:

Other oral health professions

- ▶ **Dental hygienists** are recognized as an important player in prevention and early diagnosis, and also as messengers for positive oral hygiene.
- ▶ **The use of resources is optimized:** hygienists can perform non-surgical therapy to free up time for the dentist to focus on more complex and advanced cases of periodontal disease.

Other professionals

- ▶ **Two-way communication channels** between medical and oral health professionals are available in order to ease exchanges of information and referrals.
- ▶ Collaborations with **smoking cessation programmes** and **nutrition advice**

**services** are introduced to prevent obesity and diabetes.

Patients

- ▶ Collaborating with patients in areas such as **goal setting, planning and self-monitoring.**

Oral health industry

- ▶ Partnerships are established with corporate partners to **reach out to the population.**

### Choosing your own advocacy priorities

In order to set the right priorities, here are a few questions you should ask yourself:

- ▶ **Is the issue important?** Will the change lead to a real improvement? Does it address the needs of a large part of my population? Does it include minority/vulnerable groups?
- ▶ **Is my timing relevant?** Is the issue widely perceived? Is there a pre-existing momentum on this issue? Are governments or policymakers looking to change the issue?
- ▶ **Does my issue have a solution?** Is my goal achievable? Is it easy to communicate? Can I identify leaders and decision makers who can lead the change? Do I have enough resources to advocate for this issue?



# Translating advocacy objectives into actions

Many policies are available but sit on the shelf due to a lack of awareness, prioritization or financial means. In order to foster the application, or the revision, of an existing policy, or to initiate a new

policy that would lead to better periodontal health in your setting, you need to make sure that you build a solid case, generate sufficient support and reach the right people.

## Periodontal disease is not a cosmetic issue, it is a health issue

### Identifying relevant target audiences: who do you want to reach?

An essential step in achieving advocacy goals and objectives is to determine the right target audience who is:

- ▶ Interested in the topic
- ▶ Influential
- ▶ Supportive, or, conversely, an influential opponent

In addition to identifying individuals or groups who can directly affect your desired outcomes, i.e. decision makers, you also need to identify potential individuals or groups who can influence your primary audience.

Potential decision makers	Potential influencers
<ul style="list-style-type: none"> <li>▶ <b>Government</b> <i>(presidents and prime ministers, health ministers and their deputies, ministers of related sectors (trade, education), chief dental officers, health authority officials)</i></li> <li>▶ <b>Community leaders</b> <i>(local government bodies, city councils, mayors)</i></li> <li>▶ <b>Governmental agencies</b></li> </ul>	<ul style="list-style-type: none"> <li>▶ <b>Civil society</b> <i>(nongovernmental organizations, formal and informal groups and organizations)</i></li> <li>▶ <b>Opinion leaders</b> <i>(community and business leaders, authors, activists, the media)</i></li> <li>▶ <b>Academia</b> <i>(teachers, professors, researchers)</i></li> <li>▶ <b>Health professionals</b></li> </ul>

As an advocate of oral health, it is your role to foster commitment and mobilize people to **engage** and **act**.

### What do they want to hear?

Once you have identified your target audience, you need to craft persuasive messages. To be successful, your advocacy messages need to include two components: an appeal to what is right, and an appeal to your audience.

## Getting your facts right: do you have sufficient information to build your case?

Keep in mind that the policymakers you will meet are rarely oral health experts. They also oversee many different priorities and requests. Hence when prioritizing actions and programmes, potential return on investment will always weigh heavily on their final decisions. Therefore, collect convincing facts and evidence to support your argument. You can use data, real life stories or experiences that highlight the human dimension of the problem, and examples of successful initiatives in other contexts.

Reviewing existing government policies will help you understand your government's position. Look at available policies, strategies, guidelines, parliamentary acts, laws and regulations and identify which could affect your goals and objectives. Keep in mind that not all relevant documents are issued by the Ministry of Health, but that other ministries might also be involved or even have a leadership role, e.g. the Ministry of Education and Ministry of Trade. Map existing documents with your priorities, or use them to identify a gap which you would like to fill.



### Examples of useful data and supporting materials

- ▶ Periodontal disease prevalence and severity data for your country, or for a specific target group, e.g. elderly in nursing homes
- ▶ Lost productivity (economic aspect)
- ▶ Oral health related quality of life data, such as satisfaction with physical appearance and feelings of shame in social interactions due to loose/missing teeth, etc.
- ▶ Patient testimonies

*NOTE: examples of innovative projects and initiatives are provided in Annex 4*

## Developing key messages: what do you want to say and to what end?

Your primary message is the overarching theme of your campaign. It must be clear, concise and compelling, otherwise it will not receive attention. A primary message is compelling and universal. It is the same for all audiences.

If your primary message needs to be reinforced, it can be supported by secondary messages. Typically, secondary messages will explain how the objectives of the primary message can be met. Secondary messages can be tailored to fit the needs of your different audiences.

### Primary message:

Periodontal disease is not a cosmetic issue, it is a health issue. Severe periodontitis, which affects 11% of the population worldwide, can have serious consequences. Periodontal disease is however both preventable and treatable if appropriate and timely action is taken. It is therefore necessary to foster a shift from invasive interventions to prevention, from treatment to management and control of the disease, and to define the roles and responsibilities of dentists, hygienists and other health workers in this process.

### Secondary messages:

Good oral hygiene is an essential component of a healthy lifestyle, similarly to diet and exercise, and it is necessary to curb the global burden of periodontal disease. Comprehensive and integrated action, led by governments, to include good oral hygiene in official healthy lifestyle recommendations, is necessary to reduce the risk of periodontal disease and other NCDs.

Given the risk factors periodontal disease shares with other NCDs, the oral health profession is committed to contributing its longstanding experience in prevention. It thus needs to be recognized and included as a full partner in the development of national NCD action plans that use the common risk factor approach.

## Spreading your messages: how can you effectively disseminate your message?

### Organize a successful event

Based on the likely preferences of your target audiences, you can choose the best format for your event. In any case, establishing direct contact with your target audiences is key to getting your message across.

- ▶ **Workshops and meetings:** setting up meetings and workshops with a target group of individuals, e.g. local officials and





community leaders, to present and discuss the issue can be a powerful means to raise awareness and generate support for your advocacy objectives.

- ▶ **High-level meetings:** scheduling a meeting with a high-level official is a further means to drive forward your advocacy efforts. Such a meeting necessitates very thorough preparation as you will have little time to present a convincing case. Direct support from a high-ranking elected official such as a Minister of Health can be instrumental in successfully achieving your advocacy goals and objectives.
- ▶ **Public events:** such events can be helpful in engaging the wider community in your advocacy efforts. They can take different forms, such as an awareness-raising campaign in a busy public place, interactive games and quizzes, a toothbrushing contest etc. The annual World Oral Health Day (20 March) can be a great opportunity to craft a strong message.

## Top promotional tips

### Partner up

Partnerships can help spread your message and increase its weight and credibility. Depending on your advocacy priority, you can seek a partnership on many different levels:

- ▶ Patients
- ▶ Coalition of oral health professionals
- ▶ Other health professionals
- ▶ Government
- ▶ Product manufacturers
- ▶ Payers
- ▶ Policymakers

### Use the media

In addition to direct contact through events and meetings, make sure you disseminate your message as widely as possible. You can use different channels to do so:

- ▶ **Mass media campaign,** e.g. newspapers, radio and TV, will allow you to reach a large audience, which can help generate momentum for your issue. However, this method is not appropriate for reaching decision makers.
- ▶ **Social media,** e.g. websites, blogs, Facebook and Twitter, can amplify your advocacy efforts by reaching more people in very little time. Consider that the use of social media has a very low set-up cost, and offers new opportunities to engage with your target audiences.
- ▶ **Printed materials,** e.g. booklets, leaflets and factsheets, are very valuable in supporting your advocacy activities. It is useful to distribute them when you organize a meeting or activity.

Seeking the right partners strongly depends on your objectives. Remember to find a unifying goal and to motivate each partner according to their interests. For example, if your aim is to convince your national government to account for the periodontal needs of nursing home residents, then you might want to form an alliance between your local/national dental association and a nursing home association. If your goal is to include good oral hygiene in official healthy lifestyle recommendations, then you might choose to partner with other health associations, e.g. diabetes and obesity, and with the public health community.

### Find the right spokesperson

Finding an individual who is well-respected by your target audience can help convince them of your message. This can be:

- ▶ A political leader who supports your position.
- ▶ A physician who supports an integrated approach to NCD prevention.
- ▶ An athlete or celebrity testifying from personal experience, educating and motivating the public.
- ▶ A patient testifying from personal experience.

### Social media tips

Social media has become a powerful channel of mass communication that can quickly increase the reach of your message. It is low-cost, interactive, influential and, today, a 'must' for any advocacy campaign.



#### Facebook

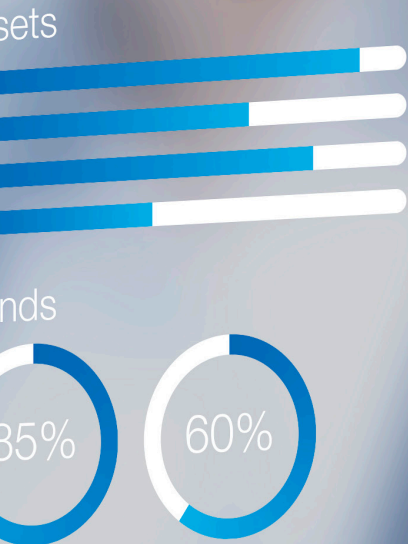
- ▶ **Promote a post** including an infographic and the link to your campaign.
- ▶ **Include a designated hashtag** in all your posts to properly track and harmonize your messages, e.g. #HealthyGumsMatter or #StopGumDisease.
- ▶ **Encourage those in your online networks to share your posts** to maximize the reach of your message.

- ▶ **Share posts or news** of others that are relevant to your campaign.
- ▶ **Tag relevant groups** in your posts to maximise the reach of your message (i.e. health organizations, NCD alliances and NGOs).



#### Twitter

- ▶ **Include your designated hashtag** in all tweets to properly track and harmonize your message. You may also want to include relevant hashtags as you deem fit, e.g. #PeriodontalDisease #OralSystemicHealth.
- ▶ **Retweet meaningful messages** of others that are relevant to the campaign.
- ▶ **Mention key stakeholders** in your tweets to include them in the conversation, i.e. decision makers and government.
- ▶ **Create a poll** to actively engage with your audience, e.g. Q: 'How often should you brush your teeth? A: 5 times a day, 2 times a day, every second day, every week'.
- ▶ **Use images, photos and infographics** (with the appropriate permission) as this will increase your visibility and the number of retweets.
- ▶ **Encourage colleagues and friends** who use social media to share messages with their respective networks.



## Reflecting: monitoring and evaluation

Following all the hard work you put into your advocacy campaign, it is important to monitor and evaluate your reach and impact. Even a simple assessment can generate valuable recommendations for the future. Take some time to write down what you learned from your experience and measure your efforts.

### Ask yourself:

- ▶ What was effective and what was not?
- ▶ Did you reach your target audience?
- ▶ Were your key messages widely distributed?
- ▶ Did you achieve any of your objectives?
- ▶ Were your communication channels the most effective for your needs?
- ▶ Look back at the meetings, activities and events you organized. Were they well attended? Did people engage as you expected?
- ▶ - For media coverage, track the number of targeted news outlets that picked up your story or press release, or that reported the activities or meetings you organized. You can either consult paper archives of daily newspapers or carry-out online keyword searches, e.g. name of your dental association, periodontal disease, gum disease. Some cost-effective media monitoring tools are also available on the market.
- ▶ For social media monitoring, use Facebook insights to record your reach and engagement, i.e. number of likes, shares and people you reached with your posts. Then use Twitter analytics to track the number of impressions you got from your tweets and retweets
- ▶ If resources allow, sending out opinion surveys to the general public is a useful way of measuring the effectiveness of your education campaign.
- ▶ Finally, follow up with your local representatives from the different sectors you contacted, e.g. governmental, educational and medical institutions, to check if and what changes were implemented following your advocacy efforts. Get a timeline of implementation and carry on the good work.

## Write to decision makers

A well-written letter to decision makers or political leaders is a good way of addressing the need for policy change and presenting your arguments. Be respectful, clear and concise when you introduce yourself and your position, as well as your call for action.

Dear [formal title and name],

As a dentist and member of the [name of your National Dental Association], I would like to take this opportunity to draw your attention to the current challenges we face in preventing and managing periodontal disease.

Today, even though it is largely preventable, periodontal disease remains a neglected public health issue. In our country, it affects [X% indicate percentages according to available data from your country] of our population. Severe periodontal disease, its more serious form, affects [X% indicate percentages according to available data from your country]. Severe periodontal disease is debilitating and strongly affects quality of life: it causes pain, tooth mobility and tooth loss, anxiety and shame, and leads to a significant number of missed work days. In the absence of early diagnosis and treatment, it generates high costs [add any useful, striking data you might have].

Periodontal disease also shares a range of risk factors with other major noncommunicable diseases (NCDs) such as cardiovascular diseases, cancers, chronic respiratory diseases, diabetes and obesity. In particular, an unhealthy diet and smoking are major shared risk factors. In addition, two-way relationships between periodontal disease and other NCDs have been observed. It is therefore our firm belief that including good oral hygiene in official healthy lifestyle recommendations would be a highly cost-effective measure to fight the burden of periodontal disease and, as a result, improve the oral health, and hence the general health, of our population. I would therefore like to take this opportunity to request a meeting to further discuss this with you.

I may be reached at [insert your contact details].

I look forward to addressing this major public health challenge with you.

Sincerely,

[Your signature]

[Your name]

[Your address]

[Your phone number]

## Send out a press release

A press release will give your issue much needed media exposure. To ensure the best pitch for journalists, remember to include the most newsworthy information in your opening statement – answering the five basic questions in newswriting: **who, what, when, where** and **why**? Keep it brief and try to include a quote from a relevant stakeholder for added value.

### Press Release **Do your heart a favour, keep your gums healthy**

**[Name of your National Dental Association] launches a national campaign to raise awareness of the importance of healthy gums and calls on government to include oral hygiene in official healthy lifestyle recommendations.**

[Place, date] – Gum disease, when untreated, can have serious consequences and significantly affect quality of life. Furthermore, it has been associated with other chronic diseases such as heart disease, diabetes, and various cancers. Gum disease (also known as periodontal disease) is not a cosmetic problem but a serious health issue, yet awareness of the disease remains low.

“In our country, gingivitis, the mildest form of gum disease, affects [% according to available country data] of our population. Severe gum disease, its more serious form, affects [% according to available country data] of adults. It is debilitating and strongly affects quality of life: it causes pain, tooth mobility and tooth loss, anxiety and shame, and leads to a significant number of missed work days”, says [name of your National Dental Association’s president], president of [name of your National Dental Association].

#### **Gum disease is too often neglected**

Even though gum disease can have serious consequences, many people do not know about it. “A study conducted by FDI World Dental Federation has shown that [% according to available country data] of people affected are not aware that they have gum disease”, [name of your National Dental Association’s president] explains. Also, [% according to available country data] of dentists do not include periodontal screening in their routine check-ups.

Even health professionals tend to underestimate the potential effects of gum disease. For example, it is known that heart health and oral health are connected: studies have shown that people who have moderate or severe gum disease are more likely to suffer a heart attack. Oral health can also provide warning signs for other conditions, such as heart disease or diabetes. Nevertheless, only few health professionals connect oral and systemic health. “This is why we, [name of your National Dental Association] call on all health professionals to go the extra mile and regularly look into their patients’ mouth to detect potential signs of inflammation and, if necessary, refer them to a dentist”, pledges [name of your National Dental Association’s president].

In addition, many of the risk factors for gum disease are the same as those for other noncommunicable diseases such as heart disease, diabetes and cancer, including poor nutrition, tobacco use and alcohol consumption. “This is why our National Dental Association calls on our government to include oral hygiene in official healthy lifestyle recommendations as one core element of a healthy lifestyle, alongside nutrition, physical activity, and avoiding alcohol, tobacco and stress” explains [name of your National Dental Association’s president].

#### **Gum disease is not an inevitability**

“This would be particularly useful, [name of your National Dental Association’s president] says, because gum disease can be largely prevented and managed through something as simple and cost-effective as good oral self-care and hygiene. The [name of your National Dental Association] therefore encourages everyone, from children, to adults, and to the elderly, to brush twice a day, floss daily, and to undergo at least annual oral and periodontal check-ups to prevent gum disease. “Integrating these recommendations into a wider set of lifestyle recommendations would reinforce our message and help clarify that oral health and general health belong together. By keeping their gums healthy, people contribute to keeping their heart, lungs and body healthy”, he concludes.

#### **For further information, contact:**

[Your name] [Name of your National Dental Association] [Your phone number] [Your email address]

#### **About [name of your National Dental Association]**

[Brief summary about your association’s mission]

## Secure an op-ed for a newspaper

Writing an opinion piece for a local newspaper, rather than a press release, is another way to address the reader in a more conversational way. The author should be an authoritative voice on the subject. The text should stay on topic and should include a strong headline and introduction to instantly captivate the audience.

# Gum disease, a neglected life-and-death matter

By **[Name of your National Dental Association]**

Recently, a mother of three in her forties came to the dental practice of one of our members. Earlier that day, she had called, panicked, because one of her front teeth had fallen out of her mouth during the night. The story she told was, sadly, all too common.

After having worked as a waitress for a few years, Anna\* took a career break when she became a mother. Even before her first pregnancy, she noticed that her gums were often sore, and that she had bleeding when brushing her teeth. Then came three children in four years, and her condition worsened. She had also been a smoker since her late teens. She said she could remember that, at the time, her doctor had warned her about smoking and the negative effects it could have on her general health, her pregnancy, and the baby's health. Not once had her gums been mentioned, however. Over the years, she had attempted to quit smoking a few times, but failed. Gaps had appeared between her teeth. Her gums were continuously swollen and sore. She had, at one time, planned to go back to work. Because she was so ashamed about her teeth, and felt like she couldn't smile, she ultimately decided against it. And then she lost a tooth. Our colleague diagnosed her with severe gum disease, and she will now have to undergo complex treatment to recover.

So let's set this straight: no, gum disease – also known as periodontal disease – is not just a cosmetic issue. It is a widespread medical condition which can have the most serious consequences and significantly affect quality of life if it is not treated properly. In **[name of your country]**, gingivitis, the mildest form of gum disease, affects **[% according to available country data]** of our population. Severe gum disease, its more serious form, affects **[% according to available country data]** of adults. It strongly affects quality of life: it causes pain, tooth mobility and tooth loss, anxiety and shame, and leads to a significant number of missed work days.

Sadly, it remains a neglected disease. In our country, **[% according to available country data]** of people affected are not aware that they have gum disease. And **[% according to available country data]** of dentists do not include periodontal screening in their routine check-ups.

The issue of gum disease goes beyond dentistry. Heart health and oral health are connected; so are diabetes and gum disease. People with moderate or severe gum disease are more likely to suffer a heart attack. People with diabetes are at greater risk of gum disease which, if left untreated, can affect metabolic control. Yet even health professionals tend

to ignore, or underestimate, the potential effects of gum disease. Few health professionals connect oral and systemic health. Most doctors consider a patient's mouth to be foreign territory and do not include the oral cavity in their routine examinations.

So, what can be done?

The good news is that gum disease is largely preventable and manageable if adequate action is taken. Simple and cost-effective measures like good oral self-care and hygiene can already make a huge difference. There would be far fewer stories like Anna's if children, adults and the elderly would follow recommendations to brush twice a day, floss daily, and undergo at least annual oral and periodontal check-ups to prevent gum disease.

In addition, many of the risk factors for gum disease are the same as those for other noncommunicable diseases such as heart disease, diabetes and cancer, including poor nutrition, tobacco use and alcohol consumption. This is why the **[name of your National Dental Association]** demands that these simple recommendations be integrated into a wider set of lifestyle recommendations. This is also why we urge each and every person to realize that by keeping their gums healthy, they contribute to keeping their heart, lungs and body healthy too.

# This is happening elsewhere

## Defining a national strategy: The 8020 Campaign in Japan

### What was done?

In 1982, Japan enacted the Health and Medical Service Law for the elderly. Until 1982, medical services for the elderly were provided free of charge in Japan. One purpose of the law was to introduce partial cost-sharing, but dental health services were not included in the legislation. As a result, the 8020 Campaign was launched in 1989 to include dental health within health services. The '8020' goal was based on research which

reported that it was possible to eat almost any kind of food with 20 teeth at the age of 80. Since 1992, activities within the 8020 movement have been supported by the central government. Key dates and outcomes are summarized in the table below. They show that sustained and coherent advocacy efforts overtime have led to positive outcomes in terms of oral and periodontal health.

Year	Action
1989	A Study Group on the Dental Health Policy for Adults by the Ministry of Health and Welfare published its interim report in which the 8020 (Eighty-Two) Campaign, calling for the retention of 20 or more teeth even at the age of 80, was proposed.
1991-2000	Various awareness campaigns and activities were conducted to promote the concept of the 8020 Campaign
2000	The 8020 Promotion Foundation was established with contributions from the Japan Dental Association, the Japan Dental Commerce, the Industry Association, Sunstar Inc., Matsushita Electric Works Ltd., Lotte Co., Ltd, and others.
2001	Healthy Japan 21 (first term) was launched, with the aim of improving the lifestyle and social environment of all citizens. The 8020 Campaign was included in the objectives of this national health promotion campaign.
2006	The results of the National Survey of Dental Diseases (2005) showed that the percentage of persons achieving 8020 was over 20% for the first time since the survey started.
2013	The results of the National Survey of Dental Diseases (2011) showed that the percentage of persons achieving 8020 was over 40% for the first time since the survey started.
2014	Budgetary support for insurance for oral check-ups for 75 years old started.
2015	The Guidelines for the Examination of Periodontal Disease was revised.
2016	The cycle of the National Oral Disease Survey was changed from every six years to five years.
2017	The results of the National Survey of Dental Diseases (2016) showed that the percentage of persons achieving 8020 was over 50% for the first time since the survey started.

Adapted from <http://8020zaidan.or.jp/english/index.html>

### Goals set for the first phase of Healthy Japan 21

Goals	Subject	Baseline	Interim Result	Goal	Final Assessment
Decrease in advanced periodontitis (incidence)	Age 40	32.0%	18.3%	22% or lower	A
	Age 50	46.9%	27.6%	33% or lower	A
Increase in people who have their own teeth	20+ at age 80	11.5%	26.8%	20% or higher	A
	24+ at age 60	44.1%	56.2%	50% or higher	A
Increase in people who receive regular dental scaling (in the past 12 months)	Age 60	15.9%	43.0%	30% or higher	A

Source: Final Evaluation of "Healthy Japan 21" by Office for Life-Style Related Diseases Control, MHLW, October 2011

## Numerical policy goals relevant to periodontal disease for the second phase of Healthy Japan 21 (target 2022)

Goals	Subject	Baseline	2022 Target
Decrease in people in their 20s with observations of inflammation in the gum	20's	31.7%	25%
Decrease in people in their 40s with advanced periodontitis	40's	37.3%	25%
Decrease in people in their 60s with advanced periodontitis	60's	57.7%	45%
Increase in 80-year-old people with 20+ natural teeth	Age 80	25.0%	50%
Increase in 60-year-old people with 24+ natural teeth	Age 60	60.2%	70%
Increase in the ratio of people with no missing teeth	Age 40	54.1%	75%

Source: *Healthy Japan 21 (Second Version)*, Regional Public Health Promotion Nutrition Subcommittee, Health Sciences Council, July 2012.

### Take-home message

This strategy has proved successful and has developed over the years. The simplicity of the message, the '8020' notion, was an important contributor to the success of this strategy. It was therefore taken up by health authorities as well

as by the population. This campaign also includes numerical targets which facilitate monitoring and evaluation activities. It therefore gives oral health advocates useful data they can use to further develop and promote the campaign. When developing a strategy that fits into your setting, try to focus on clarity and simplicity.

## Interprofessional collaboration

### What was done?

In February 2017, the European Federation of Periodontology (EFP) and the International Diabetes Federation (IDF) organized a joint workshop on links between periodontal disease and diabetes. A scientific consensus on the links between periodontitis and diabetes, as well as guidelines for dentists, physicians, and patients were produced. Over two days, 15 specialists selected by the two organizations – EFP and IDF – reviewed the scientific evidence on the relationship between the two diseases to develop guidelines which provide clear instructions to both dentists and physicians, as well as patients, on the appropriate management of both diabetes and periodontitis, which very frequently co-exist<sup>17</sup>.

Similarly, a few years ago, a meeting with leading experts in cardiology and periodontology was organized in the United States, and resulted in a consensus paper on the relationship between

cardiovascular disease and periodontal disease that was published in both the *American Journal of Cardiology* and the *Journal of Periodontology*<sup>18</sup>. This paper includes clinical recommendations for both medical and dental professionals to use in managing patients living with, or who are at risk for, either cardiovascular or periodontal disease. As a result of the paper, periodontists are encouraged to ask questions about heart health and family history of heart disease, and cardiologists may now look into a patient's mouth for visual signs of periodontal disease such as tooth loss, inflammation or receding gums. As a result, patients may receive medical guidance which they would not have expected from their periodontist or cardiologist.

### Take-home message

Such guidelines are very helpful because they give scientific credibility to the issue. However, the gap between theory and practice often remains



broad. You can therefore advocate a local/national implementation, or adaptation, of these international guidelines and recommendations. To do so, initiate discussions with your local associations for diabetes and/or cardiology as well as with family physicians. You can set up a joint workshop, form an interprofessional

working group, write a guest editorial in one of their journals, and produce and disseminate a factsheet. You can also use special days such as World Diabetes Day or World Heart Day to organize a joint activity, or send out a joint press release for example.

## Interprofessional education

### What was done?

New York University (NYU) College of Nursing, in partnership with the NYU College of Dentistry, has identified interprofessional oral health core competencies for nurse practitioner and nurse-midwife students, introducing an oral health knowledge base and clinical competencies early in the curriculum that are consistently built upon and reinforced in diagnosis and management courses and clinical rotations. The main innovation of this programme is the transformation of the HEENT (head, ears, eyes, nose, and throat) examination to HEENOT (to include the oral cavity), so that oral health and its relation to overall health is integrated in the history, physical examination, risk assessment, and management plan completed by primary care nurse practitioner and midwifery students. This programme can also address the needs of medical doctors, physician's assistants and pharmacy programmes<sup>19</sup>.

### What can I do?

If you wish to facilitate early interprofessional education, which can potentially foster early detection of periodontal disease and ease

referrals to dentists, you can start an advocacy campaign that addresses both higher education authorities and the deans of higher education institutions to drive curriculum changes.

#### Interprofessional Oral Health Core Competencies as Identified by New York University College of Nursing

Demonstrate inclusion of oral health in HEENT components of the comprehensive history and physical examination (HEENOT).

Develop a risk profile that includes oral and oral-systemic health problems.

Develop a patient-centered management plan that includes oral health interventions related to overall health.

- Smoking cessation

- Tooth brushing and flossing

- Fluoride varnish application

- Oral cancer screening

- Engaging patients in behavioural change by using motivational interviewing

- Parental anticipatory guidance

- Lifestyle counseling

- Eating disorders
- Diabetes
- Hypertension
- Sexually transmitted diseases
- Dentures

- Symptom management

- XXXX
- XXX
- Oral lesions

- Collaboration and referral

**NOTES** HEENOT = head, ears, eyes, nose, oral, throat examination; HEENT = head, ears, eyes, nose, and throat examination. The oral examination includes examination of the teeth, gums, mucos, tongue and palate.

HABER J, HARTNETT E, ALLEN K, ET AL. PUTTING THE MOUTH BACK IN THE HEAD: HEENT TO HEENOT. AM J PUBLIC HEALTH. 2015;105:437-441

## Fostering access to care

### What was done?

#### A mobile dental practice stowed in crates

For elderly, institutionalized people, access to dental care is known to be difficult. In the canton of Zurich, Switzerland, a paradigm shift has taken place: it is now the dentist that goes to the patient, and not the patient who goes to the dentist.

In a pilot project called MobiDent™, dentists travel to retirement homes with a mobile dental practice. This mobile clinic is composed of a delivery vehicle and a trailer that carry a dental practice stored in crates. It can hence go from one nursing home to the next. The project was developed with the support of the local dental society (Zurich Dental Society), and private donors. This mobile clinic transports three fully equipped dental units to patients and allows for a comprehensive range

of services, ranging from fillings to extractions or descaling. Nutrition and oral hygiene recommendations are provided to both patients and carers at each examination. The mobile clinic stays for two to three days in each location before moving on to the next home<sup>20</sup>.

### What can I do?

If your priority is the oral – or periodontal health – of your ageing population, you need to advocate for strategies that foster access to care. You need to be innovative and creative and think of programmes and projects that fit into your setting. In your advocacy message, you need to consider both financial and logistical issues to access care, and to identify solutions which integrate carers and family members.

## Useful reading

### FDI publications

Herrera D. *et al.* White Paper on Prevention and Management of Periodontal Diseases for Oral Health and General Health. Geneva, FDI World Dental Federation, 2018 (<https://www.fdiworlddental.org/resources/white-papers/white-paper-on-prevention-and-management-of-periodontal-diseases-for-oral/>, accessed on 7 February 2018).

Global Periodontal Health: Challenges, priorities and perspectives. World Oral Health Forum 2017 Proceedings. Geneva, FDI World Dental Federation, 2017 (<http://www.fdiworlddental.org/resources/proceedings/world-oral-health-forum-2017-proceedings>, accessed on 1 December 2017).

FDI Global Periodontal Health Project: Results of a global survey with FDI National Dental Associations. Geneva, FDI World Dental Federation, 2017 (<http://www.fdiworlddental.org/resources/surveys/fdi-global-periodontal-health-project>, accessed on 4 December 2017).

The Challenge of Oral Disease – A call for global action. The Oral Health Atlas. 2nd ed. Geneva, FDI World Dental Federation, 2015 ([http://www.fdiworlddental.org/publications/oral-health-atlas/oral-health-atlas-\(2015\).aspx](http://www.fdiworlddental.org/publications/oral-health-atlas/oral-health-atlas-(2015).aspx), accessed on 4 December 2017).

### Further reading

An Advocacy Toolkit for Programme Managers. New York, United States, Family Care International, 2008 ([http://www.familycareintl.org/UserFiles/File/Anglo\\_Toolkit\\_June2008.pdf](http://www.familycareintl.org/UserFiles/File/Anglo_Toolkit_June2008.pdf)).

What researchers mean by... primary, secondary and tertiary prevention. Institute for Work and Health, 2015 (<https://www.iwh.on.ca/wrmb/primary-secondary-and-tertiary-prevention>, accessed on 4 December 2017).

Jin, LJ, Interprofessional education and multidisciplinary teamwork for prevention and effective management of periodontal disease. *J Int Acad Periodontol* 2015; 17(1 Suppl): 74-79.

Kumarswamy, A. *et al.* Consensus Paper - Interprofessional education and multidisciplinary teamwork for prevention and effective management of periodontal disease. *J Int Acad Periodontol* 2015; 17 (1 Suppl): 84-86.

Shii T. The meaning and problem of the 8020 movement in Japan. *Nihon Hotetsu Shika Gakkai Zasshi* 2005; 49(2): 168-178. [Abstract only. Article in Japanese]

Advocacy toolkit: A guide to influencing decisions that improve children's lives. New York, United Nations Children's Fund (UNICEF), 2010 ([https://www.unicef.org/evaluation/files/Advocacy\\_Toolkit.pdf](https://www.unicef.org/evaluation/files/Advocacy_Toolkit.pdf)).

# References

1. Herrera D. *et al.* White Paper on Prevention and Management of Periodontal Diseases for Oral Health and General Health. Geneva, FDI World Dental Federation, 2018 (<https://www.fdiworlddental.org/resources/white-papers/white-paper-on-prevention-and-management-of-periodontal-diseases-for-oral/>, accessed on 7 February 2018).
2. Global Periodontal Health: Challenges, priorities and perspectives. World Oral Health Forum 2017 Proceedings. Geneva, FDI World Dental Federation, 2017 (<http://www.fdiworlddental.org/resources/proceedings/world-oral-health-forum-2017-proceedings>, accessed 1 December 2017).
3. Luo H, Wu B. Self-awareness of 'Gum Disease' Among US Adults. *J Public Health Manag Pract JPHMP* 2017; 23: e1–e7.
4. Nazir MA. Prevalence of periodontal disease, its association with systemic diseases and prevention. *Int J Health Sci* 2017; 11: 72–80.
5. *Oral Health Atlas (2015)*. Geneva, FDI World Dental Federation, 2015 (<http://www.fdiworlddental.org/resources/oral-health-atlas/oral-health-atlas-2015>, accessed 9 January 2018).
6. Lalla E, Papapanou PN. Diabetes mellitus and periodontitis: a tale of two common interrelated diseases. *Nat Rev Endocrinol* 2011; 7: 738–748.
7. Kassebaum NJ *et al.* Global burden of severe periodontitis in 1990–2010: a systematic review and meta-regression. *J Dent Res* 2014; 93: 1045–1053.
8. Borrell LN *et al.* Diabetes in the dental office: using NHANES III to estimate the probability of undiagnosed disease. *J Periodontol Res* 2007; 42: 559–565.
9. De Geest S *et al.* Periodontal diseases as a source of halitosis: a review of the evidence and treatment approaches for dentists and dental hygienists. *Periodontol* 2000 2016; 71: 213–227.
10. Buset SL *et al.* Are periodontal diseases really silent? A systematic review of their effect on quality of life. *J Clin Periodontol* 2016; 43: 333–344.
11. Sanz M *et al.* Effect of professional mechanical plaque removal on secondary prevention of periodontitis and the complications of gingival and periodontal preventive measures: consensus report of group 4 of the 11th European Workshop on Periodontology on effective prevention of periodontal and peri-implant diseases. *J Clin Periodontol* 2015; 42 Suppl 16: S214–220.
12. Graziani F *et al.* Nonsurgical and surgical treatment of periodontitis: how many options for one disease? *Periodontol* 2000 2017; 75: 152–188.
13. Laleman I *et al.* Subgingival debridement: end point, methods and how often? *Periodontol* 2000 2017; 75: 189–204.
14. Heitz-Mayfield LJA *et al.* A systematic review of the effect of surgical debridement vs non-surgical debridement for the treatment of chronic periodontitis. *J Clin Periodontol* 2002; 29: 92–102; discussion 160–162.
15. Deas DE *et al.* Scaling and root planning vs. conservative surgery in the treatment of chronic periodontitis. *Periodontol* 2000 2016; 71: 128–139.
16. *Practical guide on sugars and dental caries now available for FDI member associations*. Geneva, FDI World Dental Federation, 2016 (<http://www.fdiworlddental.org/news/20161222/practical-guide-on-sugars-and-dental-caries-now-available-for-fdi-member-associations>, accessed 9 January 2018).
17. Joint EFP-IDF workshop on links between periodontal diseases and diabetes produces consensus and guidelines - European Federation of Periodontology, 2017 (<https://www.efp.org/newsupdate/joint-efp-idf-workshop-on-links-between/>, accessed 9 January 2018).
18. Friedewald VE *et al.* The American Journal of Cardiology and Journal of Periodontology editors' consensus: periodontitis and atherosclerotic cardiovascular disease. *J Periodontol* 2009; 80: 1021–1032.
19. Haber J *et al.* Putting the Mouth Back in the Head: HEENT to HEENOT. *Am J Public Health* 2015; 105: 437–441.
20. Müller C., *MobiDent™ – la clinique dentaire itinérante qui sillonne le canton de Zurich, Dentarena* 2014;3 ([https://www.sso.ch/fileadmin/upload\\_sso/2\\_Zahnaerzte/3\\_Dentarena/Dentarena\\_3.14\\_f.pdf](https://www.sso.ch/fileadmin/upload_sso/2_Zahnaerzte/3_Dentarena/Dentarena_3.14_f.pdf), accessed 9 January 2018).