

FDI Global Periodontal Health Project

Results of a follow-up survey with FDI National Dental Associations

The Global Periodontal Health Project (GPHP), an initiative of FDI World Dental Federation (FDI), issued its first survey on periodontal health in 2017, which provided insights from FDI's National Dental Associations (NDAs). The survey results showed that only 50% of surveyed NDAs promoted periodontal health through annual national campaigns, only 42% of respondents reported the availability of full-time postgraduate programmes specialized in periodontics in their countries, periodontal screening was mandatory in only half of the countries surveyed, and that there were no common or globally accepted resources for periodontal diseases.

FDI rolled out Phase I of GPHP in 2017 to raise awareness about the impact of periodontal health and to identify solutions to reduce the burden of periodontal diseases. 2019 marks the last year of this first phase.

GPHP is led by a task team of four experts: Prof. Lijian Jin, Prof. Jörg Meyle, Prof. Stefan Renvert, and Prof. David Herrera.

Survey overview

The follow-up survey has been conducted two years after the beginning of the project and aims:

1. To measure the impact of the project on oral health policies
2. To measure the implementation of FDI recommendations
3. To collect feedback on the use of GPHP resources

The findings from the 2019 follow-up survey will help understand the evolution of the state of periodontal health awareness as reported by NDAs between 2017 (launch of GPHP) and 2019.

Conducted by FDI between February and May 2019, the survey was made available online to all FDI members. Member NDAs were requested to answer the same 19 questions developed in 2017 on periodontal health relating to:

- national health policies;
- health information systems;
- education and workforces; and
- prevention and promotion efforts by NDAs.

One section was added to the end of the survey to assess the NDAs' awareness of the GPHP assets that were produced during the first phase of the project.

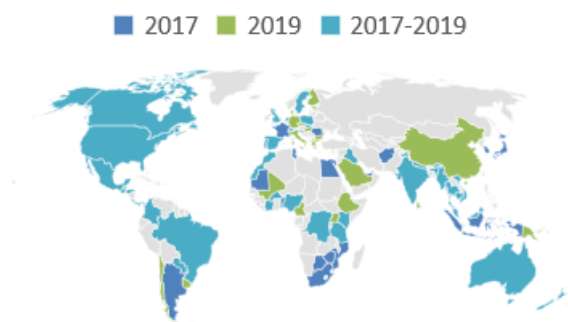


Response rate

This year, 69 NDAs from 67 different countries across all FDI regions* responded to the survey, compared to 61 NDAs from 59 countries in 2017. In addition, 39 countries participated in both surveys, i.e. more than half repeated participation.

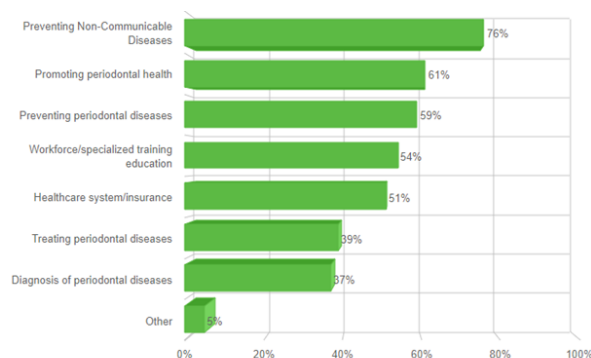
** Please note that for the purposes of this report, Asia-Pacific includes the Middle East.*

FIGURE 1 Geographic distribution of survey respondents in 2019 & 2017



Survey Results

The responses to each question are described below and presented using a combination of graphics* and tables. Additional comparisons to the 2017 results will be drawn when deemed relevant, but a short reference will always accompany the individual conclusion. Extra analysis was sometimes carried out with responses from repeated participation only to confirm or inform an observed change between 2017 and 2019.



Please note that the data presented in this report are gathered solely from FDI members. As such, the results are derived directly from their own knowledge and experiences.

**For a better presentation of the results, the answers "no" or "don't know" are excluded from the graphics.*



National health policies

Question 1

Are there national policies or guidelines addressing any of the following issues in your country? (Please select all that apply)

In 2019 all the NDAs responded to this question, in 2017 it was 59 (out of 61).

In 2019, 14% of respondents (n=10) reported that there were no national policies or guidelines in their country on the issues listed in Question 1 (or they said they did not know if there were). Since this proportion is 20% (n=12) in 2017, there seems to be a general improvement.

As observed in 2017, the respondents reported that the focus of the majority of national policies and guidelines (roughly two-thirds) is prevention of noncommunicable diseases (NCDs).

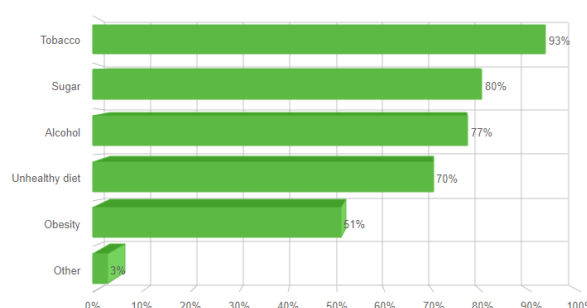
However, we observe a significant improvement from 2017 to 2019 in the following categories: In 2019, 61% of respondents said their countries had national policies and guidelines on the promotion of periodontal health, compared to 50% in 2017. 59% of respondents also said that their countries had national policies and guidelines on the prevention of periodontal diseases, compared to 50% in 2017. These results are unchanged when looking at the restricted groups of NDAs that participated in both the 2017 and 2019 surveys, confirming the improvement suggested above.

For the remaining listed areas, there seems to be no difference between 2017 and 2019, where workforce/specialized training education is addressed by national policies or guidelines in 46% of the respondents' countries, 41% for the healthcare system and insurance, and 33% for treatment and diagnosis of periodontal diseases.

Question 2

If prevention is included, does it specifically address the reduction of exposure to the following factors that can affect oral health conditions? (Please select all that apply)

In 2019, 63 NDAs responded to this question, in 2017 it was 48 (out of 61).



Globally, there was an improvement for all factors between 2017 and 2019.

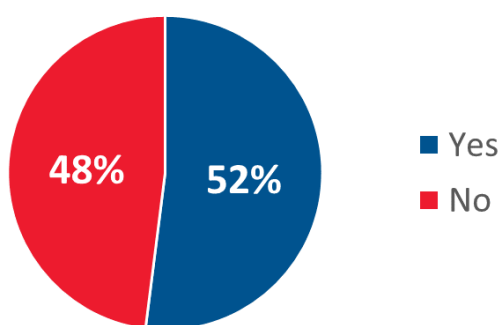
The results in 2019 again show that prevention strategies mainly focus on tobacco (93%) and sugar (80%). However, alcohol use is the third-most common focus of prevention strategies, whereas unhealthy diets held this position in 2017. Obesity remains the least common factor addressed (51%) by a prevention strategy. These results are also observed when considering the 39 respondents who answered both surveys.



Health information systems

Question 3

Is there a national monitoring and evaluation plan for periodontal diseases? *(Please select all that apply)*



In 2017 and 2019, all NDAs responded to this question.

In 2017, 59% of respondents reported not having any national monitoring and evaluation plan for periodontal diseases. In 2019, it appears the trend is inverted, and 52% of the NDAs indicate that their country has a national monitoring and evaluation plan for periodontal diseases. This improvement is, to a lesser extent, also seen among the countries having responded to both surveys, from 54% in 2017 to 56% in 2019, meaning that the

improvement observed among all respondents essentially comes from the different countries that answered only one survey.

52% of respondents who have a national monitoring and evaluation plan for periodontal diseases use at least one of the proposed periodontal indicators. The Basic Periodontal Examination (BPE) is now the most frequently used indicator (see Table 1).

Table 1 Periodontal indicators

	Percentage
Basic Periodontal Examination (BPE)	46%
Community Periodontal Index (CPI)	36%
Periodontal Screening and Recording (PSR, PSI)	29%
Primary Essential Periodontal Examination (PEPE)	29%

If we compare the results of 2019 with those of 2017, a strong decrease in use of CPI appears: it was used in 71% of the countries in 2017 and is used by only 46% in 2019 (-25%). Conversely, usage of the BPE (+8%), the PSR/PSI (+8%) and the PEPE (+4%) has increased.

Here, the analysis for the 39 NDAs who answered both surveys confirms the decreasing trend for the CPI and the increasing trends for the others. In other words, the usage of CPI seems to decrease over time.



Periodontal health education and workforces

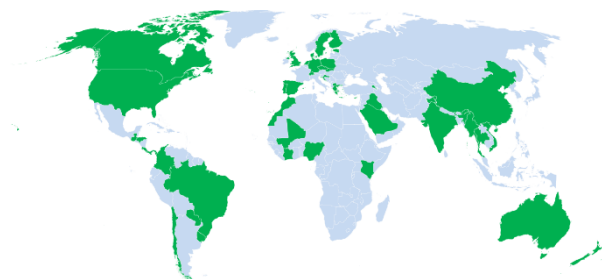
Question 4

Is there a dedicated periodontology association/organization in your country?

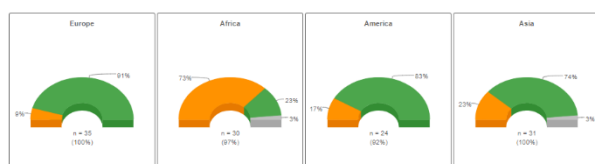
In 2019, all NDAs responded to this question, in 2017 it was 57 (out of 61).

In 2019, 68% of respondents indicated that there is a dedicated periodontology association or organization in their country. In 2017, this proportion was identical. The stability of this result between 2017 and 2019 is further confirmed if we analyze only the 39 respondents who answered both surveys.

Figure 1 Countries where there is a dedicated periodontology association/organization in 2019



In 2019, we again observe that the presence of a dedicated association in a country is not distributed evenly across continents*: While over 90% of European countries have one, it is the case for only 23% of African countries.

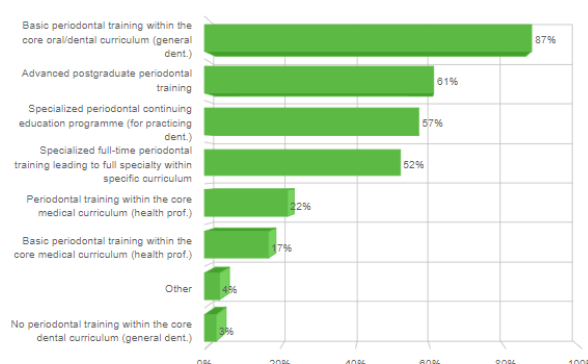


*It must be noted that, in order to have significant numbers for this analysis we had to combine the data from 2017 and 2019.

Question 5

What periodontal education/training is available in dental/medical schools? (Please select all that apply)

In 2019, all NDAs responded to this question, in 2017 it was 57 (out of 61).



Overall, more than half of 2019 respondents indicated that training in periodontology is available in the basic undergraduate curriculum, in advanced postgraduate studies, in specialized continuous training, for practicing dentists, and full-time students.

Both in 2017 and 2019, more than 8 respondents out of 10 reported that basic periodontal training was available within the core curriculum of general dentists. There is a progression (+6%) from 81% in 2017 to 87% in 2019.

In 2019, more than 6 respondents out of 10 indicated that there were advanced postgraduate studies in this field, and 57% of respondents stated that a specialized periodontal continuous training for practicing dentists existed in their country (+11% increase from 2017).

Less than a quarter of the 2019 respondents said that periodontal training was available for other health specialists. And only two respondents in 2019 (3%) and 3 in 2017 (5%) stated that there was no periodontal training within the core curriculum of general dentists in their country.



Question 6

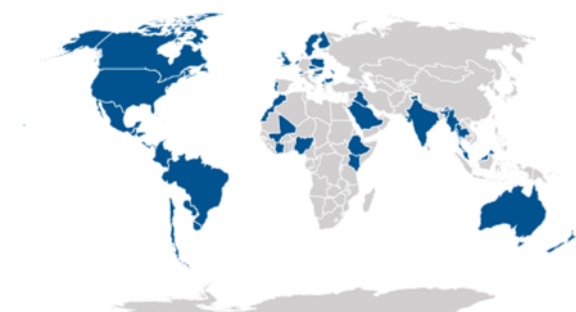
Is periodontology a registered specialty (i.e. official statutory registration of periodontist as a profession) in your country?

In 2019, all NDAs responded to this question, in 2017 it was 57 (out of 61).

68% of the 2019 respondents stated that periodontology is a registered specialty in their country.

In 2017, this proportion was 74%. This could mean that the situation has worsened. However, we can see that the situation has slightly improved if looking only at the 39 respondents of both surveys: from 76% in 2017 (28/37), it increased to 79% in 2019 (30/39).

Figure 3 Countries where periodontology is a registered specialty in 2019



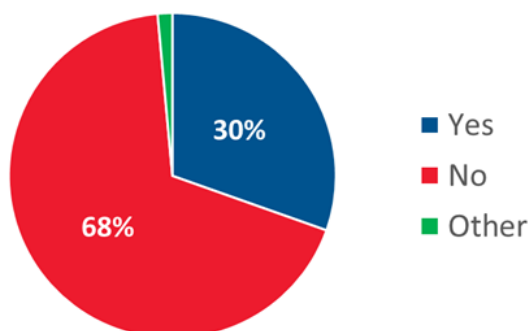
In other words, the decrease (-7%) of the proportion who stated that periodontology is a registered specialty in their country is only attributable to the countries that are new in 2019 or to those that answered in 2017 but not in 2019.

Question 7

Are there any other oral health professionals (i.e. non-registered as periodontal specialists) providing periodontal care (prevention, treatment and diagnosis) in your country?

In 2019, 68 NDAs responded to this question, in 2017 it was 57 (out of 61).

Among the respondents, other health professionals provide periodontal care in two-thirds of the



countries. In 2017, it was the case in 3 out of 4 surveyed countries.

Respondents who answered “Yes” were asked to specify which health professionals provide periodontal care in their country. Their responses include general dentists, dental hygienists (with or without referral), dental surgeons, and other specialists.



Question 8

If there is a periodontal continuing education programme, which association/organization is in charge? (Please select all that apply)

In 2019, 68 NDAs responded to this question, in 2017 it was 57 (out of 61).

In 2019, 42% of the respondents indicate that their NDA is responsible for periodontal continuous training. Specialized periodontal associations or organizations come in second position with 33% of respondents mentioning them.

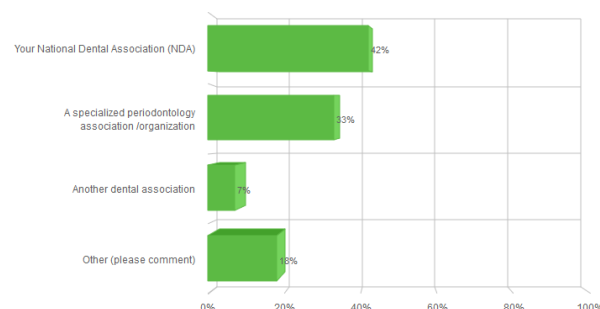
For 7% of respondents, it's another dental association who is in charge of continuous training. Finally, 11 respondents (18%) point to another organization, universities/faculty/colleges and/or public dental services.

In 2017, the situation was different: almost two-thirds of respondents said that their NDA was responsible for periodontology continuous training while the other organizations are mentioned much less often. But looking at the results for the 39 respondents to both surveys, periodontology continuous education is more and more the responsibility of specialized periodontal associations or organizations.

Question 9

Is periodontal screening systematically included in routine dental check-ups?

In 2019, 68 NDAs out of 69 responded to this question, in 2017 it was 57 (out of 61).



More than three-quarters of the 2019 respondents say that periodontal screening is systematically included in routine dental check-ups in their country, whereas in 2017, this proportion was only at 61%; this increase (+15%) hints at a potential clear improvement of the situation over the two-year period.

Yes	No	Other*
76%	19%	4%

**"Other" refers to the following comments: only to address chief complaint, if referred to a periodontal specialist, depending on the dentist.*

This increase is even stronger (+21%) if we consider only the respondents who answered both surveys. This result confirms that since 2017, periodontology screening is more systematically included in routine dental check-ups.



Question 10

Is periodontal screening mandatory in routine dental check-ups?

In 2019, all NDAs responded to this question, in 2017 it was 57 (out of 61).

Yes	No
46%	54%

Periodontal screening is mandatory for routine dental check-ups in 46% of the respondents' countries. And we saw above (Q9) that periodontal

screening is systematically included in 76% of these countries.

In 2017, mandatory screenings were included in 51% of the respondents' countries. However, there is a relative stability of the results for the 39 respondents who answered both surveys. This means that the small decrease (-5%) from 2017 to 2019 was more related to the different countries that have answered the 2019 survey compared to the 2017 survey.

Questions 9 and 10 show once more, as in 2017, that dentists tend to conduct regular periodontal screenings in routine dental check-ups, even when it is not mandatory in their country

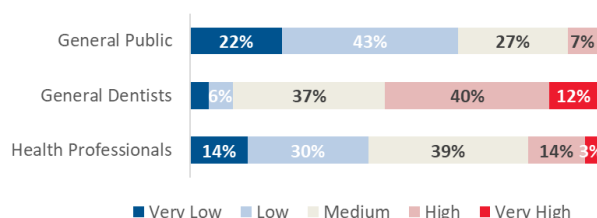


Prevention and promotion efforts by NDAs

Questions 11, 12 & 13

What is your view on periodontal health awareness among the general public, general dentists, and health professionals in your country?

In 2019, all NDAs responded to these questions, in 2017 it was 56 (out of 61).



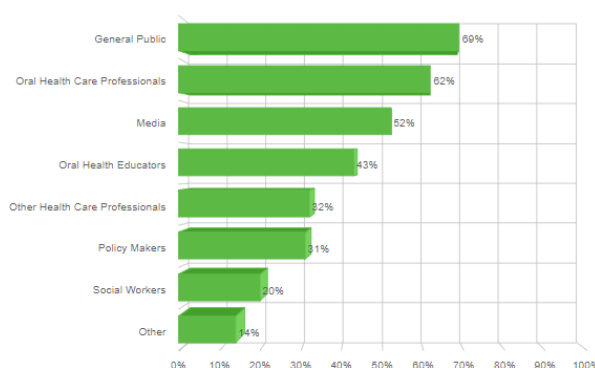
In 2019, the perception of the respondents remains that health professionals and the general public have a low awareness of the importance of periodontal health. Periodontal health awareness is rated as low or very low by 67% of the 2019 respondents for the general public and only by 10% of respondents for general dentists. For health professionals this evaluation is made by 44% of respondents.

If we compare the 2019 and 2017 results, there seems to be an improvement in the dentists' awareness: while in 2017 36% of respondents judged it high and 5% very high, these figures go up to 40% and 12% in 2019. This increase in awareness is even stronger when we consider only the 39 respondents that answered both surveys: in particular, the proportion of those who assess it as very high increases from 5% in 2017 to 18% two years later. The situation has also improved since 2017 for health professionals. This is confirmed for the 39 respondents in both surveys.

Question 14

Does your NDA conduct campaigns for prevention of periodontal diseases or promotion of periodontal health through targeting the following audiences? (Please select all that apply)

In 2019, all NDAs responded to this question, in 2017 it was 56 (out of 61).



Responding to the low awareness surrounding periodontal health among the general public, more than two thirds (69%) of the 2019-surveyed NDAs continue to conduct campaigns for the general public. 62% of NDAs target oral health professionals through their campaigns. The media, which are important for raising awareness in the general public, are targeted by 52%, oral health educators by 43% while the other audiences are targeted by less than one third of NDAs.

If we compare the results of 2017 with those of 2019, we observe the following:

- Campaigns targeting the general public and oral health care professionals have remained relatively stable over the two years.
- The strongest (+12%) increase is for oral health educators, which were targeted by 31% in 2017 and by 43% in 2019.
- The second strongest targeting increase (+8%) has been made for the media, which were targeted by 44% of NDAs in 2017 and by 52% in 2019.



- The only real decrease of targeting (-6%) concerns other health care professionals, whose targeting regressed from 37% to 31%.
- For the remaining audiences, results remained relatively stable.

The general improvement is confirmed for the 39 respondents in both surveys where campaigns for oral health care professionals remained stable, but increased strongly for social workers (+13%), oral health educators (+12%), the general public (+8%), the media (+8%) and other health care professionals (+7%).

Question 15

Does your NDA conduct promotional campaigns for periodontal health?

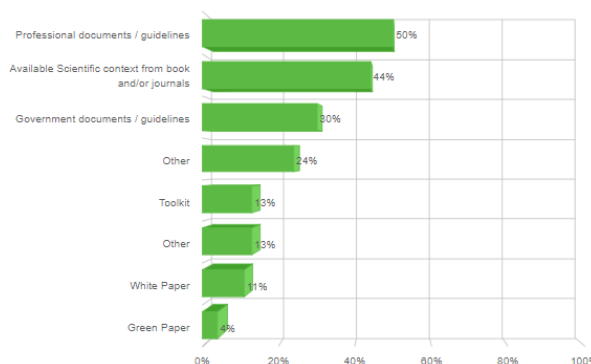
In 2019, 66 NDAs responded to this question, in 2017 it was 56 (out of 61).

Almost one third (32%) of the 2019-surveyed NDAs indicated they did not conduct promotional campaigns for periodontal health; this was the case for only one quarter of them in 2017. Among those who do, the majority conduct yearly campaigns, while an increasing number of NDAs organize campaigns more frequently.

This evolution is confirmed when we analyze the data from NDAs that answered both surveys. Three NDAs seem to have stopped conducting campaigns between 2017 and 2019 (27% answered "No" in 2017, 34% in 2019). Among those who conducted campaigns in both years, there is an increase in their frequency (twice a year from 8% to 11% and quarterly from 0% to 11%).

Question 16

What is the main reference/resource you use for periodontal health information? (Please provide references) *In 2019, all NDAs responded to this question, in 2017 it was 47 (out of 61).*



In 2019 half of the surveyed NDAs used professional documents and guidelines to conduct periodontal health campaigns. 44% used available scientific literature and 30% used government documents and guidelines. All other resource types are used by less than one quarter of respondents.

When we compare these results over time, there appears to be a general increase in the usage of the listed resources from 2017 to 2019:

- More specifically, the strongest increase (+13%) concerns guidelines or documents from the government.
- An increase that is almost as strong (+12%) can be observed for available scientific context in books or journals.
- Professional documents or guidelines are also cited more often (+7%) in 2019 but the increase is half as important.
- There is also an increase (+7%) for white papers, mentioned by 4% of the respondents in 2017 and by 11% in 2019.
- Green papers are cited by so few people that its evolution is not significant.
- For toolkits, we observe a strong decrease (-10%) from 23% mentioning them in 2017 to 13% in 2019.

All the above trends are confirmed if we consider only the 39 NDAs who answered both surveys.



FDI GPHP Resources

This last section of the 2019 questionnaire was new and it did not exist in the 2017 questionnaire.

Questions 17&18&19

Before this survey, were you aware of the available FDI-GPHP resources? If yes, which ones? How useful are they?

In 2019, all NDAs responded to these questions.

Before the survey, only 29% of respondents were aware of the available FDI GPHP resources.

Of the 20 respondents (29%) who answered that they were aware of the FDI GPHP resources, 16 gave the following comments:

Continent	Responses
Europe	Periodontal diseases chairside guide
Europe	FDI resources
Europe	White paper
Europe	Some guidelines for general dental practitioners, focused mainly to early diagnosis of dentists [sic]. it means some examples how in another [sic] countries were successful on these fields.
Europe	White paper, FDI global perio initiative, etc.
Europe	Those published on your homepage
Europe	Toolkits
Europe	FDI policy statement on global periodontal health
Europe	We have participated in FDI-GPHP through Prof. David Herrera, member of sepa (spanish aassociation [sic] of periodontology)
America	White Paper
America	Website
America	White Paper and Periodontal diseases chairside guide.
America	Periodontal diseases chairside guide Infographics: key learnings from the GPHP survey on periodontal health Journal articles oral health atlas Periodontal health and disease a

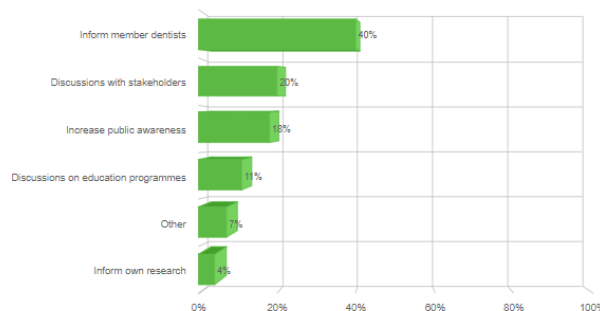
	practical guide to reduce the global burden of periodontal disease
Africa	Online campaign toolkit and resources
Africa	Global periodontal health project World oral health forum in perio [sic] White paper and advocacy toolkit on perio
Africa	White paper on prevention and management of periodontal diseases for oral health and general health

When asked about the usefulness of the FDI GPHP resources, 39% of respondents found them very useful, 51% useful and only 10% a little useful.

Question 20

How do you use the FDI-GPHP resources?

Finally, FDI GPHP resources are mainly used to inform member dentists (40%) and, to a lesser extent, discuss with stakeholders (20%) and increase public awareness (18%). Discussions on education programmes are cited by only 11% of respondents while the information on the NDA's own research is 4%.



Three respondents ticked "Other" and gave the following comments: "awareness may be low among UK practitioners given the availability of national guidance, the material is good but there is a lot of own-produced material at dental schools etc. and to understand FDI position [sic]."



Conclusion

The survey results provide an understanding of the evolution of FDI members' periodontal health awareness from 2017 to 2019.

The increase in the response rate shows that not only did more than half of the 2017 respondents continue to support and follow the GPHP project, but also that 30 additional NDAs became engaged in the project over the two years and chose to respond to the 2019 survey. This is a first step in one of the project's missions to raise awareness about periodontal health among FDI members.

Promotion of periodontal health (50% in 2017 and 61% in 2019) and prevention of periodontal diseases (50% and 59%) are now listed as the second- and third-most addressed areas by relevant national health policies and guidelines. Interestingly, the third focus of prevention strategies is alcohol use, behind tobacco and sugar, moving ahead of unhealthy diet as compared to 2017. An increased focus on prevention of periodontal disease could explain this shift, as alcohol consumption, along with sugar consumption and tobacco use, is one of the main periodontal modifiable risk factors.

On one hand, usage of the Community Plaque Index (CPI) seems to decrease over time (-25%), and the Basic Periodontal Examination is now reported as the most used periodontal indicator. On the other hand, periodontology screening is included more and more in routine dental check-ups, even if it is not mandatory in certain countries.

These observations suggest that there is a need to implement a global policy framework to support one basic and common monitoring measure and promote mandatory periodontal screening.

Periodontal training remains a basic component within the curriculum of undergraduate studies for dentistry. However, periodontology as continuing education is more and more the responsibility of specialized periodontal associations or organizations, and advanced postgraduate training is becoming increasingly available around the world. As a result, the number of registered periodontal specialists and the number of dedicated periodontology associations or organizations is expected to increase in the coming years.

Awareness of periodontal health remains low among the general public, but more than two thirds (69%) of the 2019-surveyed NDAs continue to conduct campaigns for the general public.

Finally, where the survey revealed in 2017 that there were no common or globally accepted resources for information on periodontal health, in 2019, 29% of respondents are aware of the FDI GPHP resources and cited at least one example. What's more, the majority of respondents also found them useful, mostly to inform their members on the topic. As such, there is an opportunity for FDI GPHP resources to be distributed widely to directly support FDI member NDAs, who may then share these resources with their own membership.



Annex - Respondent NDAs

Country	Association
Andorra	Collegi d'Odontolegs I Estomatolegs d'Andorra
Argentina*	Confederacion Odontologica De La Republica Argentina
Armenia	Armenian Dental Association
Australia	Australian Dental Association
Bahamas	Bahamas Dental Association
Belgium*	Chambres Syndicales Dentaires
Brazil	Brazilian Association of Dental Surgeons - ABCD
Bulgaria	Bulgarian Dental Association
Burkina Faso	Association des Chirurgiens-Dentistes du Burkina (ACDB)
Cambodia	Cambodian Dental Association
Cameroon	Association of Public Health Dentists
Canada	Canadian Dental Association
Chile	Colegio de Cirujano Dentistas de Chile
China	Chinese Stomatological Association
Colombia	Federacion Odontologica Colombiana
Congo - République Démocratique	Ordre Nationale des Chirurgiens-Dentistes de la République Démocratique du Congo
Costa Rica	Colegio de Cirujanos Dentistas de Costa Rica
Côte d'Ivoire	Association des Odonto-Stomatologistes de Cote d'Ivoire (A.O.S.C.I.)
Croatia	Croatian Dental Chamber
Cyprus	Cyprus Dental Association

Czech Republic	Czech Dental Chamber
Denmark	Danish Dental Association
Estonia	Estonian Dental Association
Ethiopia	Ethiopian Dental Professionals' Association
Finland	Finnish Dental Association
Germany	Bundeszahnärztekammer (BZAEK)
The Netherlands	KNMT (Dutch Dental Association)
Greece	Hellenic Dental Association
Greece	The Stomatological Society of Greece
Guam	Guam Dental Society
Guatemala	Colegio Estomatologico de Guatemala
Honduras	Colegio de Cirujanos Dentistas de Honduras
Hungary	Hungarian Dental Association
India	Indian Dental Association
Irak	Iraqi Dental Association
Italy	Associazione Italiana Odontoiatri
Kenya	Kenya Dental Association
Macedonia	Macedonian Dental Society
Malaysia	Malaysian Dental Association
Mali	Association des Odontostomatologistes du Mali (AOSMA)
Mexico	Asociacion Dental Mexicana Federacion Nacional de Colegios de Cirujanos Dentistas, A.C.
Moldavia	Moldavian Association of Stomatologists (MAS)



Morocco	Association Marocaine de Prevention Bucco-dentaire (AMPBD)
Myanmar	Myanmar Dental Association
Nepal	Nepal Dental Association
New Zealand	New Zealand Dental Association
Nigeria	Nigerian Dental Association
Panama	Asociacion Odontologica Panamena
Papua New Guinea	Papua New Guinea Dental Association (PNGDA)
Paraguay	Federacion Odontologica del Paraguay
Poland	Polish Dental Society
Portugal	OMD - Ordem dos Medicos Dentistas
Portugal	SPEMD - Sociedade Portuguesa de Estomatologia e Medicina Dentaria
Rwanda	Association Rwandaise des Chirugiens-Dentistes et Stomatologues
Saudi Arabia	The Saudi Dental Society
Singapore	Singapore Dental Association
Slovakia	Slovak Chamber of Dentists

Spain	Consejo General de Colegios Odontologos y Estomatologos de Espana
Sri Lanka	Sri Lanka Dental Association
State of Palestine	Palestine Dental Association
Sweden	Swedish Dental Association
Switzerland	Swiss Dental Association (SSO)
Tanzania	Tanzania Dental Association
Thailand	Dental Association of Thailand
Togo	Association des Chirugiens-Dentistes du Togo (ACDT)
Uganda	Uganda Dental Association
United Kingdom	British Dental Association
United States of America	American Dental Association
Uruguay	Asociacion Odontologica Uruguay
Vanuatu	Vanuatu Dental Association
Vietnam	Vietnam Odonto-Stomatology Association (VOSA)

**FDI acknowledges and thanks these countries for their participation to the survey, but their answers could not be integrated at the time of analysis.*