NHS
Health Education England

HEE Workforce Planning 2014/15 – Call for Evidence

To submit your evidence please complete this form. Please make your submissions relevant to the categories provided in the boxes provided. We have categorised the known drivers of demand and supply under the following headings, and believe this to be a comprehensive description of the variable involved.

You can provide extracts of reports into the free text boxes below, or submit a whole report with this form by clicking on the email at the bottom of this form. Please mark clearly in the email which of the below categories the report/evidence relates to, including any relevant page numbers. Where an extract is provided, please reference the source.

Please use Part 3 to submit any information/evidence that does not fit the below categories. You can also leave any comments/observations in the free text box.

Before completing the form below please submit your contact details here:

Name:…	Dr Albert Mifsud
Job title:…	Chair Joint RCPath/BIA Workforce Focus Group for Microbiology & Virology
Organisation:…	Royal College of Pathologists
Contact email:…	Albert.Mifsud@phe.gov.uk …/ Fiona.addiscott@rcpath.org
Contact number:…	020 3246 0311… / 020 7451 6726

Form submission:

Once completed please submit the form via email to hee.workforceplanning1@nhs.net making sure all supporting documents are also attached to the email.

Please make the subject of the email: HEE Workforce Planning 2014/15 Call for Evidence [The Royal College of Pathologists]

Data Protection and Freedom of Information

The information you send us may be made available to wider partners, referred to in future published workforce returns or other reports and may be stored on our internal evidence database.

Any information contained in your response may be subject to publication or disclosure if requested under the Freedom of Information Act 2000. By providing personal information for this review it is understood that you consent to its disclosure and publication. If this is not the case, you should limit any personal information provided or remove it completely.

If you want the information in your response to be kept within HEE's executive processes, you should make this clear in your submission, although we cannot guarantee to be able to do this.

PART 1 – Future Service and Workforce Models

1. **Drivers of Future Service Demand**
   - Needs identified by patients and the public
   - Activity and epidemiology
   - Quality. Innovation, prevention and productivity
   - Funding
   - Other
2. **Future Service Models**
3. **Future Workforce Models**
   - Associated knowledge and skills – and assessments of the supply and demand position*
   - Associated values and behaviours – and assessments as above*
   - Workforce structure, team structure, skill mix, new roles.
   - Workforce performance and productivity

*NB: – this may include views on the efficacy and quality of education processes in equipping staff with these skills, knowledge, values and behaviours.

Drivers include:

- Increased requirement for ward-based consultation by microbiologists and other infection specialists of patients with suspected or proven infection to facilitate earlier discharge from hospital and to improve patient care outcomes;
- Increasing antimicrobial resistance is recognised as an international problem. The Chief Medical Officer of England has stated that this is being included within the national Risk Register. Numerous initiatives are being developed to address this emerging problem, foremost among which is a greater emphasis on antimicrobial stewardship. This requires the expertise of consultants in infection, notably consultant microbiologists, working alongside antimicrobial pharmacists. Furthermore, as a result of the reduced efficacy of existing oral antibiotics, there is greater need for intravenous antibiotic therapy delivered in the community. In order to reduce the impact on need for admission to hospital / length of stay, infection specialists are setting up clinics to improve patient flows, with a consequent increased demand for such specialists;
- Centralisation of laboratories away from the hospital sites: There is developing evidence that this is increasing the workload of medical microbiologists, thereby attenuating any

savings that might otherwise be achieved;

- While substantial reductions in healthcare associated infections (HCAIs) with, eg MRSA and C difficile have been seen, there is still considerable scope for reductions in HCAIs with consequent improvements in morbidity, mortality and length of stay. Trusts therefore continue to recognise the importance of employing consultant microbiologists and other specialists in infection.
- While microbiologists and virologists have provided a 7-day on-call service for many years, this is usually limited to a telephone service with attendance at the laboratory on Saturday and maybe Sunday mornings. This does not constitute a true 7-day service as ward rounds that are undertaken on every weekday are rarely delivered currently. The introduction of a full 7-day service will require the appointment of further microbiologists.
- The Royal College of Pathologists supports the employment of clinical scientists to work alongside consultant microbiologists and virologists in hospitals and clinical laboratories. Such individuals add to quality of service as well as being cost-effective. Their employment enables the release of medically qualified infection specialists to deliver direct patient-care activities. There is therefore a need to train a greater number of clinical scientists in microbiology.

PART 2 – Forecast of future supply and demand – volumes

If you want to input evidence into the forecasting of future numbers you can report your perspectives on either;

i) the high level indicators; supply, demand, and any forecast under / over supply, or if available - Part 2.1

ii) the more granular components of these three components e.g. retirement rates, output from education relative to attrition – Part 2.2

2.1 Summary forecasts

- Forecast Workforce Demand
- Forecast Workforce Supply and Turnover
- Forecast Under / Over Supply

Workforce demand:

- the ageing population needs increasing care and therefore creates a need for a greater variety of tests.
- the results of these tests are required immediately: technological developments are now enabling the development and roll-out of such tests which has a knock on effect on staffing requirements to perform and interpret these tests;
- there is the emergence and re-emergence of certain infectious diseases including influenza, tuberculosis, Middle East respiratory syndrome coronavirus, etc.;
- climate change is resulting in increased incidence of various vector-transmitted diseases;
- immigration patterns bring exotic and tropical infections with which general clinicians are not familiar, increasing the demands on consultant microbiologists' expertise;
- Ongoing increases in medical technology, eg in-treatment of cancers and utilisation of ITUs and HDUs is making increased demands on diagnostic laboratory services generally, with consequent impact on scientific laboratory staffing, and additionally on infection specialists such as microbiologists and virologists.

2.2 Detailed / Component forecasts

Forecast Workforce Demand

- Service Demand drivers
- Change in use of temporary staff
- Addressing historic vacancies
- Skill Mix / New Roles
- Workforce Productivity

- The drivers described in Part 1 have led to recognition by the Royal College of Pathologists and the Royal Colleges of Physicians that improved service delivery requires a medical workforce that is trained in each of the traditionally separate disciplines of microbiology, virology and infectious diseases. A new curriculum to provide this training model has been developed and has been approved by the GMC. It is due to be introduced in August 2015. This model will result in an estimated increase in training time of circa 10% (see diagram in Part 3).

Service Demand drivers: greater demand for screening for communicable disease:

- supporting increasing quality standards eg ante-natal infectious diseases screening requires greater input from consultant microbiologists and virologists to deliver the high quality service expected of it;
- in order to detect more cases, virologists are supporting Hepatitis C screening in primary care;
- The British Association for Sexual Health and HIV is promoting opportunistic screening for HIV, which is creating additional demand on laboratory services and consultant microbiologists and virologists to manage the results.

Skill mix:

- There is a requirement for an increased number of Clinical Scientists (see Part 1).

Workforce productivity:

- Microbiologists and virologists are used to year on year increases in specimens and workload. Laboratory Directors all report that specimens and workload are increasing at a rapid rate. The RCPath has responded to this by establishing a working group on Demand Management, attenuating the increase in numbers.

Forecast Supply from HEE commissioned education

- Assumed training levels
- Under recruitment
- Attrition
- Employment on completion of training

The age distribution in the CfWI Medical Microbiology and Virology factsheet 2011 (page 14) indicates that the consultant age profile peaks at ages 45-55. It takes a minimum of 8-10 years to train Infection specialists from graduation from medical school. Modelling of requirements should take due regard of anticipated consultant retirements, rather than extrapolation of current trends.

For many years, our records show that there have been significant difficulties with recruitment in many parts of the country, for example northern England where there continue

to be several long-standing unfilled vacancies. This observation is confirmed by the British Infection Association. While in recent years there had been evidence of an increase in the numbers of applicants per advertised consultant microbiologist / virologist post, this obscures considerable variation with few posts attracting numerous applicants, but many attracting little if any interest. Even in London, where advertised posts have traditionally attracted many applicants, some posts have not attracted any suitable applicants and have remained vacant for considerable periods.

This clearly suggests that there is continuing demand for consultant microbiologists and virologists. Considerable work has been undertaken to change skill mix and involve other professionals such as consultant clinical scientists, infection prevention and control nurses, antimicrobial pharmacists and other clinicians in infection prevention and management. However, the critical role of medically qualified infection specialists at consultant level is recognised by Trusts and there is continuing greater demand than supply.

Forecast Supply – Other Supply and Turnover

- From other education supply
- To/from the devolved administrations
- To/from private and LA health and social care employers
- To/from the international labour market
- To/from other sectors / career breaks and 'return to practice'
- To/from other professions (e.g. to HV or to management)
- Increased / decreased participation rates (more or less part time working)
- Retirement

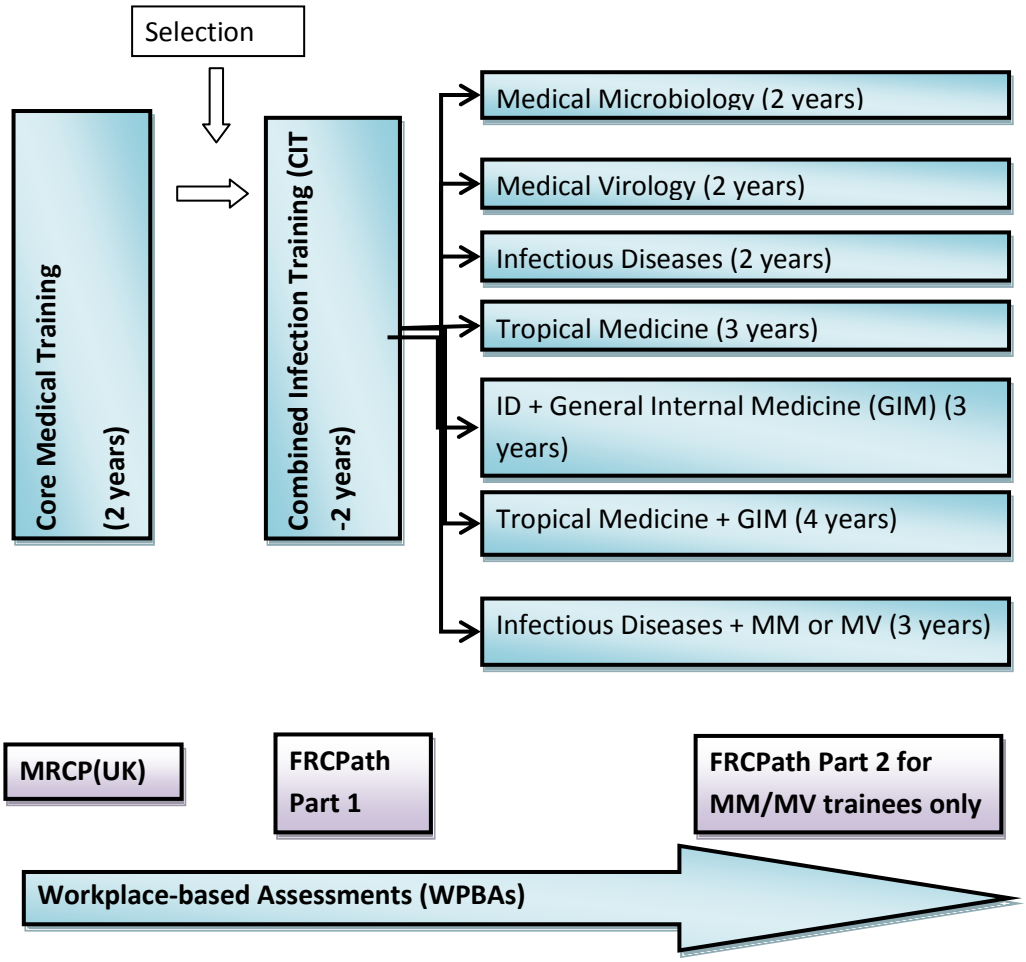
As regards the international labour market, the decision was taken in 2012 to remove Microbiology and Virology from the Home Office Shortage Occupation List.
Despite almost automatic recognition in the UK of a Specialty Certification obtained in another EU state, the specialty of Medical Microbiology and Virology is not recognised in all EU states, limiting the numbers of specialists who may wish to move to the UK. Furthermore, there is increasing demand for microbiologists in certain EU states, attracting some UK specialists to move overseas. However, the pattern of training in many EU countries is

sufficiently different from that in the UK that they are unlikely to fulfil the Royal College of Pathologists model Person Specification, limiting the likelihood of continental European trained specialists from being appointed to UK posts.
Approximately a third of all consultant posts are filled by consultants moving sideways, which is evidence of instability in the workforce.

According to evidence provided by the Workforce and Training Secretary of the British Infection Association, the instability resulting from laboratory centralisation is resulting in experienced consultants being affected by such mergers taking early retirement. Unless there is a change in the policy of laboratory centralisation, it can be anticipated with confidence that the trend for consultants to retire early will continue, thereby exacerbating the developing shortage in the specialty.

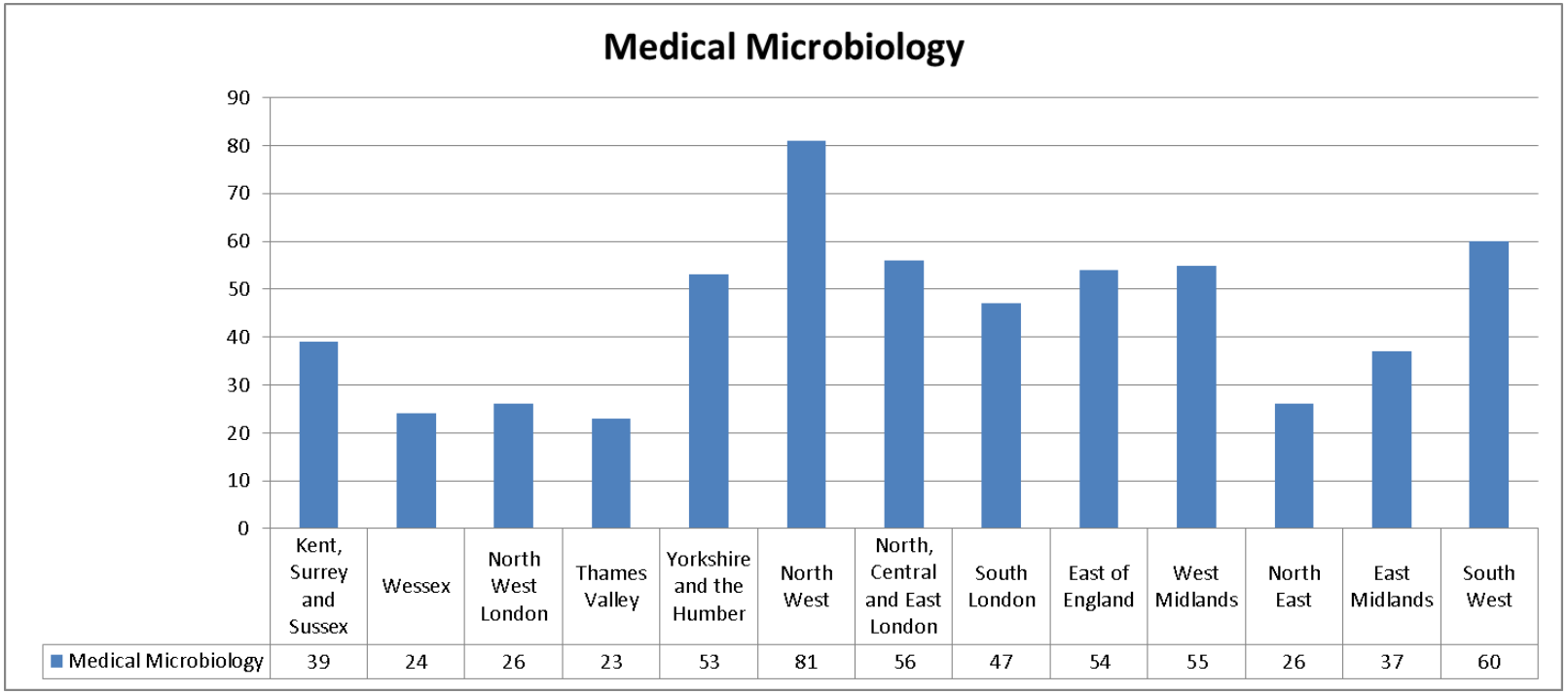
PART 3 – General / Other Evidence not included elsewhere

Infection training flow diagram

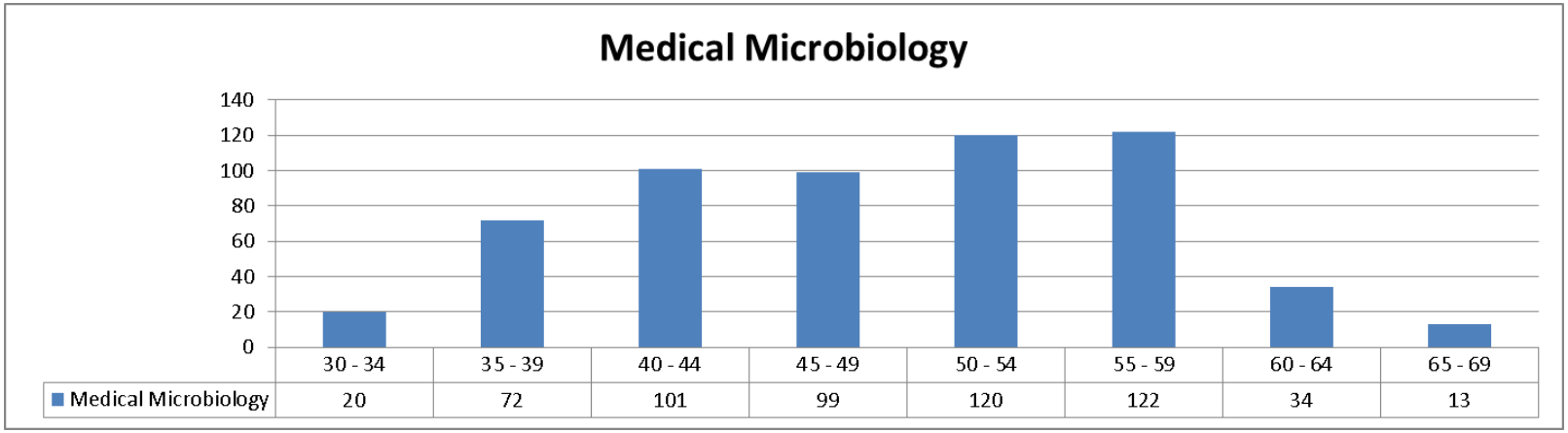


Microbiology is re-entering a period of being a shortage speciality. This is due to ongoing need for creation of posts to cope with the national antimicrobial resistance strategy, new and existing healthcare associated infections, the consequences of laboratory centralisation and the accepted need to improve the clinical element of training of microbiologists and virologists. Previous measures of dealing with shortages through 'importation' of specialists from both within and outwith the EU are no longer a practical option. Microbiology is an essential specialty that supports primary as well as secondary care and consequently, an increase in training numbers is recommended.

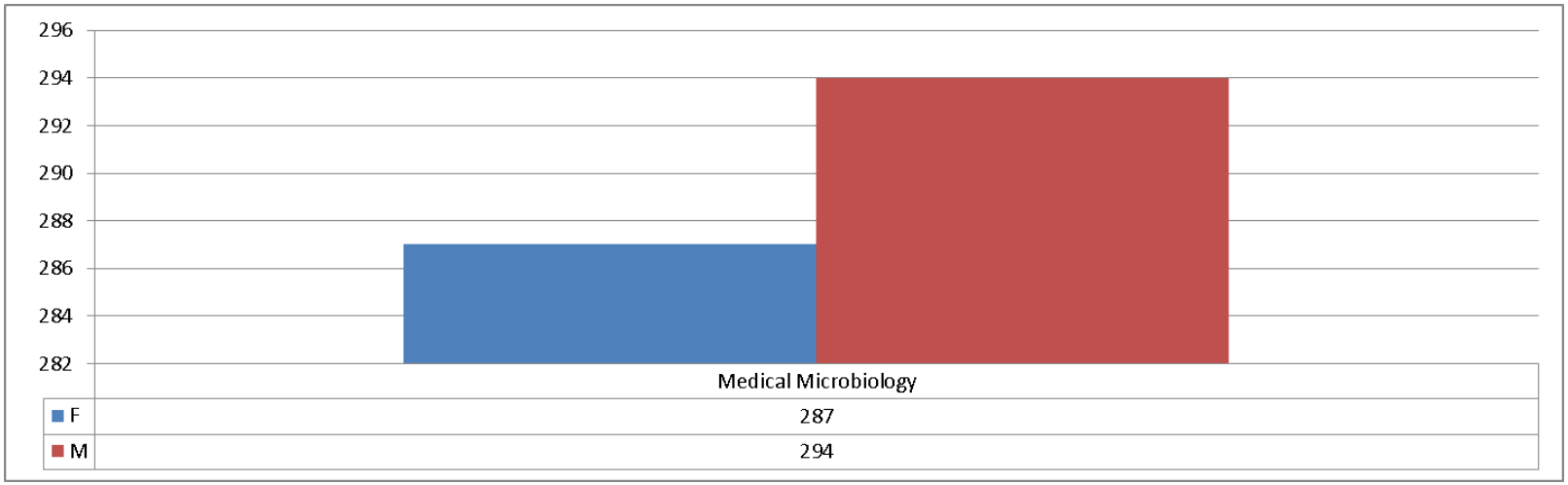
Consultant total by region



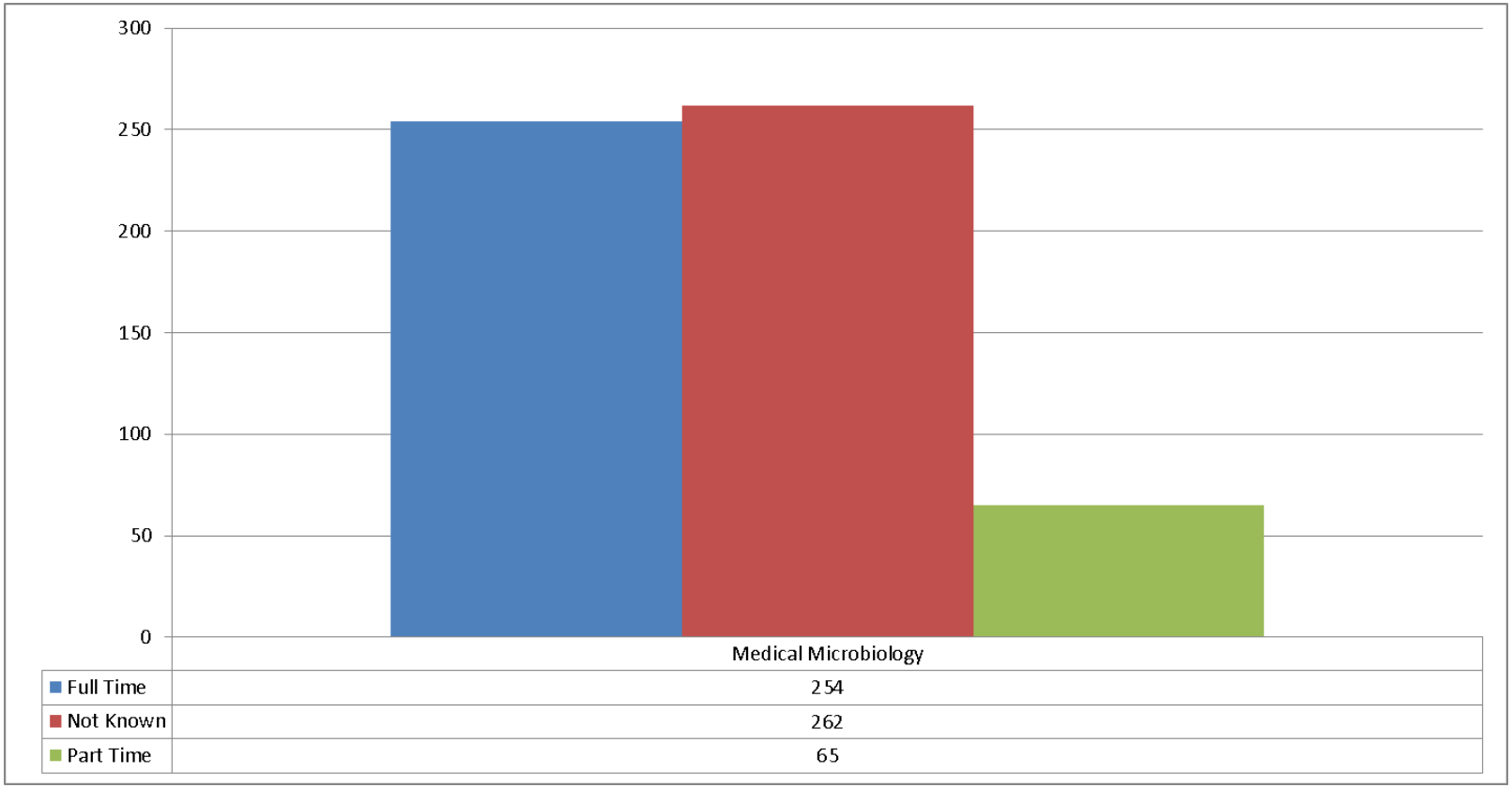
Consultant total by age



Consultant total by gender



Consultant Full/part time



Registered trainees in England