Characterization of Tele-Ophthalmology Use from 2011-2019

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Introduction

- Inequities in distribution of specialty ophthalmology care[1]
- Increased studies demonstrating efficacy, cost efficiency of teleophthalmology[2,3]
- Rising concerns of compensation, perhaps hindering adoption[4]

- **AIM**: Describe tele-ophthalmology use by year, provider specialty and patient demographics

Study Design/Methods

- Deidentified claims data from 2011-2019 from OptumLabs Data Warehouse®

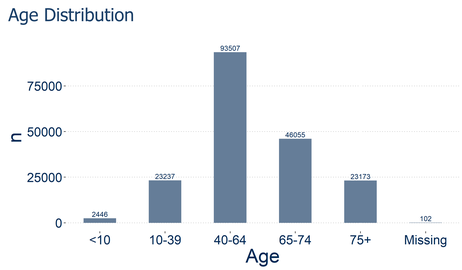
- **Population**: Patients with documented tele-ophthalmology visits

	Asynchronous Fundoscopic Image		Fundoscopic Image
CPT codes	**92227**	**92228**	**92250**
	Diabetic Retinopathy		General
Use	Screening	Monitoring	General
Avg. Reimburse	$15	$13	$22-50
RVU	0.97	0.43	1.43

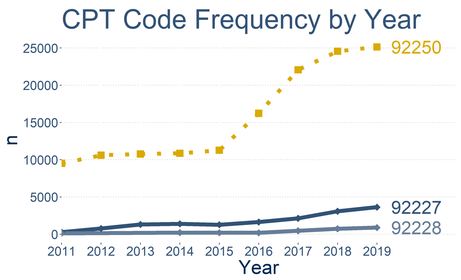
- **Variables Collected**: Demographics, Physician Specialty

- **Descriptive statistics:** *t*-tests & chi-square in SAS
- Plots using *ggplot2* in R environment

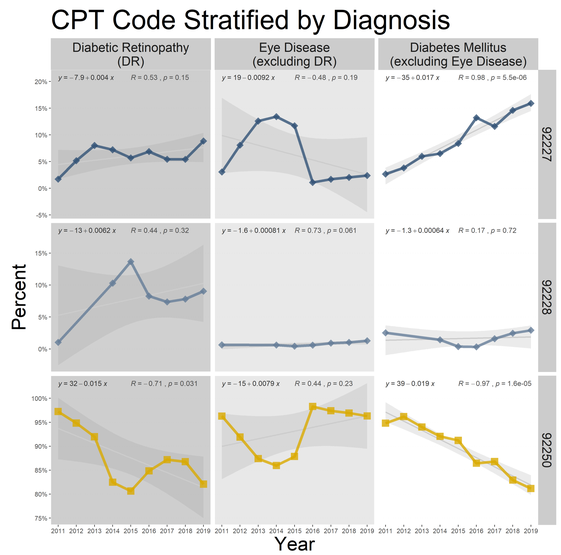
Results



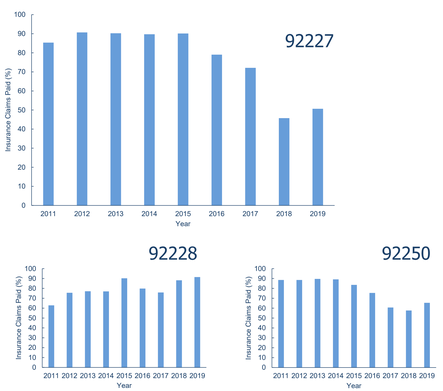
Utilization increased

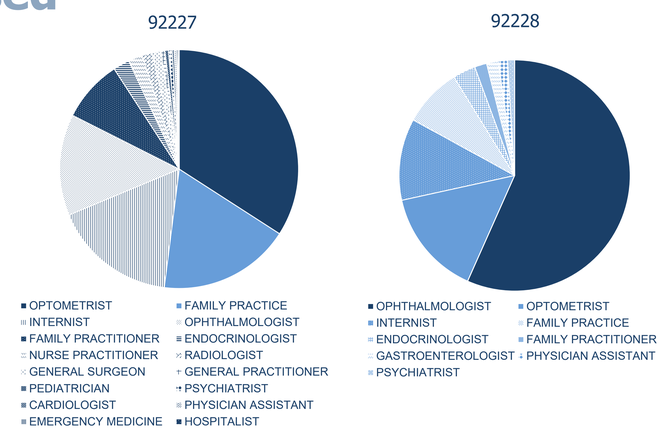


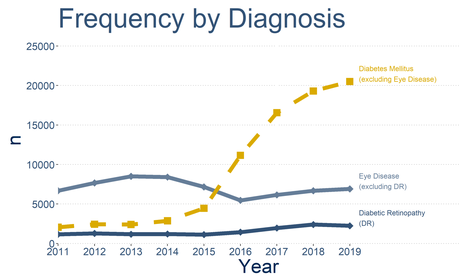
Diabetic retinopathy screening increased



% claims paid decreased







Conclusions

- Unadjusted utilization rapidly increased after 2015
- Lower proportion of claims paid in recent years

Future Directions

- Claim payment amount stratified by CPT code
- Multivariable logistic regression predicting claim payment/denial

References

1. Feng PW, Ahluwalia A, Feng H, Adelman RA. National Trends in the United States Eye Care Workforce from 1995 to 2017. Am J Ophthalmol 2020;218:128-35.
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4. Ellis MP, Bacorn C, Luu KY, et al. Cost Analysis of Teleophthalmology Screening for Diabetic Retinopathy Using Teleophthalmology Billing Codes. Ophthalmic Surg Lasers Imaging Retina 2020;51(5):S26-S34.

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