# Advancing the surgical workforce: trauma and orthopaedics

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In 2010, the Royal College of Surgeons of England undertook a census of all consultants working in England, Wales and Northern Ireland[1]. In the report, it was stated "current financial and organisational pressures within the NHS mean that the need for workforce planning is greater than ever. The NHS needs to be prepared for steep changes in the configuration of services and staffing requirements." This statement is equally applicable now as back in 2011.

There have been a number of key events and factors which impact on the way in which we look at workforce planning. The continual adverse effect of winter pressures, coupled with the severe effect of the pandemic, both on the work force and clinical practice, and the challenges within the development of the NHS Long Term Workforce Plan,[2] have all made it clear that in surgery we need to understand how the work force is working, the composition of the workforce, and the effect of conditions of work on the whole surgical team. It was within this context that the Royal College of Surgeons of England Workforce and Training Committee elected to undertake a census of the whole of the surgical workforce across the United Kingdom[3].

## Methods

The aims of the census were to survey all members of the surgical workforce to inform workforce planning and to identify the key challenges facing the whole surgical team. It was designed to cover the whole of the UK and all specialties and all grades, including consultants, SAS surgeons, trainees, locally employed surgeons and the extended surgical team. It was undertaken by the business intelligence unit of the Royal College of Surgeons of England with the support of Royal College of Surgeons of Edinburgh and Royal College of Physicians and Surgeons of Glasgow and the Surgical Specialty Associations. It was designed as an online survey with three domains. These were demographics of the whole surgical workforce, job plans and activity and working conditions linking to well-being and job satisfaction. The survey was questionnaire based with binary answers, drop down boxes and free text. The data has been analysed using Power BI (Microsoft) software which enables detailed interrogation of a large number of data items as well qualitative evaluation of free text comments. It has therefore been possible to identify specialty specific details which are herein described for trauma and orthopaedics (T&O).

## Results

The census was completed in two months in 2023. There were 6,348 responses from the different members of the surgical team. This is estimated to represent approximately 25% of the current surgical workforce. Overall 54% of responses were from consultants, 25% from surgeons in training, 10% from SAS surgeons, 5% from locally employed surgeons, and 6% from members of the extended surgical team. In T&O there were 1,566 responses of which 59% were consultants, 23% surgical trainees, 8% SAS surgeons, 4% locally employed surgeons and 5% extended surgical team.

## Demographics

The distribution by gender in T&O for consultants was 82% male and 18% female. For trainees this distribution was 67% male and 32% female. The distribution by age group is shown in Figure 1.

This distribution by age is similar to other specialties. Retirement planning is a key component of workforce planning and 31%

of consultants planned to retire in the next four years. This is considered to be earlier than initially planned by 37% of respondents. The data does suggest that there appears to be a net loss in staffing levels with more leaving the specialty than entering training.

## Job planning and activity

The distribution of consultants by subspecialty is shown in Figure 2. The majority (19%) have a subspecialty interest in hip surgery including revision arthroplasty with the next highest preference being in knee surgery (16%).

The T&O workforce mainly works full time with 14% working less than full time. Just over 40% of consultants are contracted to more than 11 PAs with 56% working 1 to 1.5 SPAs. SAS surgeons are working similarly with 38% working 11 or more PAs and 68% 1 to 1.5 SPAs. Consultant job plans include two to four outpatient clinics weekly for 69%, with 35% undertaking two scheduled weekly operating sessions and 37% three scheduled operating sessions. SAS surgeons undertake similar proportions of clinics but in addition to the similar numbers of consultants undertaking two and three scheduled operating sessions, 20% are undertaking four scheduled operating sessions. These rates are higher than other specialties. The rise in revision arthroplasty has increased dual-consultant operating, largely reflecting experienced surgeons mentoring less experienced colleagues.

T&O is an acute specialty with 68% of consultants having an on call commitment (34% 1 in 5 – 1 in 8 and 38% 1 in 9 to 1 in 12). For SAS surgeons 78% have an on call commitment with 45% being resident when on call (36% 1 in 5 – 1 in 8 and 52% 1 in 9 – 1 in 12). When on call 64% are free from elective work reflecting trauma weeks which tend to occur every 6-8 weeks. The rate at which respondents always or frequently work beyond their contracted hours was 61%.

## Working conditions and wellbeing

The census asked all respondents to select their top five challenges from a list of 10. The results for all for T&O are shown in Figure 3.

More than 50% of respondents cited pay and pensions, burnout and stress, access to theatre and working conditions as their main challenges. It is important to appreciate that the census was undertaken at the beginning of the industrial action by junior doctors and also as changes to pension arrangements had been announced by government. The rates of concerns amongst T&O of limited access to theatre are equivalent to all other specialties. This reflects availability of surgeons, anaesthetists and theatre staff as well as infrastructure with the availability of operating theatres. The rate of burnout and stress is also very similar to all other specialties and this reflects the heavy workload with increasing waiting lists not the least because of the pandemic. Comments about burnout and stress are reflected in the earlier plans for retirement the high proportion of surgeons working beyond their contract and the net effect on family life with 39% not taking their full annual leave entitlement in the previous year.

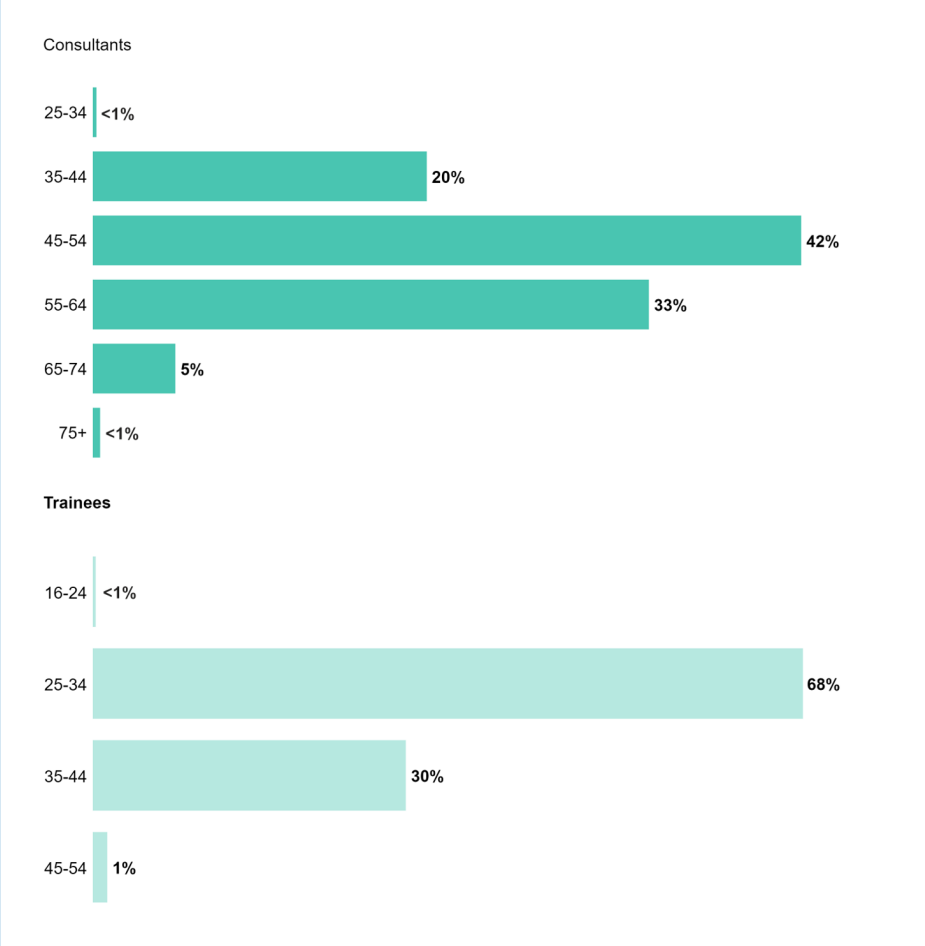


Figure 1: Distribution of Consultations and Trainees in T&O by age.

## Trainees and training

There were responses from 361 T&O trainees of whom 287 were higher surgical trainees and 74 in core training. Although a small sample, 62% cited access to theatre as one of their main challenges with the adverse effect on training opportunities. These limitations on training resulted in 64% citing burn out and stress as their highest challenge.

In the data for all surgical trainees 32% replied that they had considered leaving training in the previous year with the highest proportion (46%) being among core trainees. The main reasons for considering leaving training were burn out, working conditions, cost and length of training. In the specific question on the commonest responses for not recommending their specialty were lack of work-life balance, pay, lack of training opportunities and workload and working hours. There was overall frustration in the emphasis on service provision with less focus on training. Inefficiencies in the system particularly in turn-around times in theatre and short notice cancellation of training operating lists were highlighted. Therefore, trainees did not feel they were able to gain confidence in the breadth of procedures within the competence curriculum. The costs of training were also emphasised because essential courses were not covered by the study leave budget and reimbursement of upfront costs was an inefficient process. Overall trainees commented that training should be better managed with dedicated time for training and adequate on-call rota management to ensure fairness of service commitments. >>

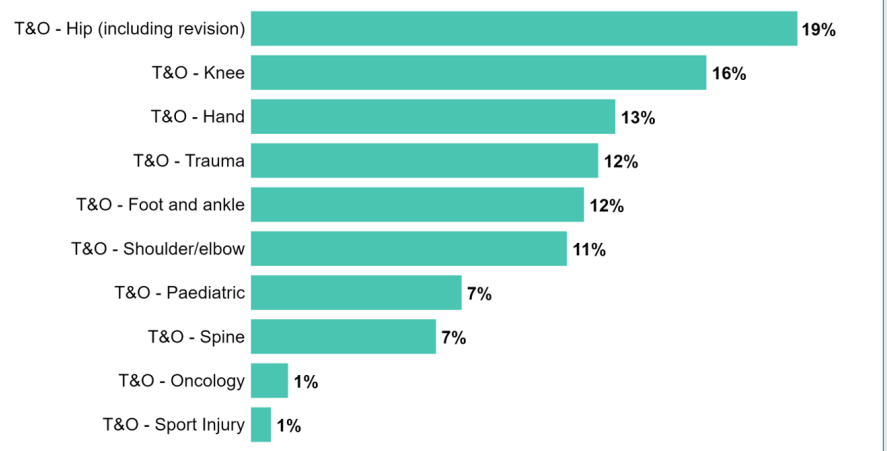


Figure 2: Distribution of respondents by T&O Subspecialty.

## Recommendations

The census has clearly shown a workforce that is struggling to provide a high quality service for patients as well as high quality training for future consultants. The recommendations from the census have been designed to provide solutions for the reported issues and have been presented as three aims. These are firstly to increase productivity to reduce waiting lists, secondly to ensure a sustainable surgical workforce and thirdly to change the way surgeons work. Waiting times are very much a systems challenge to address the problems of theatre access. Inefficiencies in the system including efficient scheduling, staffing numbers and ensuring successful implementation of the surgical hubs programme are short and medium term priorities. The Long Term Workforce Plan has highlighted increasing numbers of consultants. Workforce capacity can also be increased by enabling consultants to work more efficiently by removing unnecessary duties which impact productivity. The census has highlighted that administration is a particular drain on consultant time which could equally be done by other members of the team. In addition to theatre work, effective transformation of outpatient work is required to ensure efficient elective recovery. This includes community clinics, one-stop services, teleconsultations and patient led review rather than traditional follow-up.

It is clear from the census that morale is low, reflecting the adverse effect of working conditions on well-being. For consultants and trained staff there needs to be better understanding of current ways of working to improve working conditions. Variability in job planning should be readily available not only to support good clinical practice but also enable development in areas such as education training and management. For trainees there needs to be spread of best practice to ensure training opportunities are optimal. In addition, the facilities and overall support for trainees in the workplace need to be enhanced so that the surgical team is more effective. Specific initiatives such as job planning for trainees and more effective and user-friendly rota planning by trainees should be encouraged.

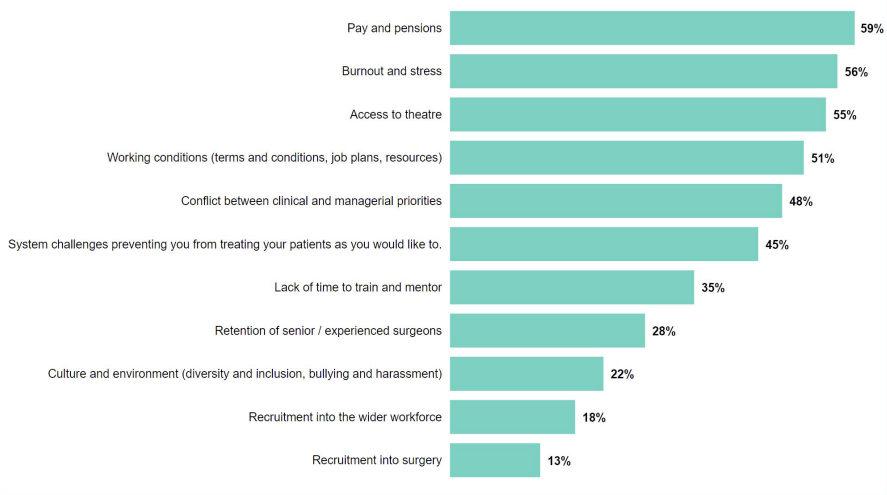


Figure 3: Ranking of Top 10 Challenges.

There is no doubt that there are challenges in ensuring surgery remains an attractive career option. The emphasis on service needs to be paralleled by an emphasis on training using every available opportunity. Trainers need to have time in their job plans to undertake dedicated training. The working lives of both trainers and trainees need to be improved as this will impact upon training experience and quality but also on job satisfaction. From the demographic details in T&O it is clear that the gender balance is shifting and there needs to be greater appreciation of less than full time working. It is also clear that there is a potential problem with more leaving than joining and measures should be clear about supporting retention of workforce as well as addressing support for those at the end of their careers who are both willing and able to continue working, supporting younger colleagues as well as the clinical service.

## Conclusion

The census was designed to address a variety of topics in order to understand the composition of the workforce, the way it is working and the qualitative effect of working conditions. It has highlighted that there are common issues in T&O which are also present in other specialties. It has also identified specific challenges for T&O which need to be taken into consideration in future workforce planning to ensure maintenance of high quality patient care. ■

## References

1. Surgical Workforce 2010 – profile and trends. Available at: www.rcseng.ac.uk/standards-and-research/surgical-workforce-census/workforce-reports-and-statistics.
2. NHSE Long Term Workforce Plan. Available at: www.england.nhs.uk/publication/nhs-long-term-workforce-plan.
3. Advancing the surgical workforce: 2023 UK Surgical Workforce Census Report. Available at: www.rcseng.ac.uk/standards-and-research/surgical-workforce-census.