UKMED and Medical Royal College and Faculty Exam Data

Introduction

This note describes a proposal to import medical royal college and faculty ('college') exam data into the UK Medical Education Database[*](UKMED). Joining college exam data to this database which holds information on doctors' demographic characteristics and prior attainment on entry to medical school will enable research to deepen our understanding of factors influencing doctors' progression through training.

Colleges and other researchers could apply to analyse exam outcomes linked to measures of attainment on entry to medical school[†] and on entry to foundation training[‡]. Research may include investigating the predictive validity of assessments used for selection into medical school and foundation training programmes, for which the college exam data would provide reliable and valid criterion scores. Other examples might look at measures of prior attainment to better understand variation in exam performance by demographic attributes or across deaneries.

[*] www.ukmed.ac.uk/
[†] A-level and test provider data
[‡] Educational performance measure [deciles] and the Situational Judgement Test

UKMED

UKMED is a partnership between data providers from across the education and health sectors. The data collated through UKMED are provided by:

- The Higher Education Statistics Agency

- UK Clinical Aptitude Test

- Graduate Australian Medical Schools Admissions Test

- General Medical Council

- UK Foundation Programme Office

- Postgraduate Deaneries and Local Education and Training Boards

- UK National Recruitment Offices

UKMED brings together undergraduate and postgraduate data into a single repository of data describing doctors' progression from entry to medical school through to the first few years of training and practice. These data have not been linked systematically before and no single stakeholder can currently link all data on their own.

The project is supported by the UKMED Development Group, an advisory group, which is made up of current and potential data contributors. It also includes data subject representation from medical students and doctors in training. Colleges are represented on this group via the Academy and Professor Jane Dacre.

UKMED is a mechanism for providing protected access to data; research projects are not funded by UKMED.

Researchers apply for access to data via a formal application process which the UKMED research sub-group assess against published criteria[1]. A summary of the seven research projects currently underway is provided on the UKMED web site[2].

We would propose including colleges in the process of reviewing UKMED applications and outputs which requested access to their data. A revised research application process is included as an annexe to this note.

The GMC will be presenting on UKMED at the *Sharing Good Practice Event* on the 28th of September. We are keen to encourage colleges to make use of UKMED for their own research objectives when the process for further research applications re-opens in **January 2017**.

Protecting individuals data

We take the protection of data subjects and adherence to the Data Protection Act seriously and have several measures in place to assure against breaches.

Data shared with researchers are de-identified. Cases are assigned their own unique Study Id in place of a GMC number.

We ensure that combinations of quasi-identifiers do not uniquely identify one case in the extract[3].

The extract is shared via a safe haven which allows researchers to run analysis on the data provided whilst preventing export/import of data, thereby preventing the raw data being taken away or re-identified through linkage.

Researchers are under contract to only use the data for the purposes of the approved research proposal. Outputs are reviewed by the development group prior to publication.

Medical Royal College and Faculty Exam Data

As part of its quality assurance activity the GMC has collected identifiable outcomes for all college exams taken from 1 August 2013. The GMC reports on variation in exam outcomes for doctors on the GMC register by Deanery/LETB and demographic characteristics on its website[4].

To minimise the burden on colleges, we propose including only data the colleges have already provided to the GMC under the existing data sharing agreements. This covers exams from 1 August 2013 to 31 July 2015. We would also include future exam data as it is collected each autumn.

Currently, the UKMED database holds data on individuals who started medical school in 2007 and 2008. Our analysis shows 29%[*] of these individuals have already gone on to take a college exam before August 2015.

Feedback

We hope that colleges will endorse the proposed inclusion of exam data in the UKMED, recognising the opportunity to better understand medical education training pathways and support analysis of assessments.

We suggest including discussion of this in your Annual Specialty Report meetings this summer. If this is not a suitable forum for you or you would like a separate meeting then we would be happy to arrange an alternative date.

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[*] 4,690 of 15,987 of the UKMED Phase 1 cohort

Following this discussion the GMC Information Governance team will contact each college individually to discuss a revised data sharing agreement that is explicit with regard to inclusion of exam data within UKMED.

The GMC will attend the Academy Assessment Committee on **13 October** to discuss any remaining concerns before seeking final agreement to proceed.

Queries

If you have any queries or would like to discuss potential research projects using UKMED please email Daniel Smith at UKMEDsafehaven@gmc-uk.org

References

[1] http://www.ukmed.ac.uk/documents/UKMED_research_process.pdf.
[2] http://www.ukmed.ac.uk/research
[3] See L. Sweeney. Achieving k-anonymity privacy protection using generalization and suppression. *International Journal on Uncertainty, Fuzziness and Knowledge-based Systems*, 10 (5), 2002; 571-588. http://dataprivacylab.org/dataprivacy/projects/kanonymity/kanonymity2.html
[4] http://www.gmc-uk.org/education/25495.asp