



MARKET OUTLOOK






# Saudi Arabian

## Public and Private Oral Healthcare

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In spite of an increasing focus on oral hygiene and a growing demand for better oral healthcare, challenges remain within public primary healthcare centers, which play a central role in Saudi Arabia; while most dental care is provided by non-Saudi dentists, with rising unemployment among Saudi dentists, the governmental bodies have come up with a policy to gradually but carefully replace the non-Saudi dentists in both the public and private sectors.



**T**he Kingdom of Saudi Arabia (KSA) is located in the South Western part of Asia and is considered to be one of the largest countries in the Middle East, covering nearly four-fifths of the Arab Peninsula. One of the world's largest oil producing countries, the KSA is a growing country with a population of 32,275,690 (World Bank, 2016) and an economy mainly dependent on the oil exports, shaping the most portion of the country's revenues and economic budgeting.



**According to the Saudi constitution, healthcare services, including dental, are provided by the government and all citizens and residents have the right for complete and free accessibility to the health services.** There are 20 regional directorates of health covering the kingdom, connected administratively to the Ministry of Health offices in the capital Riyadh, with each directorate supervising and supporting the health services in that area.

**The healthcare system consists of a mix between the public (governmental) and private health sector.** The government sector is owned, delivered and financed by the government and provides free comprehensive medical and dental services. The same services are provided by the private sector but under governmental supervision. In the public sector, healthcare personnel is reimbursed by monthly salaries and the facilities are fund-

ed by annual budgets while the private healthcare system is composed of private for-profit hospitals, polyclinics, physician and dentist offices and is owned, delivered and financed privately, either by personal ownership, in most cases, or by companies that provide health services for their employees. The private sector is supervised by the Ministry of Health, which is involved in licensing and health policies that guide clinical practices in this sector. Patients pay for all health services by out-of-pocket or by private insurance plans.

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**Healthcare services budget is one of the challenges faced by the Ministry of Health in the kingdom as it is becoming difficult to compensate between the rapid growing population and maintaining the desired level of health services with free health services.** In fact, in 1999, the Council of

Cooperative Health Insurance was established to introduce the health insurance to the public and to regulate and supervise the health insurance services presented by insurance companies. **The cooperative health insurance was planned and applied for non-Saudis who work in private companies. Also, the government allows insurance companies to extend their services to cover the Saudis working in private companies who prefer to be treated in private health sectors and it is planning to cover all Saudis in future.** Such health insurance is secured by the owners of companies as part of governmental policies regulating the private business in the KSA. Healthcare insurance usually covers consultations, laboratory tests, diagnostic radiographs, medications and follow-up. Medical conditions such as dental treatment, pregnancy and delivery are regulated by specific rules and policies. Inappropriately, there are some policies and regulations in health insurance still vague that need to be reviewed, corrected and improved to avoid systemic faults and to protect patients from the misconduct of insurance companies.

**Even though the government supplies dental care services free of cost for Saudi citizens, yet the majority of the Saudi population chooses to be treated in the private sector.** In governmental primary dental care, the provided care is at the basic level of treatment; simple composite or amalgam restoration, scaling and first phase of randomized controlled trial. Procedures such as implants, dentures, cosmetic dentistry and other complicated procedures are not available in primary governmental dental care and patients are referred to higher governmental dental centers which have long waiting lists. On the other hand, the patient can receive the needed treatment and desired procedures in private dental sector in one place and in less time. Furthermore, most patients believe that, with paid care they can get enough time with doctors, better care and expect an enhancement in the way they look rather than just treating a dental problem. As previously mentioned, it is obligatory for non-Saudi workers to be covered by health insurance, unfortunately though, some companies are



not providing health insurance covering dental care for its workers as it is usually expensive or they create obstacles to minimize the use of insurance in dental care. All these issues play a role in demoting the level of dental health between foreigners, especially in low educated category of workers; new regulations should be implemented regarding foreigners' health to ensure their right to receive proper dental care services as stated in the law of the KSA.

**In spite of full government supported dental care services, the Saudi population faces difficulties to meet the proper dental care.** These difficulties are a result of incompatibility between dental care provided in the public healthcare system and the increasing population with lifestyle changes, creating deficiencies in the quantity and quality of dental care. Extending and promoting dental care in primary governmental health institutions and increasing the number of advanced referral dental care centers can help to meet the demand of services between Saudis. Furthermore, it can reduce the waiting lists and pressure in referral centers.

**Over the last 20 years the Kingdom of Saudi Arabia has shown steady**

**growth in the dental workforce.** According to a cross-sectional study published in ScienceDirect, using the database of the Saudi Commission for Health Specialties (SCFHS), the official regulatory body responsible for the registration and licensure of healthcare providers in the kingdom, there are 16,887 licensed dentists in the SCFHS database as of December 2016, compared to 786 and 12,785 dentists in the year of 1987 and 2014 (Ministry of Health 2014), respectively, with the majority professionally registered as general dentists (70.6%). **Most of the dental care in the kingdom is still provided by non-Saudi dentists as Saudi dentists only represent 22.09% of the licensed dental workforce.** The percentage of foreign dentists is high compared to other countries; in Bahrain, for example, only 24.1% of foreign dentists fulfill the total dental care demand of the country while in Kuwait foreign dentists account for 55.6% of the dental workforce.

The mean age of the licensed dentists is 40.09 years with the Saudi dentists being slightly but significantly younger than their non-Saudi counterparts. The majority are males (61.06%) with no significant difference in the percentage of males and

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females between the Saudi and non-Saudi dentists. Almost 70% of the licensed dentists are working in the three main regions of the kingdom (Riyadh, Makkah and the Eastern province).

Finally, around 80% of the non-Saudi dentists are working in the private health sector compared to only 33.65% of the Saudi dentists and the percentage of non-Saudi dental specialists in the private health sector is also significantly higher than their Saudi counterparts. About 66% of the Saudi dentists are working in the public health sector in comparison to only 20.46% of the non-Saudi dentists.

**The characteristics of Saudi and non-Saudi licensed dentists**

|  | Nationality Saudi No. (%) | Nationality Non-Saudi No. (%) | Total No. (%)   |
|--|---------------------------|-------------------------------|-----------------|
| <b>Age</b>                                   | 37.7                      | 40.76                         | 40.09           |
| <b>Gender:</b>                               |                           |                               |                 |
| <b>Male</b>                                  | 2,292 (61.45%)            | 8,019 (60.95%)                | 10,311 (61.06%) |
| <b>Female</b>                                | 1,438 (38.55%)            | 5,138 (39.05%)                | 6,576 (38.94%)  |
| <b>Sector:</b>                               |                           |                               |                 |
| <b>Private</b>                               | 1,255 (33.65%)            | 10,465 (79.54%)               | 11,720 (69.40%) |
| <b>Public</b>                                | 2,475 (66.35%)            | 2,692 (20.46%)                | 5,167 (30.60%)  |
| <b>Specialist Dentists in Public Sector</b>  | 924 (24.77%)              | 1,092 (8.30%)                 | 2,016 (11.94%)  |
| <b>Specialist Dentists in Private Sector</b> | 428 (11.47%)              | 2,519 (19.15%)                | 2,947 (17.45%)  |

Note: data are expressed as mean ± standard deviation for age and frequency and percentage for the other variables. Source: <http://www.sciencedirect.com/science/article/pii/S1319016417301603>

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Although foreign dentists represent 77.91% of the total number of licensed dentists, which indicates that there is a shortage of Saudi dentists to meet the dental care demand in the kingdom, the unemployment rate among the fresh Saudi dental graduates is surprisingly high. This can be attributable to multiple factors such as the significant growth in the educational sector as the number of dental colleges has increased from three to four colleges in the whole kingdom back in the year 2000 to over 20 colleges of dentistry nowadays. This dramatic increase, which happened in less than a decade, resulted in a significant increase in the number of dental graduates. Further, most of the licensed Saudi dentists are practicing in the public health sector (66.35%), which might be due to several reasons such as the high salaries and higher level

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of job security compared to the private health sector. In addition, the ability of the Saudi dentists to compete in the private market with the foreign dentists is limited due to employers' preference to employ non-Saudi who usually work more hours for less pay. **As such, in May 2017, the decision by Saudi Arabia's labour and social development ministry to stop recruiting foreign dentists in a bid to provide better employment opportunities for Saudis.** The decision followed a coordination meeting between the labour and health ministries to look into ways to motivate the private sector to hire Saudi men and women to work in the health sector. The "Saudisation" drive to replace, in almost all professions, foreigners with Saudis is being inexorably implemented in the vast kingdom where foreigners make up one third of the total population.

### The distribution of Saudi and non-Saudi dentists in different specialties

| Specialty                    | Nationality Saudi No. (%) | Nationality Non-Saudi No. (%) | Total No. (%)   |
|------------------------------|---------------------------|-------------------------------|-----------------|
| General Dentist              | 2,378 (63.75%)            | 9,546 (72.55%)                | 11,924 (70.61%) |
| Prosthodontics               | 532 (14.26%)              | 883 (6.71%)                   | 1,415 (8.38%)   |
| Pedodontics                  | 174 (4.66%)               | 270 (2.05%)                   | 444 (2.63%)     |
| Periodontics                 | 122 (3.27%)               | 265 (2.01%)                   | 387 (2.29%)     |
| Oral Maxillofacial Surgery   | 162 (4.34%)               | 752 (5.72%)                   | 914 (5.42%)     |
| Oral Maxillofacial Radiology | 3 (0.08%)                 | 14 (0.11%)                    | 17 (0.10%)      |
| Oral Maxillofacial Pathology | 33 (0.88%)                | 72 (0.55%)                    | 105 (0.62%)     |
| Orthodontics                 | 238 (6.38%)               | 1,135 (8.63%)                 | 1,373 (8.13%)   |
| Endodontics                  | 156 (4.18%)               | 254 (1.93%)                   | 410 (2.43%)     |
| Dental Biomaterials          | 3 (0.08%)                 | 9 (0.07%)                     | 12 (0.07%)      |
| Dental Public Health         | 45 (1.21%)                | 82 (0.62%)                    | 127(0.75%)      |

Note: data are expressed as frequency and percentage.  
Source: <http://www.sciencedirect.com/science/article/pii/S1319016417301603>





The fact that most of the Saudi dentists are registered as general dentists may shed the light on the size of the accredited SCFHS residency programs in dentistry where very limited number of dentists can join relative to the number of Saudi dentists in the kingdom. Therefore, the SCFHS should work together with the major health care sectors in the kingdom such as the ministry of health and the large academic institutions to expand the accredited residency programs in different dental specialties. Also, there should be joint initiatives by the ministries of health, labor and education to carefully plan the number of dental graduates every year from both public and private colleges of dentistry.

**The current dentists-to-population ratio is 5.2 per 10,000 people, which indicates a better dentists-to-population ratio compared to most of the developing countries and Asia-Pacific countries.** Most of the European countries have dentists-to-population ratios ranging from 5.07 to 7.3 per 10,000 people.



**The distribution of dentists in different specialties across private and public sectors**

| Specialty                    | Sector Private<br>N (%) | Sector Public<br>N (%) | Total           |
|------------------------------|-------------------------|------------------------|-----------------|
| General Dentist              | 8,773 (74.85%)          | 3,151 (60.98%)         | 11,924 (70.61%) |
| Prosthodontics               | 721 (6.15%)             | 694 (13.43%)           | 1,415 (8.38%)   |
| Pedodontics                  | 242 (2.06%)             | 202 (3.91%)            | 444 (2.63%)     |
| Periodontics                 | 207 (1.76%)             | 180 (3.48%)            | 387 (2.29%)     |
| Oral Maxillofacial Surgery   | 482 (4.11%)             | 432 (8.36%)            | 914 (5.42%)     |
| Oral Maxillofacial Radiology | 9 (0.08%)               | 8 (0.15%)              | 17 (0.10%)      |
| Oral Maxillofacial Pathology | 48 (0.41%)              | 57 (1.10%)             | 105 (0.62%)     |
| Orthodontics                 | 1,077 (9.19%)           | 296 (5.73%)            | 1,373 (8.13%)   |
| Endodontics                  | 201 (1.72%)             | 209 (4.04%)            | 410 (2.43%)     |
| Dental Biomaterials          | 3 (0.03%)               | 9 (0.17%)              | 12 (0.07%)      |
| Dental Public Health         | 49 (0.42%)              | 78 (1.51%)             | 127 (0.75%)     |

Note: data are expressed as frequency and percentage.  
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Among the Middle East countries, Bahrain has the lowest dentists-to-population ratio of 1.5 per 10,000 people and Qatar has the highest dentists-to-population ratio of 5.8 per 10,000 people. However, this ratio of one dentist to 1,880 people in the kingdom is variable across regions. For example, the dentist to total population in Riyadh region is the highest in the kingdom (1:1536) and the lowest in Jizan region (1:4101).

By comparing two surveys, one in 2013 as the first investigating oral hygiene practices in the kingdom, published in the International Dental Journal and another in 2016 on primary healthcare centers, oral hygiene practices as well as prevention of oral disease are very limited in the Kingdom of Saudi Arabia. **Despite the free access to healthcare, only an estimated 11.5%-15% of Saudi Arabian people aged 15 and older visited a dental clinic for a routine check-up during the last year, whilst 48.6%-51% visited a dental clinic because of a complaint, 19% for dentures and 11% for braces.** The likelihood of visiting a dental clinic for a regular check-up increased among the most educated and among those who practiced oral hygiene habits, but decreased for those whose last routine medical examination was over 4 years before. As for daily oral hygiene habits, 71.5%

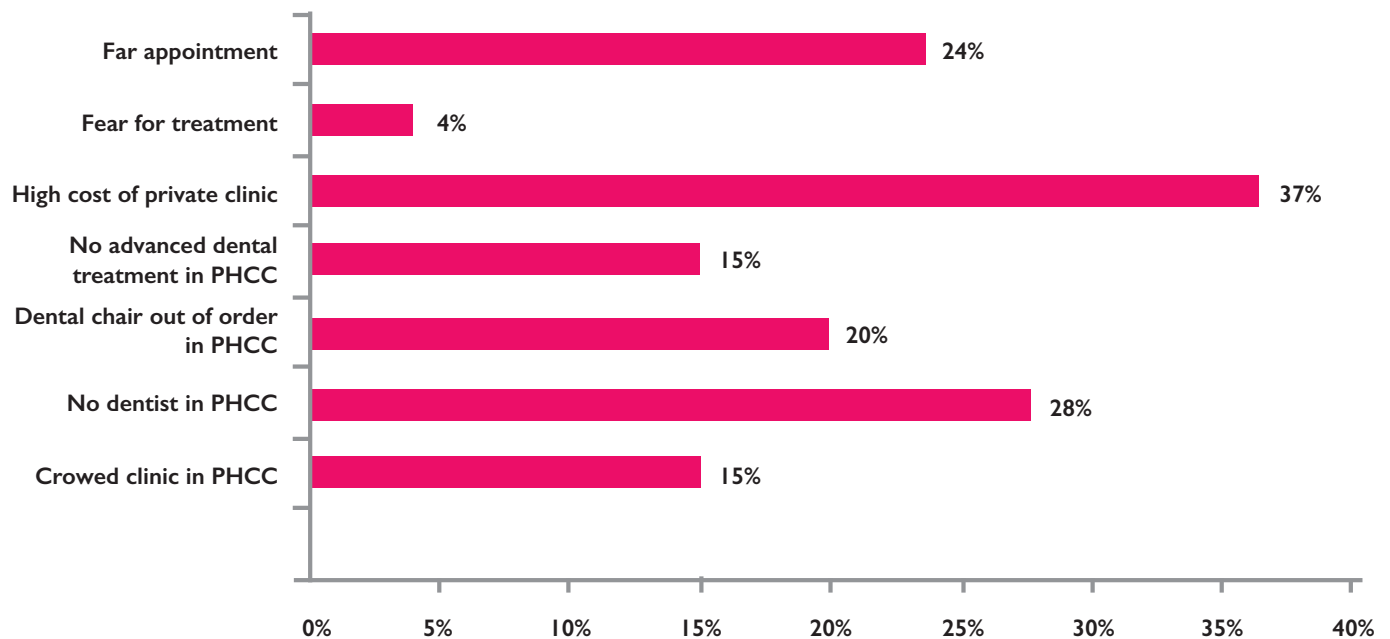
**Underutilization of oral healthcare services might reflect underlying challenges in the provision of oral care, a possible reason why caries prevalence in primary and permanent teeth and deepened periodontal pockets still remain high among the population.**

reported brushing their teeth at least once a day, but only 6.3% reported flossing at the same frequency. Up to 30.3% used Miswak at

least once a day. The Miswak is a traditional chewing stick made from the plant *Salvadora persica* used as natural toothbrush. Among those who never brushed their teeth (16.3%), 93.2% also never flossed, but only 47.9% never used Miswak. An interesting finding of the study was the high prevalence of use of Miswak among Saudi Arabian people, even among those who did not brush or floss their teeth. Although its benefits are still controversial and not actually proven, this has been a practice in the past and has been continued by many as part of the culture.

**According to the survey, high cost of private clinics and unavailability of dentists within primary healthcare centers were reported as the most common difficulties in seeing a dentist. Lack of appropriate geographic distribution of primary healthcare centers often cause overcrowding in some centers and underutilization in others, causing a mismatch between primary healthcare services and population needs.** Underutilization of oral healthcare services might reflect underlying challenges in the provision of oral care, a possible reason why caries prevalence in primary and permanent teeth and deepened periodontal pockets still remain high among the population.

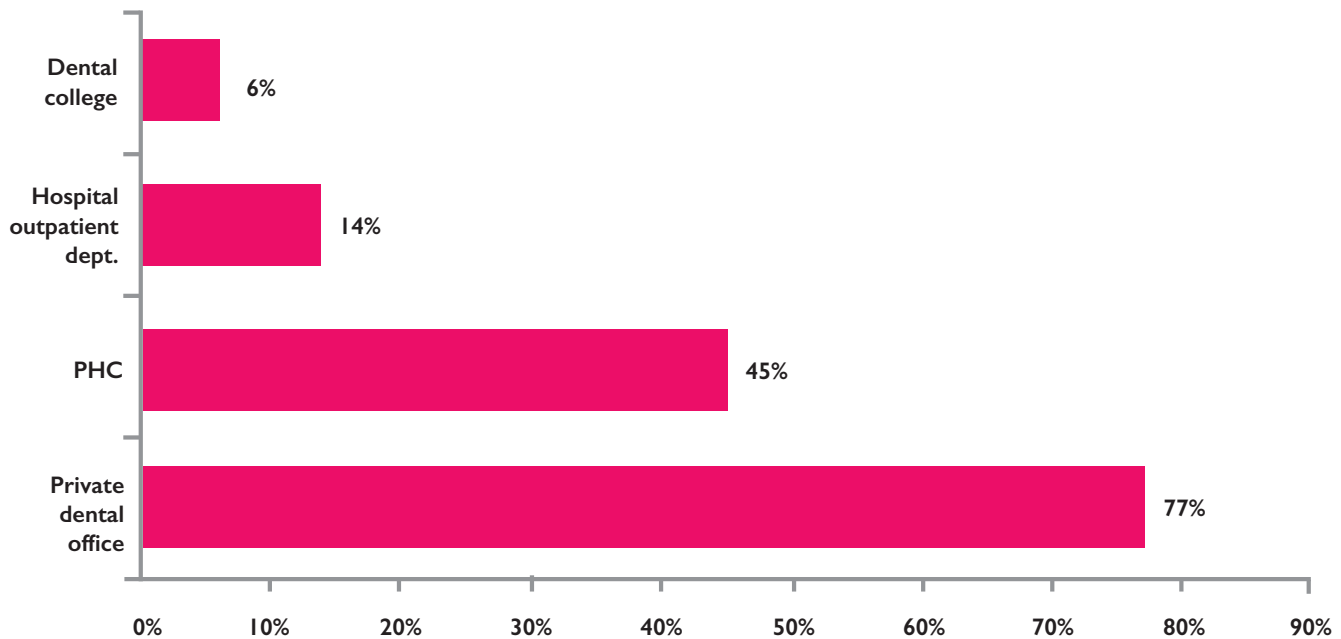
### Major difficulties in seeking dental care



Note: PHCC = Primary Healthcare Center  
Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5096290/>



Where patients typically receive dental treatment



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 Source: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5096290/>

In general, dental clinics in Saudi Arabia provide standardized preventive and curative oral health care services. About 2,408 public dental clinics provide oral healthcare according to the health statistic annual book. These providers are classified as clinics in primary healthcare centers, dental clinics located within hospitals and dental clinics in specialized centers. There are also portable dental clinics that provide similar services.

High cost of private dental clinics (37 %) was reported as the most common difficulty in seeking dental care, followed by unavailability of a dentist in primary healthcare centers (28 %). While, in terms of where patients have visited for care, 77 % sought care at private dental clinics while 45 % frequently visited primary healthcare centers. The unavailability of a dentist in primary healthcare centers perhaps explains why most of the sampled patients indicated visiting private dental clinic more frequently (77 %) than public primary healthcare centers (45 %). Patients reported lack of advanced dental treatments in primary healthcare centers given that these centers are known for primary dental treatment. While these results may reveal unmet patients' needs in primary healthcare centers, the issue, after all, is common in many countries across the globe.



**Among main sources:**

-Extracts from "The characteristics and distribution of dentist workforce in Saudi Arabia: A descriptive cross-sectional study". For full survey: <http://www.sciencedirect.com/science/article/pii/S1319016417301603>  
 -Extracts from "Primary health care centers, extent of challenges and demand for oral health care in Riyadh, Saudi Arabia". For full survey: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5096290/>

-Extracts from "Use of dental clinics and oral hygiene practices in the Kingdom of Saudi Arabia, 2013". For full survey: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4834803/>  
 -<http://gulfnews.com/news/gulf/saudi-arabia/ban-on-recruiting-foreign-dentists-means-more-jobs-for-saudis-1.2025564>  
 -Journal of International Oral Health 2016 "Health-care System and Accessibility of Dental Services in Kingdom of Saudi Arabia: An Update"