



Getting Ahead of the Curve: Our vision for the future Workforce

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Executive Summary

- According to NHS England (NHSE) data, gastroenterology and hepatology (G&H) have the biggest outpatient backlog in Tier 1 medical specialties.^{A1}
- Since 2016, G&H have featured in NHSE longest diagnostic waiting list times.^{A2}
- Endoscopy services represent the second busiest diagnostic specialty in England after radiology. Activity levels have not only recovered from the pandemic, but now exceed pre-COVID volumes.^{A3}
- Our medical workforce continues to provide a substantial contribution to frontline care in general medicine.
- We have high rates of burnout^{A4} and sickness rates^{A5} across our workforce.
- Without additional workforce capacity, our ability to meet both the NHS Long Term Plan's early cancer diagnosis targets, and the government's five-year backlog reduction commitment will be significantly compromised.^{A6}
- Objective and credible modelling for our 4 nations suggests to meet the 20-year moderate demand we would require 34 additional trainees annually, and 78 additional trainees annually for the high demand scenario. This does not include service expansion.
- The mathematical model utilised in this report is based on recent NHSE and RCP workforce unit data and does not account for our endoscopy and clinic backlog.
- The base case data on less than full time (LTFT) working uses a 17.6 % figure. GMC 2024 data shows LTFT training is crossing the gender divide. The model utilised tops out in the male gender at 9% LTFT, whereas GMC 2024 data places this at 15%.^{A7} As such, the NTN figures presented by this model are an underestimate.
- The mathematical modelling includes information on consultant vacancy rates (5.5%). It is not known whether this figure reflects the wider workforce vacancy rates,^{A8} or whether this vacancy rate would enable us to overcome the current backlog.
- The National Endoscopy Database 2 (NED2) 2023 data set for NHSE has a return rate of 97.6%.^{A9} It includes workforce from the independent sector.
- Relying on the independent sector^{A5} indefinitely to meet NHS targets is not financially sustainable and recommends that stakeholders invest more to retain and further develop the NHS medical and wider workforce.
- To meet the predicted FIT@80 scenario within BCSP, our specialty needs more than double the number of English and Welsh BCSP screeners.
- To fill expansion in the BCSP^{A11}, the report supports a significant expansion of fully funded Advanced Training Skill Modules (ATSMs) across all nations and 26 additional NTN positions year on year in England alone.
- Any new NTN numbers should be placed in regions with the most need.
- Addressing health inequalities requires improving access to sub-specialist trained consultants and the wider workforce.
- Hospital based services will need to better collaborate with primary care partners to deliver community-centred hepatology services, bringing care closer to patients.
- The size of our hepatobiliary workforce gap cannot be calculated due to a lack of data. When this is realised additional NTNs should be established to create a sustainable service.
- With full implementation of these recommendations by relevant stakeholders, we can maintain and advance excellence in G&H services beyond the BSG's centenary in 2037.

Introduction

The British Society of Gastroenterology (BSG) has shaped excellence in G&H care across the four nations for nearly a century. As we approach our centenary, our influence extends beyond national borders, setting international benchmarks for clinical standards and practice. Our strength lies in our membership - the very workforce delivering these services - which now exceeds 4,500 professionals and continues to flourish.

Background and Context

Currently our services are under immense pressure. According to NHSE data we have the biggest outpatient backlog in Tier 1 medical specialties.^{A1} We also consistently feature in NHSE longest diagnostic test waiting times for our endoscopy services since records began.^{A2} Endoscopy services continue to have the highest activity pre-and post-COVID, second only to radiology.^{A3} However we also participate in frontline and acute inpatient services as well. There is concern that our workforce is unsustainably stretched, demonstrated by the high rates of burnout reported annually in the RCP census.^{A3}

Without a significant injection of workforce to support delivery of our services, it is likely that we will neither recover the backlog^{A1,A2,A4} nor meet the projected demand as the baby boomer population retires and becomes co-morbid.^{A8} The BSG Executive has commissioned this report to set out its vision for the volume of workforce needed over the next two decades. This is our objective and credible response to the NHS Long Term Workforce Planning (LTWP).^{A12}

Scope of Gastroenterology Services

G&H services provide care to diagnose and treat some of our most common cancers. Bowel cancer is the fourth most common cancer in the UK. 42,000 people are diagnosed with bowel cancer each year in the UK.^{A13}

Inflammatory bowel disease (IBD) is a condition that falls under our care and predisposes our patients to cancer. There are multiple detrimental impacts to their long-term care if not managed by an appropriate specialist.

Liver services treat and support some of our most vulnerable members of society. Patients with liver disease secondary to chronic obesity, addiction to alcohol and intravenous drug users are found in some of the most deprived regions of our four nations. In 2021, 74% of deaths from alcohol occurred in hospital,^{A14} and there were 24,544 hospital admissions for alcohol related liver disease alone.^{A14} Our most recent guidelines propose that we should diagnose and manage more of these patients as outpatients.^{A15} By investing our services and the combined workforce required to deliver hepatology closer to home, we can work together to begin to tackle health inequalities.

Our nutrition services support patients with chronic disease and rehabilitation within and outside of gastroenterology. Many dietetic teams work in the community. A significant part

of their urgent workload is supporting patients with a new diagnosis of cancer of any origin. The current iteration of the NHS LTWP does not include a significant increase in this aspect of our wider workforce.^{A6} They are not able to meet the current demand now^{A16} and there is an exponential increase in demand projected in the future^{A5}

Current Challenges

The BSG continues to publish its annual workforce report^{A17} and for the last 10 years it has suggested that we do not have enough workforce to meet the current or projected demand.

On balance, it takes two decades to train our consultants from day one of medical school. This includes subspecialty training in Advanced Endoscopy, Hepatology, IBD, and Nutrition. Additionally, shifts in trainee demographics, with over 40% of current trainees being female and many opting for LTFT roles regardless of gender, is impacting workforce capacity.

Moreover, 49% of the current consultant workforce is expected to retire within the next decade, with an average of 74 retirements per year.^{A17} Coupled with the growing demand, a substantial increase in NTN is crucial to avoid a significant shortfall in services. The projected demand for FTE consultants in England is estimated at 1,865 in 2032 and 2,111 by 2042.

For more detailed information on regional inequalities of where our medical workforce is found in our four nations please take a look at the heat map in Chapter 8.

Our biggest workforce gaps are likely to be in our endoscopy workforce. (Chapter 1) The BSG aspires to support the NHS long-term plan through supporting improvements in early diagnosis of cancer. Lord Darzi has stated “The UK has appreciably higher cancer mortality rates than other countries... Since then [2021], rates have risen from 54 per cent to 58 per cent in 2023.”^{A18}

The BSG supports the workforce in its efforts to grow its gold standard bowel cancer screening service to meet the needs of FIT@80. It advocates for a significant number of fully funded ATSMs to be escalated over the next decade. In order to meet this need by 2042 we project that NHSE will need to more than double the number of screening endoscopists in the next two decades.

There are also notable gaps in our hepatology services as we roll out outpatient delivered cirrhosis services. A snap shot of the workforce element of the BASL survey can be found in Appendix C, and the wider workforce gaps in our IBD services are presented in Chapter 2.

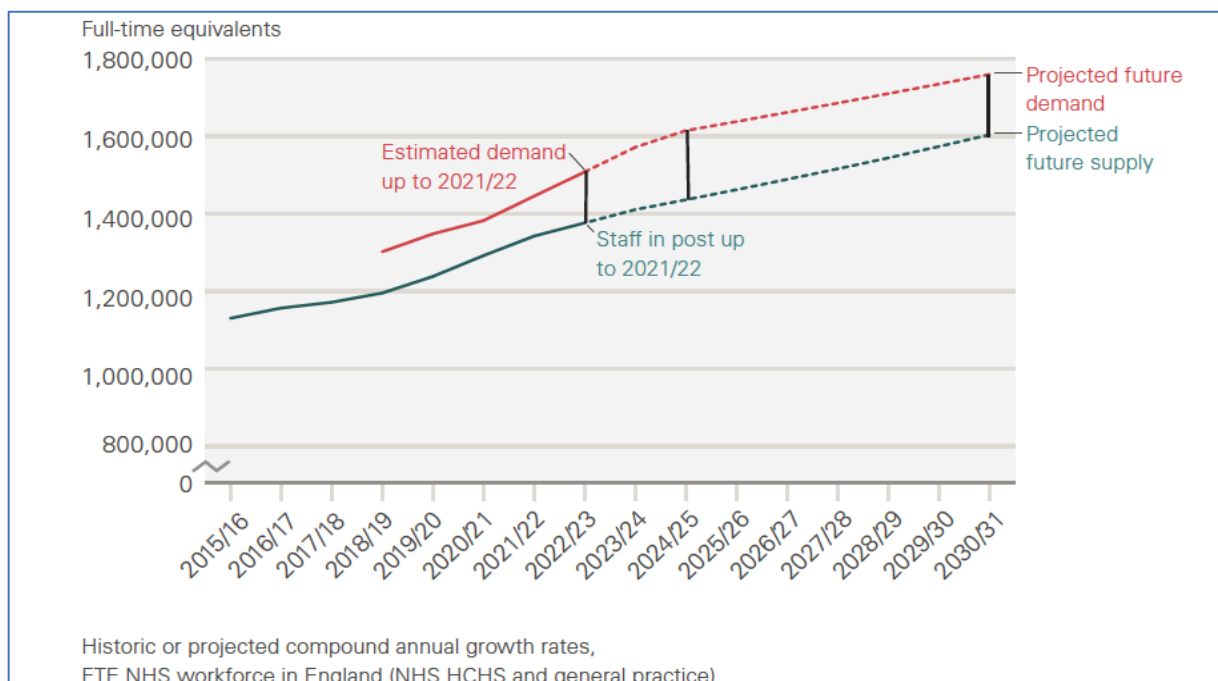
Get ahead of the Curve by Delivering More Medical and Wider Workforce

The COVID-19 Public Inquiry highlighted the critical impact of 'severe staff shortages' on service delivery.^{A19} Drawing on mathematical modelling, the BSG has developed evidence-based projections for optimal medical and wider workforce numbers required to build resilient G&H services.

The Health Foundation has projected future demand from the growing, increasingly co-morbid population is due to outstrip the supply of the NHS workforce (figure 1).^{A8}

We will need to plug the gap immediately with a credible plan. To meet the projected demand, it will take at least a decade even if training more doctors at HST level is started now. In the interim we will need to support and develop increasing numbers of the wider workforce to prevent burnout. Workforce retention requires support with: adequate training, supervision, opportunities to upskill, increased leadership positions and mentorship of our medical and wider workforce.^{A20}

Figure 1: Graph projecting the potential workforce gap for NHS staff over the next decade.^{A8} Figure published with permission from The Health Foundation.



The NHS LTWP is likely to result in a welcome increase in general practitioners (GPs), with evidence from the Royal College of GPs indicating that GPs have a preference for complex patients to be managed by specialists with appropriate expertise.^{A21}

The current government aspires to recover the backlog over the next 5 years but without significant expansion of our subspecialised workforce, this is not a credible aspiration.^{A6}

The report is divided into the following sections:

Chapter 1: Our Cancer Diagnostic Workforce

Chapter 2: Liver Services

Chapter 3: Inflammatory Bowel Disease and the Multi-Disciplinary Team

Chapter 4: Improving Morbidity and Mortality in Nutrition

Chapter 5: The impact of poor-quality medical training and the challenges faced by our wider workforce

Chapter 6: The influence of new technologies

Chapter 7: The BSG vision on how it will steer the workforce

Chapter 8: A heat map demonstrating workforce shortages in our 4 nations

Chapter 9: How many doctors the BSG believes will be needed

Chapter 10: Ten key recommendations

Details on how the future workforce figures were calculated are given in the appendix. All abbreviations and references can be found at the end of the report.

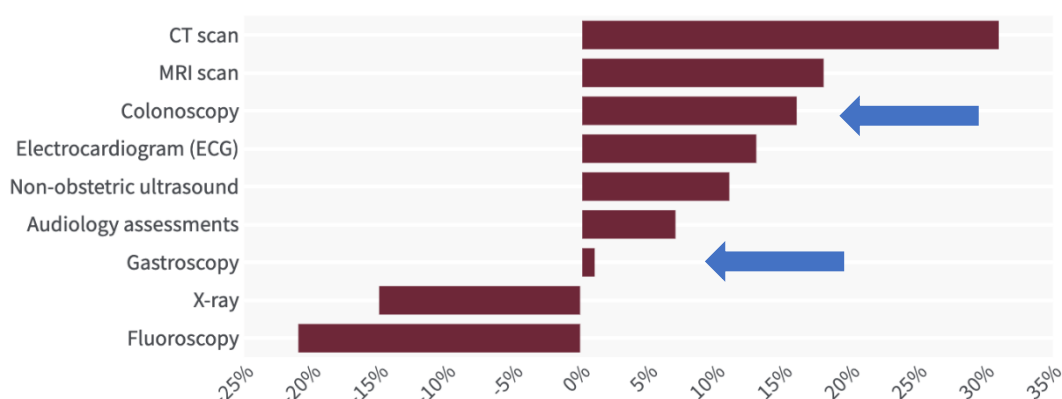
CHAPTER 1: Our Cancer Diagnostic Workforce

G&H is a unique medical specialty, whereby clinicians utilise both their medical and endoscopic skills in diagnosis. The King's fund has demonstrated that since the pandemic, endoscopy wait times have risen dramatically.^{B1} (Figure 2) This is despite NHSE supporting a fully funded clinical endoscopist program since 2016. To date it has trained 556 clinical endoscopists (CE).^{B2} It is unknown how many have been retained to work solely in NHS delivered services. There are significant sickness rates in our endoscopy staff.^{B3} It is likely that a combination of poor career pathway options and low remuneration may have driven many to the independent sector (IS).^{B3} The IS actively undertakes endoscopy to support the NHS reach targets in waiting list times with significant cost to the public purse.

Figure 2: A graph highlighting the high activity rates of our top two endoscopy diagnostic tests. ^{B1} Figure published with permission from The King's Fund.

Of the most frequently performed diagnostic tests, most have higher activity rates than pre-Covid-19, but not all

Percentage change in number of scans between February 2020 and February 2024



Source: [NHS England \(diagnostic waiting times and activity\)](#), [NHS England \(diagnostic imaging\)](#)
Data comes from the diagnostic waiting times and activity data collection, plus tests that are not included in this collection (notably x-rays) from the diagnostic imaging dataset. Tests are included if more than 50,000 were performed in February 2024.

TheKingsFund>

Our endoscopy services are primarily geared towards diagnosing and managing colorectal, gastrointestinal and hepatobiliary cancer in early, late and palliative stages. In the recent Darzi independent report, ^{B4} he stated that “The UK has appreciably higher cancer mortality rates than other countries. No progress was made in diagnosing cancer at stage 1 and 2 between 2013 and 2021. Since then, rates have risen from 54% to 58% in 2023”. Hepatobiliary cancers are often found at late stages. Chronic under investment in the workforce could be contributing to this.

This report has collaborated with the JAG national endoscopy database (NED) team to share the latest data to assist workforce projections showcased in this report. (Table 1)

Hepatobiliary specialists treat obstructive jaundice on the acute unselected medical take. This patient group is often exposed to an appreciable mortality in conditions, such as pancreatitis.^{B5} We know that although 5% of all patients who require an endoscopic retrograde pancreatography (ERCP) are over 80 yrs, this specific age group leads to 25% of the work.^{B6} As this age group is likely to increase exponentially over the next two decades,^{B7} we will need upfront investment now. Data collected in 2018 shows that 37% of ERCPists are nearing retirement.^{B8} We can only begin to credibly address the workforce gap when data on the numbers of procedures is collected centrally by our stakeholders, and is openly available so that it may be accurately calculated. For data on the number of ERCPists and the activity being performed in England and the devolved nations, please see Appendix B.

Currently NHSE's strategy is to expand the ERCP workforce by purely replacing the retiring ERCP workforce and creating a hub and spoke model of delivering ERCP mainly in larger centres. The aim is to offer these highly specialised endoscopists a greater number of procedures with a focus on improving quality.^{B8} However, without credible and objective data as to the size of the backlog in ERCP and enhanced job planning support to enable more LTFT consultants to maintain new targets in key performance indicators (KPIs) it is yet to be determined as to whether this strategy will be successful. NHSE data for ERCP workforce expansion can be found in Appendix B.

Enhancing colorectal cancer early detection is a cornerstone of the bowel cancer screening programme (BCSP). Achieving the lower BCSP Faecal Immunochemical Test (FIT) threshold of 80ug/g, which is already adopted in Scotland will likely increase colonoscopy demand by 35%.^{B9} It is expected that this change will result in around 1,000 additional cancers being diagnosed per year, alongside an additional 7000 high risk adenomas.^{B9} However, a recent workforce survey demonstrates that 50% of BCSP screeners intend to leave the NHS in the next 5 years.^{B10} In order to meet the FIT@80 demand in the next twenty years, we would need more than 2.5 times the number of BCSP endoscopists than we have now (Table 2). To account for this workload this report predicts it would need 26 additional NTN posts annually for 20 years.

The size of the BCSP workforce required would also increase should BCSP FIT return rates improve. Currently, around 40% of invited individuals do not engage with the BCSP when offered. Health Inequalities are recognised to be influencing this outcome, with enhanced public health messaging needed to promote uptake, and avoid widening inequalities in cancer mortality.^{B11} This report advocates for this change to be considered with fully funded additional workforce as FIT@80 is rolled out.

The upcoming ATSM's to support BCSP training could also be coupled with improving waiting list times in IBD colon surveillance. This new intake of advanced endoscopists could be upskilled in chromoendoscopy techniques,^{B12} and actively turnover the current backlog in IBD surveillance in their first one thousand colonoscopies. This would ensure that high risk requests are streamlined sooner, and are more likely to be offered the high-quality surveillance service that the BSG, IBD UK and JAG advocates for this patient group.

In this chapter we present projections for the size of endoscopy workforce needed to meet the NHS LTP take to diagnose and treat early cancer over the next two decades. (Table 1 and

2; for further details please see Appendix B) and for in depth information as to how these projections were calculated please see Chapter 10.

Table 1: Predicted number of endoscopists needed in 2042. It does not include the number needed to beat the current backlog. Figures include the independent sector.

	Endoscopists in all 4 nations in 2023	Predicted Number of Endoscopists in all 4 nations in 2042	Endoscopists in England in 2023	Predicted Number of Endoscopists in England in 2042
Consultant GI	2,022	2890	1787	2554
Consultant Surgeon*	2,071	2960	1775	2537
Other Doctor	1,422	2032	1230	1758
Non-medical Endoscopist	898	1283	794	1135

Table 2: A table predicting the number of Bowel Cancer Screening workforce needed in 2042. These projections account for changes in population in the moderate demand scenario (1.8%) and increasing demand produced by FIT@80. Note there is no separately accredited BCS workforce in Scotland.

BCSP	BCSP England 23 Data	WAGE data available for 23	Predicted number needed in 2042 England	Predicted number needed in 2042 in Wales
Medical Consultant	332		801	
Non-Medical Endoscopist	119		287	
Other*	19		46	
Total BCSP Endoscopists	470	24	1135	64
SSP (England Only)	573		1007	

It should be noted that the NED 2023 England data have a 97.6% return rate and NHSE BCS and WAGE data is a complete set of data. The population of England and Wales at mid-year 2023 was estimated to be 60.9 million (60,854,727) according to the Office for National Statistics.^{B13}

Advanced endoscopy enables medically trained gastroenterologists to delve into the realm of surgery; providing day case care supported by anaesthetic teams. In contrast to laparoscopic surgery, it presents less risks to the patient than open surgery, is cheaper, and has superior recovery times compared to traditional open surgery.^{B14} In the aging co-morbid population, techniques which pose less risk are advantageous. The BSG recommends that more theatre time should be offered to support these advanced endoscopy techniques as both the NHS budget and patient experiences would benefit.

Upper gastrointestinal (UGI) services have been constantly evolving to diagnose and treat cancer. One such as non-invasive techniques is cytosponge.^{B15,B16} The BSG advocates for further expansion in the evidence base and would support more guidelines (with appropriate funding and other resources) widening the use of this cheap, effective and easy to use technology and the workforce and training required coupled with expansion histopathology services.

Treating UGI cancer in the early stages with advanced endoscopic techniques such as Endoscopic Submucosal Dissection (ESD) poses less risk for patients than surgery but may not be available equitably across all 4 nations. The BSG initially proposes that ideally we should have 2 Advanced Endoscopists in UGI techniques in each of the UGI cancer centres. Again, there is no central database with information on the number of advanced UGI endoscopists. In appendix B of this report, we reveal collected data of the number of procedures on the waiting list.

Other third space endoscopy techniques include endo-bariatrics as a solution to an established obese patient^{B17} and Endoscopic Ultrasound (EUS) guided interventions to diagnose and potentially treat cancer or established hepatobiliary diseases. These procedures typically take 1-2 hrs and an increased investment in these techniques may support more efficient theatre time and be a more efficient use of limited resources. In order to realise this, our stakeholders will need to invest in a more workforce to deliver increasingly subspecialised endoscopy disciplines.

CHAPTER 2: Liver Services

Liver disease disproportionately affects lower socioeconomic populations. Mortality from liver disorders is rising, in contrast to other major diseases where mortality has fallen.

The current major causes of liver disease in the UK are:

- Metabolic: Obesity and diabetic
- Alcoholic liver disease
- Viral hepatitis
- Autoimmune (5%)

Being overweight or obese also contributes to the highest proportion of liver cancers (around 1300 cases annually) and is second only to smoking as the leading preventable cause of cancer in the UK, with alcohol consumption ranking sixth.^{C1} Furthermore, being overweight or obese has a definite causal link with 13 cancer types including bowel, oesophagus, liver and pancreas putting additional strains on the UK gastroenterology and hepatology services.

The most recent *Lancet* Commission into liver disease highlights the continuing increase in burden of liver disease from excess alcohol consumption and obesity, with high levels of hospital admissions which are worsening in deprived areas.^{C2}

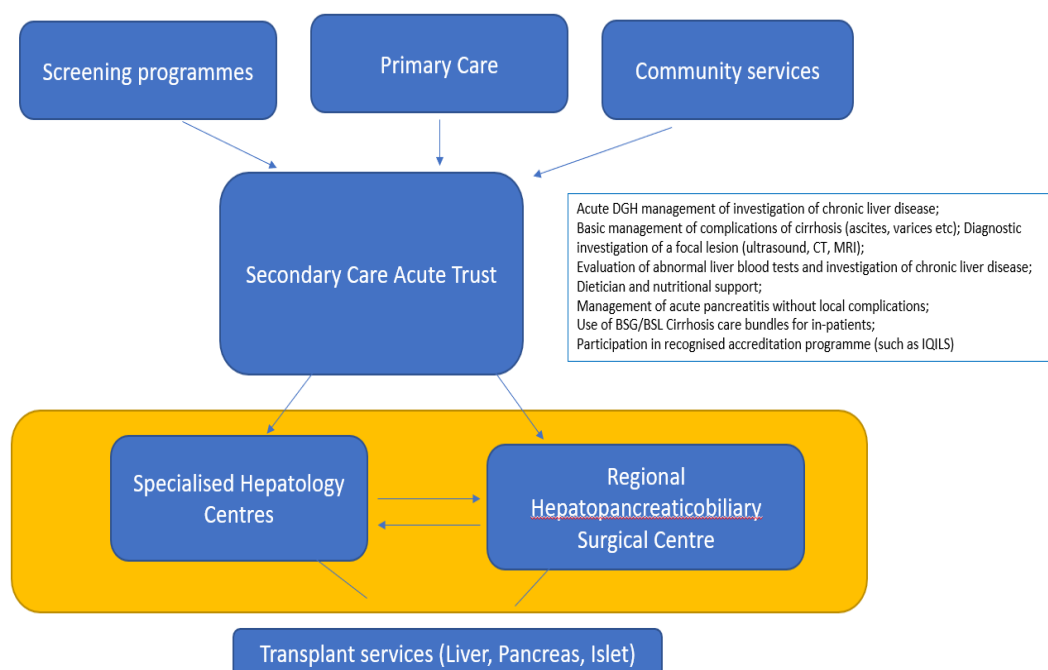
The risk factors have increased in the last 50 years, resulting in a fourfold increase in mortality in that time, and demand for liver services.^{C3} However, the majority of liver disease has modifiable risk factors, so at risk groups should be screened for liver injury and supported to prevent progression to cirrhosis or managed in an earlier stage of cirrhosis to try and slow progression to decompensation.

Expensive drugs such as the glucagon-like peptide 1 agonists are now widely available to treat obesity and diabetes, and Resmetirom has recently been licensed by the FDA to treat mild and moderate fibrosis, but this should not be at the expense of fundamental public health initiatives addressing obesity and refined sugar intake.^{C4}

NICE recommends that those with cirrhosis should be managed by a specialist in hepatology. NHSE suggest a specialised liver centre for populations 600,000 to 1,000,000, and NICE Guidance advises that people who have, or are at high risk of developing, complications of cirrhosis should be referred to a specialist Hepatology centre suggesting 68 to 114 UK liver centres. Such specialist centres should:

- provide 24-hour support, 7 days per week from an appropriately trained and accredited consultant in Gastroenterology and/or Hepatology
- provide ready access to high dependency and intensive care beds

Figure 3: Provision of UK Liver Services.



Current workforce

Hepatologists train with the current gastroenterology and hepatology training programme and subspecialise. Those who trained prior to the current formal specialist training programmes that self-declare as a hepatologist are about 11% of the current UK consultant gastroenterologists, approximately 467 of the total 2122 UK gastroenterologists / hepatologists (RCP Census 2023).^{C5}

The *Lancet* Commission called for the establishment of acute liver services in every DGH in 2014 linked with 30 regional specialist centres.^{C3} This has yet to be achieved.

There is currently 124 acute UK Trusts, with 220 acute general hospitals^{C6} with each needing hepatology care. However, currently hepatologists are more frequently found in 7 transplant centres and level 2 liver centres. In order to enable integrated care with community-based services we will need more hepatologists in all acute centres thus driving hepatology care closer to home. The BSG recommends that all acute trusts that are not yet IQiLS accredited are offered appropriate support from our stakeholders. According to BSG membership data collected in 2023, 31% of consultants have an interest in hepatology (please see appendix C).

Liver disease should be managed with multidisciplinary care with specialist liver nurses, hepatobiliary surgeons, palliative care, pharmacists and alcohol care teams, and requires adequate staffing of all these groups (see Appendix C for a snapshot of the workforce element of the current BASL survey). Opportunities to reframe burdened out-patient services include managing patients with stable cirrhosis and inactive liver disease by monitoring with PIFU via a patient engagement portal, whilst still managing their

surveillance scans and blood tests. Nurse led acute clinics to allow patients recently discharged with decompensation to avoid admission at up to weekly intervals - this will promote re-compensation. Consultant hepatologists should be offered time in their job plans in order to supporting community-based services. This will allow patients with irreversible decompensated cirrhosis not suitable for transplant to be cared for in the community with the equitable access of best practise as palliative cancer patients. The BSG advocates that the optimum volume of workforce required to deliver joint up care to be calculated from the BASL services survey when the response rate nears completion.

We have a commitment to tackling health inequalities, seen in hepatological services. A 7-day consultant services in all our acute hospital trust is not yet provided, impacting on the morbidity and mortality of patients who present with decompensated liver disease. In order to have a greater impact on this select group the BSG recommends a roll-out of outpatient cirrhotic services. The Lancet commission explicitly states that there continues to be a lack of investment in the development of an adequate hepatology workforce by successive governments to meet the ever-increasing demand as obesity and addiction spirals out of control. Without adequate public health messaging this demands on our services will become completely unmanageable.

CHAPTER 3: Inflammatory Bowel Disease and the Multi-Disciplinary Team

Inflammatory Bowel Disease is a complex and often fluctuating condition whereby patients can go from being independent to requiring an acute admission to hospital and potentially an emergency resection of their bowel. Although the incidence has remained steady both the prevalence and complexity has steadily risen in the UK as the population ages and novel therapies have become available. Prevalence increased by 4.3% per year between 2008 and 2018. Mathematical modelling projected a point prevalence on 01/08/2028 of 1.02% that will affect an estimated 1.53% of those >80 years of age.^{D1}

IBD mainly affects adults of an economically productive age, with a peak incidence between the ages of 15 and 30 years old, and therefore there is a substantial potential economic impact.^{D2} IBD services struggle to diagnose and manage patients in good time. In the most recent IBD survey 63% of surveyed trusts in our 4 nations do not have adequate multi-disciplinary teams to support these people in a timely manner as an outpatient. Failure to make an accurate diagnosis has a direct impact on acute services and a late diagnosis leads to significantly poorer outcomes that impact on the wellbeing and working life of this cohort.^{D3} Delays to diagnosis are associated with stricturing & penetrating complications in Crohn's disease and intestinal surgery in IBD.^{D4} Chronic poor management such as inadequate access to helpline, flare clinics and timely endoscopic procedures can lead to emergency surgery and potentially even cancer in these people as well as absenteeism from education and work and impaired quality of life.^{D5}

IBD requires both patient education about their condition and flare management and rapid access to specialist advice. This happens already across our 4 nations through IBD nurse helplines accessible in most trusts. Over time this service has been overwhelmed with IBD UK national data demonstrating that only 20% of surveyed services have adequate specialist IBD nurses, 21% of services have adequate access to a specialist dietician and only 6% have access to a clinical psychologist (see Table 3 for full breakdown)^{D6} according to the IBD UK Standards^{D7} a great deal more investment is needed to bring all our IBD services up to the required standard.

Please note however that this data is not complete for the UK and probably represent better staffed services than the 37% of centres that did not participate. We did ask them for the catchment population, but these were not accurate enough to report (as they summated to greater than the UK population. They show that service staffing levels are in general better (shown in green) than those reported in 2019 but still fall short of the 'ideal' as represented by the IBD Standards 2019. Data shown below highlights that half of surveyed sites had inadequate consultant resources to manage their IBD cohorts, only 19.5% of had enough IBD CNS' and there were consistent deficiencies in the numbers of surgeons, specialist radiologists and access to mental health resources. Finally, with increasing data demonstrating a relationship between ultra-processed foods and the rise in IBD it highlights the need for access to specialist dietetic support.^{D8}

The combination of the rising prevalence and increasing complexity of IBD underpins the need for investment in luminal gastroenterologists both those who identify as subspecialists

in IBD and more general gastroenterologists to diagnose and care for these patients in the longer term.

If we project the optimum amount of workforce forward for England according to the IBD UK. Team standards we would need:

Table 3: A table displaying the components of the IBD MDT as described by the IBD UK standards. It shows the percentage of NHS Trusts meeting the standard in the 2023 survey broken down into the FTE numbers required in 2023 and the 2042 future projection in England and the 4 nations in the moderate demand scenario (1.8%). NB data for number of IBD pharmacists in IBD UK standards survey in 2023 was not supplied.

Component of Wider Workforce	Number needed per 250,000	% meeting IBD standards 2023	England 2042 Wider Workforce Projections	UK 2042 Wider Workforce Projections
Stoma Nurse	1.5	46.6	465	552
GI Dietician	1	21.4	310	368
Psychologist	0.5	5.9	155	184
GI Radiologist	0.5	76.5	155	184
GI pathologist	1	31.6	310	368
IBD Pharmacist	0.6		186	221
Administrator for IBD service	0.5	40.7	155	184
IBD Specialist Nurse	2.5	19.5	775	919

CHAPTER 4: Improving Morbidity and Mortality in Nutrition

BAPEN statement 2024

Introduction:

Malnutrition affects an estimated 5% of the population in England and numbers are projected to increase: an additional 516,000 people will be affected by malnutrition by 2035. Malnutrition increases susceptibility to disease, worsening nutritional status and impairing recovery from illness. 29% of hospital admission patients are at risk of malnutrition and these patients have longer hospital stays and more complications.^{E1} Rates are higher (57%) in patients with underlying gastrointestinal disease.^{E2}

The additional cost of a person with malnutrition is £7,775 per person per year, at a total cost to the healthcare system in England of £22.6 billion.^{E1} Nutrition interventions are cost effective, the savings are 2-5 times greater than the investments.^{E1}

Statement 1: All acute hospitals or boards should have a multidisciplinary nutrition support team, a nutrition steering committee and at least one nutrition nurse specialist

All acute hospital trusts or boards should have a multidisciplinary nutrition support team to support the delivery of nutritional support to patients.^{E3,E4} This may include doctors (commonly gastroenterologists), dietitians, a specialist nutrition nurse, pharmacists, laboratory support staff and other allied healthcare professionals.

All acute hospital trusts or boards should have a nutrition steering committee, a multidisciplinary group overseeing policies and procedures to ensure all patients receive adequate and appropriate nutrition and hydration.^{E3,E4} All acute hospital trusts or boards should employ at least 1 specialist nutrition support nurse.^{E3} In 2021 16.7% of NHS trusts in England had no nutrition support team. The makeup of nutrition teams varied, concerning 25% of acute hospital trusts had no nutrition nurse specialists.^{E4}

Statement 2: All acute hospital trusts or boards should have a consultant gastroenterologist with an interest in nutrition delivering regular nutrition ward rounds with consultant input. There is variation in the number of consultant-led nutrition ward rounds (many hospital trusts or boards have none on sites with patients requiring artificial nutrition support).^{E4}

Statement 3: All acute hospital trusts or boards should have adequate dietetic staffing to contribute to support nutrition support teams. Recent data published by the British Dietetic Association shows that vacancies in dietetics vary from 10% to 30% of the staffing establishment. 77% of dietitians feel their workloads are excessive and 55% feel their workloads are unsafe.^{E7}

Statement 4: We support the development of advanced practice roles for dietitians, pharmacists and nurses working in nutrition support teams. Allied health professionals working within nutrition teams should be supported to develop into advanced practice roles where appropriate. Dietitians are highly trained in nutrition and with extended practice roles can free up time from medically qualified nutrition team members, providing an expert

and high-quality service. Enabling dietitians to be able to become independent prescribers (not supplementary as is currently the case) would enable them to take on some of the work of doctors within nutrition support teams. ^{E8,E9}

Statement 5: Regional networks should be established to support best practice in nutritional care. *GIRFT 2021* advised creating or engaging with regional networks for nutrition support to allow clinicians to share best practice, including creating specialist centres if appropriate.

An increase in IF prevalence from 50 per million to 80 per million in the next 5 years is anticipated as well as an increase in type 2 IF operations from 600 to 1000 per year in the same timeframe (10). Staffing of all professions in multidisciplinary nutrition teams at integrated IF centres and home PN centres needs to increase by 60% over the next 5 years to meet this demand, alongside the need for staffing smaller nutrition teams in other hospitals as detailed elsewhere in this document. Unpublished data from Scotland and Wales suggests a similar current prevalence to the NHSE figure.

Statement 6: the gastroenterology training programme must deliver basic nutrition training to all trainees and increase the opportunities for advanced training to those pursuing luminal gastroenterology training. Adequate training in clinical nutrition is essential for trainee doctors to provide the future workforce, particularly a gastroenterologist with a nutrition interest in all acute hospital trusts or boards.

Shortened gastroenterology training reduces exposure to this subspecialty. A recent publication reported that nutrition placements increase trainee confidence, knowledge and experience, but there is regional variability in this. Improved structuring of placements, increased educational opportunities and exposure to nutrition at an earlier stage are required to ensure competency in nutrition is reliably achieved. ^{E10}

Additional training developments include endoscopic tube placement JAG-accredited courses, national training days or increased online resources should be available for the medical and wider workforce. Core nutrition training should always be undertaken in a hospital with a nutrition support team and a consultant gastroenterologist with an interest in nutrition. Further training for luminal trainees should be undertaken in a more specialist setting though this will vary by region. Appropriate numbers of nutrition fellowships are necessary to meet the regional needs of the population.

Statement 7: BAPEN and the BSG support the collection of reliable, robust and national data concerning the nutrition workforce and outcomes of nutritional interventions. There is inadequate workforce data for all of the multidisciplinary professions essential to nutrition support to give numbers required to provide the future workforce. Nutrition teams ensure safe nutritional care including oral, enteral and parenteral nutrition. Importantly this includes putting measures in place to achieve safe NG tube care, ensuring appropriate patient selection for PEG insertion and monitoring complication rates. ^{E3,E4,E5,E6}

Parenteral nutrition poses the greatest risk of serious complications in nutrition. All hospitals providing PN should collect data concerning key performance indicators, including

recognising the potential for enteral nutrition to avoid unnecessary PN administration, monitoring PN complication rates, particularly catheter related blood stream infections. We would support and encourage all those centres providing long-term nutrition support for those with Type 2 or 3 intestinal failure to submit data to a national Intestinal Failure registry.

CHAPTER 5: The impact of poor-quality medical training

by the Chair of Trainees Section

We face a workforce crisis.

Many trainees are extending training, and 42% plan for less-than-full-time working as consultants; a trend not accounted for in workforce models ^{F1}. We know when services are strained, training is readily compromised. ^{F2} Consequently, 85% of trainees feel unprepared to progress into consultant roles, having received less specialist training than their European peers. ^{F1} Although expanding medical student places is promising, the lack of additional speciality training posts is concerning. The projected workforce requires dedicated trainers.

We support the shift towards delivering care closer to our patients in the community, with a focus on prevention and early detection. ^{F3} This approach will benefit our patients with liver disease, inflammatory bowel disease and gastrointestinal cancer. However, gastroenterology faces the largest secondary care backlog in medicine ^{F4}. To make a community centred model work, we need a workforce equipped to support primary care and ensure timely action when early problems are detected; a challenge we currently struggle to meet.

The UK has a higher cancer mortality rate than other comparable countries. ^{F3} Reducing mortality in gastrointestinal cancer hinges on timely diagnosis which requires a skilled endoscopy workforce. Yet, trainees struggle to gain endoscopy proficiencies despite the growing demand. ^{F1,F5,F6} The clinical endoscopist programme showcases the benefit of intensive training, and similar investment in gastroenterology trainees could help service pressures. Additionally, many trainees are not receiving practical training in managing upper gastrointestinal bleeding, a vital, life-saving intervention which they will be required to perform independently at consultant level. This raises serious patient safety concerns. ^{F1F,5,F6}

Expanding gastroenterology training posts, and supporting training is critical to being able to provide our future patients with the best care.

The Challenges Faced by our Wider Workforce

by the *Chair of BSGNA*

Current challenges in healthcare have been instrumental in transforming the NHS workforce, with nurses playing a pivotal role.

Nurses working at an advanced level use complex reasoning, critical thinking, reflection and analysis to inform their clinical decision making. Furthermore, the nursing workforce has a crucial role in leadership, management of clinical risk and research which facilitates service development. The 2021 JAG Census explored the vacancy and absence rate through sickness in endoscopy staff and this demonstrated a significant difference between vacancy rates and sickness among nursing, healthcare assistant and decontamination staff with band 5 staff members having significantly higher rates in both categories.^{F7} Research conducted exploring healthcare workforce suggests there are fewer UK-trained nurses gaining professional registration and fewer nurses choosing employment in the NHS which has significant implications for future service provision.^{F8}

The NHS is committed to provide more community-based services and virtual clinics, nurses in advanced practice are well placed to provide and manage such services which leads to improved waiting times and more streamlined service provision. Nurses also play an important role commission of services, working with stakeholders and developing guidelines and position statements.

The future of the wider workforce in Gastroenterology requires significant increases to meet the predicted service demand. However, there is a distinct lack of research which explores how the current wider workforce is currently utilised in subspeciality practice or on acute gastroenterology wards.

The role of the nurse in gastroenterology is essential to support the future service delivery, however, nurses need to be recognised and valued according to the work that they do with the opportunity for career progression and funded opportunities to access to further education.

CHAPTER 6: Influence of New Technologies

As a society we are at the forefront of research in our subspecialties. In this chapter the report sets out how future technologies could impact how we deliver services in the next 5 years. We recognise that we will need to continuously adapt to provide higher quality services more efficiently. This is critical as we gaze into the near future and how changes in technology might affect the impending workforce gap in gastroenterology.

- Cancer DNA tests are likely to lead to a greater need for diagnostic endoscopy than the current FIT test for bowel cancer.
- Robotics in endoscopy has the potential to transform how we deliver diagnostic tests but it may take at least 5 years to perfect this technique and over a decade for this technology to take samples to diagnose and longer still for robots to perform therapeutic procedures. It is likely that cancers will continue to be removed by a human operator.
- Influence of AI in diagnostic endoscopy is currently leading to lengthier procedures and so more endoscopy lists are needing to be booked to achieve the same volume of work. Until it can be linked with intelligent, independent, robotic endoscopy technology we will still need a human operator to perform the procedure.
- Private Body Scans are already resulting in significant increase in referrals.
- Apps to support patient to manage their care in the community are at best an adjunct to direct patients when to contact a specialist healthcare professional.

Ultimately, all the above technology is likely to be a part of future healthcare but does not replace and may well increase the demand. Our stakeholders will the need to continue to invest and increase both the medical and wider workforce into the foreseeable future.

Justifications for these statements can be found in Appendix G.

CHAPTER 7: The BSG vision on how it will steer the workforce

The BSG supports improving the quality of training we deliver both at trainee and new consultant level and we continue to work with our stakeholders to achieve this and enable access to better subspecialty training.

We support flexible working across the board.^{H1} This has increased now we are past the COVID 19 pandemic which catalysed changes in the healthcare workforce enabling more of us to work from home. We support and provide opportunities for portfolio careers and working flexibly to be incorporated in job plans where possible.^{H2}

We continue to strive to retain our workforce^{H3} and working around retirement to continue to deliver subspecialty services and train the new incoming workforce which aligns with the BSG Strategy.^{H4}

In order to re-energise all our medical and wider workforce the BSG has launched the BSG@90^{H5} which provides opportunities such as sabbaticals in centres of excellence. This will enable the membership to learn from one another and deliver high standards of gastroenterology and hepatology care across all 4 nations. The best solutions can be found from within, and this project will enable better sharing of all our skills and knowledge across the BSG workforce.

In the up-and-coming revision of consultant job planning guidance, the BSG recommends allocated time for the wider workforce for: supervision, development and mentoring. The BSG would like to see its stakeholders recommend trusts should offer fully funded study leave for the wider workforce as part of an offering to retain multidisciplinary working.

Presently there is no credible openly available dataset on the number of locally employed doctors working within NHS delivered gastroenterology and hepatology services. The only recognised data on doctors trained locally to work at consultant level is via the GMC accredited CESR pathway. In 2023 only 12 applications were submitted. The RCP Gastroenterology SAC has improved and streamlined the portfolio process to more easily enable our staff grade colleagues to be accredited to consultant status. This process includes dual accreditation in General Internal medicine. The BSG believes this is a significant hurdle reducing its ability to offer a majority BAME non-UK graduates to reach an equal status to the established consultant route. It should also be noted that there is no objective data on how many years of training are required to achieve GMC Portfolio status. Anecdotally it is reported to be significantly longer than the current standard NHS WTE funded route.

Ultimately the BSG recognises that we will need to change and continually review how we deliver services. This is the mainstay of the work of the BSG's Clinical Services and Standards Committee (CSSC). The CSSC will soon be reviewing its strategy whereby it will determine its key priorities. This will include a stream of work focusing on developing even higher quality guidelines, a focus on the medical and wider workforce and QI with dedicated time for a BSG QI fellow.

The BSG aims to deliver more regional roadshows to better support, develop and engage all the workforce locally. This personalised contact will enable it to better seek out the membership's concerns. It can then better amplify the workforce's concerns on the ground to its stakeholders at national level.

CHAPTER 8: A heat map demonstrating medical workforce shortages in our 4 nations

Full-Time Equivalent (FTE) Gastroenterology and Hepatology Consultants per 100,000 Population by RCP Regions in 2022

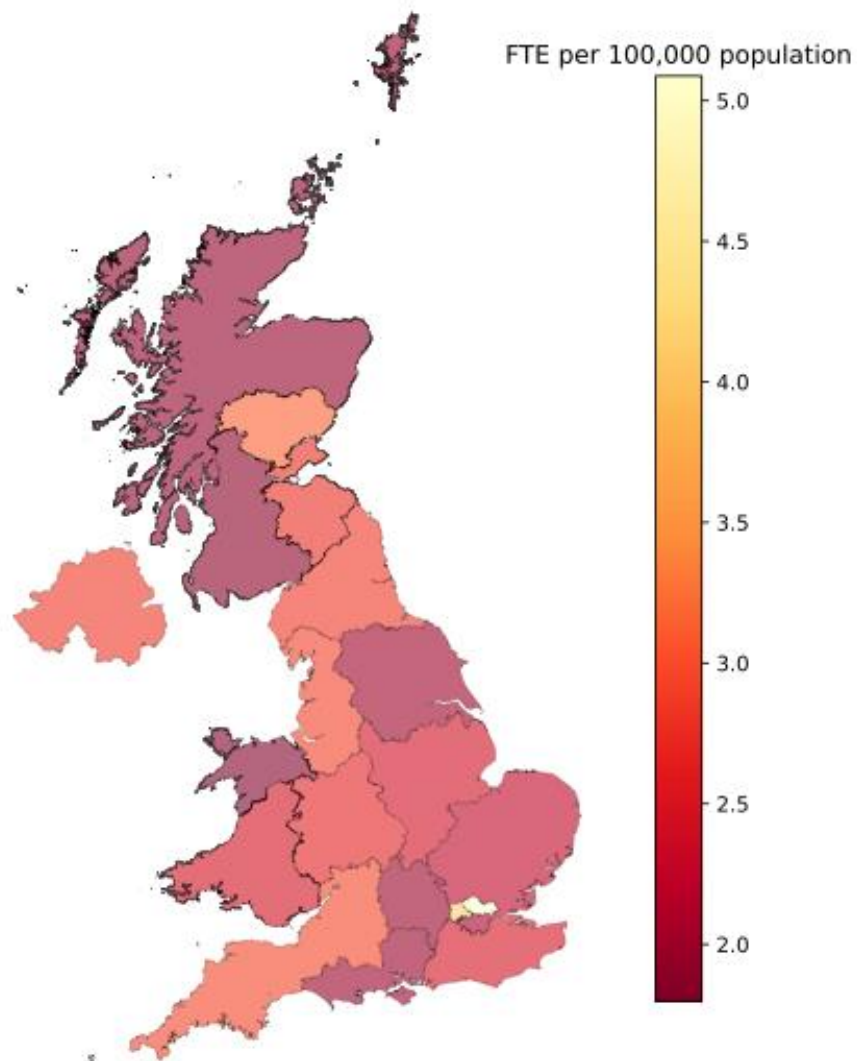


Figure 3: Regarding FTE calculations, in estimating the proportion of FT/LTFT consultants, assume 1 FTE for full-time consultants and 0.65 FTE for LTFT consultants. Please see appendix H4 for the full set of data.

The inequity of consultant workforce between some regions in our 4 nations is here for all to see. Without senior medical leadership to ultimately guide and further develop the ever-expanding wider workforce how can we deliver our internationally recognised guidelines. Without an appropriate spread of workforce, there is a high chance that inequity of access to our services will remain for the foreseeable future.

CHAPTER 9: How many doctors will be needed to meet future demands?

This year the BSG authorised the University of Birmingham Team to update the same model used by the RCP to produce the “Double or quits” with revised data. In this seminal document the RCP suggested its stakeholders should double the number of places in medical school in order to meet the projected demand in the future. In the NHS, every patient’s care episode is under a named consultant. Utilising the output from this Markov modelling enabled the BSG to further extrapolate forward all the objective wider workforce data accordingly to predict the wider workforce numbers it believes will be needed in the next two decades.

Markov modelling based on current data sources (see below) has now revealed the number of specialist training numbers needed year on year to deliver gastroenterology and hepatology numbers over the next two decades.

- Over the past four years, the average intake is 98 trainees per year in England.
- The yearly proportions of male/female trainees and less than full time (LTFT) working patterns have been estimated based on 2018/19 HST, 2023 NHSE FOI and RCP WFU data.
- Our model predicts that with the current inflow of 98 trainees per year, within the first 10 years, 896 NTN trainees in England will become consultants within 2 years of completing training, which reduces to 761 England trainees in the next 10 years.
- Over this period, 700 consultants will retire or leave the workforce within the first 10 years, and 687 will do so in the following 10 years.
- This results in an increase from 1,530 full-time equivalent (FTE) consultants in England in 2022 to 1,865 in 2032 and 2,111 by 2042.

However, this projected number will not meet the base-case demand.

For England

- **With a conservative demand growth rate of 1.8%** (taken from a Health Protection Report) and adjusting for a 5.5% vacancy rate, the FTE requirement for England would be 1,619 in 2022, 1,936 by 2032, and 2,314 by 2042
- To meet this demand in 10 years, an additional 27 trainees per year would be required.
- **To meet this demand in 20 yrs, an additional 30 trainees per year are required**
- *If a higher demand growth rate of 2.4% is used, an additional 67 trainees would be required annually to meet the 10-year demand, and 69 additional trainees would be needed annually to meet the requirement of 2,602 FTEs by 2042.*

For the UK as a whole:

- Meeting the 20-year demand would require 34 additional trainees annually under the 1.8% demand scenario and 78 additional trainees annually for the 2.4% demand scenario.

Limitations and Considerations

While this model does not account for efficiency improvements or tackling existing endoscopy backlogs, it provides a clear picture of the increasing demand and the proportional rise in consultants leaving the workforce as trainee numbers grow. The workforce gap is likely to widen significantly without immediate action, especially given the increasing proportion of LTFT workers and the high rate of retirements expected over the next two decades.

Geographic Imbalance and Workforce Strain due to rising demand

There is significant geographic variation in consultant distribution, contributing to healthcare inequalities. Despite some reallocation of NTN, a significant increase in training places is essential to address this imbalance, particularly as older patients will be increasingly comorbid.

Not only do we have the biggest outpatient clinic backlog in tier 1 medical specialties, this demand appears to be rising further (figure 4).

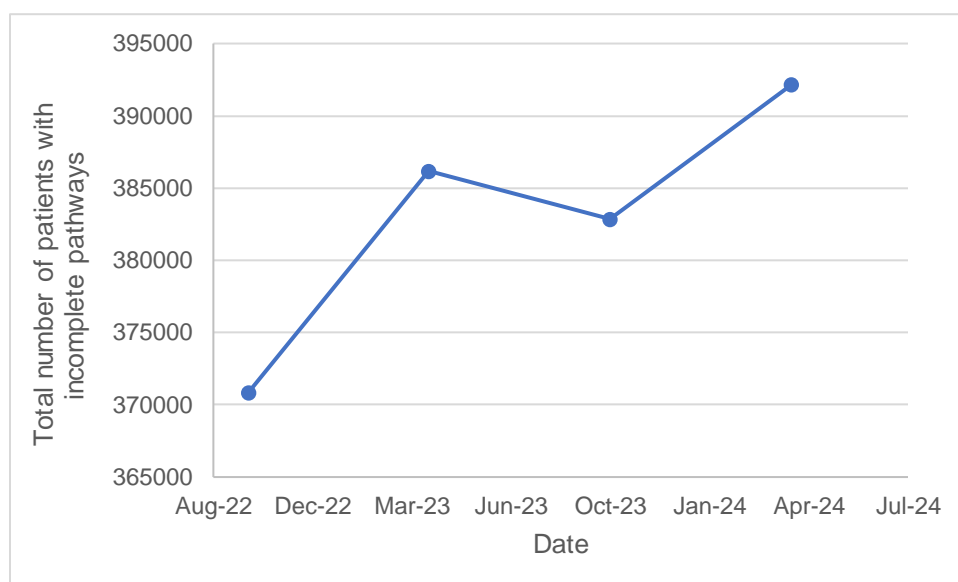


Figure 4: Number of Gastroenterology patients' referral to treatment (RTT) with incomplete pathways utilising NHS E 6 monthly data (NB Oct 2022 dataset incomplete missing 2 trusts)

At time of publication, NHS WTE are recommending that we only be offered more workforce based purely on expanding our cancer diagnostic and therapeutic workforce. In Jan '25 the government announced would like to meet elective care which aims to deliver routine care to nine in ten patients within 18 weeks. Simply offering gastroenterology workforce expansion focussing on advanced endoscopy workforce will not improve the RTT backlog.

Training and Workforce Sustainability

It takes years to train consultant gastroenterologists, particularly in Advanced Endoscopy, Hepatology, IBD, and Nutrition. Additionally, shifts in trainee demographics, with 42.7% of current trainees being female and both genders opting for LTFT consultant roles, are

impacting workforce capacity. 2024 GMC data from 2024 (found in Appendix I) reveals 15.4% of male NTN trainees are now choosing to work LTFT and this model only predicted 9% in 2042. It is likely that the pandemic has accelerated trainees' preference to prioritise work/life balance and opportunities to develop portfolio careers. We can no longer rely on our incoming male dominated trainees to work full time to meet the impending increase in demand.

Moreover, 49% of the current consultant workforce is expected to retire within the next decade, with an average of 74 retirements per year. Coupled with the growing demand, a substantial increase in NTNs is crucial to avoid a significant shortfall in services.

The demand for FTE consultants in England is 1,893 in 2032 and 2,136 by 2042. With 49% of the current consultant workforce expected to retire within the next decade, with an average of 74 retirements per year. Coupled with the growing demand, the BSG recommends a substantial increase in NTNs is crucial to avoid a significant shortfall in services.

In this report the BSG has focused on optimum numbers of wider workforce from data collected from independent objective organisations. If it utilised ESR data it would be simulating more of the same the highly intensive, high volume, under-workforced environment our membership currently finds itself in. In this blueprint there is a more flexible workforce with reserve to manage the escalating patient demand and continue to treat and diagnose cancer through any future pandemic.

Projections for wider workforce figures

In NHSE data about the amount of work generated by a patient visit is recorded as a HES or hospital episode statistic. All patient HES data comes under a named consultant. This is the theory that under pins the mathematical model used. On a simplified level, if the amount of patient workload is projected to increase and the volume of workload produced by the consultant workforce decreases (for example and increase in LTFT working) the amount of consultant workforce needed in the future will increase. The amount of wider workforce in this model is assumed to remain the same proportionally to the amount of HES generated. Therefore, the projections of wider workforce numbers are proportional to the increase of consultants on an FTE equivalent basis.

All the figures quoted in this chapter can either be found in the [BSG 2023 and 2024 Annual Workforce report](https://www.bsg.org.uk/workforce-reports) [https://www.bsg.org.uk/workforce-reports] or are supplied to the BSG via the modelling team.

CHAPTER 10: Ten Key Recommendations

In order to ensure our services, meet the projected demand this report recommends:

1. An immediate increase of medical and wider workforce through an increase 34 additional NTN numbers year on year in all 4 nations and a substantially greater investment in our wider workforce numbers across all our subspecialty services.
2. A collaborative strategic review of how we triage and code patients to both clinic referrals and endoscopic tests in both hepatology and gastroenterology.
3. A single online national system designed with all our stakeholders enabling all GPs to refer patients from the community to hospital-based teams directly to a specific clinic. This will enable consistency across the country and significantly reduce the time spent triaging patients.
4. Recognised career pathways to better development our wider workforce to enable us to work as a team to plug some of the gap.
5. All NHS Trusts to allocate recognised leadership time in job planning to support and develop the wider workforce.
6. Specific fully funded ATSMs evidenced by objectively calculated workforce gaps in all our subspecialty services and a reciprocal increase in NTN numbers. This would take us back to a five-year training programme without altering the current curriculum.
7. The BSG supports opportunities to collaborate with our partners to establishing a hub and spoke system to enable us to deliver our hepatobiliary endoscopic services.
8. Prioritise delivery and development of the new workforce in predominantly under-work-forced regions which are often in more deprived areas in order to reduce health inequalities.
9. Personalised job planning shared at team level to enable better succession plans that also put the wellbeing of the workforce front and centre. This should prioritise our specialist skills and remove general medicine from our job plans all together.
10. Collaboration with all our partners to publish the latest workforce data from all 4 nations and subspecialties in the BSG annual workforce report. Then we can regularly monitor the amount of medical and wider workforce we have and constantly adapt to meet the needs of our patients.

Conclusion

Implementing the recommendations in this report immediately to get ahead of the curve. It will enable our membership to continue to deliver the BSG's internationally recognised guidelines over the next two decades.

If this blueprint is followed, we will go some way to reverse the chronically under-staffed and under-funded NHS services across our 4 nations. By aiming for optimum numbers our workforce will become more resilient and flexible; whatever the future might bring.

Abbreviations

AI – Artificial Intelligence
 ACPGBI – Association of Coloproctologists in Great Britain and Ireland
 ATSM – Advanced Training Skills Modules
 AUGIS – Association of Upper Gastrointestinal Surgeons
 BASL – British Association for the Study of the Liver
 BBC – British Broadcasting Corporation
 BCS – Bowel Cancer Screening
 BCSP - Bowel Cancer Screening Programme
 BSG – British Society of Gastroenterology
 BSG NS - British Society of Gastroenterology Nursing Association
 CCT – Certificate of Complete of Training
 CE – Clinical Endoscopists
 COVID – 19 – Coronavirus Disease 19
 CPD – Continuing Professional Development
 CSSC – Clinical Services and Standards Committee
 DNA – Deoxyribonucleic acid
 ERCP – Endoscopic Retrograde Pancreatography
 ESR -Electronic Staff Record
 EUS – Endoscopic Ultrasound
 F – Female
 FDA – Food and Drug Administration
 FIT – Faecal Immunochemical Test
 FTE – Full-Time Equivalent
 GI - Gastrointestinal
 GIM – General Internal Medicine
 GMC – General Medical Council
 GP - General Practice
 HCPC – Health and Care Professionals Council
 HST – Higher Specialty Trainees
 IBD – Inflammatory Bowel Disease
 IBD UK – Inflammatory bowel disease United Kingdom partnership
 IS – Independent Sector
 JAG – Joint Advisory Group
 KPI – Key Performance Indicators
 LTFT – Less-Than-Full-Time
 M - Male
 MASLD - Metabolic Dysfunction-associated Steatotic Liver Disease
 MDT – Multi-disciplinary Team
 NCD - Non-communicable Disease
 NED – National Endoscopy Database
 NHS – National Health Service
 NHSE – National Health Service England
 NHS LTP - National Health Service Long Term Plan
 NHS LTWP - National Health Service Long Term Workforce Plan
 NHS WTE – National Health Service Department of Workforce Education and Training
 NICE – National Institute of Clinical Excellence
 NMC - Nursing and Midwifery Council
 NTN- National Training Number
 NTS – National Training Survey
 OGD - Oesophagogastroduodenoscopy
 ONS – Office for National Statistics

OP - Outpatient
PA – Programmed Activities
PEG – Percutaneous Endoscopic Gastrostomy
PIFU – Patient Initiated Follow-up
PN – parenteral nutrition
RCP – Royal College of Physicians
RTT – Referral to Treatment
RCP WFU – Royal College of Physicians Workforce Unit
RCP – Royal College of Physicians
SLD - Steatotic Liver Disease
SSG - Scottish Society of Gastroenterology
SSP – Specialist Screening Practitioner
UK – United Kingdom
UHP – Ultra-high Processed
UGI – Upper Gastrointestinal
WAGE - Workforce Association for Gastroenterology and Endoscopy
WHO – World Health Organisation
WTE – Whole Time Equivalent
WW– Week Wait
UN – United Nations

Appendices

Appendix A - Executive Summary and Introduction

- A1. BSG Annual Workforce report 2023 <https://www.bsg.org.uk/workforce-reports>
- A2. NHS England. Monthly Diagnostics Waiting Times and Activity Data 2023-24. <https://www.england.nhs.uk/statistics/statistical-work-areas/diagnostics-waiting-times-and-activity/monthly-diagnostics-waiting-times-and-activity/monthly-diagnostics-data-2023-24/> accessed July 24
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Appendix B - Cancer Diagnostic Workforce

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Supplementary information and a summary of key papers

National Endoscopy Database (NED) 2023 data:

Aims

This analysis aimed to use data from the National Endoscopy Database (NED) to categorise the UK endoscopist workforce, helping inform workforce planning.

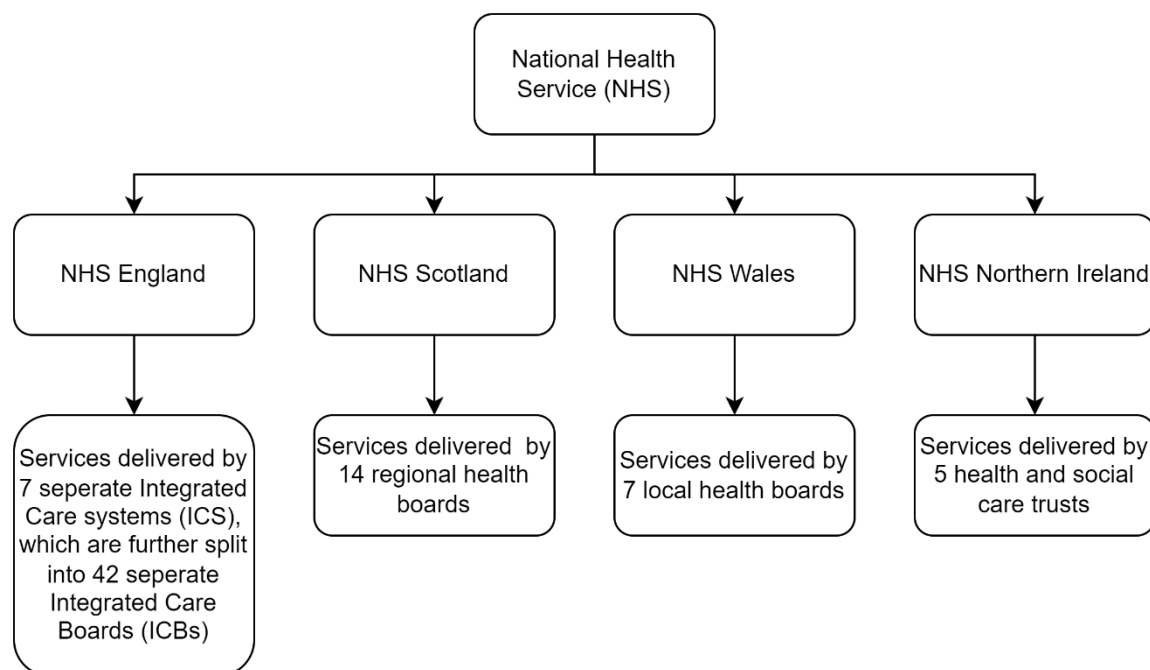
Methods

All gastrointestinal (GI) endoscopy uploads to the NED pertaining to: Gastroscopy, ERCP, Colonoscopy, or Flexible Sigmoidoscopy (Flexi) over a one-year period (1st October 2023 to 30th September 2024) were analysed.

Uploads to the NED were from both NHS and IS sites. The proportion of NHS trusts uploading from each UK nation (England, Scotland, Wales, and Northern Ireland) was calculated by manual comparison of sites uploading data against known endoscopy sites.(1-4). The configuration of NHS services is displayed in Figure 5.

All endoscopists upload to the NED with a personal identifier, namely their general medical council (GMC) or Nursing and Midwifery Council (NMC) numbers.

Configuration of NHS services providing Gastrointestinal endoscopy



These numbers remain constant even if the endoscopist works in multiple different trusts or between the IS and NHS. All unique endoscopist identifiers were linked to GMC data (via a download of the GMC database from October 2024) and categorised based on the results as: 'Consultant gastroenterologist' (including hepatology specialty), 'Consultant surgeons', 'Gastroenterology specialist trainee', 'Surgical specialist trainee', or 'Other doctor'. All endoscopist identifiers not matched were reviewed further, if the number configuration was

consistent with an NMC number (third and last digits letters, other digits numbers) they were classified as 'non-medical endoscopists', while all endoscopist identifiers with a different number configuration and not matched to a GMC number were classed as 'unmatched'. The total number of endoscopists was calculated, alongside the number working of NHS and IS sites. Proportions for each aforementioned procedure were then calculated.

Results

Over a one-year period (1st October 2023 to 30th September 2024), 2,201,058 endoscopies were uploaded to the NED: Gastroscopy 999,247 (45.4%), Colonoscopy 886,960 (40.3%) Flexi 275,024 (12.5%), ERCP 39,827 (1.8%). Data was collected from 492 endoscopy sites, with the majority being NHS-operated (302 sites, 61.4%) and the remaining 190 sites (38.6%) managed by IS providers.

Of the 126 acute trusts in England providing endoscopy services, 123 uploaded to NED (97.6%), of the 14 Scottish health boards, and 10 uploaded to NED through the year (71.4%). All 7 local health boards in Wales uploaded to NED, while 3 of the 5 Health and Social care trusts in Northern Ireland uploaded (60.0%).

Endoscopists

Endoscopies were performed by 7,879 endoscopists, endoscopist specialty and procedures performed is seen in Table 1.

Table 1: Endoscopist specialties and procedure volumes across NHS and Independent Sector sites

Specialty	Overall Endoscopists	%	Overall Performed	%	NHS Endoscopists	%	NHS Performed	%	IS Endoscopists	%	IS Performed	%
Consultant GI	2,022	25.7%	808,268	36.7%	1,942	25.6%	670,747	34.8%	620	39.7%	137,521	50.0%
Consultant Surgeon	2,071	26.3%	383,088	17.4%	1,915	25.2%	292,498	15.2%	789	50.5%	90,590	32.9%
Other Doctor	1,422	18.0%	309,061	14.0%	1,390	18.3%	290,220	15.1%	81	5.2%	18,841	6.9%
Non-medical Endoscopist	898	11.4%	488,698	22.2%	888	11.7%	461,709	24.0%	63	4.0%	26,989	9.8%
Trainee GI	658	8.4%	116,281	5.3%	658	8.7%	116,281	6.0%	0	0.0%	0	0.0%
Trainee Surgeon	608	7.7%	32,615	1.5%	608	8.0%	32,615	1.7%	0	0.0%	0	0.0%
Unmatched	200	2.5%	63,047	2.9%	192	2.5%	62,041	3.2%	10	0.6%	1,006	0.4%
Total	7,879		2,201,058		7,593		1,926,111		1,563		274,947	

**GI, gastroenterologist; IS, independent sector; NHS, National Health Service*

Details on endoscopists performing each endoscopic procedure, alongside procedure volumes and setting, can be found in Tables 2-5.

Table 2: Gastroscopies

Specialty	Overall Endoscopists	%	Gastroscopies Performed	%	NHS Only Endoscopists	%	NHS Gastroscopies Performed	%	IS Only Endoscopists	%	IS Gastroscopies Performed	%
Consultant GI	2,002	30.8%	367,818	36.8%	1,913	30.8%	294,849	33.9%	609	47.2%	72,969	56.6%
Consultant Surgeon	1,413	21.7%	132,457	13.3%	1,253	20.2%	101,599	11.7%	552	42.8%	30,858	24.0%
Other doctor	1,180	18.1%	150,883	15.1%	1,153	18.6%	140,099	16.1%	73	5.7%	10,784	8.4%
Non-medical Endoscopist	691	10.6%	236,778	23.7%	684	11.0%	222,989	25.6%	50	3.9%	13,789	10.7%
Trainee GI	647	9.9%	66,664	6.7%	647	10.4%	66,664	7.7%	0	0.0%	0	0.0%
Trainee Surgeon	434	6.7%	15,648	1.6%	434	7.0%	15,648	1.8%	0	0.0%	0	0.0%
Unmatched	136	2.1%	28,999	2.9%	131	2.1%	28,575	3.3%	7	0.5%	424	0.3%
Total	6,503		999,247		6,215		870,423		1,291		128,824	

**GI, gastroenterologist; IS, independent sector; NHS, National Health Service*

Table 3: ERCPs

Specialty	Overall Endoscopists	%	ERCPs Performed	%	NHS Endoscopists	%	NHS ERCPs Performed	%	IS Endoscopists	%	IS ERCPs Performed	%
Consultant GI	435	64.6%	28,794	72.3%	426	64.5%	28,520	72.2%	16	72.7%	274	86.4%
Consultant Surgeon	75	11.1%	4,485	11.3%	74	11.2%	4,454	11.3%	3	13.6%	31	9.8%
Other doctor	83	12.3%	3,859	9.7%	80	12.1%	3,847	9.7%	3	13.6%	12	3.8%
Non-medical Endoscopist	4	0.6%	7	0.0%	4	0.6%	7	0.0%	0	0.0%	0	0.0%
Trainee GI	57	8.5%	2,150	5.4%	57	8.6%	2,150	5.4%	0	0.0%	0	0.0%
Trainee Surgeon	11	1.6%	291	0.7%	11	1.7%	291	0.7%	0	0.0%	0	0.0%
Unmatched	8	1.2%	241	0.6%	8	1.2%	241	0.6%	0	0.0%	0	0.0%
Total	673		39,827		660		39,510		22		317	

**GI, gastroenterologist; IS, independent sector; NHS, National Health Service*

Table 4: Colonoscopy

Specialty	Overall Endoscopists	%	Colonoscopy Performed	%	NHS Endoscopists	%	NHS Colonoscopy Performed	%	IS Endoscopists	%	IS Colonoscopy Performed	%
Consultant GI	1,802	30.3%	326,587	36.8%	1,716	30.0%	270,750	35.2%	599	46.5%	55,837	47.6%
Consultant Surgeon	1,413	23.7%	175,114	19.7%	1,301	22.8%	131,946	17.1%	559	43.4%	43,168	36.8%
Other doctor	993	16.7%	118,674	13.4%	972	17.0%	111,923	14.5%	64	5.0%	6,751	5.8%
Non-medical Endoscopist	698	11.7%	189,400	21.4%	690	12.1%	178,467	23.2%	56	4.3%	10,933	9.3%
Trainee GI	539	9.1%	37,790	4.3%	539	9.4%	37,790	4.9%	0	0.0%		0.0%
Trainee Surgeon	372	6.3%	13,077	1.5%	372	6.5%	13,077	1.7%	0	0.0%		0.0%
Unmatched	133	2.2%	26,318	3.0%	125	2.2%	25,809	3.4%	10	0.8%	509	0.4%
Total	5,950		886,960		5,715		769,762		1,288		117,198	

Table 5: Flexible sigmoidoscopy

Specialty	Overall Endoscopists	%	Flexi Performed	%	NHS Endoscopists	%	NHS Flexi Performed	%	IS Endoscopists	%	IS Flexi Performed	%
Consultant GI	1,837	31.3%	85,069	30.9%	1,748	31.1%	76,628	31.1%	528	44.8%	8,441	31.7%
Consultant Surgeon	1,448	24.7%	71,032	25.8%	1,319	23.5%	54,499	22.1%	548	46.5%	16,533	62.1%
Other doctor	924	15.8%	35,645	13.0%	913	16.2%	34,351	13.9%	49	4.2%	1,294	4.9%
Non-medical Endoscopist	689	11.8%	62,513	22.7%	680	12.1%	60,246	24.4%	49	4.2%	2,267	8.5%
Trainee GI	516	8.8%	9,677	3.5%	516	9.2%	9,677	3.9%	0	0.0%	0	0.0%
Trainee Surgeon	333	5.7%	3,599	1.3%	333	5.9%	3,599	1.5%	0	0.0%	0	0.0%
Unmatched	114	1.9%	7,489	2.7%	110	2.0%	7,416	3.0%	5	0.4%	73	0.3%
Total	5,861		275,024		5,619		246,416		1,179		28,608	

**GI, gastroenterologist; IS, independent sector; NHS, National Health Service*

1. England N. NHS England System and organisational oversight. In: England N, editor. [<https://www.england.nhs.uk/system-and-organisational-oversight/system-directory/2024>].
2. Scotland N. NHS Scotland Organisations. [<https://www.scot.nhs.uk/organisations/2024>].
3. Wales N. NHS Wales health boards and trusts | GOV.WALES. In: NHS, editor. [<https://www.gov.wales/nhs-wales-health-boards-and-trusts2024>].
4. Ireland NN. Health and Social Care trusts. In: Ireland NN, editor. [<https://www.nidirect.gov.uk/contacts/health-and-social-care-trusts2015>].
5. Beaton D, Sharp L, Trudgill NJ, Thoufeeq M, Nicholson BD, Rogers P, et al. UK endoscopy workload and workforce patterns: is there potential to increase capacity? A BSG analysis of the National Endoscopy Database. *Frontline Gastroenterology*. 2022;flgastro-2022-1.

ERCP

Summary of key workforce points including Commentary by BSG Workforce Lead in: BSG ERCP EQIP Advisory Group: British Society of Gastroenterology Endoscopic Retrograde Cholangiopancreatography (ERCP) Quality Improvement Programme: minimum service standards and good practice statements
(Everett SM, Ahmed W, Dobson C BSG ERCP EQIP Advisory Group, et al *Frontline Gastroenterology* 2024;15:445-471.)

In 2018, 5% of the population lead to utilisation of 25% of ERCPs. If the population of >80yrs is set to rise in all 4 nations then the demand on our ERCP services will be exponential. In order to mitigate against unnecessary procedures in the future, the BSG recommends that this group of advanced endoscopists should be trained in both ERCP and EUS (rather than ERCP and BCSP which is the current trend). It should be highlighted that when this potentially lifesaving procedure mainly carried out on elderly and frail patients and when stones are both small and single, 22% of procedures when delayed could result in stone migration rendering the procedure unnecessary if a quick check EUS is offered prior to starting the procedure on a high-risk patient.

It is recognised that ERCP should be led by an experienced nurse. However, there is no central or regional collection of the number of ERCP nurses and as such we cannot recommend how many more ERCP nurses should be trained in the future. Recently published guidance has recommended that centres should collect this information going forward. The BSG Workforce Lead recommends that these specialist nurses should be supported and developed in either high volume centres or at a regional level by Matrons or Nurse Consultants with management, leaderships and mentoring skills. They should also have a key role in developing and growing their regional service. It is also the advice of the BSG Workforce Lead that a recognised course/module should be created with our stakeholders to support training of new ERCP nurses moving forwards. It maybe that some aspects of this training run alongside the lead ERCP manager as a recently published BSG document suggests:

“An ERCP service should be supported by a triumvirate of lead ERCP endoscopist, lead ERCP nurse and a member of the management team who is identified in assuring the quality of the ERCP service. The lead ERCP manager should have roles in waiting list management (and publication), list booking, staffing levels, equipment management and supporting governance and CPD.”

All these aspects are needed to support and develop an effective ERCP workforce. In order for educational development to be continuous, both ERCPists and ERCP nurses should be job planned for ongoing ERCP learning and training on a weekly basis either through departmental or regional network teaching, local regular clinical governance meetings, regional network meetings or online national training. Attendance at all of these levels and at an annual face-to-face national conference for the triumvirate would encourage knowledge sharing and best practice to be rolled out for all of our patients in our 4 nations.

The BSG Workforce Lead advocates that an NHS ERCP lead should be offered the opportunity to network and speak at regional meetings to share data on delivery of ERCP services locally and nationally and to ensure information sharing that will enable ERCP services to be delivered more equitably across the region so that all patients have equal opportunities across the patch and can access this service in the future. All regional leaders should be offered an opportunity to attend a national meeting annually (comparable to BCSP regional and national meetings) so that best practise and concerns regarding ERCP service delivery are shared and so that all leaders know which regions in the country are at most need and where expertise and workforce development needs to be centred to reduce geographical variation.

In order to provide a safe service, an ERCPists should have access to a regular MDT to discuss difficult patients and have access to a GI specialist radiologist. Currently 16% of ERCPists do not feel that they have access to appropriate radiology support.

The report recognises that there will need to be a significant reconfiguration of ERCP services in order to both meet the demand now and ensure high quality care of patients regardless of their postcode and to get over the impending workforce gap. However, we will need significant support from our stakeholders to support specialist training in this area and increase workforce numbers.

NED Data on ERCPists in England

Specialty	Overall Endoscopists	%	Overall Performed	%	NHS Only Endoscopists	%	NHS Only Performed	%	IS Only Endoscopists	%	IS Only Performed	%
Consultant GI	1,787	26.1%	728,181	37.2%	1,708	25.9%	596,055	35.2%	587	40.3%	132,126	50.0%
Consultant Surgeon	1,775	25.9%	331,388	16.9%	1,639	24.9%	246,151	14.5%	717	49.2%	85,237	32.3%
Other doctor	1,230	18.0%	266,572	13.6%	1,199	18.2%	247,772	14.6%	79	5.4%	18,800	7.1%
Non-medical Endoscopist	794	11.6%	441,300	22.5%	783	11.9%	414,311	24.5%	63	4.3%	26,989	10.2%
Trainee GI	594	8.7%	106,351	5.4%	594	9.0%	106,351	6.3%	0	0.0%	0	0.0%
Trainee Surgeon	485	7.1%	26,398	1.3%	485	7.4%	26,398	1.6%	0	0.0%	0	0.0%
Unmatched	185	2.7%	57,386	2.9%	177	2.7%	56,380	3.3%	10	0.7%	1,006	0.4%
Total	6,850		1,957,576		6,585		1,693,418		1,456		264,158	

**GI, gastroenterologist; IS, independent sector; NHS, National Health Service*

NHSE ERCP data on number of ERCPists due to retire according to region:

London:

41 independent ERCP-ists

27 plan to stop by 2027 - 2030

South East:

40 independent ERCP-ists

Approx. 8 plan to stop by 2030

East of England:

45 independent ERCP-ists

Approx. 12 plan to stop by 2030

South West:

44 independent ERCP-ists

Approx. 10 plan to stop by 2030

East & West Midlands:

79 independent ERCP-ists (5 retired & returned)

10 plan to stop by 2030

Some midlands areas stretched e.g. Lincolnshire

North West:

52 independent ERCP-ists

Approx 15 plan to stop by 2030

Yorks & North East:

52 independent ERCP-ists

Approx. 12 plan to stop by 2030

Wales:

20 ERCP-ists, 8 EUS (4/8 due to retire & high proportion of radiologists not gastroenterologists)

No Welsh JAG basic courses or fellowship programmes

According to the latest JAG census, there is a high attrition rate there. ERCP endo nurses tend to be the older, and more experienced. Our stakeholders should be aiming for better succession planning at both hub and spoke level at Nursing Management Level. Feedback I gained from speaking at the National CE conference in September '24 was that our CE teams are supported best by a strong network of Nurse Consultants. Perhaps this could be repeated by a strong network of ERCP specific Nurse Consultants.

Enabling our new nurse led endoscopy workforce to thrive and widening participation in Advanced Endoscopy Leadership

At the recent National Clinical Endoscopist conference, our nursing staff and particularly our clinical endoscopists would also like to have a greater focus on their career development. In a straw poll, only half would like to pursue enhancing further techniques in advanced endoscopy. A quarter would like to branch out into other subspecialties within gastroenterology and around 10% would choose to branch out into nutrition. If given the opportunity, a significant proportion would like to further enhance their leadership and management skills.

In order to widen participation in Advanced Endoscopy, the Endoscopy community needs to reset targets both gender and qualification status in front facing opportunities. This has already widened participation in gender balance in BSG LIVE in the past few years.

NHS WTE has already increased the number of JAG training centres during the rollout of endoscopy academies. However, there will be an increase in numbers of BCSP accreditation assessments and increased numbers of SSPs requiring accreditation to meet and maintain FIT@80 the BCSP workforce. This will mean that there will be a need to create ideally 2 more centres to offer BCS and SSP accreditation enabling more opportunities for career progression in educational leadership in advanced endoscopy more equitably across England and Wales.

It is proposed that NHS WTE works with JAG to focus on target gender proportions of trainers in Endoscopy Academies, JAG training centres and BCS Assessors to reflect the overall G&H workforce. JAG is in the process of collating a wider review into E,D & I issues in advanced endoscopy.

Appendix C - Hepatology

Please see the full membership section count including the Liver section.

- C1. Brown KF, Rungay H, Dunlop C, Ryan M, Quartly F, Cox A, et al. The fraction of cancer attributable to modifiable risk factors in England, Wales, Scotland, Northern Ireland, and the United Kingdom in 2015. *Br J Cancer*. 2018;118(8):1130-41
- C2. Williams R, Aithal G, Alexander GJ, Allison M, Armstrong I, Aspinall R, et al. Unacceptable failures: the final report of the Lancet Commission into liver disease in the UK. *Lancet*. 2020;395(10219):226-39
- C3. Williams, R. *et al* Addressing liver disease in the UK: a blueprint for attaining excellence in health care and reducing premature mortality from lifestyle issues of excess consumption of alcohol, obesity, and viral hepatitis. *Lancet* 2014 384 1953-1997
- C4. Francque S, Krag A, Shawcross DL, Zelber-Sagi S. A turning point in hepatology? EASL reflects on the first approved drug for MASH. *J Hepatol*. 2024;81(2):192-4.
- C5. RCP Census 2023. [<https://www.rcp.ac.uk/improving-care/resources/snapshot-of-uk-consultant-physicians-2023/>]
- C6. NHS England - NHS in numbers today [<https://www.england.nhs.uk/nhsbirthday/about-the-nhs-birthday/nhs-in-numbers-today/>]

Snapshot of BASL services data in September 24

50% return rate reached. At time of publication non-responders were still being chased.

Table Demonstrating BASL services data survey supported by NHS E from level 1 and level 2 centres

	Level 1	Level 2
Number of hospitals responding	37	21
Total Gastro + Hep Cons (median)	5 (1.5-19)	15 (7-25)
Hep Cons (WTE)	1.5 (0-4.7)	5 (1-11)
Gastro & Hep depts combined/separate?	Separate in 4	Separate in 4
Hepatology Training post?	Yes 3; No 34	Yes 14; No 7
Liver CNS WTE (median)	2.2 (0-4)	5 (1.8-9)
Liver only or combined roles with Gastro?	Liver only 30; Combined 5	All liver only
Nurse-led paracentesis service	Yes 14; No 23	Yes 14; No 7
Out of hours care/review of in-patients	Gastro/hep in 10; 'sickest only' in 1; No specialist cover in 21	3 Hep; 16 Gastro/Hep cover; 2 no specialist cover

Table demonstrating data from BASL services survey demonstrating provision of alcohol care team.

<p><u>Alcohol Care Team</u> Yes - 7 days/week: 18 Yes - 5 days/week: 32 Minimal: 2 No: 11</p> <p>Secure funding for ACT? Yes: 23 No: 19 Don't know: 17</p>

Appendix D - IBD

- D1. Jones G, Lyons M, Plevris N, *et al* IBD prevalence in Lothian, Scotland, derived by capture–recapture methodology *Gut* 2019;**68**:1953-1960.
- D2. Bassi A, Dodd S, Williamson P, Bodger K. Cost of illness of inflammatory bowel disease in the UK: a single centre retrospective study. *Gut*. 2004.53(10):1471-78.
- D3. J Blackwell *et al*. *Journal of Crohn's and Colitis*, Volume 15, Issue 2, February 2021, Pages 203–211
- D4. Jayasooriya, N, *et al*. *Aliment Pharmacol Ther*. 2023; 57: 635– 652.
- D5. The cost of inflammatory bowel disease in high-income settings: a Lancet Gastroenterology & Hepatology Commission
[\[https://www.thelancet.com/journals/langas/article/PIIS2468-1253\(23\)00003-1/abstract\]](https://www.thelancet.com/journals/langas/article/PIIS2468-1253(23)00003-1/abstract)
- D6. Unpublished data from IBD UK

- D7. <https://ibduk.org/ibd-standards/the-ibd-service/the-ibd-multidisciplinary-team>
- D8. [Ultra-processed foods and food additives in gut health and disease.](#) **Whelan K**, Bancel AS, **Lindsay JO**, Chassaing B. *Nat Rev Gastroenterol Hepatol*. 2024 Jun;21(6):406-427. doi: 10.1038/s41575-024-00893-5. Epub 2024 Feb 22. [https://pubmed.ncbi.nlm.nih.gov/38388570/]

Appendix E - Nutrition

- E1. Malnutrition in England and how failure to prevent, detect early, and effectively treat malnutrition is impacting on the NHS. Submission to Lord Darzi's open consultation, BAPEN, August 2024
- E2. Malnutrition and Nutritional Care Survey in Adults UK Malnutrition Awareness Week, October 2023 Rebecca Stratton (Editor) and Abbie Cawood on behalf of the Malnutrition Action Group of BAPEN
- E3. NICE Clinical Guideline 32: Nutrition support for adults: oral nutrition support, enteral tube feeding and parenteral nutrition [CG32] 2006, updated 2017
- E4. Gastroenterology GIRFT Getting it right first time, Programme National Specialty Report, B Oates, March 2021
- E5. Provisional publication of Never Events reported as occurring between 1 April 2023 and 31 March 2024, NHS England, May 2024
- E6. A mixed bag. An enquiry into the care of hospital patients receiving parenteral nutrition. NCEPOD 2010.
- E7. Safe staffing and safe workload guidance. BDA, the association of UK dietitians, May 2024
- E8. Culkin A, Ruddock N. What are dietitians prescribing and what are the barriers? BDA Prescribers specialist subgroup, 2024.
- E9. Gemmel L. Abstract accepted to BDA research symposium 2024. Dietetic supplementary prescribing in intestinal failure – independent prescribers views and an audit of 12 months' prescribing practice.
- E10. NHS England – Service Specification: Severe Intestinal Failure Services (Adults) 2023

Appendix F - Trainee's and Nurse's Piece

- F1. The 2024 British Society of Gastroenterology Trainees Section survey (unpublished data). July 2024.
- F2. Focus on physicians: The UK 2023 census of consultant physicians. Royal College of Physicians Medical Workforce Unit. July 2024
- F3. Independent Investigation of the National Health Service in England. Lord Darzi. September 2024.
- F4. Referral to Treatment (RTT) Waiting Times. NHS England.
- F5. General Medical Council National Training Survey 2024. September 2024.

- F6. Joint Royal College Physician Training Board Curriculum Implementation Survey 2024. February 2024.
- F7. Palmer W, Rolewicz L, Dosworth E. Waste not, want not Strategies to improve the supply of clinical staff to the NHS. Nuffield Trust. September 2023
- F8. Ravindran S, Thomas-Gibson S, Bano M, Robinson E, Jenkins A, Marshall S, Ashrafian H, Darzi A, Coleman M, Healey C. National census of UK endoscopy services 2021. *Frontline Gastroenterology*. 2022 Nov 1;13(6):463-70
- F9. Ravindran S, Munday J, Veitch AM, Broughton R, Thomas-Gibson S, Penman ID, McKinlay A, Fearnhead NS, Coleman M, Logan R. Bowel cancer screening workforce survey: developing the endoscopy workforce for 2025 and beyond. *Frontline Gastroenterology*. 2022 Jan 1;13(1):12-9.
- F10. Beaton D, Sharp L, Trudgill NJ, Thoufeeq M, Nicholson BD, Rogers P, Docherty J, Penman ID, Rutter M. UK endoscopy workload and workforce patterns: is there potential to increase capacity? A BSG analysis of the National Endoscopy Database. *Frontline Gastroenterology*. 2023 Mar 1;14(2):103-10.

Appendix G - Cancer DNA tests v FIT test for bowel cancer

Amanda Pritchard, the previous NHS chief executive, said the Galleri test [<https://www.theguardian.com/science/2023/jun/02/blood-test-50-types-cancer-could-speed-up-patient-diagnosis-study>] has the potential to “transform cancer care forever”, according to reports. The test correctly revealed two-thirds of cancers among those in the study. In 85% of those positive cases, it was also able to pinpoint the original site of cancer. It was more accurate in older patients and those with more advanced cancers, according to the trial results.

Within the study, 368 (6.7 %) of the 5,461 evaluable patients were diagnosed with cancer through standard of care. The most common cancer diagnoses were colorectal (37.2 %), lung (22.0 % percent), uterine (8.2 %), oesophago-gastric (6.0 %) and ovarian (3.8 %).

This has a higher cancer detection rate than the current FIT test for patients on the symptomatic pathway. It would enable us to streamline better and refer fewer young patients for a diagnostic colonoscopy.

As this test has a higher detection rate in older patients, the demand will rise exponentially in our diagnostic testing capacity and outpatient clinics to ensure whether an invasive test is even appropriate for the individual. We cannot yet say whether it will result in significantly fewer 2ww colonoscopies in the next 5 years. We predict that there will still be a need to maintain and grow our clinical endoscopist workforce.

In order to provide safer outcomes for this increasing cohort of elderly patients, we will need to grow our advanced endoscopy workforce to potentially definitively treat these patients as we know this cohort of patients has poorer outcomes associated with surgery. If we

combine this need with changing the threshold of FIT to 80 which will lead to a 35% increase in demand in BCSP screening colonoscopies, we will need a significant expansion of lower GI therapists to tackle this workload immediately. The lion's share of this work is performed by Consultant Gastroenterologists.

Robotics in endoscopy

There are ongoing trials to see if a colonoscopy can be performed effectively by robots. This research is being carried out by centres such as Imperial College London. These trials demonstrate this mode is less painful than conventional operator dependent colonoscopy. We do not know if the quality of the images is the same as those offered by a standard colonoscopy carried out by a human operator. We know this is not the case yet for colon capsule case technology. Theoretically, this technology could be more accurate than colon capsule as the robot can use technology to take a more controlled view of the lumen of the bowel.

It will take some time for the research and the NHS to perfect and roll out this technology. It may also take longer for patients to find this technology acceptable especially if AI is used to read these scans removing the need for human involvement. Whether it can contribute to removing lesions without a human operator remains to be seen. It is likely that we will still need an advanced endoscopist workforce to remove lesions mirroring our surgical colleagues who perform robotic surgery. The economic viability of robotic endoscopy is also questionable. Widespread adoption of robotic endoscopy seems very challenging from a cost-effectiveness angle, particularly in the implementing stages. It will require independent appropriate governance. It is likely to have a supportive role rather than to replace human operators completely.

Over the next five years we predict that we will still need to expand both our diagnostic endoscopy workforce and rapidly expand our advanced endoscopist workforce.

Apps to support patients to manage their care in the community

There are already multiple apps on the market to support patients with functional abdominal symptoms. Whether they are resulting in fewer patients presenting to their GP and ultimately being referred onto secondary care remains to be seen.

Apps may well be a better fit for technology for patients with chronic illnesses such as IBD. Work has already been invested in looking into a universal app for all IBD patients. Whether this will result in less case load for our IBD workforce in the next 5 years remains to be seen.

We also need to take into account that in the 2023 IBD UK survey, less than 20% of surveyed trusts had the recommended number of IBD nurses. The BSG suspects that based on the amount of workforce currently available, we are not supporting this young cohort of patients as well as we would like. We know better management of these patients will reduce their likelihood of developing cancer in the future. They are a young population who when well, can effectively contribute to our economy and wider society. Investing in better IBD

services could result in less cancer in young patients or at worst, improve earlier diagnosis of cancer.

Influence of AI in diagnostic endoscopy

Many academic centres have been researching how to use artificial intelligence to improve detection of pathology during diagnostic gastroscopy and colonoscopy for the past decade. We still believe the best way to detect pathology and produce a high-quality patient experience is through an experienced operator rather than relying on technology alone. This technology has already been rolled out in several units in partnership with various technology partners. AI is likely to detect more polyps in the short term and this could slightly increase the procedure time, but that should not have any meaningful impact on overall productivity. However, adoption of AI can potentially lead to lengthening of surveillance intervals and potentially a reduction in workload in the long term.

AI in radiology however could lead to an overall increase in detection of “possible cancers” on cancers if all abnormal scans are not checked by an experienced radiologist. This is almost certainly likely to happen when AI is initially introduced in radiology. This will increase the volume of diagnostic tests and if not planned for with an adequate workforce, will lengthen the amount time it takes for a patient to receive their test.

Ultimately it is an adjunct and it will be for JAG (the regulatory body) to decide whether compulsory implementation of the technology across all units across our 4 nations is appropriate. Until AI is linked with high quality robotic or capsule technology (most likely in diagnostic colonoscopy alone), an operator to perform diagnostic procedure will still be needed. In short, we are still some way off from AI alone effectively impacting on patient outcomes on a large scale and objectively improving early diagnosis of cancer. Although AI has the potential to reduce the consultant radiologist workforce, the BSG does not believe conclusively that could be true of our advanced endoscopy workforce over the next decade.

Private Body Scans: how unregulated care is flooding our system now

The Guardian recently published an article on Neko Body Scans which implied that “in 1% of cases, people received potentially life-saving referrals”. We have no idea how many referrals this could be as these private sector initiatives roll out further or how many excess tests may be performed presenting excess risk to the patient. We know that NHS patients wait longer for scans [<https://www.theguardian.com/society/2023/sep/24/nhs-england-patients-wait-times-mri-ultrasound-ct-scans>]. More affluent and worried patients will pay for scans, widening the health inequalities gap even further promoting a two-tier system.

Appendix H - The BSG Vision - Workforce

H1. BSG Position Statement on Flexible Working [<https://www.bsg.org.uk/clinical-resource/bsg-position-statement-on-flexible-working>]

H2. BSG Annual Workforce Report 2023 [<https://www.bsg.org.uk/workforce-reports>]

H3. consultant-gastroenterologist-job-planning [<https://www.bsg.org.uk/clinical-resource/consultant-gastroenterologist-job-planning>]

H4. BSG Strategy <https://www.bsg.org.uk/bsg-strategy>

H5. BSG@90 project [<https://www.bsg.org.uk/news/meet-the-project-90-team>]

Appendix I - Heat map appendix tables

Please see the heat map appendix tables here.

Appendix J - Detailed Analysis LTFT Training and Working

The overall percentage from the FOI 2023 (17.6%), varied by gender and level (based on other sources including the 2018/2019 HST and the RCP report).

Table demonstrating data from NHS E FOI request utilised in Markov modelling. It shows the gender breakdown of NTN trainees in 2023 according to stage of training and their working pattern

		ST4	ST5	ST6	ST7	Total
Females	Full time	73.3%	67.4%	74.2%	86.5%	68.6%
	Less than full time	32.8%	40.1%	31.8%	16.6%	31.4%
Males	Full time	97.8%	96.5%	96.3%	94.6%	91.5%
	Less than full time	5.1%	8.4%	8.8%	12.7%	8.5%
				Overall Percentage LTFT		17.6%

GMC 2024 National Training Survey (NTS) data – specially requested analysis:

Number of Respondents

Specialty	Working pattern	Man	Woman	Total
Gastroenterology	Less than full time	38	61	99
Gastroenterology	Full time	208	82	290
Gastroenterology	Total	246	143	389
Medicine	Less than full time	337	1,025	1,362
Medicine	Full time	1,902	1,328	3,230
Medicine	Total	2,239	2,353	4,592

Table comparing the number of respondents to GMC NTS in Gastroenterology and Medicine according to gender and working pattern

Specialty	Working pattern	Man	Woman	Total
Gastroenterology	Less than full time	15.4%	42.7%	25.4%
Gastroenterology	Full time	84.6%	57.3%	74.6%
Medicine	Less than full time	15.1%	43.6%	29.7%
Medicine	Full time	84.9%	56.4%	70.3%

Table comparing the proportion of respondents to GMC NTS in Gastroenterology and Medicine according to gender and working pattern

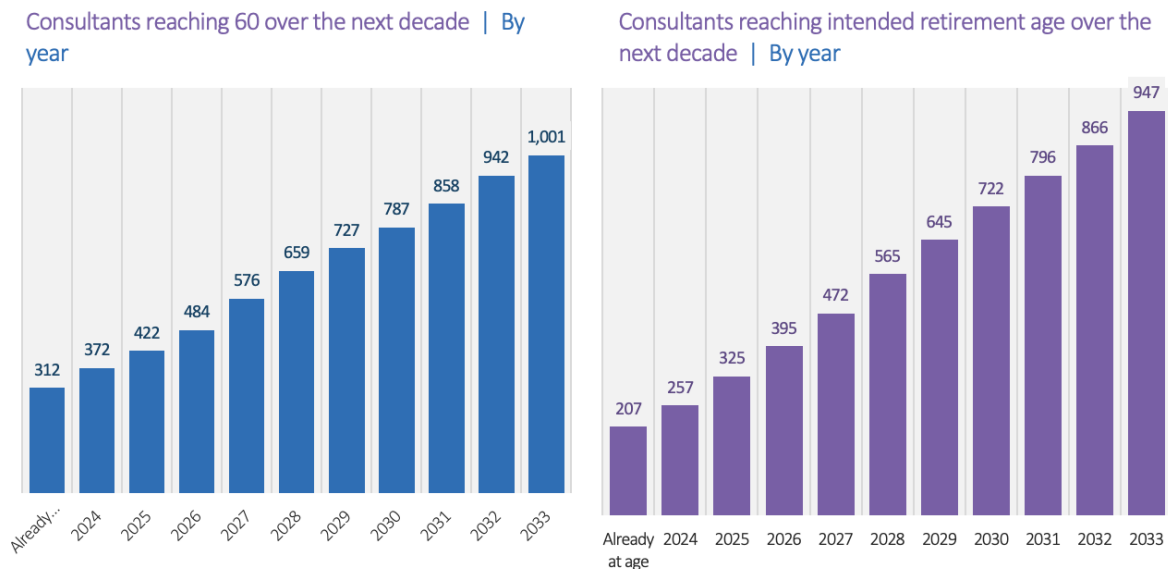
This data demonstrated the true picture of LTFT training in gastroenterology. It is likely that the pandemic has accelerated trainees' desire to work LTFT. This data was not available when the model was commissioned. It is not known how WTE status trainees will choose to work when they receive their CCT, but it is reasonable to assume that more will work LTFT when they qualify. This is a potentially significant underestimate in the model.

Table showing changes in age of LTFT/Flex working overtime of respondents to RCP

Percentage of Gastroenterology/Hepatology Consultants						
Year	2017	2018	2019	2020	2021	2022
34 or younger	16.7%	0.0%	0.0%	0.0%	0.0%	0.0%
35 to 39	3.0%	6.8%	9.1%	9.3%	9.8%	26.1%
40 to 44	10.0%	10.4%	8.8%	8.9%	8.7%	3.2%
45 to 49	12.5%	10.0%	7.6%	8.0%	10.7%	12.4%
50 to 54	7.1%	7.6%	9.6%	8.8%	10.6%	10.3%
55 to 59	15.3%	13.1%	12.8%	15.9%	16.1%	17.3%
60 to 64	45.5%	41.4%	41.7%	42.9%	36.8%	51.4%
65 or older	77.8%	83.3%	78.9%	58.3%	63.6%	76%
All consultants	1,494	1,570	1,607	1,700	1,761	1,941
LTFT (total)	13.4%	13.6%	13.8%	14.3%	15.5%	19.5%
Estimated LTFT / flex consultants	200	214	221	244	272	379

Census 2022 (unpublished RCP WFU data)

Figure demonstrating consultants reaching 60 and intended retirement age over the next decade



Comment on Northern Ireland (NI) as an outlier

Looking at the Northern Ireland Consultant data on the RCP bar chart published year on year in the BSG annual workforce report, NI has a significant shortage of consultants compared to recommended staffing levels. The BBC reported last year that there is a 3 year wait to see a specialist. The impact of their political situation is affecting funding and the central collection of data at government level of all public services means that any predictions in medical and wider workforce numbers in NI are tenuous at best. This report advises that NI stakeholders should begin to collect and analyse its own data for an objective and credible volume of workforce required to meet its demand in view of its predictably large OP backlog.

Thank you from the Lead Author – Dr Shairoz Samji, BSG Workforce Lead

I would like to thank the BSG for giving me the opportunity bring together a thorough report. This document outlines a vision of what our optimal workforce in gastroenterology could look like if we applied objective and credible modelling to how we currently deliver our services into the future. In reality, change is our only true constant and as such, as a society we will need to adapt to each review of the NHS LTWP.

I would also like to thank the BSG Executive and its senior members for advice which shaped the chapters and the BSG office staff for their constant support. In particular, Lisa Moore, whose kind and patient ear has remained with me throughout my term as the BSG Workforce Lead.

Without the support of the Strategic Workforce Advisory Group, this report would not have been possible. I would like to highlight Harriet Gordon, Matt Kurien and Melanie Lockett for their dedication to the project behind the scenes. Others include Nigel Trudgill and Emma Carter from the Data Modelling Team.

Lastly, I would like to thank Antony for always being there. Without his compassionate and gentle nature, I don't know where I would be. It has been a pleasure to spend more time with my son Aaron and my sister Waheeda while writing this report. I am proud of them and all of their achievements.