



**CENTRE
FOR
WORKFORCE
INTELLIGENCE**

Oral and Maxillofacial Surgery (OMFS)

This summary sheet contains recommendations informed by the facts collated by the CfWI in close collaboration with specialty stakeholders. The references in this summary sheet refer to the reference section at the end of the fact sheet for this specialty, available at <http://www.cfwi.org.uk/>.

Specialty group: Surgery
Specialty: Oral & Maxillofacial Surgery (OMFS)

Recommendation	<p>The CfWI recommends that no change is made to the number of training posts over the next three years.</p> <p>Although no geographic changes are recommended, the apparent 'North South divide' in terms of consultant numbers needs to be further understood. A review of this recommendation will take place in 2014.</p> <p>The CfWI recommends further ongoing engagement with the specialty, the Dental Programme Board and employers, to continue to develop and revise the CfWI's understanding of workforce issues affecting the specialty.</p>
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Introduction

The purpose of this document is to make recommendation to inform planning for future medical training numbers in Oral and Maxillofacial Surgery (OMFS) in England over the next three years. When formulating these recommendations, we considered factors such as demographics, lifestyle issues and the views of key stakeholders.

The policies and initiatives affecting OMFS include:

- **The Dental Programme Board (DPB) Review of Oral Surgery Services and Training report 2010.** This report recommends that the two specialties should further develop and strengthen inter-specialty and collaborative working. The British Association of Oral Maxillofacial Surgeons BAOMS Council response confirmed the concerns that developing Oral Surgery Services as proposed by the DPB report may not lead to significant cost savings in OMFS secondary care services.
- **Regional trauma networks (RTNs) have been proposed to improve patient care in major trauma patients.** The regionalisation of trauma care in England around specialised centres has been proposed, whereby RTN hospital and ambulance services act in concert to enable access to specialist care night and day, delivering patients to the hospitals best able to treat them.
- **Independent Public Service Pensions Commission: Final Report 2011. This report** recommends switching public sector pensions from existing final salary schemes to a new career-average salary scheme, with existing members moving to the new scheme for future accruals. At Budget 2011, the Government accepted Lord Hutton's recommendations as a basis for consultation with public sector workers,

unions and others. Depending on its implementation, this may create an incentive for many consultants of pensionable age to retire earlier than otherwise planned.

CfWI research and engagement with the specialty has identified the following issues:

- CT and MRI scans allow surgeons to view accurate and detailed three-dimensional pictures
- alcohol as a demand factor that can encourage accidents which lead to a greater number of patients
- a population that is ageing, with greater numbers of co-morbidities.

Females in 2010 made up 11 per cent of the workforce, and the participation rate of 93 per cent in 2010 has been increasing since 2005, when it was 89 per cent.

Key findings

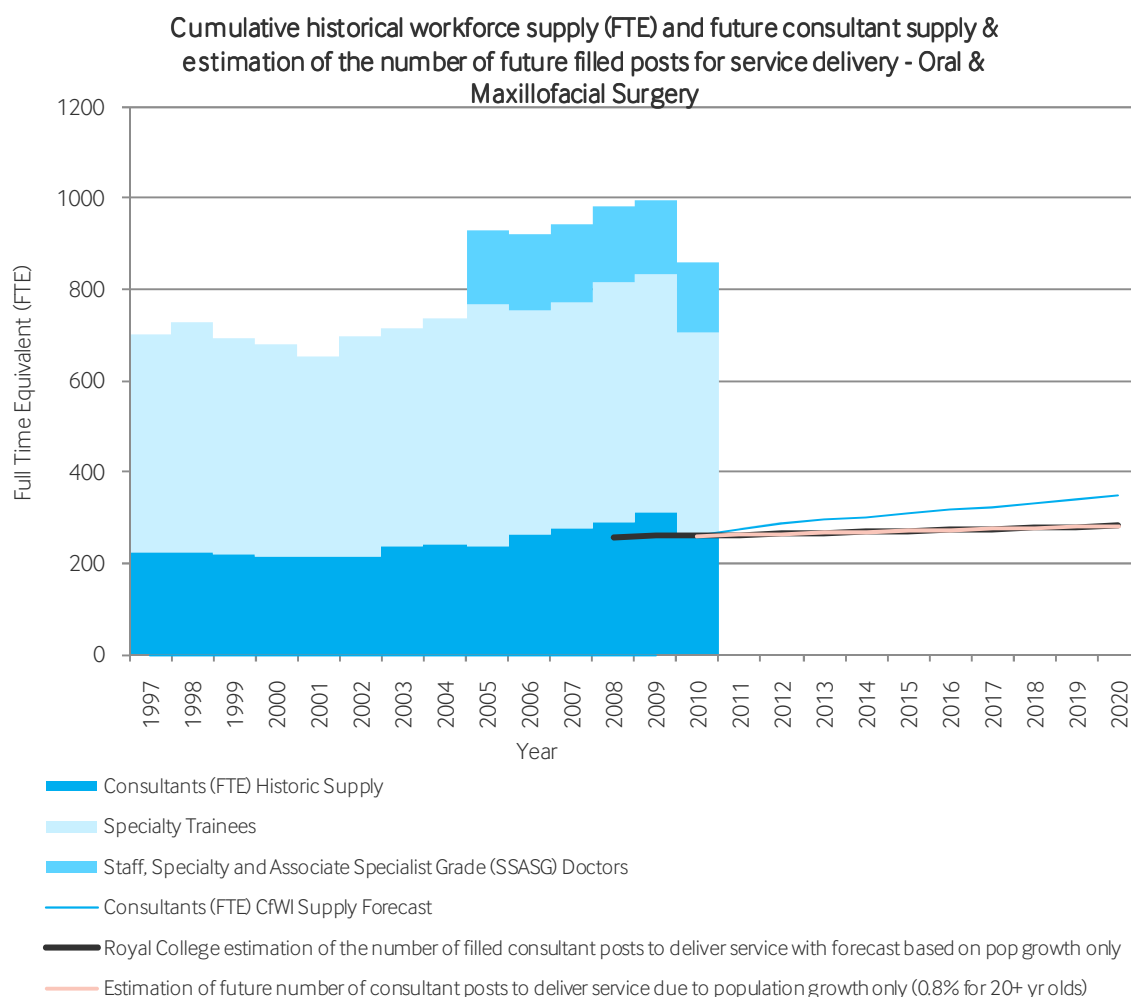
The most recent data from the IC census (NHS IC, 2011a) records a headcount of 279 (259 full-time equivalent) OMFS consultants employed in England on 30 September 2010.

RCSEng and BAOMS views	The Royal College of Surgeons of England (RCSEng) and the British Association of Oral and Maxillofacial Surgery (BAOMS) estimates that the ratio of consultants to population should be 1 full-time equivalent (FTE) consultant to 200,000 population. This estimated level has fallen since the RCSEng 2005 report <i>Developing a Modern Surgical Workforce</i> , when it was 1 per 150,000. This estimated ratio is expected to be exceeded based upon projected increases to Certificate of Completion of Training (CCT) holder numbers.
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Figure 1, based on data from the NHS Information Centre (IC) census, shows that the consultant workforce FTE has expanded by 9 per cent over the past five years.

If future levels are estimated by taking consultant supply in 2010 and increasing it at the rate of population growth, 307 FTE consultants will be needed by 2020. The supply of OMFS consultants over the next ten years is forecast to increase to 347 FTE in 2020 (approximately 381 headcount), an average increase of 3.4 per cent annually.

Figure 1: Workforce supply and estimation of future number of consultant posts to deliver service (FTE) – OMFS



Source: Historical supply data is taken from the NHS Information Centre census 30th September 1997 to 2010. Supply forecasts are based on ESR data from November 2010, deanery monitoring data 2009 and workforce assumptions. Estimates of future number of consultant posts to deliver service due to population growth use ONS population projections (2010a) and RCSEng estimated levels (2010).

Weighted capitation suggests that, out of the ten SHAs, the London and South Central SHAs are over-capitated for both consultants and junior doctors, i.e. they have a greater proportion of England’s doctors than if provision were to follow weighted capitation. The East of England SHA is under-capitated. London currently accounts for 20 per cent of doctors in training, approximately seven FTE higher than if weighted capitation was used alone.

The CfWI position on training numbers is that while weighted capitation has some use, decision makers also need to consider the quality of training in the regions and the accessibility of care for patients.

Recommendations

The numerical datasets of the workforce, those in training, specialty activity reporting and demographic profiling are of high quality. The workforce supply modelling assumptions have been confirmed by the RCSEng and BAOMS. With this in mind, the CfWI is confident of collating both high-quality data and assumptions to inform its modelling.

OMFS is a large specialty representing approximately 41 per cent of England's entire consultant dental workforce, according to the NHS Information Centre 2010 census. The CfWI modelling indicates that the OMFS workforce is forecast to grow slowly over the medium term and that demand for OMFS is estimated to be marginally overtaken in the next five to ten years.

The CfWI recommends that no change is made to either the number of training posts or the current geographical distribution of training places over the next three years.

It is important to note there are risks to any workforce planning recommendations. The evidence available does not take account of changes to future service delivery models or the impact of productivity and new ways of working, which are likely to impact on the future consultant workforce. Following discussions with the OMFS representatives, the CfWI acknowledges that ongoing pharmacological and diagnostic developments have and are expected to continue to affect which investigations and procedures are performed. These future effects are currently unknown, so workforce planners need to be kept informed to reduce the risk of over- and undersupply.

The CfWI recommends that engagement with the specialty and employers continues in order to develop and revise its understanding of workforce issues affecting the specialty. A further review of these recommendations will take place in 2014.

Oral and Maxillofacial Surgery



This fact sheet considers the factors influencing the future demand for the specialty (section 1) and the current and forecast workforce supply (section 2). This information forms part of the body of evidence used to advise recommendations on future medical training numbers. Conclusions and recommendations are in the accompanying summary sheet. The Centre for Workforce Intelligence (CfWI) welcomes contributions to both the content and interpretations of this information. This fact sheet covers the following:

Section 1 - Considerations for future demand

- Current training route
- Specialty viewpoints
- Policy drivers
- Demographics
- Health and lifestyle
- Changes in practice
- Changes in activity

Section 2 – Current and forecast supply

- Existing workforce
- Recruitment
- Consultant projections

CONSIDERATIONS FOR FUTURE DEMAND

Current training route

Specialty training in Oral and Maxillofacial Surgery (OMFS) requires dual dental and surgical qualification and is, in total, a seven year run-through programme.

Specialty viewpoints¹

The Royal College of Surgeons of England (RCSE, 2011) reported that the British Association of Oral Maxillofacial Surgeons (BAOMS) recommends a consultant workforce ratio of 1:200,000 of population, indicating a slight expansion of OMFS consultant numbers from the current position. The BAOMS view is that a small change each year will avoid the 'boom and bust' position experienced in some other specialties. The Office for National Statistics (ONS, 2009) estimated the population for England as 52 million in 2009. This generates an estimated recommendation of 260 Full Time Equivalent (FTE). The NHS Information Centre (NHS IC) records a total of 259 FTEs (279 headcount) consultants (NHS IC, 2011a) compared to a headcount for England of 341 (RCSE, 2011). Previous recommendations were based on the 2005 RCSE survey which recommended a ratio of 1:150,000 of population.

¹The CfWI conducted a series of stakeholder engagement meetings with representatives from each specialty. Although the source is not explicitly named, this information is available. Please contact the CfWI if more information is required.

Policy drivers

[The Review of Oral Surgery \(OS\) Services and Training report](#)

The Review of Oral Surgery (OS) Services and Training report written by Medical Education England (MEE) Dental Programme Board (DPB) focused on the dental specialty of Oral Surgery. This report has significant implications for the medical specialty of OMFS. It recommends that the two specialties should further develop and strengthen inter-specialty and collaborative working in the interests of patients and enhanced efficiency and effectiveness. The review recommends the development of more accessible and affordable OS services in order to reduce the number of primary care referrals into secondary care OMFS units, where treatment is provided at considerable cost to the NHS. An expansion of primary care OS services will increase the time available in OMFS departments for the treatment of more complex cases, while having the potential to release considerable cost savings. This can be achieved by the creation of managed clinical networks (MCNs) and referral management systems to ensure that patients are treated according to their needs but in the most appropriate place (MEE, 2010).

[BAOMS Council Position Statement in Response to the Dental Practice Board of NHS MEE Report: Review of Oral Surgery Services and Training, 2010](#)

In January 2011 the BAOMS Council published a position statement in response to the report. The BAOMS Council are concerned that developing Oral Surgery Services as proposed by the Dental Programme Board report may not lead to significant cost savings in OMFS secondary care services because of the increased costs of maintaining such services to deal with complex cases (BAOMS, 2010a).

[Regional trauma networks](#)

NHS Chief Executive Sir David Nicholson committed to the planning and design of regional trauma care networks with a programme of implementation throughout 2011/12 (excepting London which is already a year ahead). In addition, the National Clinical Director for Trauma Care has been working to identify the practical implications of setting up regional trauma networks which include 24/7 consultant-led care for maxillofacial injury and to design a new system for organising rehabilitation services to improve long-term outcomes (DH, 2010a).

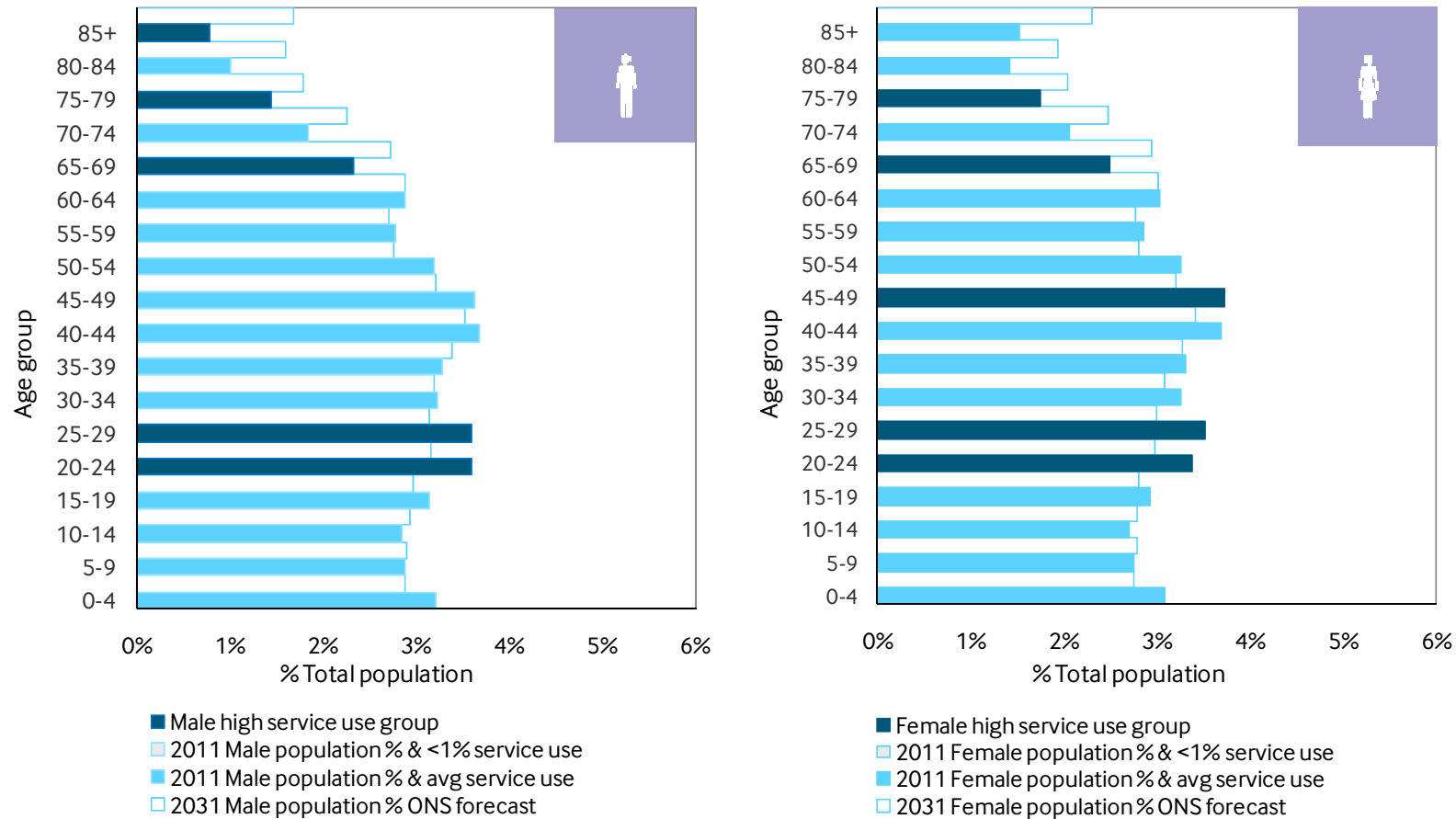
Demographics

The charts in Figure 1 display the population age distribution for England for 2011 and 2031 according to ONS forecasts for both males (left chart) and females (right chart). Hospital Episode Statistics (HES) data for first attendance data (NHS IC, 2011b) were analysed to identify the age ranges which appear to use the specialty the most. The shaded bars show the subgroups of the population which are more dependent on the specialty. The darkest shaded bars represent those that fall in the upper quartile (the top 25 per cent) of the most dependent parts of the population, when compared with the equivalent age bands of the overall population. The unshaded bars indicate the population percentage for that age group in 2031.

Figure 1 indicates that, based on first attendance HES data alone, males aged 20-29, 65-69, 75-79 and 85 and over and females aged 20-29, 45-49, 65-69 and 75-79 are the patients who use the service provided by Oral & Maxillofacial Surgery the most. Additionally the data suggests that the rest of the population also use the service but to a lesser degree.

Figure 1 also indicates that the population in all age bands from 65 upwards is predicted to grow over the next 20 years.

Figure 1: 2031 population estimate and indication of age and gender of the 2011 population using Oral & Maxillofacial Surgery



Source: HES Data provides the specialty specific age range that is applicable to the population using Oral & Maxillofacial Surgery (NHS IC, 2011b). Population statistics updated July 2008 (ONS, 2010).

Health and lifestyle

Lifestyle influences

Trends in selected lifestyle behaviours can be indicators to the possible future demand for Oral and Maxillofacial Surgery.

British Association of Oral Maxillofacial Surgeons website information (BAOMS, 2010b) on maxillofacial injury stated:

A population of 500,000 yields in excess of 4,000 facial injuries per year, of which 250 will be facial fractures, excluding simple nasal fractures. The incidence of facial fractures continues to rise. In the United Kingdom, the major cause of trauma to the facial area is interpersonal violence, with the incidence of injuries from road traffic accidents showing a decline in recent years. This information from the BAOMS goes on to say that this has led to an increase in the number of patients arriving at regional trauma centres with multi-system trauma and severe facial injuries. The reduction in facial injuries resultant from road traffic accidents may be a reflection of the effectiveness of seatbelt legislation, improved car design and safety equipment

A national facial injury survey, conducted by BAOMS in 163 accident and emergency departments across the United Kingdom, identified in one week 6,114 patients who presented with facial injuries. Specifically, the survey found that:

- nearly a quarter of facial injuries in all groups were associated with alcohol consumption
- one in three of these had serious facial injuries requiring specialist treatment or hospital admission
- at least half a million facial injuries occur in the United Kingdom annually and 180,000 are of a serious nature
- assault was the cause of 25% of facial injuries, i.e. at least 125,000 facial injuries per year are caused by assault
- 40 per cent of assaults caused serious facial injuries
- 51 per cent of assault victims had drunk alcohol within four hours of the injury
- 40 per cent of all the assaults occurred in the 15-25 age group and more than 40 per cent of these caused serious facial injury
- more women than men were assaulted in the home, nearly half of all assaults on women occurred in the home
- four men were assaulted for every assault on a woman
- road traffic accidents caused five per cent of facial injuries, but more than 40 per cent of these resulted in serious facial injury

- one in six patients involved in road traffic accidents had drunk alcohol within four hours of the injury
- 10 per cent of patients with facial injuries caused by falls had drunk alcohol within four hours of the injury.

The analysis from BAOMS identifies alcohol as a demand driver.

In addition to emergency generated activity, the BAOMS also identifies the following workload areas, on its website (BAOMS, 2010c):

- dentoalveolar surgery
- orofacial cancer and reconstructive surgery
- orthognathic surgery
- cleft lip and palate
- craniofacial surgery
- skull base surgery
- stereolithography in maxillofacial surgery
- facial aesthetic surgery
- minimally invasive surgery
- pre-prosthetic surgery and dental implants
- facial pain
- oral mucosal disorders
- salivary gland disease
- distraction osteogenesis.

The generated healthcare drivers for these procedures are wide and varied, such as with the ageing population which exhibits an increased incidence of degenerative illness. The activity for this specialty is, however, driven by referrals from several related specialties (BAOMS, 2010c).

Changes in practice

The increased use of three-dimensional radiographic anatomical displays (CT) scans and Magnetic Resonance Imaging (MRI) scans have allowed surgeons to view much more detailed images of the inside of a patient's head and neck anatomy and pathology. The benefit of using CT scans and MRI scans is centred on the fact that images may be manipulated by computer in order to generate precise models. This improves the surgery planning process. Moreover, navigational systems which allow the surgeon to view a 'head up display' in the operating theatre are being piloted which will further improve accuracy in this specialty (BAOMS, 2010d).

Changes in activity

Finished consultant episodes

Figure 2a: FCEs per year for Oral and Maxillofacial Surgery

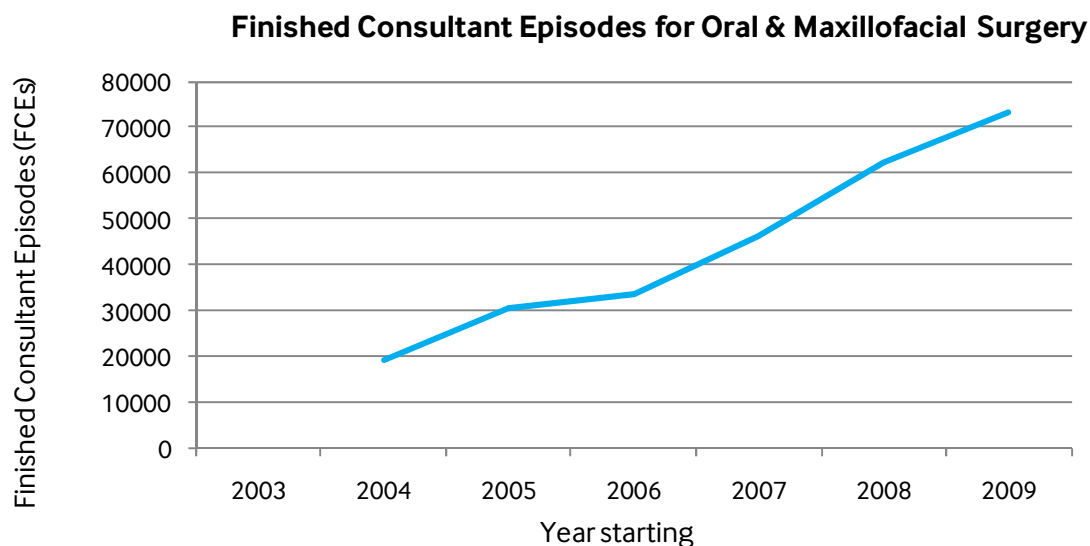
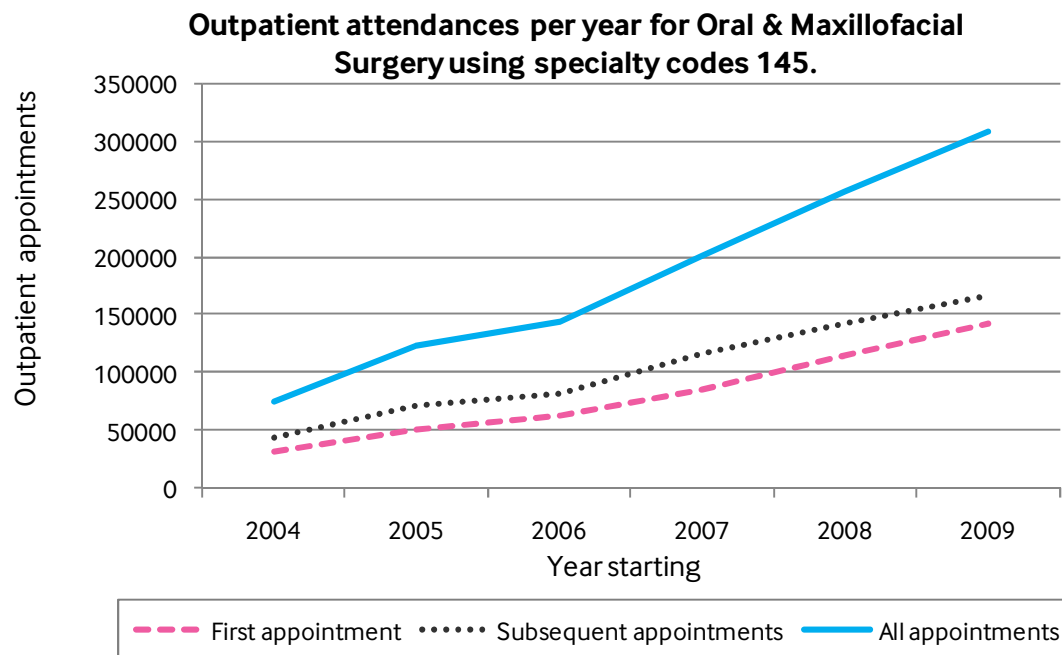


Figure 2a shows finished consultant episodes (FCE) data for OMFS from 2003/04 to 2009/10 (OMFS activity before 2004/05 was not recorded). If it is assumed that the recording and definition of FCEs in this specialty has not changed significantly over this time period, the rise in FCEs from 2004/05 onwards indicates a continued increase in activity in this specialty. It has, however, been an area where there has historically been considerable miscoding of HES activity data between specialty codes 140 (Oral Surgery) and 145 (OMFS).

Source: (NHS IC, 2011c). The data shows annual number of FCEs. FCEs were recorded in the tax year in which they finished, the date on the graph indicates the starting year for each tax year.

Outpatient attendances

Figure 2b: All outpatient attendances per year for Oral and Maxillofacial Surgery



If it is assumed that there has been consistency of recording over the years, Figure 2b shows a strong growth in OMFS outpatient activity, although the rate of growth has slowed over 2009/10. Figure 3b shows the trend in outpatient activity from 2004/05 to 2009/10. It also indicates a trend of considerable increase in activity. As with FCEs, there has also been, historically, considerable miscoding of outpatient activity data between specialty codes 140 (Oral Surgery) and 145 (OMFS).

Source: (NHS IC, 2011d). OAs were recorded in the tax year in which they occurred, the date on the graph indicates the starting year for each tax year.

CURRENT AND FORECAST SUPPLY

Existing workforce

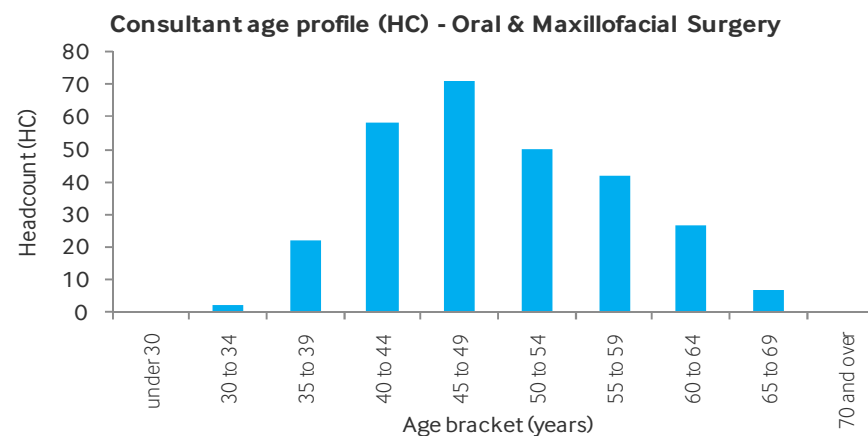
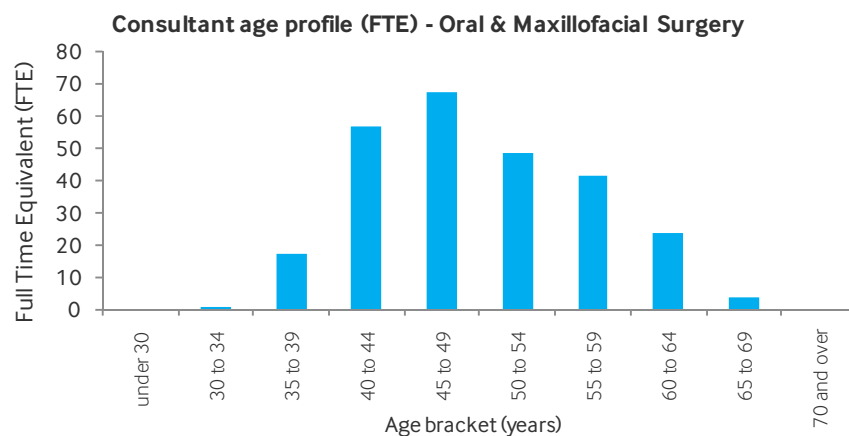
Supply and age profile

According to the 2010 NHS Information Centre Census, there are 259 FTEs (279 headcount) consultants (NHS IC, 2011a), while Electronic Staff Records (ESR, 2010) from September 2010 show 270 FTE (290 headcount). This is a difference of 4 per cent in comparison to census records. The latest available data records from December 2010 show 275 FTE consultants (295 headcount) (ESR, 2010).

(Please note that figures extracted from iView are rounded to the nearest 5).

The age profile of the current consultant workforce as at September 2010 is shown in Figures 3a and b.

Figures 3a and b: (a) Consultant age profile (FTE), and (b) Consultant age profile (HC) – Oral and Maxillofacial Surgery



Source: (NHS IC, 2011e)

The charts show a reasonable supply of younger staff and would not suggest an imminent retirement bulge.

Vacancies and locum staff

Data extracted via iView from ESR, December 2010, records that there are 5 FTE locums out of a total of 275 FTE for the practising consultant workforce (ESR, 2010).

(Please note that figures extracted from iView are rounded to the nearest 5).

The NHS IC March 2010 Vacancy Survey records a three month vacancy rate of 1.7 per cent for OMFS consultants in England which equals five posts - two in the North West, two in Yorkshire & the Humber and one in London (NHS IC, 2011f).

Geographical distribution

Tables 2a and 2b below show the geographical distribution of doctors and trainees in absolute values and in relation to the weighted capitation of each Strategic Health Authority (SHA) (a definition of weighted capitation is given below*).

Tables 2a and b; a) Actual number of doctors by grade and SHA, across ten SHAs for Oral and Maxillofacial Surgery, b) Number of FTE above or below that recommended by weighted capitation alone

		Number of doctors (FTE) by grade and SHA, shown for Oral and Maxillofacial Medicine - Based on IC census data for 2010 and deanery monitoring data for 2009			Number of doctors (FTE) over or under the number recommended by weighted capitation alone		
		Table (a)			Table (b)		
SHA	Weighted Capitation	Doctors in training	SSASG	Consultant	Doctors in training	SSASG	Consultant
North East	5.80%	8	7	14	1	-2	-1
North West	15.00%	20	16	36	2	-7	-3
Yorkshire & The Humber**	10.70%	12	17	24	-1	1	-4
East Midlands**	8.60%	11	14	22	1	1	-1
West Midlands	11.00%	14	10	26	1	-7	-3
East of England	10.30%	5	18	25	-7	3	-2
London	14.20%	24	18	38	7	-4	1
South East Coast	7.70%	6	22	30	-3	10	10
South Central	6.80%	10	13	19	2	2	1
South West	9.90%	9	18	28	-3	3	2
Total	100.00%	119	154	259			

Source: Weighted capitation (DH, 2011a), Consultant/SSASG numbers (NHS IC, 2011a) and deanery monitoring (NHS IC, 2009)

**Deanery monitoring data is adjusted for these SHAs, as Yorkshire & the Humber Deanery provides the training for 11 posts within the East Midlands geography.

Note due to rounding sum of data may not match presented totals.

There is an apparent 'North South divide' in terms of consultant numbers where South East Coast particularly, South West, London and South Central are over the FTEs suggested by weighted capitation; the remaining six SHAs are all under the number of FTEs from the weighted capitation formula. South East Coast also significantly exceeds the number of specialty doctor posts under the formula with North West being the furthest under target.

For junior doctor posts London is over-capitated, and the East of England is the most under-capitated SHA. * The Department of Health uses a weighted capitation formula (WCAP) to distribute resources to primary care trusts (PCTs) based on the relative health needs of each PCT's catchment area (DH, 2011b). If qualified doctors and trainees were equitably distributed according to the formula, all other columns in Table 2b would be zero. Values greater than zero indicate that the SHA has more doctors than would be included by WCAP; values less than zero indicate that the SHA has fewer doctors than would be included by WCAP. However, the CfWI recognises that weighted capitation does not reflect that specialist services are not equally distributed throughout England. It is also important that all training posts are of high quality, and high-quality training placements may not be equally available across England.

Recruitment

Table 3: 2010 Specialty Recruitment for Oral and Maxillofacial Surgery at ST1, by post graduate deanery

Deanery	Available Posts	Accepted Posts	Fill Rate
East Midlands	-	-	-
East of England	-	-	-
Kent, Surrey and Sussex	-	-	-
London	5	5	100%
Mersey	-	-	-
North West	2	2	100%
Northern	1	1	100%
Oxford	-	-	-
Peninsula	-	-	-
Severn	-	-	-
West Midlands	-	-	-
Wessex	2	2	100%
Yorkshire and the Humber	-	-	-
Total	10	10	100%

The summary position of recruitment to OMFS in the 2010 recruitment round is shown in Table 3.

OMFS recruitment was undertaken by some post graduate deaneries as part of national recruitment, so the table will not identify regional differences in the recruitment. It is recognised by the BAOMS that more than half of trainees do not return to OMFS after completing their core surgical training. In previous years, full recruitment to OMFS has been difficult.

Source: (DH, 2010b)

Note: London recruitment includes recruitment to London, London/KSS and London/KSS/EoE

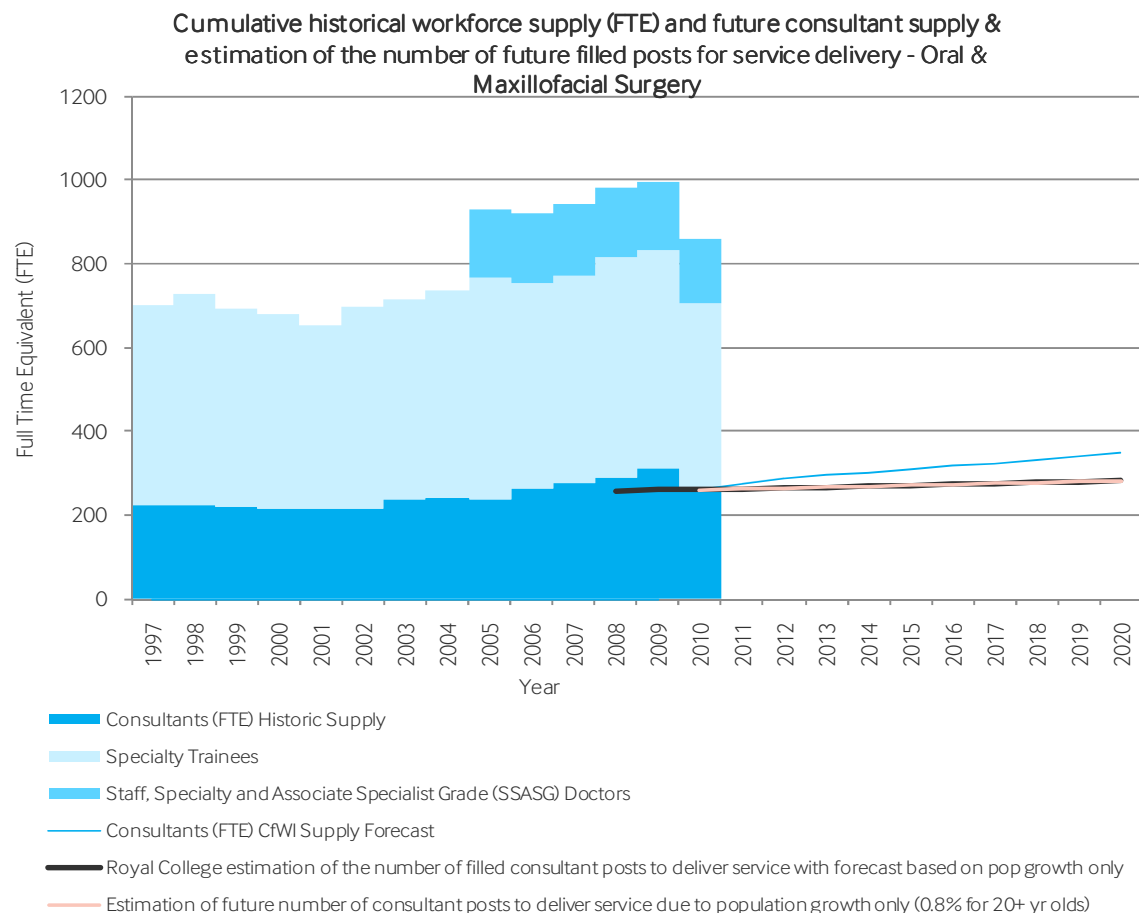
Consultant projections

The supply and forecast of doctors in OMFS is shown in Figures 4a and b. Historical data is taken from the NHS Information Centre Medical Census (1997-2010). The future consultant projections are based on the assumption that all trainees gaining a CCT in OMFS begin working as a consultant within the same year.

The objective of the medical workforce configuration data in Figures 4a and b is to show historically how the service has been delivered in OMFS, with a combination of consultants, staff, specialty and associate specialist grade (SSASG) doctors, and trainee doctors (who may be in training towards another specialty, but are providing service in OMFS). The supply forecast will give an indication of progress towards a specialist delivered service.

The figures are based upon the latest data available (SSASG data dates back to 2005).

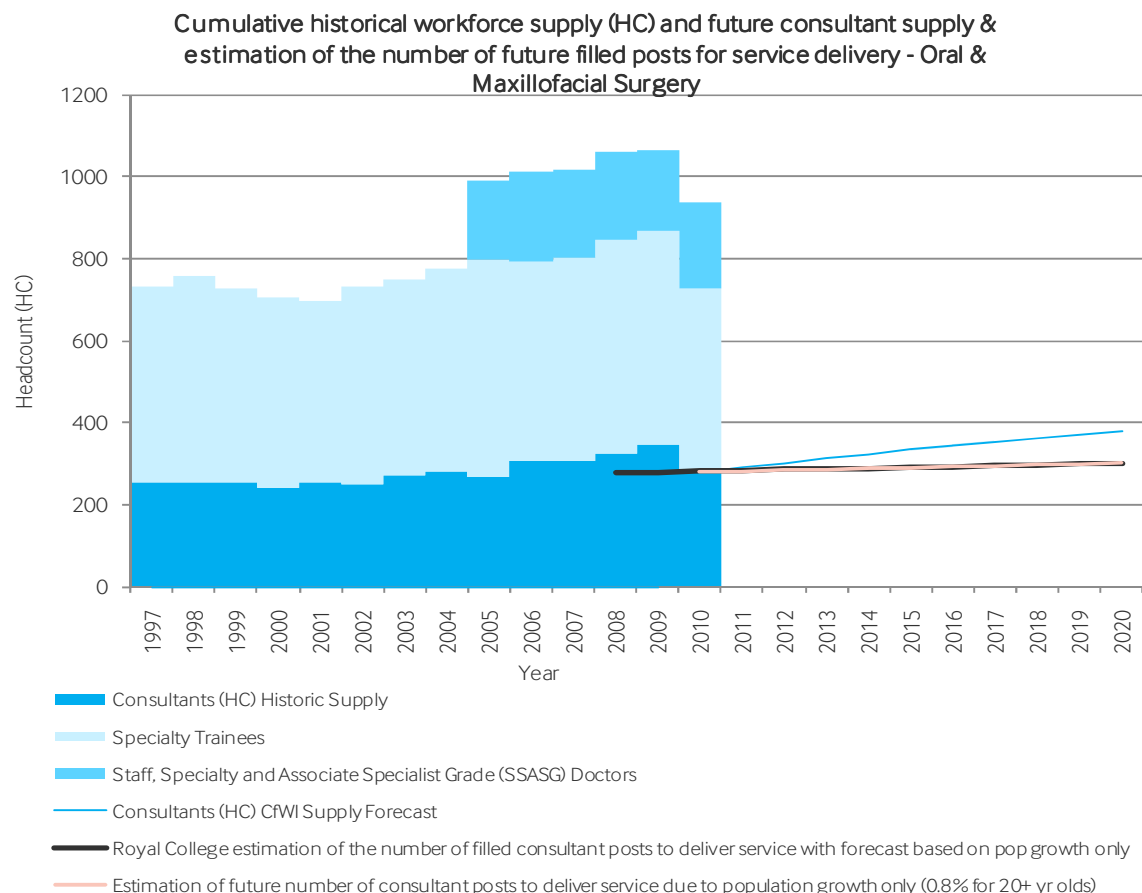
Figures 4a- Workforce supply and estimation of future number of consultant posts to deliver service (FTE) – Oral and Maxillofacial Surgery



The census data suggests that there has been a significant drop in the number of consultant staff between 2009 (310 FTE) and 2010 (259 FTE). Comparing the number of staff using iView shows that there was a significant difference between the census and iView for September 2009 whereas these two values, allowing for the inherent rounding in iView, are very closely aligned by September 2010. This downward revision of the base numbers has had an impact on the forecast below, compared to previous years.

The supply of OMFS consultants over the next ten years is forecast to increase to 347 FTE in 2020 (381 headcount), an average increase of 3.4 per cent annually, which is slightly ahead of the population based estimates. The BAOMS estimated in 2010 that one FTE trained specialist in OMFS was required per 200,000 population (RCSE, 2011). If this level of demand does not change, the supply of consultants is expected to be slightly ahead of estimated levels. The supply of middle grade medical staff together with trainees (defined as specialty trainees - registrars and senior house officers - providing input into OMFS) has also reduced since in the latest census figures.

Figures 4b- Workforce supply and estimation of future number of consultant posts to deliver service (HC) – Oral and Maxillofacial Surgery



The supply forecast is based on the following modelling assumptions:

- Total national training numbers (NTNs) in training are split evenly across the higher specialty training years, and NTNs are 'recycled' upon trainees gaining a CCT. All recycled NTNs are assumed to be filled in the next application process.
- Every new CCT holder is assumed to start work as a consultant within the same year.
- The only source of joiners to the consultant workforce is through the training system. The modelling of this route takes into account the age of trainees, length of training, likely delays and attrition. The only leavers from the consultant workforce are retirements. A distribution of retirements is modelled which reflects the variation in age of retirement between consultants.

Figures 4a and b source: Historical Supply Data (NHS IC, 2011a), supply forecast (ESR, 2010), workforce assumptions (NHS IC, 2009) and estimates using population projections (ONS, 2010).

For OMFS, the following additional assumptions have been applied:

- no reduction or expansion modelled for 2011, resulting in a total of 110 doctors in training at any one time from 2011 onwards
- average delays in training of one year to model out of programme experiences
- training attrition of one per cent per year*
- a constant participation rate of 0.93 for consultants over the next 10 years
- an average retirement age of 63 years.*

*assumptions reached by analysing past trends and engaging with the specialty in order to identify indications that trends may change in the future.

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