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 Ken Mutton
Job title:…	Chair Virology Specialty Advisory Committee
Organisation:…	Public Health England
Contact email:…	ken.mutton@phe.gov.uk…/ Fiona.addiscott@rcpath.org
Contact number:…	0161 276 5687… / 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.

1. Drivers of future service demand include:

- Increased demands for Virology input into the management of patients with infections with more sensitive and rapid tests and ever increasing numbers of antiviral drugs,
- Increased need for testing for biomarkers of responsiveness (eg IL-28) and resistance to antiviral drugs before and after commencement of therapy, particularly hepatitis B and C, HIV, Cytomegalovirus (CMV),
- Increasing trend for Virologists to manage patients with chronic infections such as hepatitis B, hepatitis C, HIV either alone or as members of teams working with hepatologists, gastroenterologists, sexual health and other Infection specialists,
- Drive to increasing numbers of transplants and increasing numbers of patients treated with immunosuppressive drugs eg in rheumatology means increased viral infections and consequent rise in investigations and need for specialist Virology input,
- Recent widening of indications for antiviral treatment of neonates with the commonest congenital infection, congenital CMV infection,
- Increased use of extracorporeal membrane oxygenation (ECMO) for support of

critically ill patients needs the support of Virologists due to increased risk of respiratory viral infection and of reactivation of latent viruses eg CMV, Herpes simplex virus (HSV) in the intensive care setting,

- Additional virology testing has been incorporated into recent national guidelines eg Hepatitis D (delta) virus testing in all chronic hepatitis B cases,
- Novel viruses often with potential for widespread disease continue to arise eg MERS-CoV, avian influenza A H7N9 etc whilst other viruses are extending their range eg Ebola, dengue, Chikungunya.

2. Future service models:

- Virology laboratories have historically tended to be centralised because of their previously specialised technology.
- The future direction of laboratory provision is uncertain as there are two opposing trends. While the drive to consolidation of laboratories would be expected to help create ever larger more centralised laboratories increasingly Virology serological testing is carried out in 'Blood Science' laboratories with biochemistry and haematology, point of care testing is proliferating in the primary and secondary care settings and in the community, and increasing commercialisation and simplification of molecular virology assays is leading to increased 'specialist' virology tests being done in local nonspecialist Microbiology laboratories.
- In some centres there is a drive to bring molecular services such as Virology, genetics and haematology together in centralised laboratories. Future developments in diagnostic Virology are likely to centre around nucleic acid sequence based technologies, which is likely to drive the trend for specialist molecular virology to be done in large consolidated multidiscipline sequencing centres.

3. Future workforce models:

- The move to a broader Infection Training model where Virologists, Microbiologists and Infectious Diseases physicians will all have core medical training and comprehensive laboratory and clinical infection training will lead to specialist Virologists who will have more clinical input and direct patient care in an Infection team. (see diagram in Part 3)
- Such Infection trained doctors may be expected to participate in acute medicine rotas which may alter working practice and reduce time spent in laboratories.
- Developments in higher specialist training for clinical scientists under Modernising

Scientific Careers will see more of these individuals holding senior laboratory positions.

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

- For medical Virologists expected to remain stable with lessening laboratory roles balanced by increased clinical roles, or to increase with additional needs highlighted earlier eg increased case finding of HIV, hepatitis B, hepatitis C leading to more cases treated, more virus and drug monitoring and Virologists more involved in clinical management; increased spread of vector-borne virus diseases with global warming etc.
- Immigration affects prevalence of virus infections in a community, both increased chronic infections eg hepatitis B, hepatitis C, HIV, less immunity to some infections eg varicella leading to more cases and more interventions for prophylaxis, and acute infections imported on return trips to the country of origin eg hepatitis E.
- Laboratory staffing generally will fall if laboratory consolidation progresses, and staff grading overall will fall as modern automated technologies need less skilled biomedical scientists.

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

Service Demand Drivers:

- As detailed in part 1.
- Additional demands for screening for communicable diseases including:
    - opportunistic screening for HIV (British Association for Sexual Health and HIV (BASHH) guidance),
    - increasing testing for hepatitis C and other bloodborne viruses in formerly hard to reach groups through greater use of dried blood spot testing,
    - papillomavirus testing as part of the cervical cancer screening strategy,
    - infectious diseases in pregnancy screening.

Addressing historic vacancies

- The new training programmes in Virology have greater emphasis on clinical relevance and the introduction of Combined Infection Training in 2015 will ensure that all Virologists in future will have core medical training with MRCP and increased training in Infectious Diseases as well as Virology training. Joint training programmes leading to two CCTs eg Infectious Diseases plus Virology will be encouraged and will lead to more highly and broadly skilled Infection doctors who it is expected will be more attractive to Trusts than laboratory-based Virologists.

Skill Mix/New Roles

- Increased clinical involvement of doctors trained under the combined infection training scheme (beginning August 2015),
- Increased requirement for training of clinical scientists,
- Increase in 7 day working in Virology (may lead to need for increased numbers required).

Forecast Supply from HEE commissioned education

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

Assumed training levels

- There are around 30 trainees in Virology in the UK including trainees training jointly in Virology and Infectious Diseases (Clinical Virology Network (CVN) data) and this number is likely to remain essentially unchanged. RCPath records identify 31 trainees of whom 17 are single specialty Virology trainees and 14 dual Virology/Infectious Diseases trainees. Many Virology training posts have in fact been converted to joint training posts as these are more attractive to candidates and to potential employers, and are more in line with the future direction of the Infection specialties such as Virology ie more clinically focussed.

Attrition

- There is no evidence of disestablishment of Virology posts at the present time.

Employment on Completion of Training

- Employment prospects seem reasonable overall, although some smaller Virology units in the North of England have failed to recruit appropriately qualified candidates in the last year. Of Consultant posts in Virology advertised in the calendar year 2012 leading to Advisory Appointments Committees 6 of 8 Virology posts were filled plus 1 of 1 Infectious Diseases/Virology joint post.

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

Other Supply and Turnover

- There are some 37 fulltime and some 10 part time Consultants in virology nationally (Clinical Virology Network survey 2013),
- This highlights an increase in part time working,
- Posts are not infrequently filled by movement of established consultants (about one in three posts),
- There is poor data on retirement intentions, but the consultant age profile peaks at 45-55 years (CfWI Medical Microbiology and Virology factsheet 2011),
- Clinical Virology Network survey suggests some 28 trainees. Trainee data is not always accurate as not all register early and joint infectious diseases/virology trainees may not always register with both RCP and RCPath,
- There is no introduction of consultants in Virology coming to NHS from the private sector, and there are limited opportunities for Virologists to work in the private sector in substantive posts.

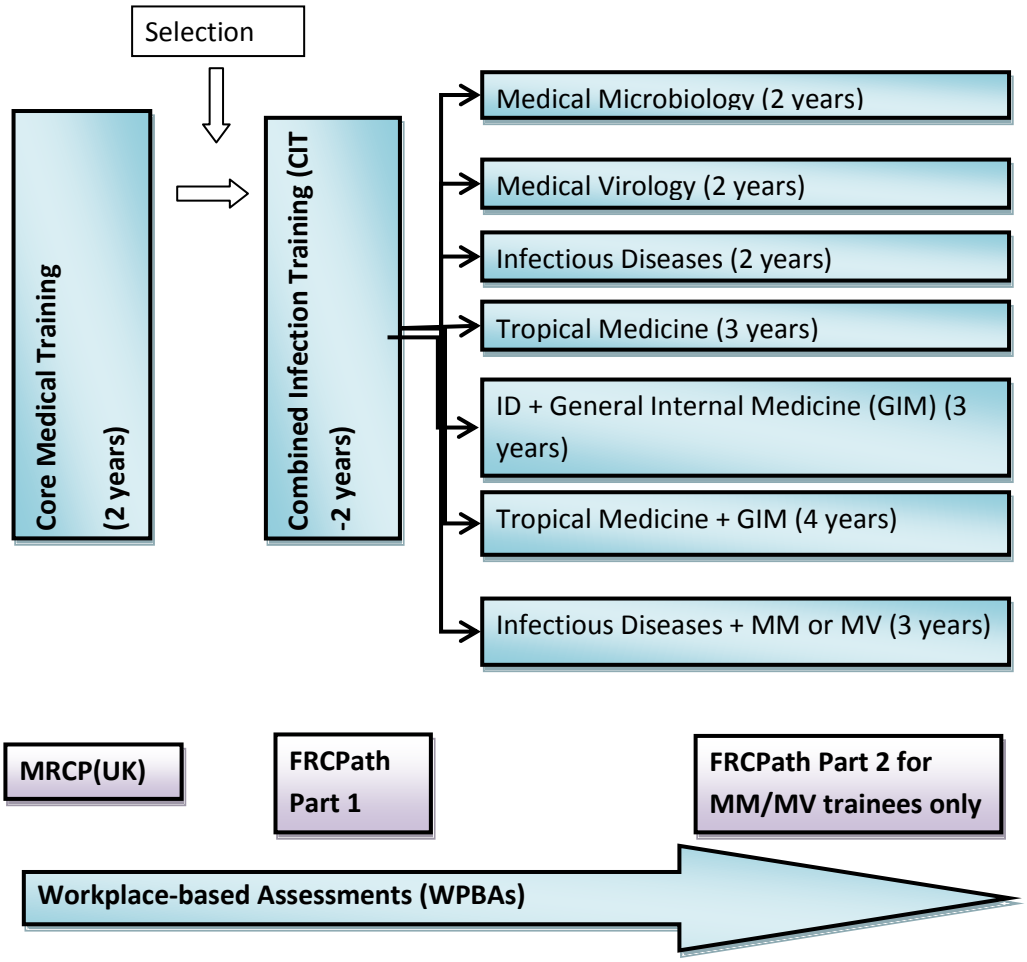
As regards the international labour market, the decision was taken in 2012 to remove Microbiology and Virology from the Home Office Shortage Occupation List.

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.

Internationally there is some limited interest from EU doctors trained in Microbiology and/or Virology, less than 5 per year recruited into substantive Virology posts

PART 3 – General / Other Evidence not included elsewhere

Infection training flow diagram



Virology remains a growing and increasingly clinically relevant specialty with rapid progress in diagnostics and treatment as well as of continued relevance to public health and infection control. Single specialty Virology training has become unattractive however and more and more trainees are undertaking joint training Infectious Diseases/Virology programmes. With the implementation of Combined Infection training (outlined in the above flowchart) medically qualified trainees doing Virology will have the benefit of greater clinical training; dual training in Infectious Diseases and Virology is expected to be an attractive option in the new Infection training programmes. At present there are significant numbers of Consultant level Clinical

Scientists with FRCPath training working in Virology; the change to joint RCP/RCPath training for medically qualified individuals together with the changes in clinical scientist training will inevitably lead to altered relationships between medical and non-medical Virologists in the future.