



INVITATION TO TENDER

A UK-wide multi-professional eye care workforce supply and demand data modelling project

Introduction

The College of Optometrists is leading a sector-wide and UK-wide, multi-professional eye care workforce supply and demand data modelling project, and wishes to commission – via an open tender process - a suitable organization or individual to conduct the project.

This invitation to tender has been broken down into three parts:

Part one: Project background

Part two: Project specifications

Part three: Tender process and timelines

Part one: Project background

Rationale for project

Due to an ageing population, capacity pressures on hospital eye services (exacerbated by the COVID-19 pandemic), and a growing risk of avoidable sight loss, new models of eye care are being introduced across the UK.

There is an urgent need to understand the current eye care workforce and model future workforce trends, in order to meet patient need, optimise services and improve outcomes. A data-driven, multi-professional approach to understanding eye care workforce supply and demand is needed to inform decision-making and interventions relating to workforce planning, investment, training, and deployment.

Aims of the project

We want to know what workforce we need, where, and with what capabilities to ensure adequate eye care provision for service users across the UK, now and in the future. The project outputs are to:

1. Collate available data and develop a projection of the current primary and secondary eye care workforce in each nation of the UK.
2. Model expected changes in the eye care workforce over the next 5-10 years.
3. Develop an updated understanding of patient demand in each UK nation over the next 5-10 years.

Policy context

The provision of eye care services in the UK is rapidly changing. An ageing population, capacity pressures on hospital eye services (exacerbated by the COVID-19 pandemic), and a growing risk of sight loss due to long secondary care waiting times, have resulted in new models of eye care being introduced across the UK. In addition, there is the rapid acceleration of new technologies, and changing demographics within the eye care workforce, including a general move towards part-time and locum work.¹

Even before the COVID-19 pandemic began, demand for eye care services in the UK had exceeded capacity; a 40% increase in demand is predicted over the next 20 years, and the overall economic burden of sight loss is estimated to be £28 billion in the UK.² There is an urgent need to address not only the pre-existing backlog of patients, but also the additional backlog due to the pandemic, and the expected demand for NHS eye care services in the future so that we can eradicate avoidable sight loss.

¹ The College of Optometrists (2016) *The optical professions: what does the future hold?* Available at: <https://www.college-optometrists.org/uploads/assets/3a8a1050-d4ba-4cc6-b460ade4ff799eb8/The-optical-professions-What-does-the-future-hold-report.pdf>

² The Royal College of Ophthalmologists (2019) *Workforce Census 2018*. Available at: <https://www.rcophth.ac.uk/wp-content/uploads/2019/02/RCOphth-Workforce-Census-2018.pdf>

The roles and scope of practice of eye health professionals are evolving, patient expectations are changing, and new technology is emerging. The pandemic has accelerated these changes, and they are likely to impact how eye care will be delivered in the future.

An understanding of the current and anticipated multi-disciplinary eye care workforce, along with disease prevalence and future patient demand, would be of great benefit to commissioners and policy makers in each of the UK's four nations. Although responsibility for healthcare policy is devolved, the challenges facing national policy makers are universal.

As the UK emerges from the pandemic, it is more important than ever to develop more integrated eye care between all organisations across the hospital eye service, the independent sector, community settings and primary eye care. A focus must be on equitable access for all patients no matter where they live, in a way that is sustainable within the limited resources of national health services, and that makes full use of all the skilled eye health professionals across primary and secondary care.

By improving understanding of the current workforce and demand, and modelling future trends, this project will support the development of new models of care which will enable patients to be seen in the right place, at the right time, and by the most appropriate healthcare professional. It will also support the broader ambitions of each nation's plans to deliver better joined-up eye care, address health inequalities, improve health outcomes and tackle workforce challenges.

Intended benefits

The project is intended to produce models of both workforce supply and eye disease prevalence trends, which could be used by stakeholders to support the following areas of work:

- Identify current local population eye care needs and predicted changes over time (including unmet patient needs).
- Optimise existing workforce capacity and capability to meet population and patient care needs.
- Identify priorities for future workforce education, training and development to support new models of care.
- Support evidence-based decision-making on workforce planning, investment, training, and deployment, and cost-effective commissioning decisions at all levels.

An improved understanding of eye care workforce trends will ultimately help providers, commissioners and service designers to:

- Improve access to eye care services and reduce inequalities in access.
- Improve eye health outcomes and patient experience across the full range of patient pathways.
- Facilitate multi-professional collaboration between primary and secondary eye care.
- Identify gaps in existing data capture methods and improve future workforce data models.

Scope of project

The project is intended to identify the current ("baseline") multi-professional eye care workforce, and model expected trends over 5-10 years, if no further policy or education changes were to occur. It is not intended to model workforce requirements following changes to eye care pathways. This is expected to be a future phase of work, which is not included in the scope of this project.

Diversity and Inclusion

The outcomes of this project will support future service planning and delivery, which will help address some of the current inequalities in access to eye health examinations, screening, treatment and management. In particular, the model developed could support work to improve health outcomes for older people, and those from some ethnic minority backgrounds – including those who may be at higher risk of specific eye conditions.

Project oversight and funding

The project is being led by The College of Optometrists, and supported by an Advisory Group consisting of:

the Association of British Dispensing Opticians (ABDO), the Association of Optometrists (AOP), the British & Irish Orthoptic Society (BIOS), the Federation of (Ophthalmic and Dispensing) Opticians (FODO), the General Optical Council (GOC), Health Education England (HEE), Health Education and Improvement Wales (HEIW), Health and Social Care Northern Ireland (HSCNI), the Local Optical Committee Support Unit (LOCSU), NHS England, the Royal

College of Nursing (RCN), the Royal College of Ophthalmologists (RCOphth), Royal National Institute of Blind People (RNIB), Scottish Government and Welsh Government.

The College of Optometrists, ABDO, BIOS, FODO and RCOphth are funding the project.

Many of the Advisory Group members are also providing data for the project.

Part Two: Project specifications

We expect the project to require three streams of work:

- **Stream One:** a multidisciplinary eye care data projection of current and future **workforce trends** for each UK nation.
- **Stream Two:** an eye disease **prevalence** model for each UK nation.
- **Stream Three:** an interactive **dashboard** that combines the workforce and prevalence models.

Ideally, a single supplier should provide both the workforce projection (stream one) and the disease prevalence model (stream two), along with a combined interactive dashboard (stream three).

However, we welcome applications from suppliers only able to provide one or two of the streams.

Stream One: a UK-wide multidisciplinary eye care workforce data projection

A workforce data-modelling approach in eye care would enable multi-professional workforce supply to be better understood across primary and secondary care. Data-driven projections of the current and future workforce trends can support the roll-out of new models of care, identify potential shortfalls in workforce supply, inform proactive approaches to workforce development and accelerate the pace of change.

The model and projection should be based on current workforce data and trends (including the education pipeline and retirement profile of each profession) and should be built with projections modelling trends over the next 5-10 years, and **must** have the capability of updating with new data as and when it is available.

- The workforce data model **must** cover all four UK nations:
 - England
 - Northern Ireland
 - Scotland
 - Wales
- The model should ideally cover **all eye health professions**, across both primary **and** secondary care:
 - Contact lens opticians
 - Dispensing opticians
 - Ophthalmic nurses
 - Ophthalmologists
 - Optometrists, including those with higher qualifications
 - Orthoptists
 - Technicians and other support professionals in eye care
- The workforce model should allow the user to understand how different factors impact trends, including:
 - sex
 - age
 - ethnicity
 - region/nation
 - headcount
 - FTE
 - primary and/or secondary care
 - secondary specialism (see Appendix One)

Members of the Advisory Group are able to assist with the provision of workforce data, including anonymised data on professional health care registrants held by regulators, members of professional and membership bodies, and primary and secondary employer data. See Appendix Two for data that will be made available.

Stream Two: a UK-wide eye disease prevalence model

A comprehensive analysis of current population eye health needs and future trends - using a modelling approach - would help to achieve an understanding of workforce requirements in the future; and can be used to inform decision-making and interventions relating to service planning and investment, and workforce development and deployment.

The model should be divisible by local health providers (such as Health Boards and ICSs), but should also be filtered by Local Authority region, and by UK nation, and be based on the latest studies of prevalence, incidence and relevant national census data. The model should be built with projections made up to the next 5-10 years, and **must** have the capability of updating with new data as and when it is available.

- The model should ideally cover both the adult and paediatric populations with all the eye conditions that fall within the following sub-specialties:
 - Low vision services
 - Acute anterior segment
 - Oculoplastics and Orbit
 - Cornea and Ocular Surface, including complex contact lens
 - Cataract
 - Refractive
 - Glaucoma
 - Medical Retina and diabetic eye disease
 - Surgical Retina
 - Neuro-ophthalmology
 - Ocular-motility (adult)
 - Paediatric ophthalmology
 - Ocular oncology
 - Uveitis

Please see Appendix One for a breakdown of each eye condition by sub-specialty.

- Where possible, the model should allow the user to understand the impact of:
 - disease type
 - region
 - ethnicity
 - age
 - sex

Stream Three: an interactive dashboard that combines the workforce and prevalence models

A user-friendly, interactive dashboard that can be used by healthcare commissioners, health professionals and the eye care sector to understand current and future workforce trends and patient needs will be an essential output of the project. It would be beneficial if this work is carried out by the supplier who develops the models, to ensure that the dashboard operates seamlessly between all streams of the project.

With a combination of the two models, the dashboard output should enable the user to see, for any given defined local authority or local health provider:

- the current eye care workforce
- the current prevalence of the most common eye conditions
- expected changes over time of workforce and prevalence, if no further policy or education changes were to occur

This will help to identify where changes are required in service delivery and workforce development and deployment.

Ideally, the dashboard would be developed in such a way that it could be expanded following future phases of this project; for example by modelling workforce projections for different eye care pathways.

Project findings will also be expected to be published as an open access written report.

Part Three: Tender process and timelines

Advisory Group

The College of Optometrists is leading this project and will provide the day-to-day management of the contract. The College has formed an Advisory Group – consisting of both project funders and other stakeholders in the eye care sector.

Decisions on the awarding of contracts will be made by the project funders from within this Advisory Group (marked with an asterisk):

1. Association of British Dispensing Opticians (ABDO)*
2. Association of Optometrists (AOP)
3. British & Irish Orthoptic Society (BIOS)*
4. Federation of (Ophthalmic and Dispensing) Opticians (FODO)*
5. General Optical Council (GOC)
6. Health Education England (HEE)
7. Health Education and Improvement Wales (HEIW)
8. Health and Social Care Northern Ireland (HSCNI)
9. Local Optical Committee Support Unit (LOCSU)
10. NHS England
11. Royal College of Nursing (RCN)
12. The College of Optometrists*
13. The Royal College of Ophthalmologists (RCOphth)*
14. Royal National Institute of Blind People (RNIB)
15. Scottish Government
16. Welsh Government

Budget

The maximum available budget for this project is £81,000, inclusive of VAT.

The preferred option is for one supplier to provide the workforce projection, the disease prevalence model, and the combined interactive dashboard. If more than one supplier provides the different streams, the total budget will not change, and will be appropriately distributed between suppliers.

Tender process and timelines

An open tender process is being conducted to commission a suitable organisation or individual with the relevant expertise to undertake the work. This will be managed by The College of Optometrists, with decisions on contracts awarded being made by the project Funding Group.

1. Invitation to tender advertised: Monday 5 December 2022

An invitation to tender will be placed on The College of Optometrists website and shared via social media channels. A direct email will be sent to organisations/individuals who may be interested in the project. Members of the Advisory Group will be asked to share the invitation among their networks. Any interested organisation, research team or individual will be able to submit a proposal.

2. Submissions: Friday 13 January 2023

All proposals must be submitted by 5pm on 13 January 2023. Proposals received after this time may be considered at the Funding Group's discretion.

3. Filtering:

On receipt, all proposals will be reviewed by The College of Optometrists to ensure they meet the core requirements for eligibility. Incomplete or ineligible submissions will normally be rejected at this stage and the authors informed of this immediately.

4. Peer review:

Following initial screening by The College of Optometrists, proposals will be sent by email to the Funding Group for consideration, scoring and comments against the selection criteria detailed below.

5. Panel review:

Following the panel review, submissions will either be rejected or short-listed for presentation. Proposals that are rejected at this stage will be notified as soon as possible and be provided with feedback from the Funding Group.

6. Presentations:

Organisations/individuals whose proposals are shortlisted will be invited to present to the Funding Group, followed by a structured Q&A session. The presentation meeting will be held virtually, in late January or early February 2023. Shortlisted organisations will be given two weeks' notice of the presentation date.

7. Decision:

Following the presentations the panel will inform successful and unsuccessful groups as soon as possible, providing feedback whenever possible.

8. Commissioned individual/organisation begin work:

The Advisory Group (including the data sub group) will meet with the successful applicant to assist with the initiation of the project. Progress will be monitored against the aims and milestones agreed by the Advisory Group at the beginning of the project.

9. Completion of project:

The project is expected to be finalised, with the interactive dashboard going live and outputs published at the latest by the end of Q3 2023 (September 2023).

Selection criteria

The Funding Group will appoint the successful applicant using the following selection criteria:

- understanding of the project aims
- proposed approach and timescales
- ability to meet the aims and outputs of the project
- innovating aspects
- functionality and product design
- flexibility of outputs to be adapted to future project phases
- price and cost-effectiveness
- after-sales service and technical assistance
- experience and competence of the team/individual delivering the work
- financial viability of the organisation/individual

Proposals should set out how they will meet the above criteria.

Instructions to proceed

The College of Optometrists is now inviting potential applicants to submit a proposal regarding the above project. The project specifications as outlined in Part two set out the ideal required parameters of the project. However, we would welcome proposals (with total costs) of completing all or part of the project.

Submissions should be submitted to policy@college-optometrists.org by **5pm on 13 January 2023**

Questions regarding the project or this Invitation to Tender should be sent to Neal Suchak, Senior Policy & Public Affairs Officer at neal.suchak@college-optometrists.org. Please note, any questions received by other Advisory Group members will be immediately re-directed to Neal Suchak.

To ensure the tender process is transparent, we will anonymise and share any questions asked and our responses on the Invitation to Tender webpage.

Appendix One – Sub-specialities

This list provides examples of eye conditions within each sub-speciality. A more comprehensive list can be made available.

1. Low vision services
2. Acute anterior segment
3. Oculoplastics and Orbit: TED, Lacrimal, Ptosis, Orbital tumours, Lid cancer
4. Cornea and Ocular Surface, including complex contact lens: Keratoconus, Fuchs dystrophy, Microbial keratitis, Immune disorders, Dry eye disease
5. Cataract: Cataract, Complex cataract, Aphakia and pseudophakia, PCO/YAG
6. Refractive: Myopia, Hypermetropia, Astigmatism
7. Glaucoma: POAG, ACG, 2oglaucoma, OHT
8. Medical Retina and diabetic eye disease: Dry and wet AMD, RVO, DR, Retinal artery occlusion, CSR
9. Surgical Retina: Primary Retinal detachment, Macular hole and LMH, ERM and VMT and myopic, DR, Trauma
10. Neuro-ophthalmology: Raised ICP and papilloedema, Optic neuritis, Optic nerve and chiasmal gliomas, Stroke with visual problems, Cranial nerve palsies
11. Ocular-motility (adult): Strabismus, Cranial nerve palsies, Nystagmus, Other causes of squint or double vision, Intractable diplopia
12. Paediatric ophthalmology: Strabismus, Hypermetropia, Disease surveillance/monitoring, Myopia, Cerebral VI/LD/ Autism
13. Ocular oncology: Uveal melanoma, Choroidal nevi, Choroidal metastases, Choroidal haemangioma, Choroidal choristoma
14. Uveitis

The data subgroup will be able to assist with further explanation and potential data.

Appendix Two – Data sources

The following members of the Advisory Group are able to provide anonymised data to assist with the project – weblinks are indicated where data is currently publicly available.

1. **Association of British Dispensing Opticians (ABDO)**
2. **Association of Optometrists (AOP)**
3. **British & Irish Orthoptic Society (BIOS)**
 - Workforce survey was conducted in October 2022
4. **Federation of (Ophthalmic and Dispensing) Opticians (FODO)**
5. **General Optical Council (GOC)**
 - Registrant data
 - GOC registrant survey 2022
<https://optical.org/survey2022/>
 - GOC Approved Qualifications Annual Monitoring & Reporting – 2020/21 Sector Report June 2022
<https://optical.org/media/ffifbdh0/amr2021-sector-report-final.pdf>
6. **Health Education England (HEE)**
7. **Health Education and Improvement Wales (HEIW)**
8. **Health and Social Care Northern Ireland (HSCNI)**
9. **Local Optical Committee Support Unit (LOCSU)**
10. **NHS England**
 - Federated data platform
 - Edge Health - National Eyecare Recovery and Transformation Programme has published, ICB level subspecialty demand forecasts for ophthalmology https://edgehealth.shinyapps.io/Ophthalmology_DF/
 - NHS Digital: General Ophthalmic Services Workforce Statistics (England and Wales) 31 December 2019
<https://files.digital.nhs.uk/E8/3CB109/General%20Ophthalmic%20Services%20Workforce%20Statistics%2C%20England%20and%20Wales%2C%2031%20December%202019.%20Tables.xlsx>
11. **Royal College of Nursing (RCN)**
 - Data could be lacking, particularly as ophthalmic nurses are not categorized as such on ESR
12. **The Royal College of Ophthalmologists (RCOphth)**
 - Census due end of Q4 2022
13. **The College of Optometrists**
 - Registrant data
 - Optical Workforce Survey (2015) <https://www.college-optometrists.org/category-landing-pages/clinical-topics/research/optical-workforce-survey>
14. **Royal National Institute of Blind People (RNIB)**
 - Sight loss data tool <https://www.rnib.org.uk/professionals/health-social-care-education-professionals/knowledge-and-research-hub/sight-loss-data-tool/>
15. **Scottish Government**
16. **Welsh Government**
 - A Workforce Development Review and Plan for Optometry in Wales (2021), Sarah Schumm

Other sources of data

1. HOP survey

- Scope of practice of optometrists working in the UK Hospital Eye Service: Second national survey: <https://onlinelibrary.wiley.com/doi/10.1111/opo.12952>

2. Public Health England (PHE)

- Atlas of variation in risk factors and healthcare for vision in England August 2021: https://fingertips.phe.org.uk/documents/VisionAtlas_v1.1_20210817.pdf

Page 14: 2019 Global Burden of Disease (GBD) study: <https://vizhub.healthdata.org/gbd-results/>

Project Advisory Group

