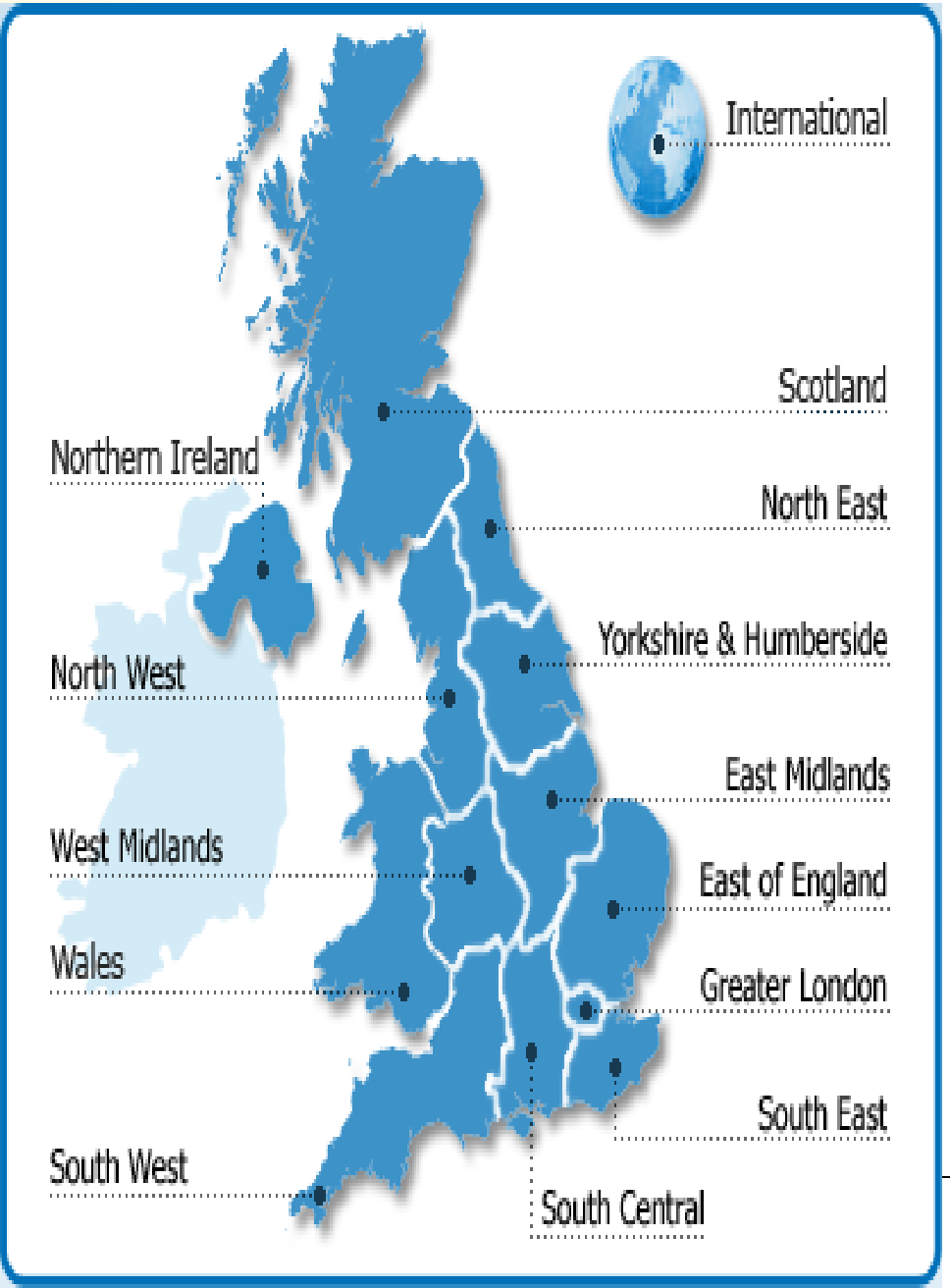
Migration patterns of UK trainee doctors, from family home to foundation training posts: a national cohort study

Ben Kumwenda
Jennifer Cleland
Gordon Prescott

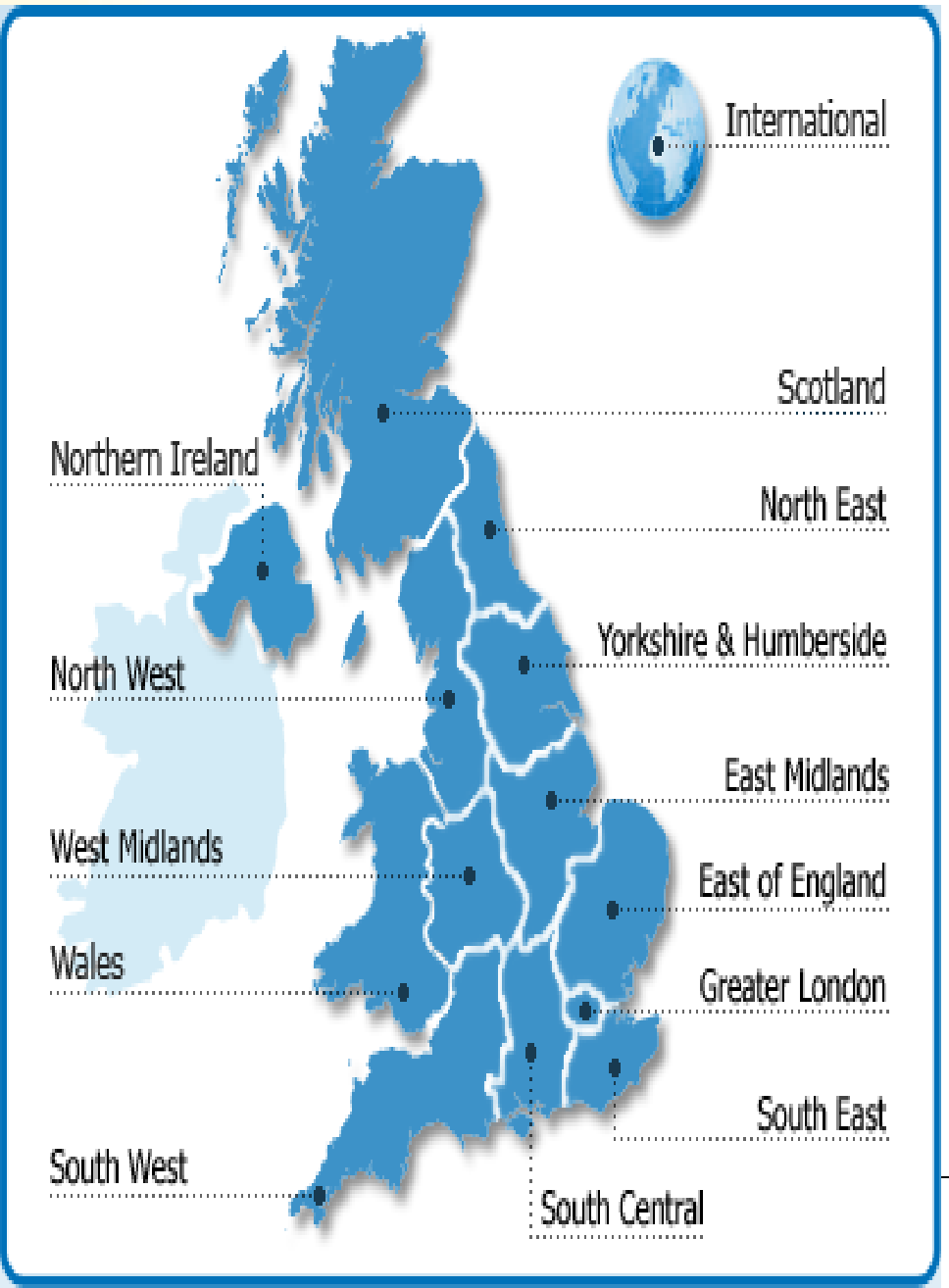
Background



UK experiences geographical variations in recruitment trends of healthcare professionals. Some areas face chronic under-recruitment.

Understanding where medical graduates choose to go for postgraduate training is important because doctors more likely to consider practicing in areas where they completed postgraduate medical training.

Background



The influence of home origin is particularly important for medicine because recently there have been policy drives to address shortage of doctors in certain geographical areas.

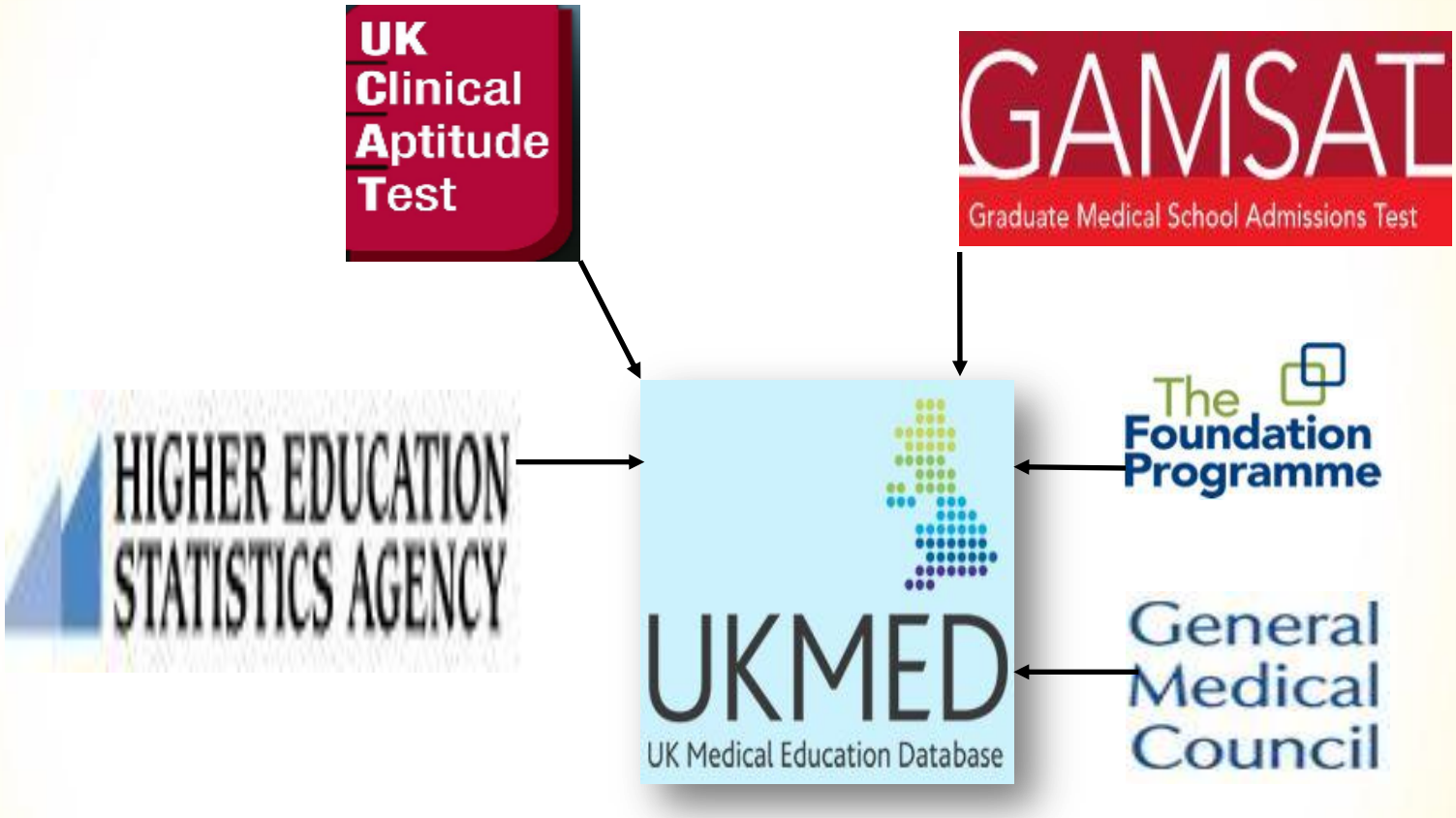
To address these questions …

- We sought to examine the relationship between foundation school locality and parental postcode, to investigate the "migration" patterns of UK medical graduates in terms of where they wish to spend their first years of postgraduate training, and how this relates to where they attended medical school.

Commonly used contextual markers

- Parental occupation derived from National Statistics Socio-economic Classification (NS-SEC)
- Index of Multiple Deprivation (IMD)
- Participation of Local Areas (POLAR)
- Ethnicity
- Age (mature students)
- Entitlement to Free School Meals
- Income support
- Type of school attended

UNIVERSITY OF ABERDEEN



Methods: Data Preparation

We used the postcode of the administrative Unit of Application (UoA) as a centre of each foundation school.

Then used a web-based distance calculator (https://www.doogal.co.uk/drivingdistances.php) to measure the travel-time between parental home and foundation school.

Methods

UNIVERSITY OF ABERDEEN

- Net gain or loss of trainees moving from one region of medical school to another region of foundation school.
- Chi-square tests
- Multilevel Modelling - Generalised Linear Mixed Model (GLMM)

Trainees' average travel time from parental home to place of Foundation School, split by UK country.

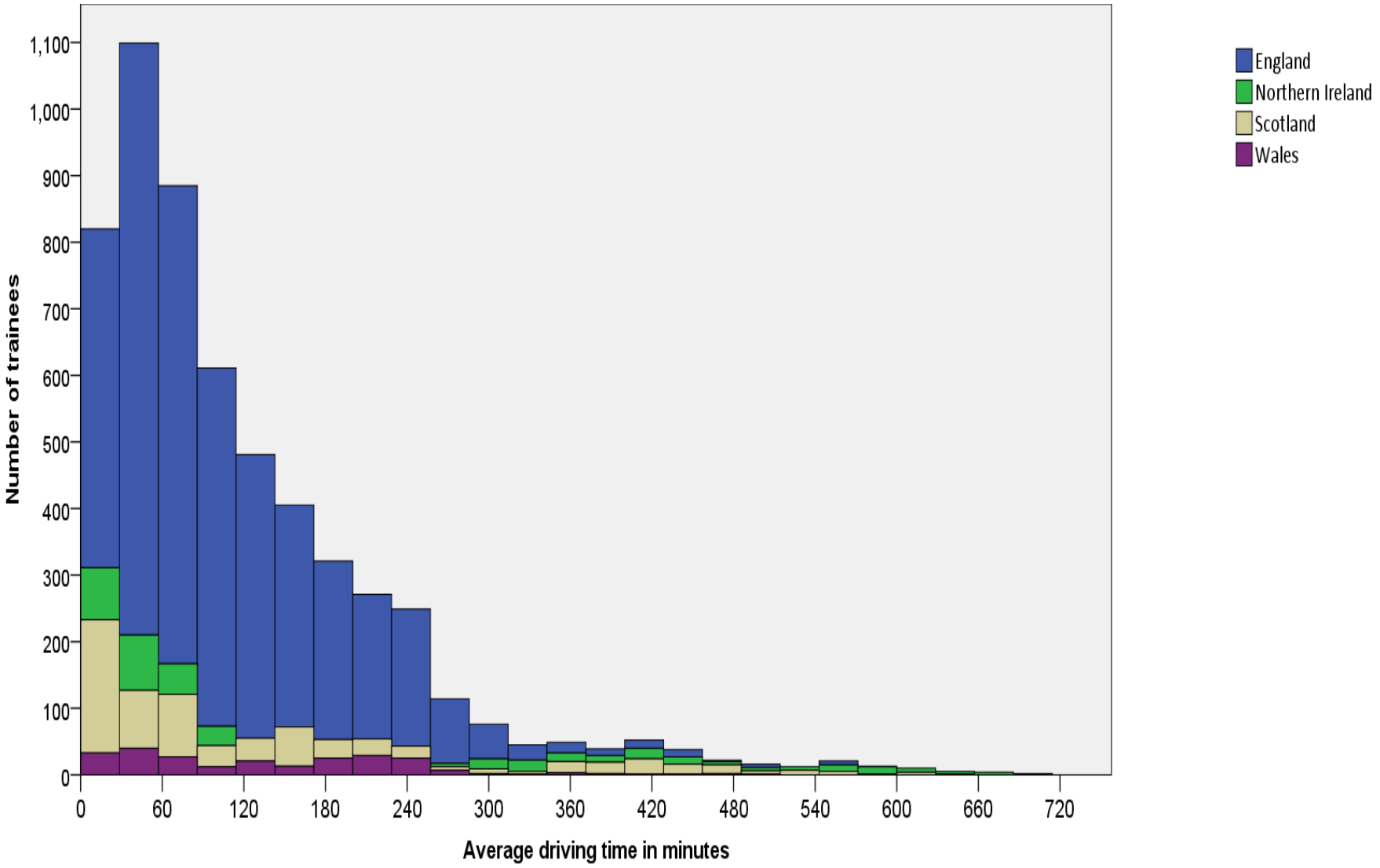


Table 1: Driving time from parental postcode to Unit of Application (UoA)				
	Less than 2 hrs (n=3519, 61.9%)	Between 2 and 4hrs (n=1503, 26.4%)	More than 4hrs (n=667, 11.7%)	p-value
	Row %	Row %	Row %	
Type of secondary school attended				
State-funded	62.8	25.1	12.1	0.001
Fee paying school	59.3	30.0	10.7	
Free School Meal				
Yes	73.9	16.1	10.0	<0.001
No	61.1	27.2	11.7	
Parent Education (University degree)				
Yes	59.5	28.3	12.2	<0.001
No	68.7	21.6	9.7	
(Neighbourhood) of participation of higher education areas (POLAR 2&3)				
Low Participation	66.9	27.9	5.2	0.003
High Participation	62.1	26.6	11.4	
Ethnicity				
Asian or Asian British	79.0	16.8	4.1	<0.001
Black or Black British	61.5	29.2	9.4	
Mixed	57.4	32.5	10.0	
Other Ethnic Groups	80.0	15.2	4.8	
White	58.0	28.4	13.7	
Domicile				
England	63.3	29.1	7.7	<0.001
Northern Ireland	63.1	0.0	36.9	
Scotland	58.8	21.5	19.7	

Multivariate analysis…

- The GLMM confirms that coming from disadvantaged backgrounds (as determined by entitlement to free school meals, OR=0.786; parental education, OR=1.339 and POLAR, OR= 1.219) influences trainees' odds of selecting foundation schools closer home.

Adjusted Odds Ratio					
		Sig	Exp(Coefficient)	95% Confidence Interval for Exp(coefficient)	
				Lower	Upper
Free School Meal	No	0.005	0.786	0.664	0.930
	Yes*				
Parent Degree	No	<0.001	1.339	1.227	1.460
	Yes*				
POLAR	Low Participation	0.041	1.219	1.008	1.474
	High Participation*				
Ethnicity	Asian or British Asian	<0.001	2.406	1.798	3.219
	Black or Black British	0.442	1.22	0.733	2.035
	Mixed	0.915	0.988	0.795	1.229
	Other Ethnic Groups	<0.001	3.010	2.092	4.329
	White*				

Conclusions

The finding has implications for both the widening access agenda and equitable distribution of health services.

- Firstly, the result reaffirms the assumption that widening participation has the potential for recruiting medical graduates who are more likely to train local and remain in the area to serve their communities.

- Secondly, medical education and training is a complex institution that transcends beyond the borders of UKs devolved governments; therefore, understanding the migration pattern by which medical graduates enter the profession could provide useful information for workforce planning, as well as adding voice to the national debate about funding in the devolved nations.

UNIVERSITY OF ABERDEEN

Thank You