

Severe sight impairment in South-East Scotland in the decade 2010-2019 – Familiar culprits and on-going challenges.



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Introduction

Severe sight impairment (SSI) registration in Scotland is voluntary procedure that permits access to certain state benefits and social support services. A person has SSI if they are “so blind as to be unable to perform any work for which eyesight is essential”.¹

In practice this is defined as vision worse than 3/60 in the better eye, or better than 3/60 with a markedly reduced visual field.¹ In 2018, the term ‘severe sight impairment’ replaced ‘blindness’ on the updated certificate of visual impairment (CVI). The criteria remained unchanged.¹

Liew et al report blindness certifications in England and Wales in 2009-10 and found that Diabetes is no longer the leading cause of SSI in the working age group, with inherited retinal disorders responsible for 20.2% of SSI certifications, compared to 14.4% and 14.0% for diabetic retinopathy and optic atrophy, respectively.²

Scotland does not have a central record of patients with sight loss. Fife is the 3rd most populated local authority in Scotland after Glasgow and the City of Edinburgh.⁴ Up to date information of recent trends in CVI certification informs the landscape of visual impairment locally and reflects the impact of new treatments and screening programmes.

Aims

To describe the causes of severe sight impairment in a defined population in South-East Scotland during the decade 2010-2019.

To differentiate causes of SSI within different age groups.

Methods

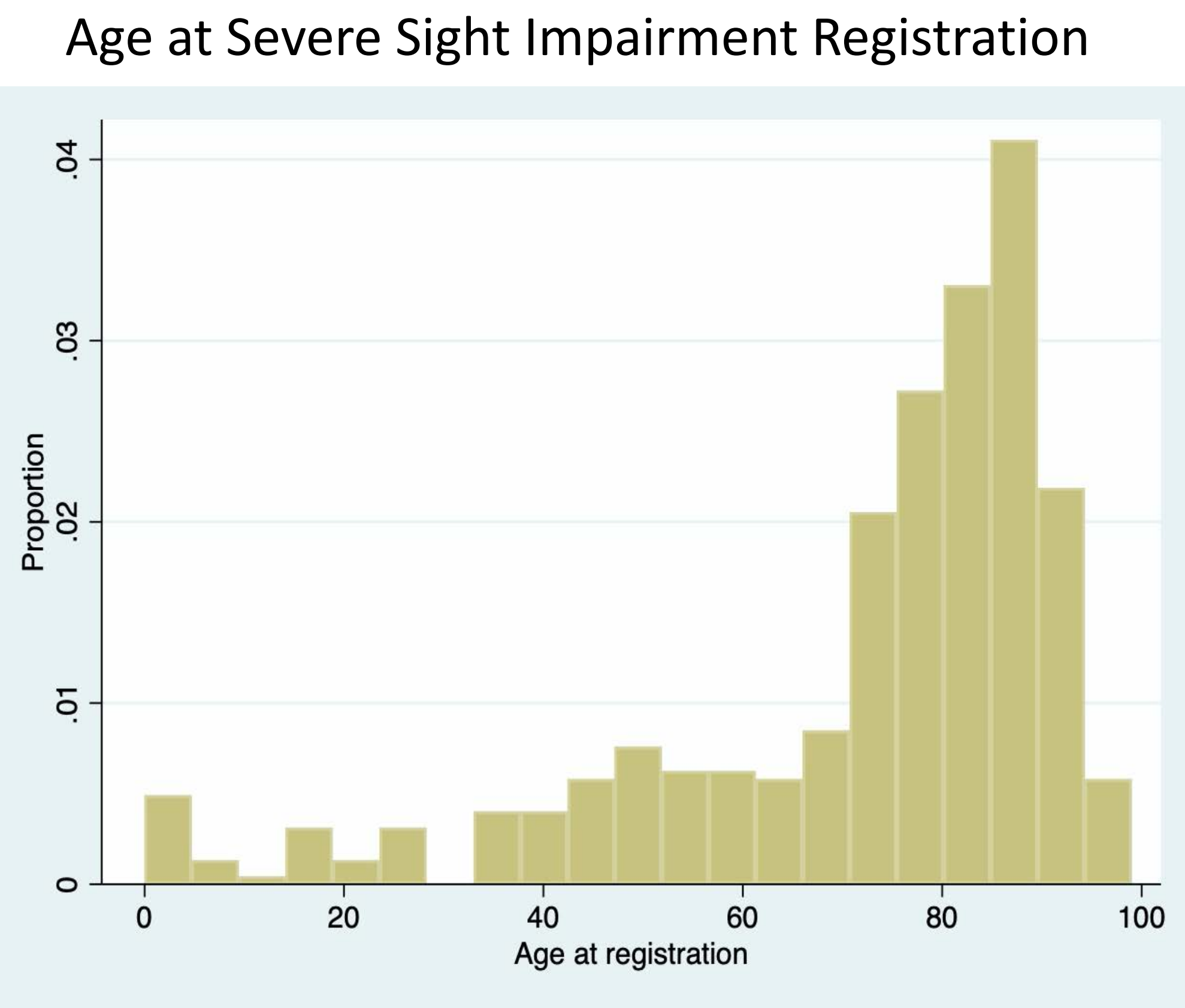
We analysed all causes of SSI certification in Fife, Scotland between 1st January 2010 and 31st December 2019. In Fife, people certified with SSI are included in a database held by Seescape (previously, Fife Society for the Blind).

Patients provide written consent to use of anonymised data for the purpose of research at the time of certification. Alongside cause of SSI, age, sex, date of certification and age at certification were extracted from the database.

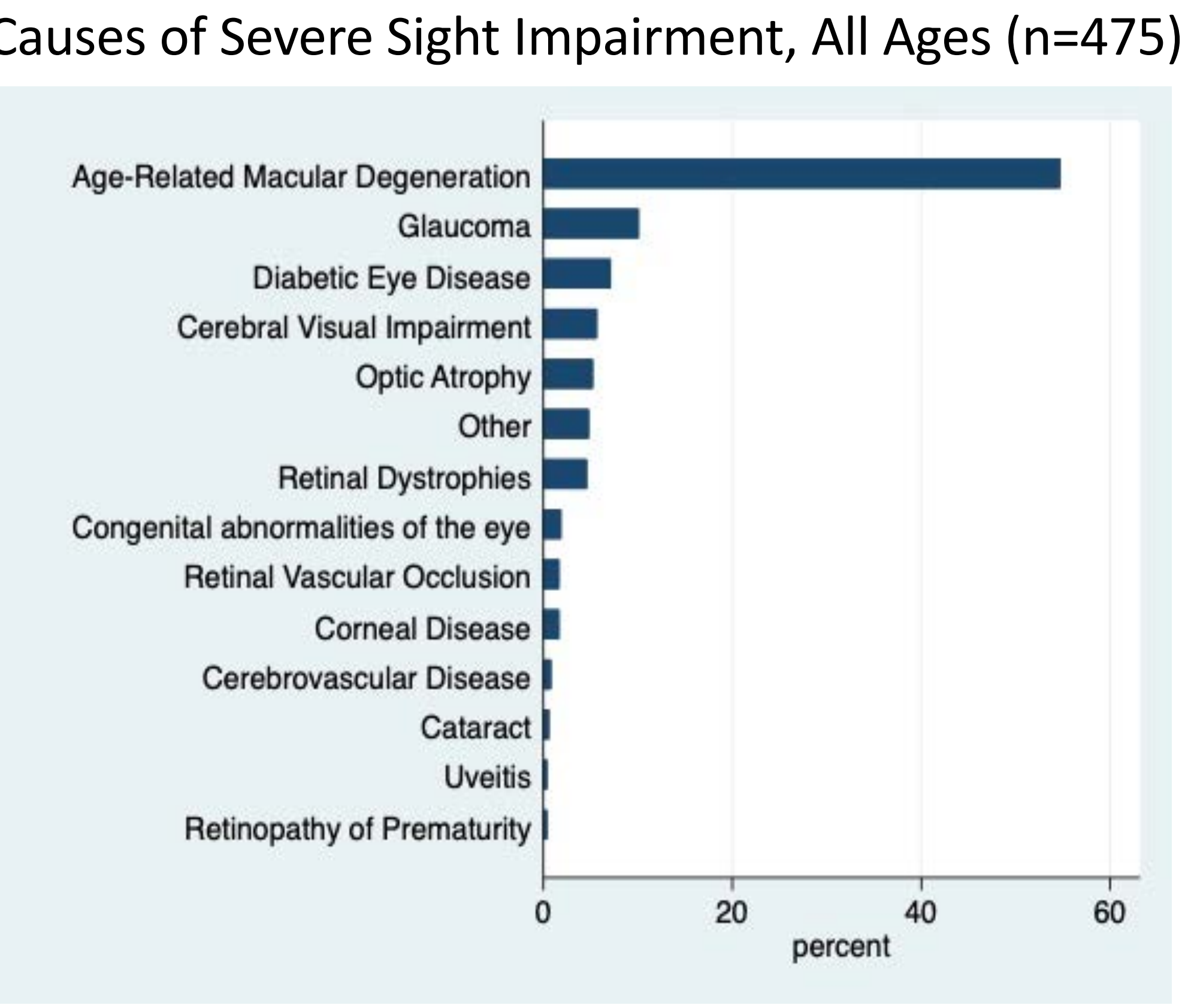
Data were analysed and graphs prepared using Stata (StataCorp. College Station, TX, release 16).

Results – Demographics and Overall Picture

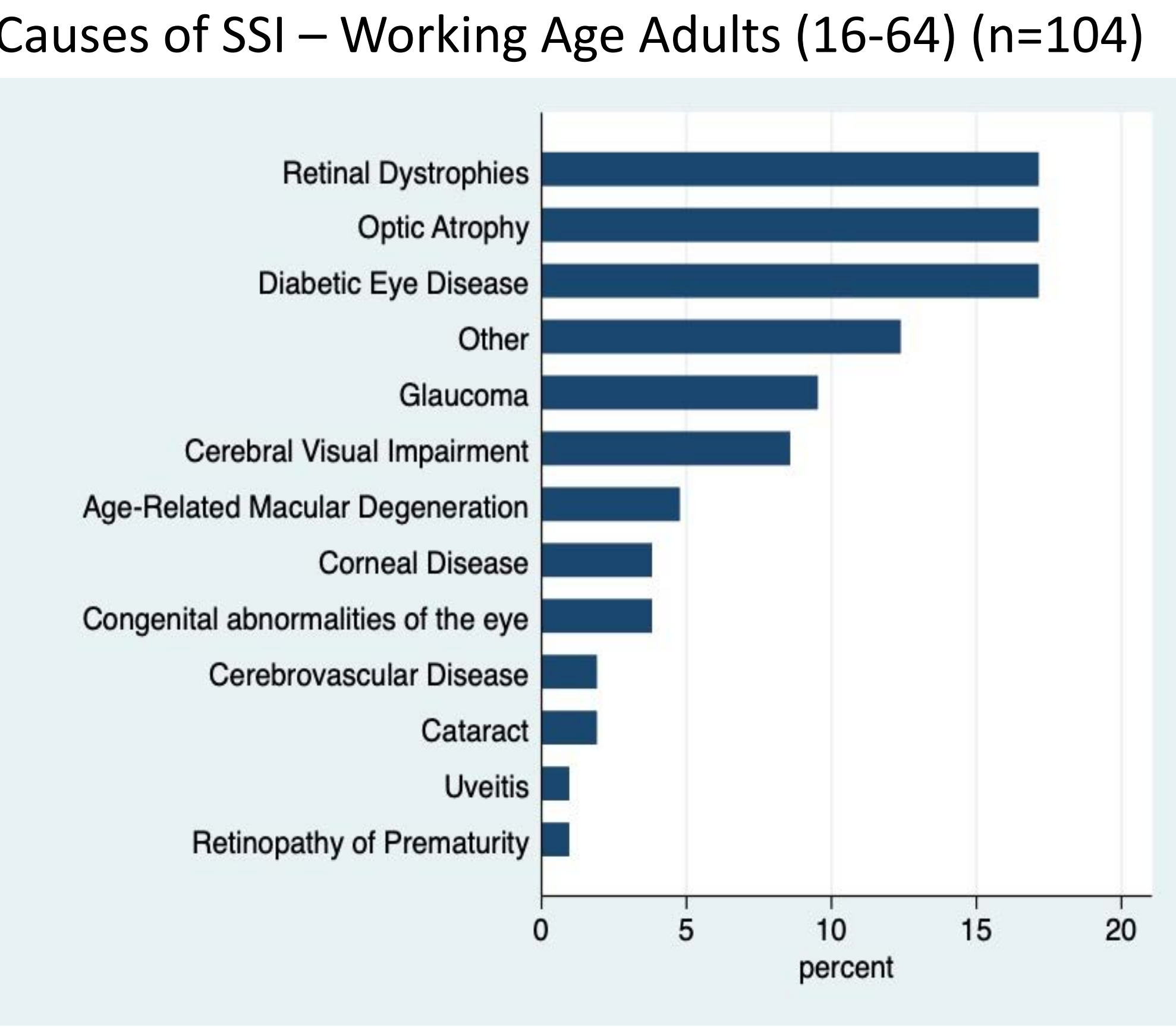
Overall, 475 people were registered as SSI in Fife during the decade 2010-2019. Of those, 62% (n=295) were female and 38% (n=180) male. Median age at registration was 80 (IQR 64-86, range 0-99).



On average, 47.5 people were registered with SSI each year (range 25-78) AMD was by far the commonest cause of SSI overall at 54.7% (260/475) followed by glaucoma 10.1% (48/475) and diabetic eye disease 7.2% (34/475).



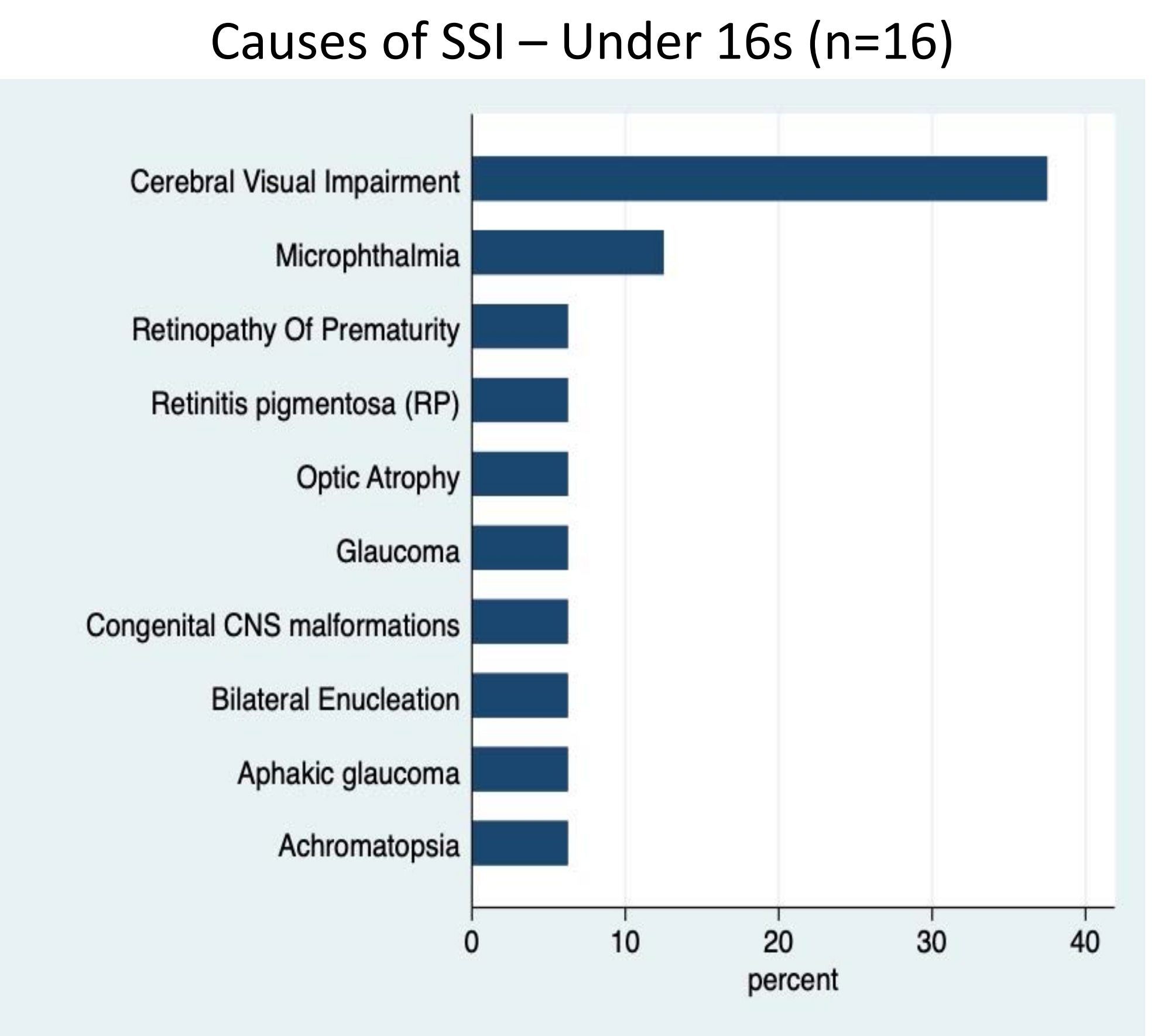
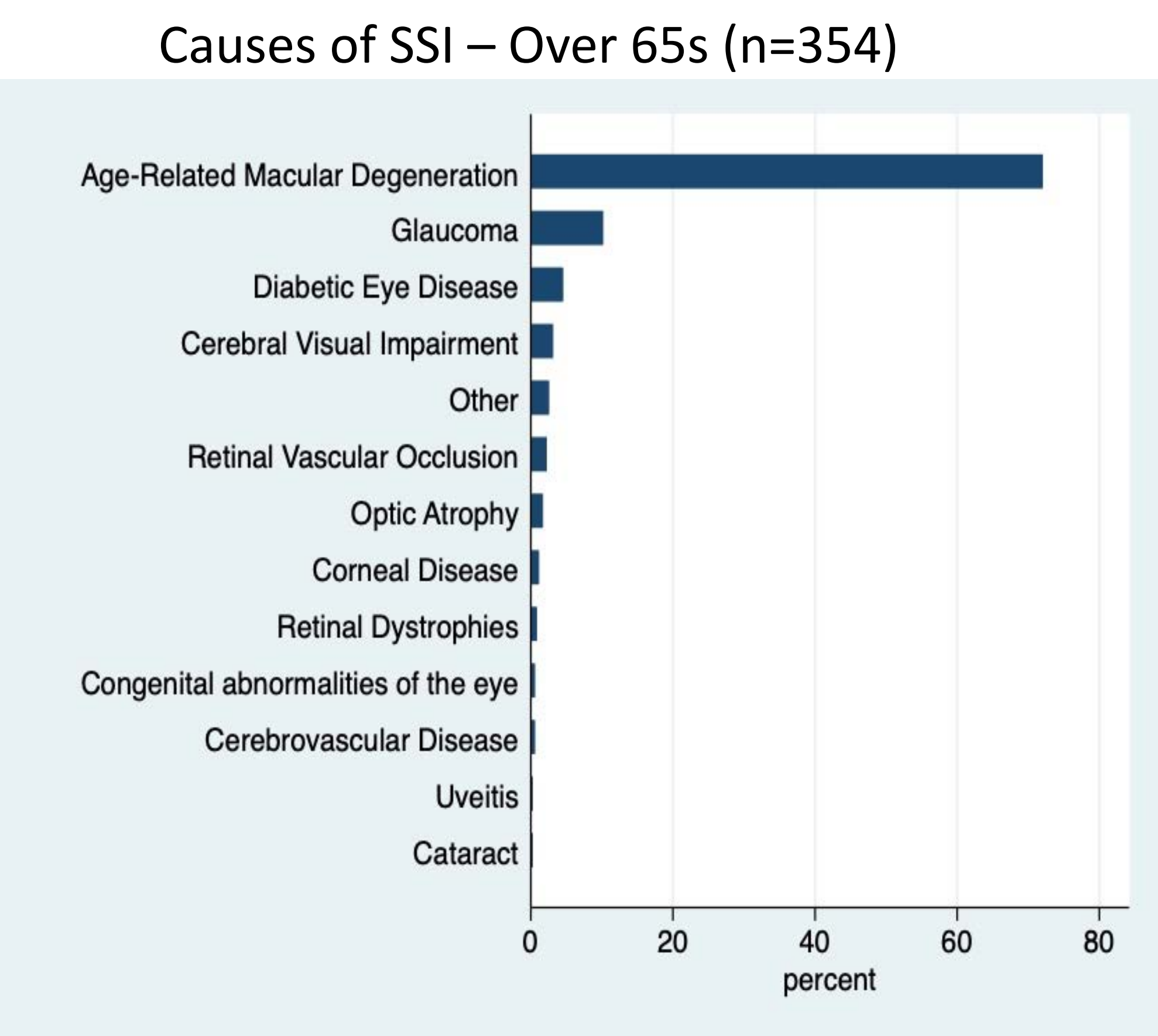
Results – Causes of Severe Sight Impairment by Age Groups



In the working age population diabetic eye disease remains a leading cause of SSI 17.1% (18/105) alongside optic atrophy 17.1% (18/105) and Retinal Dystrophies 17.1% (18/105).

In those over the age of 65 AMD dominates as a cause of SSI responsible for 72.0% (255/354) of registrations followed by glaucoma 10.2% (36/354) and diabetic eye disease 4.5% (16/354).

Individual rather than grouped causes of SSI for those registered under the age of 16 were given due to the small numbers. Cerebral visual impairment is the main cause in this group 37.5% (6/16).



Conclusions

Despite the advent of sight saving treatment for AMD, it remains by far the commonest cause of severe sight loss overall.

Diabetes is considered a preventable cause of sight loss, yet remains a leading cause of certifiable blindness in working age adults, in contrast to findings of Liew et al² in England and Wales. Our data is from the decade after that of Liew et al and it may be that there was a temporary increase in awareness of certification eligibility as a result of the changing CVI form. Alternatively, there may be unrecognised barriers to screening, in place since 2006, and treatment in our population which may explain the geographical variation.

The 65 and over population is projected to increase by 19.2% in the next 10 years.⁴ A significant number of patients will suffer SSI from a variety of diseases with often devastating effects on day-to-day functioning.³ To support those with SSI and offer appropriate eye services to prevent SSI, it is therefore essential to monitor causes of SSI over time.

References

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2: Liew G, Mechaelides M, Bunce C. A comparison of the causes of blindness certification in England and Wales in working age adults (16-64 years) 1999-2000 with 2009-2010. *BMJ Open* 2014;4:e004015
3: Rahman F, Zekite A, Bunce C, Jayaram H, Flanagan D. Recent trends in vision impairment certifications in England and Wales. *Eye (Lond)*. 2020;34(7):1271-8
4: National records of Scotland, Fife Council Area Profile, Accessed 12th February 2021 [available from: <https://www.nrscotland.gov.uk/files/statistics/council-area-data-sheets/fife-council-profile.html>]