

Partially Dentate Patient: Survey of Factors Influencing Care Across Countries

Survey Report



Executive summary

The survey was conducted between the 26th of August and the 20th of October 2020 and National Dental Associations from 59 different countries responded. Its purpose is to understand how different factors affect the provision of personalized and longitudinal care for partially dentate patients in different settings, in line with the FDI White Paper [Collaborative Care Continuum: The 3Cs pathway for partially dentate patients](#). The findings are intended to support and inform National Dental Associations' work to improve partially dentate patients' care.

Key findings

Treatment options

- All treatment options for partially dentate patients are more likely to be reimbursed in higher income countries than in lower income countries. In 34% of all countries, no treatment options were reimbursed by the public health system or basic health insurance plans.
- The reimbursement and/or cost of treatment is considered the most important factor influencing treatment options, along with patient

Follow-up care

- In higher-income countries, maintenance appointments are offered to patients on a regular basis while, in lower-income countries, they are mainly offered upon request.

Collaborative care

- Traditional fixed and removable partial dentures are most frequently provided by general practitioners. Implants and orthodontic treatment is rarely provided in general practice.
- Most countries indicate that partial tooth loss can be adequately treated in general dental practice or that that patients requiring specialist care receive it. However, where barriers to referring patients to specialist care exist, a lack of specialists and low reimbursement rates for specialist treatment are the most commonly cited issues.

What is needed now?

These results show that barriers to optimal collaborative and longitudinal care for partially dentate patients still exist globally. To address these barriers actions from multiple stakeholders, including FDI, National Dental Associations, health authorities and industry, are needed to ensure that:

- **Different treatment options are, wherever possible, reimbursed** to allow for patients to be given the treatment based on their needs and preference, rather than cost or availability. In order for this to be achieved, health authorities and third-party payers, in strong and constant collaboration with the representatives of the oral health profession, should constantly evaluate fee-for service systems to incentivize treatments that are most likely to improve population health.
- **Dentists are adequately remunerated for carrying out all available treatment options.** Fee-for service systems should be tied to remuneration which would likely result in a more diverse treatment spectrum.
- **The availability and affordability of treatment appliances and materials are improved.** The purchase of such equipment by public oral health care institutions should be considered as an

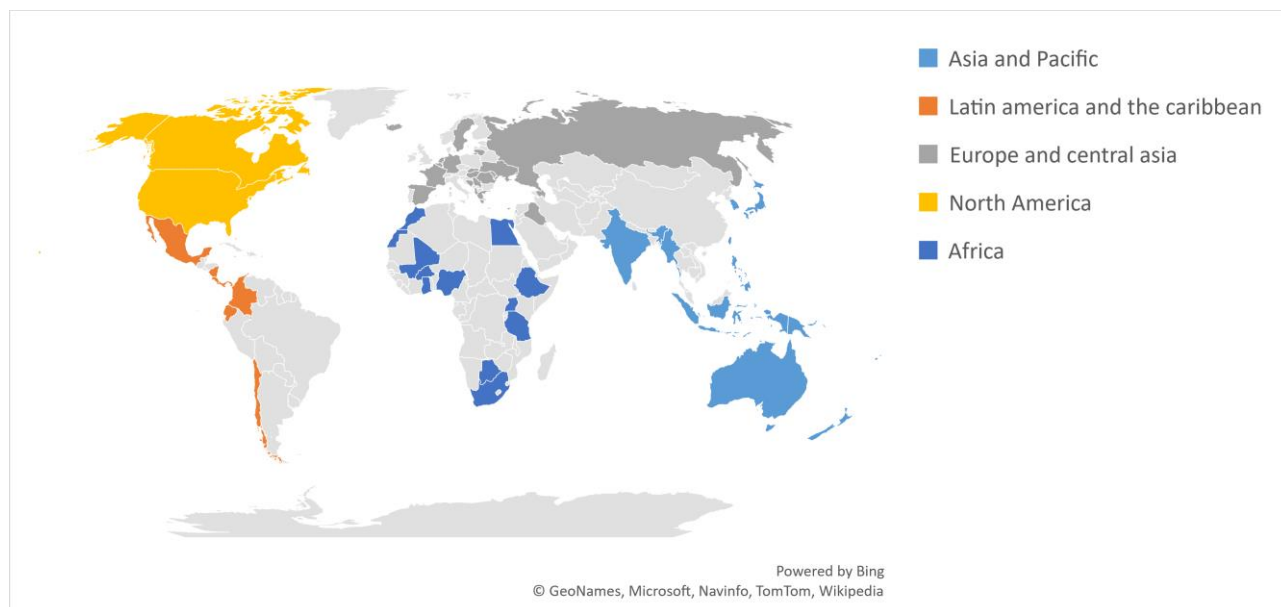


investment to reduce the provision on inappropriate treatment option thus reducing oral health care expenditures in the long term

- Where patients cannot access specialist care as required, appropriate investment in dental education and policies to **improve the availability of specialist care is be made**. Dental education should provide adequate training in all procedures for both general dentists and specialists.



Participation



Participating associations

1. Albania :Albanian Dental Association
2. Australia: Australian Dental Association
3. Azerbaijan: Azerbaijan Stomatological Association
4. Bahamas: Bahamas Dental Association
5. Belgium: Chambre Syndicale Dentaire
6. Bosnia and Herzegovina: The Association of Dentists in Republic of Srpska, The RS Chamber of Doctors in Dentistry
7. Botswana : Botswana Dental Association
8. Burkina Faso : Association des chirurgiens dentistes du Burkina (ACDB)
9. Canada : Canadian Dental Association
10. Chile: Colegio de Cirujano Dentistas de Chile
11. Colombia: Federacion Odontologica Colombiana
12. Costa Rica: Colegio de Cirujanos Dentistas de Costa Rica
13. Cyprus: Cyprus Dental Association
14. Ecuador: Consultorio Privado
15. Egypt: Egyptian Dental Association
16. Ethiopia: Ethiopian Dental Professionals Association
17. Fiji: Fiji Dental Association
18. France: Association Dentaire Française
19. Germany: German Dental Association (Bundeszahnärztekammer)
20. Ghana: Ghana Dental Association
21. Greece: Hellenic Dental Association
22. Guam: Guam Dental Society
23. Hong Kong S.A.R., China: Hong Kong Dental Association
24. Hungary: Dental Section of Hungarian Medical Chamber
25. Iceland: Icelandic Dental Association
26. India: Eastern Dental Clinic
27. Indonesia: Indonesia Dental Association
28. Iraq : Iraqi Dental Association
29. Japan : Japan Dental Association
30. Lebanon: Lebanese Dental Association
31. Lithuania: Lithuanian Dental Chamber
32. Mali: AOSMA
33. Mexico: Asociación Dental Mexicana Federación Nacional de Colegios de Cirujanos Dentistas, A.C.
34. Moldova: (Moldavian association of stomatologists)
35. Morocco : Association Marocaine de Prévention Bucco-Dentaire (AMPBD)
36. Myanmar: Myanmar Dental Association



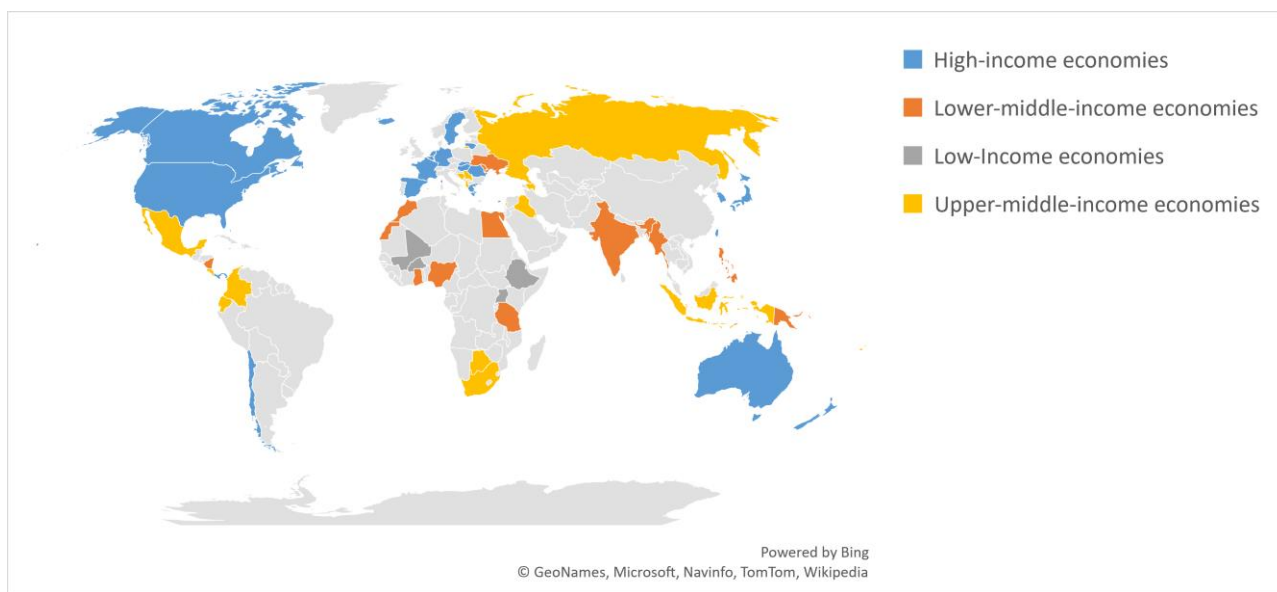
37. Netherlands: Royal Dutch Dental Association
38. New Zealand: New Zealand Dental Association
39. Nicaragua: Universidad Católica Redemptoris Mater
40. Nigeria: Nigerian Dental Association.
41. Norway: Norwegian dental association
42. Panama: Asociación Odontológica Panameña
43. Papua New Guinea: Papua New Guinea Dental Association
44. Philippines: Philippine Dental Association
45. Romania: Romanian Society of Stomatology
46. Russia: Russian Dental Association
47. Serbia: Serbian Dental Society
48. Seychelles: Dental Association of seychelles
49. Slovakia: Slovak Chamber of Dentists
50. South Africa: The South African Dental Association
51. South Korea: The Korean Academy of Geriatric Dentistry
52. Spain: Consejo General De Colegios De Odontólogos y Estomatólogos De España
53. Sweden: Swedish Dental Association
54. Taiwan: Association for Dental Sciences, Republic of China (Taiwan)
55. Tanzania: Tanzania Dental Association
56. Timor-Leste: Associacao Dentaria Timor Leste (ADETIL)
57. Uganda: Uganda Dental Association
58. Ukraine: Ukrainian Dental Association
59. United States: American Dental Association

Geographical representation

Region	Number of responses	% of region's total members
Asia and Pacific	14	40%
Africa	12	43%
Europe and Central Asia	23	46%
Latin america and the caribbean	8	57%
North America	2	50%



Responses by country income level *

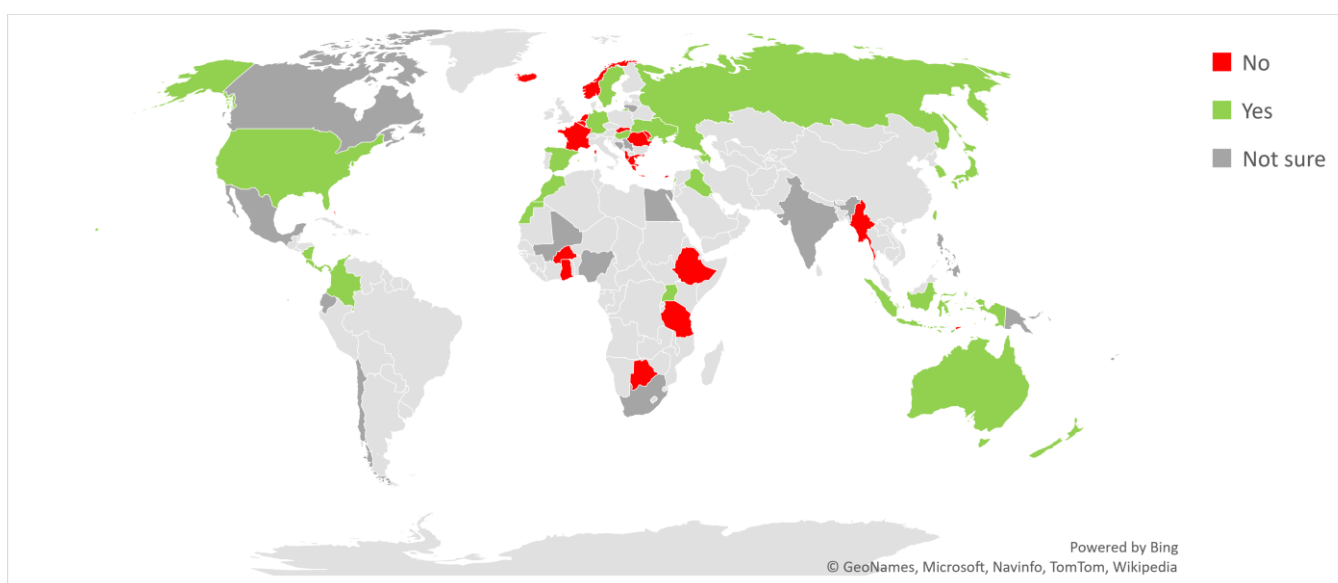
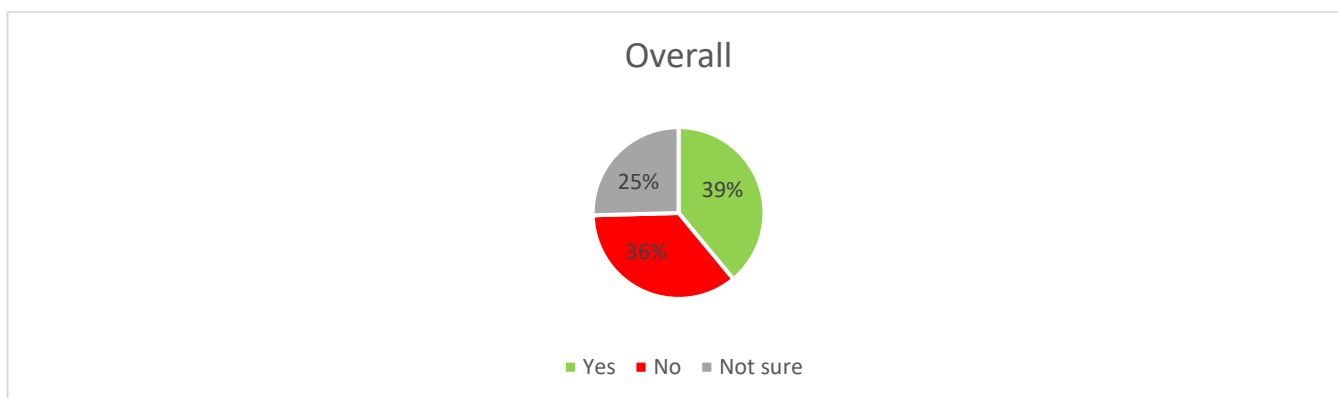


Income level*	Number of responses	% of total per category
High income	26	33%
Upper-middle income	16	27%
Lower-middle income	13	26%
Lower income	4	14%

*using World Bank criteria - <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

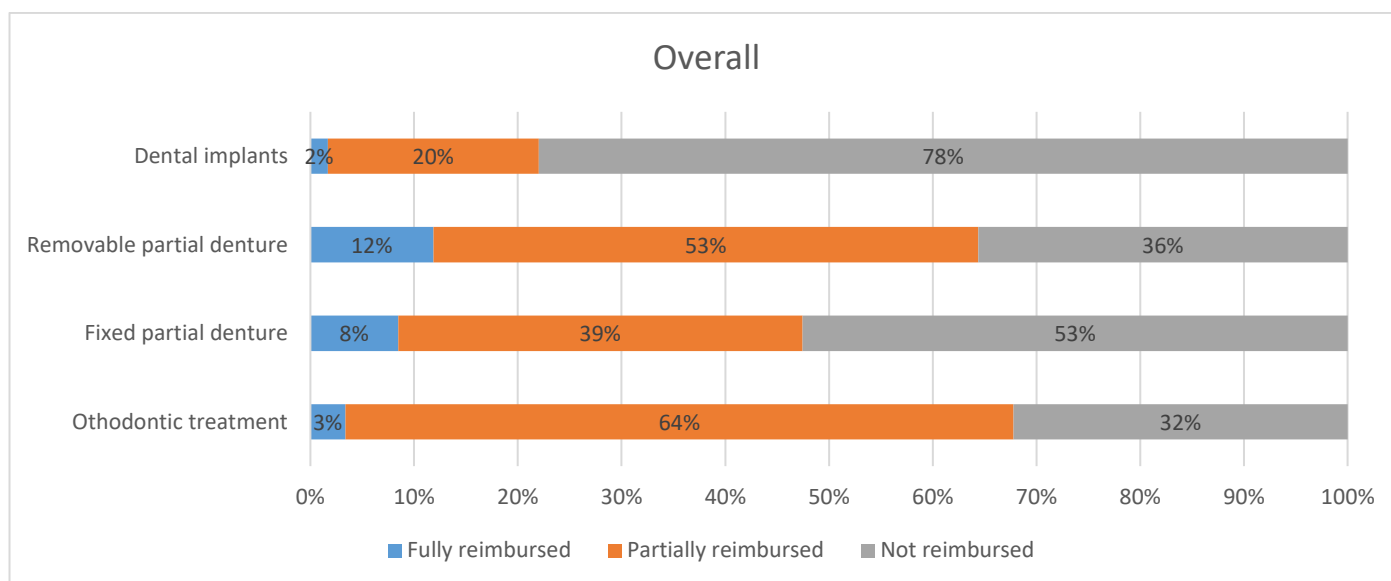


Is there any available data on the prevalence of partial tooth loss in your country?

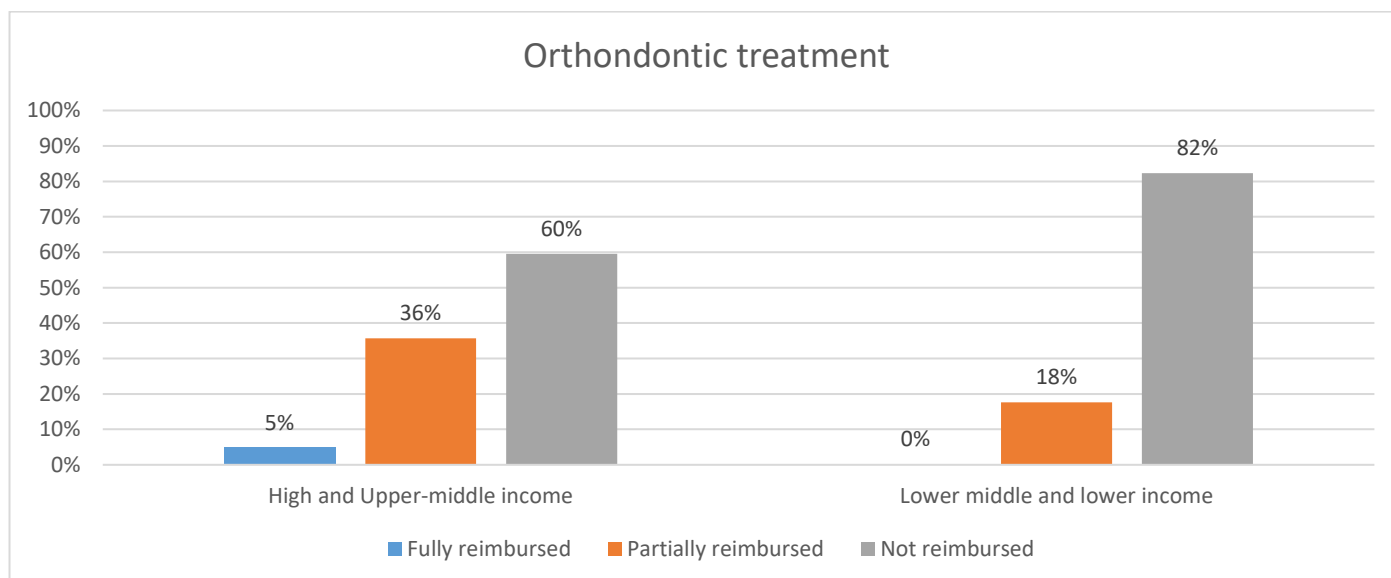


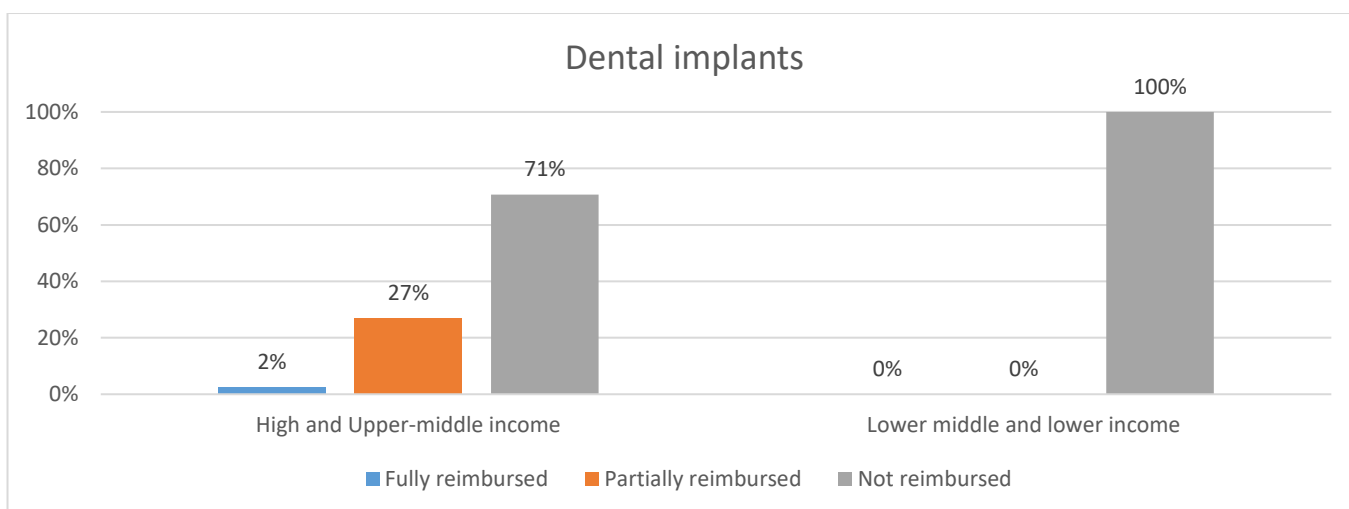
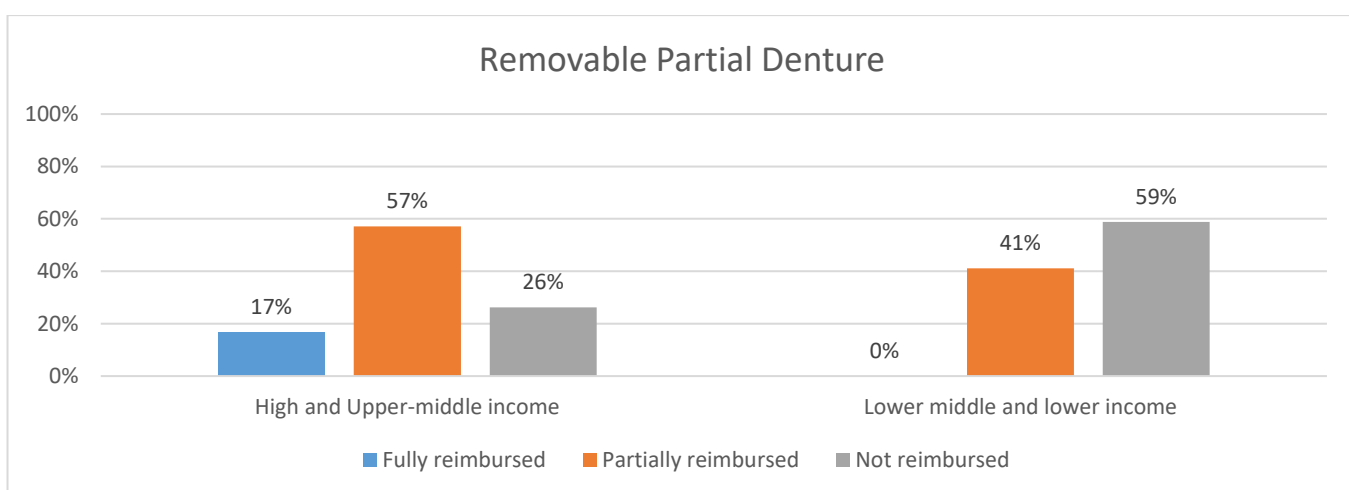
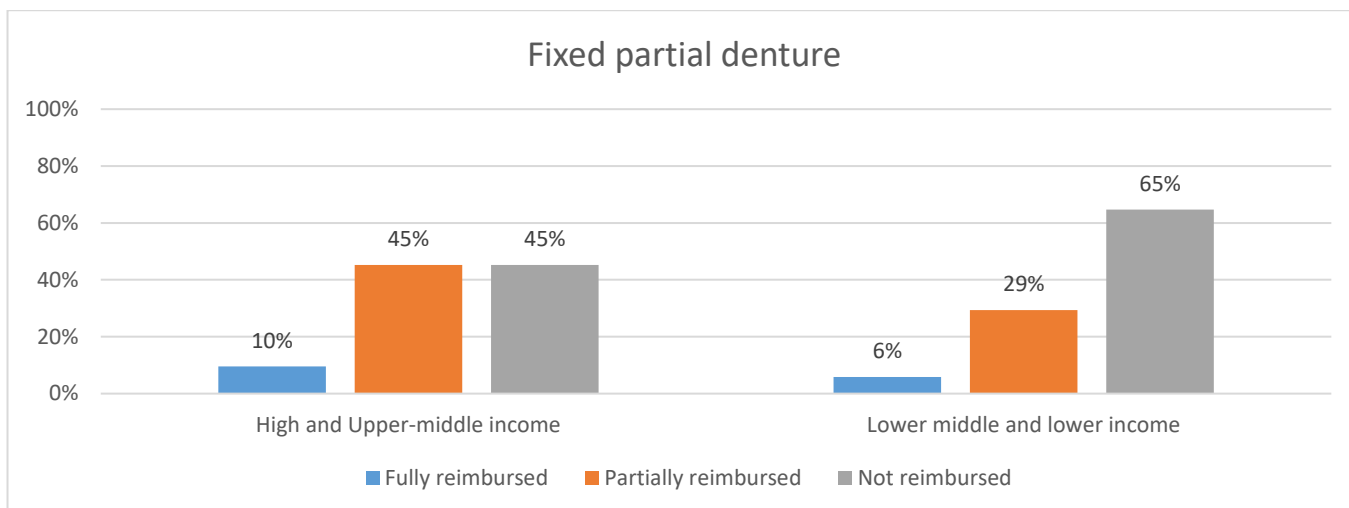


Which of the below treatments commonly provided for partial tooth loss are fully or partially reimbursed by the government or basic compulsory insurance plan in your country?



Reimbursement of treatment by country income level

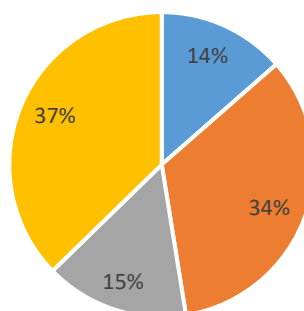






% of countries which reimburse

- All treatment options
- 2-3 treatment options
- 1 treatment option
- No treatment option



Orthodontic treatment and removable partial dentures have the highest reimbursement rates across countries (67% and 65% respectively). Fixed partial dentures have a slightly lower reimbursement rate in the countries surveyed (47%) and implants have a much lower reimbursement rate (22%).

The rate of full reimbursement for all treatment options ranges from 2% to 17% with removable dentures being most commonly fully reimbursed (12%)

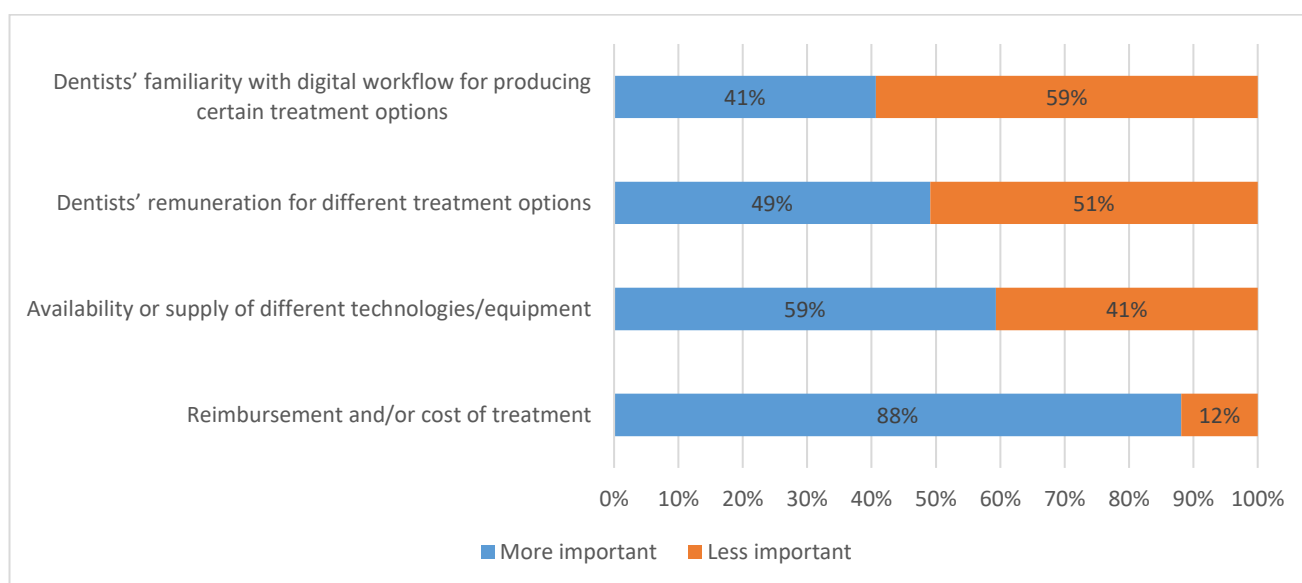
However, the reimbursement rate varies according to country income level. Orthodontic treatment is mostly partially reimbursed in high and upper-middle income economies (41%) while it is only reimbursed in 18% of lower income countries.

Removable and fixed partial dentures are more likely to be fully or partially reimbursed in higher income countries (55% and 74%) than in lower income countries (35 and 41%)

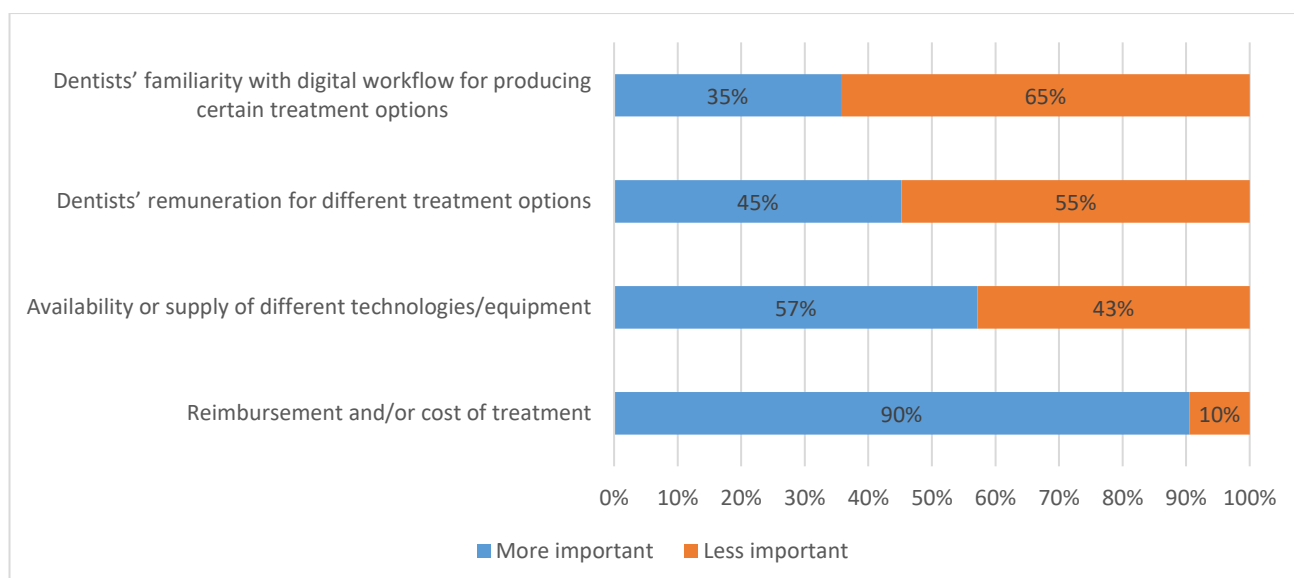
Dental implants are only partially or fully reimbursed in some higher income countries.



How important are the following factors in influencing the treatment options commonly chosen in your country?

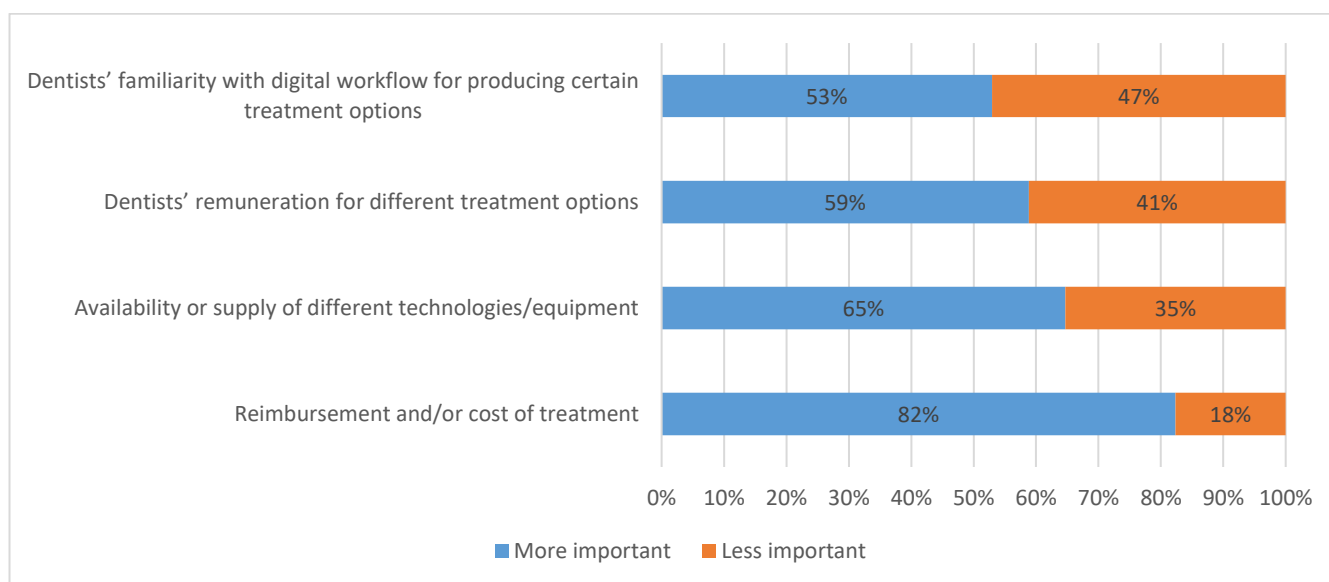


Importance of the following factors in influencing the treatment options commonly chosen in high- and upper-middle income countries





Importance of the following factors in influencing the treatment options commonly chosen in low- and lower-middle income countries



In order, the reimbursement and/or cost of treatment was considered the most important factor out of the listed options (88%), followed by the availability or supply of different technologies/ equipment (59%), Dentists' remuneration (49%) and Dentists familiarity with the digital workflow for producing certain treatment options (40%)

When considering the income level of countries, the order remains the same but a notable difference can be highlighted in the dentists familiarity with the digital workflow for producing treatment options, which is reported to be less important in higher income countries (36%) than in lower income countries (53%). This difference might be explained by the availability of certain treatment options.

On the other hand, the dentists' remuneration was reported to be more of an important factor in choosing the treatment option in lower income countries (59%) than in higher income countries (45%)



Can you think of any other factor influencing the choice of treatment options?

Patients :

- Patient's **preference**(10*)
 - **The location of the lost tooth** might influence the patient's choice in term of treatment. In the front of the mouth, appearance might be preferred while in the back, cost might be considered more.
 - Younger patients tend to value appearance while older patients might rely on his/her dentist to make choice on their behalf..
- Patient's **ability to pay** for private care (6)
 - Patients with a higher income can receive treatment in private clinics. Otherwise, they might need to go to public dental centers where only some treatment options might be available.
 - Patient access to government oral health services. Patients who do have access to government oral health services may not have the ability to replace missing teeth with fixed partial dentures or implants.
- Patient **geographic location** (2)
 - Patients who reside remotely may have limited access to oral health care or have limited access to all forms of dental treatment to replace missing teeth.
 - If there is more than one possibility, patients might choose the nearest dentist without knowledge of the treatment options that he/she can provide

Dental assessment

- Medications and the **prognosis** of the different treatment alternatives (3)
- The patient's **circumstances/preconditions** (health-wise) (2)
- **Duration** of the treatment

Policies/regulations

- **Government policy** could focus on prevention, pain relieve, and /or extractions. Prosthodontics and orthodontic treatment may not be provided.
- **Reform** in the medical field which can reduce the availability of dental care.
- **National guidelines** on treatments.
- Countries whithinsufficient budget may have other health priority than oral health. Therefore the **insured dental treatments are limited**.



Technical/equipment & human resources

- Availability or **supply of different technologies/equipment (2)**
- **Availability of Human resources (2)**
 - Lack of human resources in regards to prosthodontics and orthodontia.
 - **Limited skills of dentists** due to lack of training and education

* the numbers in brackets indicate the number of time that responded with that factor

Analysis

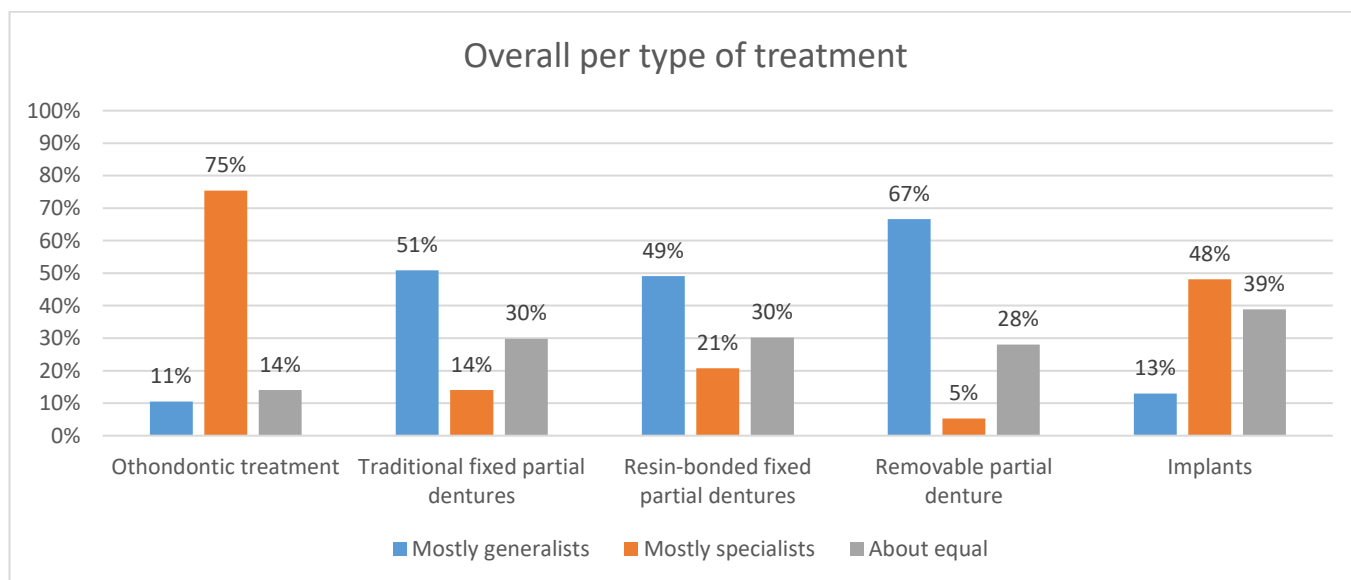
In this open question, new factors influencing the choice of treatment options have been mentioned, the most common being related to the patient themselves. The patient's preference in terms of look or perception has been mentioned while their ability to pay also influence the treatment option chosen.

The latter is certainly linked to the treatment being reimbursed in the patient's country, which was also mentioned in terms of oral health care policies, guidance and funding.

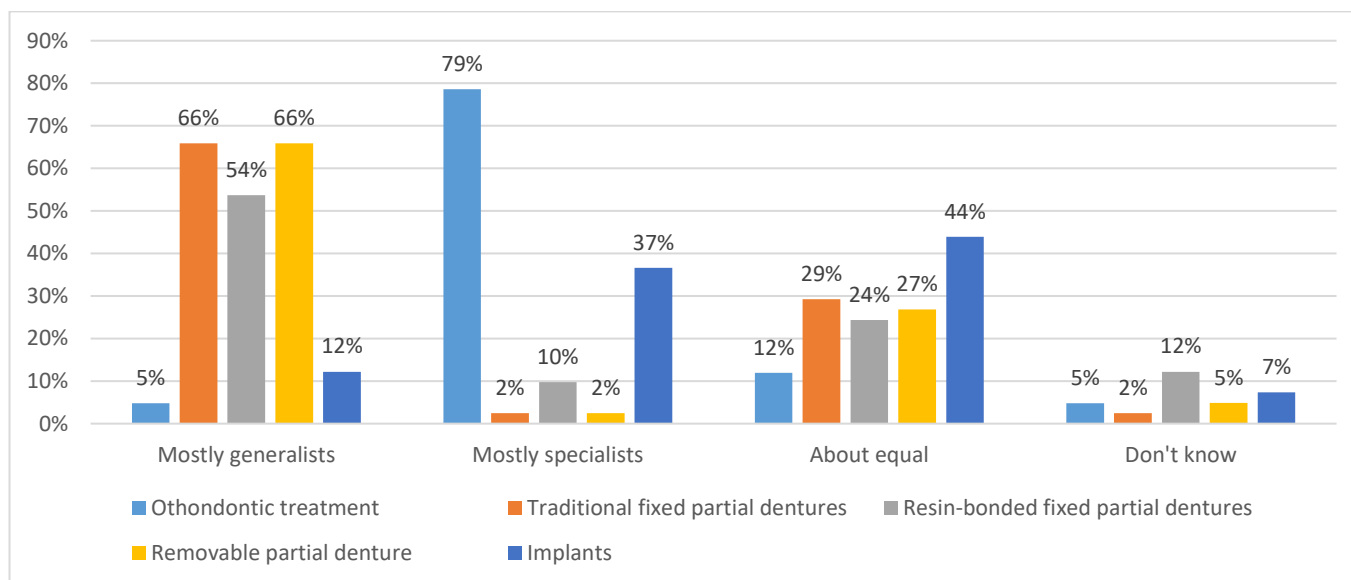
Access to treatment options due to geographic location also influence the choice of treatment.



Indicate if the following treatments are most commonly provided by specialists or generalists in your country

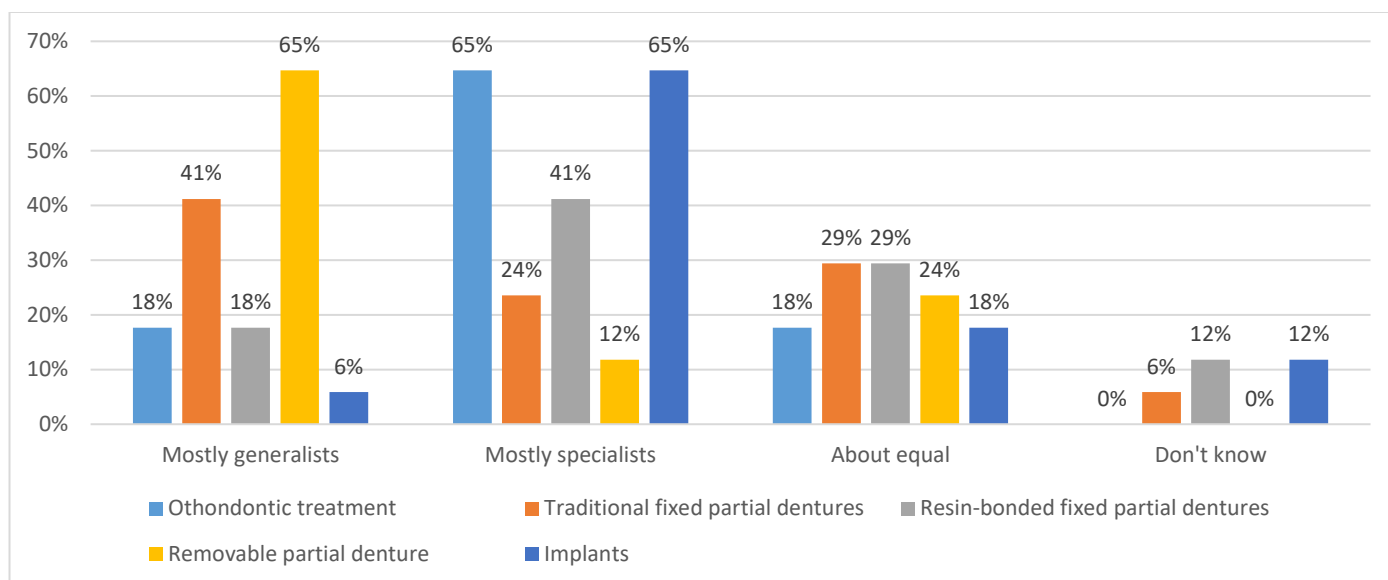


Provision of the following treatments in high- and upper-middle income countries





Provision of the following treatments in low- and lower-middle income countries



Analysis

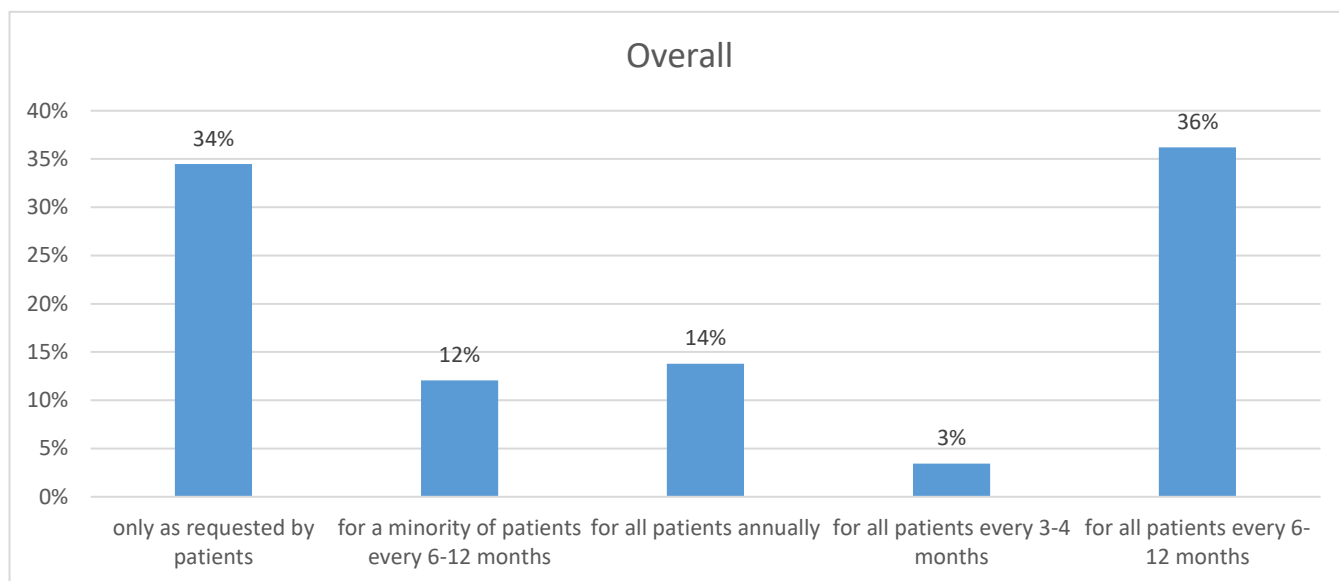
The survey shows that othodontic treatment and dental implants are treatments typically provided by specialists while traditional fixed and removable partial dentures are mainly provided by generalists.

In Europe and Central Asia, resin-bonded fixed partial dentures are mainly done by specialists. In all other regions, the division of treatment is roughly equal.

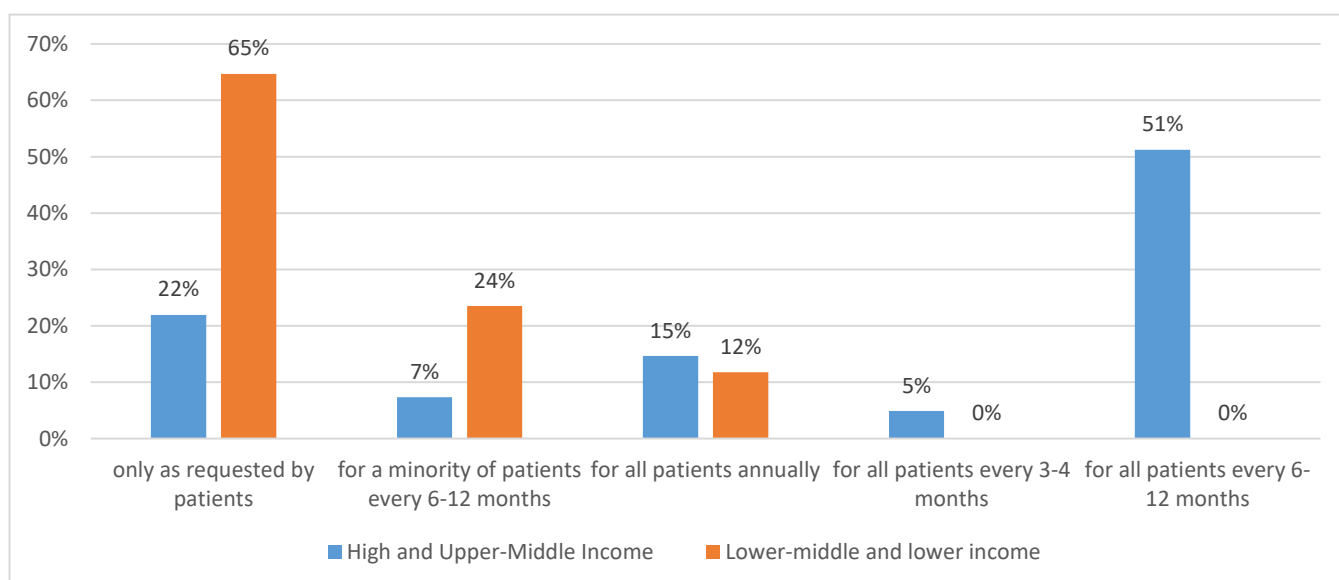
Dental Implants are mainly provided by specialists in Africa, in other regions implants are often done by both general practitioners and specialists.



For partially dentate patients, maintenance appointments are offered



Frequency of maintenance appointments per income level



Analysis

In general (53%), maintenance appointments are offered for all patients on a regular basis. Of those countries where regular check-ups are offered for all patients, only a few (3%) offer to meet with their



patients every three to four months, the vast majority preferring to see their patients after six to 12 months (67%) or annually (27%).

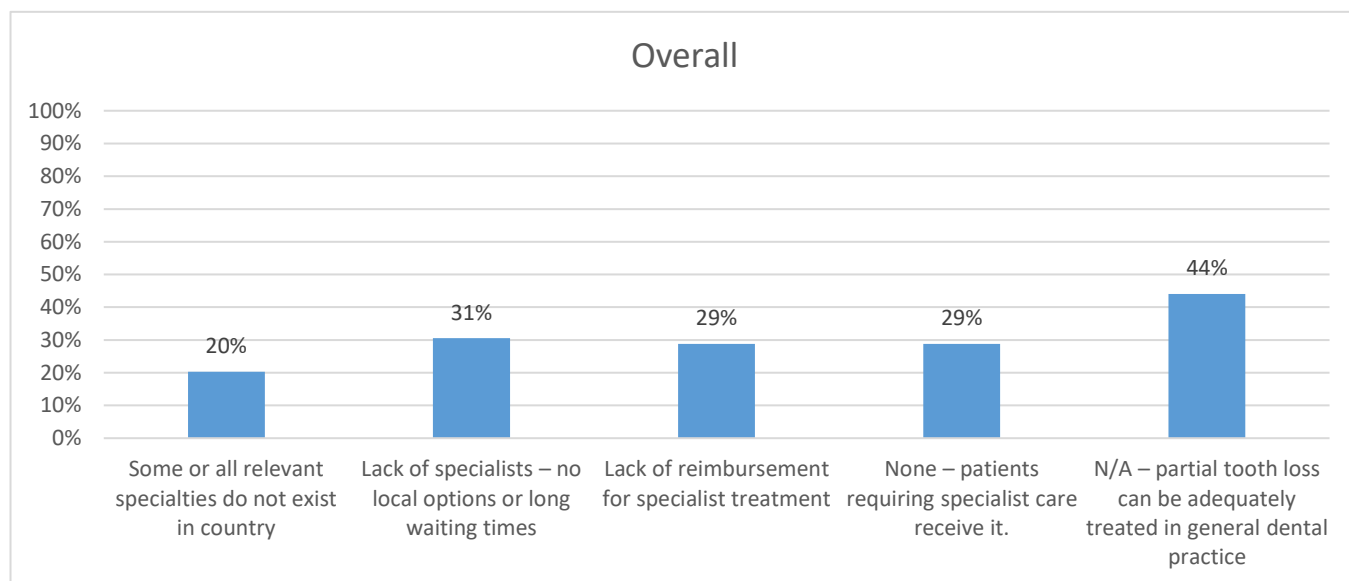
The remaining responses indicate that in 34% of countries, follow-up with patients is typically done only upon request.

However, those results vary widely according to country income level. In higher-income countries, 71% offer regular maintenance appointments to all patients with more than half reporting that patients are typically seen every 6 to 12 months.

Among lower-income countries, 65% reported that patients are typically seen upon request or that a minority of patients are offered an appointment every 6 to 12 months. Only 12% reported that patients are offered a maintenance appointment every year.

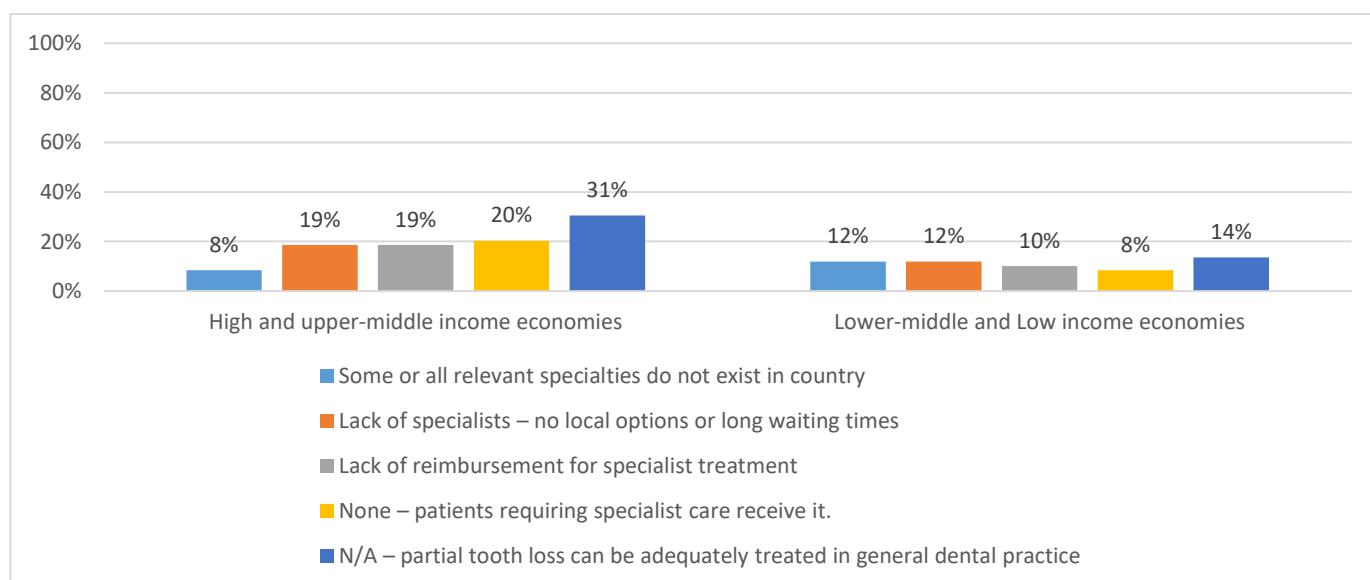


What are the main barriers to referring patients to specialist care?



* the percentages add up to more than 100% as multiple answer options were possible

Main barriers to referring patients to specialist care per type of economy



* the percentages add up to more than 100% as multiple answer options were possible



Analysis

Overall, the majority of countries indicated that there are no barriers to referring patients to specialist care, either because partial tooth loss can be adequately treated in general dental practice or because patients requiring specialist care receive it.

This is true in high income countries, where 52% reported that there are no barriers to accessing specialist care. The most common are the lack of reimbursement for specialist treatment (19%) or the lack of local specialists and long waiting times (19%).

On the other hand, only 39% of the respondents from the lower-income countries indicated that there are no barriers to referring patients to specialist care. Forty-two percent mentioned a lack of specialists and 18% that the lack of reimbursement for specialist treatment could be a barrier to referring patients to specialist care.

The Partially Dentate Patients Project is supported by GSK.



Data on the prevalence of partial tooth loss

- Australia : https://www.adelaide.edu.au/arcpho/national-study/report/Australias_Oral_Health_2017-18.pdf
- Azerbaijan : http://www.aak.gov.az/avtoref_to_mudaf/pdf_to_mudaf/tib/tib_d_sam_16_11_11.pdf
- Colombia : <https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ENSAB-IV-Situacion-Bucal-Actual.pdf>
- Germany : https://www.idz.institute/fileadmin/Content/Publikationen-PDF/Bd_35-Fuenfte_Deutsche_Mundgesundheitsstudie_DMS_V.pdf
- Indonesia : <https://www.kemkes.go.id/resources/download/info-terkini/hasil-risikesdas-2018.pdf>
- Malaysia : https://www.mah.se/upload/FAKULTETER/OD/Avdelning/who/WPRO/Malaysia/data/oral_health_status-malaysian_adults.pdf
- Morocco : <http://www.santetropicale.com/Resume/27401.pdf>
- New Zealand : <https://www.health.govt.nz/publication/our-oral-health-key-findings-2009-new-zealand-oral-health-survey>
- Panama : <http://www.gorgas.gob.pa/atlas%20interactivo/disabu.html>
- South Korea : <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4845820/>
- Spain : <http://diposit.ub.edu/dspace/bitstream/2445/103211/1/664717.pdf>
- Sweden : <https://bmcoralhealth.biomedcentral.com/articles/10.1186/s12903-019-0804-7>
- Uganda : <https://www.ajol.info/index.php/ahs/article/view/7039>
- United States : <https://www.nidcr.nih.gov/research/data-statistics/tooth-loss>
- United States : <https://www.cdc.gov/nchs/products/databriefs/db197.htm>

Best practices for oral health professionals, such as tools, guidelines, education courses, etc., dedicated specifically to partially dentate patient care in your country

- Canada : <http://removpros.dentistry.dal.ca/ewExternalFiles/RPD%20Manual%2011.pdf>
- Germany : <https://www.dgzmk.de/archiv>
- Norway : <https://www.helsedirektoratet.no/veiledere/god-klinisk-praksis-i-tannhelsetjenesten>
- Spain : https://www.fdiworlddental.org/sites/default/files/media/resources/pdp-dentist_guide-es.pdf
- Sweden : https://www.sbu.se/contentassets/92aa175e9369403894843b59b2e4fce5/prosthetic_rehabilitation.pdf
- United Kingdom : <https://www.bsspd.org/File.ashx?id=13928>
- United States : https://www.prostodontics.org/assets/1/7/7._JOP_Denture_Care_Guidelines_Supplement1.pdf
- United States : <https://www.ada.org/en/publications/jada/jada-specialty-scans/prostodontics/test>

Tools or information sources to support partially dentate patients with understanding, choosing, and maintaining treatment options

- Canada : http://www.cda-adc.ca/en/oral_health/cfy/dental_care_seniors/dental_care.asp
- Australia : <https://www.ada.org.au/CPD-Portal/Calendar-of-Events/Removable-partial-denture-interactive-workshop>
- Germany : <https://www.gesundheitsinformation.de/formen-von-zahnersatz.2060.de.html>
- New Zealand : <http://www.perionz.org/treatment-options/>
- Romania : <https://www.infodentis.com/coroana-dentara/definitie-rol-avantaje.php>
- Spain : <https://www.consejodentistas.es/ciudadanos/informacion-clinica/tratamientos/item/177-informacion-sobre-protesis.html>
- United Kingdom : <https://www.dentalhealth.org/denturecareguidelines>
- United States : <https://www.mouthhealthy.org/en/az-topics/d/dentures-partial>