

# MRCGP Statistics 2013-2014

## Annual Report (August 2013 – July 2014) on the results of the AKT and CSA Assessments

### Introduction

This Report relates to the formal MRCGP assessments conducted in the academical year 2013-14. It presents the statistics that summarise the outcomes of all the diets of the MRCGP examinations during that period – the Applied Knowledge Test (AKT) and the Clinical Skills Assessment (CSA) – three diets of each.

The Report first presents an updated summary of both of these assessments and their standard-setting procedures, to orientate new readers. Full background information on the MRCGP, the AKT and the CSA (and also the largely 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:

- Candidate Demographics:  
Source/Year of Primary Medical Qualification, Sex, Ethnic Group, Training Deanery, UK Medical School
- Main Results: Overall and by Exam Diet and Attempt
- Results by Individual Demographics (candidates on first attempt)
- Overview of Results by Training Deanery

And in addition:

- AKT mean sub-component scores, by candidate year of training
- CSA feedback statements for all candidates: aggregate summaries by source of PMQ
- CSA case performance by curriculum areas
- CSA: information about sex and ethnic group of role players

Some additional tables conclude the report which is descriptive, only. Data are presented without psychometric comment other than that which follows and at the end of the report, reviewing test accuracy and reliability. Candidates self-report their demographic variables, but wherever possible these are checked against the GMC's List of Registered Medical Practitioners. The 'attempt' is from the College's records.

This Report has been developed following comments from members of the College's Assessment Development Committee, including the Deanery/LETB representatives. As in previous reports, it presents fairly detailed comparisons between Deaneries, as requested.

### Please Note:

**a) Confounding of variables:** as in previous years, there are many significant differences between sub-groups on their performance on both the tests reported, for example by sex and country of primary medical training. But variables may well be confounded with others, to potential confusion of the unwary.

**b)** As increasing use is made by both overseas and UK candidates of **medical schools in countries other than those of domicile**, 'country of primary medical qualification' should not be equated with 'country of origin/secondary education'. This applies particularly to medical qualifications from certain Caribbean and central- and eastern-European countries. Data from the PLAB office show that, after Pakistani and Indian nationals, British nationals are the third commonest group (by nationality) to sit the PLAB assessments.

### Acknowledgements:

I thank the two Clinical Assessment Leads (currently: Carol Blow, AKT and Adrian Freeman CSA) for their support in preparing this report. They wrote the introductory comments on their respective components and scanned the draft report – as did the Chief Examiner, Pauline Foreman, to whom I am also grateful.

Richard Wakeford  
December 2014

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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/LETBs, 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-validation).

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** (an integrated 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, Educational Supervisors and others

The curriculum, the training and the assessments are based on medical practice in the UK National Health Service. Entry to the assessments is only permissible to doctors undergoing GP training within the UK state health care system (though GP 'returners' may take the AKT). Accordingly, no candidates based in other countries take these assessments, as happens in certain other Royal Colleges' examinations. (The College has other arrangements to support GPs practising in other countries and who seek affiliation or Membership through the quite separate 'MRCGP [International]' assessment route, see the College 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

The multi-choice **Applied Knowledge Test** is a 3-hr 200-item computer-delivered and marked assessment which was previously available in any of the three years of training (Year 1 = ST1 etc); for candidates who commenced training since August 2010, the AKT has only been available in the ST2, 3 and additional 4th years. 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 tables/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 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, newly-qualified GPs, 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 sometimes 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

The **Clinical Skills Assessment** is an OSCE-style assessment using simulated patients or role players that may be taken only in the final year of training (Year 3 = ST3, or the fourth year of an extended training programme). The CSA comprises 13 cases or 'stations' and is delivered in a purpose-built assessment centre in the College's new headquarters building in Euston. Up to (and normally) three circuits run simultaneously.

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

Cases, written by dedicated writers who are practising GPs, present typical clinical scenarios that a UK GP will encounter. Cases are written to represent the diversity of the whole UK population. 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.

The standard-setting method used is the borderline group method, as recommended to the College by the Regulator (the GMC). Each case is graded on three domains: Data Gathering, Technical and Assessment Skills; Clinical Management Skills; and Interpersonal Skills. Each domain is graded as: Clear Fail – Fail – Pass – Clear Pass. For standard-setting purposes only, the examiners also provide a grade to indicate the certainty of their judgement on that case – in particular if they felt that overall the candidate may be on the borderline between pass and fail.

The domain grades awarded on a case are given a numerical equivalent (zero to three, respectively) and combined to provide a case score: these are summated over the 13 cases to give a final score (which will be between zero and 117). The "cut score" – the half-way point between pass and fail – is established by the normal 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 recently-qualified GPs, lay representatives, and key stakeholders from the training community.

The overall standard of the assessment is set by ensuring that 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 to calibrate the whole panel regularly and maintain process validity.

The reliability of the CSA is estimated by calculating Cronbach's alpha using the numerical scores and accuracy calculated by 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 pass mark (zero).

## 2: General Notes on the Tables and Statistics

### General Notes: Conventions in the Charts and Tables

Tables are accompanied where possible by charts, to assist those who prefer visual summaries of data.

With data protection issues in mind, tables containing personal data have generally been adjusted so as to report only on 5+ individuals.

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**

Charts unrelated to candidate performance – eg age -- **GREEN**

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

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

Certain 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 identification.

**NB Log Scale !**

Certain tables contain data customarily also supplied to the GMC, and these are separated out into UK, EEA (plus Switzerland: i.e. those countries whose nationals have the right to work in the UK), and 'rest of the world' graduates (RoW). Elsewhere, the two last groups (EEA and RoW) are combined into a single group – 'IMGs'; this is due to a general overall similarity in performance between the EEA and RoW groups, small numbers in the former, and increasing practical overlap of the two groups with both British and overseas (non-EEA) students taking EEA qualifications.

### Note regarding the Interpretation of the AKT statistics

Some candidates appear twice (431) or three times (42) within this annual database on the AKT, because of retakes. Except in the Summary of Demographic Information, the statistics "for all candidates" aggregate all 3685 candidates' 4158 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 heading. 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 a few 'GP returners'. The figures in this report refer only to candidates 'in training' and thus eligible for the MRCGP.

### Note regarding the Interpretation of the CSA statistics

Two databases were constructed for the 2013-14 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 to provide the information on 'feedback statements' in the final table of the report and summaries of overall case performance. Some candidates appear twice (546) or three times (55) within this database on the CSA, because of retakes. Except in the demographic Information, the statistics "for all candidates" aggregate all 3355 candidates' 3956 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' personal background data is self-reported on registration for assessments. It is thus subject to entry error, though major data fields have been checked by reference to the GMC's LRMP
- For the same reason, data are occasionally missing: most notably, 106 AKT candidate-attempts and 60 CSA candidate-attempts have no record for candidate ethnicity, which we are not able to check by reference to the LRMP
- 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

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

### 3: AKT Statistics

#### A: Summary of Candidate Demographics

3685 candidates made a total of 4158 attempts at the AKT during 2013-14. The tables below show the origin of the 3685 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 age distribution of the candidates is proxied by their year of primary qualification, and then the background demographic characteristics of the 3685 are shown, by training Deanery. Other tables report on the attempts.

#### 1. Source of Candidates' Primary Medical Qualification; year of qualification

**Overall Source of Candidates' Primary Medical Qualification**

Area of Primary Medical Qualification	Frequency	Percent
UK	2792	75.8
EEA (plus Switzerland)	128	3.5
Rest of the World	765	20.8
<b>Total</b>	<b>3685</b>	<b>100.0</b>

**Country of Qualification: Candidates from the EEA and Switzerland**

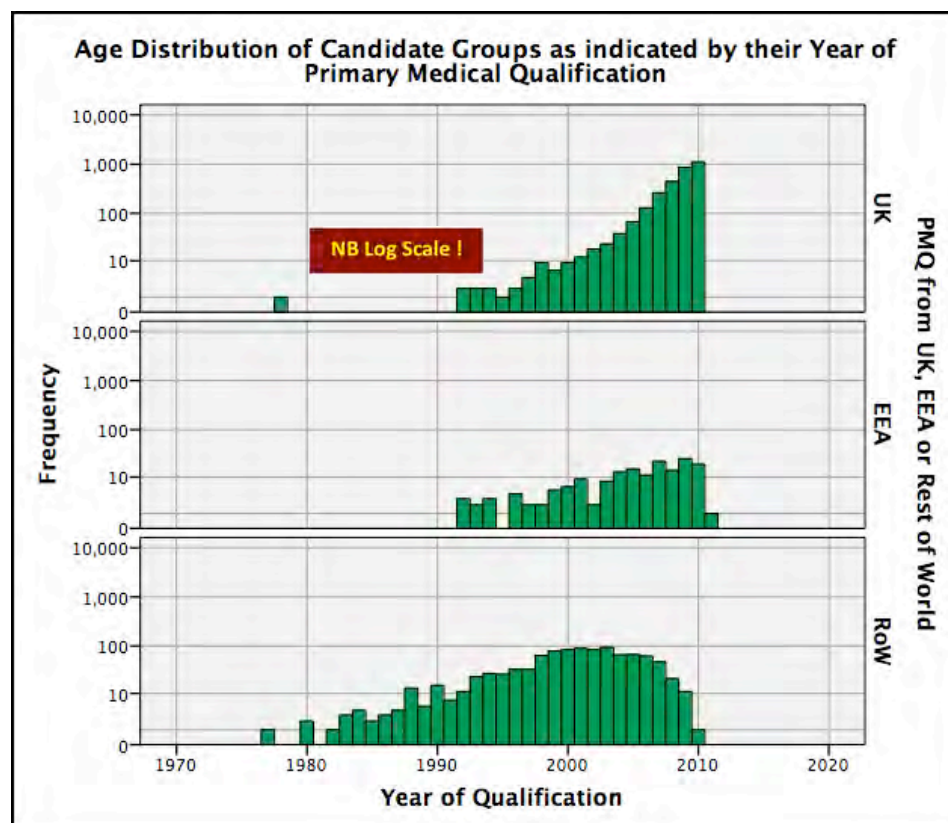
Country of PMQ	Frequency	Percent
Bulgaria	7	5.5
Czech Republic	33	25.8
Germany	8	6.3
Hungary	5	3.9
Ireland	19	14.8
Poland	20	15.6
Romania	13	10.2
Other countries (< 5 each)	23	18.0
<b>Total</b>	<b>128</b>	<b>100.0</b>

**Country of Qualification: Candidates from the Rest of the World**

Country of PMQ	Frequency	Percent
Afghanistan	6	.8
Bangladesh	22	2.9
Egypt	12	1.6
Ghana	6	.8
India	189	24.7
Iran	11	1.4
Iraq	34	4.4
Nigeria	126	16.5
Pakistan	216	28.2
Philippines	6	.8
Russia	14	1.8
South Africa	5	.7
Sri Lanka	8	1.0
St Kitts and Nevis	7	.9
Sudan	6	.8
Ukraine	20	2.6
Other countries (< 5 each)	77	10.1
<b>Total</b>	<b>765</b>	<b>100.0</b>

**UK Qualified Candidates: Medical School**

Medical School of Qualification	Frequency	Percent
Aberdeen	74	2.7
Belfast	60	2.1
Birmingham	182	6.5
Brighton and Sussex	41	1.5
Bristol	69	2.5
Cambridge	31	1.1
Cardiff / Wales (incl Swansea)	116	4.2
Dundee	53	1.9
Edinburgh	80	2.9
Glasgow	72	2.6
Hull York	59	2.1
Keele	9	.3
Leeds	130	4.7
Leicester	109	3.9
Liverpool	142	5.1
London - Barts & the London	172	6.2
London - Imperial College	101	3.6
London - King's College	164	5.9
London - St George's	125	4.5
London - University College	102	3.7
Manchester	208	7.4
Newcastle	147	5.3
Non-Uni Lic Body	1	.0
Norwich (UEA)	63	2.3
Nottingham	116	4.2
Oxford	35	1.3
Peninsula	65	2.3
Sheffield	121	4.3
Southampton	88	3.2
Warwick	57	2.0
<b>Total</b>	<b>2792</b>	<b>100.0</b>



## 2. AKT Candidates' Sex and whether UK, EEA or International Graduates, by Training Deanery (or LETB)

Deanery / LETB	Candidate Sex		Source of PMQ			Total
	Female	Male	UK	EEA	RoW	
Armed Forces (Defence)	23	21	44	0	0	44
	52.30%	47.70%	100.00%	0.00%	0.00%	100.00%
East Midlands	138	113	154	12	85	251
	55.00%	45.00%	61.40%	4.80%	33.90%	100.10%
East of England	220	131	218	24	109	351
	62.70%	37.30%	62.10%	6.80%	31.10%	100.00%
East Scotland	18	9	24	1	2	27
	66.70%	33.30%	88.90%	3.70%	7.40%	100.00%
Kent, Surrey, Sussex	205	121	214	16	96	326
	62.90%	37.10%	65.60%	4.90%	29.40%	99.90%
London	305	106	394	8	9	411
	74.20%	25.80%	95.90%	1.90%	2.20%	100.00%
Mersey	108	54	112	5	45	162
	66.70%	33.30%	69.10%	3.10%	27.80%	100.00%
North Scotland	37	19	39	2	15	56
	66.10%	33.90%	69.60%	3.60%	26.80%	100.00%
North Western	157	138	203	4	88	295
	53.20%	46.80%	68.80%	1.40%	29.80%	100.00%
Northern	110	77	121	10	56	187
	58.80%	41.20%	64.70%	5.30%	29.90%	99.90%
Northern Ireland	58	14	66	4	2	72
	80.60%	19.40%	91.70%	5.60%	2.80%	100.00%
Oxford	71	32	92	2	9	103
	68.90%	31.10%	89.30%	1.90%	8.70%	100.00%
Severn	93	39	130	0	2	132
	70.50%	29.50%	98.50%	0.00%	1.50%	100.00%
South East Scotland	52	23	66	3	6	75
	69.30%	30.70%	88.00%	4.00%	8.00%	100.00%
South West Peninsula	51	28	75	1	3	79
	64.60%	35.40%	94.90%	1.30%	3.80%	100.00%
Wales	77	31	87	2	19	108
	71.30%	28.70%	80.60%	1.90%	17.60%	100.00%
Wessex	98	57	121	7	27	155
	63.20%	36.80%	78.10%	4.50%	17.40%	100.00%
West Midlands	226	147	256	18	99	373
	60.60%	39.40%	68.60%	4.80%	26.50%	100.00%
West Scotland	84	77	111	5	45	161
	52.20%	47.80%	68.90%	3.10%	28.00%	100.00%
Yorkshire & The Humber	193	123	264	4	48	316
	61.10%	38.90%	83.50%	1.30%	15.20%	100.00%
Total	2324	1360	2791	128	765	3684
	63.10%	36.90%	75.80%	3.50%	20.80%	100.00%

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

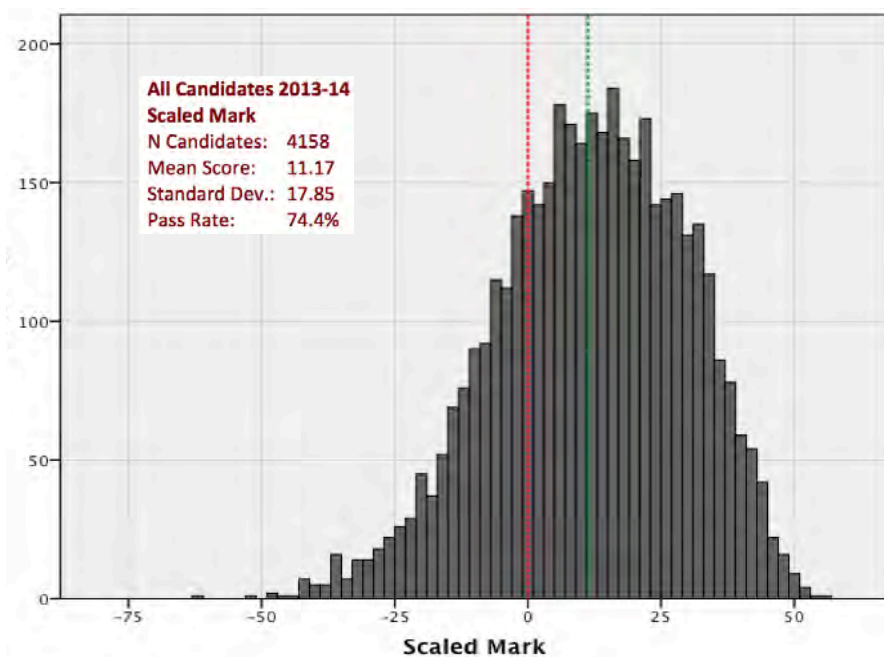
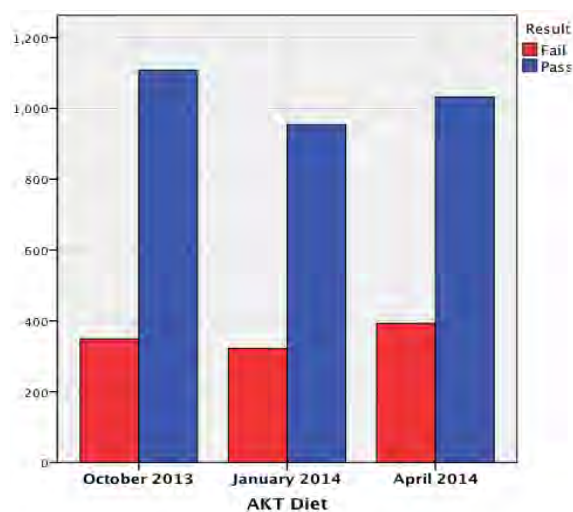
### 1. AKT Result & Scores (scaled; pass mark = 0), overall and by exam diet (all candidates)

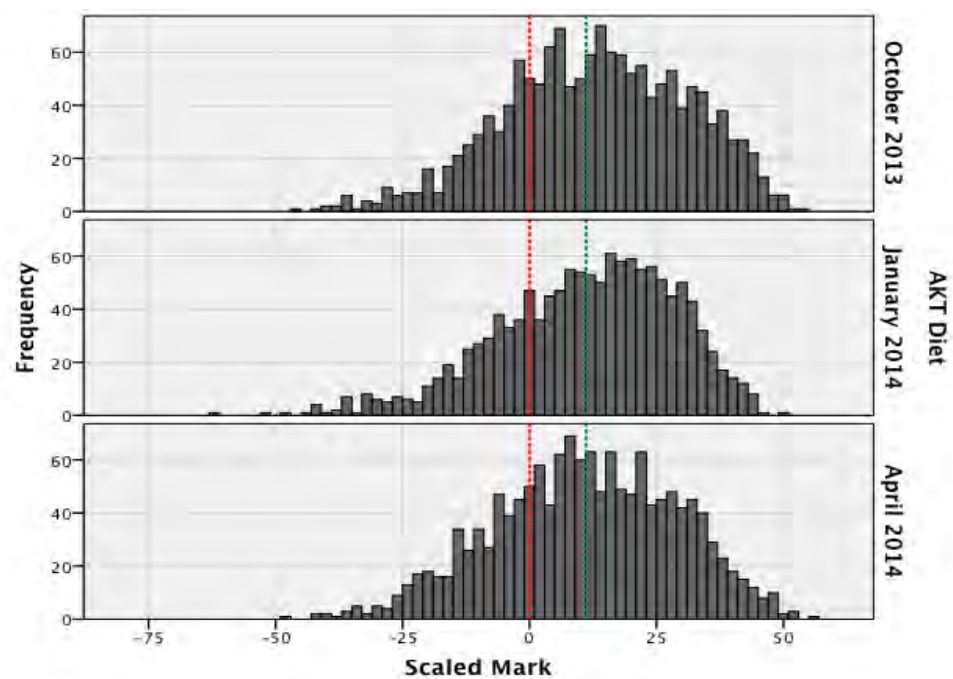
#### Descriptive Statistics

AKT Diet	N	Minimum	Maximum	Mean	Std. Deviation
October 2013	1457	-47	54	12.45	17.97
January 2014	1276	-62	49	10.63	17.49
April 2014	1425	-48	56	10.35	17.99

#### Result

AKT Diet		N	%
October 2013	Fail	349	23.95
	Pass	1108	76.05
January 2014	Fail	322	25.24
	Pass	954	74.76
April 2014	Fail	393	27.58
	Pass	1032	72.42





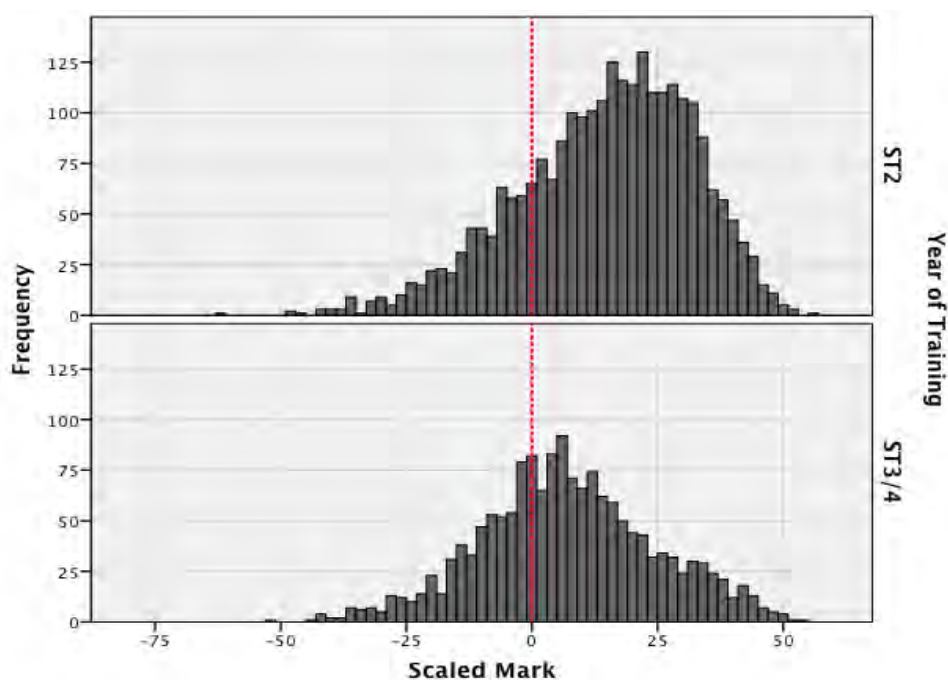
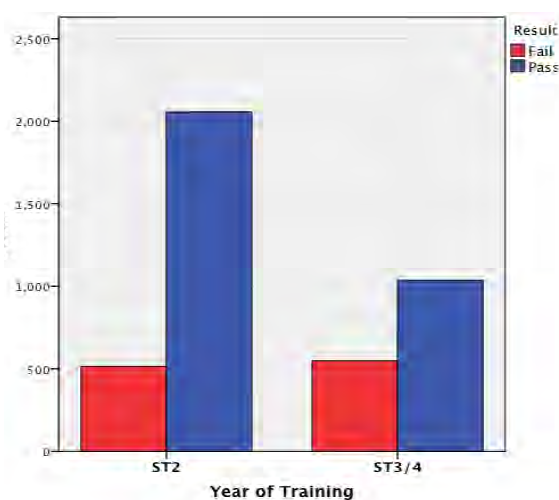
## 2. AKT Result and scores, by Stage (Year) of Training (all candidates)

### Descriptive Statistics

Year of Training	N	Minimum	Maximum	Mean	Std. Deviation
ST2	2572	-62	56	14.08	17.45
ST3/4	1586	-52	54	6.45	17.48

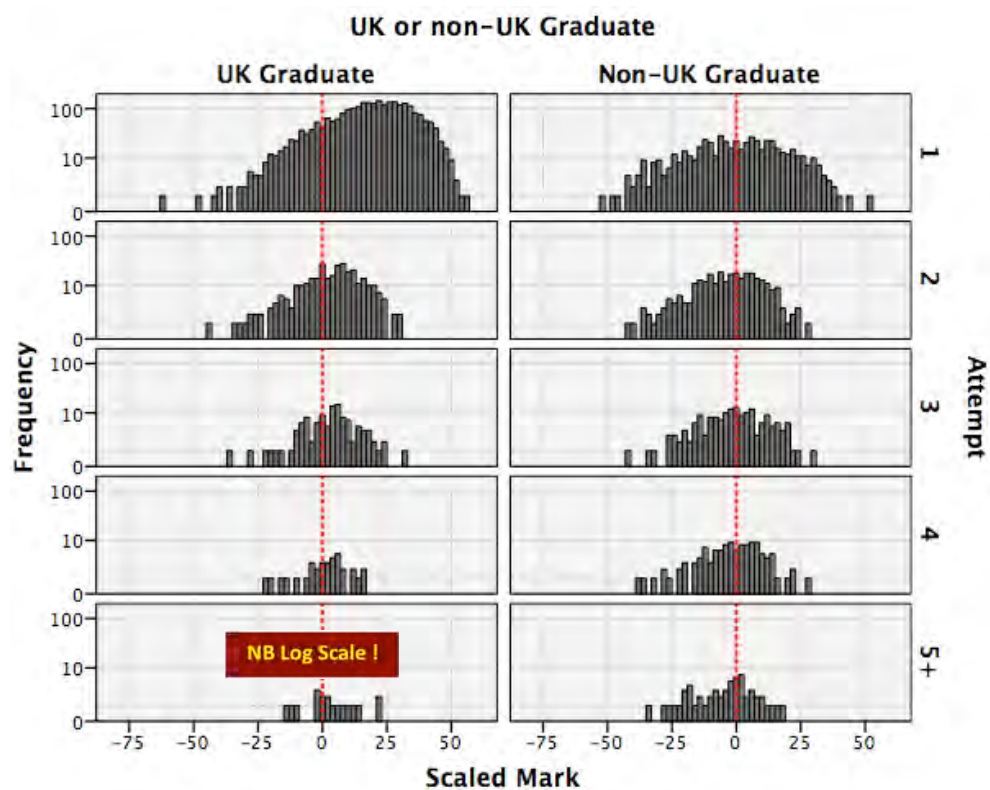
### Result

Year of Training		N	%
ST2	Fail	515	20.02
	Pass	2057	79.98
ST3/4	Fail	549	34.62
	Pass	1037	65.38



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

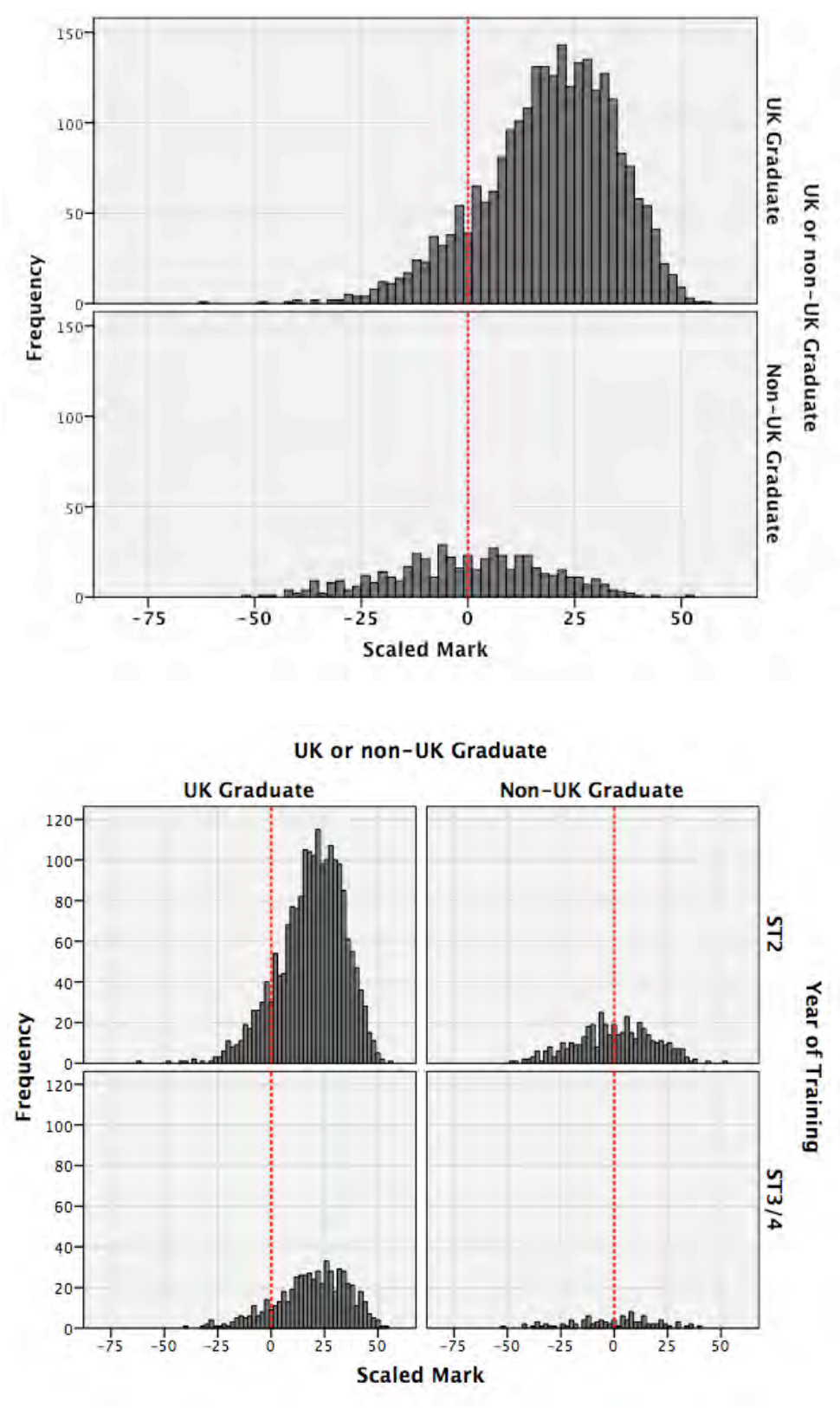
UK or non-UK Graduate	Attempt	Result				Total N
		Fail		Pass		
		N	%	N	%	
UK Graduate	1	308	12.1%	2235	87.9%	2543
	2	104	34.3%	199	65.7%	303
	3	39	34.8%	73	65.2%	112
	4	13	39.4%	20	60.6%	33
	5+	7	38.9%	11	61.1%	18
	All	471	15.7%	2538	84.3%	3009
Non-UK Graduate	1	256	48.4%	273	51.6%	529
	2	157	55.9%	124	44.1%	281
	3	87	52.4%	79	47.6%	166
	4	60	51.7%	56	48.3%	116
	5+	33	57.9%	24	42.1%	57
	All	593	51.6%	556	48.4%	1149
All	1	564	18.4%	2508	81.6%	3072
	2	261	44.7%	323	55.3%	584
	3	126	45.3%	152	54.7%	278
	4	73	49.0%	76	51.0%	149
	5+	40	53.3%	35	46.7%	75
	All	1064	25.6%	3094	74.4%	4158



**Descriptive Statistics: Scaled Mark**

Attempt	UK or non-UK Graduate	N	Minimum	Maximum	Mean	Std. Deviation
1	UK Graduate	2543	-62	56	18.54	15.617
	Non-UK Graduate	529	-52	51	-.41	18.415
2	UK Graduate	303	-44	30	3.12	11.962
	Non-UK Graduate	281	-43	27	-3.54	13.070
3	UK Graduate	112	-37	31	2.67	10.746
	Non-UK Graduate	166	-42	30	-1.47	12.844
4	UK Graduate	33	-22	16	.45	9.428
	Non-UK Graduate	116	-39	28	-2.18	12.178
5+	UK Graduate	18	-15	22	2.83	10.394
	Non-UK Graduate	57	-35	17	-5.14	11.798

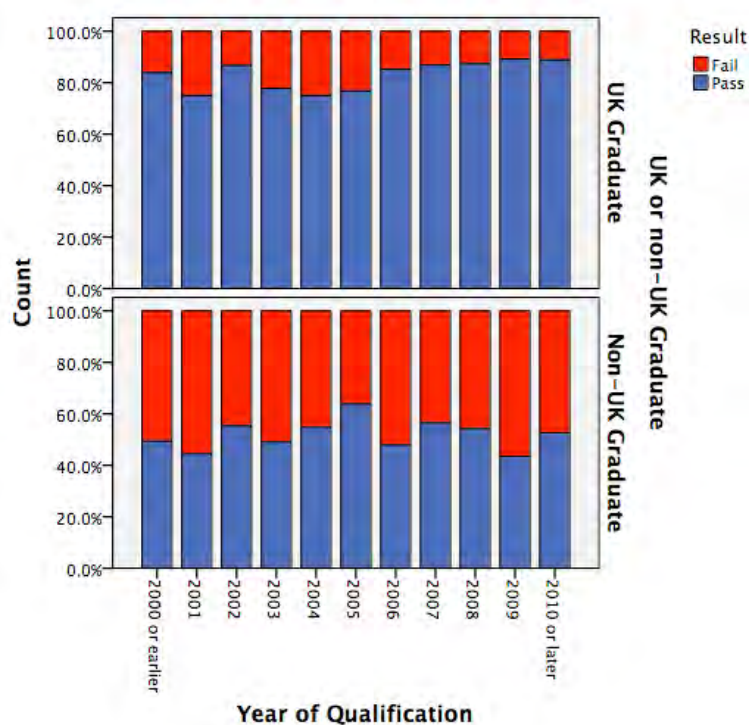
4. Score on AKT on a) first attempt (linear scale) and b) by ST Year on first attempt by source of PMQ, UK and non-UK Graduates compared



## 5. Result on AKT on first attempt by year of qualification for UK and non-UK Graduates

**Year of Qualification \* UK or non-UK Graduate**  
Crosstabulation

Count	UK or non-UK Graduate		Total
	UK Graduate	Non-UK Graduate	
2000 or earlier	31	164	195
2001	8	36	44
2002	15	38	53
2003	18	51	69
2004	28	42	70
2005	43	47	90
2006	95	46	141
2007	198	39	237
2008	339	24	363
2009	702	23	725
2010 or later	1066	19	1085
Total	2543	529	3072



## 6. Candidates with Disabilities: prevalence by attempt and source of PMQ; outcomes

UK Equality Legislation supports examination candidates with disabilities in requesting '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 2013-14, together with the results of the assessments. SLD is the major disability reported. Disabilities other than SLD have been merged for reasons of small numbers and personal confidentiality, the commonest ones being physical disability and hearing impairment.

Note that SLD may not be diagnosed until a second or later attempt at the assessment.

There were 229 disabled candidate-attempts at the AKT (see first, blue, table below), representing 5.5% of attempts. The second, green table shows the outcomes for these candidates.

The overall number of successful attempts by candidates with disabilities was 146, or 64%.

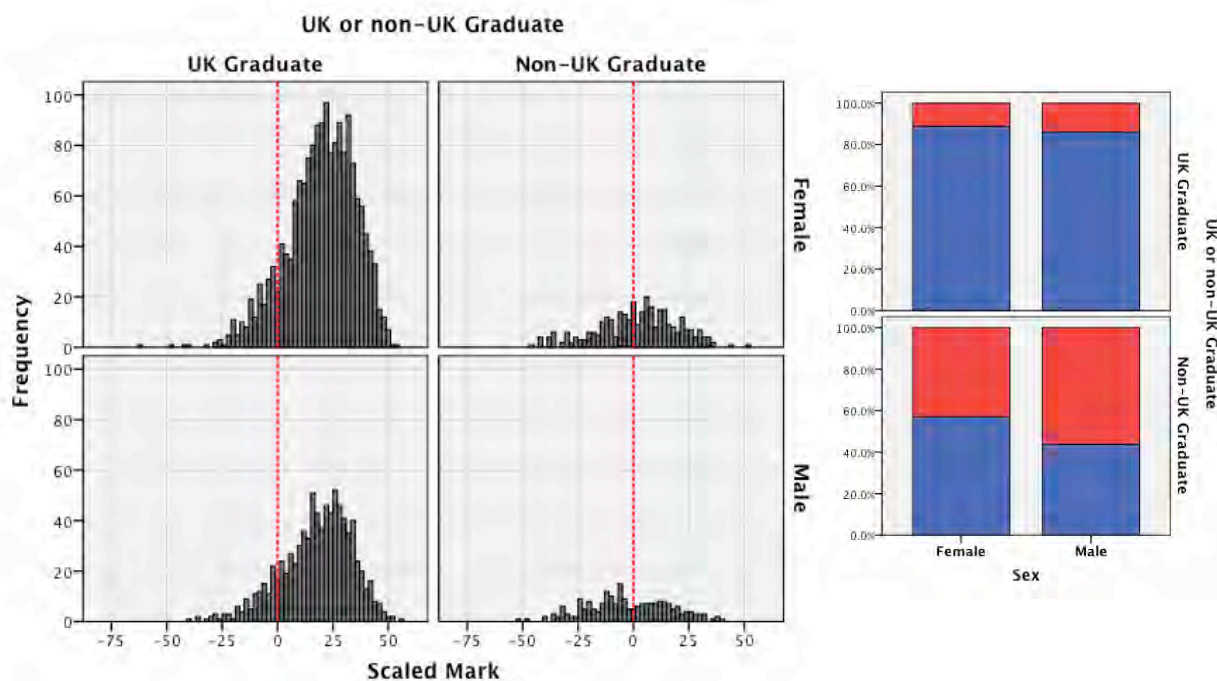
Candidates with Disabilities: Numbers by attempt, and source of PMQ								
Disability	Attempt					UK or non-UK Graduate		Total
	1	2	3	4	5+	UK Graduate	Non-UK Graduate	
Specific Learning Disability	78	21	25	23	19	124	42	166
Other (or > 1) Disability	28	12	10	6	7	34	29	63
No disability reported	2966	551	243	120	49	2851	1078	3929
Total	3072	584	278	149	75	3009	1149	4158

Candidates with Disabilities: Pass Rate (%) according to cells in table above								
Disability	Attempt					UK or non-UK Graduate		Total
	1	2	3	4	5+	UK Graduate	Non-UK Graduate	
Specific Learning Disability	71.8%	52.4%	60.0%	56.5%	57.9%	66.9%	54.8%	63.9%
Other (or > 1) Disability	71.4%	50.0%	70.0%	66.7%	42.9%	73.5%	51.7%	63.5%
No disability reported	82.0%	55.5%	53.5%	49.2%	42.9%	85.2%	48.1%	75.0%
Total	81.6%	55.3%	54.7%	51.0%	46.7%	84.3%	48.4%	74.4%

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

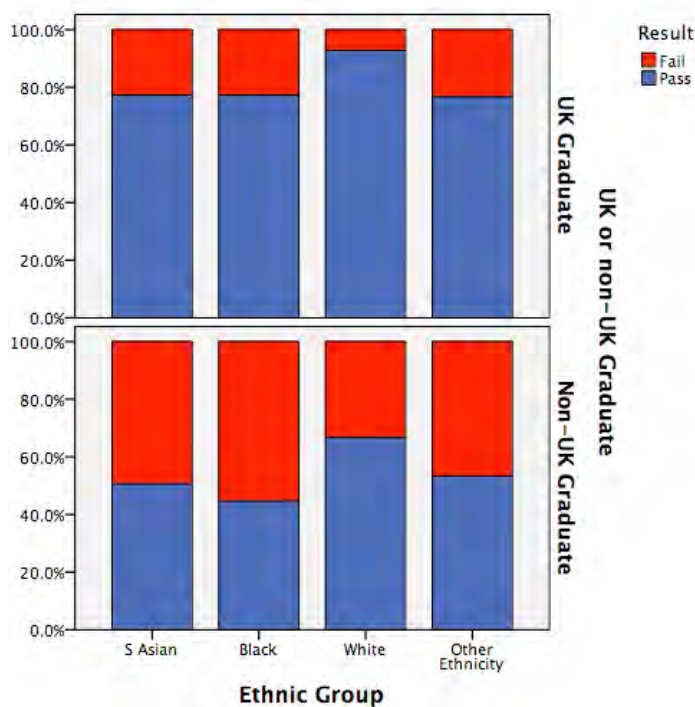
### 1. AKT Result and scores by candidate sex, and within source of PMQ (1<sup>st</sup> attempt)

Result by Candidate Sex						
UK or non-UK Graduate	Sex	Result				
		Fail		Pass		Total
		N	%	N	%	N
UK Graduate	Female	189	11.20%	1502	88.80%	1691
	Male	119	14.00%	733	86.00%	852
	Total	308	12.10%	2235	87.90%	2543
Non-UK Graduate	Female	135	43.00%	179	57.00%	314
	Male	121	56.30%	94	43.70%	215
	Total	256	48.40%	273	51.60%	529
Total	Female	324	16.20%	1681	83.80%	2005
	Male	240	22.50%	827	77.50%	1067
	Total	564	18.40%	2508	81.60%	3072



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

Result by Candidate Ethnicity						
UK or non-UK Graduate	Ethnic Group	Result				
		Fail		Pass		Total
		N	%	N	%	N
UK Graduate	S Asian	117	22.7%	399	77.3%	516
	Black	15	22.7%	51	77.3%	66
	White	125	7.3%	1591	92.7%	1716
	Other Ethnicity	43	23.4%	141	76.6%	184
	Total	300	12.1%	2182	87.9%	2482
Non-UK Graduate	S Asian	142	49.5%	145	50.5%	287
	Black	61	55.5%	49	44.5%	110
	White	24	33.3%	48	66.7%	72
	Other Ethnicity	21	46.7%	24	53.3%	45
	Total	248	48.2%	266	51.8%	514
All Graduates	S Asian	259	32.3%	544	67.7%	803
	Black	76	43.2%	100	56.8%	176
	White	149	8.3%	1639	91.7%	1788
	Other Ethnicity	64	27.9%	165	72.1%	229
	Total	548	18.3%	2448	81.7%	2996

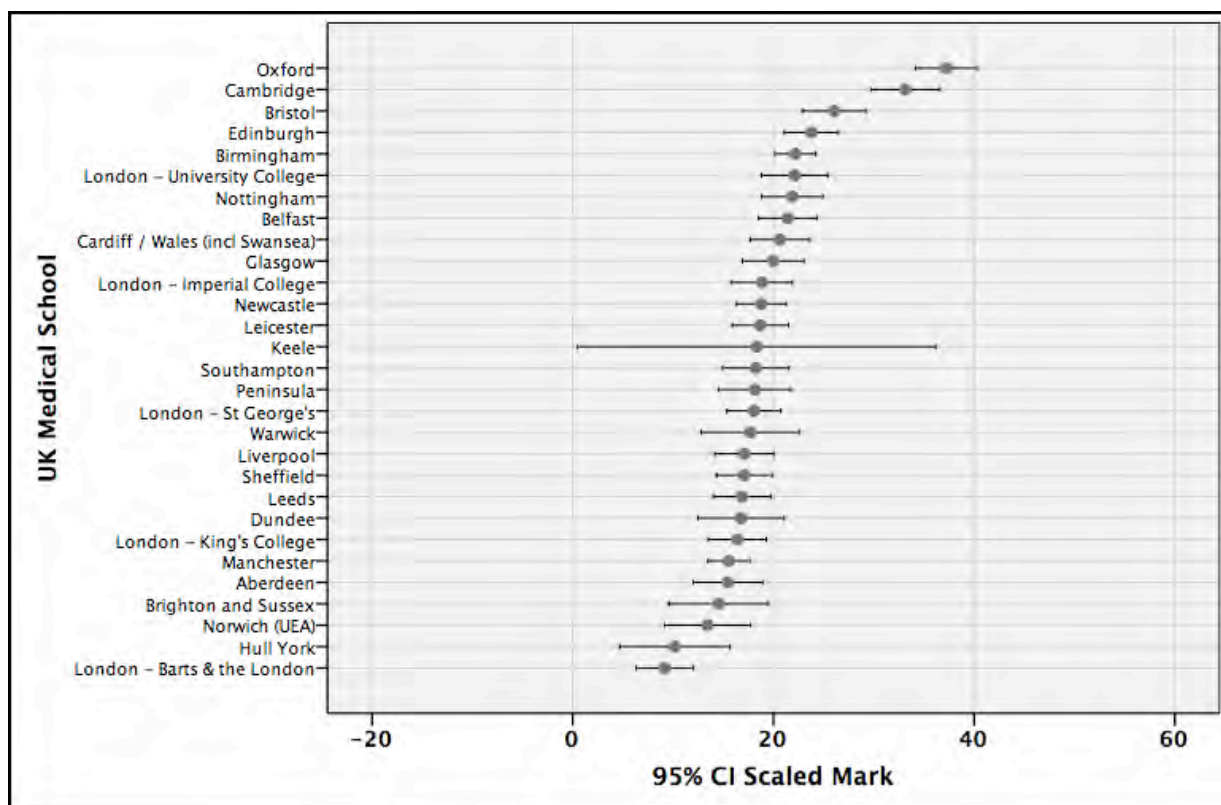


### 3. AKT Result and Scores by PMQ, subdivided (1<sup>st</sup> attempt)

#### UK Graduates

(Excluding one NULB qualified candidate)

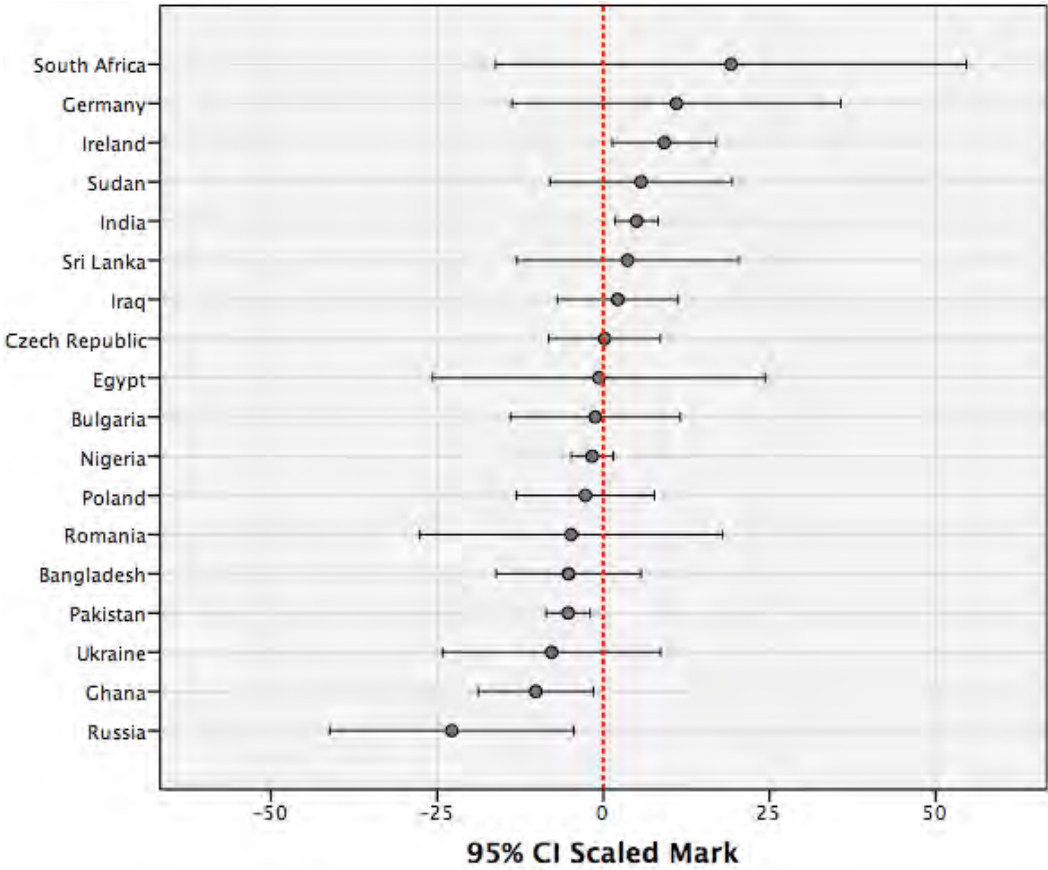
Performance by UK Medical School					
Medical School	N Cands	Scaled Mark			
		Min	Max	Mean	SD
Aberdeen	61	-23	43	15.48	13.52
Belfast	58	-3	43	21.43	11.04
Birmingham	172	-28	49	22.18	13.60
Brighton and Sussex	36	-11	36	14.53	14.68
Bristol	67	-2	56	26.04	13.04
Cambridge	31	3	45	33.16	9.45
Cardiff / Wales (incl Swansea)	110	-40	54	20.65	15.82
Dundee	48	-37	42	16.77	14.79
Edinburgh	80	-5	49	23.79	12.14
Glasgow	69	-9	46	19.99	12.75
Hull York	50	-29	52	10.18	19.34
Keele	9	-27	49	18.33	23.23
Leeds	118	-19	49	16.87	15.70
Leicester	98	-16	49	18.70	13.97
Liverpool	124	-29	44	17.10	16.57
London - Barts & the London	137	-62	48	9.18	16.83
London - Imperial College	96	-24	50	18.88	14.88
London - King's College	148	-42	49	16.40	17.79
London - St George's	114	-21	44	18.06	14.48
London - University College	93	-26	48	22.12	16.08
Manchester	185	-18	47	15.56	14.39
Newcastle	141	-48	43	18.80	14.85
Norwich (UEA)	55	-17	46	13.44	15.90
Nottingham	107	-33	48	21.89	15.87
Oxford	35	6	51	37.20	8.91
Peninsula	60	-16	49	18.17	13.88
Sheffield	110	-20	48	17.09	14.63
Southampton	79	-15	47	18.24	14.80
Warwick	51	-22	42	17.69	17.30



Non-UK Graduates (pass-rates only, in view of generally small numbers) (1st attempt)

Performance by Country of PMQ (excl.UK) (Countries with < 5 candidates are excluded)					
Country	Fail		Pass		Total N
	N	%	N	%	
Bangladesh	7	53.8%	6	46.2%	13
Bulgaria	2	40.0%	3	60.0%	5
Czech Republic	11	52.4%	10	47.6%	21
Egypt	3	50.0%	3	50.0%	6
Germany	2	33.3%	4	66.7%	6
Ghana	5	83.3%	1	16.7%	6
India	36	34.6%	68	65.4%	104
Iraq	8	44.4%	10	55.6%	18
Ireland	3	15.8%	16	84.2%	19
Nigeria	46	51.1%	44	48.9%	90
Pakistan	70	59.8%	47	40.2%	117
Poland	7	53.8%	6	46.2%	13
Romania	4	66.7%	2	33.3%	6
Russia	5	100.0%	0	0.0%	5
South Africa	1	20.0%	4	80.0%	5
Sri Lanka	3	37.5%	5	62.5%	8
Sudan	2	33.3%	4	66.7%	6
Ukraine	5	55.6%	4	44.4%	9

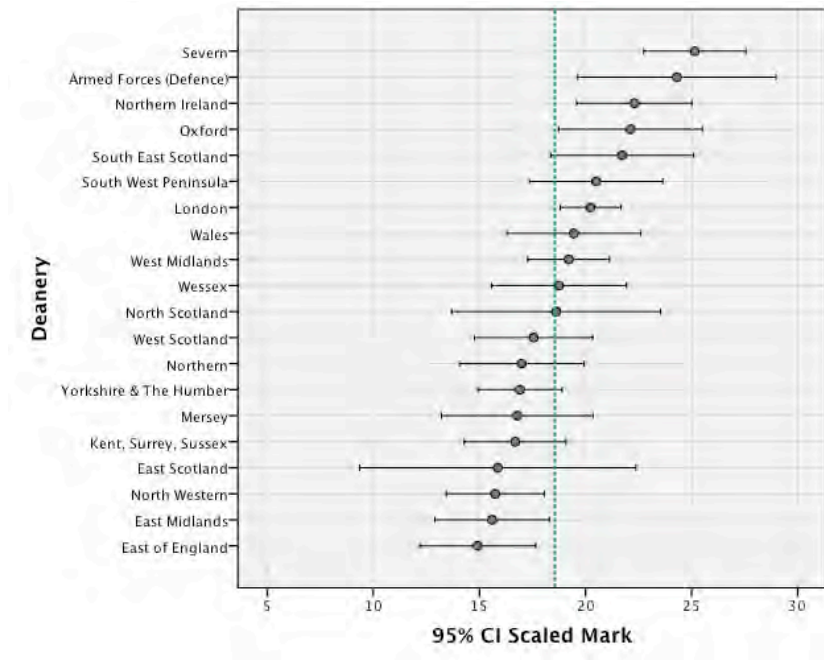
Non-UK Graduates – Countries with 5+ Candidates on First Attempt



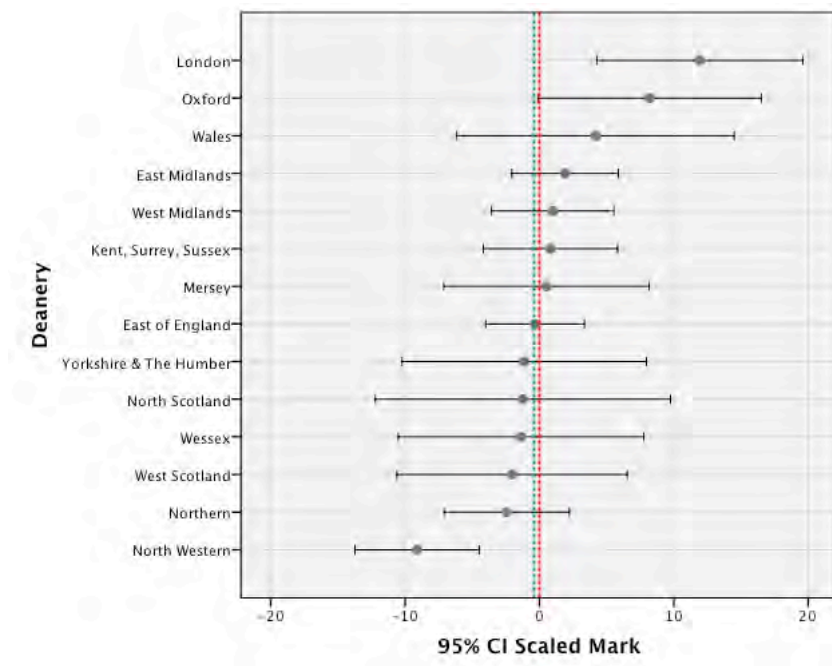
## D: Results by Training Deanery

### 1. Error bar graphs of mean Candidate Scores by Deanery, by source of PMQ

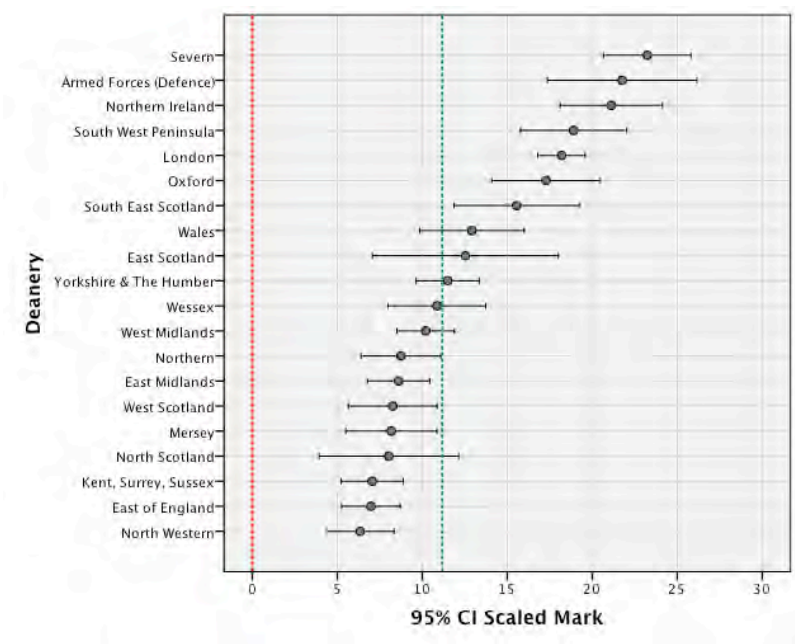
#### UK Graduates, First Attempt



#### Non-UK Graduates, First Attempt



All Graduates, All Attempts

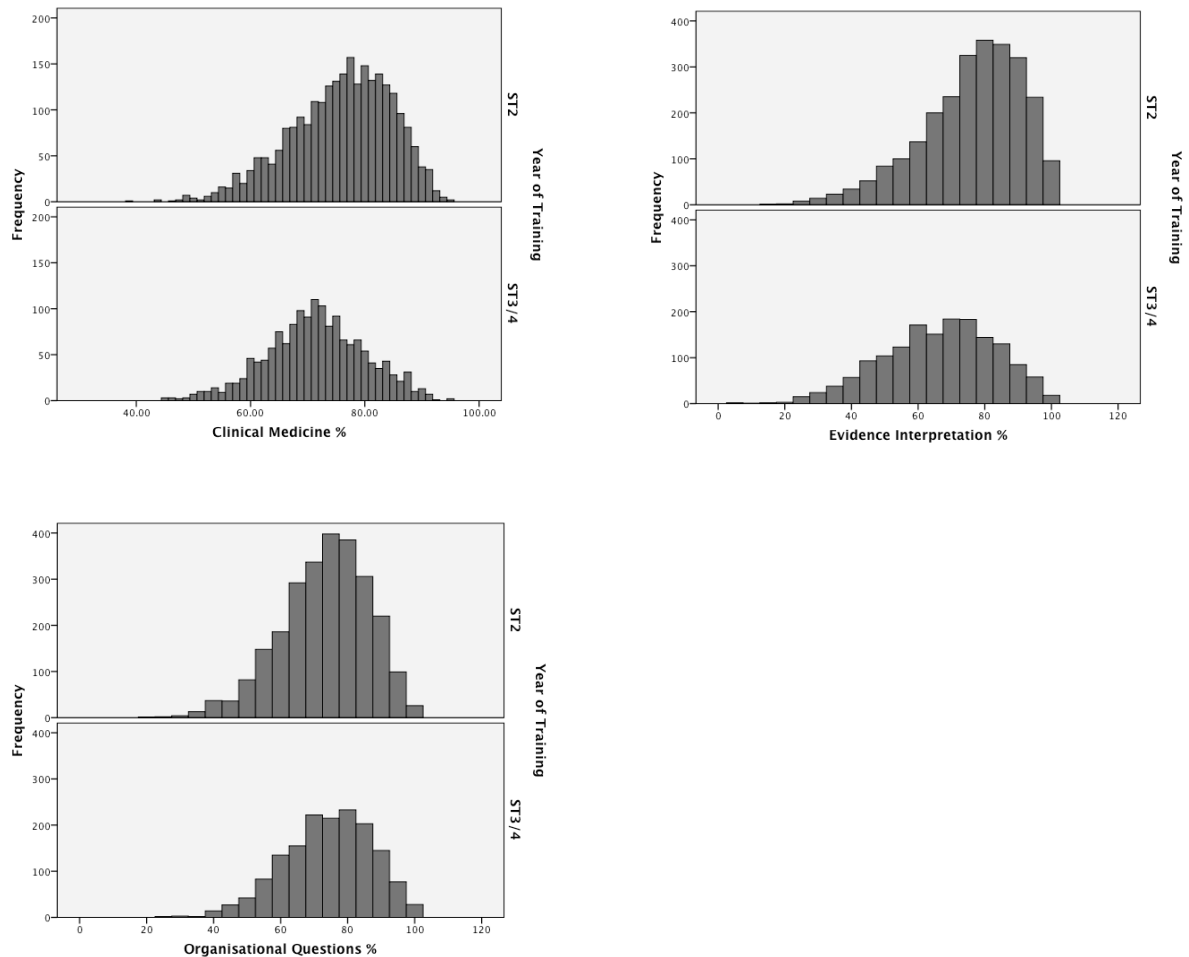


## E: AKT sub-Scores and Distributions, by Year of Training

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

Performance on the Sub-scales, by Training Year						
ST Year	Sub-score	N Cands	Score (percent)			
			Min	Max	Mean	SD
ST2	Clinical Medicine %	2572	38.75	95.00	75.50	8.85
	Evidence Interpretation %	2572	15.00	100.00	76.15	15.26
	Organisational Questions %	2572	20.00	100.00	73.16	13.10
ST3/4	Clinical Medicine %	1586	44.38	94.38	71.13	8.61
	Evidence Interpretation %	1586	5.00	100.00	66.31	16.92
	Organisational Questions %	1586	25.00	100.00	74.12	13.11

### 2. Distributions of Scores on the three sub-Components by Training Year, all candidates



## 4: CSA Statistics

### A: Summary of Candidate Demographics

3355 candidates made a total of 3956 attempts at the CSA during 2013-14. The tables below show the origin of the 3355 candidates, by UK medical school or (on the next page) non-UK country of primary medical qualification—and the percentage from each out of the total of that part of the candidature. Candidates' year of qualification (PMQ) is also shown, as a surrogate for age. On the following page, the background demographic characteristics of the 3355 are shown, by training Deanery. Other tables report on the 3956 attempts.

#### 1. Source of Primary Medical Qualification; year of qualification

**Overall Source of Candidates' Primary Medical Qualification**

Area of Primary Medical Qualification	Frequency	Percent
UK	2355	70.2
EEA (plus Switzerland)	106	3.2
Rest of the World	894	26.6
<b>Total</b>	<b>3355</b>	<b>100.0</b>

**Country of Qualification: Candidates from the EEA and Switzerland**

Country of PMQ	Frequency	Percent
Bulgaria	6	5.7
Czech Republic	17	16.0
Germany	7	6.6
Ireland	17	16.0
Poland	20	18.9
Romania	18	17.0
All other countries (< 5 in each)	21	19.8
<b>Total</b>	<b>106</b>	<b>100.0</b>

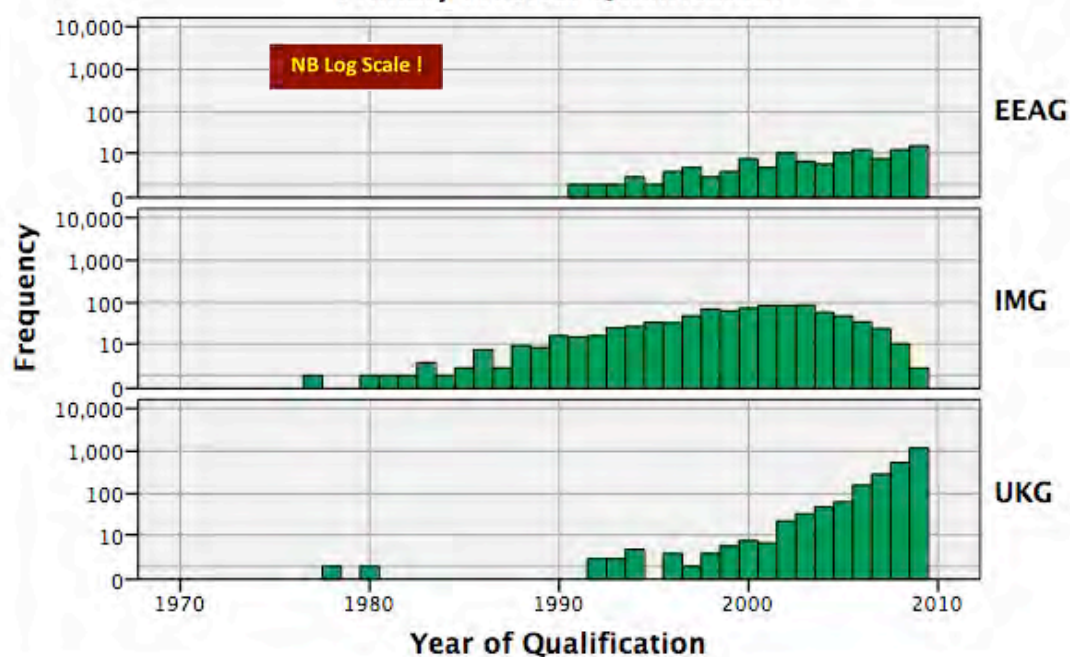
**Country of Qualification: Candidates from All Other Countries (Rest of the World) N = 894**

Country of PMQ	Frequency	Percent
Afghanistan	7	.8
Bangladesh	20	2.2
Egypt	10	1.1
Ghana	5	.6
India	279	31.2
Iran	18	2.0
Iraq	40	4.5
Nepal	6	.7
Nigeria	135	15.1
Pakistan	218	24.4
Philippines	7	.8
Russia	14	1.6
Saint Kitts and Nevis	7	.8
South Africa	6	.7
Sri Lanka	18	2.0
Syria	6	.7
Ukraine	27	3.0
All other countries (< 5 in each)	71	7.9

**UK Qualified Candidates: Medical School**

Medical School of Qualification	Frequency	Percent
Aberdeen	63	2.7
Belfast	42	1.8
Birmingham	162	6.9
Brighton and Sussex	36	1.5
Bristol	76	3.2
Cambridge	31	1.3
Cardiff / Wales (incl Swansea)	110	4.7
Dundee	46	2
Edinburgh	61	2.6
Glasgow	71	3
Hull York	54	2.3
Keele	5	0.2
Leeds	100	4.2
Leicester	94	4
Liverpool	121	5.1
London - Barts & the London	144	6.1
London - Imperial College	95	4
London - King's College	126	5.4
London - school unknown	2	0.1
London - St George's	90	3.8
London - University College	119	5.1
Manchester	187	7.9
Newcastle	102	4.3
Norwich (UEA)	34	1.4
Nottingham	84	3.6
Oxford	32	1.4
Peninsula	49	2.1
Sheffield	86	3.7
Southampton	73	3.1
Warwick	60	2.5
<b>Total</b>	<b>2355</b>	<b>100.0</b>

# Age Distribution of Candidate Groups as indicated by their Year of Primary Medical Qualification



## 2. CSA Candidates' Sex and whether UK or non-UK graduate, by Training Deanery/LETB

Deanery / LETB	Candidate Sex		Source of PMQ			Total
	Female	Male	UK	EEA	RoW	
Armed Forces (Defence)	14	17	31	0	0	31
	45.2%	54.8%	100.0%	0.0%	0.0%	100.0%
East Midlands	136	102	126	10	102	238
	57.1%	42.9%	52.9%	4.2%	42.9%	100.0%
East of England	179	141	179	21	120	320
	55.9%	44.1%	55.9%	6.6%	37.5%	100.0%
East Scotland	18	10	24	0	4	28
	64.3%	35.7%	85.7%	0.0%	14.3%	100.0%
Kent, Surrey, Sussex	172	137	169	14	126	309
	55.7%	44.3%	54.7%	4.5%	40.8%	100.0%
London	307	107	373	15	26	414
	74.2%	25.8%	90.1%	3.6%	6.3%	100.0%
Mersey	111	55	108	1	57	166
	66.9%	33.1%	65.1%	0.6%	34.3%	100.0%
North Scotland	28	24	36	1	15	52
	53.8%	46.2%	69.2%	1.9%	28.8%	100.0%
North Western	138	125	185	6	72	263
	52.5%	47.5%	70.3%	2.3%	27.4%	100.0%
Northern	89	71	100	7	53	160
	55.6%	44.4%	62.5%	4.4%	33.1%	100.0%
Northern Ireland	46	7	49	3	1	53
	86.8%	13.2%	92.5%	5.7%	1.9%	100.0%
Oxford	70	30	86	5	9	100
	70.0%	30.0%	86.0%	5.0%	9.0%	100.0%
Severn	81	35	110	0	6	116
	69.8%	30.2%	94.8%	0.0%	5.2%	100.0%
South East Scotland	43	24	52	3	12	67
	64.2%	35.8%	77.6%	4.5%	17.9%	100.0%
South West Peninsula	42	34	69	0	7	76
	55.3%	44.7%	90.8%	0.0%	9.2%	100.0%
Wales	86	41	97	2	28	127
	67.7%	32.3%	76.4%	1.6%	22.0%	100.0%
Wessex	73	59	98	3	31	132
	55.3%	44.7%	74.2%	2.3%	23.5%	100.0%
West Midlands	194	117	207	9	95	311
	62.4%	37.6%	66.6%	2.9%	30.5%	100.0%
West Scotland	55	68	76	2	45	123
	44.7%	55.3%	61.8%	1.6%	36.6%	100.0%
Yorkshire & The Humber	155	114	180	4	85	269
	57.6%	42.4%	66.9%	1.5%	31.6%	100.0%
Total	2037	1318	2355	106	894	3355
	60.7%	39.3%	70.2%	3.2%	26.6%	100.0%

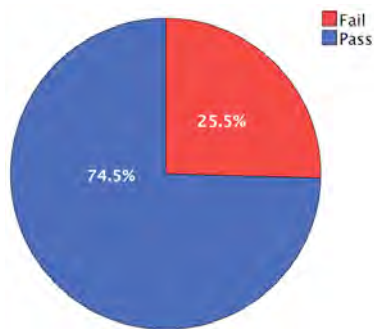
## B: Main Results: Overall, and by Exam Diet and Attempt (All Candidates)

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

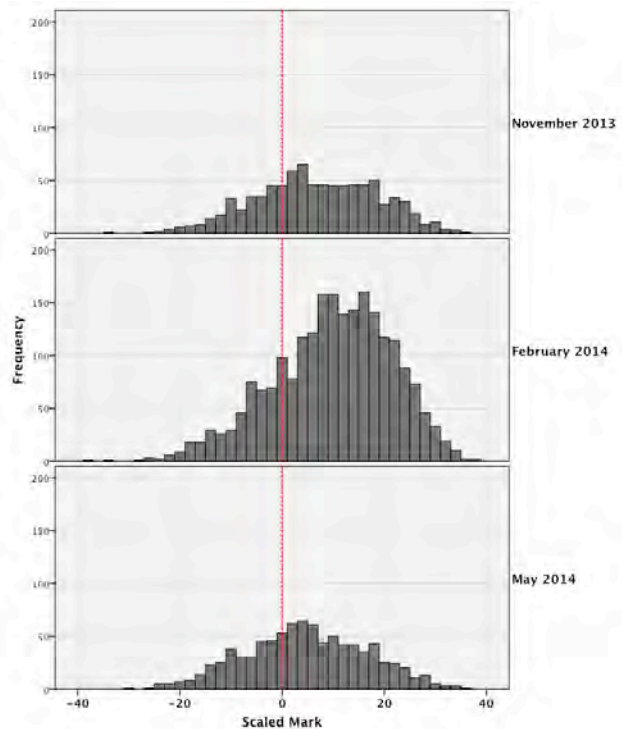
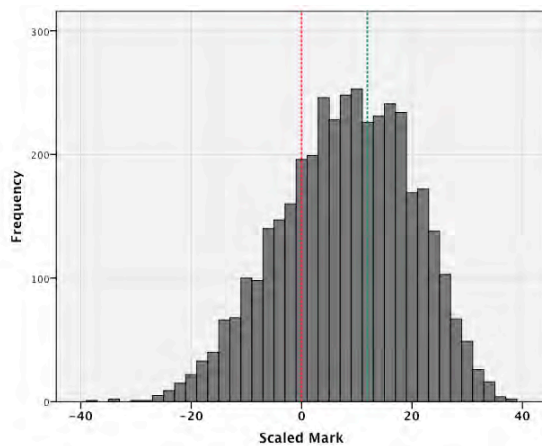
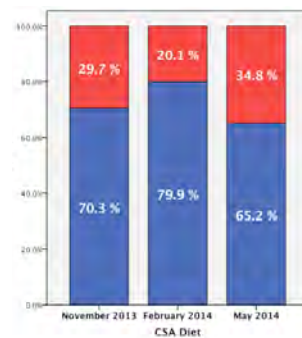
The pass-mark varies day-on-day (see introduction): marks have been re-scaled in this report to a pass-mark of zero

Results Overall and by Diet					
CSA Diet	Result				
	Fail		Pass		Total
	N	%	N	%	N
November 2013	255	29.7%	605	70.3%	860
February 2014	446	20.1%	1771	79.9%	2217
May 2014	306	34.8%	573	65.2%	879
<b>All Diets</b>	<b>1007</b>	<b>25.5%</b>	<b>2949</b>	<b>74.5%</b>	<b>3956</b>

All 3 Diets



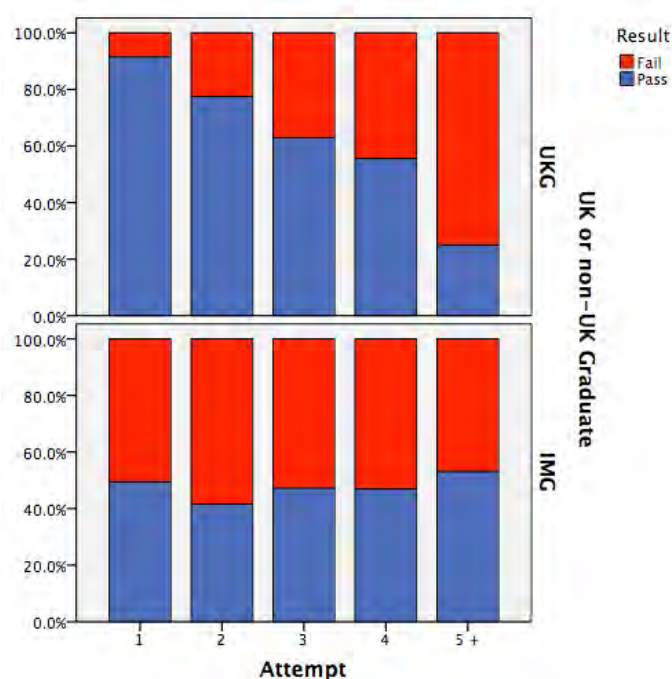
By Diet



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

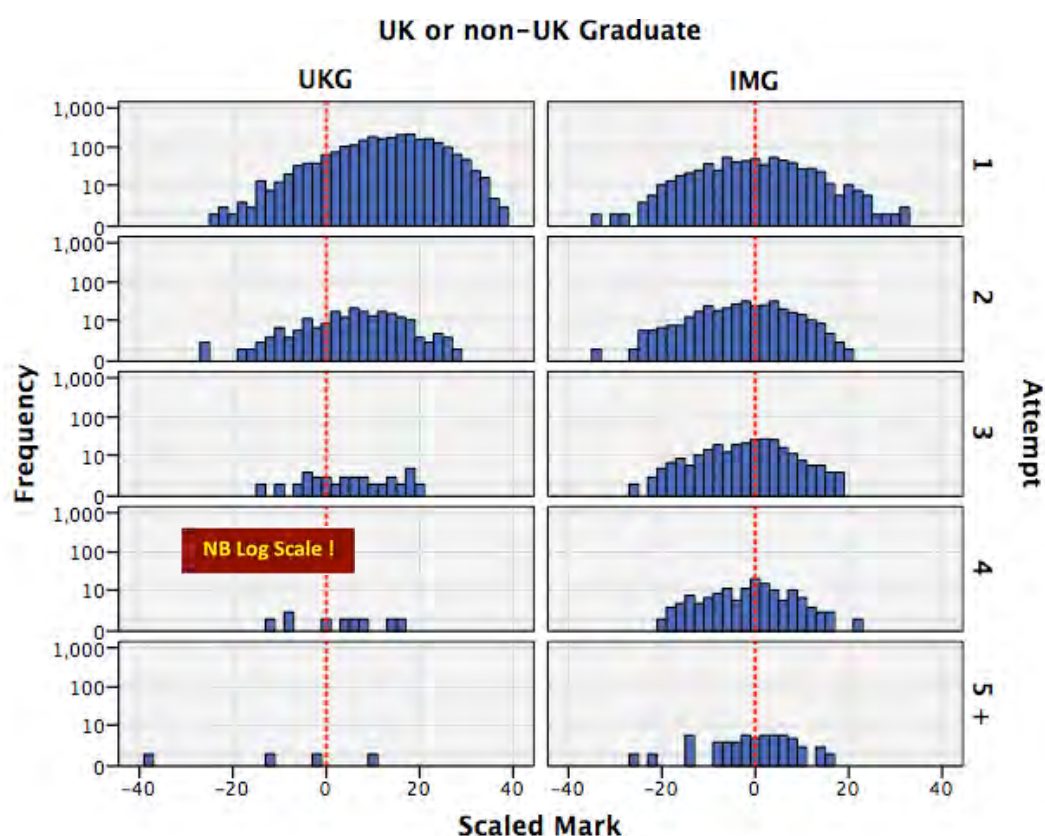
### Result

UK or non-UK Graduate	Attempt	Result				Total N
		Fail		Pass		
		N	%	N	%	
UK Graduate	1	197	8.5%	2109	91.5%	2306
	2	44	22.6%	151	77.4%	195
	3	10	37.0%	17	63.0%	27
	4	4	44.4%	5	55.6%	9
	5+	3	75.0%	1	25.0%	4
	All	258	10.2%	2283	89.8%	2541
Non-UK Graduate	1	325	50.5%	318	49.5%	643
	2	198	58.4%	141	41.6%	339
	3	132	52.8%	118	47.2%	250
	4	71	53.0%	63	47.0%	134
	5+	23	46.9%	26	53.1%	49
	All	749	52.9%	666	47.1%	1415
All Graduates	1	522	17.7%	2427	82.3%	2949
	2	242	45.3%	292	54.7%	534
	3	142	51.3%	135	48.7%	277
	4	75	52.4%	68	47.6%	143
	5+	26	49.1%	27	50.9%	53
	All	1007	25.5%	2949	74.5%	3956



# Candidates' Score, by Attempt and source of PMQ

Attempt	UK or non-UK Graduate	Descriptive Statistics				
		No. of Candidates	Min. Score	Max. Score	Mean Score	SD
1	UKG	2306	-25	37	13.23	9.65
	IMG	643	-35	31	-0.55	10.51
2	UKG	195	-27	27	5.84	9.68
	IMG	339	-35	20	-2.78	9.45
3	UKG	27	-14	19	5.00	9.62
	IMG	250	-26	18	-2.18	8.62
4	UKG	9	-12	16	1.67	10.17
	IMG	134	-20	21	-1.65	8.28
5+	UKG	4	-38	9	-11.00	20.12
	IMG	49	-26	16	-1.02	8.90



### 3. Candidates with Disabilities: prevalence by PMQ 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 2013-14, together with the results of the assessments. SLD is the most prevalent reported disability. Disabilities other than SLD have been merged for reasons of small numbers and personal confidentiality, the commonest being physical disability and hearing impairment.

There were 184 disabled candidate-attempts at the CSA (see blue table below), representing 4.7 % of all attempts, a continuing proportionate increase year-on-year. The second, green table shows the outcomes for these candidates.

The overall number of successful attempts by candidates with disabilities was 119, or 65%.

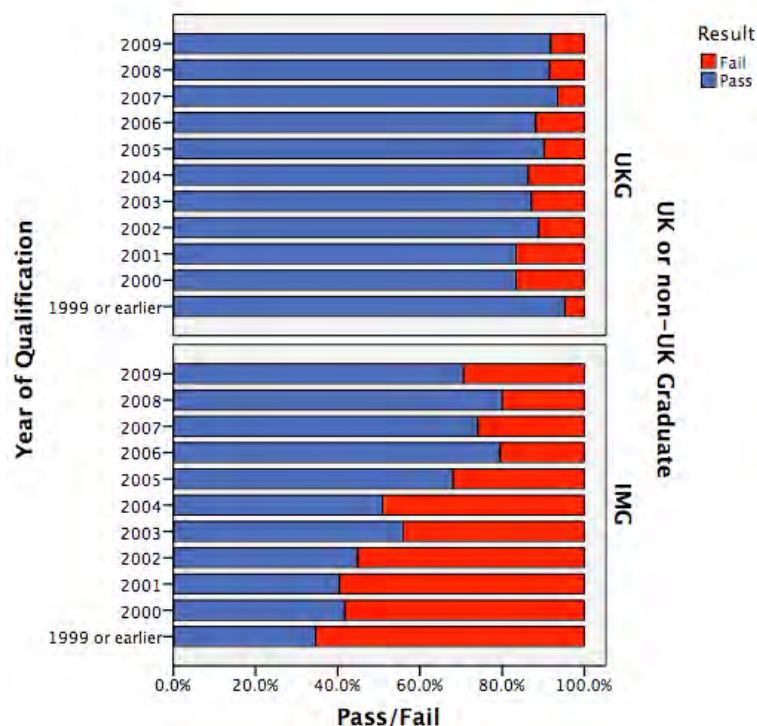
Candidates with Disabilities: Numbers by attempt, and source of PMQ								
Disability	Attempt					UK or non-UK Graduate		Total
	1	2	3	4	5+	UK Graduate	Non-UK Graduate	
Specific Learning Disability	55	18	14	6	3	60	36	96
Other (or > 1) Disability	55	15	7	8	3	42	46	88
No disability reported	2839	501	256	129	47	2439	1333	3772
Total	2949	534	277	143	53	2541	1415	3956

Candidates with Disabilities: Pass Rate (%) according to cells in table above								
Disability	Attempt					UK or non-UK Graduate		Total
	1	2	3	4	5+	UK Graduate	Non-UK Graduate	
Specific Learning Disability	78.2%	27.8%	50.0%	16.7%	33.3%	78.3%	27.8%	59.4%
Other (or > 1) Disability	80.0%	53.3%	42.9%	50.0%	100.0%	92.9%	50.0%	70.5%
No disability reported	82.4%	55.7%	48.8%	48.8%	48.9%	90.1%	47.5%	75.0%
Total	82.3%	54.7%	48.7%	47.6%	50.9%	89.8%	47.1%	74.5%

#### 4. Result on CSA on first attempt by year of qualification for UK and non-UK Graduates separately, and all candidates

Result by Candidates' Year of PMQ (First Attempt at CSA)

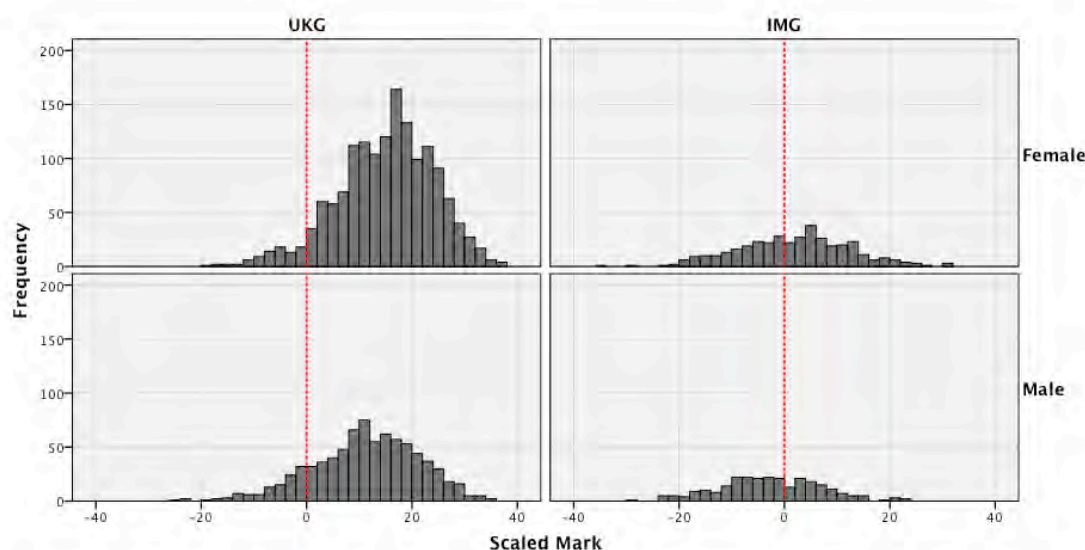
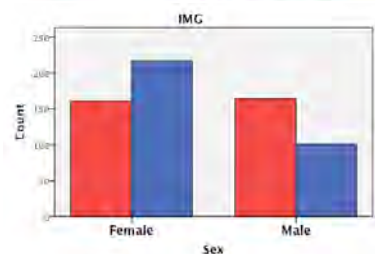
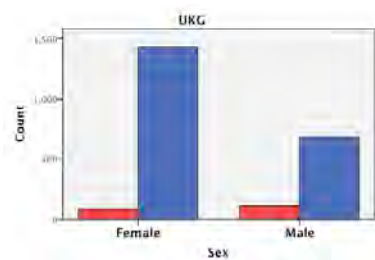
Year of Graduation	UK or Non-UK Graduate				All Graduates	
	UKG		IMG			
	N Sitting	% passing	N Sitting	% passing	N Sitting	% passing
1999 or earlier	21	95.2%	214	34.6%	235	40.0%
2000	6	83.3%	48	41.7%	54	46.3%
2001	6	83.3%	47	40.4%	53	45.3%
2002	18	88.9%	58	44.8%	76	55.3%
2003	31	87.1%	68	55.9%	99	65.7%
2004	44	86.4%	55	50.9%	99	66.7%
2005	61	90.2%	50	68.0%	111	80.2%
2006	152	88.2%	39	79.5%	191	86.4%
2007	275	93.5%	27	74.1%	302	91.7%
2008	517	91.5%	20	80.0%	537	91.1%
2009	1175	91.8%	17	70.8%	1192	91.5%
Total	2306	91.5%	643	49.5%	2949	82.3%



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

### 1. Result and scores by candidate sex, within source of PMQ, and within UK Medical School

Result by Candidate Sex						
UK or non-UK Graduate	Sex	Result				
		Fail		Pass		Total
		N	%	N	%	N
UK Graduate	Female	85	5.6%	1428	94.4%	1513
	Male	112	14.1%	681	85.9%	793
	Total	197	8.5%	2109	91.5%	2306
Non-UK Graduate	Female	161	42.6%	217	57.4%	378
	Male	164	61.9%	101	38.1%	265
	Total	325	50.5%	318	49.5%	643
Total	Female	246	13.0%	1645	87.0%	1891
	Male	276	26.1%	782	73.9%	1058
	Total	522	17.7%	2427	82.3%	2949

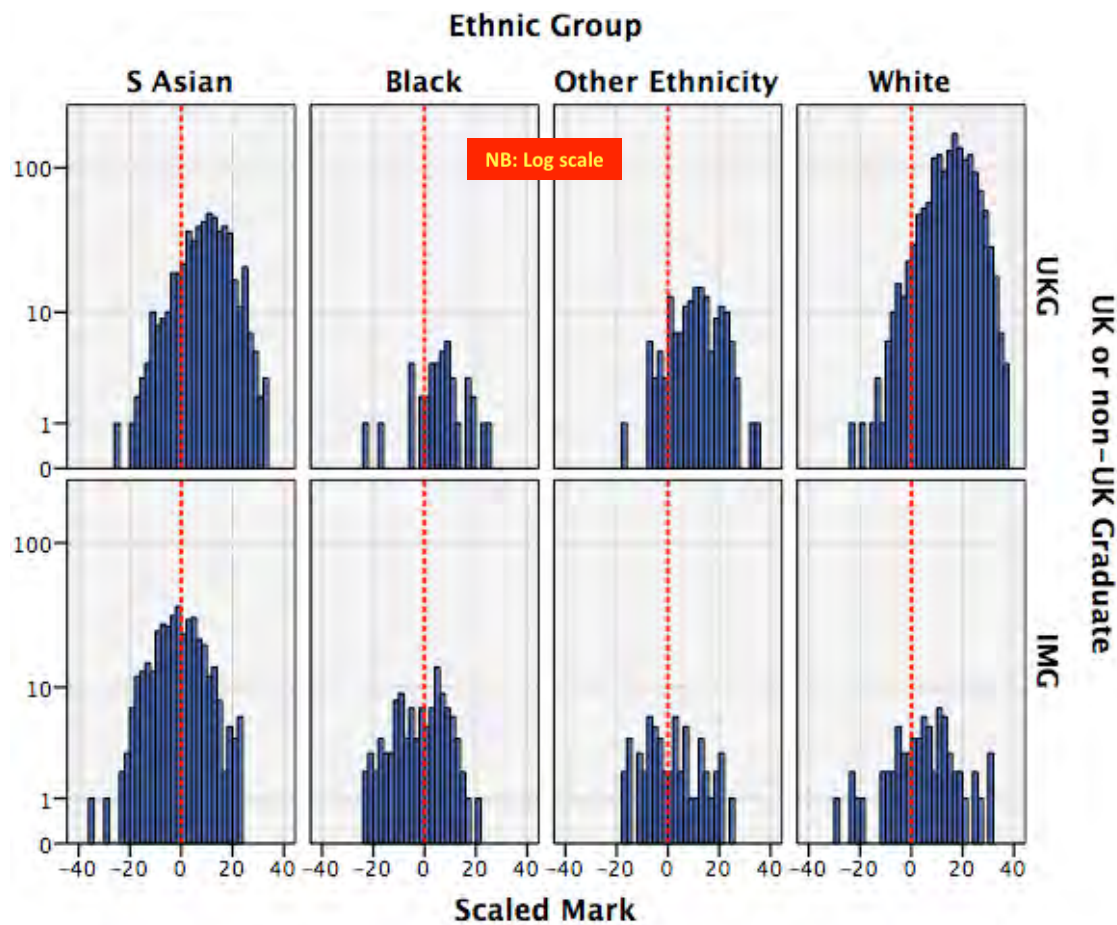
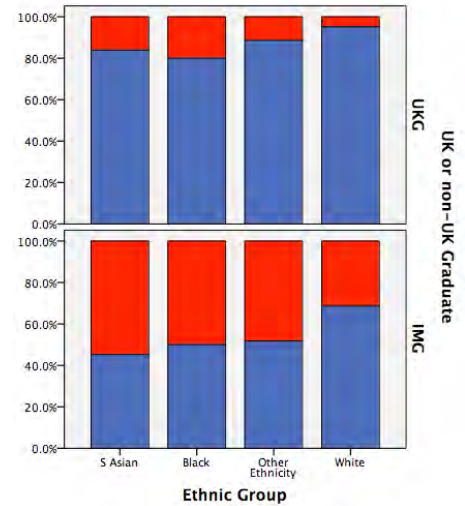


CSA Pass Rates of UK graduates at first attempt by Medical School and Sex									
UK Medical School	Women			Men			All		
	N	Fail	Pass	N	Fail	Pass	N	Fail	Pass
Aberdeen	38	5.3%	94.7%	24	20.8%	79.2%	62	11.3%	88.7%
Belfast	31	3.2%	96.8%	10	0.0%	100.0%	41	2.4%	97.6%
Birmingham	110	6.4%	93.6%	47	12.8%	87.2%	157	8.3%	91.7%
Brighton and Sussex	26	3.8%	96.2%	10	10.0%	90.0%	36	5.6%	94.4%
Bristol	53	1.9%	98.1%	22	13.6%	86.4%	75	5.3%	94.7%
Cambridge	25	4.0%	96.0%	6	33.3%	66.7%	31	9.7%	90.3%
Cardiff / Wales (incl Swansea)	69	1.4%	98.6%	40	10.0%	90.0%	109	4.6%	95.4%
Dundee	29	3.4%	96.6%	16	12.5%	87.5%	45	6.7%	93.3%
Edinburgh	46	2.2%	97.8%	13	7.7%	92.3%	59	3.4%	96.6%
Glasgow	46	2.2%	97.8%	24	4.2%	95.8%	70	2.9%	97.1%
Hull York	33	6.1%	93.9%	21	19.0%	81.0%	54	11.1%	88.9%
Leeds	69	5.8%	94.2%	31	12.9%	87.1%	100	8.0%	92.0%
Leicester	64	7.8%	92.2%	30	20.0%	80.0%	94	11.7%	88.3%
Liverpool	73	2.7%	97.3%	45	17.8%	82.2%	118	8.5%	91.5%
London - Barts & the London	78	12.8%	87.2%	58	25.9%	74.1%	136	18.4%	81.6%
London - Imperial College	63	9.5%	90.5%	31	6.5%	93.5%	94	8.5%	91.5%
London - King's College	83	9.6%	90.4%	40	12.5%	87.5%	123	10.6%	89.4%
London - St George's	46	8.7%	91.3%	44	18.2%	81.8%	90	13.3%	86.7%
London - University College	73	2.7%	97.3%	42	9.5%	90.5%	115	5.2%	94.8%
Manchester	125	6.4%	93.6%	57	15.8%	84.2%	182	9.3%	90.7%
Newcastle	69	4.3%	95.7%	32	18.8%	81.3%	101	8.9%	91.1%
Norwich (UEA)	23	13.0%	87.0%	10	30.0%	70.0%	33	18.2%	81.8%
Nottingham	53	1.9%	98.1%	29	17.2%	82.8%	82	7.3%	92.7%
Oxford	21	4.8%	95.2%	11	0.0%	100.0%	32	3.1%	96.9%
Peninsula	24	8.3%	91.7%	24	8.3%	91.7%	48	8.3%	91.7%
Sheffield	50	10.0%	90.0%	35	5.7%	94.3%	85	8.2%	91.8%
Southampton	50	0.0%	100.0%	19	10.5%	89.5%	69	2.9%	97.1%
Warwick	39	5.1%	94.9%	19	5.3%	94.7%	58	5.2%	94.8%
Total	1509	5.6%	94.4%	790	14.1%	85.9%	2299	8.5%	91.5%

Note: Candidates from Keele and an unknown London school have been excluded from this table because of small numbers

## 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 Ethnicity						
UK or non-UK Graduate	Ethnic Group	Result				
		Fail		Pass		Total
		N	%	N	%	N
UK Graduate	S Asian	86	16.1%	448	83.9%	534
	Black	8	20.0%	32	80.0%	40
	Other Ethnicity	18	11.5%	139	88.5%	157
	White	75	4.9%	1464	95.1%	1539
	Total	187	8.2%	2083	91.8%	2270
Non-UK Graduate	S Asian	216	54.8%	178	45.2%	394
	Black	56	50.0%	56	50.0%	112
	Other Ethnicity	28	48.3%	30	51.7%	58
	White	22	31.4%	48	68.6%	70
	Total	322	50.8%	312	49.2%	634
All Graduates	S Asian	302	32.5%	626	67.5%	928
	Black	64	42.1%	88	57.9%	152
	Other Ethnicity	46	21.4%	169	78.6%	215
	White	97	6.0%	1512	94.0%	1609
	Total	509	17.5%	2395	82.5%	2904

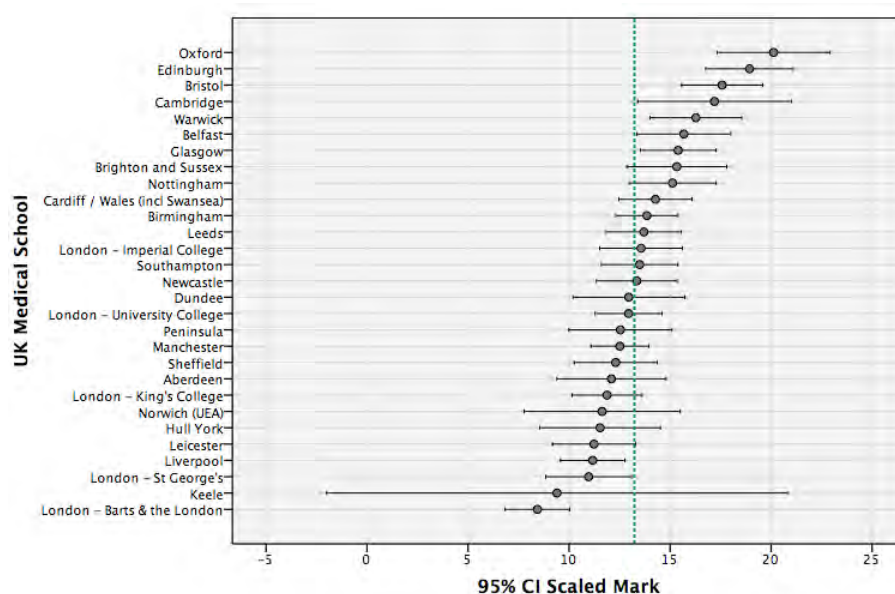


### 3. CSA Result and Scores by PMQ, subdivided (1<sup>st</sup> attempt)

#### UK Graduates (by medical school)

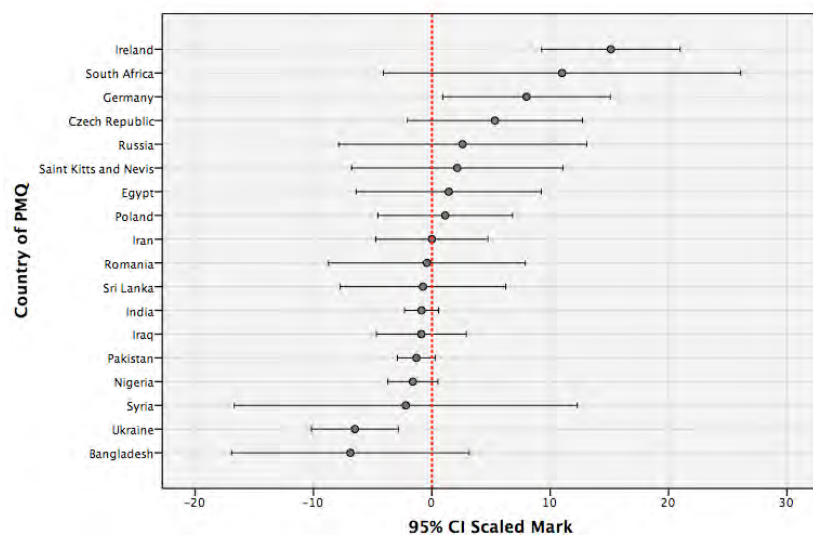
Performance by UK Medical School					
Medical School	N Cands	Scaled Mark			
		Min	Max	Mean	SD
Aberdeen	62	-23	32	12.10	10.62
Belfast	41	-1	30	15.68	7.34
Birmingham	157	-13	33	13.85	9.76
Brighton and Sussex	36	-1	32	15.33	7.31
Bristol	75	-7	33	17.57	8.72
Cambridge	31	-6	36	17.19	10.37
Cardiff / Wales (incl Swansea)	109	-8	37	14.28	9.53
Dundee	45	-15	29	12.96	9.22
Edinburgh	59	-4	34	18.93	8.33
Glasgow	70	-2	29	15.40	7.86
Hull York	54	-20	36	11.54	10.96
Keele	5	-4	19	9.40	9.18
Leeds	100	-15	29	13.70	9.37
Leicester	94	-15	34	11.23	10.04
Liverpool	118	-23	32	11.17	8.75
London - Barts & the London	136	-15	30	8.43	9.41
London - Imperial College	94	-14	34	13.56	10.00
London - King's College	123	-19	32	11.88	9.70
London - St George's	90	-9	34	10.97	10.14
London - University College	115	-14	30	12.95	8.95
Manchester	182	-18	33	12.51	9.80
Newcastle	101	-17	33	13.35	10.11
Norwich (UEA)	33	-7	31	11.64	10.89
Nottingham	82	-14	37	15.12	9.82
Oxford	32	-3	35	20.13	7.76
Peninsula	48	-10	30	12.54	8.78
Sheffield	85	-25	28	12.31	9.52
Southampton	69	-4	30	13.49	7.88
Warwick	58	-5	32	16.28	8.65

Note: Candidates from an unknown London school have been excluded from this table because of small numbers



Non-UK Graduates (by country; chart below only shows countries with  $\geq 5$  candidates: 1<sup>st</sup> attempt)

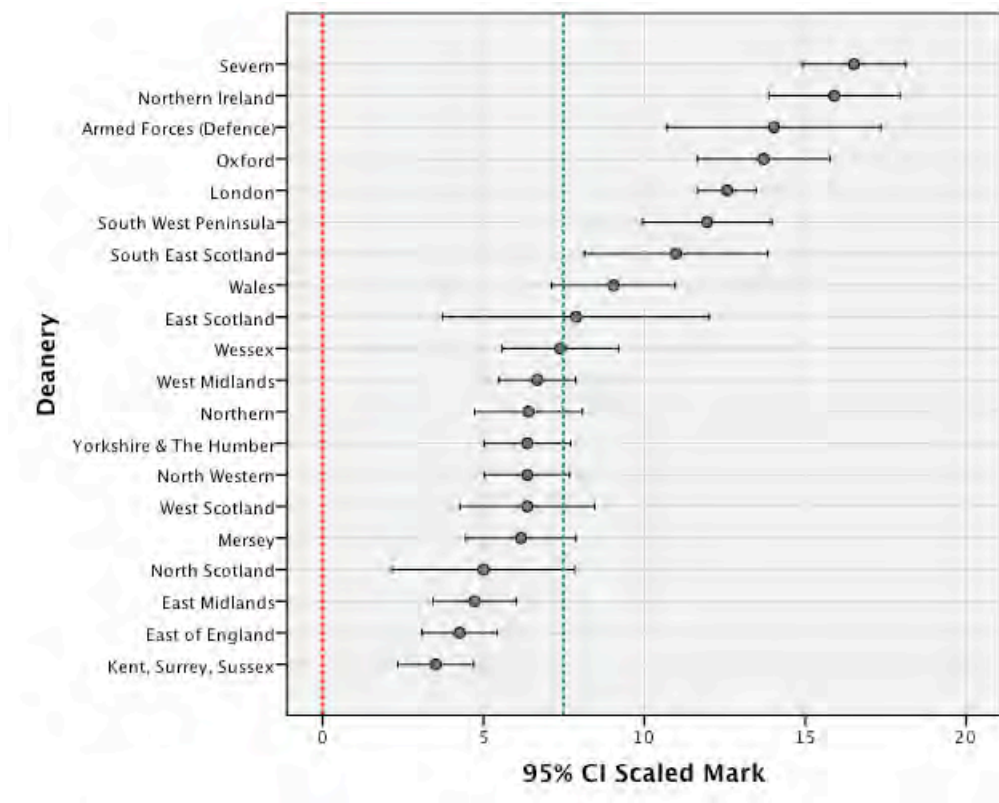
Performance by Country of PMQ (excl.UK) where N candidates = 5+					
Country	Fail		Pass		Total N
	N	%	N	%	
Bangladesh	5	62.5%	3	37.5%	8
Czech Republic	4	33.3%	8	66.7%	12
Egypt	3	42.9%	4	57.1%	7
Germany	0	0.0%	5	100.0%	5
India	84	49.4%	86	50.6%	170
Iran	8	66.7%	4	33.3%	12
Iraq	14	51.9%	13	48.1%	27
Ireland	2	12.5%	14	87.5%	16
Nigeria	49	51.6%	46	48.4%	95
Pakistan	81	56.6%	62	43.4%	143
Poland	6	40.0%	9	60.0%	15
Romania	6	50.0%	6	50.0%	12
Russia	1	20.0%	4	80.0%	5
Saint Kitts and Nevis	2	28.6%	5	71.4%	7
South Africa	1	16.7%	5	83.3%	6
Sri Lanka	7	58.3%	5	41.7%	12
Syria	2	40.0%	3	60.0%	5
Ukraine	12	75.0%	4	25.0%	16



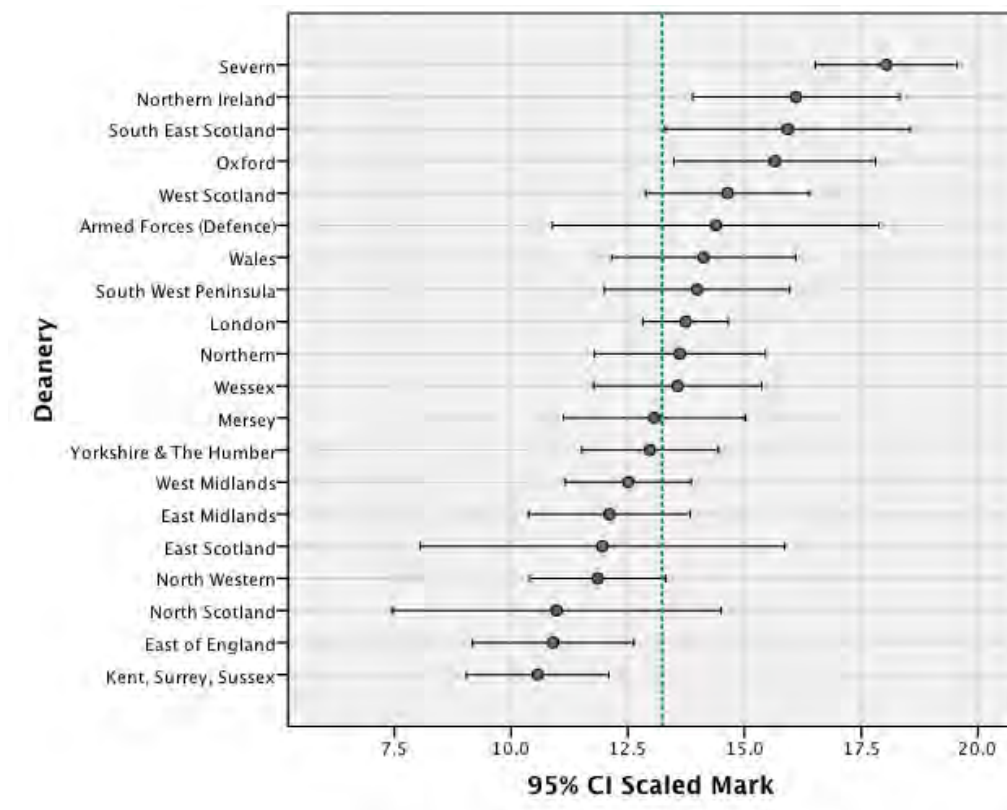
## D: Results by Training Deanery

### 1. Error bar graphs of Candidate Scores by Deanery, overall, and for first attempts by source of PMQ

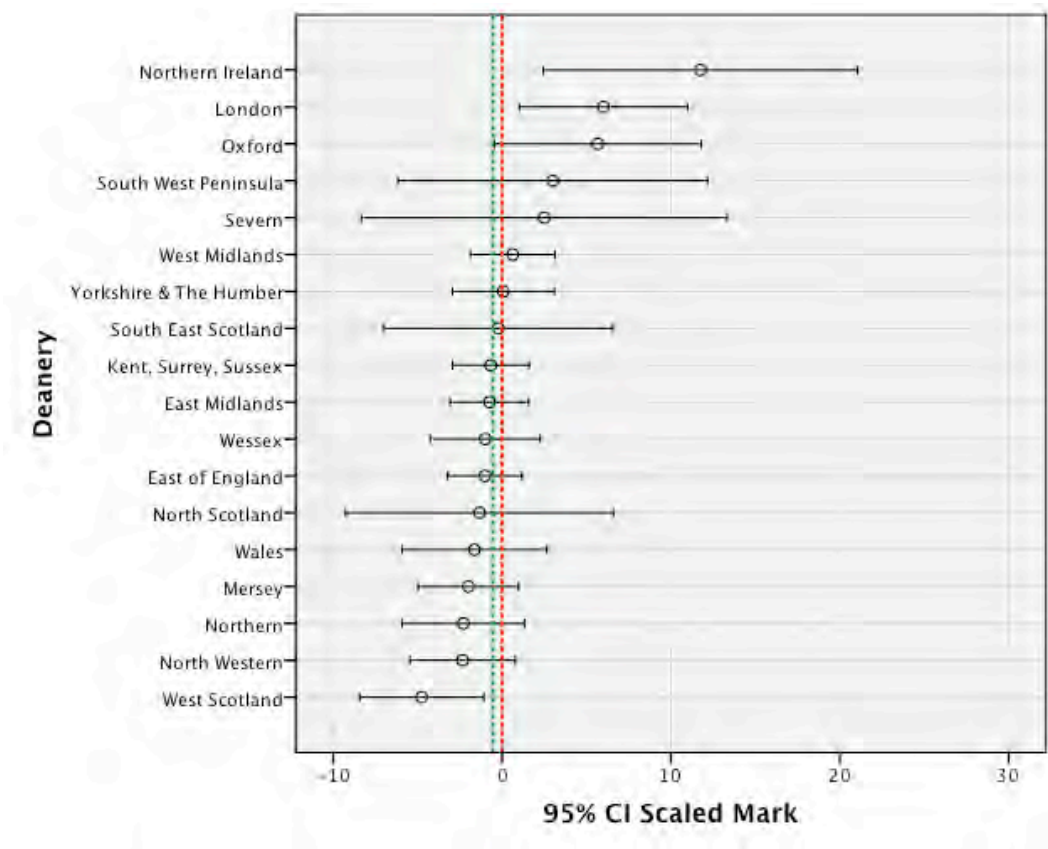
All Graduates, All Attempts



UK Graduates, First Attempt



Non-UK Graduates, First Attempt



## E: Summary of Feedback Statements

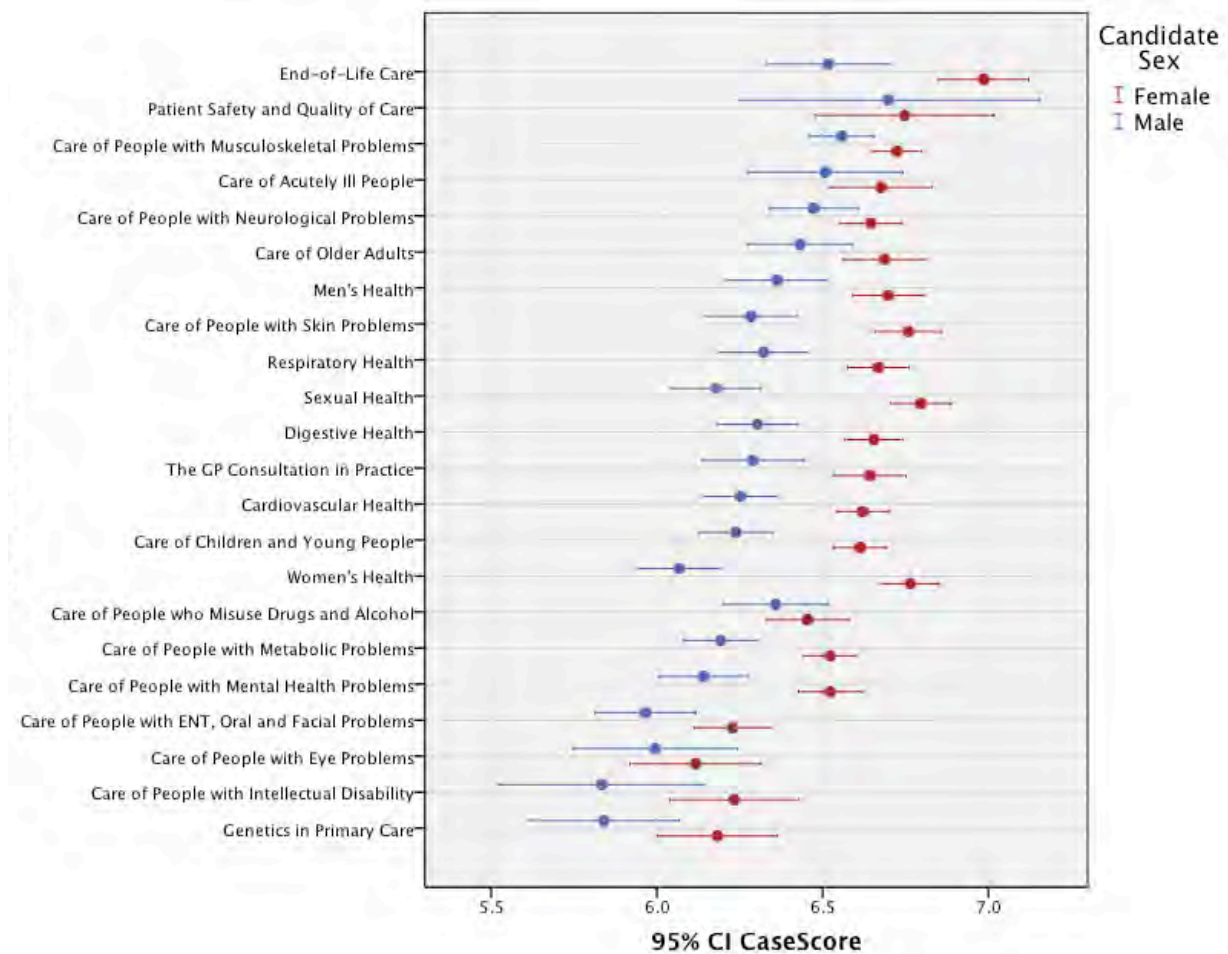
The table gives the prevalence of the numbered feedback statements given by examiners to individual candidates' case performances, by the main two candidate PMQ groups. Figures represent the percentage of the total of all cases which attracted that feedback comment.

<b>UK Graduates</b> <b>N = 33,033 candidate-cases</b>	<b>In response to percentage of all cases seen</b>
7: Does not develop a management plan reflecting knowledge of current best practice	13.0%
2: Does not recognise the issues or priorities in the consultation	10.0%
10: Does not demonstrate an awareness of management of risk or make the patient aware of relative risks of different options	8.4%
3: Shows poor time management	7.6%
8: Does not show appropriate use of resources, including aspects of budgetary governance	7.5%
15: Does not develop a shared management plan, demonstrating an ability to work in partnership with the patient	7.5%
4: Does not identify abnormal findings or results or fails to recognise their implications	7.1%
6: Does not make the correct working diagnosis or identify an appropriate range of differential possibilities	6.2%
14: Does not identify or use appropriate psychological or social information to place the problem in context	5.7%
16: Does not use language and/or explanations that are relevant and understandable to the patient	5.1%
9: Does not make adequate arrangements for follow-up and safety-netting	5.0%
1: Disorganised / unstructured consultation	4.9%
13: Poor active listening skills and use of cues. Consulting may appear formulaic, and lacks fluency	4.7%
5: Does not undertake physical examination competently, or use instruments proficiently	4.6%
12: Does not appear to develop rapport or show awareness of patient's agenda, health beliefs and preferences	3.9%
11: Does not attempt to promote good health at opportune times in the consultation	1.9%

<b>Non-UK Graduates</b> <b>N = 18,395 candidate-cases</b>	<b>In response to percentage of all cases seen</b>
7: Does not develop a management plan reflecting knowledge of current best practice	20.4%
2: Does not recognise the issues or priorities in the consultation	16.7%
15: Does not develop a shared management plan, demonstrating an ability to work in partnership with the patient	14.4%
13: Poor active listening skills and use of cues. Consulting may appear formulaic, and lacks fluency	14.3%
16: Does not use language and/or explanations that are relevant and understandable to the patient	13.6%
3: Shows poor time management	12.5%
10: Does not demonstrate an awareness of management of risk or make the patient aware of relative risks of different options	11.9%
4: Does not identify abnormal findings or results or fails to recognise their implications	11.2%
1: Disorganised / unstructured consultation	11.0%
8: Does not show appropriate use of resources, including aspects of budgetary governance	10.5%
14: Does not identify or use appropriate psychological or social information to place the problem in context	10.4%
6: Does not make the correct working diagnosis or identify an appropriate range of differential possibilities	8.9%
12: Does not appear to develop rapport or show awareness of patient's agenda, health beliefs and preferences	8.5%
9: Does not make adequate arrangements for follow-up and safety-netting	7.8%
5: Does not undertake physical examination competently, or use instruments proficiently	6.1%
11: Does not attempt to promote good health at opportune times in the consultation	2.9%

## F: Candidate first attempt performance on cases by curriculum statement (i.e. syllabus area) – by candidate sex

Each of the cases assessed in the CSA is linked to a main 'curriculum statement' (or syllabus area) – see the MRCGP curriculum website for further information. Comparative performance by all first-attempt candidates on the cases by curriculum statement is shown in the chart below, by candidate sex. 38,337 candidate-cases are represented. (One curriculum area – "Healthy People – Promoting Health and Preventing Disease" is excluded as only 50 candidate-cases were found. Numbers for other curriculum areas varied between 265 and 2899.)



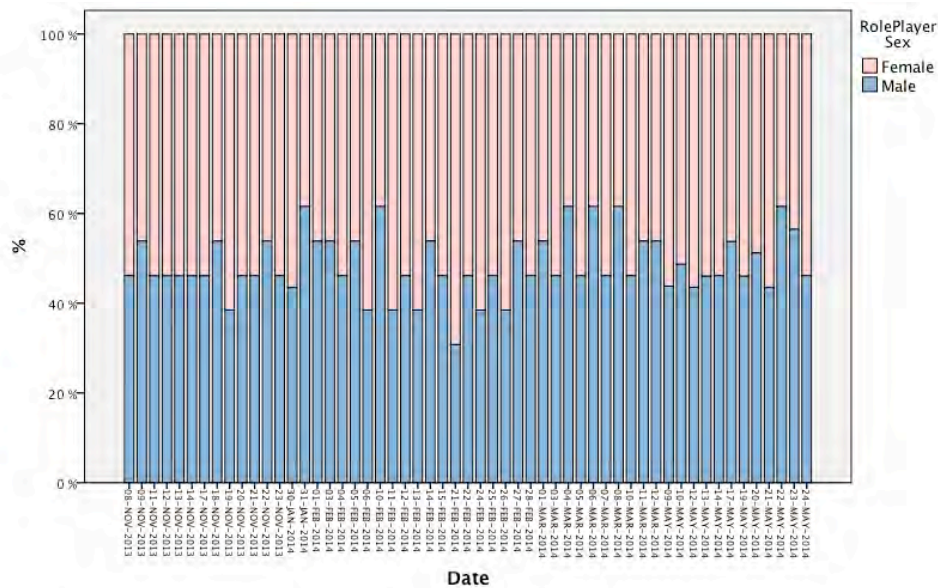
For reference, the overall different between first attempt candidates' scores by their sex is 0.35 marks (means: males = 6.27, females = 6.62).

## G: Information on Role Players: demographics overall and by day

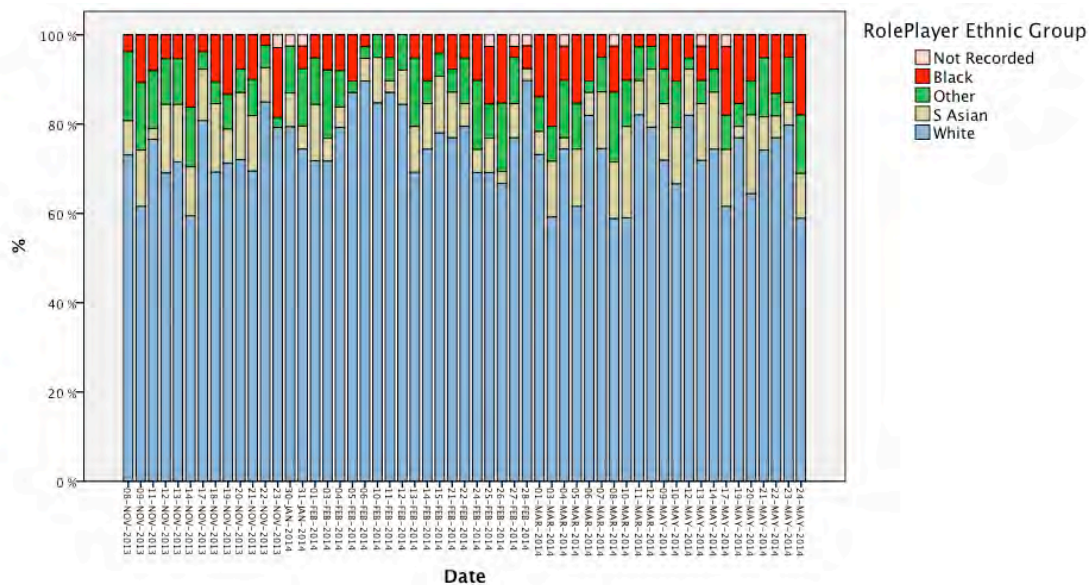
### Overall, for the Year

Role Player Demographics 2013-14 N = 51428 candidate cases		
RolePlayer Sex	N	%
Female	26452	51.4
Male	24976	48.6
RolePlayer Ethnic Group	N	%
Black	4284	8.3
Other	4342	8.4
S Asian	4603	9
White	37952	73.8

### By Day of the CSA: Sex



### By Day of the CSA: Ethnic Group



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

### Overview of pass-rates in AKT and CSA by Protected Characteristics and source of PMQ

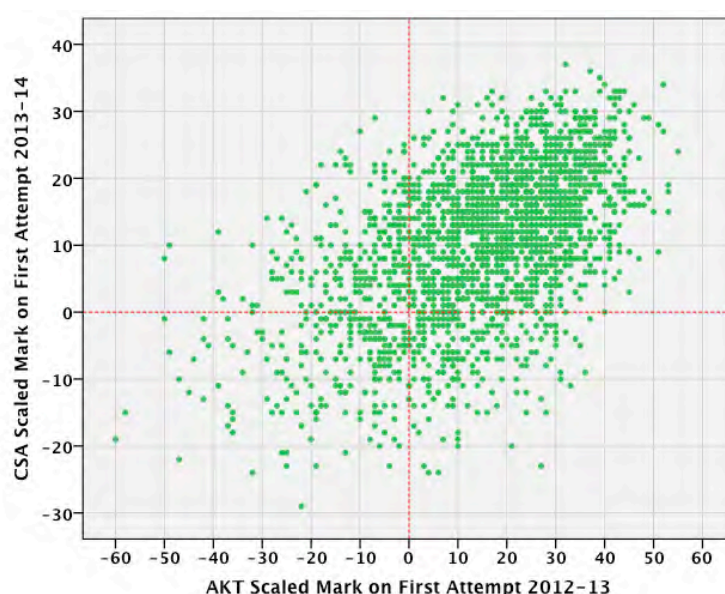
The following table summarises data from elsewhere in this report, bringing together crude pass rates of AKT and CSA candidates on their first attempt by 'protected characteristics' (as defined by the Equality Act (2010)), also by source of their primary medical qualification. Please recall an earlier warning that many of these variables are confounded.

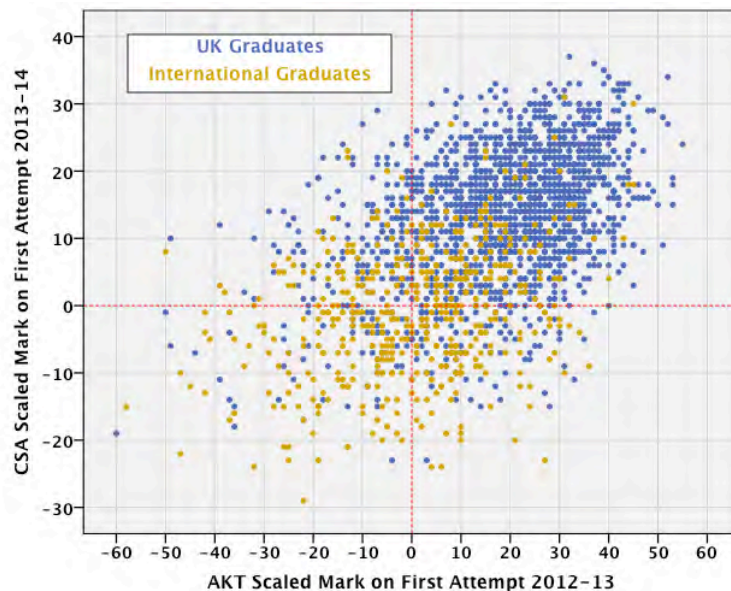
Candidate Performance by Protected Characteristics (also whether UK or International Graduate) on First Attempt at AKT and CSA 2013-2014							
Protected Characteristic &c	Sub-Group	Applied Knowledge Test			Clinical Skills Assessment		
		N sitting	N passing	Pass Rate	N sitting	N passing	Pass Rate
Sex	Male	1067	827	77.5%	1058	782	73.9%
	Female	2005	1681	83.8%	1891	1645	87.0%
Race*	BME	1208	809	67.0%	1295	883	68.2%
	White	1788	1639	91.7%	1609	1512	94.0%
PMQ Source	UK Graduate	2543	2235	87.9%	2306	2109	91.5%
	IMG	529	273	51.6%	643	318	49.5%
Disability	Reported	106	76	71.7%	110	87	79.1%
	None reported	2966	2432	82.0%	2839	2340	82.4%
All Candidates		3072	2508	81.6%	2949	2427	82.3%

### Inter-component Statistics

Currently it is only possible to make comparisons between the performance of candidates between the AKT and the CSA, as the Workplace-Based Assessment data are not readily accessible for comparative analysis. Most candidates make their first attempt at the AKT in ST2 and at the CSA in the middle of ST3.

The accompanying green scatterplot is the most recent analysis from these datasets showing the relationship between the AKT and CSA scores of 2127 candidates taking each component for the first time, the AKT in 2012-13 and the CSA in 2013-2014. The blue/orange version contrasts UK and non-UK graduates' performance.





The correlation between this sample's AKT scores and the CSA scores is 0.53, suggesting 28% of 'shared variance' between the two assessments. This level of correlation indicates a highly significant relationship between the two assessments (in terms of individual candidates' performance) but also that, although there is not unexpected overlap, the two tests are also measuring substantially different skills or constructs.

### Test Quality Information: AKT

For the diets of the AKT, the reliability, as evidenced by the alpha co-efficient, and the accuracy, indicated by the measurement error estimate, or SEM, is straightforwardly calculated. Occasionally, underperforming items need to be removed from the calculated scores, but this has not taken place in 2013-14. Current and recent quality statistics are shown in the accompanying table.

These psychometric quality indicators continue to describe a multi-choice assessment which is performing to an excellent standard.

AKT Diet	No of Items removed	Alpha Coefficient	SEm
2011: October	0	0.91	2.8 %
2012: February	0	0.89	2.8 %
2012: April	1	0.92	2.9 %
2012: October	1	0.89	2.8 %
2013: January	0	0.92	2.9 %
2013: May	0	0.90	2.9 %
<b>2013: October</b>	<b>0</b>	<b>0.90</b>	<b>2.8 %</b>
<b>2014: January</b>	<b>0</b>	<b>0.90</b>	<b>2.7 %</b>
<b>2014: April</b>	<b>0</b>	<b>0.90</b>	<b>2.9 %</b>

### 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 1300 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 exact 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 qualitatively as well as quantitatively, the latter at a number of levels of detail with different objectives—but with reliability and fairness always foremost in mind. Qualitative monitoring involves hour-long examiner, role-player and case standardization sessions at the beginning of each day, live monitoring of examiners and role-players

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 can vary greatly day on day, despite administrative measures towards harmonisation: 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 values.

As a result, the test measurement error, indicated by the standard error of measurement, may be a more appropriate overall indicator of quality.

That said, current and recent quality statistics – alpha and the SEM – appear in the table below.

Year	No of Cases (stations) in CSA	Alpha: range across days	Average alpha across days	SEm: range across days	Average SEm across days
2008	12	n/a	0.70	n/c	n/c
2009	12	n/a	0.72	n/c	n/c
2010	13	0.56 – 0.85	0.73	n/c	n/c
2010-2011	13	0.64 – 0.86	0.77	5.1 % - 5.4 %	5.2 %
2011-2012	13	0.64 – 0.86	0.77	4.5 % - 5.6 %	5.1 %
2012-2013	13	0.64 – 0.87	0.78	4.3 % - 5.4 %	5.0 %
2013-2014	13	0.56 – 0.85	0.74	4.4 – 5.6 %	4.91 %

\* \* \*

## Annex

### Cumulative Pass Rates in the AKT and CSA

The following charts summarise data prepared for the use of MRCGP working groups within the College, and are reproduced here as they may be of some general interest. They are quite different.

- The AKT table lists the available cumulative pass rates for all candidates from April 2012 (AKT 15) to the latest one. Note that the figures only relate to those candidates who have actually taken the AKT again; some candidates will have left training or have just not yet re-taken the test.
- The CSA table summarises the examination fate of all 1,729 candidates who took the CSA for the first time in the February/March diet of 2011. UK graduates and International graduates are differentiated. Candidates who failed an attempt of the CSA and who then did not re-appear for an additional attempt (the mauve squares in the chart) may be presumed normally to have been released from training.

AKT Study of Cumulative Pass-Rates from §15 (April 2012)							
Cohort	AKT15	AKT16	AKT17	AKT18	AKT19	AKT20	AKT21
	(N=1147)	(N=1199)	(N=881)	(N=1254)	(N=1000)	(N=1005)	(N=1090)
Pass at first attempt	865 75.40%	954 79.60%	689 78.20%	1008 80.40%	854 85.40%	806 80.20%	867 79.50%
Pass at second attempt (cumulative)	1000 87.20%	1057 88.20%	786 89.20%	1144 91.20%	915 91.50%	881 87.70%	
Pass at third attempt (cumulative)	1059 92.30%	1121 93.50%	831 94.30%	1192 95.10%	923 92.30%		
Pass at fourth attempt (cumulative)	1096 95.60%	1141 95.20%	839 95.20%	1199 95.60%			
Pass at fifth attempt (cumulative)	1102 96.10%	1145 95.50%	840 95.30%				
Pass at sixth attempt (cumulative)	1103 96.20%						

CSA Cohort Study: Outcome for those first taking it Feb-Mar 2011							
Cohort (N = 1729)	Attempt 1	Attempt 2	Attempt 3	Attempt 4	Attempt 5	Attempt 6	Overall
1325 UK Graduates	106 FAIL 1219 PASS	17 FAIL 89 PASS	7 FAIL 10 PASS	1 Nil Further 3 FAIL 3 PASS	3 FAIL 0 PASS		99.7% PASS 1321 / 1325
404 International Medical Graduates	244 FAIL 160 PASS	138 FAIL 106 PASS	4 Nil Further 85 FAIL 49 PASS	5 Nil Further 54 FAIL 26 PASS	20 Nil Further 16 FAIL 18 PASS	13 Nil Further 1 FAIL 2 PASS	89.4% PASS 361 / 404
All: pass rate after this attempt	1379 79.8%	1574 91.0%	1633 94.4%	1662 96.1%	1680 97.2%	1682 97.3%	1682 97.3%