The Anaesthetic Workforce: UK State of the Nation Report

Contents

Executive summary 2

Introduction 3

The anaesthetic workforce in 2022 5
   The different grades of anaesthetists 5
   Number of unfilled consultant and SAS/trust doctors posts and shortfalls which need to be filled to meet demand 6
   The contribution of anaesthetists in training to the anaesthetic workforce 7
   Anaesthesia associates 7
   An ageing anaesthetic workforce 7
   Changes in the number of anaesthetists by age group since 2007 7
   The retention challenge in anaesthesia 8
   What would influence anaesthetists to stay longer? 8
   Why do anaesthetists retire or leave early? 8
   Less than full-time working 10
   Pension taxation 10
   Anaesthetists from abroad 11

Expected increase in demand for anaesthetic services by 2040 12
   Increases in demand 12
   Increases in supply 13
   Growing gap between supply and demand 13
   Breakdown by nation 14

Impact on patient care and the NHS if anaesthetic workforce gaps are left unaddressed 14
   Severe constraints on NHS capacity 14
   The cost of locums 15

Making anaesthesia ‘fit for the future’ 16
   Looking to the short and medium-term anaesthetic workforce needs 16
   Looking to the long-term anaesthetic workforce needs 16

References 18

ISBN: 978-1-900936-30-9

© 2022 Royal College of Anaesthetists

All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any other means, electronic, mechanical, photocopying, recording, or otherwise, without prior permission, in writing, of the Royal College of Anaesthetists.

Whilst the Royal College of Anaesthetists has endeavoured to ensure that this document is as accurate as possible at the time it was published, it can take no responsibility for matters arising from circumstances which may have changed, or information which may become available subsequently.

Royal College of Anaesthetists, Churchill House, 35 Red Lion Square, London WC1R 4SG
020 7092 1500 | advocacy@rcoa.ac.uk | rcoa.ac.uk

Design and layout by the Royal College of Anaesthetists
Executive summary

- Anaesthetists are vital to addressing the NHS waiting list crisis, as most operations cannot take place without an anaesthetist.
- Anaesthetists play a critical role across many healthcare settings, including most recently in COVID-19 wards.
- There is currently a shortage of at least 1,400 anaesthetists across the UK, severely limiting the ability of the NHS to perform operations and address the backlog.
- We estimate that roughly one million operations are unable to take place per year due to the current shortfall of anaesthetic staff.
- Our census shows that the anaesthetic workforce is not growing fast enough to meet the increase in demand for anaesthetic services and that 39% of anaesthetists are now in the 50+ age group.
- Anaesthesia is facing a perfect storm of limited training places, poor retention and an ageing workforce when the NHS is facing its biggest challenge since its inception.
- Factors driving poor retention include increasing workloads, lack of flexibility in working hours, and pension taxation rules.
- The pandemic has had a considerable impact on the wellbeing and morale of anaesthetists, making some less inclined to stay working in the NHS unless these factors are addressed.
- Demand for healthcare services, in particular surgery, is set to increase due to factors such as the growing and ageing UK population. At the current insufficient growth rate, the NHS will have a shortfall of 11,000 anaesthetic staff by 2040 to meet this additional demand.
- This deficit, unless addressed, would prevent 8.25 million operations from taking place.
- Anaesthetists are essential to the delivery and establishment of perioperative care pathways, identified as a key element to optimise surgical services for the benefit of the NHS and patients alike.
- There is an urgent need to put the anaesthetic workforce on a sustainable footing to ensure the safe and effective care that patients need and to realise the government’s ambition of building back a stronger NHS.
- Solutions must involve boosting anaesthetic training places, addressing the causes of poor retention, such as the current pension taxation regime, and adopting a long-term, sustainable approach to workforce planning.
Introduction

Across the UK, the NHS is facing a waiting list crisis. In England, an all-time record of 6 million people are currently waiting for treatment,\(^1\) while Scotland, Wales and Northern Ireland report 551,000,\(^2\) 528,000\(^3\) and 372,000\(^4\) respectively.\(^1\) Unfortunately, this number is set to grow. Projections show that, in 2022, the backlog could grow to over 13 million\(^5\) in England. It is, therefore, imperative that UK governments boost both the capacity and the efficiency of the NHS.

Anaesthetists are a critical part of the solution. Most operations cannot take place without an anaesthetist – however, as we will show later in this document, there is currently a UK-wide shortage of 1,400 consultant and SAS anaesthetists. This represents a fundamental bottleneck in the system. Simply put: unless the anaesthetic workforce is bolstered, it would seem near impossible to bring the backlog down any time soon.

The NHS has been grappling with long waiting times and growing waiting lists since well before the pandemic started. From May 2010 to just before the pandemic hit in January 2020, the number of people on NHS waiting lists in England rose from 2.6 million to 4.4 million.\(^6\)

Furthermore, when COVID-19 hit in 2020, the healthcare service in the UK was already lagging behind other European countries in terms of doctors per capita (2.8 doctors per 1,000 people in the UK compared with 3.6 per 1,000 people in other comparable countries),\(^7\) leaving it without the capacity to do its normal day-to-day work and deal with a new public health crisis.

In order to cope with the continuous influx of COVID-19 patients at the height of the pandemic, all but the most essential elective activity had to be suspended, considerably swelling waiting lists. The shortage of anaesthetists played a big part in this. The role and skills of anaesthetists go beyond administering anaesthetics. Because of their unique skillset in looking after critically ill patients, anaesthetists played a vital role in the care of COVID-19 patients in intensive care units at the height of the pandemic.\(^8\)

Not only did COVID-19 plunge the NHS into its biggest crisis since its inception, but it also came at a time of reform, causing momentum to be lost on the implementation of the NHS Long Term Plan\(^9\) in England, Realistic Medicine\(^10\) in Scotland, Prudent Healthcare\(^11\) in Wales, and Transforming your care\(^12\) in Northern Ireland. All these strategies set ambitious targets for better population health, patient-centred care, integrated services and prevention.

However, not all is lost for these worthy aims. Potentially, COVID-19 has given health policy makers the jolt they need to get things right. The Westminster Government has pledged to Build Back Better,\(^13\) which includes aims to tackle the backlog and put the NHS on a sustainable footing. We welcome these goals, but if they are to be realised, governments across the UK need to commit the resources required to deliver on the ambitions of these strategies, especially human resources, or these plans will become nothing more than wish lists.

The pandemic has had a devastating effect on the morale and wellbeing of the workforce. Anaesthetists, who have led on the frontline response to COVID-19, have suffered and continue to suffer poor mental health and high levels of burn-out.\(^14\) Difficulties in retaining staff risk delaying the backlog recovery even further. Increasingly, anaesthetic departments are having to spend considerable amounts of precious budget on expensive agency locums and bank staff or on overtime to cover operations that otherwise could not take place. However, even these expensive options can only increase capacity so far. There is only so much overtime anaesthetists can safely do, and locum anaesthetists cannot fill all the gaps across the UK.

---

\(^1\)Definitions of exactly which procedures are counted towards waiting lists varies by nation, therefore figures are not directly comparable.
It is also vital to realise that anaesthesia plays a critical role across secondary healthcare, meaning shortages have wider impacts than just on surgical waiting lists. Many areas of the NHS could simply could not function without anaesthetic services, including maternity, emergency, and trauma and pain services, to name just a few. In addition, anaesthetists are playing an ever-larger role throughout the surgical pathway. From helping patients to prepare for surgery, to ensuring discharge plans are in place, anaesthetists are spearheading vital moves to reduce complications, improve efficiency and boost patient outcomes.

While expected to continue to support the recovery from the pandemic for several more years, the NHS will struggle to meet the increasing health demands of an ageing population without long-term and sustainable investment in its anaesthetic workforce.

The aim of this report is to paint a comprehensive picture of the anaesthetic workforce and the challenges it currently faces, and to outline the resources and investment required to clear the backlog and put the NHS on a sustainable footing. It is aimed at governments, healthcare leaders, and policy makers – and should be used to inform workforce planning decisions around anaesthetic services.
The anaesthetic workforce in 2022

Our latest anaesthetic workforce census tells us that across the UK, the NHS is currently 1,400 consultant and SAS anaesthetists short. Without addressing this gap, any plans to tackle the NHS’s large and growing elective surgery backlog are in jeopardy.

The current shortfall of 1,400 anaesthetists could result in one million surgical procedures being delayed every year.

This forms part of a wider pattern of workforce shortages across the NHS. A recent report by the BMA calculates that since 2010, the number of doctors in secondary care in England alone has only risen by an average of 2.34%, despite the fact that activity in NHS hospitals and community services has increased by over 25%.

Furthermore, the pandemic and the backlog in elective surgery have brought anaesthesia to the fore as a pillar of healthcare services and have shone a light on how anaesthetic workforce shortages can have a severe impact on the safe and prompt delivery of patient care.

Despite a successful vaccination programme, at the time of writing this report COVID-19 infection rates across the UK remain high, especially in light of the Omicron variant. Even the slightest increase in COVID patients, coupled with the usual winter pressures, can throw a hospital’s ability to deliver elective care into disarray.

Adding to the problem is the requirement to run COVID-free sites during the pandemic, which requires additional resources and staffing, both of which are in very limited supply.

The current shortfall of anaesthetists would not allow the spare capacity needed to manage patient surges and elective services simultaneously. This could lead to a further suspension, or at best further delays, of surgery in some hospitals, which would be disastrous for the recovery of the NHS.

The different grades of anaesthetists

<table>
<thead>
<tr>
<th>Consultant anaesthetists</th>
<th>Specialty and associate specialist (SAS) and trust doctor anaesthetists</th>
<th>Anaesthetists in training</th>
</tr>
</thead>
<tbody>
<tr>
<td>A consultant anaesthetist is the most senior grade of anaesthetist. They usually have around 14 years of medical training, including seven years of specialist training in anaesthetics. Consultant anaesthetists have clinical, managerial and education duties and they have overall responsibility for care of patients.</td>
<td>SAS doctors have at least two years of specialist training in anaesthesia, but often have many years of experience working as an anaesthetist. They focus predominantly on direct patient care although many do have non-clinical or management duties. For example, some senior specialist grade doctors, work at levels similar to a consultant. Trust doctors are usually employed on different contracts to SAS doctors. They typically work at the level of a junior anaesthetist in training (specialty training year 1–3).</td>
<td>Anaesthetists in training are registered doctors who may be at different stages of specialty training (ST7 being the most experienced and close to starting their consultant posts). Anaesthetists in training work under the supervision of consultant anaesthetists.</td>
</tr>
</tbody>
</table>
Anaesthesia is experiencing workforce gaps across all grades. In the census, we asked clinical directors how many anaesthetists they needed in real terms to meet increase in demand. Across the UK, there is a consultant shortfall of 1,054 and an SAS anaesthetist shortfall of 356.

Number of unfilled consultant and SAS/trust doctors posts and shortfalls which need to be filled to meet demand

<table>
<thead>
<tr>
<th></th>
<th>England</th>
<th>Northern Ireland</th>
<th>Scotland</th>
<th>Wales</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current number of consultant anaesthetists</td>
<td>6,471</td>
<td>279</td>
<td>776</td>
<td>433</td>
<td>7,959</td>
</tr>
<tr>
<td>Unfilled consultant anaesthetists posts¹</td>
<td>826</td>
<td>31</td>
<td>103</td>
<td>94</td>
<td>1,054</td>
</tr>
<tr>
<td>Current number of SAS/trust anaesthetists</td>
<td>1,781</td>
<td>48</td>
<td>99</td>
<td>170</td>
<td>2,098</td>
</tr>
<tr>
<td>Unfilled SAS/trust anaesthetists posts¹</td>
<td>249</td>
<td>33</td>
<td>20</td>
<td>54</td>
<td>356</td>
</tr>
</tbody>
</table>

Source: RCoA Medical Workforce Census 2020

The census also tells us that the anaesthetic workforce has grown too slowly to meet demand for anaesthetic services.

The number of anaesthetists (consultants and SAS) has grown slightly from 9,486 in 2015 to 10,057 in 2020 – but this is nowhere near enough to meet current demand, let alone meet the long-term needs of an ageing population with complex health needs. Equally worrying is that the number of SAS and trust anaesthetists has remained largely unchanged since 2015, rising from 2,033 to 2,098 in 2020. These staff play a significant role in the delivery of elective and emergency services and in ensuring 24-hour anaesthetic cover.

At the same time, higher anaesthetic trainee numbers have remained relatively stable from 2015 to 2019. The number of higher level training (ST3) posts appointed were 480 in 2015 and 499 in 2019. However, in 2021, a large number of applications for the August entry round were received, with applicant numbers increasing from 758 in 2020 to 1,056 in 2021. With only 359 places available, this left many senior anaesthetic trainees struggling to find a training place or a job, at a time when it is important to have as many anaesthetists as possible to meet additional demand.

¹This includes funded and aspirational gaps. The ‘funded gap’ refers to vacant posts that a trust has the money for, but is unable to fill due to factors such as lack of suitable applicants. The aspirational gap is additional anaesthetic posts that a trust needs, even if it doesn’t currently have the money for them.
The contribution of anaesthetists in training to the anaesthetic workforce

Becoming a consultant anaesthetist takes around 14 years. This breaks down as five years to complete a medical degree, two years foundation training, two to three years of core specialist training, and four to five years of higher specialist training. While this whole process takes a long time, by the time someone has entered higher specialist training, they already have around nine years of medical training under their belt.

Working on the assumption that higher anaesthetic trainees spend 54% of their time on clinical work (equating to around 405 procedures per year per trainee), we estimate that increasing trainee numbers by 100, for example, would allow an extra 40,500 operations to take place, providing that adequate consultant supervision is in place. If this was extended for four years, an extra 162,000 extra operations could take place in the fourth year, and once the trainees all qualified, an extra 300,000 operations could take place.

Anaesthesia associates

Anaesthesia associates are non-medically qualified anaesthesia practitioners who can help qualified anaesthetists in their role. The 2020 census showed that there were 173 anaesthesia associates in the UK, lagging far behind the number of physician associates – a comparable medical associate profession – at around 2,500. These numbers will need to be expanded considerably if anaesthetic departments are to realise the full potential of this cohort. It is unfortunate that the legislation required to institute the regulation of anaesthesia associates and physician associates through the General Medical Council has been delayed to 2023. A regulated profession is more likely to be attractive to both employers and healthcare staff considering the role.

An ageing anaesthetic workforce

The data we have collected on the age profile of anaesthetists over the past four censuses is telling us that the anaesthetic workforce is getting older. More consultants are now working beyond the age of 60 years, up from 5% in 2015 to 7% in 2020, and the 50 plus age group is now 39% of the workforce, compared with 31% in 2007. This group is more likely to enter retirement over the next five to ten years.

Changes in the number of anaesthetists by age group since 2007

<table>
<thead>
<tr>
<th>Age distribution (%) with each census</th>
</tr>
</thead>
<tbody>
<tr>
<td>60%</td>
</tr>
<tr>
<td>5%</td>
</tr>
<tr>
<td>19%</td>
</tr>
<tr>
<td>31%</td>
</tr>
<tr>
<td>5%</td>
</tr>
<tr>
<td>0</td>
</tr>
</tbody>
</table>

2007 | 2010 | 2015 | 2020
The retention challenge in anaesthesia
In October 2021, the RCoA published its report *Respected, valued, retained – working together to improve retention in anaesthesia*, bringing together evidence from a literature review and a membership survey on the factors affecting retention in anaesthesia, a summary of which can be seen below.

<table>
<thead>
<tr>
<th>Why do anaesthetists retire or leave early?</th>
<th>What would influence anaesthetists to stay longer?†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not feeling valued or well supported, including relationships with colleagues and managers 42%</td>
<td>Being able to work flexibly and less than full time to have better work-life balance 67%</td>
</tr>
<tr>
<td>Wanting to pursue leisure interests and spend time with family 36%</td>
<td>Reduced or no on-call work 80%</td>
</tr>
<tr>
<td>Concerns about taxes or pensions 36%</td>
<td>Contract flexibility 67%</td>
</tr>
<tr>
<td>Bureaucracy and leadership issues 35%</td>
<td>Being able to adjust clinical practice or the environment to account for physical changes with age 77%</td>
</tr>
<tr>
<td>Improving mental wellbeing, reducing stress or burnout 25%</td>
<td>Having supportive colleagues and managers that are respectful and appreciative 66%</td>
</tr>
<tr>
<td>Could not sustain workload or being on-call 25%</td>
<td>Advice about pay, pension and taxation issues 66%</td>
</tr>
<tr>
<td>Lack of flexibility, reduced hours, breaks or leave 19%</td>
<td></td>
</tr>
<tr>
<td>Lack of autonomy and respect 16%</td>
<td></td>
</tr>
</tbody>
</table>

† Figures presented are weighted averages of the responses from SAS and consultant anaesthetists. For a full breakdown by grade and employment status, see our *Respected, valued, retained – working together to improve retention in anaesthesia*. 
The report also explored career intentions for anaesthetists at different grades and revealed that:

- One in four (25%) consultants and one in five (20%) SAS anaesthetists plan to leave the NHS within five years.
- Around 1/3 of respondents said that COVID-19 made them less inclined to stay working in the NHS.

The report also shows that our members are finding their workload increasingly unmanageable.

- 3 in 10 anaesthetists thought that their workload would not be sustainable as they got older.
- 6 in 10 anaesthetists thought that their workload would only be sustainable with adjustments.

The report identifies work-life balance and the need for flexibility (and lack thereof) as two key factors affecting career decisions in anaesthesia. Yet our members have told us that flexible working and appropriate job planning are not consistently available to them. This leads many to leave or retire early out of frustration with rigid policies, failures to provide adjustments, and unfavourable terms and conditions for those choosing to retire and return. Key to addressing these issues are regular conversations between staff, managers and the wider teams to find solutions that work for everyone.
Less than full-time working

Our report on retention and career intentions, and the 2020 census point to an increase in less than full-time working. This is due to a number of factors, including the need for better work-life balance, childcare responsibilities, issues around pension taxation, and terms and conditions.

About one in ten SAS and consultant anaesthetists are currently working less than full time and at least two in ten are considering working less than full time within the next five years. If this was extrapolated more widely, it would mean that around one third of the workforce may wish to work less than full time within five years.

A similar trend can also be seen in the next generation of anaesthetists, with 30% of anaesthetists in training considering working on a less than full-time basis after they complete their training.

The 2020 census has also shown that the proportion of female anaesthetists is increasing across all grades. Female consultants made up 38% of the workforce in 2020, compared with 28% in 2007. Similarly, the SAS doctor workforce is now 39% female, compared with 35% in 2010.

The proportion is even higher when looking at anaesthetists in training and non-consultant roles. Overall, these grades of doctors are 47% female compared with 38% of female consultants. In addition, 27% of all female trainees are working on a less than full-time basis compared to 7% of all male trainees. This is likely to be a reflection of a wider change in the medical workforce with a greater proportion of doctors striving for a better work-life balance.

As more anaesthetists choose to work and train less than full time, the need to provide job plans that allow anaesthetists of all genders, ages and grades to stay in work will have an impact on workforce planning.

Moreover, the decrease in participation rate will put additional pressure on an already stretched workforce.

Pension taxation

One factor that is pushing anaesthetists either to retire early, or reduce their hours, is pension taxation – or, more specifically, the combination of pension taxation rules and the NHS pension scheme.

In our 2020 census, 1,133 consultants (14.4%) reduced their working hours as a result of the pension tax changes, and of the 333 consultants and 45 SAS doctors who retired in the year preceding the census, 82 (21.7%) had chosen to retire because of the pension tax rules.
Of the **333 consultants** and **45 SAS doctors** who retired in the year preceding the census, **82 anaesthetists** had chosen to retire because of the pension tax rules.

NHS pensions work on a defined benefit, career average basis. Unlike some other defined benefit schemes, employee contribution percentages are tiered, so the more someone earns, the greater percentage of their salary they have to pay in. The lowest earners in the scheme contribute 5%, the highest earners 14.5%. These rates are compulsory as part of scheme membership, so a member is not allowed to reduce their contributions unless they drop out of the scheme entirely.¹⁹

This interacts with government pension tax rules. A key issue is the annual allowance (currently £40,000 per year) which is based not only on the money paid into the pension that year, but also on an estimate of the total growth of the pension pot. If the annual allowance is exceeded, a tax bill will ensue. Furthermore, for the very highest earners, the annual allowance is withdrawn, which means they are hit with even greater tax bills. There is also a lifetime allowance, currently £1,073,100 – which again, if exceeded, results in additional tax charges.²⁰

As experienced anaesthetists are often high earners, they will usually pay the highest rates of contributions into the scheme, be hit by a tax bill if the annual allowance is exceeded, and if they have been working for many years, they may also hit the lifetime allowance. In order to avoid these bills, many anaesthetists reduce their hours – or sometimes retire completely. Opting out of the scheme is also an option, but that represents a de facto pay cut for doing the same work. Some NHS trusts have offered additional pay to (partly) compensate for the loss, but this is not universal. Also while for the tax years 2020/2021 and 2021/2022,²¹ the government did raise the earnings amount required before the annual allowance is withdrawn, this does not fully solve the problem.

While we agree that those who earn the most should pay the most tax – we believe reform is needed to pension scheme rules and/or taxation legislation, so anaesthetists are not pushed into reducing their hours or retiring early. At this time, the NHS needs to retain as many staff as possible, so the case for reform is compelling and urgent.

**Anaesthetists from abroad**

Over the past five years, there has been a decrease of 12% in the number of anaesthetists with a primary medical qualification from EEA countries and a decrease in international anaesthetic graduates in the UK of 28%.²² The recent exit of the UK from the EU and the incidence of COVID-19 globally might limit further the NHS’s ability to recruit talent from abroad.
Expected increase in demand for anaesthetic services by 2040

As explained in the previous section, there is a current shortfall of around 1,400 anaesthetists in the UK. Unfortunately, unless urgent action is taken, this gap is set to grow dramatically to around 11,000 by the year 2040. This will be driven by rising demand for anaesthetists – due to factors such as population growth and ageing, increasing numbers of surgical interventions on offer, and the expansion of the anaesthetist’s role across the surgical pathway.

For this reason, we commissioned the York Health Economics Consortium (YHEC) to produce projections on the increasing need for anaesthetists up to 2040 and how that would compare to the supply if current rates of growth were maintained.

The YHEC projections are based on earlier work for the Centre for Workforce Intelligence (CfWI) which produced official anaesthetic workforce projections for the NHS in 2015. The CfWI report used a ‘Delphi study’ – essentially a means of bringing together expert opinions to quantify likely increases in demand. YHEC used the CfWI projections and updated them slightly using a new round of expert opinion.

Increases in demand

Population growth and ageing

The UK has a growing and ageing population. By mid-2041, the total population of the UK is set to expand to 72.9 million, from 66.8 million in 2016. Furthermore, the number of people aged 65 or over is set to increase by 5.8 million compared to 2016, considerably increasing healthcare demand.

Based on the fact that a larger population requires more surgery – and an ageing population further increases healthcare demand, demographic changes alone equate to a 1.25% increase per year in demand for anaesthetists.

Expansion of surgical interventions

In addition to an ageing population – scientific, technical, and medical knowledge is also increasing. This means that new surgical procedures are developed, and more medical conditions become amenable to surgery. While this is a positive thing, it also means more clinical staff are needed to perform these operations. In line with the findings of the CfWI report, this will likely result in a 1.3% increase per year in demand for anaesthetists – over and above demographic changes.
Expansion of the anaesthetist role

Anaesthetists are increasingly involved in perioperative care – that is, helping patients across all stages of the surgical pathway, from preparing people for surgery, to assisting discharge planning. This expanded role can lead to considerable efficiencies in terms of reducing cancelled operations, preventing surgical complications, and improving recovery – which in turn prevent readmissions into the health system. Ultimately, this can save the NHS money and time – however, it does mean demand for anaesthetists will increase as a result of these extra duties.

Based on expert opinion, this will likely result in a further 1.3% increase in demand for anaesthetists per year.

Bringing it all together

Taking all of the above into account, demand for anaesthetists is due to increase by 3.85% per year. This means there will be a need for around 25,500 anaesthetists by 2040. That is the challenge that the government and the NHS must face.

Increases in supply

Between 2010 and 2020, the number of fully qualified anaesthetists in the UK increased at a compound rate of 1.54% per year. On the assumption that this trend would continue, YHEC expected anaesthetist numbers to rise from around 10,700 in 2020 to 14,500 by 2040. It must be noted that even this small annual increase will not happen on its own. It is dependent on factors such as government action to increase the number of training places.

Growing gap between supply and demand

As may be immediately noted from the above, the increase in demand for anaesthetists over the next 20 years will far outstrip the number of available anaesthetists. By 2040 there will be a demand for around 25,500 anaesthetists, but only 14,500 will be available if current rates of growth continue. This will lead the current shortfall of around 1,400 anaesthetist to grow to around 11,000 unless urgent action is taken.
Breakdown by nation
Demand for anaesthetists currently outstrips supply in every UK nation. England is around 1,100 short, Scotland 120, Wales 150, and Northern Ireland 60. By 2040, these gaps are expected to grow considerably, as shown in the table below.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>UK</td>
<td>10,700</td>
<td>1,400</td>
<td>14,500</td>
<td>25,500</td>
<td>11,300</td>
</tr>
<tr>
<td>England</td>
<td>8,800</td>
<td>1,100</td>
<td>11,900</td>
<td>21,000</td>
<td>9,100</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>350</td>
<td>60</td>
<td>500</td>
<td>900</td>
<td>400</td>
</tr>
<tr>
<td>Scotland</td>
<td>900</td>
<td>120</td>
<td>1,200</td>
<td>2,200</td>
<td>1,000</td>
</tr>
<tr>
<td>Wales</td>
<td>650</td>
<td>150</td>
<td>900</td>
<td>1,700</td>
<td>800</td>
</tr>
</tbody>
</table>

Note: UK figures may not always sum exactly due to rounding

Impact on patient care and the NHS if anaesthetic workforce gaps are left unaddressed
The simple truth is this: unless action is taken to boost the numbers of anaesthetists, the ability of the NHS to reduce the surgical backlog is severely limited. Furthermore, unless governments act to boost recruitment and retention of new permanent anaesthetic staff, the NHS will have to rely on a limited supply of expensive agency locums – costing the NHS considerable amounts of money.

Severe constraints on NHS capacity
At time of writing, around 6 million people are on NHS waiting lists in England – a figure which is set to grow to 13 million during 2022. As emphasised throughout this report, most operations cannot take place without an anaesthetist, yet the NHS is 1,400 anaesthetists short. Given the average full-time anaesthetist administers around 750 anaesthetics per year, this equates to roughly one million operations that cannot take place due to shortage of anaesthetic staff. This represents a severe reduction in NHS capacity.

Furthermore, by 2040, the shortfall of anaesthetists will grow to around 11,000. This equates to roughly 8.25 million operations that will be unable to take place due to lack of anaesthetic staff.
A shortage of 11,000 anaesthetists

8.25M operations will be unable to take place due to lack of anaesthetic staff

The cost of locums

Our 2020 census showed that there were 380 consultant locum anaesthetists, 146 locum anaesthetists in training, and 100 SAS doctor locums working in NHS trusts across the UK. These numbers have increased by 16% since 2015 – suggesting dependence on locums is increasing, including agency locums. While agency locums are a useful resource to draw on to offer short-term cover, the chronic nature of the anaesthetic workforce shortfall means they may be needed for long periods of time.

The cost of a locum can vary, dependent on whether they are an ‘in house’ or internal locum (employed on a fixed-term contract with a salary comparable to a permanent member of staff), or an external or agency locum (paid on a daily rate). We have heard from NHS trusts that considerable amounts are being paid for agency locums – sometimes as much as £1,760 per day. One trust we are aware of spent £316,800 for a single agency locum to work for 180 days. This is much higher than for a permanent consultant, and many multiples of the cost of a higher anaesthetic trainee.

Failure to address anaesthetic workforce shortages is not only a limit on the number of operations that can take place, but also a huge financial drain on an already stretched NHS.

Use of locums has increased BY 16% since 2015

A single agency locum can cost the NHS £1,760 per day

CASE STUDIES from our network of Clinical Directors (anaesthesia)

“*We have had one agency locum working four days per week for about a year. Assuming he took some annual leave, he has probably worked about 180 days over the last 12 months, costing £316,800.*”

“*We used locum consultant anaesthetists for 321 days from April 2020 until April 2021 and 96 days from April 2021 until August 2021 – estimated cost £733,920.*”
Making anaesthesia ‘fit for the future’

This report highlights the challenging situation the NHS is facing – and shows how that challenge will grow year on year, unless action is taken. There is an urgent need to put anaesthesia on a sustainable footing to enable services to meet the predicted increase in demand, tackle the elective backlog, and realise government plans to build back a stronger NHS.

Addressing workforce challenges is complex and, like other specialties, anaesthesia will require a multi-faceted approach comprising of short, medium and long-term solutions, including looking more widely at the delivery of anaesthetic and perioperative care services in the future, and the shape of ‘team anaesthesia’.

Below we identify the short, medium and long-term solutions which we believe are required to address the workforce challenges in anaesthesia.

Looking to the short and medium-term anaesthetic workforce needs

- An increase of an additional 100 higher anaesthetic training places [starting at ST4] every year for the next four years. These senior trainees could immediately boost capacity in anaesthetic departments to help cover the additional operating lists required as part of the elective recovery. They could also form the foundation of a long-term, more stable senior workforce within four years, reducing reliance on agency locums. In reality, far more anaesthetic staff than this are needed but this target is what we believe the training system can currently cope with.

- Consideration of the impact of the pandemic on the mental and physical wellbeing of the anaesthetic workforce. Recent targets to increase delivery of elective care are understandable, but these targets need to also take into consideration the wellbeing of staff, including anaesthetists who have been integral to the response to the pandemic.

- Pension reform that removes the perverse tax incentives which discourage senior anaesthetists from working additional hours or pushes them into retiring earlier than they would like.

- Better communication around career progression and more flexibility in job plans to improve work-life balance and to support anaesthetists of all grades to stay in work as long and as healthily as possible, including a more standard offer around ‘flexibilities’ and terms and conditions for those approaching retirement and wishing to reduce their hours.

Looking to the long-term anaesthetic workforce needs

- A long-term, sustainable approach to workforce planning. Projections from the York Health Economics Consortium and the Centre for Workforce Intelligence show that the anaesthetic workforce needs to considerably expand to meet increasing demand by 2040, in part driven by a growing and ageing population. The RCoA is one of 70 organisations supporting an amendment to the Health and Care Bill25 which ‘would enable and strengthen strategic long-term spending decisions about workforce planning, regional shortages and skill mix based on evolving changes in need for health and care services and in working patterns among staff’.

- A boost to medical training places across the whole pathway – from medical school places at university, through to higher specialist training.

- The acceleration of the legislation required for the regulation of anaesthesia associates by the General Medical Council, so that this role can be expanded, become a viable career option, and make a greater contribution to the delivery of anaesthetic and perioperative care services.

- Transformation of the surgical pathway. Our College is a major contributor to and supports the work of the Centre for Perioperative Care (CPOC), which has shown how every stage of the surgical pathway could be optimised to reduce costs, enhance efficiency, and improve patient outcomes. This involves factors like ‘prehabilitation’ (optimising a patient’s health ahead of an operation eg through smoking cessation or exercise), shared decision making, and proper discharge planning.
We remain committed to working with government and our stakeholders on identifying the right numbers and skills mix required to build a stronger and more resilient ‘team anaesthesia’ and enable the specialty to deliver anaesthetic and perioperative care services fit for the future.

For more information please contact advocacy@rcoa.ac.uk

Report authors

Elena Fabbrani
RCoA Policy and Patient Information Manager

Peter Kunzmann
RCoA Head of Policy and Public Affairs

Royal College of Anaesthetists
Churchill House, 35 Red Lion Square, London WC1R 4SG

rcoa.ac.uk
References


2. Figure based on 425,242 inpatients, day cases and new outpatients plus 125,557 people waiting for diagnostic tests. Diagnostic waiting times – Waits for key diagnostic tests 30 November 2021 – NHS waiting times – diagnostics – Publications. Public Health Scotland.

3. Figure based on 405,820 people waiting for outpatient appointments plus 121,996 waiting for an admitted diagnostic or therapeutic intervention. All stats from patient pathways waiting to start treatment by month, grouped weeks and stage of pathway. Welsh Government.

4. Figure based on 358,346 patients waiting for outpatients, inpatients and diagnostic testing plus 13,980 waiting to be seen at day case procedure centres (see page 8 here – Northern Ireland Waiting Time Statistics: Outpatient Waiting Times September 2021. Department of Health Northern Ireland.


20. Tax on your private pension contributions. UK Government, 2022


22. List of Registered Medical Practitioners (LRMP) and national training survey (NTS) census records. GMC (available on request).

