Forecasting the Surge in Demand for Eye Care Services in Wales

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Introduction

The increasing ageing population projections for Wales over the next two decades will result in increased prevalence of age-related ophthalmic diseases. Current lack of UK population-based surveys, confounded by poor referral and diagnosis data coding, absence of a unified patient electronic record for ophthalmology causes difficulties for service planning. Necessitating epidemiological modelling to predict future demand and aid in planning for capacity shortfalls in an already strained service, as highlighted by the Pyott Report.

Method

Literature review within Ovid-MEDLINE for studies of comparable population demographics to Wales with relevant incidence and prevalence data of the major eye diseases, cataract glaucoma and retinal diseases (diabetic retinopathy and age related macular degeneration). A mean age categorised incidence and prevalence was derived from these studies and extrapolated against age categorised Welsh population projections obtained from the office for national statistics (StatsWales).

Results

Between 2023 - 2033, the number of those aged ≥70 and aged ≥80 years is projected to increase by 16.0% (505 to 586K) and 31.3% (182 to 239K) respectively. With projected increase in incidence of cataract, glaucoma and retinal diseases by 11.0%, 11.7%, 13.0% respectively. With projected increase in prevalence of cataract, glaucoma and retinal diseases by 12.5%, 12.9%, 12.6% respectively.

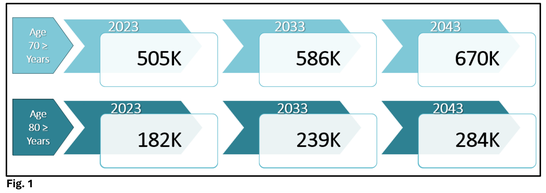


Fig. 1

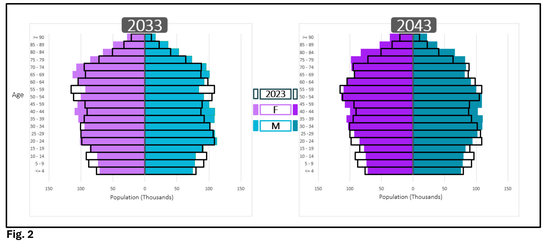


Fig. 2

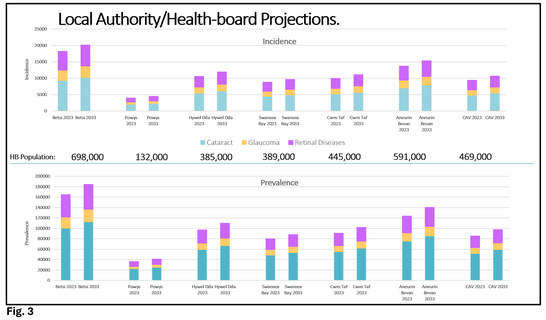


Fig. 3

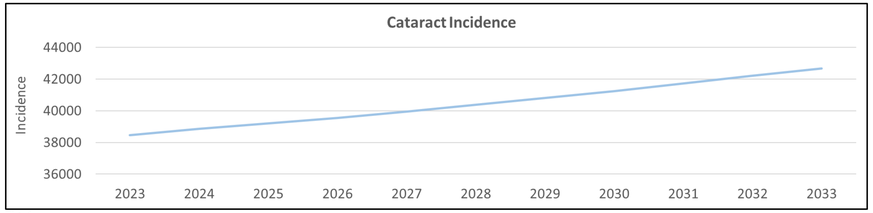


Fig. 4

Fig. 4: Cataracts incidence increasing by 11.0% over the next 9 years to 2033. This projection is based on the GIRFT report national mean conversion rate for cataract surgery of 71%, which is the percentage of referred patients that proceed to have cataract surgery. Current total capacity for cataract surgery provision in Wales is estimated to be approximately 25,000 cases per year, highlighting the drastic shortfall in current capacity compared to the increasing demand, with resultant future exponentially greater waiting lists.

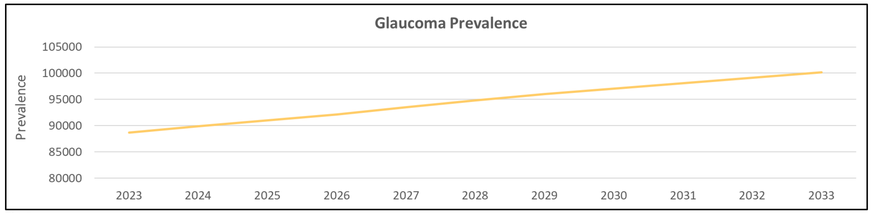


Fig. 5

Fig. 5: Glaucoma prevalence increasing by 13% from 88,700 to 100,130 over the next 9 years to 2033. Glaucoma incidence (or new demand) increasing by 11.7% over the next 9 years to 2033. As Glaucoma is an outpatient led, follow up subspecialty the prevalence data is critical as it shows the full demand for the service as each patient suffering with the condition will require attention and monitoring of disease.

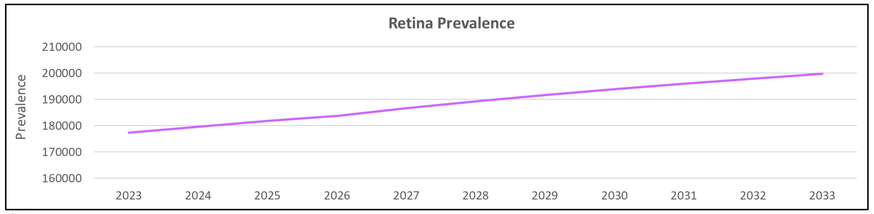


Fig. 6

Fig. 6: Yearly increase in retinal disease prevalence. The projection includes the major retinal diseases, age related macular degeneration (AMD) and diabetic retinopathy. Medical retina is an outpatient specialty that is under significant strain already, which also incorporates intravitreal injections that are required at specific time intervals, deviation from which can cause deterioration in sight. Intravitreal injections are sight saving.

Conclusion

Demand is projected to increase at an alarming rate over the next nine years. Continuing at the current trajectory, without urgent action to plan for the foreseeable rise in demand for eye care, will result in an unsustainable model of eye care provision in Wales. A disaster of longer waiting lists and patients suffering from untreated, treatable ophthalmic diseases.

Poster Number: rco2024.0050016

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