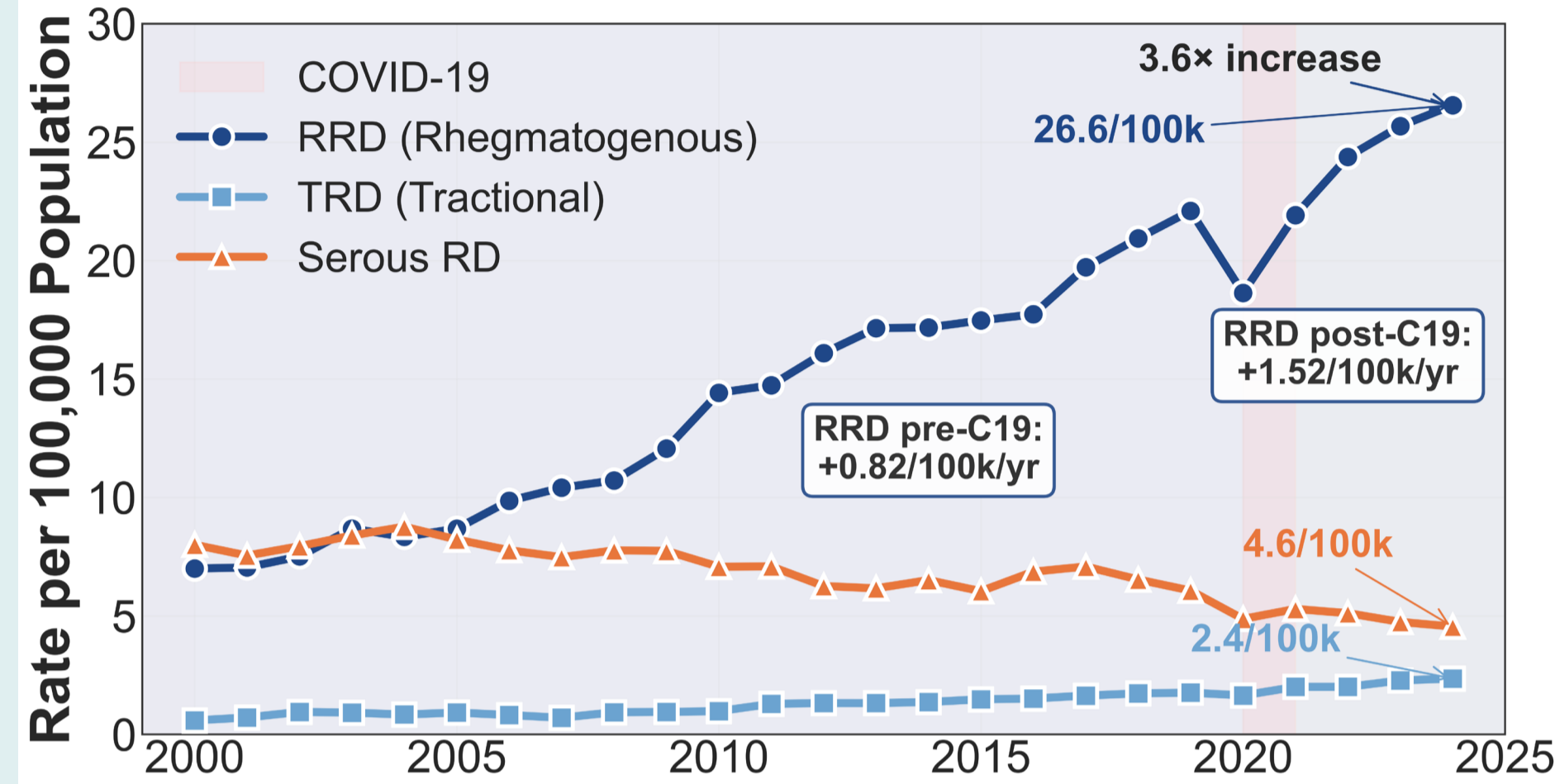


Vitreoretinal Surgery Admissions in England 2000–2024: the COVID-19 Effect and Recovery Based on Hospital Episode Statistics

Jordan Chervenkov, Sidath Liyanage, Johannes Keller

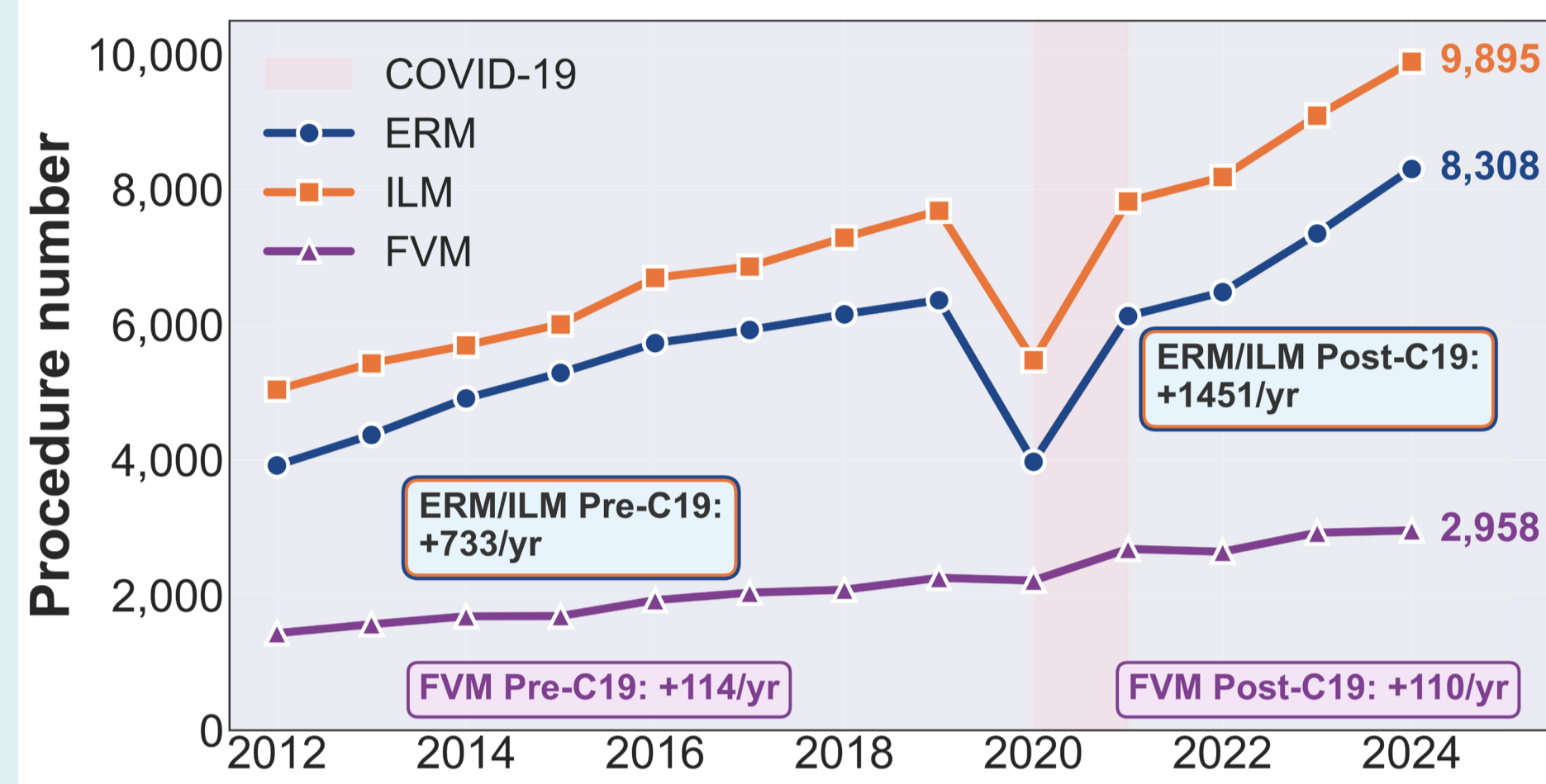
Bristol Eye Hospital, UK

1. Retinal Detachment Admissions



Rhegmatogenous retinal detachment (RRD) admissions increased 3.6x between 2000 and 2024, outpacing population growth.^{1,2} Likely contributors: an ageing population, the global myopia burden, and high volumes of cataract surgery.^{1,3} Serous RD rates likely reflect changes in diagnostic coding practices.

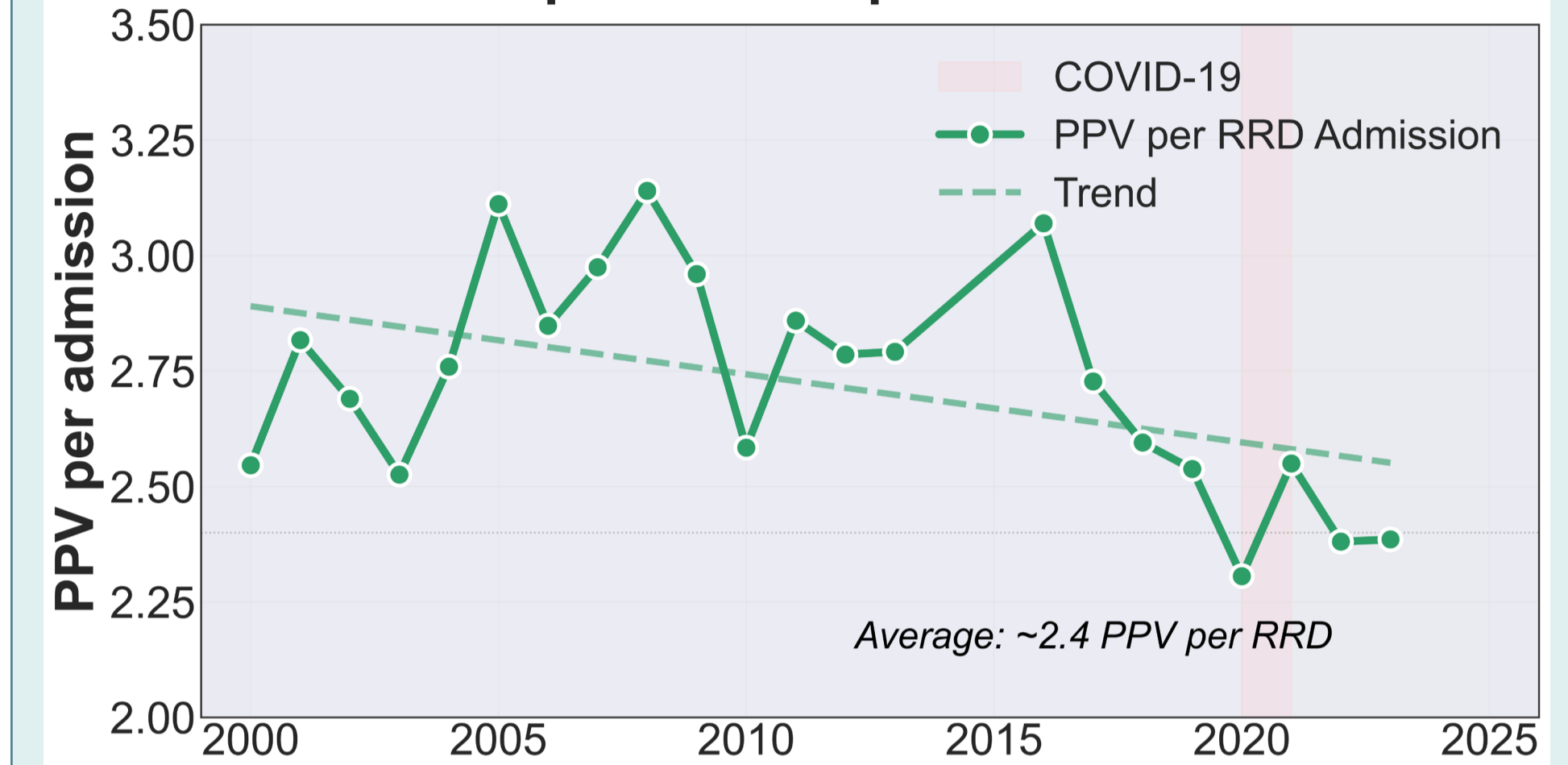
3. Vitreoretinal Membrane Procedures



Peels were introduced as a primary procedure in 2012

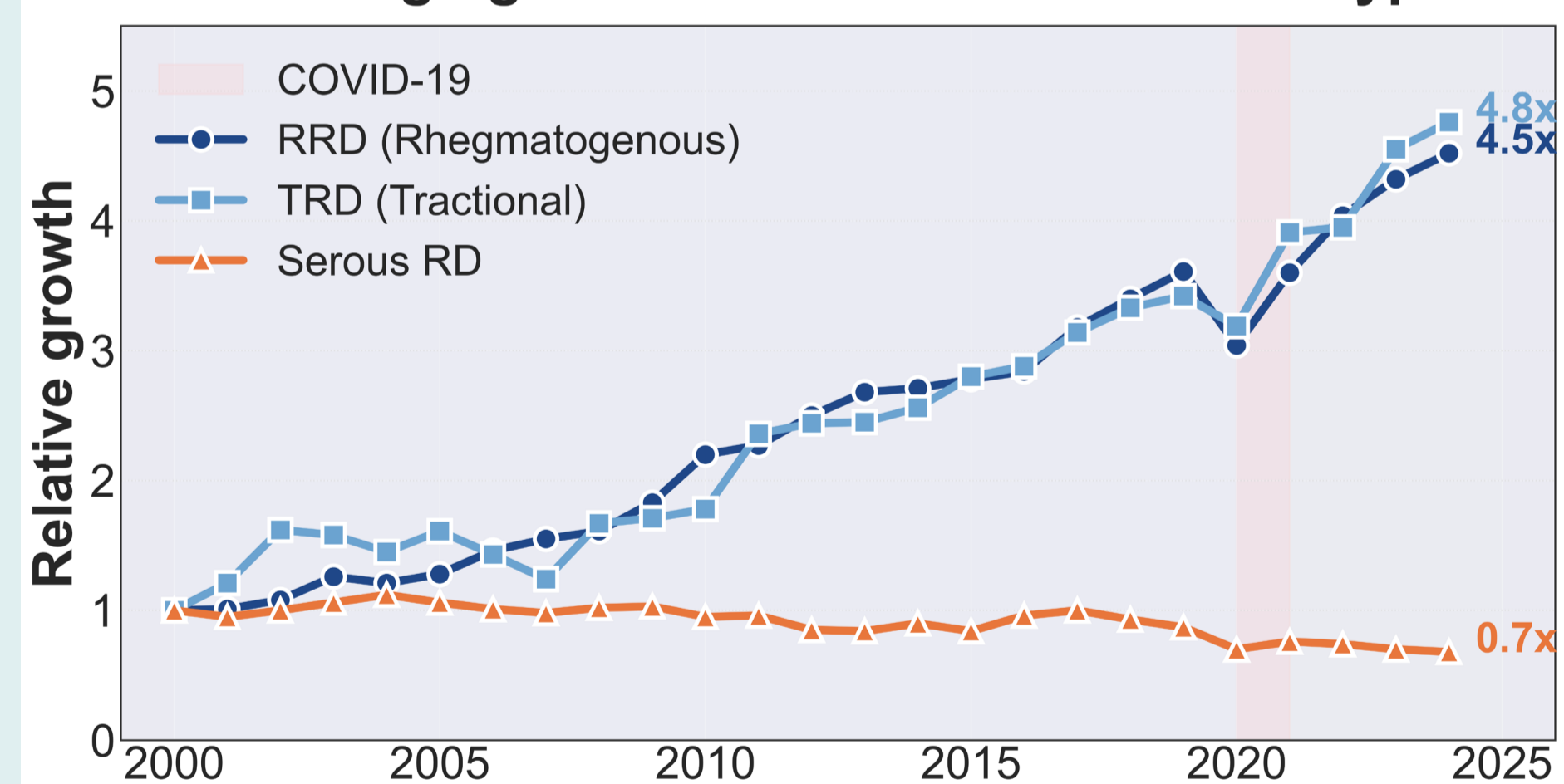
ERM/ILM peels dropped 29-37% during the pandemic while FVM delamination remained stable due to the prioritisation of diabetic retinopathy at that time. The ILM / ERM post-COVID growth rate is 2x pre-C19 and shows backlog clearance.

5. PPV procedures per RRD admission



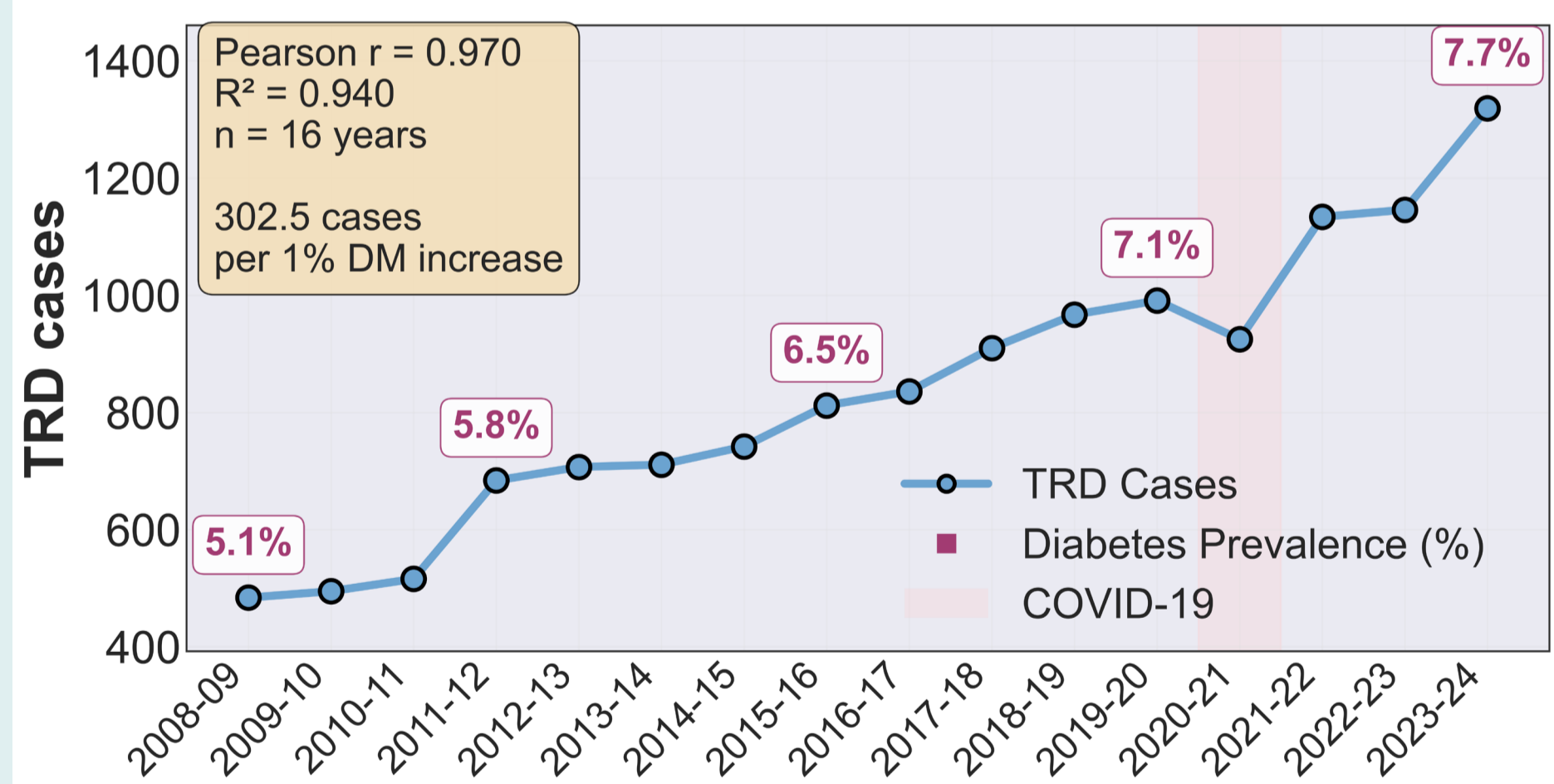
The stable PPV-to-RRD-admission ratio demonstrates that **surgical capacity has scaled proportionally with disease burden.**^{1,2} This ratio reflects the use of PPV for multiple non-RD indications and repeat procedures for recurrent detachments.

2. Diverging trends in retinal detachment types



TRD's rise exceeds RRD despite 11-fold lower case volume. These surgeries carry a 6x higher complication rates, require double the general anaesthesia and far more adjuncts (5x heavy liquid, 4x silicone oil), and generate nearly 2x the reoperation burden—a **disproportionate resource impact on vitreoretinal services compared to RRD.**⁴

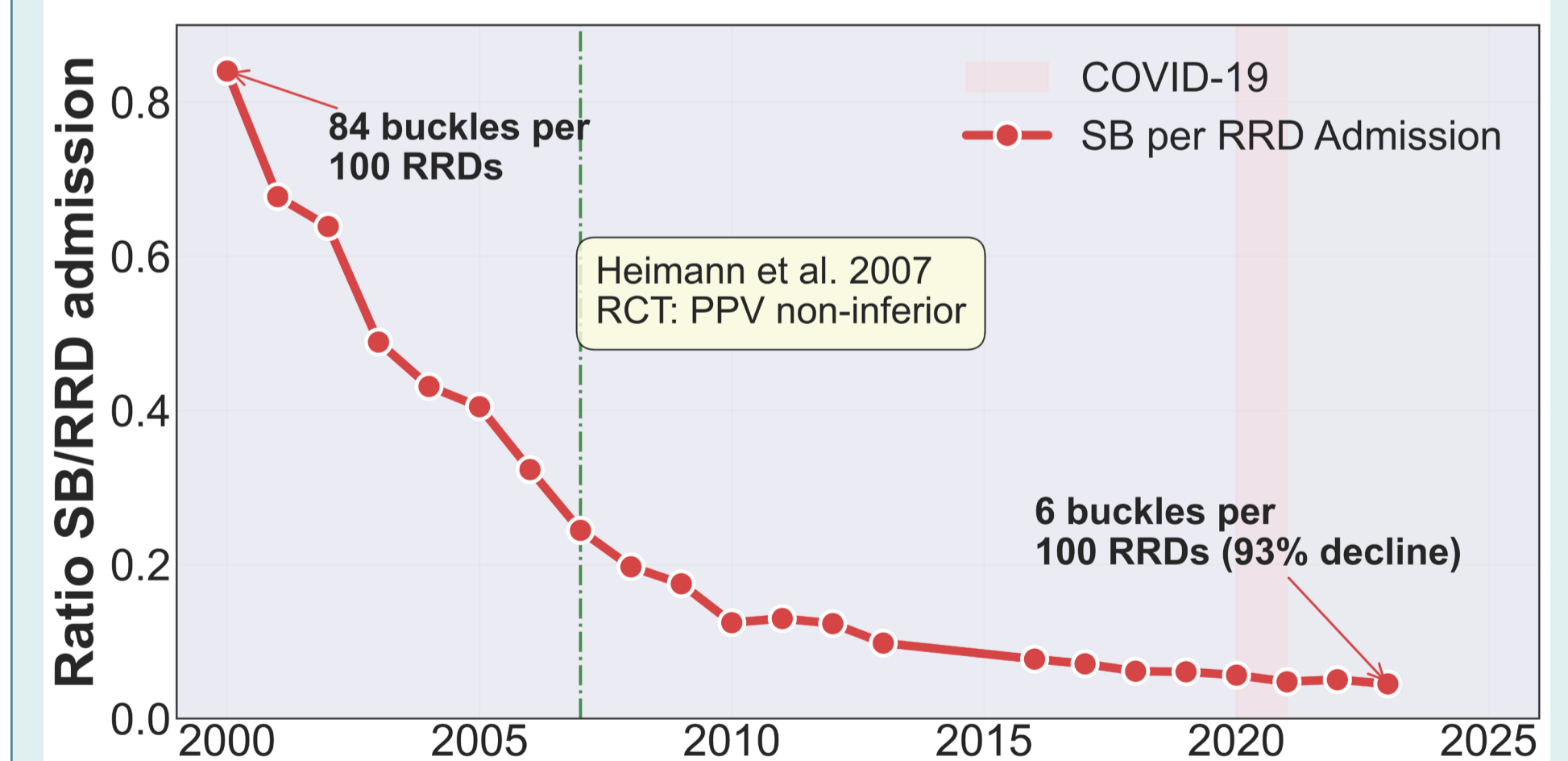
4. TRD Cases Over Time with Diabetes Prevalence



QoF diabetes mellitus data 17+ years of age only

Despite robust diabetic retinopathy screening programmes, the absolute burden of TRD increased nearly threefold (from 484 to 1,319 cases), reflecting **the growing diabetes epidemic outpacing preventative interventions.**^{1,5}

6. Decline in Scleral Buckle Utilisation



Scleral buckle use declined from 84% to 5% of RRD surgeries between 2000-2024. The exponential decline pattern stabilised after 2018, suggesting **scleral buckling has retained a role for select cases.**⁶