

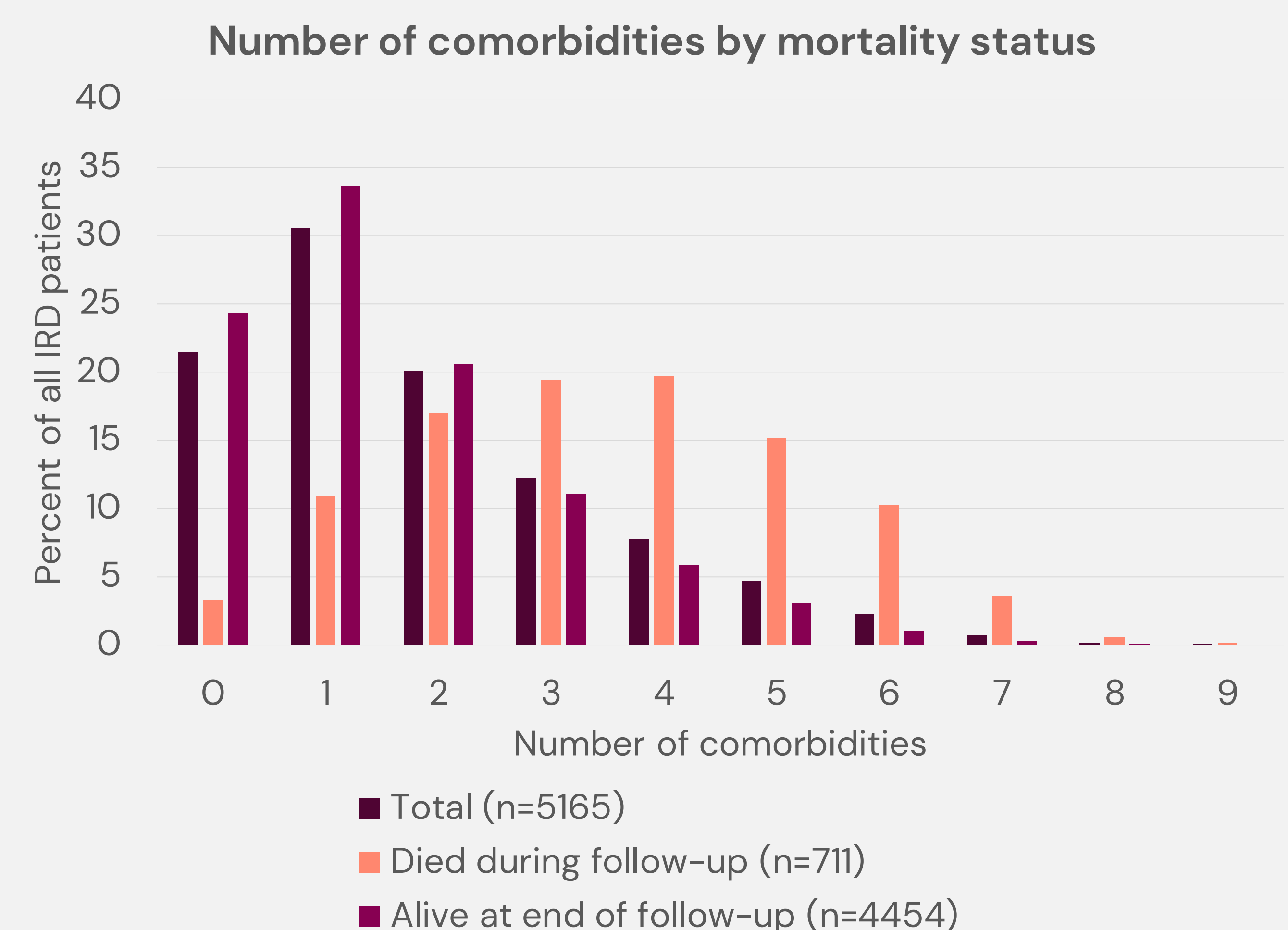
Comorbidities Among Inherited Retinal Dystrophy Patients in Sweden: A National Patient Register Study

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Aim: Assess comorbidities among people with Inherited Retinal Dystrophies (IRDs) in Sweden with a view of long-term care needs.

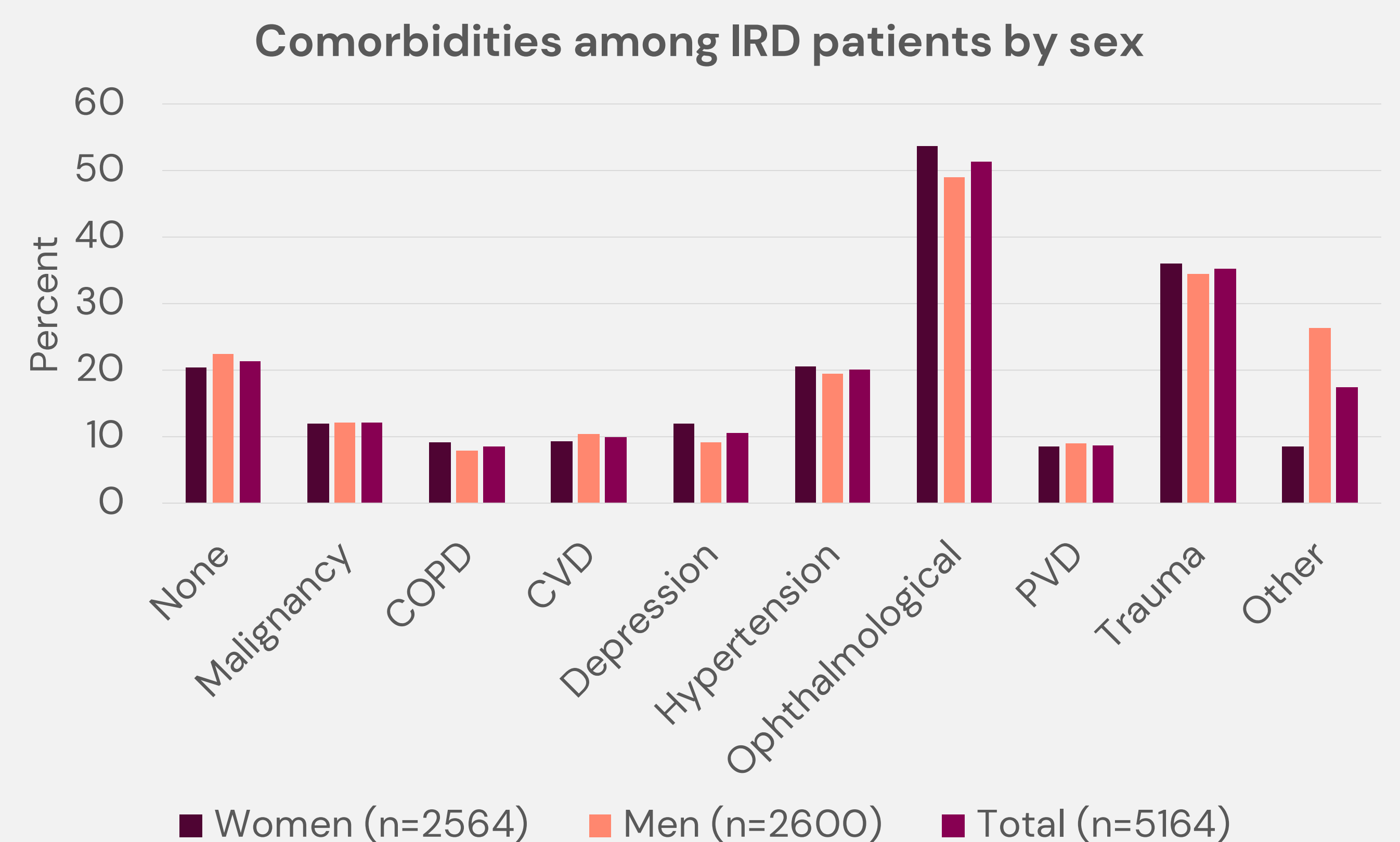
Conclusion: Most IRD patients have 2-3 comorbidities; ophthalmological conditions, trauma, and hypertension were most common. Women had more ophthalmological conditions and depressive disorders. Ophthalmological conditions were associated with reduced all-cause mortality.



Among 5,165 IRD patients, 50.4% were men, 35.3% were aged 36-60 at diagnosis, 13.8% died over follow-up. 78.6% had 1+ comorbidity, with 25% having 2 and 15.5% having 3 comorbidities.

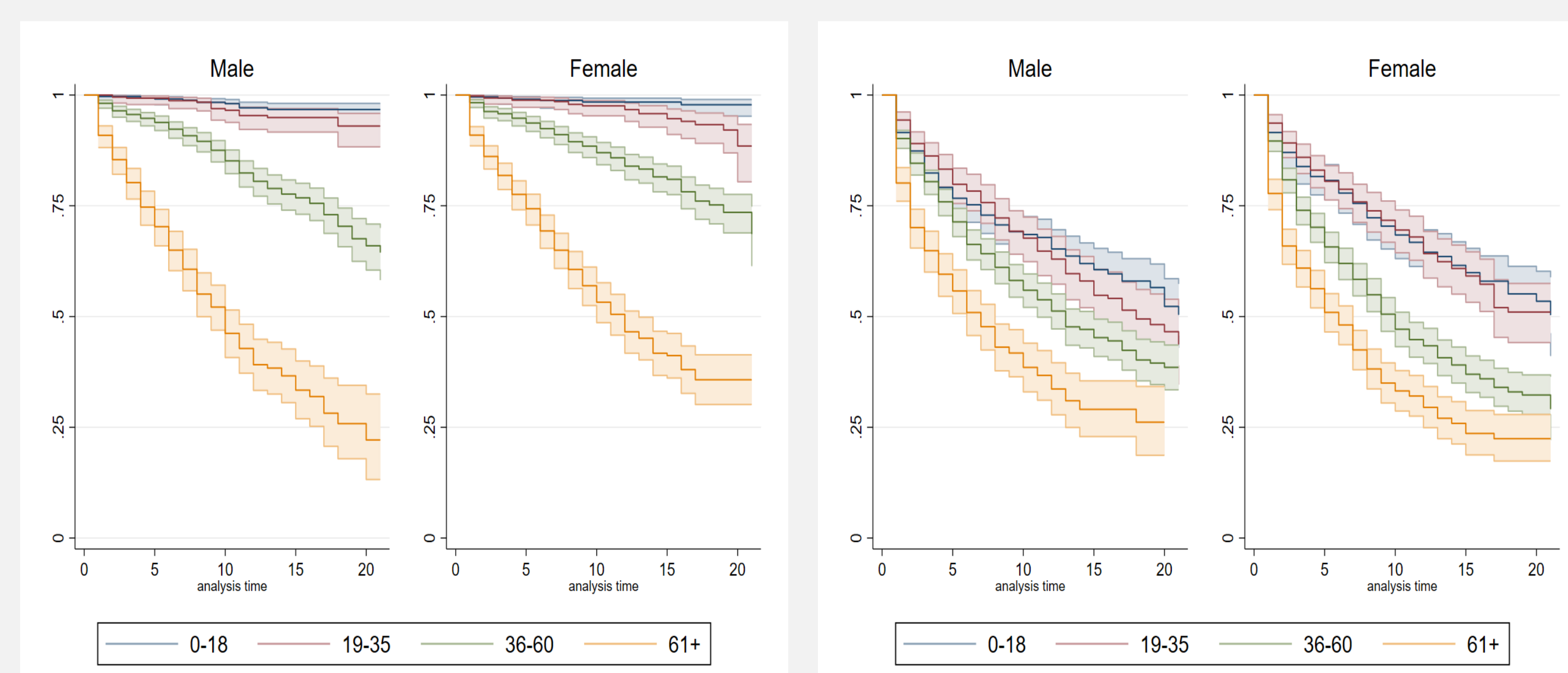
Introduction: IRDs are a diverse group of progressive vision conditions, affecting 4.5 million people globally. Few studies have investigated comorbidities among IRD patients.

Methods: Identified all IRD patients in the National Patient Register 2001-2021 (ICD-10 H35.5). Comorbidities (cardiovascular disease, cancer, chronic obstructive pulmonary disease, hypertension, peripheral vascular disease, trauma, ophthalmological conditions, and depression and anxiety) and all-cause mortality assessed with register data. Analysis with adjusted logistic and Poisson regression models.



Ophthalmological conditions (51%), trauma (35%), and hypertension (20%) were the most common comorbidities. Comparing women and men, **depression** ($p < 0.001$) and **ophthalmological conditions** ($p < 0.001$) were more common among women. Adjusting for age and year of IRD diagnosis, women had higher odds of **depression** (OR=1.36, 95% CI 1.13, 1.63) but not comorbid ophthalmological conditions (OR=1.12, 95% CI 1.00, 1.25).

Kaplan Meier curves showing hypertension (L) and comorbid ophthalmological conditions (R).



In Poisson models adjusted for sex, age, and period of IRD diagnosis, **hypertension** was associated with greater mortality rate (IRR=1.39, 95% CI 1.20, 1.62) among IRD patients. This association was no longer significant after adjusting for CVD history (IRR=1.06, 95% CI 0.90, 1.25). **Comorbid ophthalmological conditions** were associated with a lower mortality rate (IRR=0.75, 95% CI 0.65, 0.87) among IRD patients, independent of sex, age, period diagnosis, and other comorbidities. **Trauma** was not statistically significantly associated with mortality rate (IRR=1.04, 95% CI 0.91, 1.19).



This project is part of an ongoing collaboration between Karolinska Institutet and Janssen Pharmaceutica NV. Please contact the lead author for more information.