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# MRCGP: Statistics 2010-11

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## Annual Report (August 2010 - July 2011) on the results of the MRCGP AKT and CSA Assessments

### INTRODUCTION

This Report relates to the formal summative MRCGP assessments conducted in the academical year 2010-11. It is thus consistent with the new GMC practice, who request the numerical data sent to them by Royal Colleges and other postgraduate bodies in their Annual Statistical Reports in respect of their examinations for the same period. The Report presents the statistics that summarise the outcomes of all the diets of the MRCGP examinations during that period – the Applied Knowledge Test (AKT – three diets) and the Clinical Skills Assessment (CSA – four diets).

May 2010 marked the end of the first three years of the CSA, introduced in Autumn 2007. Over that period, the CSA used a single standard-setting approach, based on the number of cases passed, or 'n2P'. From August 2010, a new method has been introduced. This is the first report based on the new system – details being described in the pages which follow.

The Report first presents an updated summary of both of these assessments and their standard-setting procedures, to orientate readers who may be unfamiliar with these. Full background information on the MRCGP, the AKT and the CSA (and also the formative Workplace-based Assessment component) may be found on the College's website. There then follows a set of tables, first for the AKT and then for the CSA. These give information on the candidature and the attempts at the test, for each of them:

- Summary of Demographic Information: Source of Primary Medical Qualification, Background by Deanery
- Main Results: Overall and by Exam Diet and Attempt
- Results by Individual demographics (candidates on first attempt)
- Detailed Results by Training Deanery
- AKT mean sub-component scores, by candidate year of training
- CSA feedback statements for all candidates: aggregate summary

This report is descriptive, only, and neither interpretative nor discursive. Data are presented without psychometric comment other than that which follows and at the end of the report. Candidates self-report their demographic variables, but wherever possible these are checked against the GMC's List of Registered Medical practitioners. The 'attempt' is checked against the College's records.

This Report has been developed following comments from members of the College's Assessment Committee, especially the Deanery representatives. Accordingly, it seeks to present in more detail and with greater clarity the variations amongst Deaneries, as quite generally requested. More charts of greater variety are presented. Results by candidate background have been presented more thoughtfully. And candidates from the various London schools have been separated.

**NB Caution regarding interactions between variables!** There are many significant differences between sub-groups on their performance on both the tests reported, for example by gender and country of primary medical training. Variables may well interact with others, to the confusion of the unwary. The detailed results should thus be interpreted carefully.

**Acknowledgements:** I am very grateful to the two Clinical Leads (Carol Blow, AKT; Adrian Freeman CSA) for their advice and support in preparing this report. They wrote the introductory comments on their respective components.

October 2011

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# 1: Summary of the Assessments and their Standard-Setting Procedures

## The MRCGP and its Function

The MRCGP comprises three sets of assessment procedures whose combined summative function is to assure the Deaneries, the College and the GMC of the competence of exiting trainee General Practitioners (GPs) across a broad and carefully-defined three year (occasionally, four) full-time training curriculum. Satisfactory completion of the three assessment components of the MRCGP renders a trainee (GP Specialist Registrar) eligible to apply both for a Certificate of Completion of Training (CCT) from the GMC (and thus to proceed with her or his career) and for Membership of the Royal College (which will *inter alia* support the doctor's continuing professional development and probable re-accreditation).

The MRCGP's three assessment components are the following, each of which must be separately passed:

- a. **Applied Knowledge Test** (*multi-choice computer-presented 'paper', available in test centres throughout the UK*)
- b. **Clinical Skills Assessment** (*a formal test of clinical and consulting skills, taken in a single assessment centre*)
- c. **Workplace-based Assessments** (*delivered throughout the three-year training programme by Clinical Supervisors, Trainers and others*)

The curriculum, the training and the assessments are based on practice in the UK National Health Service. Entry to the formal assessments is only permissible to doctors undergoing GP training in the UK state health care system. Accordingly, no external candidates take these, as happens in certain other Royal Colleges. (The College has other arrangements to support GPs practising in other countries and who seek affiliation with it or Membership of it through the 'MRCGP [International]', see the website.)

Note that the workplace-based assessments, being essentially formative, with candidate performance and development on them being reviewed towards a determination of progression annually by the Deaneries and not the College, are not covered by this report. Please also note that the report, for convenience of comprehension, reports on the 'Stages' of training as 'Years': for most trainees, the two are operationally synonymous, but for part-time trainees, of course, the 'Stages' will be longer. Currently, trainees studying less than full time are not separately identified in the annual report.

## The Applied Knowledge Test (AKT)

The multi-choice **Applied Knowledge Test** is a 3-hr 200-item computer-delivered and marked assessment which has been able to be taken in any of the three years of training (Year 1 = ST1 etc), although for candidates who commenced training from August 2010 onwards, the AKT may only be taken in the ST2, 3 and additional 4th year. Offered three times a year, the AKT is delivered by computer in professional testing centres around the UK run by Pearson VUE.

The test's 200 items are in four formats: single best answer (including images and graphics), extended matching questions, completion of algorithms and a small number of free text answers. A test specification is used to ensure adequate sampling across the curriculum. 80% of the items are on clinical medicine, and research/evidence-based practice and legal/ethical/ administration issues are each represented by 10% of the questions. Irrespective of the question format, candidates are awarded one mark for each item answered correctly. Marks are neither deducted for incorrect answers nor for failure to answer.

The standard for the AKT is set for the test using a modification of the Angoff procedure, where a group of judges periodically estimates the performance of a notional 'just good enough to pass' candidate on each test item. The standard takes account of the 'guessing factor' always present in multi-choice tests. In order to ensure that standards are set at appropriate and realistic levels, a patient representative, recent trainees, and representatives of bodies with a stake in the outcome of the examination (including the training community) are invited to act either as judges or observers, as appropriate, in the standard-setting process. This standard is maintained between 'Angoffs', by the use of test equating using sets of items with known performance characteristics.

A 'just passing score' (JPS) is accordingly determined for the test as a whole, and a statistical review may cause the removal of one or two poorly-performing test items on any diet. The measurement error of the resultant test is then calculated, and a passing standard ('pass-mark') set, taking account of this measurement error, as is usual in high stakes testing. The accuracy of the AKT is estimated by calculating Cronbach's *alpha* (reliability), together with the measurement error. Candidates are then provided with their results, and their scores on the test as a whole and on its three sub-sections.

It should be noted that, as the pass-mark varies slightly between diets because of small changes in the overall difficulty of the paper, raw or percentage scores need to be adjusted to a common pass-mark (here, zero) to permit comparability.

## The Clinical Skills Assessment (CSA)

The **Clinical Skills Assessment** is an OSCE-style assessment using simulated patients that may be taken only in the final year of training (Year 3 = ST3, or the fourth year of an extended training programme). During the period covered by this report, the CSA comprised 13 cases or 'stations', and it was delivered in a purpose-built College assessment centre (in Croydon, South London). Three circuits can run simultaneously on the three floors of the centre.

A case is depicted by a role player, and candidate performance assessed by an examiner who accompanies the roleplayer for the day. Each case lasts 10 minutes (plus two minutes marking/changeover time). Candidates have their own 'consulting room', and the role players and assessors move around the circuit.

Cases, written by dedicated writers who are practising GPs, present typical clinical scenarios that a UK GP will encounter. Each case is mapped on to the curriculum with intended learning outcomes, and a blueprint is used to guide case selection—a complex procedure as the cases necessarily change each day for reasons of security and fairness, yet each day's 'palette' must meet the blueprint's specifications and be equivalently challenging.

This report is based on the first year of the new standard setting mechanism: this uses a borderline group method, as recommended to the College by the Regulator.

Each case is marked on three domains and also with an overall global judgement. The domains are: Data Gathering, Examination and Clinical Skills; Clinical Management Skills; and Interpersonal Skills. Each domain score and global judgement is marked as: Clear Pass – Pass – Fail – Clear Fail. For standard-setting purposes only, the examiners also provide a mark to indicate the certainty of their judgement on that case, in particular if they felt that overall the candidate may be sitting on the borderline between pass and fail.

The domain scores are given a numerical equivalent and those domain scores over the 13 cases are summated to give a final score (which will be between zero and 117). The "cut score" – the point between pass and fail – is established by the borderline group method. The final pass score is an adjustment of that score to take account of measurement error, as in the AKT, with the level being confirmed by an adjudicating group which includes recent trainees, lay representatives, and key stakeholders from the training community.

The overall standard of the assessment is set by ensuring both that the cases are at an appropriate level of difficulty and challenge and that the examiners are adjudging passing performance on any case at the same, agreed level – appropriate for independent and safe practice as a GP in the NHS. A variety of support mechanisms are in place: calibration exercises at the beginning of each day of the CSA; initial and on-going training of examiners; and an annual two-day examiners workshop.

The reliability of the CSA is estimated by calculating Cronbach's alpha using the numerical scores and the Standard Error of Measurement (SEm). Because of daily case and examiner differences, these statistics require to be estimated separately each day, thus on a maximum of 78 candidates. And because of varying candidate numbers and daily variations in the range of candidate ability, the statistic varies, too.

Throughout this report, CSA outcomes used include the result (pass/fail) and scores adjusted to a common passmark (zero).

## 2: Notes on the Tables and Statistics

### General Notes: Conventions in Charts

Tables are accompanied where possible by charts, to assist those who prefer visual rather than numerical summaries of data. Where space prevents the charts being of adequate size to read, (for example) the axis scales, the relevant table should be inspected for this detail. The colour convention adopted for the charts is as follows:

**BARS** etc representing **passing** candidates: BLUE

**BARS** etc representing **failing** candidates: RED

Charts which do not distinguish between passing and failing candidates: GREY

A **RED LINE** on a histogram denotes the passing standard

A **GREEN LINE** on a histogram denotes the mean score for the group whose performance is represented

Certain charts (histograms) show contrasting distributions of candidates where numbers in a single group are small. To permit visibility of these small groups, the Y-axes of the histograms have been presented in a log, as opposed to a linear, scale. The relevant charts have a small label to alert the reader, as shown here. On the charts generally, groups representing single candidates have been removed, where appropriate, to avoid embarrassment.

**NB: Log scale**

### Note regarding the Interpretation of the AKT statistics

Some candidates appear twice (447) or three times (81) within this annual database on the AKT, because of retakes. Except in the Summary of Demographic Information, the statistics “for all candidates” aggregate all 3312 candidates’ 3840 attempts in this period. However, where the tables present comparisons between candidates on the basis of demographic variables (gender, ethnicity, the origin of candidates’ primary medical qualifications, training deanery), they mostly do so on the basis of ‘first attempts’ only: otherwise re-sitters will bias the results. The groups upon which each table is based are made clear in its title.

Particularly observant readers may notice that figures in this report do not always concur precisely with those given in reports of AKT examinations on the College website. The latter normally show totals and pass rates for *all* AKT candidates, including GP ‘returners’ and those completing the ‘old’ MRCGP and summative assessment. The figures in this report refer only to examination candidates ‘in training’ and eligible for current MRCGP.

### Note regarding the interpretation of the CSA statistics

Two databases are constructed for the 2010 examination period: one is candidate-based, including all information about a candidate-attempt at the examination, and is designed to provide generic reporting functionality towards requirements such as this report; the other is candidate-consultation based, and intended to provide QA and developmental information regarding the cases and the examiners: it has been used here only to provide the information on ‘feedback statements’ in the final table of the report.

Some candidates appear twice (602), three times (131) or even four times (37) within this annual database on the CSA, because of retakes. Except in the Summary of Demographic Information, the statistics “for all candidates” aggregate all 2,820 candidates’ 3,590 attempts in this period.

### Data Inconsistencies: Caution

Minor data inconsistencies result from a variety of causes, inevitably in an undertaking of this complexity that combines ‘examination’ data with background ‘personnel’ information from a number of computing databases. For example:

- Most of the candidates’ background data is self-reported on registration for each assessment. It is thus subject to entry error, though major data fields have been checked by reference to the GMC Register (version at March 2011)
- For the same reason, data are occasionally missing
- Candidates’ circumstances change – for example, they may move from one training region to another, within the year, or between part-time and full-time training
- Updates to the databases, internally in the College and from the individual Deaneries, are inevitably intermittent

However, the College would as always appreciate learning of any serious apparent errors or omissions in the data reported. Please alert the compiler at [rew5@cam.ac.uk](mailto:rew5@cam.ac.uk)

## A: Summary of Demographic Information on AKT Candidates

3312 candidates made a total of 3840 attempts at the AKT during 2010-11. The tables below show the origin of the 3312 candidates, by UK medical school or non-UK country of primary medical qualification—and the percentage from each out of the total of that part of the candidature. Overleaf, the background demographic characteristics of the 3312 are shown, by training Deanery. Other tables report on the attempts.

### 1. Source of Primary Medical Qualification

Graduate of UK, EEA or Rest of World

	Frequency	Percent
UK	2278	68.8
EEA	110	3.3
RoW	924	27.9
Total	3312	100.0

Graduates of UK Medical schools and qualifications of \*non-University Licensing Bodies

	Frequency	Percent
* Apothecaries Qual	3	.1
* English Conjoint Qual	1	.0
Aberdeen	77	3.4
Belfast	74	3.2
Birmingham	122	5.4
Bristol	65	2.9
Cambridge	41	1.8
Dundee	74	3.2
East Anglia	10	.4
Edinburgh	57	2.5
Glasgow	113	5.0
Leeds	87	3.8
Leicester	87	3.8
Liverpool	117	5.1
London – Imperial College	94	4.1
London – King's College	145	6.4
London – Queen Mary	127	5.6
London – St George's	95	4.2
London – University College	125	5.5
London – Unreported School	13	.6
Manchester	169	7.4
Newcastle	100	4.4
Nottingham	85	3.7
Oxford	29	1.3
Peninsula	4	.2
Sheffield	129	5.7
Southampton	77	3.4
Wales/Cardiff	87	3.8
Warwick	71	3.1
Total	2278	100.0

Graduates of Other Countries

	Frequency	Percent
Afghanistan	2	.2
Albania	2	.2
Algeria	3	.3
Argentina	1	.1
Armenia	3	.3
Australia	4	.4
Austria	3	.3
Bangladesh	18	1.7
Belarus	4	.4
Belgium	1	.1
Bolivia	1	.1
Brazil	2	.2
Bulgaria	4	.4
Burundi	1	.1
Cayman Islands	1	.1
China	3	.3
Colombia	2	.2
Congo, Dem Rep	1	.1
Czech Republic	30	2.9
Denmark	1	.1
Egypt	13	1.3
Georgia	1	.1
Germany	14	1.4
Ghana	3	.3
Grenada	2	.2
Guyana	1	.1
Hungary	2	.2
India	330	31.9
Iran	11	1.1
Iraq	35	3.4
Ireland	13	1.3
Israel	1	.1
Italy	1	.1
Jamaica	15	1.5
Jordan	2	.2
Latvia	3	.3
Libya	4	.4
Macedonia	1	.1
Malawi	1	.1
Malaysia	1	.1
Malta	1	.1
Moldova	1	.1
Myanmar	7	.7
Nepal	10	1.0
Netherlands	1	.1
Netherlands Antilles	1	.1
New Zealand	2	.2
Nigeria	91	8.8
Oman	1	.1
Pakistan	233	22.5
Philippines	4	.4
Poland	20	1.9
Romania	11	1.1
Russian Federation	27	2.6
Saint Kitts And Nevis	1	.1
Saint Lucia	1	.1
Serbia	4	.4
Slovakia	4	.4
South Africa	13	1.3
Spain	1	.1
Sri Lanka	21	2.0
Sudan	2	.2
Syria	5	.5
Tanzania	1	.1
Turkey	4	.4
Uganda	1	.1
Ukraine	17	1.6
United States	1	.1
Uzbekistan	1	.1
Zambia	1	.1
Zimbabwe	5	.5
Total	1034	100.0

## 2. AKT Candidates' Gender, Ethnic Group and whether UK or international graduates, by Training Deanery

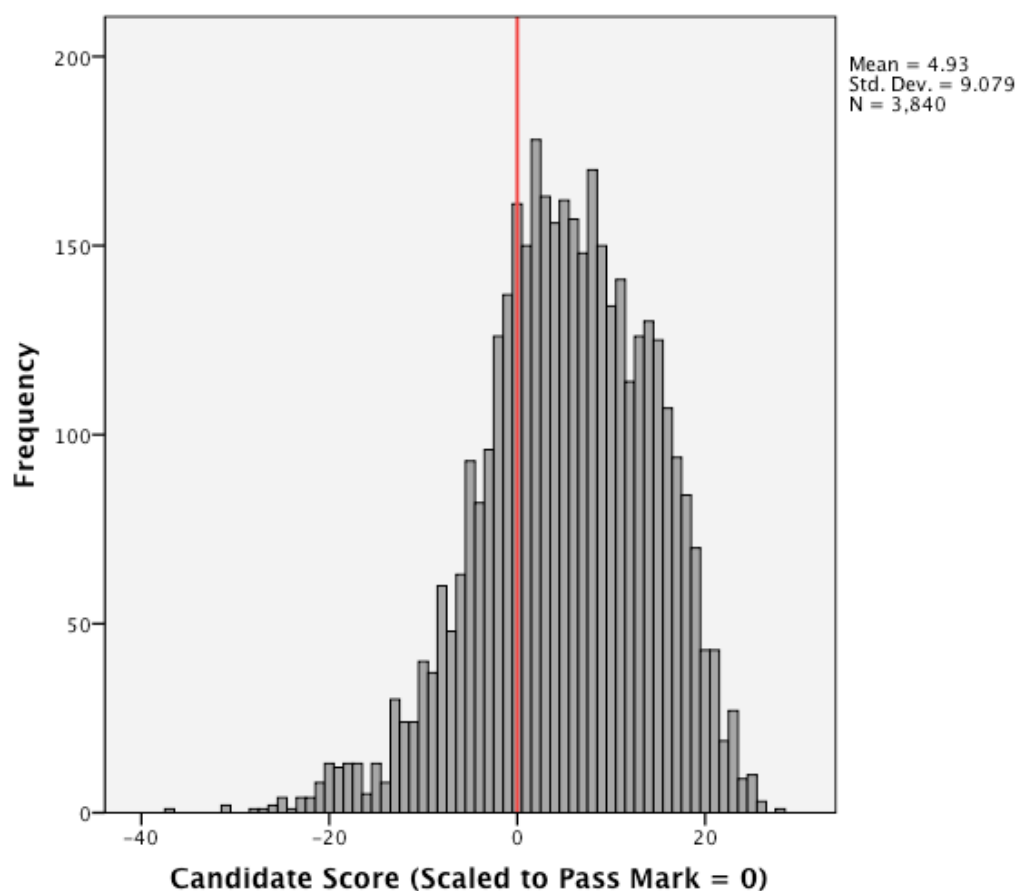
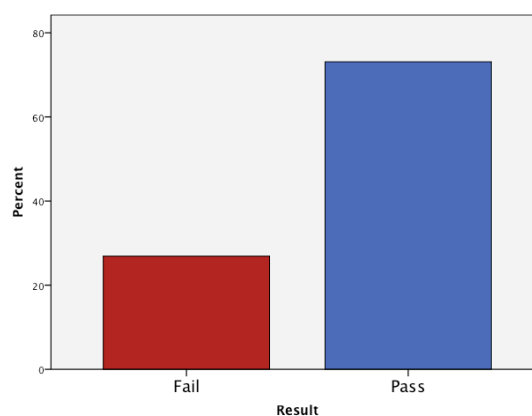
Deanery	Gender		Ethnic Group						UK/non-UK Graduate		Total
	Male	Female	White	S Asian ('Asian')	Black	Chinese / SE Asian	Mixed Race/Other	Not Known	UK Graduate	Non-UK Graduate	
Armed Forces (Defence)	21	7	25	1	1	0	1	0	27	1	28
	75.0%	25.0%	89.3%	3.6%	3.6%	.0%	3.6%	.0%	96.4%	3.6%	100.0%
East Midlands	113	104	73	118	17	2	7	0	121	96	217
	52.1%	47.9%	33.6%	54.4%	7.8%	.9%	3.2%	.0%	55.8%	44.2%	100.0%
East of England	100	159	83	128	31	6	10	1	136	123	259
	38.6%	61.4%	32.0%	49.4%	12.0%	2.3%	3.9%	.4%	52.5%	47.5%	100.0%
East Scotland	13	17	22	7	1	0	0	0	25	5	30
	43.3%	56.7%	73.3%	23.3%	3.3%	.0%	.0%	.0%	83.3%	16.7%	100.0%
Kent, Surrey, Sussex	142	165	101	137	36	9	21	3	152	155	307
	46.3%	53.7%	32.9%	44.6%	11.7%	2.9%	6.8%	1.0%	49.5%	50.5%	100.0%
London	116	253	151	161	21	12	22	2	313	56	369
	31.4%	68.6%	40.9%	43.6%	5.7%	3.3%	6.0%	.5%	84.8%	15.2%	100.0%
Mersey	70	99	81	72	5	2	9	0	103	66	169
	41.4%	58.6%	47.9%	42.6%	3.0%	1.2%	5.3%	.0%	60.9%	39.1%	100.0%
North Scotland	21	27	35	9	2	0	2	0	39	9	48
	43.8%	56.3%	72.9%	18.8%	4.2%	.0%	4.2%	.0%	81.3%	18.8%	100.0%
North Western	134	144	118	134	12	4	10	0	199	79	278
	48.2%	51.8%	42.4%	48.2%	4.3%	1.4%	3.6%	.0%	71.6%	28.4%	100.0%
Northern	54	78	87	36	0	4	5	0	89	43	132
	40.9%	59.1%	65.9%	27.3%	.0%	3.0%	3.8%	.0%	67.4%	32.6%	100.0%
Northern Ireland	23	47	67	2	0	0	0	1	67	3	70
	32.9%	67.1%	95.7%	2.9%	.0%	.0%	.0%	1.4%	95.7%	4.3%	100.0%
Oxford	49	83	74	47	3	3	5	0	106	26	132
	37.1%	62.9%	56.1%	35.6%	2.3%	2.3%	3.8%	.0%	80.3%	19.7%	100.0%
Severn	46	86	103	18	2	2	7	0	115	17	132
	34.8%	65.2%	78.0%	13.6%	1.5%	1.5%	5.3%	.0%	87.1%	12.9%	100.0%
South East Scotland	24	37	42	11	3	1	4	0	52	9	61
	39.3%	60.7%	68.9%	18.0%	4.9%	1.6%	6.6%	.0%	85.2%	14.8%	100.0%
South West Peninsula	30	38	53	8	1	0	5	1	53	15	68
	44.1%	55.9%	77.9%	11.8%	1.5%	.0%	7.4%	1.5%	77.9%	22.1%	100.0%
Wales	58	66	76	42	0	1	5	0	89	35	124
	46.8%	53.2%	61.3%	33.9%	.0%	.8%	4.0%	.0%	71.8%	28.2%	100.0%
Wessex	55	75	78	34	5	4	8	1	94	36	130
	42.3%	57.7%	60.0%	26.2%	3.8%	3.1%	6.2%	.8%	72.3%	27.7%	100.0%
West Midlands	171	147	96	179	16	5	21	1	183	135	318
	53.8%	46.2%	30.2%	56.3%	5.0%	1.6%	6.6%	.3%	57.5%	42.5%	100.0%
West Scotland	64	109	126	39	2	3	2	1	145	28	173
	37.0%	63.0%	72.8%	22.5%	1.2%	1.7%	1.2%	.6%	83.8%	16.2%	100.0%
Yorkshire & The Humber	119	148	126	117	4	2	14	4	170	97	267
	44.6%	55.4%	47.2%	43.8%	1.5%	.7%	5.2%	1.5%	63.7%	36.3%	100.0%
Total	1423	1889	1617	1300	162	60	158	15	2278	1034	3312
	43.0%	57.0%	48.8%	39.3%	4.9%	1.8%	4.8%	.5%	68.8%	31.2%	100.0%

## B: Main Results: Overall, & by Exam Diet, Year & Attempt (All Candidates)

### 1. AKT Result and scores, overall (all candidates)

The pass-mark varies by diet (see introduction): marks have been re-scaled in this report to a pass-mark of zero

AKT Result		
	Frequency	Percent
Fail	1033	26.9
Pass	2807	73.1



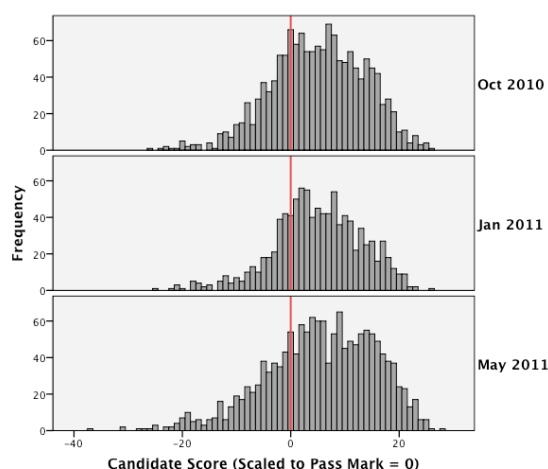
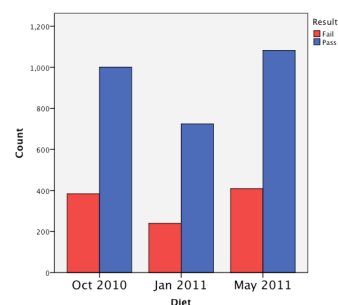


## 2. AKT Result and scores, by AKT Diet and Stage of Training (all candidates)

Note: A rule change to the effect that the AKT must be taken *after* ST1 explains the small number of ST1 candidates

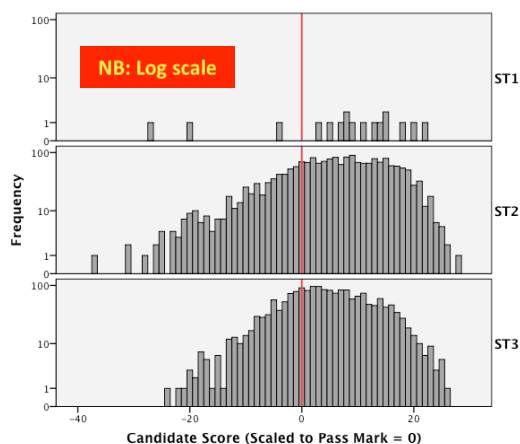
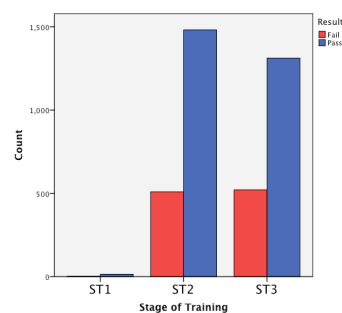
AKT Result by Diet

		Result		Total
		Fail	Pass	
Diet	Oct 2010	384	1001	1385
		27.7%	72.3%	100.0%
	Jan 2011	240	724	964
		24.9%	75.1%	100.0%
	May 2011	409	1082	1491
		27.4%	72.6%	100.0%
Total		1033	2807	3840
		26.9%	73.1%	100.0%



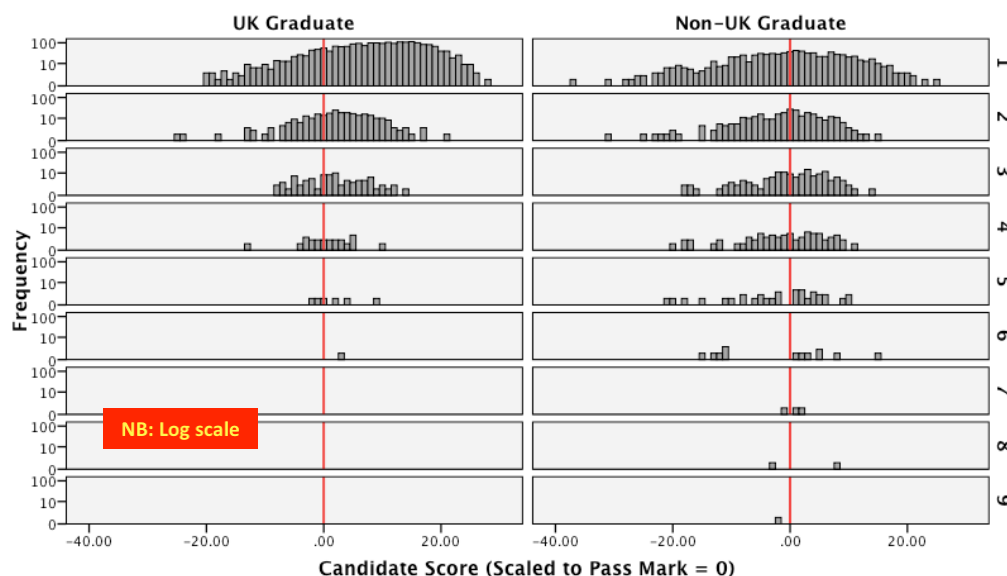
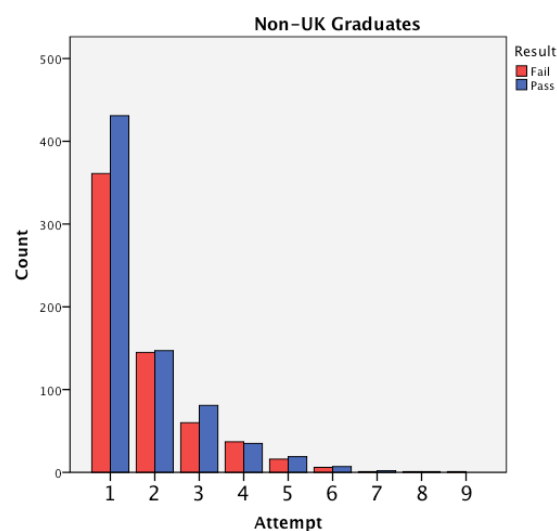
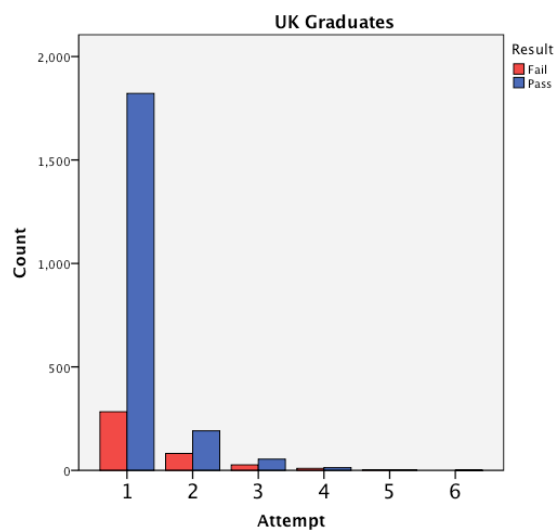
AKT Result by Stage of Training

		Result		Total
		Fail	Pass	
Stage	ST1	3	14	17
		17.6%	82.4%	100.0%
	ST2	509	1481	1990
		25.6%	74.4%	100.0%
	ST3	521	1312	1833
		28.4%	71.6%	100.0%
Total		1033	2807	3840
		26.9%	73.1%	100.0%

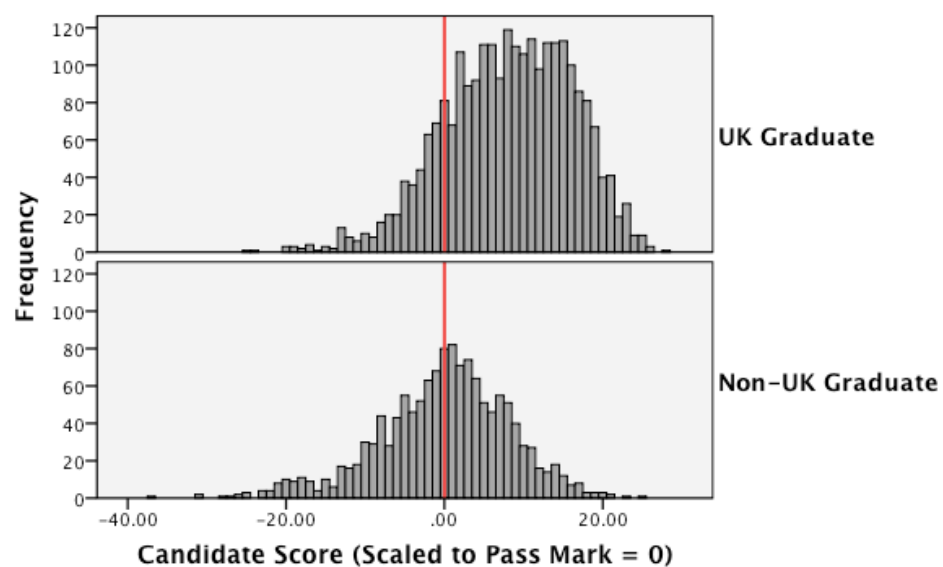


### 3. Result and scores, by attempt at the AKT: all graduates, and separated by source of primary medical qualification, UK/non-UK (all candidates)

Result by Attempt at the AKT						
			Result		Total	
			Fail	Pass		
UK Graduate	Attempt	1	283 13.4%	1822 86.6%	2105 100.0%	
		2	82 30.0%	191 70.0%	273 100.0%	
		3	27 33.3%	54 66.7%	81 100.0%	
		4	10 43.5%	13 56.5%	23 100.0%	
		5	3 50.0%	3 50.0%	6 100.0%	
		6	0 .0%	1 100.0%	1 100.0%	
		Total	405 16.3%	2084 83.7%	2489 100.0%	
	Non-UK Graduate	Attempt	1	361 45.6%	431 54.4%	792 100.0%
			2	145 49.7%	147 50.3%	292 100.0%
			3	60 42.6%	81 57.4%	141 100.0%
4			37 51.4%	35 48.6%	72 100.0%	
5			16 45.7%	19 54.3%	35 100.0%	
6			6 46.2%	7 53.8%	13 100.0%	
7			1 33.3%	2 66.7%	3 100.0%	
8			1 50.0%	1 50.0%	2 100.0%	
9			1 100.0%	0 .0%	1 100.0%	
Total		628 46.5%	723 53.5%	1351 100.0%		
Total	Attempt	1	644 22.2%	2253 77.8%	2897 100.0%	
		2	227 40.2%	338 59.8%	565 100.0%	
		3	87 39.2%	135 60.8%	222 100.0%	
		4	47 49.5%	48 50.5%	95 100.0%	
		5	19 46.3%	22 53.7%	41 100.0%	
		6	6 42.9%	8 57.1%	14 100.0%	
		7	1 33.3%	2 66.7%	3 100.0%	
		8	1 50.0%	1 50.0%	2 100.0%	
		9	1 100.0%	0 .0%	1 100.0%	
	Total	1033 26.9%	2807 73.1%	3840 100.0%		



#### 4. Score on AKT first attempt by source of PMQ, UK and non-UK Graduates compared



## 5. Candidates with Disabilities: prevalence overall and by attempt; outcomes

UK Equality Legislation permits examination candidates with disabilities to request reasonable accommodations in regard to their disabilities, without affecting the standard of the examination. The tables below record the prevalence of such candidates in attempts at the AKT in 2010-11, together with the results of the assessments.

There were 71 disabled candidate-attempts at the AKT (see first table below). The second, larger table, shows the outcomes for these candidates.

The overall pass rate for candidates reporting disabilities was 79% on first attempt, 55% on subsequent attempts, combined.

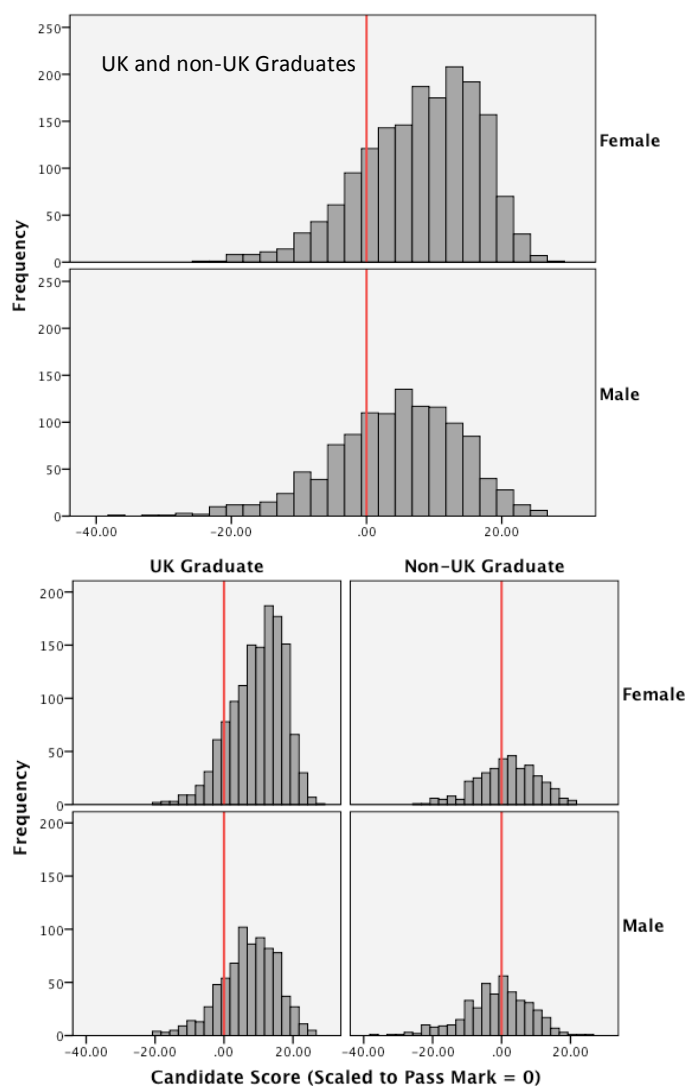
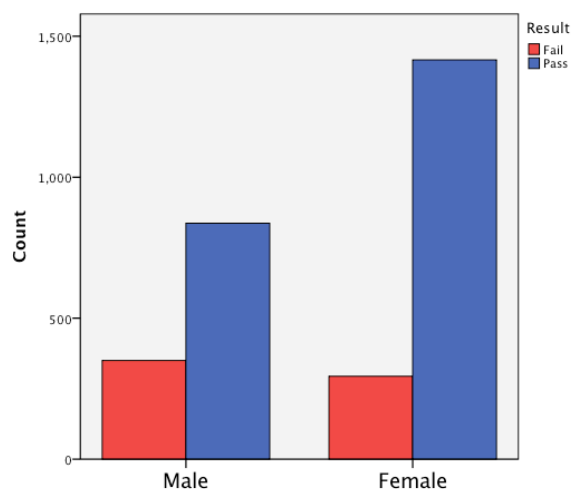
Candidates with Disabilities		
Disability	N attempts	Percent of all candidates
Back pain and difficulty in prolonged sitting	3	.1
Diabetic	2	.1
Dyscalculia	1	.0
Dyslexia	58	1.5
Dyslexia & Dyscalculia	3	.1
Hereditary sensory neuropathy	1	.0
Sight Issue	1	.0
Unilateral tinnitus	2	.1

Candidates with Disabilities - Outcomes by Disability and Attempt											
Outcome	Disability	Attempt									Total
		1	2	3	4	5	6	7	8	9	
Fail	Back pain and difficulty in prolonged sitting			1	1	1					3
	Dyslexia	3	3	3	4	1	1	1	1	1	18
	Dyslexia & Dyscalculia	1	1	1							3
	Hereditary sensory neuropathy	1									1
	Unilateral tinnitus			1							1
	Total	5	4	6	5	2	1	1	1	1	26
Pass	Diabetic	2									2
	Dyscalculia							1			1
	Dyslexia	17	5	6	5	5	1		1		40
	Sight Issue			1							1
	Unilateral tinnitus				1						1
	Total	19	5	7	6	5	1	1	1		45
Grand Total		24	9	13	11	7	2	2	2	1	71

## C: Results by Individual Demographics (Candidates on first attempt, only)

### 1. AKT Result and scores by candidate gender, and within source of PMQ (1<sup>st</sup> attempt)

Result by Candidate Gender – overall, and within Source of PMQ						
			Result		Total	
			Fail	Pass		
UK Graduate	Gender	Male	133	632	765	
			17.4%	82.6%	100.0%	
		Female	150	1190	1340	
			11.2%	88.8%	100.0%	
	Total		283	1822	2105	
			13.4%	86.6%	100.0%	
Non-UK Graduate	Gender	Male	217	205	422	
			51.4%	48.6%	100.0%	
		Female	144	226	370	
			38.9%	61.1%	100.0%	
	Total		361	431	792	
			45.6%	54.4%	100.0%	
Total	Gender	Male	350	837	1187	
			29.5%	70.5%	100.0%	
		Female	294	1416	1710	
			17.2%	82.8%	100.0%	
	Total		644	2253	2897	
			22.2%	77.8%	100.0%	

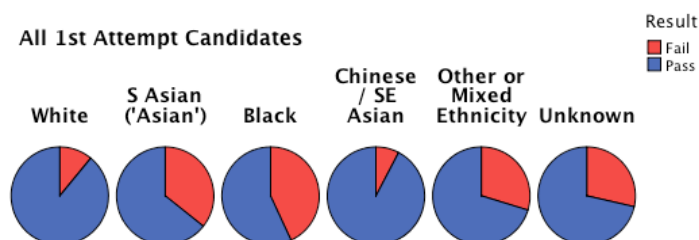


## 2. AKT Result by classified candidate ethnicity, and separated by source of primary medical qualification (1<sup>st</sup> attempt)

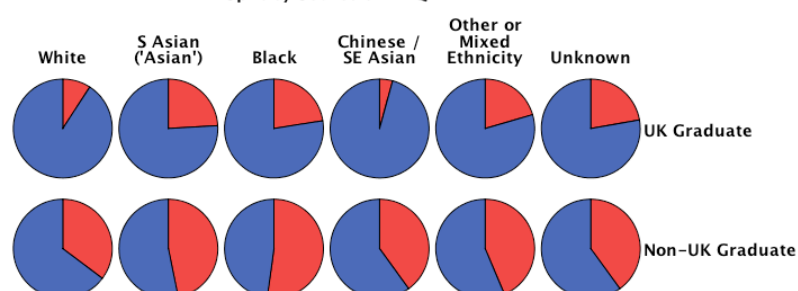
Result by Candidate Ethnic Group: overall, and by UKG/non-UKG

		Result		Total
		Fail	Pass	
UK Graduate	White	130 9.2%	1285 90.8%	1415 100.0%
	S Asian ('Asian')	123 24.1%	388 75.9%	511 100.0%
	Black	9 22.5%	31 77.5%	40 100.0%
	Chinese / SE Asian	2 4.3%	45 95.7%	47 100.0%
	Other or Mixed Ethnicity	17 20.5%	66 79.5%	83 100.0%
	Unknown	2 22.2%	7 77.8%	9 100.0%
	Total	283 13.4%	1822 86.6%	2105 100.0%
Non-UK Graduate	White	37 35.2%	68 64.8%	105 100.0%
	S Asian ('Asian')	249 46.8%	283 53.2%	532 100.0%
	Black	47 52.2%	43 47.8%	90 100.0%
	Chinese / SE Asian	2 40.0%	3 60.0%	5 100.0%
	Other or Mixed Ethnicity	24 43.6%	31 56.4%	55 100.0%
	Unknown	2 40.0%	3 60.0%	5 100.0%
	Total	361 45.6%	431 54.4%	792 100.0%
Total	White	167 11.0%	1353 89.0%	1520 100.0%
	S Asian ('Asian')	372 35.7%	671 64.3%	1043 100.0%
	Black	56 43.1%	74 56.9%	130 100.0%
	Chinese / SE Asian	4 7.7%	48 92.3%	52 100.0%
	Other or Mixed Ethnicity	41 29.7%	97 70.3%	138 100.0%
	Unknown	4 28.6%	10 71.4%	14 100.0%
	Total	644 22.2%	2253 77.8%	2897 100.0%

All 1st Attempt Candidates



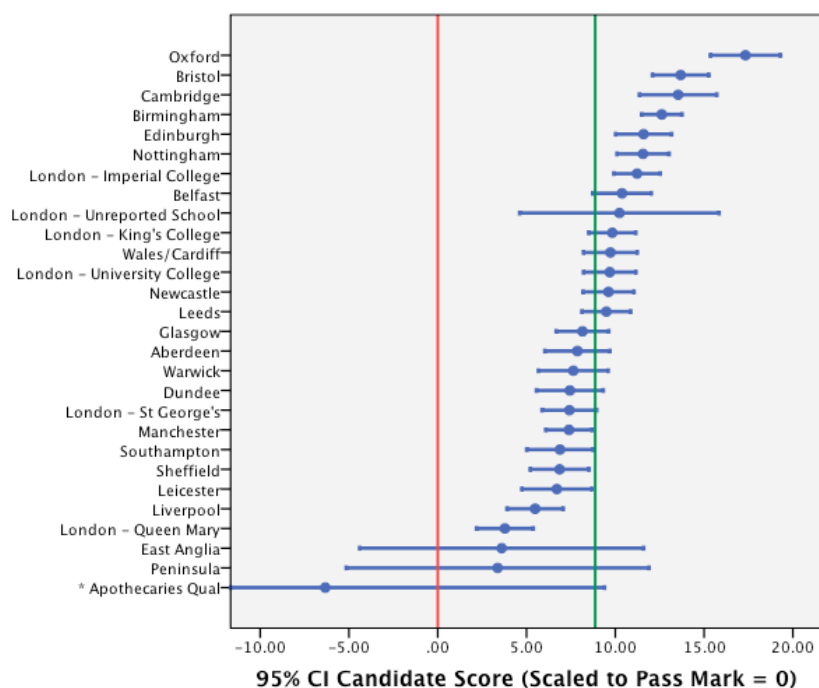
Split by Source of PMQ



### 3. AKT Result and Scores by PMQ, subdivided (1<sup>st</sup> attempt)

#### UK Graduates and NULB-Qualified\*

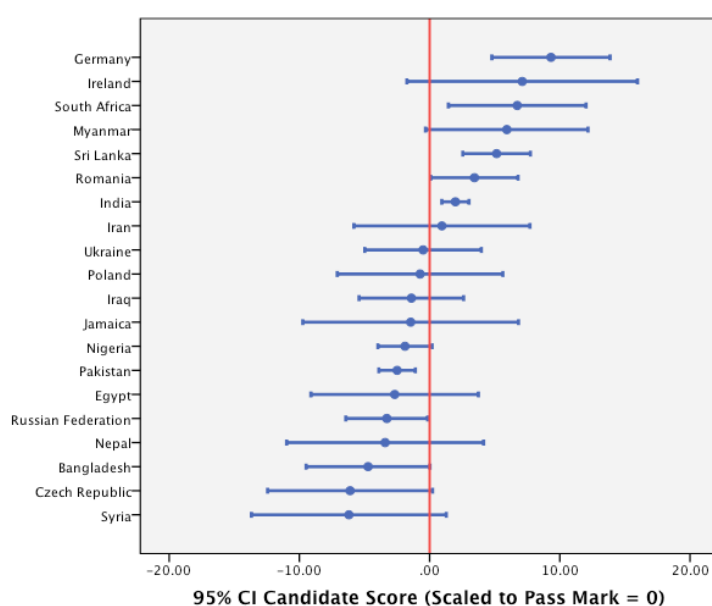
Medical School or *NULB	N	Min Score	Max Score	Mean Score	SD	Fail Rate	Pass Rate
* Apothecaries Qual	3	-12.00	.50	-6.33	6.33	66.7%	33.3%
* English Conjoint Qual	1	-20.50	-20.50	-20.50	.	100.0%	.0%
Aberdeen	70	-8.50	20.50	7.86	7.71	15.7%	84.3%
Belfast	70	-6.50	23.00	10.38	6.93	10.0%	90.0%
Birmingham	115	-8.50	25.00	12.62	6.17	4.3%	95.7%
Bristol	64	-2.00	25.50	13.68	6.37	1.6%	98.4%
Cambridge	40	-1.50	24.50	13.54	6.82	5.0%	95.0%
Dundee	67	-13.00	26.00	7.44	7.71	19.4%	80.6%
East Anglia	10	-10.00	18.50	3.60	11.17	40.0%	60.0%
Edinburgh	56	-1.50	22.50	11.59	5.89	5.4%	94.6%
Glasgow	101	-14.00	22.50	8.15	7.49	11.9%	88.1%
Leeds	83	-5.50	19.50	9.49	6.29	8.4%	91.6%
Leicester	82	-19.50	22.50	6.71	9.00	18.3%	81.7%
Liverpool	100	-14.50	21.00	5.49	7.98	23.0%	77.0%
London - Imperial College	88	-5.00	25.00	11.23	6.17	3.4%	96.6%
London - King's College	131	-11.00	26.00	9.83	7.66	12.2%	87.8%
London - Queen Mary	115	-20.50	19.00	3.78	8.65	30.4%	69.6%
London - St George's	88	-13.00	25.00	7.41	7.25	14.8%	85.2%
London - University College	118	-15.00	28.00	9.69	8.12	8.5%	91.5%
London - Unreported School	13	-13.50	23.00	10.23	9.30	7.7%	92.3%
Manchester	152	-17.50	25.00	7.39	8.17	15.8%	84.2%
Newcastle	96	-10.50	22.50	9.61	7.12	10.4%	89.6%
Nottingham	81	-9.00	22.00	11.56	6.65	4.9%	95.1%
Oxford	29	2.00	24.50	17.33	5.20	.0%	100.0%
Peninsula	4	-1.50	8.50	3.38	5.36	50.0%	50.0%
Sheffield	113	-18.00	23.00	6.86	8.90	21.2%	78.8%
Southampton	69	-12.00	21.00	6.88	7.79	24.6%	75.4%
Wales/Cardiff	83	-11.50	22.50	9.72	6.96	9.6%	90.4%
Warwick	63	-17.00	18.50	7.63	7.81	15.9%	84.1%



## Non-UK Graduates (pass-rates only, in view of generally small numbers) (1<sup>st</sup> attempt)

Non-UK Graduates: Pass-rates by Country, first attempt								
Country	Fail %	Pass %	N		Country	Fail %	Pass %	N
Afghanistan	50.0%	50.0%	2		Latvia	50.0%	50.0%	2
Albania	100.0%	.0%	2		Libya	25.0%	75.0%	4
Algeria	100.0%	.0%	1		Macedonia	100.0%	.0%	1
Argentina	.0%	100.0%	1		Malawi	100.0%	.0%	1
Armenia	50.0%	50.0%	2		Malaysia	.0%	100.0%	1
Australia	.0%	100.0%	3		Malta	.0%	100.0%	1
Austria	33.3%	66.7%	3		Moldova	.0%	100.0%	1
Bangladesh	72.7%	27.3%	11		Myanmar	28.6%	71.4%	7
Belarus	100.0%	.0%	3		Nepal	66.7%	33.3%	6
Belgium	100.0%	.0%	1		Netherlands	.0%	100.0%	1
Bolivia	100.0%	.0%	1		Netherlands Antilles	100.0%	.0%	1
Brazil	100.0%	.0%	2		New Zealand	.0%	100.0%	2
Bulgaria	33.3%	66.7%	3		Nigeria	54.4%	45.6%	68
Burundi	.0%	100.0%	1		Oman	.0%	100.0%	1
Cayman Islands	100.0%	.0%	1		Pakistan	54.6%	45.4%	174
China	33.3%	66.7%	3		Philippines	33.3%	66.7%	3
Colombia	50.0%	50.0%	2		Poland	46.7%	53.3%	15
Congo, Dem Rep	100.0%	.0%	1		Romania	22.2%	77.8%	9
Czech Republic	64.3%	35.7%	14		Russian Federation	68.4%	31.6%	19
Denmark	100.0%	.0%	1		Saint Lucia	.0%	100.0%	1
Egypt	72.7%	27.3%	11		Serbia	66.7%	33.3%	3
Georgia	.0%	100.0%	1		Slovakia	25.0%	75.0%	4
Germany	21.4%	78.6%	14		South Africa	15.4%	84.6%	13
Ghana	.0%	100.0%	3		Spain	100.0%	.0%	1
Grenada	100.0%	.0%	2		Sri Lanka	11.8%	88.2%	17
Guyana	100.0%	.0%	1		Sudan	50.0%	50.0%	2
Hungary	.0%	100.0%	2		Syria	60.0%	40.0%	5
India	38.2%	61.8%	254		Tanzania	.0%	100.0%	1
Iran	55.6%	44.4%	9		Turkey	50.0%	50.0%	4
Iraq	48.0%	52.0%	25		Uganda	.0%	100.0%	1
Ireland	33.3%	66.7%	9		Ukraine	25.0%	75.0%	12
Israel	.0%	100.0%	1		United States	100.0%	.0%	1
Italy	100.0%	.0%	1		Uzbekistan	100.0%	.0%	1
Jamaica	45.5%	54.5%	11		Zambia	100.0%	.0%	1
Jordan	50.0%	50.0%	2		Zimbabwe	25.0%	75.0%	4

## Non-UK Graduates – Countries with 5+ Candidates on First Attempt





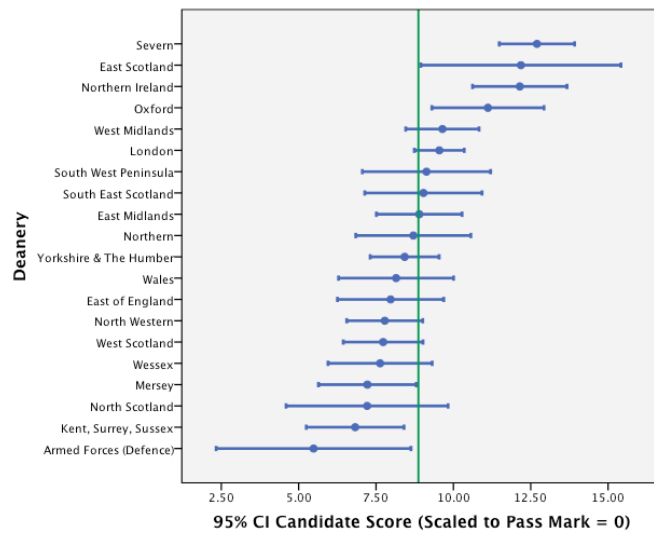
## D: Results by Training Deanery

### 1 Results for all attempts, combined: UK graduates; non-UK graduates; all graduates

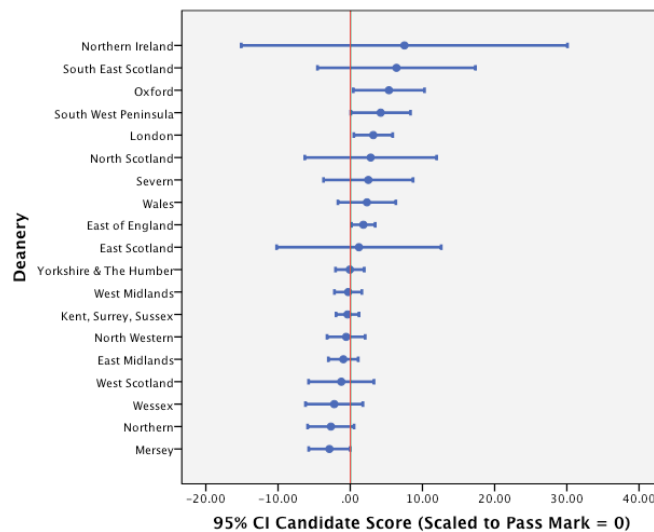
Deanery	UK Graduates		Non-UK Graduates		All Candidates		Total
	Fail	Pass	Fail	Pass	Fail	Pass	
Armed Forces (Defence)	8 25.0%	24 75.0%	1 100.0%	0 .0%	9 27.3%	24 72.7%	33 100.0%
East Midlands	21 15.9%	111 84.1%	65 51.6%	61 48.4%	86 33.3%	172 66.7%	258 100.0%
East of England	29 19.3%	121 80.7%	64 40.8%	93 59.2%	93 30.3%	214 69.7%	307 100.0%
East Scotland	1 4.0%	24 96.0%	2 40.0%	3 60.0%	3 10.0%	27 90.0%	30 100.0%
Kent, Surrey, Sussex	45 25.1%	134 74.9%	92 46.9%	104 53.1%	137 36.5%	238 63.5%	375 100.0%
London	31 9.5%	297 90.5%	31 41.9%	43 58.1%	62 15.4%	340 84.6%	402 100.0%
Mersey	25 20.8%	95 79.2%	62 59.0%	43 41.0%	87 38.7%	138 61.3%	225 100.0%
North Scotland	11 25.0%	33 75.0%	8 53.3%	7 46.7%	19 32.2%	40 67.8%	59 100.0%
North Western	42 19.1%	178 80.9%	53 49.5%	54 50.5%	95 29.1%	232 70.9%	327 100.0%
Northern	17 18.1%	77 81.9%	33 54.1%	28 45.9%	50 32.3%	105 67.7%	155 100.0%
Northern Ireland	4 5.7%	66 94.3%	0 .0%	3 100.0%	4 5.5%	69 94.5%	73 100.0%
Oxford	16 14.2%	97 85.8%	15 44.1%	19 55.9%	31 21.1%	116 78.9%	147 100.0%
Severn	5 4.3%	112 95.7%	7 36.8%	12 63.2%	12 8.8%	124 91.2%	136 100.0%
South East Scotland	4 7.4%	50 92.6%	2 18.2%	9 81.8%	6 9.2%	59 90.8%	65 100.0%
South West Peninsula	10 18.2%	45 81.8%	6 30.0%	14 70.0%	16 21.3%	59 78.7%	75 100.0%
Wales	21 20.6%	81 79.4%	12 30.8%	27 69.2%	33 23.4%	108 76.6%	141 100.0%
Wessex	23 21.5%	84 78.5%	27 57.4%	20 42.6%	50 32.5%	104 67.5%	154 100.0%
West Midlands	33 16.6%	166 83.4%	84 47.7%	92 52.3%	117 31.2%	258 68.8%	375 100.0%
West Scotland	26 16.5%	132 83.5%	18 43.9%	23 56.1%	44 22.1%	155 77.9%	199 100.0%
Yorkshire & The Humber	33 17.4%	157 82.6%	46 40.4%	68 59.6%	79 26.0%	225 74.0%	304 100.0%
Total	405 16.3%	2084 83.7%	628 46.5%	723 53.5%	1033 26.9%	2807 73.1%	3840 100.0%

## 2. Graphical Representation of Candidate Scores by Deanery, by source of PMQ

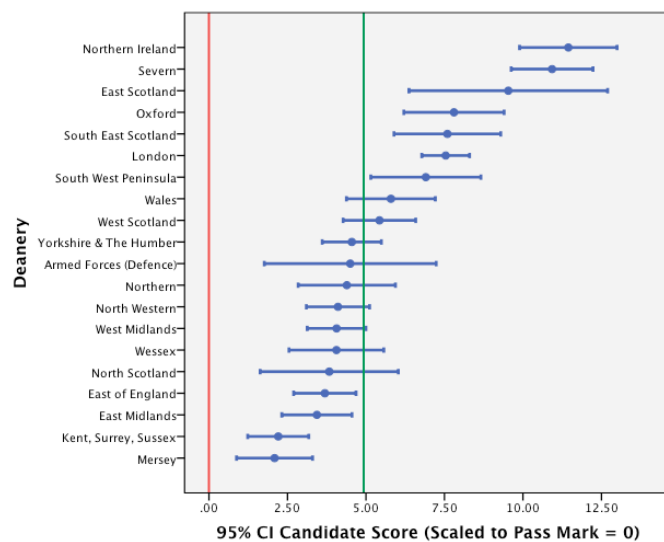
### UK Graduates, First Attempt



### Non-UK Graduates, First Attempt



### All Graduates, All Attempts

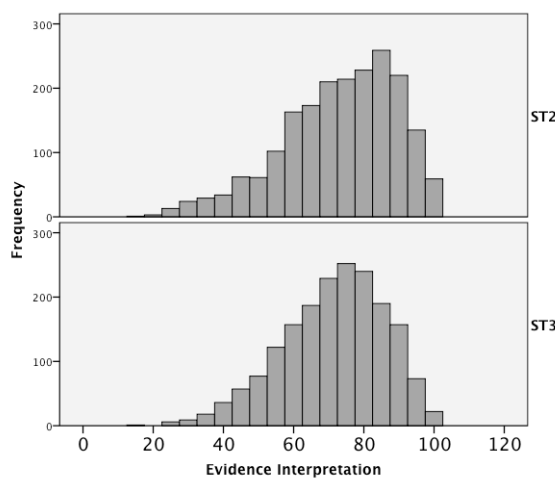
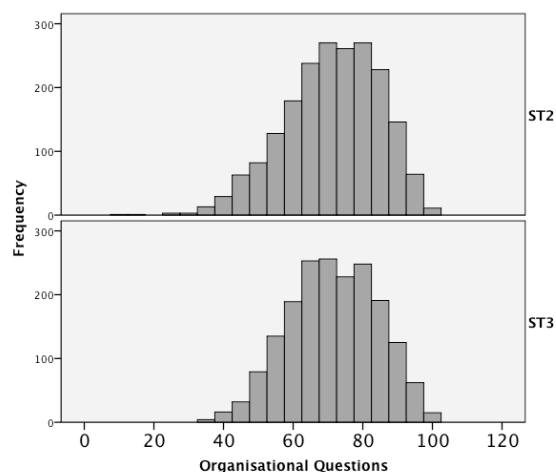
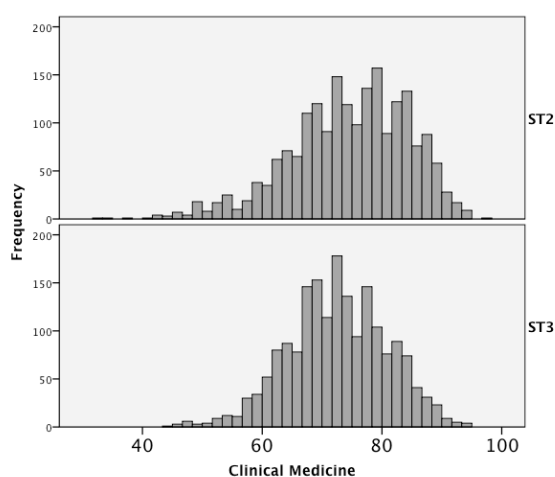


## E: AKT sub-Component Scores and Distributions, by Year of Training

### 1 Descriptive Statistics of the three Scores, all candidates

Stage of Training	N	Minimum	Maximum	Mean	Std. Deviation
ST1 Clinical_Medicine	17	44.38	92.50	75.81	12.92
Evidence_Interpretation	17	35.00	95.00	72.65	17.33
Organisational_Questions	17	30.00	95.00	74.71	17.45
ST2 Clinical_Medicine	1990	31.88	96.88	74.63	9.87
Evidence_Interpretation	1990	15.00	100.00	73.12	16.49
Organisational_Questions	1990	10.00	100.00	71.24	13.72
ST3 Clinical_Medicine	1833	43.75	95.00	72.67	8.28
Evidence_Interpretation	1833	15.00	100.00	71.33	14.71
Organisational_Questions	1833	35.00	100.00	71.53	12.75

### 1 Distributions of Scores on the three sub-Components by Training Year, all candidates (ST1 suppressed, because of very small numbers)



### A: Summary of Demographic Information on CSA Candidates

2820 candidates made a total of 3590 attempts at the CSA during 2010-11. The tables below show the origin of the 2820 candidates, by UK medical school or non-UK country of primary medical qualification—and the percentage from each out of the total of that part of the candidature. On the next page, the background demographic characteristics of the 2820 are shown, by training Deanery. Other tables report on the 3590 attempts.

#### 1. Source of Primary Medical Qualification

Graduate of UK, EEA or Rest of World		
	Frequency	Percent
UK	1944	68.9
EEA	72	2.6
RoW	804	28.5
Total	2820	100.0

Graduates of UK Medical Schools and qualifications of *non-University Licensing Bodies		
	Frequency	Percent
* Apothecaries Qual	2	.1
* Scottish Triple Qual	1	.1
Aberdeen	75	3.9
Belfast	59	3.0
Birmingham	106	5.5
Bristol	44	2.3
Cambridge	45	2.3
Dundee	53	2.7
Edinburgh	51	2.6
Glasgow	107	5.5
Leeds	78	4.0
Leicester	63	3.2
Liverpool	89	4.6
London – Imperial College	80	4.1
London – King's College	145	7.5
London – Queen Mary	89	4.6
London – St George's	86	4.4
London – University College	133	6.8
Manchester	157	8.1
Newcastle upon Tyne	80	4.1
Nottingham	68	3.5
Oxford	22	1.1
Sheffield	112	5.8
Southampton	60	3.1
Wales/Cardiff	85	4.4
Warwick	54	2.8
Total	1944	100.0

Graduates of Other Countries		
	Frequency	Percent
Algeria	2	.2
Argentina	1	.1
Armenia	1	.1
Australia	3	.3
Austria	3	.3
Bangladesh	11	1.3
Belarus	4	.5
Bolivia	1	.1
Brazil	1	.1
Bulgaria	2	.2
China PRC	3	.3
Colombia	1	.1
Czech Republic	14	1.6
Egypt	5	.6
Germany	10	1.1
Ghana	6	.7
Greece	2	.2
India	366	41.8
Iran	9	1.0
Iraq	33	3.8
Ireland	13	1.5
Israel	1	.1
Italy	2	.2
Jamaica	11	1.3
Jordan	1	.1
Kenya	2	.2
Latvia	1	.1
Lebanon	1	.1
Lithuania	1	.1
Macedonia	2	.2
Malawi	1	.1
Malaysia	1	.1
Myanmar	6	.7
Nepal	7	.8
Netherlands	1	.1
Netherlands Antilles	1	.1
Nigeria	56	6.4
Pakistan	177	20.2
Philippines	2	.2
Poland	16	1.8
Romania	6	.7
Russian Federation	20	2.3
Saint Kitts And Nevis	2	.2
Serbia	2	.2
Slovakia	1	.1
South Africa	10	1.1
Sri Lanka	25	2.9
Sudan	2	.2
Syria	5	.6
Tanzania	2	.2
Tunisia	1	.1
Turkey	1	.1
Ukraine	11	1.3
United Arab Emirates	1	.1
Zambia	1	.1
Zimbabwe	5	.6
Total	876	100.0

## 2. CSA Candidates' Gender, Ethnic Group and whether UK or international graduates, by Training Deanery

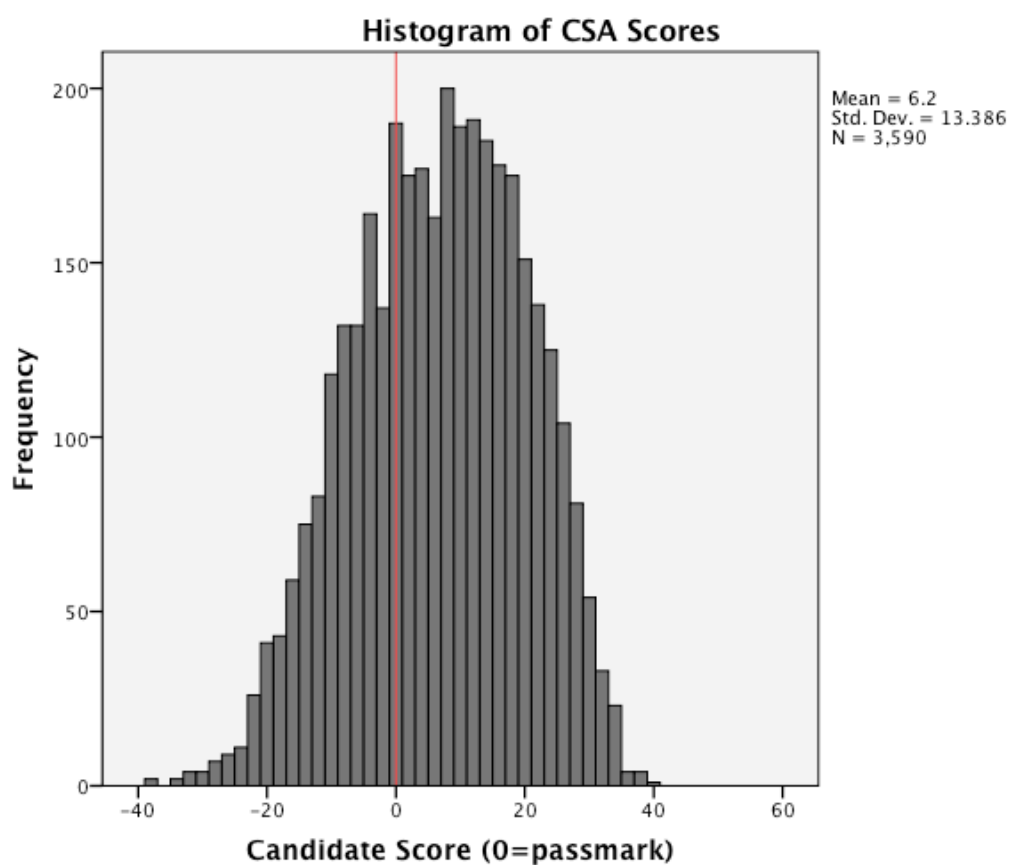
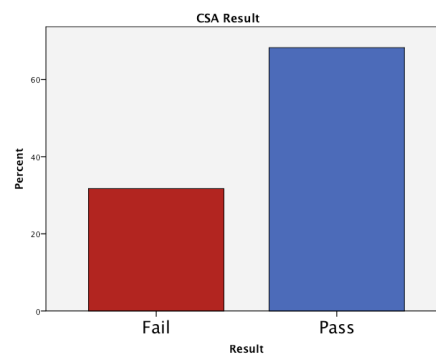
Deanery	Gender		Ethnic Group (classified, from self-reported detail)						UK/Non-UK Graduate		Total
	Male	Female	White	S Asian ('Asian')	Black	Chinese / SE Asian	Mixed Race / Other	Not Known	UK Graduate	Non-UK Graduate	
Armed Forces (Defence)	14 63.6%	8 36.4%	22 100.0%	0 .0%	0 .0%	0 .0%	0 .0%	0 .0%	22 100.0%	0 .0%	22 100.0%
East Midlands	88 55.0%	72 45.0%	55 34.4%	86 53.8%	10 6.3%	3 1.9%	5 3.1%	1 .6%	99 61.9%	61 38.1%	160 100.0%
East of England	112 54.4%	94 45.6%	67 32.5%	105 51.0%	18 8.7%	7 3.4%	8 3.9%	1 .5%	110 53.4%	96 46.6%	206 100.0%
East Scotland	9 45.0%	11 55.0%	14 70.0%	5 25.0%	0 .0%	0 .0%	1 5.0%	0 .0%	16 80.0%	4 20.0%	20 100.0%
Kent, Surrey, Sussex	120 46.9%	136 53.1%	91 35.5%	128 50.0%	17 6.6%	6 2.3%	13 5.1%	1 .4%	149 58.2%	107 41.8%	256 100.0%
London	102 30.6%	231 69.4%	121 36.3%	150 45.0%	19 5.7%	13 3.9%	27 8.1%	3 .9%	278 83.5%	55 16.5%	333 100.0%
Mersey	53 44.5%	66 55.5%	65 54.6%	43 36.1%	6 5.0%	0 .0%	5 4.2%	0 .0%	79 66.4%	40 33.6%	119 100.0%
North Scotland	37 52.9%	33 47.1%	46 65.7%	20 28.6%	2 2.9%	0 .0%	2 2.9%	0 .0%	50 71.4%	20 28.6%	70 100.0%
North Western	118 49.2%	122 50.8%	86 35.8%	126 52.5%	8 3.3%	2 .8%	17 7.1%	1 .4%	147 61.3%	93 38.8%	240 100.0%
Northern	53 39.8%	80 60.2%	80 60.2%	43 32.3%	2 1.5%	5 3.8%	3 2.3%	0 .0%	91 68.4%	42 31.6%	133 100.0%
Northern Ireland	23 37.1%	39 62.9%	60 96.8%	2 3.2%	0 .0%	0 .0%	0 .0%	0 .0%	60 96.8%	2 3.2%	62 100.0%
Oxford	29 36.3%	51 63.8%	49 61.3%	26 32.5%	3 3.8%	1 1.3%	1 1.3%	0 .0%	62 77.5%	18 22.5%	80 100.0%
Severn	41 40.6%	60 59.4%	66 65.3%	24 23.8%	2 2.0%	2 2.0%	5 5.0%	2 2.0%	83 82.2%	18 17.8%	101 100.0%
South East Scotland	33 49.3%	34 50.7%	44 65.7%	16 23.9%	5 7.5%	1 1.5%	1 1.5%	0 .0%	52 77.6%	15 22.4%	67 100.0%
South West Peninsula	30 52.6%	27 47.4%	37 64.9%	12 21.1%	0 .0%	1 1.8%	5 8.8%	2 3.5%	44 77.2%	13 22.8%	57 100.0%
Wales	57 47.1%	64 52.9%	69 57.0%	43 35.5%	2 1.7%	2 1.7%	4 3.3%	1 .8%	84 69.4%	37 30.6%	121 100.0%
Wessex	36 36.7%	62 63.3%	60 61.2%	27 27.6%	3 3.1%	1 1.0%	6 6.1%	1 1.0%	75 76.5%	23 23.5%	98 100.0%
West Midlands	183 56.0%	144 44.0%	96 29.4%	188 57.5%	14 4.3%	8 2.4%	17 5.2%	4 1.2%	182 55.7%	145 44.3%	327 100.0%
West Scotland	59 42.1%	81 57.9%	96 68.6%	41 29.3%	1 .7%	0 .0%	2 1.4%	0 .0%	113 80.7%	27 19.3%	140 100.0%
Yorkshire & The Humber	74 35.6%	134 64.4%	108 51.9%	82 39.4%	2 1.0%	2 1.0%	13 6.3%	1 .5%	148 71.2%	60 28.8%	208 100.0%
Total	1271 45.1%	1549 54.9%	1332 47.2%	1167 41.4%	114 4.0%	54 1.9%	135 4.8%	18 .6%	1944 68.9%	876 31.1%	2820 100.0%

## B: Main Results: Overall, and by Exam Diet and Attempt (All Candidates)

### 1. CSA Result and scores, overall

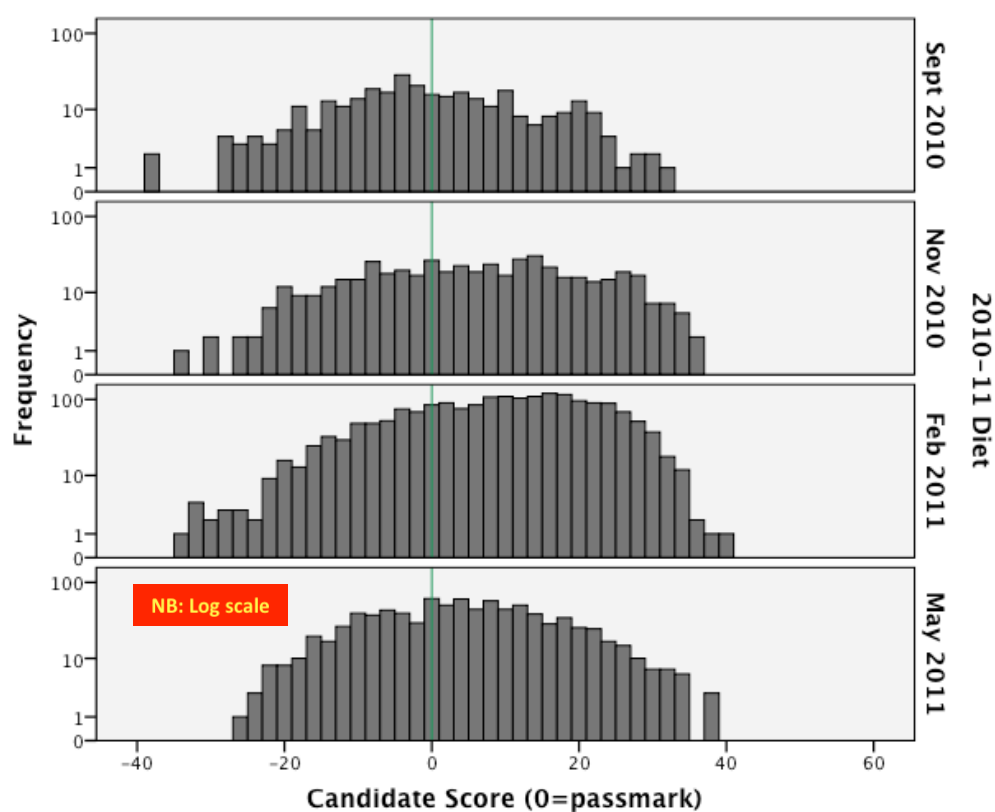
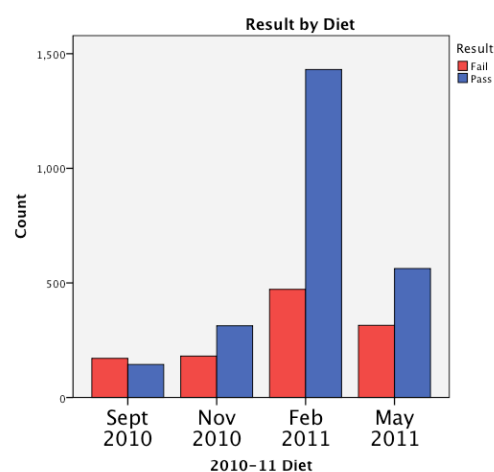
The pass-mark varies day-on-day (see introduction): marks have been re-scaled in this report to a pass-mark of zero

CSA Result		
	Frequency	Percent
Fail	1139	31.7
Pass	2451	68.3
Total	3590	100.0



## 2. CSA Result and scores, by CSA Diet (all candidates)

CSA Result by Diet		Result		Total
		Fail	Pass	
2010-11 Diet	Sept 2010	171	144	315
		54.3%	45.7%	100.0%
	Nov 2010	181	313	494
		36.6%	63.4%	100.0%
	Feb 2011	472	1431	1903
		24.8%	75.2%	100.0%
	May 2011	315	563	878
		35.9%	64.1%	100.0%
Total		1139	2451	3590
		31.7%	68.3%	100.0%

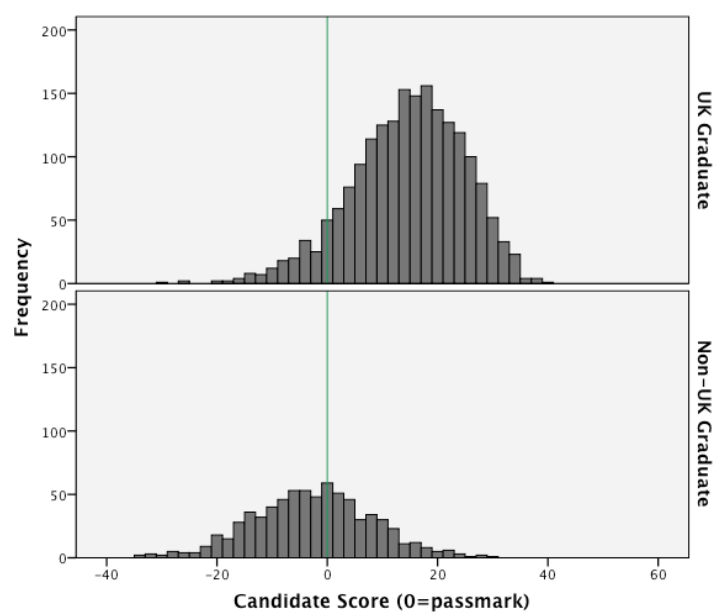


### 3. Result and scores, by attempt at the CSA: all graduates, and separated by source of primary medical qualification , UK/non-UK (all candidates)

Result by Attempt at CSA						
UK or Non-UK Graduate			Result		Total	
			Fail	Pass		
UK Graduate	Attempt at CSA	1	157 8.2%	1760 91.8%	1917 100.0%	
		2	27 17.2%	130 82.8%	157 100.0%	
		3	8 50.0%	8 50.0%	16 100.0%	
		4	5 62.5%	3 37.5%	8 100.0%	
		5	0 .0%	2 100.0%	2 100.0%	
	Total		197 9.4%	1903 90.6%	2100 100.0%	
	Non-UK Graduate	Attempt at CSA	1	426 59.2%	294 40.8%	720 100.0%
			2	264 62.4%	159 37.6%	423 100.0%
			3	127 71.3%	51 28.7%	178 100.0%
			4	78 75.7%	25 24.3%	103 100.0%
5			32 68.1%	15 31.9%	47 100.0%	
6		10 71.4%	4 28.6%	14 100.0%		
7		4 100.0%	0 .0%	4 100.0%		
8		1 100.0%	0 .0%	1 100.0%		
Total		942 63.2%	548 36.8%	1490 100.0%		
Total		Attempt at CSA	1	583 22.1%	2054 77.9%	2637 100.0%
	2		291 50.2%	289 49.8%	580 100.0%	
	3		135 69.6%	59 30.4%	194 100.0%	
	4		83 74.8%	28 25.2%	111 100.0%	
	5		32 65.3%	17 34.7%	49 100.0%	
	6	10 71.4%	4 28.6%	14 100.0%		
	7	4 100.0%	0 .0%	4 100.0%		
	8	1 100.0%	0 .0%	1 100.0%		
	Total		1139 31.7%	2451 68.3%	3590 100.0%	



#### 4. Score on first attempt by source of PMQ, UK and non-UK Graduates compared



## 5. Candidates with Disabilities: prevalence overall and by attempt; outcomes

UK Equality Legislation permits examination candidates with disabilities to request reasonable accommodations in regard to their disabilities, without affecting the difficulty of the examination. The tables below record the prevalence of such candidates in attempts at the CSA in 2010-11, together with the results of the assessments.

There were 52 disabled candidates in all (see first table below) making 64 attempts (see second, larger table). The third table shows those who passed.

The pass rate for candidates reporting disabilities was 85% on first attempt, 25% on subsequent attempts, combined.

**Candidates with Disabilities**

	Frequency	Percent
Dyslexia	29	1.0
Hearing impaired	5	.2
Other disability	12	.4
Physical disabilities	2	.1
Speech impaired	1	.0
Visually impaired	2	.1
Wheelchair user	1	.0

**Prevalence of Disability Reported by Attempt**

Count

		Attempt at CSA (from records)								Total
		1	2	3	4	5	6	7	8	
Disability Reported	Dyslexia	21	4	3	3	2	0	0	0	33
	Hearing impaired	4	0	1	1	0	1	0	0	7
	Other disability	10	2	2	1	1	0	0	0	16
	Physical disabilities	2	0	0	0	0	0	0	0	2
	Speech impaired	1	1	1	0	0	0	0	0	3
	Visually impaired	1	1	0	0	0	0	0	0	2
	Wheelchair user	1	0	0	0	0	0	0	0	1

**Result: Successful Candidates, by Disability and Attempt**

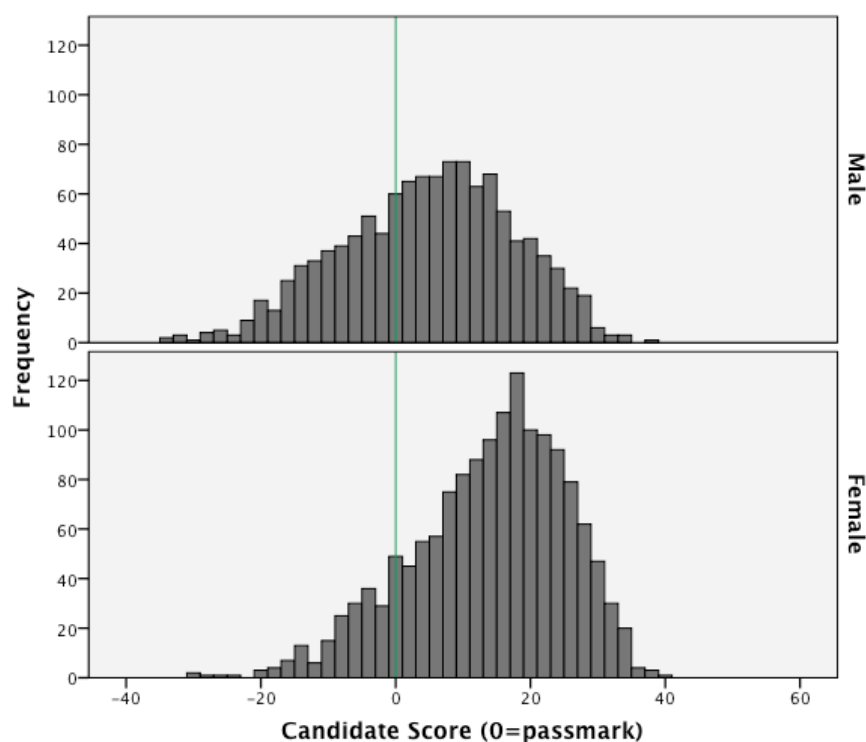
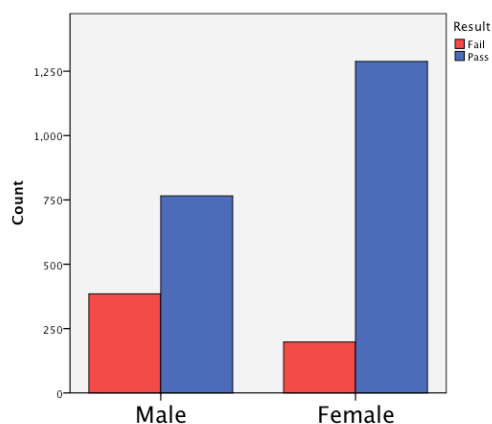
Count

		Attempt at CSA (from records)						Total
		1	2	3	4	5	6	
Disability Reported	Dyslexia	19	1	0	1	1	0	22
	Hearing impaired	3	0	0	0	0	1	4
	Other disability	8	1	0	0	0	0	9
	Physical disabilities	2	0	0	0	0	0	2
	Visually impaired	1	1	0	0	0	0	2
	Wheelchair user	1	0	0	0	0	0	1

## C: Results by Individual Demographics (Candidates on first attempt, only)

### 1. Result and scores by candidate gender, and within source of PMQ (1<sup>st</sup> attempt)

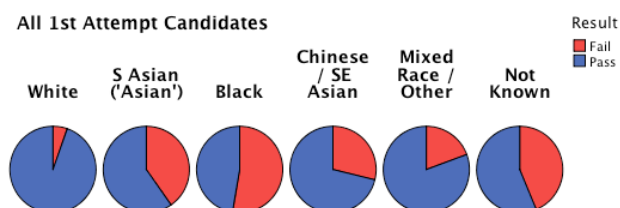
Result by Candidate Sex -- overall, and within source of PMQ					
UK or Non-UK Graduate (from GMC)			Result		Total
			Fail	Pass	
UK Graduate	Candidate's Sex	Male	107	623	730
			14.7%	85.3%	100.0%
		Female	50	1137	1187
			4.2%	95.8%	100.0%
	Total		157	1760	1917
			8.2%	91.8%	100.0%
Non-UK Graduate	Candidate's Sex	Male	278	143	421
			66.0%	34.0%	100.0%
		Female	148	151	299
			49.5%	50.5%	100.0%
	Total		426	294	720
			59.2%	40.8%	100.0%
Total	Candidate's Sex	Male	385	766	1151
			33.4%	66.6%	100.0%
		Female	198	1288	1486
			13.3%	86.7%	100.0%
	Total		583	2054	2637
			22.1%	77.9%	100.0%



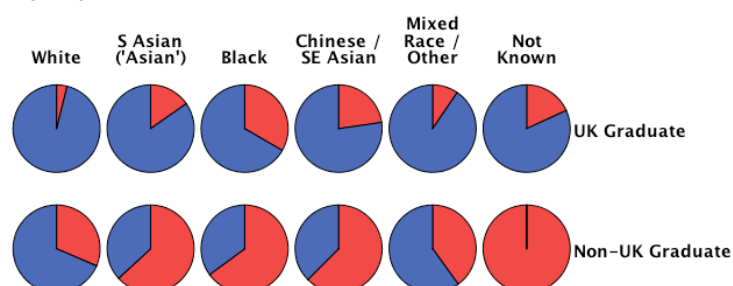
## 2. Result by classified candidate ethnicity, and separated by source of primary medical qualification, UK/non-UK graduates (1<sup>st</sup> attempt)

Result by Candidate Ethnic Group			
UK or Non-UK Graduate		Result	
		Fail	Pass
UK Graduate	White	49	1197
		3.9%	96.1%
	S Asian ('Asian')	76	420
		15.3%	84.7%
	Black	12	24
		33.3%	66.7%
	Chinese / SE Asian	10	34
		22.7%	77.3%
Non-UK Graduate	Mixed Race / Other	8	76
		9.5%	90.5%
	Not Known	2	9
		18.2%	81.8%
	Total	157	1760
		8.2%	91.8%
			100.0%
Total	White	71	1245
		5.4%	94.6%
	S Asian ('Asian')	417	619
		40.3%	59.7%
	Black	49	44
		52.7%	47.3%
	Chinese / SE Asian	15	37
		28.8%	71.2%
Non-UK Graduate	Mixed Race / Other	24	100
		19.4%	80.6%
	Not Known	7	9
		43.8%	56.3%
	Total	583	2054
		22.1%	77.9%
			100.0%

All 1st Attempt Candidates



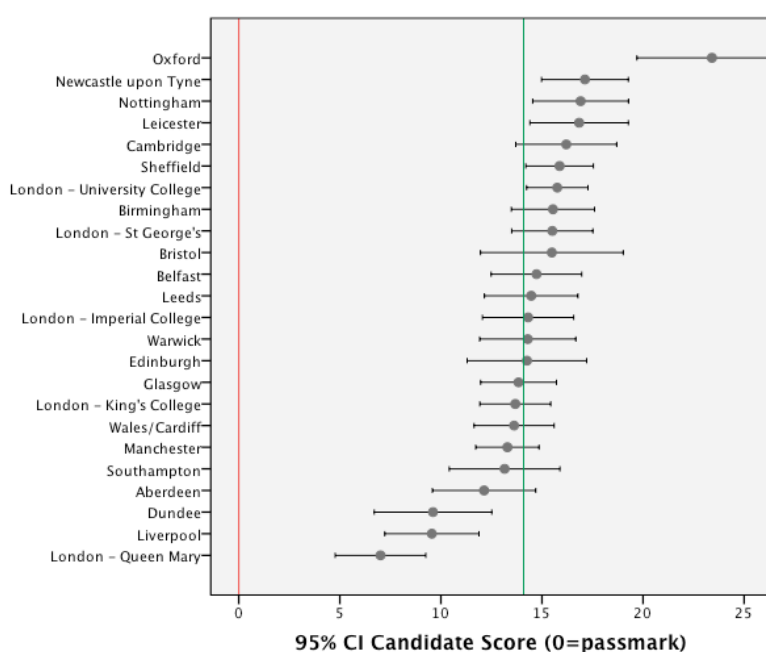
Split by Source of PMQ



### 3. CSA Result and Scores by PMQ, subdivided (1<sup>st</sup> attempt)

#### UK Graduates and NULB-Qualified

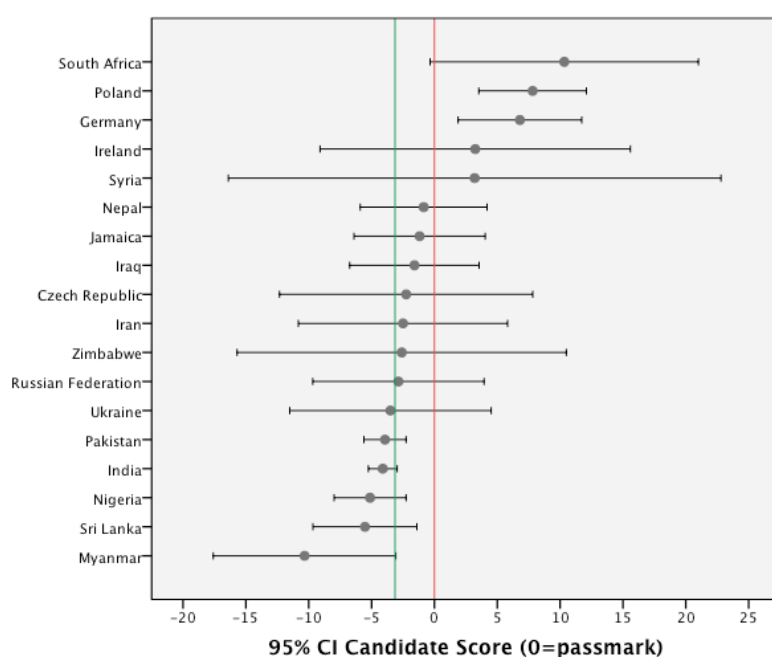
Med School or *NULB	Number of Cand's	Min. Score	Max. Score	Mean Score	SD	Fail %	Pass %
* Apothecaries Qual	2	-1	4	1.50	3.54	50	50
* Scottish Triple Qual	1	-9	-9	-9.00	.	100	0
Aberdeen	74	-15	34	12.14	11.03	14	86
Belfast	59	-4	29	14.73	8.61	3	97
Birmingham	101	-16	36	15.54	10.44	6	94
Bristol	43	-20	33	15.49	11.47	9	91
Cambridge	45	-10	29	16.20	8.32	4	96
Dundee	51	-12	33	9.61	10.33	18	82
Edinburgh	51	-18	34	14.25	10.51	6	94
Glasgow	106	-11	34	13.84	9.75	7	93
Leeds	77	-11	31	14.47	10.21	9	91
Leicester	62	-5	34	16.84	9.59	6	94
Liverpool	89	-31	35	9.55	11.06	12	88
London - Imperial College	80	-12	35	14.31	10.16	10	90
London - King's College	140	-12	37	13.68	10.49	10	90
London - Queen Mary	87	-17	28	7.01	10.53	21	79
London - St George's	86	-6	34	15.51	9.38	6	94
London - University College	131	-8	38	15.76	8.78	5	95
Manchester	156	-21	36	13.29	9.89	8	92
Newcastle upon Tyne	80	-9	33	17.13	9.66	6	94
Nottingham	67	-17	39	16.91	9.72	3	97
Oxford	22	0	37	23.41	8.37	0	100
Sheffield	109	-26	33	15.87	8.81	4	96
Southampton	60	-8	38	13.15	10.59	12	88
Wales/Cardiff	84	-19	31	13.62	9.13	7	93
Warwick	54	-8	32	14.30	8.70	4	96



## Non-UK Graduates (pass-rates only, in view of generally small numbers) (1<sup>st</sup> attempt)

Non-UK Graduates: Pass-rates by country, first attempt							
Country	Fail %	Pass %	N	Country	Fail %	Pass %	N
Algeria	100%	%	2	Lebanon	100%	%	1
Argentina	%	100%	1	Lithuania	%	100%	1
Armenia	100%	%	1	Macedonia	100%	%	2
Australia	%	100%	3	Malawi	100%	%	1
Austria	67%	33%	3	Malaysia	100%	%	1
Bangladesh	100%	%	3	Myanmar	100%	%	6
Belarus	50%	50%	4	Nepal	71%	29%	7
Bolivia	%	100%	1	Netherlands	100%	%	1
Brazil	%	100%	1	Netherlands Antilles	100%	%	1
Bulgaria	100%	%	2	Nigeria	68%	32%	41
China PRC	100%	%	2	Pakistan	62%	38%	151
Colombia	100%	%	1	Philippines	%	100%	1
Czech Republic	63%	38%	8	Poland	6%	94%	16
Egypt	25%	75%	4	Romania	75%	25%	4
Germany	20%	80%	10	Russian Federation	53%	47%	15
Ghana	50%	50%	4	Saint Kitts And Nevis	100%	%	2
Greece	%	100%	1	Serbia	100%	%	2
India	63%	37%	302	Slovakia	100%	%	1
Iran	38%	63%	8	South Africa	11%	89%	9
Iraq	55%	45%	22	Sri Lanka	63%	37%	19
Ireland	33%	67%	12	Sudan	50%	50%	2
Israel	%	100%	1	Syria	60%	40%	5
Italy	100%	%	1	Tanzania	50%	50%	2
Jamaica	55%	45%	11	Ukraine	60%	40%	10
Jordan	%	100%	1	United Arab Emirates	%	100%	1
Kenya	100%	%	2	Zambia	100%	%	1
Latvia	100%	%	1	Zimbabwe	20%	80%	5

## Non-UK Graduates – Countries with 5+ Candidates on First Attempt



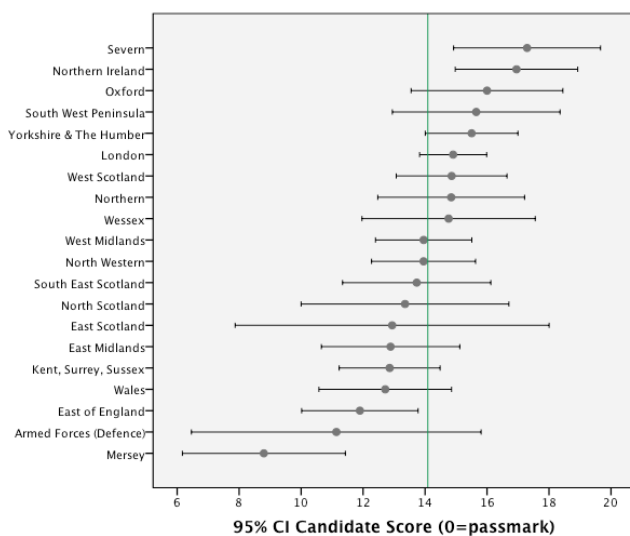
## D: Results by Training Deanery

### 1 Results for all attempts, combined: UK graduates; non-UK graduates; all graduates

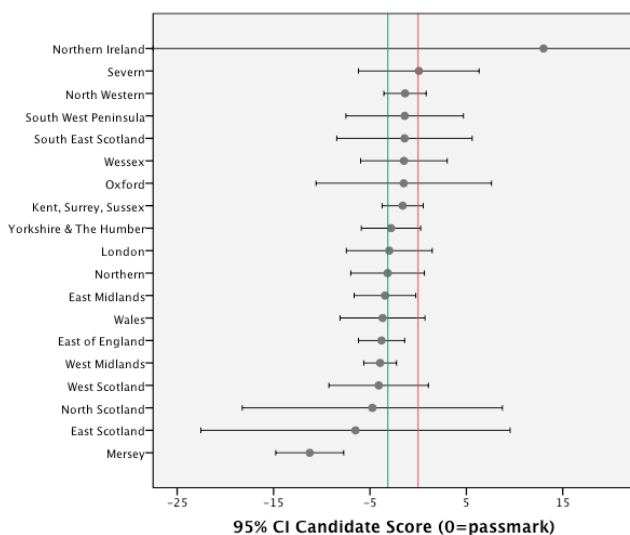
Deanery	UK Graduates		Non-UK Graduates		All Candidates		Total
	Fail	Pass	Fail	Pass	Fail	Pass	
Armed Forces (Defence)	3 12.5%	21 87.5%	- -	- -	3 12.5%	21 87.5%	24 100.0%
East Midlands	18 15.9%	95 84.1%	72 65.5%	38 34.5%	90 40.4%	133 59.6%	223 100.0%
East of England	14 11.5%	108 88.5%	110 65.5%	58 34.5%	124 42.8%	166 57.2%	290 100.0%
East Scotland	2 11.8%	15 88.2%	5 83.3%	1 16.7%	7 30.4%	16 69.6%	23 100.0%
Kent, Surrey, Sussex	20 12.3%	142 87.7%	88 55.0%	72 45.0%	108 33.5%	214 66.5%	322 100.0%
London	14 4.8%	278 95.2%	72 69.2%	32 30.8%	86 21.7%	310 78.3%	396 100.0%
Mersey	16 17.6%	75 82.4%	65 80.2%	16 19.8%	81 47.1%	91 52.9%	172 100.0%
North Scotland	8 14.3%	48 85.7%	34 77.3%	10 22.7%	42 42.0%	58 58.0%	100 100.0%
North Western	13 8.1%	147 91.9%	84 57.1%	63 42.9%	97 31.6%	210 68.4%	307 100.0%
Northern	10 10.3%	87 89.7%	45 63.4%	26 36.6%	55 32.7%	113 67.3%	168 100.0%
Northern Ireland	1 1.6%	60 98.4%	0 .0%	2 100.0%	1 1.6%	62 98.4%	63 100.0%
Oxford	3 4.6%	62 95.4%	20 71.4%	8 28.6%	23 24.7%	70 75.3%	93 100.0%
Severn	9 10.0%	81 90.0%	21 61.8%	13 38.2%	30 24.2%	94 75.8%	124 100.0%
South East Scotland	2 3.7%	52 96.3%	18 66.7%	9 33.3%	20 24.7%	61 75.3%	81 100.0%
South West Peninsula	2 4.4%	43 95.6%	7 46.7%	8 53.3%	9 15.0%	51 85.0%	60 100.0%
Wales	12 13.0%	80 87.0%	46 66.7%	23 33.3%	58 36.0%	103 64.0%	161 100.0%
Wessex	12 14.3%	72 85.7%	18 51.4%	17 48.6%	30 25.2%	89 74.8%	119 100.0%
West Midlands	22 10.9%	180 89.1%	148 61.2%	94 38.8%	170 38.3%	274 61.7%	444 100.0%
West Scotland	6 5.1%	112 94.9%	27 58.7%	19 41.3%	33 20.1%	131 79.9%	164 100.0%
Yorkshire & The Humber	10 6.5%	145 93.5%	62 61.4%	39 38.6%	72 28.1%	184 71.9%	256 100.0%
Total	197 9.4%	1903 90.6%	942 63.2%	548 36.8%	1139 31.7%	2451 68.3%	3590 100.0%

## 2. Graphical Representation of Candidate Scores by Deanery, by source of PMQ

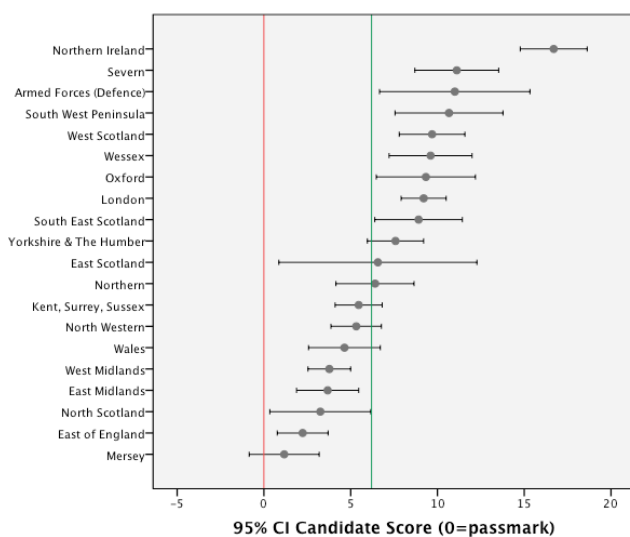
### UK Graduates, First Attempt



### Non-UK Graduates, First Attempt



### All Graduates, All Attempts





## E: Summary of Feedback Statements

The table gives the numbered feedback statements in order of prevalence, overall, and by candidate PMQ group (EG 15.6% of all cases seen by examiners were characterized by the candidate failing to develop a shared management plan.)

<b>All Candidates N = 46,670 Cases</b>	<b>% within Group</b>
15 Does not develop a shared management plan, demonstrating an ability to work in partnership with the patient	15.6%
02 Does not recognise the issues or priorities in the consultation (for example, the patient's problem, ethical dilemma etc)	14.9%
07 Does not develop a management plan (including prescribing and referral) reflecting knowledge of current best practice	14.7%
01 Disorganised / unstructured consultation	11.4%
03 Shows poor time management	11.3%
14 Does not identify or use appropriate psychological or social information to place the problem in context	10.0%
09 Does not demonstrate an awareness of management of risk or make the patient aware of relative risks of different options	9.7%
12 Does not identify or explore information about patient's agenda, health beliefs & preferences	8.9%
11 Does not appear to develop rapport or show sensitivity for the patient's feelings	8.8%
13 Does not make adequate use of verbal & non-verbal cues. Poor active listening skills	8.1%
06 Does not make the correct working diagnosis or identify an appropriate range of differential possibilities	7.9%
16 Does not use language and/or explanations that are relevant and understandable to the patient	7.8%
08 Does not make adequate arrangements for follow-up and safety netting	7.1%
04 Does not identify abnormal findings or results or fails to recognise their implications	6.6%
05 Does not undertake physical examination competently, or use instruments proficiently	5.4%
10 Does not attempt to promote good health at opportune times in the consultation	3.2%
<b>UK Graduates N = 27,300 Cases</b>	
07 Does not develop a management plan (including prescribing and referral) reflecting knowledge of current best practice	11.4%
02 Does not recognise the issues or priorities in the consultation (for example, the patient's problem, ethical dilemma etc)	11.2%
15 Does not develop a shared management plan, demonstrating an ability to work in partnership with the patient	11.1%
03 Shows poor time management	8.6%
09 Does not demonstrate an awareness of management of risk or make the patient aware of relative risks of different options	7.7%
14 Does not identify or use appropriate psychological or social information to place the problem in context	7.7%
01 Disorganised / unstructured consultation	6.9%
06 Does not make the correct working diagnosis or identify an appropriate range of differential possibilities	6.4%
12 Does not identify or explore information about patient's agenda, health beliefs & preferences	6.1%
08 Does not make adequate arrangements for follow-up and safety netting	5.6%
13 Does not make adequate use of verbal & non-verbal cues. Poor active listening skills	5.5%
04 Does not identify abnormal findings or results or fails to recognise their implications	5.4%
11 Does not appear to develop rapport or show sensitivity for the patient's feelings	5.1%
05 Does not undertake physical examination competently, or use instruments proficiently	4.7%
16 Does not use language and/or explanations that are relevant and understandable to the patient	3.8%
10 Does not attempt to promote good health at opportune times in the consultation	2.8%
<b>Non-UK Graduates N = 19,370 Cases</b>	
15 Does not develop a shared management plan, demonstrating an ability to work in partnership with the patient	21.9%
02 Does not recognise the issues or priorities in the consultation (for example, the patient's problem, ethical dilemma etc)	20.2%
07 Does not develop a management plan (including prescribing and referral) reflecting knowledge of current best practice	19.4%
01 Disorganised / unstructured consultation	17.7%
03 Shows poor time management	15.0%
11 Does not appear to develop rapport or show sensitivity for the patient's feelings	14.1%
16 Does not use language and/or explanations that are relevant and understandable to the patient	13.4%
14 Does not identify or use appropriate psychological or social information to place the problem in context	13.2%
12 Does not identify or explore information about patient's agenda, health beliefs & preferences	12.8%
09 Does not demonstrate an awareness of management of risk or make the patient aware of relative risks of different options	12.6%
13 Does not make adequate use of verbal & non-verbal cues. Poor active listening skills	11.9%
06 Does not make the correct working diagnosis or identify an appropriate range of differential possibilities	9.9%
08 Does not make adequate arrangements for follow-up and safety netting	9.2%
04 Does not identify abnormal findings or results or fails to recognise their implications	8.3%
05 Does not undertake physical examination competently, or use instruments proficiently	6.5%
10 Does not attempt to promote good health at opportune times in the consultation	3.7%

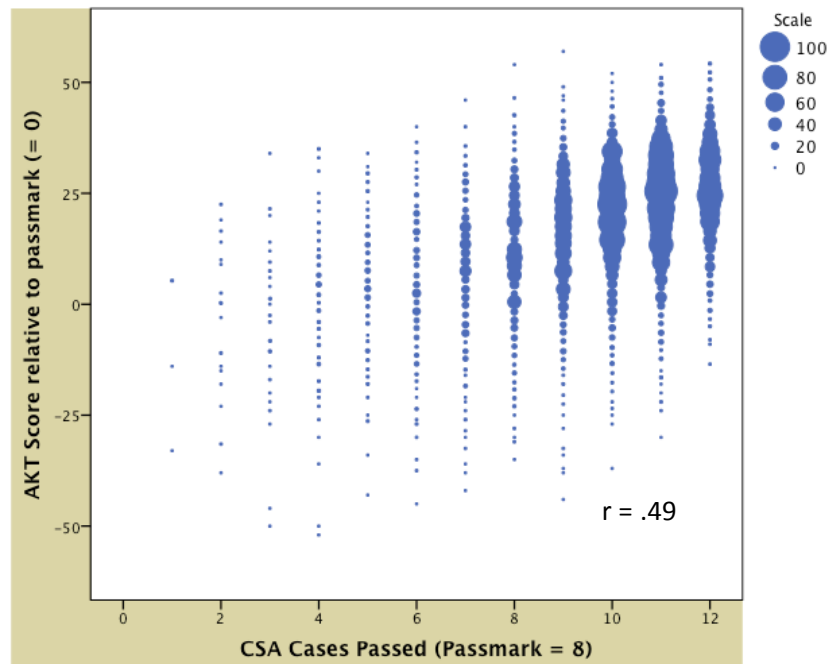
## 5: Inter-component Statistics and Analytical Statistics of Test Quality

### Inter-component Statistics

Currently it is only possible to make comparisons between the performance of candidates between the AKT and the CSA. Even this is not straightforward: until recently, candidates were able to take the AKT at any time in their training, and the CSA at any time in their final year; thus one candidate may take both tests at about the same time in their training, another might take them two years apart; and of course candidates can have more than one attempt at either test.

That said, many candidates take the AKT early in ST3 and the CSA in the middle of ST3. When numbers are large (hundreds) in this situation, typical correlations between AKT and CSA are around 0.5. An analysis of three years' of CSA and AKT data (first attempts only) showed a correlation between the two components of 0.49 ( $n = 1,670$ ).

The accompanying scatterplot is an example from these data showing the relationship between the AKT and CSA scores of candidates taking each component for the first time between 2007 and 2010. (The CSA was then in the form described in previous reports, using 12 cases and a passing standard of eight cases passed.)



### Test Quality Information: AKT

Coefficient alpha (and the measurement error estimate) of the three diets of the AKT is straightforwardly calculated. Alpha continues to be very constant and was .92, .88 and .89 for the three diets; no items were excluded from any diet due to underperformance; and the SEM was 2.8% - 2.9%. These quality indicators continue to describe a multi-choice assessment which is performing to an excellent standard.

### Test Quality Information: CSA

Estimating and representing the reliability of a clinical test of the form of the CSA is more difficult using classical psychometric test theory. In a multi-choice test such as the AKT, all the candidates have to respond to all the test items, which are exactly the same for everyone (roughly 1000 candidates/diet). The 'items' (stations or cases) in the CSA are only the same for a day at a time (max 78 candidates), and indeed there are different sets of examiners on each of the three circuits—so there is only true comparability for 26 candidates.

This is of course not at all unusual in a high stakes clinical test, where a variety of imperatives conflict—eg item consistency vs test security and fairness. The number taking the CSA moreover varies considerably between diets.

Thus the quality of the CSA is monitored both qualitatively and quantitatively, the latter at a number of levels of detail with different objectives—but with reliability and fairness always foremost in mind. Reliability (eg an alpha coefficient) is explored with reference to both days and circuits, towards case, palette and examiner monitoring and development. Daily alpha coefficients—probably something which it is fair to assess, combining circuits across examiners—give a reasonable indication of reliability, but they are also very dependent on the variance in candidate ability. And analyses show that the range and variance in ability of candidate groups varies greatly day on day: here, ability can be estimated not just from a rather self-fulfilling analysis of CSA performance, but by looking at predictive surrogates (eg degree origin) and correlates (eg AKT performance). Finally, the alpha coefficient is estimated on the basis of scores which have relatively limited variance (0-9 on a case), tending to minimise the consequent alpha coefficients.

On this basis, overall, in 2010 the CSA daily alpha averaged 0.73 (0.70 in 2008, 0.72 in 2009: under the old, 12-case system). In 2010, the range was 0.56 to 0.85. (NB Typographical errors corrected from a previous report.)

In 2010-11, over the four diets here reported, the daily alpha coefficient averaged 0.77, with a range of .64 to .86. The Standard Error of Measurement ranged by diet from 5.1% to 5.4%, averaging 5.2% across diets.

\* \* \*