NHS
Health Education England

HEE Workforce Planning and Strategic Framework (Framework 15)

2015/16 Call for Evidence

In 2015/16 we are inviting organisations for submissions which address not only immediate workforce planning and education commissioning but which look further ahead and cover wider workforce strategy. For this reason the 2015/16 form covers not only 'conventional' supply and demand concerns, but invites organisations to comment on the wider context of drivers of change and the strategic response. It is organised as follows:

Section 1: Current and future workforce demand and supply

Section 2: Drivers of service demand change

Section 3: Patients and population

Section 4: Models of care

Section 5: Future workforce characteristics

Section 6: Any other evidence

Submissions should be completed and returned to HEE, using this form, by 30th June 2015 (see below for more information).

We acknowledge that this is a bigger task than in previous years, and it may entail a higher level of internal deliberation and consultation for your organisation. This is deliberate: we want to learn as much as we can about what organisations are thinking about the long term and the big picture, while simultaneously gathering thinking about the here and now and the more immediate future which will be influenced directly by HEE's commissions in the short term.

Making your submission

- We ask that, to maximise input, your submission is completed and returned to HEE by **30th June 2015**
- To submit your evidence please, complete this form. You can provide extracts of reports into the free text boxes below, or submit whole reports. Where an extract is provided, please reference the source.
- In submitting evidence you are invited to take into account the following:

HEE's workforce planning guidance	HEE Planning Guidance. Due to the restrictions around the election we have not yet received permission to put the planning guidance on our web site. It has been widely circulated but please contact mandy.knowles1@nhs.net if you do not have a copy.
HEE's strategic framework (Framework 15)	http://hee.nhs.uk/2014/06/03/framework-15-health-education-england-strategic-framework-2014-29/
The NHS Five Year Forward view	http://www.england.nhs.uk/wp-content/uploads/2014/10/5yfv-web.pdf

- Once you have completed the form and/or prepared your 'pack', please embed it in an email and return it to hee.workforceplanning1@nhs.net and in the subject heading please use this convention:

HEE CFE 2015/16 from [your organisation's name in full – avoid acronyms] [Sub version x]

- Please note, it is not *compulsory* to complete all sections for you to submit a response, but **in order to maximise the value of your submission in informing HEE's 2015/16 education commissions, section 1 should completed and returned by the 30th June 2015.** Later submissions are not wasted as we draw on Caff for Evidence returns throughout the year for a variety of purposes.

Your contact details

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

Name	Dr Albert Mifsud
Job title/role in organisation	Chair of the Joint RCPath/BIA Workforce Focus Group for Microbiology & Virology
Organisation (in full please)	Royal College of Pathologists
Contact email	Albert.Mifsud@phe.gov.uk / Fiona.addiscott@rcpath.org
Contact number	020 3246 0311 / 020 7451 6726
Submission version (if you resubmit at any point)	1
Date	30/06/2015

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.

Section 1 – Current and future workforce demand and supply

Use this section to input evidence into the forecasting of future workforce numbers. Report here your perspectives on either;

i) the high level indicators; supply, demand, and any forecast under / over supply
or if available
ii) the more granular components of these three components e.g. retirement rates, output from education relative to attrition

1.1 Summary forecasts

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

Forecast Workforce Demand includes:

- 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 (MERS) 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;
- increasing antibiotic resistant infections is a national priority and there is a direct consequence in needing more consultant microbiologists to lead Antibiotic Stewardship.

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.

The Cancer Taskforce has issued a statement of intent in a Cancer Strategy for England 2015-2020. Microbiologists do not contribute directly to cancer diagnosis but they contribute to the care of patients with cancer as follows: Patients who have chemotherapy and/or radiotherapy as part of their cancer treatment may become immuno-compromised and will be more prone to infections by opportunistic pathogens e. g bacteria, viruses and fungi. As part of a comprehensive package of care for those patients, investment in more rapid and innovative molecular diagnostic tests can contribute towards a more rapid and accurate diagnosis of these infections.

Microbiologists work in Multidisciplinary teams (MDT) in various clinical areas. They have clinical liaison and face to face interactions with Oncologists and Haematologists. This MDT approach in following up cancer patients with infections following courses of treatment e.g. surgery, chemotherapy and radiotherapy contributes towards the optimal management of those patients. Investment in development of new antimicrobial agents (antibiotics, antivirals and antifungals) can also extend the various therapeutic options in management of these opportunistic infections.

Forecast Workforce Supply and Turnover

There has been a higher rate of retirements than expected. This is anecdotally put down to pension reforms and the impact of centralisation of laboratory services. This will lose experience and training capacity.

1.2 Detailed / Component forecasts

Forecast Workforce Demand

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

Service Demand drivers

- The considered view of the Royal College of Pathologists and main specialist societies is that centralisation does not lead to a reduction in clinical requirements for consultants who are hospital based. Centralisation has increased travelling time and increases demand on consultant time.
- There is increasing clinical input of microbiologists in clinical care with larger numbers of proactive and reactive ward rounds and Multi-Disciplinary Team meetings which have an unquantifiable effect on quality including length of stay. We have greater demands for a decreased length of stay so Outpatient Parenteral Antibiotic Therapy (OPAT) and infection clinics are increasingly done and microbiologists are best placed to deliver these.
- There is an increasing complexity of care with more immunosuppressant treatment eg cancer therapy, and diabetes, which clearly results in susceptibility to infections. In addition, antimicrobial resistance has been placed on the national Risk Register and the Government recognises that vital in the management of this is antimicrobial stewardship, which is predominantly provided by microbiologists leading Multi-Disciplinary Teams.
- There is increasing demand for consultant microbiologist expertise, consequent to the need for antimicrobial stewardship and the establishment of out-patient clinics and anti-microbial therapy services intended to improve hospital efficiency.
- Demand for consultant microbiologists is outstripping supply, with increasing numbers of consultant positions becoming available, principally consequent to early retirements. Trainee numbers has not been increased to take this into account and several positions are not attracting any applicants, particularly in locations where on-site laboratory services have been or at risk of being centralised.
- Greater mobility across continents brings exotic and tropical infections with which general clinicians are not familiar, increasing the demands on consultant microbiologists' expertise.

Skill mix:

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.

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.

1.3 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.

1.4 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' 2015 person specification that lists the required competences for specialty training, 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.

Section 2 - Drivers of service demand change

Timescale/time horizon		
Framework 15 message:	**Longer term – to 15 years**	**Shorter term to 5 years**
	Are you aware of any new evidence which impacts in the light of this - do you think there is the need for a different message for Framework 15? Please detail your evidence about the **longer term**	Please detail your evidence about the **shorter term**, specifically:
We believe that our population is **getting older**, and that for our workforce, preferences for a change in patterns in working is increasing.	There is more demand for part time working and, anecdotally, the work/life balance is more important to younger consultants than to older ones. With the increase in population, there is a greater need for maternity services, resulting in microbiology input into neonatal care which is intensive of infection services.	We are seeing this change already (see **figures 3 and 4** under **Section 6** for male/female ratios and number of consultants working part time)
The influence of technology is growing in healthcare and beyond, with staff and patients using it to **increase personalisation and control** in their life. What will be its possible impact in healthcare in the years ahead? The influence of **genomics and research** will also play a vital part.	Reports must be circumspect so as not to frighten patients. Genomics and research will have a huge potential impact. Within 10 years the range of tests will be wider and more accessible to individual, possibly on a Point of Care basis, but the innate complexity of the data and results will continue to need specialist time to support wider numbers of people requesting test, increasing the demand on infection specialists.	We believe that within 5 years rolling out genomics and increasing new diagnostic tests which are expected to provide more accurate results, more promptly. As a result of this, it is anticipated that these tests will be more widely demanded. Due to the complexity, there will be a need for highly specialised consultants to perform and interpret the results.
Wider factors are creating global pressures to **constrain the cost** of publicly funded healthcare, with the wider concept of wellness increasingly taking root which people will expect health service to respond to.	Despite the cost constraint, the actual regulatory and quality demands being placed on small clinics through to mid and large size hospitals do require specialist advice. We suspect that as delivery of healthcare makes demands for increased regulation, there will be an increase in demands on specialists eg laboratory accreditation requirements.	Unlikely to affect Medical Microbiology
Patients are going to want **high quality services anytime, any place, anywhere**, with a more equal (and challenging) relationship with staff, but one still based on care and a better work life balance.	Unlikely to affect Medical Microbiology	Unlikely to affect Medical Microbiology

Section 3 – Patients and population

Timescale/time horizon		
Framework 15 message:	**Longer term – to 15 years**	**Shorter term to 5 years**
	Are you aware of any new evidence which impacts in the light of this - do you think there is the need for a different message for Framework 15? Please detail your evidence about the **longer term**	Please detail your evidence about the **shorter term**, specifically:
With people living longer with more people living with **multiple and complex conditions** (and with our workforce being currently predominantly trained to treat distinct and different disease in isolation after a health crisis has occurred). How can we educate/train the workforce to support the prevention of ill health and, where ill health occurs, support staff to work across organisational boundaries to support high quality care for people with a range of health needs (across physical, mental health and social care)?	Infection specialists are used to working as part of MDTs and across multi-specialist groupings so are well placed to work in such circumstances.	Unlikely to affect Medical Microbiology
Our patients and population are likely to be at different stages of being **informed, active and engaged** in their own healthcare (including using for example, data and online records), with our challenge being to support the development of a workforce which can support high quality care for all patients.	Consultants need to ensure reports are phrased in such a way as to be suitable to be read by patients and healthcare providers. Furthermore, microbiologists do not currently communicate directly with patients but if the Government opens patient records to the patients, it is inevitable that there would be a huge new demand for direct discussion with patients.	Consultants need to ensure reports are phrased in such a way as to be suitable to be read by patients and healthcare providers. Furthermore, microbiologists do not currently communicate directly with patients but if the Government opens patient records to the patients, it is inevitable that there would be a huge new demand for direct discussion with patients.

Timescale/time horizon		
Framework 15 message:	**Longer term – to 15 years**	**Shorter term to 5 years**
	Are you aware of any new evidence which impacts in the light of this - do you think there is the need for a different message for Framework 15? Please detail your evidence about the **longer term**	Please detail your evidence about the **shorter term**, specifically:
Patients will increasingly be members of a **community of health,** with the number of carers projected to rise significantly in the years ahead**.** Five Year Forward View highlights four ways in which we can engage with communities and citizens in new ways, to build on the energy and compassion that exists in communities across England, namely: • better support for carers • creating new options for health-related volunteering • designing easier ways for voluntary organisations to work alongside the NHS • using the role of the NHS as an employer to achieve wider health goals	There is anecdotal evidence that standards of infection prevention and control in many smaller nursing homes are not as good as they might be, and could benefit from infection advice to raise standards.	Unlikely to affect Medical Microbiology
Developing **substantial community provision** to bring about a substantial reduction in the numbers of people with learning disabilities placed inappropriately in institutional care is a central part of Sir Stephen Bubb's report in 2014 ('*Winterbourne View – time for change*).	Unlikely to affect Medical Microbiology	Unlikely to affect Medical Microbiology
Parity of esteem for Mental Health will be supported through delivering improvements in areas such as integration, waiting and access targets and in the area of psychiatry liaison	Unlikely to affect Medical Microbiology	Unlikely to affect Medical Microbiology

Timescale/time horizon		
Framework 15 message:	**Longer term – to 15 years**	**Shorter term to 5 years**
	Are you aware of any new evidence which impacts in the light of this - do you think there is the need for a different message for Framework 15? Please detail your evidence about the **longer term**	Please detail your evidence about the **shorter term**, specifically:
Five year forward view draws attention to the NHS being committed to making **substantial progress** in ensuring that the boards and leadership of NHS organisations better reflect the diversity of the local communities they serve, and that the NHS provides supportive and non-discriminatory ladders of opportunity for all its staff, including those from black and minority ethnic backgrounds.	Equality and diversity and non-discriminatory ladders of opportunity are integral to our workplaces and to RCPath.	Equality and diversity and non-discriminatory ladders of opportunity are integral to our workplaces and to RCPath.

Section 4 – Models of care

Timescale/time horizon		
Framework 15 message:	**Longer term – to 15 years**	**Shorter term to 5 years**
	Are you aware of any new evidence which impacts in the light of this - do you think there is the need for a different message for Framework 15? Please detail your evidence about the **longer term**	Please detail your evidence about the **shorter term**, specifically:
Five Year forward View outlines a number of possible future service models including • multispecialty community providers (MCPs), which may include a number of variants • integrated primary and acute care systems (PACS) • additional approaches to creating viable smaller hospitals • models of enhanced health in care homes The **expertise to support** the piloting and introduction of these models need to be considered. Existing NHS services and areas of the healthcare workforce may work with others in new and different ways (e.g. community pharmacy).	Unlikely to affect Medical Microbiology	Although microbiologists usually have a skeleton service at weekends, the introduction of 7 day working would require an increase in microbiology consultant numbers. Our service models incorporate Microbiologists, Virologists and Infectious Diseases consultants, thereby providing a wider pool of people to do the work. Increasingly we are able to deliver clinical services in addition to laboratory services. OPAT (Outpatient Parenteral Antibiotic Therapy) enables intravenous antibiotics which have traditionally been delivered in hospitals to be delivered to patients in their homes or nursing homes, thereby releasing hospital bed-days
Services are likely to become **increasingly integrated** in the future, enhanced through policies such as the Devolution of Local health and social care budgets, the integrated care pilots and integrated personal commissioning. Partnerships will become increasingly important, including with partners beyond NHS and social care.	Unlikely to affect Medical Microbiology	The increasingly integrated services and funding will facilitate OPAT's different use, which has previously been constrained by a lack of tariff in the hospital funding framework.

Timescale/time horizon		
Framework 15 message:	**Longer term – to 15 years**	**Shorter term to 5 years**
	Are you aware of any new evidence which impacts in the light of this - do you think there is the need for a different message for Framework 15? Please detail your evidence about the **longer term**	Please detail your evidence about the **shorter term**, specifically:
We may increasingly see **centres of specialisation** in some specialties in some areas.	It was anticipated that centralisation of microbiology laboratories would increase quality and specialisation. However, there is little evidence of this, only increasing distance from patients and so samples have a higher risk of deterioration, as well as divorcing the laboratory from either the microbiology consultants or clinical users (or both) which resulting reduced clinical or laboratory liaison. The centralisation has also led to more costly demands for care and service as demand management become less practicable.	Unlikely to affect Medical Microbiology
We will see the ongoing development of services in the area of **urgent and emergency care**	Unlikely to affect Medical Microbiology	Unlikely to affect Medical Microbiology
Five Year Forward View highlights new developments such as the **evidence based diabetes prevention service** and **encouraging new capacity in under doctored areas.**	The RCPath would like to see greater equity in the distribution of training posts across the country in line with population and need, taking into account training centre capacity, specialist services location and experience in delivery of high quality training.	The RCPath would like to see greater equity in the distribution of training posts across the country in line with population and need, taking into account training centre capacity, specialist services location and experience in delivery of high quality training.

Section 5 – Future workforce characteristics

Timescale/time horizon		
Framework 15 message:	**Longer term – to 15 years**	**Shorter term to 5 years**
Below are the 5 future workforce characteristics set out in Framework 15	In your evidence please highlight any or all of the following: - Are these workforce characteristics still valid? - Any evidence you are aware of work which is underway and which contributes to the achievement of the workforce characteristics - Any gaps you are aware of Please detail your evidence about the **longer term**	Please detail your evidence about the **shorter term** education and training needs required for the current workforce to meet these characteristics:
The workforce will include the informal support that helps people prevent ill health and manage their own care as appropriate.	Unlikely to affect Medical Microbiology	Unlikely to affect Medical Microbiology
Have the skills, values and behaviours required to provide co-productive and traditional models of care as appropriate.	Unlikely to affect Medical Microbiology	Unlikely to affect Medical Microbiology
Have adaptable skills responsive to evidence and innovation to enable 'whole person' care, with specialisation driven by patient rather than professional needs.	Unlikely to affect Medical Microbiology	Unlikely to affect Medical Microbiology
Have the skills, values, behaviours and support to provide safe, high quality care wherever and whenever the patient is, at all times and in all settings.	Unlikely to affect Medical Microbiology	Unlikely to affect Medical Microbiology
Deliver the NHS Constitution: be able to bring the highest levels of knowledge and skill at times of basic human need when care and compassion are what matters most.	Unlikely to affect Medical Microbiology	Unlikely to affect Medical Microbiology

Section 6 – Any other evidence not included elsewhere

Data from Advisory Appointment Committee (AAC) returns received between 1 January – 31 December 2014 in England:

There were **65** AACs planned in this period

No information was received for **5** AACs

AACs cancelled = 14: 5 had zero suitable applications; 6 had candidate/s withdraw; 1 had a mistake in the advert; 2 had shortlisted but neither candidate was interviewed.

AACs unfilled = 7: 3 sole interviewee was deemed unsuitable; 1 candidate was offered a locum post instead; 1 candidate was offered the academic part of the post instead; 1 successful candidate rejected the post; 1 post the 2 interviewed were not deemed suitable.

AACs filled = 39: Applicants range 1 – 11, average 5; Shortlisted range 1 – 6, average 3; Interviewed range 1 – 5, average 2.

17 posts were filled by consultants moving sideways. In theory, this will result in the posts the consultant vacates being advertised and filled but in practice, many Trusts use these vacancies to help make financial savings with funding frozen and posts lost.

The CESR data for the last 2 years, April 2013 – March 2015, shows only 3 successful applicants for CESR in Medical Microbiology or Virology.

Figure 1
Consultant total by region

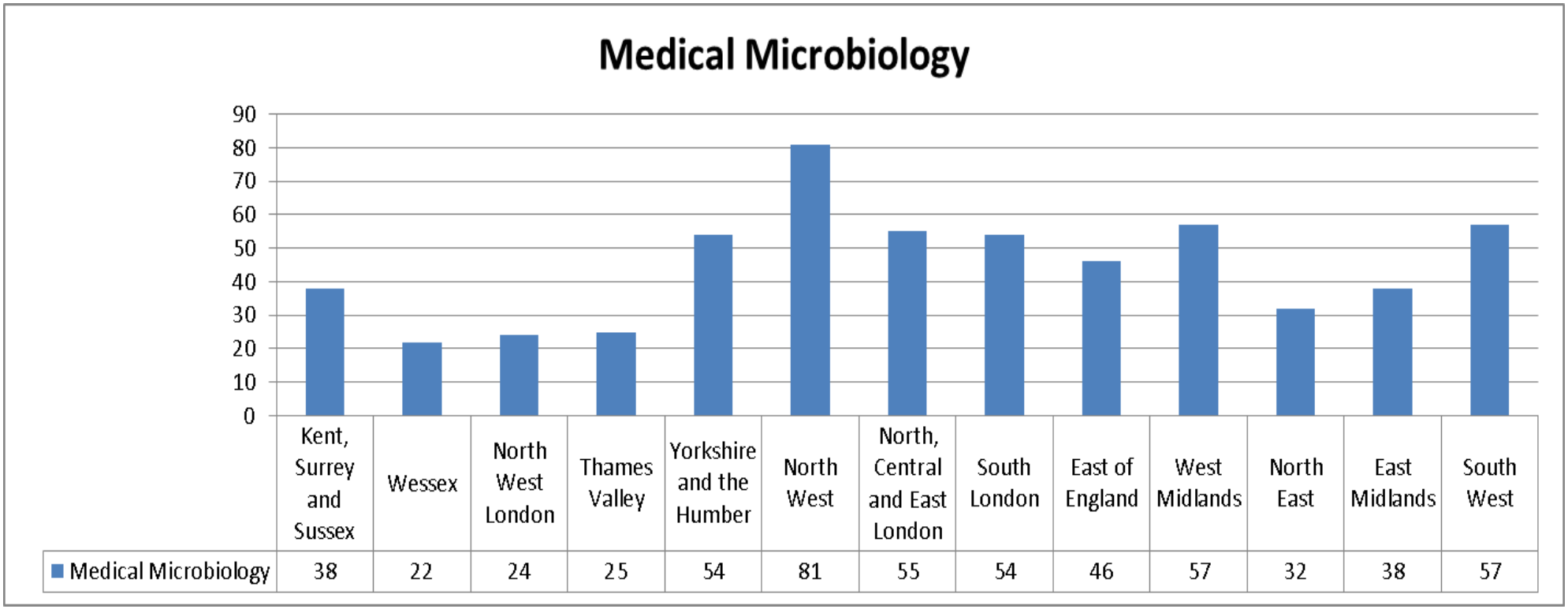

Figure 2 Consultant total by age

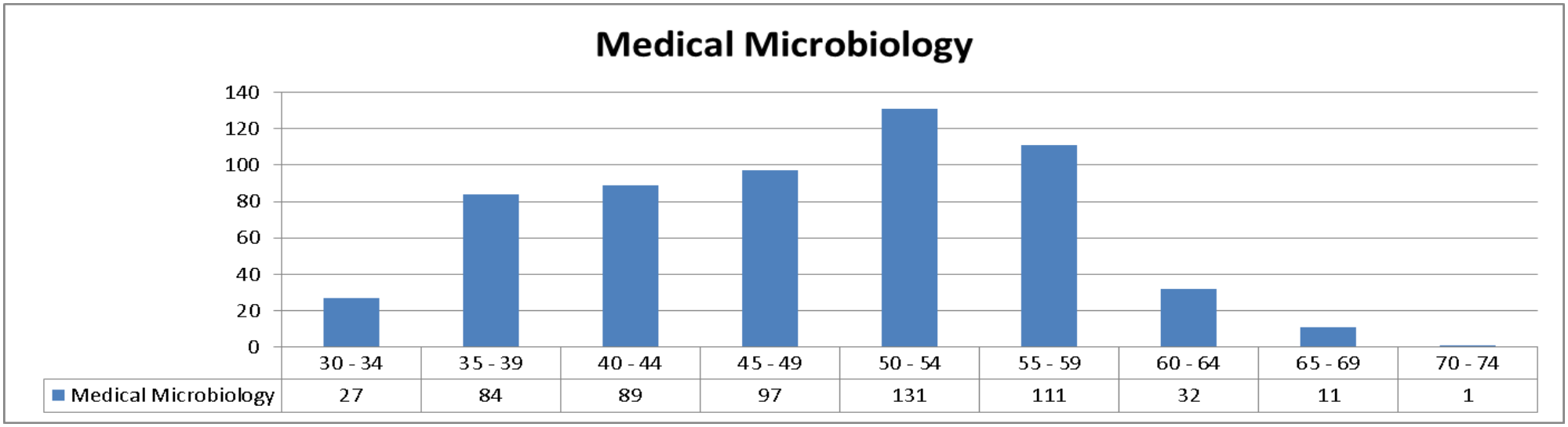

Figure 3 Consultant total by gender

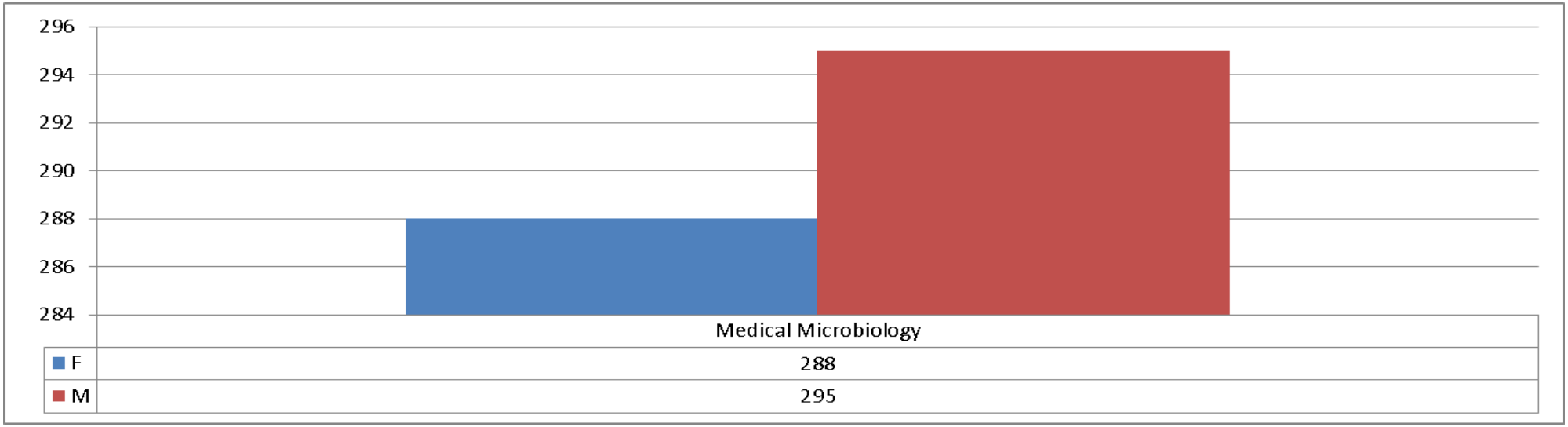

Figure 4
Consultant Full/part time

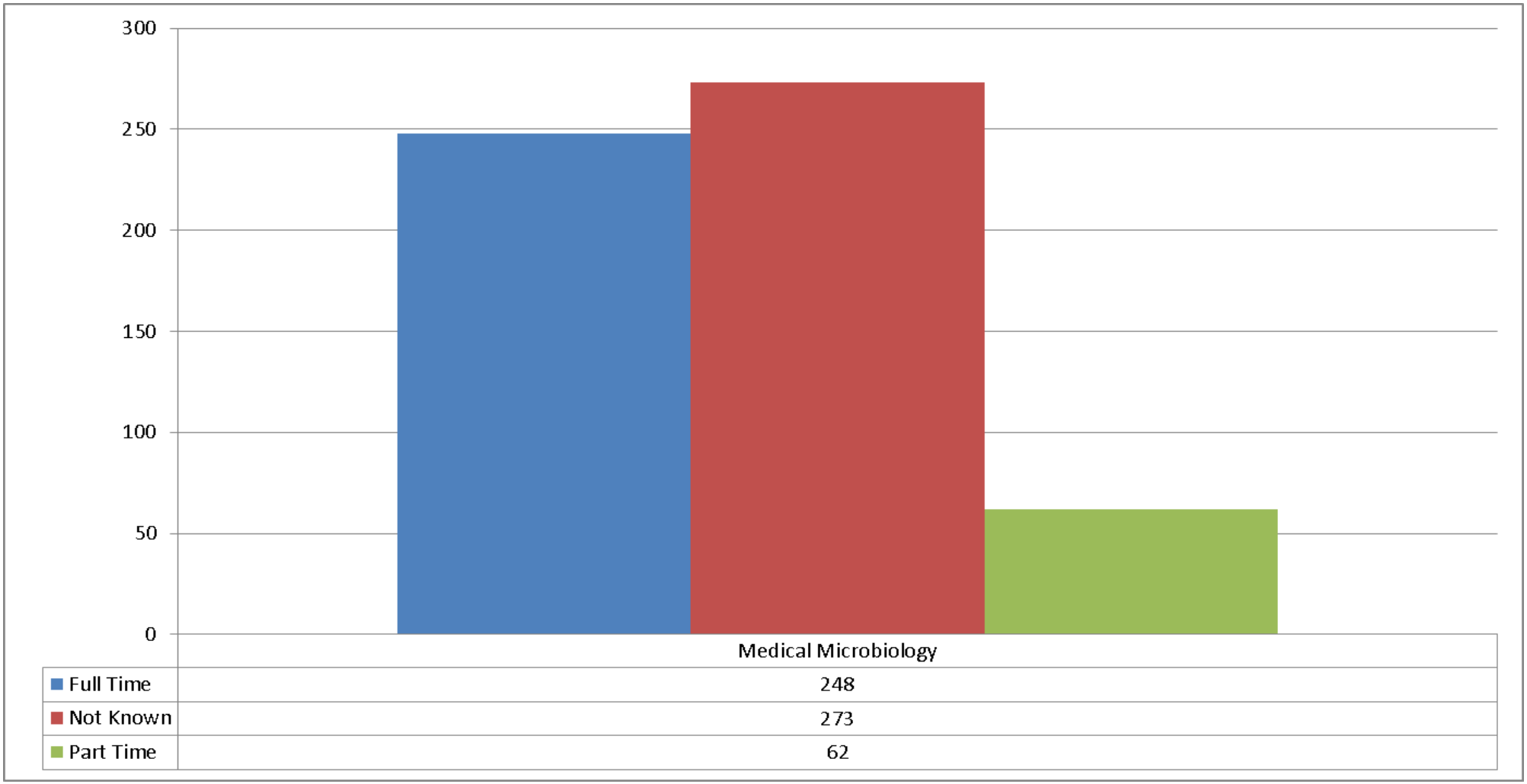

Figure 5
Registered trainees in England