

Outcome Report Year 4 (2020)

National Pre-registration Pharmacist Recruitment

January 2021



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Executive Summary

The Health Education England National Recruitment Scheme (NRS) is a centrally-coordinated scheme that recruits to pre-registration pharmacist training programmes across England and Wales. It ran for the fourth time in October 2020.

There were 3,966 training places available across all programmes, continuing the trend of increasing numbers of programmes within the scheme. As in previous years the bulk of the increase was attributable to community pharmacy employers; this year the largest contribution to that increase came from large employers.

A total of 2,525 applicants applied for training programmes, 2,248 of whom attended the assessments. At the end of the process, 99% (n=2,184) of successful applicants had received a programme offer and 1,987 of these final programme offers were accepted by applicants.

The scheme yielded a fill rate of 99.6% for NHS and 36.1% for community pharmacy programmes, and an overall fill rate of 50.1% to all programmes. The maximum overall fill rate achievable had all successful candidates been allocated places would have been 55.8% due to the large number of places available in the scheme in 2020.

Overview

This was the fourth year that Health Education England conducted an entirely centralised process for recruitment to pre-registration pharmacist training programmes for the NHS and community pharmacy (optional for this sector) across England and Wales.

This report provides information on applicants, applications and outcomes of the 2020 (year 4) pre-registration National Recruitment Scheme (NRS). Applications are reported by various demographics, highlighting any identified trends.

This year, the Coronavirus pandemic necessitated a change in the processes normally undertaken for pharmacy recruitment. Face-to-face interviews were cancelled; however the Situational Judgement Test (SJT) and Numeracy assessment were able to continue.

Independent analysis undertaken by the Work Psychology Group examines fairness issues surrounding use of the SJT and Numeracy test and reports on any group differences in performance.

If you would like further information on the process of pre-registration pharmacy recruitment, please refer to the pharmacy recruitment web pages: <https://www.lasepharmacy.hee.nhs.uk/national-recruitment/>

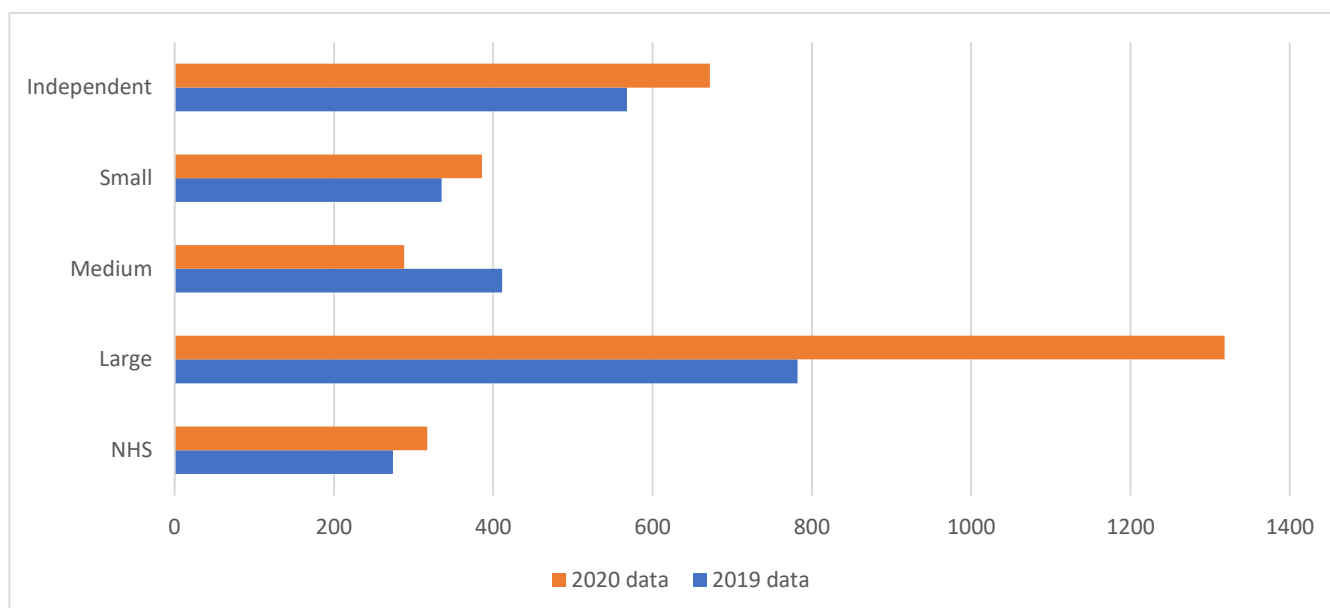
Programme availability

1 Employing organisations, programmes and training places

- 1.1 The 2020 pre-registration pharmacist recruitment scheme listed 2981 programmes for applicants to choose from, a 26% increase from the third year. In total, 3966 training places were available across all programmes; significantly greater than the anticipated number of scheme applicants.
- 1.2 10% (n=317) of programmes were within the NHS hospital sector, representing 22% (n=873) of all available training places. 44% (n=1318) of programmes were offered by large community pharmacy employers, 10% (n=288) by medium pharmacy employers, 13% (n=386) by small pharmacy employers and 23% (n=672) by independent pharmacy contractors.
- 1.3 There was a significant overall increase in the number of programmes offered through Oriel by large, small and independent community pharmacy employers, and a small decrease in medium community pharmacy employers, compared with the previous year (Figure 1).

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Figure 1: Year on year comparison of pre-registration training programme availability across sectors



1.4 Tables 1 and 2 below provide an overview of the numbers of employing organisations, programmes and training places available in the 2020 scheme, broken down by sector and geography.

Table 1: Programme Availability in the 2020 Pre-registration Pharmacist Recruitment Scheme

Sector	Number of Employing Organisations	Number of Programmes	Number of Training Places	Number of Tier 2 Sponsor Licences
NHS Hospital	162	317	873	867
Large Community Pharmacy (200+branches)	7	1318	1435	61
Medium Community Pharmacy (25-200 branches)	20	288	342	73
Small Community Pharmacy (6-25 branches)	71	386	452	69
Independent Community Pharmacy (1-6 branches)	554	672	864	127
TOTALS	814	2981	3966	1197

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Table 2: Geographical Spread of Programmes (and Training Places), by Sector

HEE Pharmacy Region	HEE Local Area	NHS Hospital	Large Community Pharmacy	Medium Community Pharmacy	Small Community Pharmacy	Independent Community Pharmacy
Midlands and East	East Midlands	14 (50)	98 (104)	35 (39)	25 (30)	54 (67)
Midlands and East	East of England	36 (82)	111 (124)	7 (7)	32 (43)	79 (100)
Midlands and East	West Midlands	24 (63)	94 (96)	52 (59)	66 (77)	67 (85)
London and South East	Kent, Surrey and Sussex	25 (54)	131 (141)	16 (18)	22 (22)	50 (57)
London and South East	London	50 (211)	122 (124)	35 (44)	113 (141)	238 (297)
North	North East	15 (50)	98 (105)	20 (20)	0 (0)	21 (24)
North	North West	32 (87)	159 (174)	33 (47)	65 (75)	61 (91)
North	Yorkshire and the Humber	32 (60)	111 (119)	21 (29)	27 (27)	56 (83)
South	South West	32 (69)	206 (236)	4 (4)	23 (24)	12 (15)
South	Thames Valley	11 (30)	42 (44)	36 (46)	1 (1)	13 (16)
South	Wessex	25 (49)	101 (107)	14 (14)	5 (5)	11 (19)
Wales	Wales	21 (68)	45 (61)	15 (15)	7 (7)	10 (10)
	TOTALS	317 (873)	1318 (1435)	288 (342)	386 (452)	672 (864)

2 Tier 2 sponsorship

- 2.1 Tier 2 sponsored training place availability in the community pharmacy sector increased to 330 places in 2020; in total the Scheme provided 10.9% (n=1197) more sponsored places than were available to applicants requiring visas in 2019 (n=1079).

3 Multi-sector placements

- 3.1 Two hundred and thirty-three collaborative organisations registered split-placement training programmes on Oriel in 2020. These included HEE funded multi-sector programmes such as the GP pre-registration pilot. These programmes were split between at least two sectors, including Hospital, Community Pharmacy, GP Practice and Clinical Commissioning Groups.
- 3.2 Four hundred and six multi-sector programmes were available in total, representing a total of 656 training places. Split training programme availability was generally evenly spread across the regions, with the fewest programmes found in Thames Valley (n=11) and the most available in London (n=72) and the South West (n=51)

Applicant outcomes

4 Applications

- 4.1 The number of applications received via the Oriel system was 2525 (not including incomplete applications), compared with 2585 received in the first year, 2592 in the second year, and 2485 in the third year.
- 4.2 1.6% (n=41) of applicants were either currently enrolled on an accredited Overseas Pharmacists' Assessment Programme (OSPAP) or were OSPAP graduates.

5 Longlisting

- 5.1 0.15% of total applicants (n=4) did not progress through the formal longlisting process due to not meeting basic eligibility criteria.
- 5.2 Twenty-nine applicants subsequently withdrew their application, leaving 2492 applicants invited to assessment: a 0.4% increase from the previous year.

6 Interviews

- 6.1 2248 applicants attended their assessments. Of these, 2215 (98.5%) were successful and subsequently received an overall ranking based on their test scores.

7 Applications and programme offers by demographic

- 7.1 For the purposes of this section, we refer to the following:
- *Application* – the number of applications progressed *after* longlisting (n=2521)
 - *Offer* - applicants who received a pre-registration programme offer (n=2184), irrespective of whether this offer was accepted by the applicant.
- 7.2 Table 3 below provides a breakdown of applicant gender, along with data pertaining to successful applicants and programme offers received by these two groups.

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Table 3: Applications and programme offers by gender

Group	Percentage of applications	Percentage of successful applicants	Percentage of offers made	Percentage of offers accepted
Male	30.5% (770)	29.93% (663)	29.85% (652)	29.3% (583)
Female	66.7% (1683)	67.72% (1500)	67.81% (1481)	68.2% (1356)
Not disclosed	2.9% (72)	2.34% (52)	2.33% (51)	2.4% (48)
Totals	100% (2525)	100% (2215)	100% (2184)	100% (1987)

7.3 Table 4 below provides a breakdown of applications received, along with data pertaining to the percentage of successful applicants and programme offers received, for each of the age categories.

Table 4: Applications and programme offers by age group*

Group	Percentage of applications	Percentage of successful applicants	Percentage of offers made	Percentage of offers accepted
19-24 years	88.07% (2224)	89.34% (1979)	89.51% (1955)	90.1% (1792)
25-29 years	6.85% (173)	6.27% (139)	6.18% (135)	5.7% (114)
30-34 years	2.49% (63)	2.21% (49)	2.19% (48)	2% (41)
35-39 years	1.1% (28)	0.85% (19)	0.77% (17)	0.6% (12)
40-44 years	0.83% (21)	0.76% (17)	0.77% (17)	0.8% (16)
45-49 years	0.51% (13)	0.45% (10)	0.45% (10)	0.5% (10)
50-54 years	0.03% (1)	0.04(1)	0.04% (1)	0.05% (1)
55-59 years	0.03% (1)	0.04(1)	0.04% (1)	0.05% (1)
Not disclosed	0.03% (1)	0	0	0
Totals	100% (2525)	100% (2215)	100% (2184)	100% (1987)

*Age at 01 September 2020

7.4 Table 5 provides a breakdown of applications and offers by individual ethnic groups. 69% (n=1736) of applications were received from applicants of Black, Asian and minority ethnic (BAME) origin and 25% (n=635) were received from applicants of 'White' origin. 6% of applicants (n=154) chose not to declare their ethnic origin.

7.5 Applicants in the 'Chinese' group had a lower proportion of offers to applications than those in any other ethnic group.

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Table 5: Applications and programme offers by ethnic group

Group	Percentage of applications		Percentage of successful applicants		Percentage of offers made		Percentage of offers accepted	
White – British	18.21% (460)	23.36% (590)	19.41% -430	24.51% (543)	19.41% (424)	24.54% (536)	20% (398)	24.5% (487)
White - Irish	1.02% (26)		1.08% (24)		1.09% (24)		0.7% (15)	
Any other white background	4.11% (104)		4.01% (89)		4.02% (88)		3.7% (74)	
Mixed White and Black Caribbean	0.19% (5)	2.97% (75)	0.18% (4)	2.89% (64)	0.18% (4)	2.74% (60)	0.1% (3)	2.7% (54)
Mixed White and Black African	0.47% (12)		0.45% (10)		0.45% (10)		0.5% (10)	
Mixed White and Asian	1.10% (28)		0.99% (22)		0.91% (20)		0.9% (19)	
Any other mixed background	1.18% (30)		1.26% (28)		1.19% (26)		1.1% (22)	
Asian or Asian British – Indian	11.64% (294)	40.51% (1023)	11.78% (261)	39.5% (875)	11.76% (257)	39.60% (865)	12% (240)	39.7% (789)
Asian or Asian British – Pakistani	14.97% (378)		13.31% (295)		13.41% (293)		13.6% (272)	
Asian or Asian British – Bangladeshi	4.83% (122)		4.74% (105)		4.71% (103)		4.6% (92)	
Any other Asian background	9.06% (229)		9.66% (214)		9.70% (212)		9.3% (185)	
Black or Black British - Caribbean	0.63% (16)	15.72% (397)	0.67% (15)	15.66% (347)	0.68% (15)	15.75% (344)	0.7% (14)	16.2% (323)
Black or Black British - African	14.49% (366)		14.35% (318)		14.42% (315)		15% (299)	
Any other black background	0.59% (15)		0.63% (14)		0.64% (14)		0.5% (10)	
Chinese	5.58% (141)		5.86% (130)		5.81% (127)		5.2% (105)	
Any other ethnic group	5.74% (145)		5.86% (130)		5.86% (128)		5.8% (117)	
Not disclosed	6.09% (154)		5.68% (126)		5.67% (124)		5.6% (112)	
Totals	100% (2525)		100% (2215)		100% (2184)		100% (1987)	

8 Group Differences at a Test Level for SJT & Numeracy

8.1 Independent analysis undertaken by the Work Psychology Group examined fairness issues surrounding use of the SJT and Numeracy test. Group differences in performance between applicants were analysed on the basis of age, gender and ethnicity. Analyses were conducted after outliers (applicants with very low/high scores and/or missing data) had been removed.

8.2 Age

8.2.1 Pearson's correlations were conducted to examine the relationships between age and scores on the SJT and Numeracy test.

8.2.2 SJT: A small significant negative correlation (Pearson's r) between age and SJT score was found ($r = -.22$, $p < 0.01$). This suggests that younger applicants typically performed slightly better than older applicants on the SJT.

8.2.3 Numeracy: A small significant negative correlation (Pearson's r) between age and Numeracy score was found ($r = -.19$, $p < 0.01$). This suggests that younger applicants typically performed slightly better than older applicants on the Numeracy test.

8.3 Gender

8.3.1 Independent t-tests were conducted to examine whether there were significant differences in SJT and Numeracy test scores based on gender (Table 6).

8.3.2 SJT: A significant difference in performance on the SJT based on sex was found, with a small effect size, indicating that females scored significantly higher than males ($t(1172.59) = -8.44$, $p < .01$, $d = .40$).

8.3.3 Numeracy: A significant difference in performance on the Numeracy test based on sex was found, indicating that females scored significantly higher than males, however the effect size was small, ($t(1177.46) = -2.81$, $p < .01$, $d = .13$).

Table 6: Group Differences by Gender

		Female	Male
SJT	N	1508	673
	Mean	591.25	579.06
	Std. Deviation	28.82	32.17
Numeracy	N	1508	673
	Mean	8.04	7.83
	Std. Deviation	1.52	1.69

8.4 Ethnicity

- 8.4.1 Ethnic backgrounds included: 'White', 'Asian', 'Black', 'Chinese', 'Mixed' and 'Other'. Applicants were also given the response option 'Prefer not to say', though these individuals were not included in the analysis. Analyses of variance (ANOVAs) were conducted to investigate whether there were significant differences on the SJT and Numeracy test scores dependent on ethnicity (Table 7).
- 8.4.2 SJT: Significant differences in performance between applicants of different race were found on the SJT ($F(6,2168)=21.71$, $p<.001$, $\eta^2 = 0.06$); although the effect size was small. Applicants who indicated that they were 'White' performed better than applicants in other groups, although there was not a significant difference between the 'White' and 'Mixed' groups.
- 8.4.3 Numeracy: Significant differences in performance between applicants of different race were found on the Numeracy test ($F(6,2168)=22.47$, $p<.001$, $\eta^2 = 0.06$, although the effect size was small. Applicants indicating they were 'Chinese' scored significantly higher than those in the 'Asian', 'Black' and 'Other' groups. Applicants who identified as 'White', scored significantly higher than those indicating they were 'Black', 'Asian' or 'Other'. Applicants who identified as 'Mixed' scored significantly higher than those indicating they were 'Asian' or 'Black'

Table 7: Group Differences by Ethnicity

		White	Asian	Black	Chinese	Mixed	Other
SJT	N	545	884	352	130	63	131
	Mean	599.39	584.53	580.24	586.72	590.96	580.13
	Std. Deviation	26.93	30.32	29.91	28.76	34.05	29.46
Numeracy	N	545	884	352	130	63	131
	Mean	8.43	7.80	7.54	8.72	8.41	7.81
	Std. Deviation	1.33	1.62	1.65	1.05	1.38	1.53

8.5 Summary

- 8.5.1 Some group differences on the SJT and Numeracy assessment were found based on age, gender and ethnicity. Small significant differences for age, gender and ethnicity were observed, but all effect sizes were small.

9 Differences in Performance Based on Date

- 9.1 Analysis of variance (ANOVA) were conducted to investigate whether performance differs on the SJT and Numeracy test based on when applicants go through the assessment process. This was operationalised as whether assessments were completed at the beginning (28th September - 1st October), middle (2nd - 6th October) or end (7th– 10th October⁶) of the testing period. Analyses were conducted after outliers (applicants (n=12) with very low/high scores and / or missing data) had been removed.
- 9.2 SJT: No significant difference in performance on the SJT based on the time point within the selection window it was completed was found ($F(2,2233)=2.52$, $p=ns$).
- 9.3 Numeracy: No significant difference on the Numeracy test, based on the date it was completed was found ($F(2,2233)=0.46$, $p=ns$).

Table 8: SJT and Numerical assessment performance by date of assessment

Test	Descriptive	Time One 28/09 - 01/10	Time Two 02/10 – 06/10	Time Three 07/10 – 10/10 ¹
SJT	N	490	404	1342
	Mean	584.74	588.23	588.23
	Standard Deviation	30.46	31.04	30.23
	Minimum	467.15	475.00	486.00
	Maximum	649.12	661.67	661.00
Numeracy	N	490	404	1342
	Mean	7.97	7.94	7.97
	Standard Deviation	1.58	1.60	1.59
	Minimum	2	2	0
	Maximum	10	10	10

¹ Sample also includes 2 applicants that re-sat their assessment on the 13th October.

10 Applicants with Tier 4 Student Visas

- 10.1. International students must in the main switch from a tier 4 study visa to a general tier 2 work visa before beginning the preregistration year. 10.9% (n=276) of longlisted applications were received from those requiring training places which offer tier 2 sponsorship.
- 10.2. Following the selection process, 89.8% (n=248) were deemed successful, amounting to 11.19% of all successful applicants.
- 10.3. Training place offers were made to 96.77% (n=240) of the applicants requiring tier 2 sponsorship, a 11.1% increase in offers for this group from the previous year. A key contributing factor for this increase is the higher number of tier 2 sponsored training places available within the NRS, and that all trainees in the Wales training programme are NHS-employed. NHS-employed pharmacy trainees receive salaries according to Agenda for Change pay scales which are higher than tier 2 minimum thresholds, in effect allowing all training posts in Wales to become eligible for selection by tier 2 candidates. Only 190 of the 240 applicants accepted their offer, distributed according to Table 9 below.

Table 9: Distribution of accepted offers for Tier 2 applicants across England and Wales

Region	Community Pharmacy	Hospital
England	95	71
Wales	22	2
Totals	117	73

11 Final programme offers

- 11.1 At the end of the process, 98.6% of successful applicants (n=2184) had received a programme offer. Of these, 64 offers were declined, 84 offers expired and 49 were accepted and then withdrawn. Overall, 90.9% (n=1987) of final programme offers were accepted by applicants.

11.2 1.39% (n=31) of successful applicants were left without a pre-registration programme offer at the end of the process; which was the same number as the previous year. These applicants fall into one or both of the following categories:

- 24% (n=8) required a general Tier 2 work visa before beginning the pre-registration training year and either:
 - did not achieve a ranking high enough to gain an offer for programme/s offering Tier 2 sponsorship
 - preferred programme/s not able to offer Tier 2 sponsorship
- Applicants did not achieve a ranking high enough to gain an offer for any of their preferred programme/s. This was common in instances where applicants preferred very few programmes.

Employer outcomes

12 Fill-rates

- 12.1 At the end of the recruitment process, 99.6% of available NHS Hospital training places were filled and 36.1% of community pharmacy training places.
- 12.2 The fill-rate overall was 50.1%. Due to there being a greater number of places in the scheme than applicants to fill them, the maximum fill rate had all trainees been allocated a place was 55.8%.
- 12.3 Table 10 below provides a breakdown of the fill-rate, by number of training places available within each sector
- 12.4 The HEE-funded GP pre-registration programme achieved a 73.1% fill-rate via the NRS, indicating the attractiveness of these posts regardless of the primary employer being a community or hospital pharmacy

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Table 10: Summary of fill-rate by sector.

	NHS Hospital	Large Pharmacy	Medium Pharmacy	Small Pharmacy	Independent Pharmacy	All Programmes
Total Training Places Available	873	1435	342	452	864	3966
Training Places Not Filled	0.34% (3)	71.4% (1025)	45.3% (155)	61.9% (280)	59.7% (516)	49.8% (1979)
Overall Fill-Rate (Training Places Filled)	99.6% (870)	28.5% (410)	54.6% (187)	38% (172)	40.2% (348)	50.1% (1987)

12.5 Table 11 below provides a breakdown of programme fill rate by Health Education England region.

12.6 The ratio of hospital to community pharmacy training places available, particularly in areas that are traditionally hard to recruit to, will have affected regional fill-rates. The South region experienced the lowest fill-rate.

12.7 Wales continued to achieve a fill rate far higher than the NRS average, even in those areas that were traditionally difficult to recruit to. This was due in large part to the attractiveness of their multi-sector training offer, and the fact that all trainees are centrally employed by the NHS under one over-arching training programme.

Table 11: Summary of regional fill-rates

HEE Pharmacy Region	HEE Local Area	Places	Accepted	Fill Rate (Local)	Fill Rate (Regional)
Midlands and East	East Midlands	290	135	46.5%	48.3%
Midlands and East	East of England	356	169	47.4%	
Midlands and East	West Midlands	380	192	50.5%	
London and South East	Kent, Surrey and Sussex	292	123	31.3%	59.5%
London and South East	London	817	537	65.7%	
North	North East	199	103	51.7%	46.7%
North	North West	474	227	47.8%	
North	Yorkshire and the Humber	318	133	41.8%	
South	South West	348	100	28.7%	43.8%
South	Thames Valley	137	77	56.2%	
South	Wessex	194	69	35.5%	
Wales	Wales	161	122	75.77	75.7%
TOTALS		3966	1987		

END OF REPORT