# British Society of Gastroenterology Workforce Report 2021 February 2022 (written in retrospect for October 2021) Dr Charlotte Rutter

## Key points:

- On 30<sup>th</sup> September 2020 there were 1700 substantive consultant gastroenterologists and hepatologists in the UK, a 5.8% expansion from 2019
- 22% of consultants were female and 14% of all consultants worked flexibly
- The consultant workforce has expanded by 54% over the last ten years; mean yearly expansion is between 4.5% and 5%
- Mean intended retirement age was reported as 61.5 years with 51% of consultants reaching this age over the next decade; on average, there will be 87 retirements per year
- Mean WTE PAs contracted per week were 11.46 and flexible PAs 7.16; consultants reported working an additional 1.PA a week
- 48% of advertised consultant gastroenterology and hepatology posts in 2020 were unfilled indicating expansion was less than it could be
- With the current shortfall in workforce, predicted retirements and population growth, we need between 7 9% yearly expansion
- Gastroenterology is the major physician specialty at highest risk of burnout with lower (worse) mean mental wellbeing scores
- On 30<sup>th</sup> September 2019 there were 721 gastroenterology and hepatology Higher Specialty Trainees in the UK
- HST Recruitment in 2021 was 98% to NTNs and 88% to LATs
- It would be appropriate to double the number of ST4 NTNs recruited each year to address the consultant deficit and need for greater expansion

## Introduction:

The BSG Workforce Report collates data from the Royal College of Physicians (RCP) Census of consultant physicians and higher specialty trainees in the UK (2020), the British Society of Gastroenterology Clinical Services and Standards Committee (BSG CSSC) & Workforce Census and the Medical Register of the General Medical Council (GMC).

## **Consultant Gastroenterologists and Hepatologists:**

On 30<sup>th</sup> September 2020 there were 1700 substantive gastroenterology and hepatology consultants in the UK<sup>1</sup>, a 5.8% expansion from 30<sup>th</sup> September 2019 (Tables 1 and 2). 22% of consultants were women compared with 38% across all medical specialties. 14% of all consultants worked flexibly compared with 24% across all medical specialties. There were 2,301 doctors holding a licence on the GMC Medical Register who listed Gastroenterology as their main specialty<sup>2</sup>.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
England	957	996	1054	1107	1182	1222				
	(932)	(968)	(1082)	(1095)	(1170)	(1258)	(1290)	(1355)	(1388)	(1485)
Scotland	108	107	111	122	128	127				
	(91)	(93)	(99)	(105)	(109)	(113)	(106)	(106)	(108)	(99)
Wales	52	5	55	59	64	66				
	(51)	(51)	(54)	(56)	(59)	(58)	(59)	(65)	(68)	(70)
Northern	35	36	35	39	40	40				
Ireland	(33)	(33)	(33)	(34)	(38)	(38)	(39)	(44)	(43)	(46)
Total	1152	1191	1255	1326	1414	1455				
	(1107)	(1145)	(1268)	(1290)	(1376)	(1467)	(1494)	(1570)	(1607)	(1700)

Table 1: Number of substantive UK consultant gastroenterologists and hepatologists by year

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
England	3.5	4.1	5.8	5.0	6.8	3.4	(2.2)	(5.0)	(2.4)	(7.0)
Scotland	0	-0.9	3.7	9.9	4.9	-0.8	(-6.2)	(0)	(1.9)	(-8.3)
Wales	8.3	0	5.8	7.3	8.5	3.1	(1.7)	(10.2)	(4.6)	(2.9)
Northern	12.9	2.9	-2.8	11.4	2.6	0	(2.6)	(12.8)	(-2.3)	(6.5)
Ireland										
Total	3.5 (3.1)	3.4 (3.4)	5.4 (10.7)	5.7 (1.7)	6.6 (6.7)	2.9 (6.6)	(1.8)	(5.1)	(2.4)	(6.5)

**Table 2:** Annual expansion (%) of UK consultant gastroenterologists and hepatologists by year \*Numbers in brackets from RCP Census 2020. Numbers not in brackets from previous BSG Workforce Reports.

Mean annual consultant expansion between 2010 and 2020 was 4.7% and remains static (4.5 to 5%) despite variability year by year (Table 2 and Figure 1). The substantive gastroenterology and hepatology consultant workforce has expanded by 54% over the last ten years.



**Figure 1:** Trends in the number of substantive gastroenterology and hepatology consultants and annual mean expansion

The 2013 RCP document *Consultant Physicians Working for Patients* estimated that we need approximately 6 whole-time-equivalent (WTE) consultant gastroenterologists (with GIM) per 250,000 population<sup>3</sup>. For the 2020 ONS population of 67,081,000<sup>4</sup> this equates to 1,610 WTE substantive consultants providing 18,596PAs. Of the current workforce (1,700) there are 238 flexible consultants contracted to provide a mean of 7.16PAs and 1462 WTE consultants contracted to provide a mean of 11.55PAs. Together, the substantive consultant workforce provides a total of 18,590PAs. Additional workload pressures are reported by consultants delivering on average 1PA over and above their contracted job plan which equates to a total of 20,290 PAs worked. Incorporating this additional workload equates to a current shortfall of 1,694PAs.

This shortfall could be provided by an additional 147 WTE consultants or, if the proportion of flexible consultants remains static at 22%, by 114 WTE and 52 flexible consultants. This requires an immediate 10.2% consultant expansion (166 in total) and will only provide the substantive consultant workforce needed to meet current demand. It will not contribute towards the expected annual expansion required for population growth or replacement posts for predicted retirements. It should be noted that the proportion of the consultant workforce on flexible contracts is likely to increase rather than remaining static, putting further emphasis on the need for greater workforce expansion.

## **Regional variation of consultants:**

Figure 2 shows the regional variation of substantive consultant gastroenterologists and hepatologists throughout the UK and population per WTE. The average WTE consultant in the UK serves a population of 42,062 which does not meet the RCP estimate of 1 WTE per 41,667 population<sup>1</sup>. There remains considerable geographical variation with some populations much more poorly served such as London South, Yorkshire & the Humber, the Thames Valley, Wessex, the North and West of Scotland and North Wales.

Nation	NHS region	Sub-region	Female	Male	Total headcount	Total FTEs	Population	Population per FTE
	<u> </u>	London - Central and North East	42	118	160	152	3,563,052	23,368
	London	. London - North West	21	60	81	76	2,111,469	27,854
		London - South	15	43	58	55	3,327,967	60,671
		East Midlands	23	104	127	123	4,865,583	39,578
	Midlands and East	. East of England	34	109	143	133	6,269,161	47,049
		West Midlands	37	121	158	151	5,961,929	39,452
England 🗕	North	North West	38	175	213	200	7,039,306	35,264
		. Northern	16	66	82	80	2,730,400	34,202
		Yorkshire and the Humber	27	80	107	102	5,804,863	57,156
	South	Kent, Surrey and Sussex	25	81	106	99	4,635,942	46,678
		South West	29	112	141	133	4,932,192	37,045
		Thames Valley	13	29	42	41	2,431,905	59,093
		Wessex	13	41	54	51	2,876,369	56,369
Northern Ire	land	. Northern Ireland	7	39	46	42	1,895,510	44,977
		Scotland - East	3	10	13	9	416,550	44,404
Scotland	Scotland	Scotland - North	4	15	19	17	978,180	58,691
		Scotland - South	7	26	33	31	1,401,860	45,014
		Scotland - West	8	39	47	37	2,669,410	71,403
Wales –	Wales	Wales - North	1	11	12	10	703,361	71,004
wales –		Wales - South	12	46	58	52	2,466,225	47,340
Total			375	1,325	1,700	1,595	67,081,234	42,062

#### Locations of consultants and full time equiavelnt vs population | By nation and region

**Figure 2:** Location of substantive consultant gastroenterologists and hepatologists in the UK with population per WTE consultant<sup>1</sup>.

6% of consultants work at more than one location and 16% of consultants reported their primary work was in a majority-rural or hub-town area.

#### Equality and diversity:

The largest proportion of consultant gastroenterologists and hepatologists were aged between 40 and 50y; 9% were aged 60 years or older (Figure 3). 22% of consultants were women, an increase from 15% in 2010<sup>1</sup>.



Figure 3: The consultant gastroenterology and hepatology workforce: by age and sex<sup>1</sup>

63% identified themselves as White and 37% from a minority ethnicity; 95% were UK citizens. 72.8% graduated in the UK, 16.6% in Asia, 7.5% from the European Economic Area (EU, EEA, EFTA) and 2.4% from Africa (Figure 4). These figures were similar to all medical specialties. 76% of UK graduates were men (84% outside the UK) and 24% women (16% outside the UK). Across all medical specialties 59% of graduates were men (70% outside the UK) and 41% women (30% outside the UK). Mean time since consultants gained their substantive post was 12.8 years. Mean time consultants had worked in their current post was 10.3 years.

Ethnicity	%	Place of graduation   Consultants who graduated in medicin outside the UK
White: English/Welsh/Scottish/N Irish/British	51%	England Asia 16.6%
Asian/Asian British	30%	Scotland 8.8%
White: other	9%	EU/EEA/EFTA 7.5%
White: Irish	3%	Northern Ireland 2.5%
Black/Black British	2%	Wales   2.5%     Oceania   0.4%
Mixed ethnicity	2%	South and Central America 0.2%
Other	4%	Europe (other) 0.1% North America 0.1%

Figure 4: Ethnicity and country of primary medical gualification<sup>1</sup>

#### **Retirements:**

The 2020 RCP census reported mean intended retirement age for consultant gastroenterologists and hepatologists as 61.5 years (61.1y for females and 61.6y for males) with 51% estimated to reach this age over the next decade. This suggests between 600 and 936 consultants are expected to retire over the next 10 years (Figure 5). One hundred and ninety consultants in 2020 have already reached intended retirement age. In the next decade 869 consultants will reach mean intended retirement age, on average 87 intended retirements per year. This has increased from an

average of 66 retirements per year in last year's report. 11% have retired and returned suggesting 182 have returned to work – this has increased from 5% in the 2019 Workforce Report. They have predominantly undertaken outpatient work and endoscopy with 49% working less than 10PAs. The 2020 CSSC and Workforce census reported that 40% of Trusts expect at least one to two retirements in the next 12 months<sup>5</sup>.





Three potential retirement scenarios over the next decade



The impact of changes in pension tax rules was evaluated by a CSSC survey of BSG members in 2019<sup>6</sup>. 66% of consultants planned early retirement with 40% dropping at least one endoscopy list or clinic and 4% dropping more than three. 74% declined waiting list initiative work. 74% saw a rise in 2 week waits for endoscopy and in 22% the increase was by more than 4 weeks. If this trend continues, higher than predicted early retirements adds further pressure on an understaffed workforce impacting on clinic activity and cancer waits. This is in addition to service pressures and burnout as a consequence of the COVID-19 pandemic.

#### **Required expansion:**

Mean yearly consultant expansion over the last 10 years was between 4.5% to 5% (Figure 6). At this rate, the current shortfall and predicted retirements could be overcome by 2023 (253 WTE/flexible). With additional population expansion we need a sustained 7% to 9% yearly expansion to provide an adequate consultant workforce.



Figure 6: Graph showing consultant expansion at 3%, 5%, 7% and 9%

#### **Consultant Hepatologists:**

Of the 1,700 substantive consultants there were 161 consultants who identified hepatology as their main specialty<sup>1</sup>. 26% were female, the majority aged between 40 to 44y and 10% worked flexibly. Over the last 5 years there has been a 20% expansion in consultant hepatologists. The 2019 BSG Workforce Report<sup>7</sup> identified the average UK hepatologist serves a population of 525,734. There was a 20% rise in 2020 from alcohol-specific deaths compared to 2019 in England and Wales; 80% of those deaths were due to alcohol related liver disease<sup>8</sup>. The growing alcohol-harm crisis accelerated by the COVID-19 pandemic, alongside the increasing burden of liver disease requires clinicians and allied healthcare professionals trained in hepatology. The Lancet Commission in 2014 reported 0.35WTE hepatologists per 100,000 population but that the UK needs 0.8WTE consultant hepatologists per 100,000 population<sup>9</sup>. This equates to a total of 534 WTE consultants, or 3.5 times more hepatologists than those currently identifying hepatology as their main specialty. To address this the BSG and the British Association for the Study of the Liver (BASL) proposed 25% of higher specialty trainees (HSTs) are hepatology trained. Due to the simultaneous deficit in gastroenterologists this can only be achieved by a significant increase in the total number of Gastroenterology NTNs, thus increasing the number of Certificate of Completion of Training (CCT)s awarded annually.

#### Consultant gastroenterologist and hepatologist appointments:

On 1<sup>st</sup> September 2020 48% of advertised consultant physician posts were unfilled, with 49% of those due to a lack of any applicants at all and 34% due to no suitable applicants<sup>1</sup>. 43% of gastroenterology and hepatology consultants reported unsuccessful attempts to appoint to a consultant post in the last 2 years, with 27% reporting a consultant vacancy in their department which was not staffed by a locum. Fifty percent of consultants reported locums represented 0 - 5% of posts in their department<sup>1</sup>. The BSG CSSC and Workforce Census 2020 of regional representatives asked for the number of vacant substantive consultant posts in Trusts within their region<sup>5</sup>. Over 50% of Trusts reported at least one Gastroenterology consultant vacancy and 12% a Hepatology consultant vacancy. There were 14% more vacant District General Hospital (DGH) Gastroenterology posts compared to UTH. Over 25% of both DGH and UTH had advertised for a Gastroenterologist with the post remaining unfilled over the previous 12 months. There were no unfilled UTH Hepatology advertised but 14% were unfilled following advertisement by a DGH. UTH clearly identified this was due to no applicants however DGH reported a split between no applicants and no appointable applicants.

## Consultant gastroenterologist and hepatologist workload and impact on wellbeing:

92% of consultants reported having a current job plan and 14% work flexibly. Mean contracted PAs per week was 10.85 with mean PAs worked per week was 11.68. WTE consultants were contracted to a mean of 11.46 PAs and worked 12.47 PAs. Flexible consultants were contracted to a mean of 7.16 PAs and worked 8.20 PAs (Table 3). Female consultants worked a mean of 1.5PAs over their contract compared to 0.65 by male consultants.

	DCC PAs	SPAs	Academic PAs	<b>Other PAs</b>	Total
Contracted					
WTE	8.23	2.03	0.45	0.75	11.46
Flexible	5.03	1.33	0.35	0.44	7.15
Worked					
WTE	8.75	2.02	0.69	1.01	12.47
Flexible	5.56	1.32	0.47	0.85	8.20

Table 3: Contracted and Worked PAs<sup>1</sup>

97% of consultants looked after non-specialty inpatients – this has increased from 32% in 2018 and probably reflects the COVID-19 pandemic. 25% of consultants participated in the acute medical take and 97% reported contributing to Acute Medicine/GIM. 55% of consultants contributed to specialty out of hours on call only and 13% to both specialty and acute take/receiving combined. Gastroenterology and hepatology is the highest contributing specialty to the acute/GIM workload along with Geriatric medicine (16%).

75% of consultants reported the extra hours were predominantly due to clinical workload, with 36% reporting they were due to the COVID-19 response (Figure 7). 27% of consultants reported working extra hours was a personal choice, but concerningly 26% were covering for a colleague or a vacancy in the department, 28% due to pressure from hospital management and 17% pressure from colleagues<sup>1</sup>.



#### Why do consultants work extra hours?

#### Figure 7: Why do consultants work extra hours?<sup>1</sup>

Responding to the RCP Consultant Wellbeing Survey (January 2020) gastroenterologists said they always, or most of the time in 59% worked excessive hours and in 49% had an excessive workload (37% response rate). Gastroenterology is the major specialty at highest risk of burnout with lower (worse) mean mental wellbeing scores. Consequently, 51% of gastroenterologists reported that work affected their relationship with their partner and 53% with their children over the previous year. 52% described their morale in 2019 as being worse than in 2018. Concerningly, 18% of gastroenterologists reported bullying and harassment over the past year by managers or fellow

consultants. Despite these issues, 87% of gastroenterologists reported they were always or often satisfied with specialty work, but only 21% with general internal medicine work<sup>10</sup>.

The increasing number of female HSTs gaining CCT will contribute to an increasing number of female substantive consultants, some of whom may wish to work flexibly in the future. Flexible working for consultants at all stages of their careers should be available, irrespective of gender. Greater flexibility in working patterns will be needed to accommodate this, as well as enabling retention of the workforce in more desirable roles in later years.

## **Consultant Physicians in the UK:**

The RCP census reported 17,218 consultant physicians in the UK with gastroenterology and hepatology being the 3<sup>rd</sup> largest specialty (9.8%). Cardiology (10.3%) remains the largest medical specialty followed by geriatric medicine (10.1%) and respiratory medicine (9.1%)<sup>1</sup>.

## Higher Specialty Trainees (HSTs) in gastroenterology and hepatology:

At the time of writing this report detailed specialty specific data from the HST Census 2020 was not available. On 30th September 2019 there were 7,413 medical HSTs in the UK of whom 721 were training in gastroenterology and hepatology<sup>13</sup>. 40% were female and 10% working flexibly. 91% of HSTs were doing acute/GIM work. During 2019 and 2020 189 CCTs were awarded in gastroenterology and hepatology. 88 CCTs were awarded in 2018 to 2019 so this is similar to the average number of CCTs awarded in previous years. Of those who began training in 2012, 24% remain in training, 65% have gained CCT and 5% have left the training programme.

Numbe	r of HSTs   By nation and	l region						
Nation	NHS region	Sub-region	Female	Male	Total headcount	Total FTEs	Population	Population per FTE
	London	London	64	89	153	148	8,961,989	60,759
		East Midlands	12	35	47	47	4,835,928	103,332
	Midlands and East	East of England	26	43	69	68	6,236,072	91,977
		West Midlands	22	42	64	62	5,934,037	95,097
England 🛏	North	North West	28	43	71	69	7,013,321	102,235
		Northern	15	18	33	32	2,719,686	86,066
		Yorkshire and the Humber	22	31	53	52	5,781,097	111,389
	South	Kent, Surrey and Sussex	22	24	46	45	4,619,443	101,750
		South West	18	22	40	39	4,902,479	127,007
	South	Thames Valley	7	11	18	18	2,419,956	137,498
	_	Wessex	11	18	29	28	2,862,953	102,212
lorthern Ire	eland	Northern Ireland	8	14	22	22	1,893,667	86,076
	ſ	Scotland - East	4	1	5	5	417,470	83,494
Scotland -	Scotland	Scotland - North	6	6	12	12	979,310	82,992
		Scotland - South	8	8	16	16	1,396,640	89,528
	_	Scotland - West	11	8	19	19	2,669,880	142,015
/ales		Wales	8	16	24	23	3,152,879	137,680

Figure 8: Number of Gastroenterology and Hepatology HSTs by nation and region<sup>13</sup>

The 2018 BSG Trainees Section survey indicated that 58.9% of trainees were keen to pursue a consultant post in the geographical area in which they have trained<sup>11,12</sup>. The RCP HST census demonstrated that only 26% of CCT holders reported applying for a consultant post outside their deanery<sup>13</sup>. It is crucial that the future geographical distribution of HSTs in the UK better matches the geographical and population demand for consultant physicians.

The RCP HST census reported that gastroenterology and hepatology HSTs ranked 5<sup>th</sup> most at risk of burnout amongst medical specialties, with rates of moderate and high burnout risk of 39% and 12% respectively<sup>13</sup>. 62% of HSTs said that work had impacted on their relationship with their partner

and 58% with their children. 33% of trainees reported a deterioration in morale since the previous year and only 20% an improvement. 82% of HSTs said they found their specialty work satisfying always or often, but only 22% their general internal medicine work. A smaller proportion of gastroenterology HSTs worked flexibly than in other medical specialities (11% versus 15%). When asked if they wished to train flexibly if given the opportunity, a surprising 46% of gastroenterology HSTs said they would.

69% of the class of 2019/2020 CCT holders had gained a substantive post by November the following year compared to the class of 2018 survey<sup>14</sup>. 27% of respondents had trained flexibly at some point during their training compared to 20% in the previous survey. 32% of respondents were working flexibly as a consultant and 85% of those said it was very or quire easy to have their flexible working arrangement approved by their new department. Only 12% reported that their trust had a specific new consultant programme, a drop from 25% in 2018. These figures were for all medical specialties not specifically gastroenterology and hepatology.

#### **Recruitment:**

There were 43 NTN posts filled (98% fill rate) and 7 LATs (88%) in 2021 Recruitment<sup>15</sup>. It is difficult to assess trends as ST3 posts have been incorporated into IMT. The average number of new NTNs has remained static over the last five years contributing to the lack of supply of new consultants. The BSG Trainees Section 2018 survey reported that 76.1% of trainees would consider post CCT-fellowships to further their skills before applying for consultant posts.

Whilst there has been an agreement to increase medical school places this will not impact on the workforce for another 10 - 15 years and the numbers calculated do not account for attrition seen during medical student and training years (~25%). The RCP "Double or quits" document estimated a need for an additional 7,500 medical students per year at the very least<sup>9</sup> and 2021 figures suggest this should be increased to 15,000<sup>16,17</sup>.

## The impact of COVID-19 on services and HST training:

COVID-19 has impacted significantly on gastroenterology and hepatology services and HST training<sup>18</sup>. 69% of consultants were redeployed to other duties including general medicine and COVID duties. Throughout the pandemic 97% continued to provide endoscopy for emergency or essential cases as per BSG guidance. There was a reduction in the volume of endoscopy, with 21% doing 2 week waits, 11% urgent cases and only 5% routine cases. Only 47% had access to trained endoscopy nursing staff for emergency/essential endoscopies. The majority continued to provide virtual clinics, including video consultations. 92% had members of the specialist nursing teams redeployed to other duties putting significant pressures on the provision IBD flare-lines, nutrition support and transplant teams.

Of significant concern was the disruption to HST training. 53% of HSTs reported being unlikely to achieve their Annual Review of Competencies (ARCP) targets, 66% were not doing outpatient clinics, 29% were unable to continue their research and 31% reported interruption in sub-specialty training in hepatology, inflammatory bowel disease and nutrition.

#### **Conclusions:**

Despite consultant expansion of 54% over the last 10 years this has not yet met the RCP recommendation of 6WTE consultants per 250,000 population. The number of new NTNs and

CCTs awarded has remained static. 48% of advertised consultant gastroenterology and hepatology vacancies in 2020 were unfilled. Unfilled posts, a move to more flexible working, increasing retirements as well as early retirements, and the reduction in clinical activity as a consequence of the pension crisis are contributing factors. The poor levels of wellbeing and morale described before the COVID-19 pandemic by the gastroenterology and hepatology workforce are concerning. This was predominantly attributed to excessive workload in an already stretched workforce. There remains a geographical variation in the ability to appoint substantive consultants in some regions of the UK. There is a need to significantly increase the number of consultants with specialised hepatology training to manage the increasing burden of liver disease, particularly in DGH and non-liver transplant centres. Shape of Training will reduce higher specialty training time to 4 years and most trainees anticipate undertaking post CCT roles to further their skills before taking up consultant posts. This will impact on the flow of trainees into the consultant workforce and must be considered by Trusts in future service planning.

In October 2021 the BSG ran a pilot Diary Census with responses from 37 consultants. Unfortunately, with such a low response rate we were unable to draw conclusions from the data but it identified potential concerning trends in workload and life-work balance. This Diary Census will be repeated in early 2022 – I encourage all consultants to respond in order for us to use workload AND workforce data, to highlight service pressures and their impact on consultant wellbeing and morale specific to our specialty. Without this information the BSG is unable to demonstrate the impact the workforce crisis continues to have on its consultants.

Workforce expansion is critical to future proof resilient and sustainable gastroenterology and hepatology services for the future. Demand for gastroenterology and hepatology consultants continues to exceed both supply and expansion. An immediate expansion of 10.2% would address this shortfall but further expansion is needed to provide for population growth, replacement posts and predicted retirements. For the 3<sup>rd</sup> consecutive year, I recommend doubling the number of Gastroenterology and Hepatology ST4 NTNs recruited each year.

I encourage Trusts and Clinical Leads to urgently engage in job planning<sup>19</sup> and medium to long-term service planning to supporting flexible working throughout consultant careers, in particular during later careers<sup>20</sup>. It will take time to train new consultants and a short to medium term solution is to enable consultants to "Retire & Return", providing greater resilience in departments.

## Acknowledgments:

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