

Global Optic Neuritis Practice Patterns and Health System Resource Survey Explores Factors Impacting Outcomes

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Introduction

A recent systematic review (PROSPERO CRD420251160964)¹ identifies few studies reporting on health systems and the resourcing and health economics of optic neuritis care internationally. This highlights potential for inequity in health and vision outcomes from optic neuritis.

Methods

We launched an online global optic neuritis clinical practice patterns and health system resourcing survey on 5/12/25 using Qualtrics. We used snowball sampling to invite senior and resident clinicians from eye emergency, inpatient, paediatric, neuro-ophthalmology and neurology settings. The study received ethics approval from King's College London Ethics (LRS-24/25-51611).

Response rate and characteristics of health provider responders

- 557 providers responded, 309 of whom completed the majority of the survey.

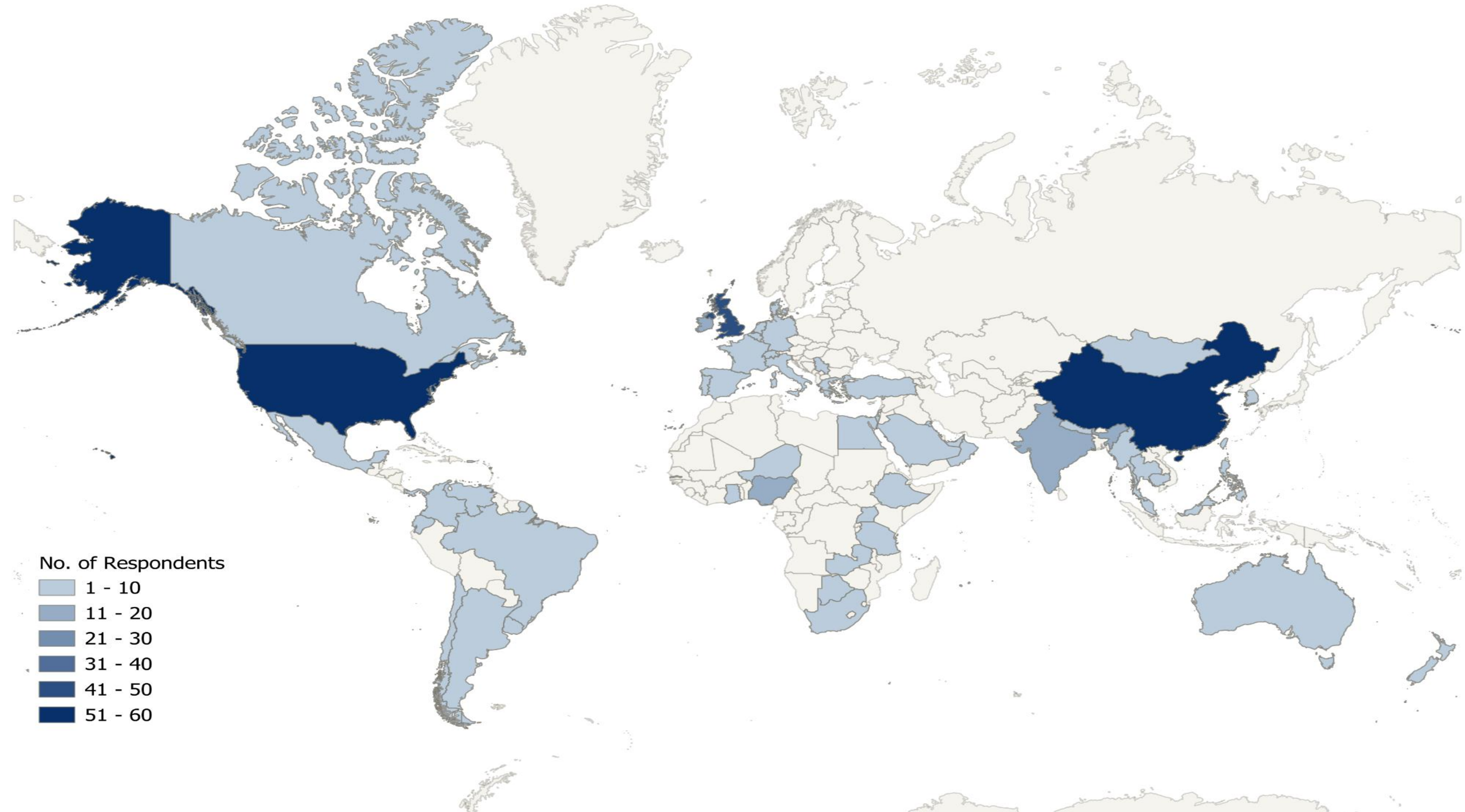


Figure 1 | Global map illustrating distribution of survey responders who detailed their country name.

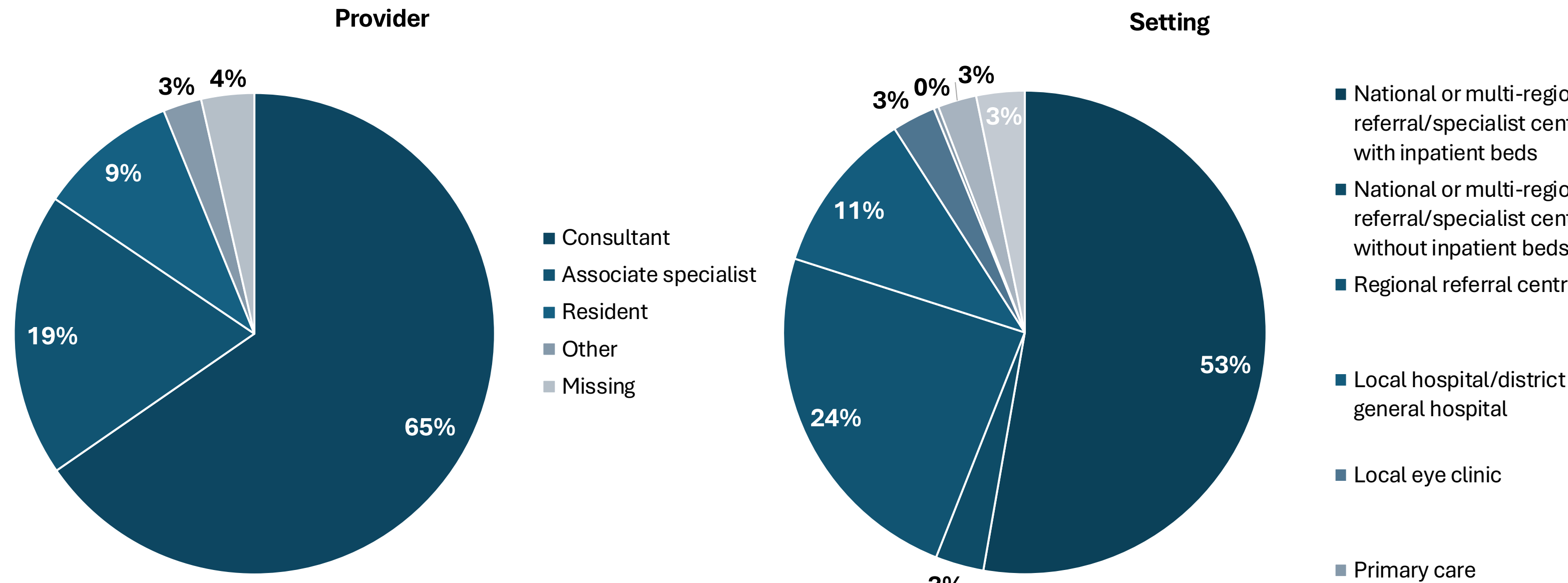
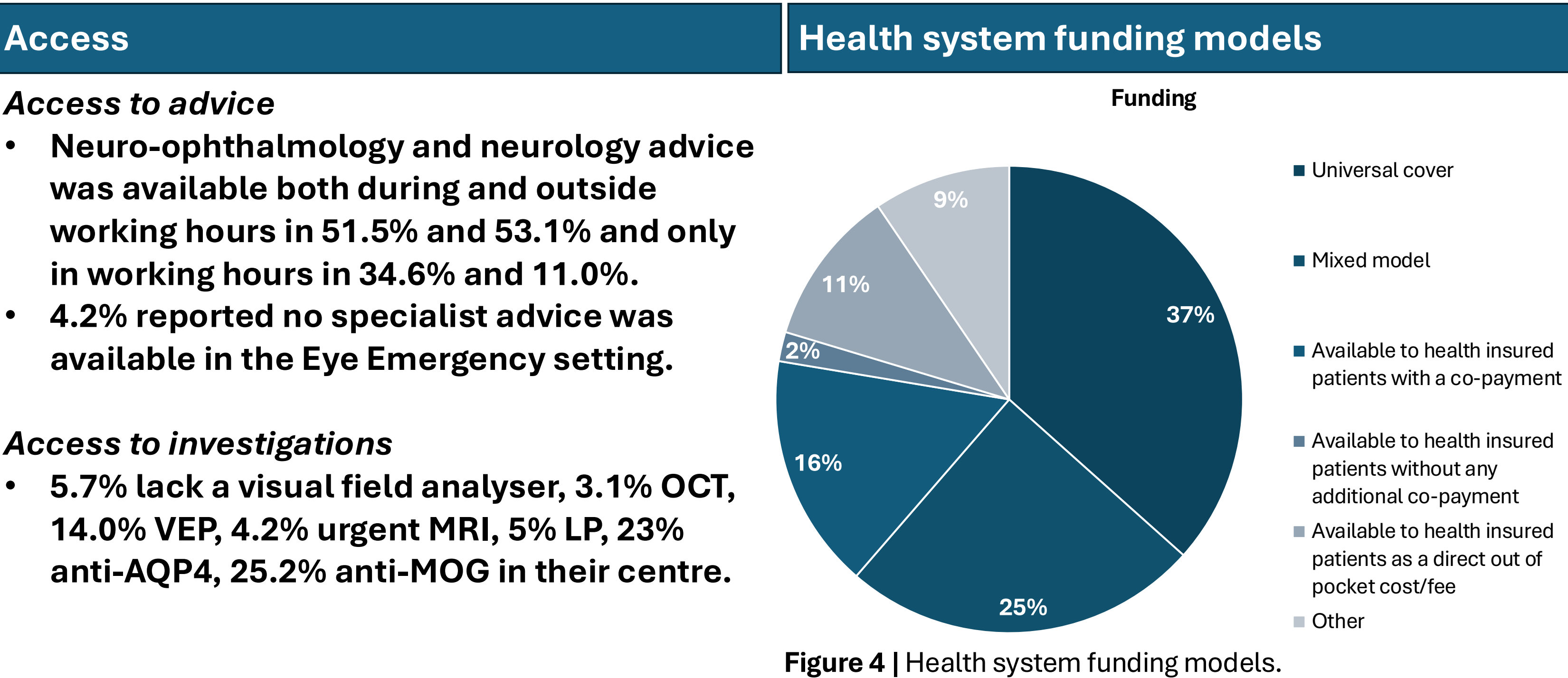


Figure 2 | Providers responding to the survey.

Figure 3 | Setting survey responders worked in.

- 12 lower income (LIC) and lower middle income countries (LMIC), 15 upper middle income countries (UMIC), 30 high income countries (HIC).
- 84.1% worked in urban, 11.3% in mixed urban/rural, only 1.3% in rural settings.
- The majority of responders see adult patients with ON (94.5%), while approximately half review children with ON (49.8%).
- 41.4% reviewed patients irrespective of their ability to pay and 47.2% responders work in settings that review a mixture of self-paying/insured and non-paying patients.



Guidelines and perspectives on current practice

- Appraisal of textbooks and journals in 57.9%, appraisal of medical literature in 56.6% and conferences in 55.3% most commonly informed providers current management in acute ON.
- 61.5% of providers report feeling very confident in managing ON and 30.9% reported feeling somewhat confident.
- 95.6% reported that they may admit patients with ON for inpatient management.
- 98.5% (265/269) providers reported offering high dose corticosteroids in the management of ON, where suspecting non-infectious and non-MS ON.

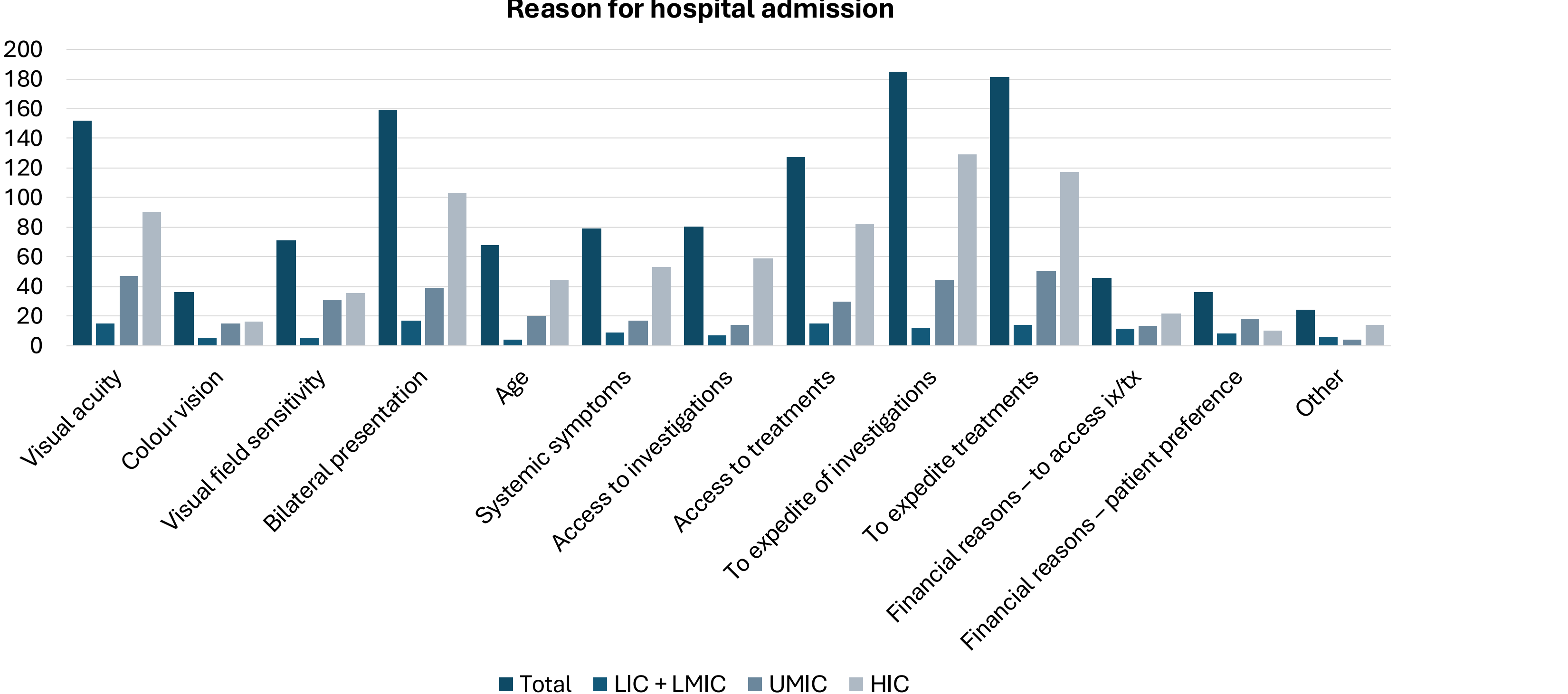


Figure 5 | Reasons cited for providers to opt for inpatient management of acute optic neuritis. HIC, high income country; LIC, low income country; LMIC, lower middle income country; UMIC, upper middle income country.

Visual outcomes in optic neuritis

- 70.4% reported most patients recover their pre-presentation VA but have an ongoing reduction in other aspects of their visual function 3 months following a single episode of potentially MS associated ON.
- 5.4% reported most do not recover pre-presentation VA and visual function.
- 60.2% reported that it was not very common for ON patients to lose driving level vision in the affected eye by 6 months after the acute episode.
- 20.5% reporting it was common and 4.7% very common.

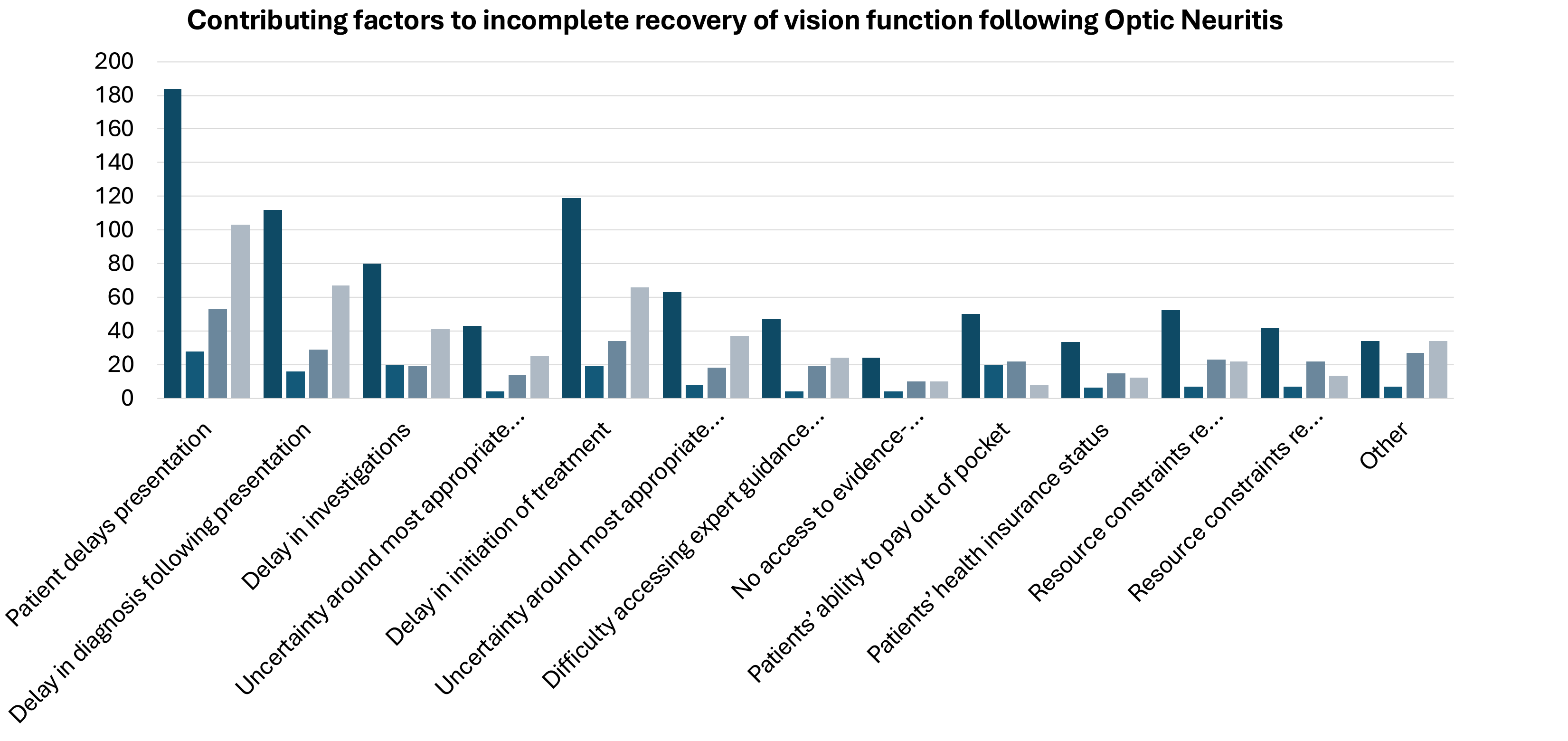


Figure 6 | Reported contributing factors to incomplete recovery of vision function following an episode of optic neuritis. HIC, high income country; LIC, low income country; LMIC, lower middle income country; UMIC, upper middle income country.

Ongoing care and discharge following acute optic neuritis

- 10.4% (32/309) of providers discharge patients after a referral to neurology (to take over care) has been made, whilst 9.4% (29/309) discharge their patients once a referral to a dedicated neuro-ophthalmology service has been made.

The evidence base for acute optic neuritis

- The most frequently cited limitation is that current guidelines are too heavily influenced by the Optic Neuritis Treatment Trial (ONTT) and does not apply to acute management of MOG- or AQP4- associated ON.
- 93.1% (243/261) of global providers state they would value access to a national or international consensus guideline to support standardisation in the management of ON.
- 87.7% would like to be involved in the development of future guidelines.

Conclusion

This study addresses unmet need for data insights into the role health systems and clinical practice variation play in outcomes from optic neuritis and will provide the first cost estimates for comparative health economic modelling.

References

1. Irodi A*, Heppell C*, Ogun O, Fraser CL, Costello F, Wang A, Carnero Contentti E, Du Y, Alshowaeir D, Hooker J, Biousse V, Frick KD, Petzold A, Braithwaite T. Health Economics and Patient Outcomes for Optic Neuritis and Health Systems Supporting Care: A Systematic Review. *Neuro-Ophthalmology*. [In Press]