Table 8: Logistic for other ocular imaging testing for those under the exclusive care of optometrists

Model Information		
Distribution	Binomial	
Link Function	Logit	
Number of Observations Used	338783	
Number of Events	48469	
Number of Trials	338783	
Missing Values	40	

Response Profile				
Ordered	Dependent variable	Total		
Value	Dependent variable	Frequency		
1	1	48469		
2	0	290314		

Generalized Estimating Equations Model Information			
Correlation Structure 8-Dependent			
Within-Subject Effect	year (9 levels)		

Generalized Estimating Equations Fit Criteria	1
Quasi-likelihood Information Criterion (QIC)	240249.5099

Score Statistics For Type 3 Generalized Estimating Equations Analysis			
Source	Degrees of Freedom	Chi-Square	p-value
Year	1	51.02	<.0001
Year-squared Year-squared	1	34.78	<.0001
Open-angle glaucoma	1	400.39	<.0001
Year*Open-angle glaucoma	1	4.69	0.0303
Year-squared*Open-angle glaucoma	1	5.43	0.0198
Glaucoma suspect	1	325.12	<.0001
Year*Glaucoma suspect	1	2.49	0.1143
Year-squared*Glaucoma suspect	1	0.09	0.7613
Macular Edema	1	3.83	0.0505
Year*Macular Edema	1	0.04	0.8349
Year-squared*Macular Edema	1	0	0.9439
Exudative Macular degeneration	1	6.96	0.0083
Year*Exudative Macular degeneration	1	8.87	0.0029

Year-squared*Exudative Macular degeneration	1	5.71	0.0169
Other retina conditions	1	8.05	0.0046
Year*Other retinal conditions	1	0.02	0.8858
Year-squared*Other retinal conditions	1	2.3	0.1295
Other nerve conditions	1	52.13	<.0001
Year*Other nerve conditions	1	0.84	0.3607
Year-squared*Other nerve conditions	1	0	0.9568
Non-Proliferative Diabetic Retinopathy	1	29.12	<.0001
<b>Proliferative Diabetic Retinopathy</b>	1	1.21	0.2709
Race	4	14.82	0.0051
Insurance type	2	32.3	<.0001
Sex	1	39.56	<.0001
Education	4	4.09	0.394
Household Net Worth	4	14.29	0.0064
US Region of residence	4	129.87	<.0001
Insurance plan	5	90.04	<.0001
Age	1	3.7	0.0546
Obesity	1	23.99	<.0001
Hypertension	1	3.47	0.0624
Hyperlipidemia	1	9.81	0.0017
Amount of time the person was covered under the plan (years)	1	2298.68	<.0001

Parameter estimates						
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p- value
Intercept	-6.1127	0.1502	0.0022	0.0016	0.003	<.0001
Year	0.3769	0.0505	1.4577	1.3204	1.6093	<.0001
Year-squared	-0.0296	0.0048	0.9709	0.9618	0.9801	<.0001
Open-angle glaucoma	3.0895	0.1347	21.9671	16.8685	28.6068	<.0001
Year*Open-angle glaucoma	-0.1217	0.0533	0.8854	0.7976	0.9829	0.0224
Year-squared*Open-angle glaucoma	0.0124	0.0051	1.0125	1.0025	1.0227	0.0146
Glaucoma suspect	2.6083	0.1277	13.5766	10.5703	17.4378	<.0001
Year*Glaucoma suspect	-0.0839	0.0501	0.9195	0.8335	1.0143	0.0938
Year-squared*Glaucoma suspect	0.0015	0.0048	1.0015	0.9922	1.0109	0.7474
Macular Edema	1.3054	0.4407	3.6891	1.5551	8.7514	0.0031
Year*Macular Edema	0.0386	0.1699	1.0394	0.745	1.45	0.8201
Year-squared*Macular Edema	-0.0012	0.0159	0.9988	0.9682	1.0304	0.9391
Exudative Macular degeneration	-1.9598	0.7862	0.1409	0.0302	0.6577	0.0127
Year*Exudative Macular degeneration	0.9101	0.3013	2.4846	1.3766	4.4846	0.0025
Year-squared*Exudative Macular	-0.0692	0.0278	0.9331	0.8836	0.9854	0.0128

'	'		'	1	1 1
-0.3464	0.1206	0.7073	0.5584	0.8958	0.0041
-0.0069	0.0462	0.9931	0.907	1.0873	0.8809
0.0068	0.0043	1.0069	0.9984	1.0154	0.1128
0.6248	0.0772	1.8678	1.6056	2.1728	<.0001
-0.0302	0.0316	0.9702	0.912		0.3388
0.0002	0.0031	1.0002	0.9941	1.0062	0.9553
0.2506	0.044	1.2848	1.1787	1.4005	<.0001
0.2262	0.1947	1.2538	0.8561	1.8363	0.2453
-0.0826	0.0268	0.9207	0.8736		0.0021
0.059	0.0299	1.0608	1.0004		0.0483
1	ł		1		0.7651
					0.9415
0.000	0.0.0	1.000	0.0	11.55	10.0
-0.272	0.0653	0.7619	0.6704	0.8658	<.0001
				1	
-0.1654	0.0413	0.8476	0.7816	0.9191	<.0001
0.0802	0.0128	1.0835	1.0568	1.111	<.0001
-0.027	0.0559	0.9734	0.8724	1.0861	0.6293
0.0016	0.0567	1.0016	0.8963	1.1192	0.978
0.0056	0.0586	1.0057	0.8966	1.128	0.9234
-0.0143	0.1995	0.9858	0.6668	1.4574	0.9428
0.0056	0.031	1.0056	0.9464	1.0686	0.8559
0.0655	0.0266	1.0677	1.0134	1.1249	0.0139
0.0724	0.024	1.0751	1.0257	1.127	0.0026
0.0775	0.0293	1.0806	1.0203	1.1444	0.0081
0.0516	0.0186	1.053	1.0152	1.0922	0.0056
-0.1139	0.019	0.8923	0.8598	0.9262	<.0001
0.0618	0.0273	1.0637	1.0083	1.1221	0.0235
0.0193	0.2489	1.0195	0.6259	1.6607	0.9381
0.1461	0.023	1.1574	1.1064	1.2107	<.0001
0.1383	0.024	1.1484	1.0955	1.2038	<.0001
0.1558	0.0177	1.1686	1.1288	1.2099	<.0001
	ł		0.9437	1.106	0.5967
0.0214	0.0403				· ·
			0.8812	1.3011	0.4915
0.0214 0.0684	0.0994	1.0708	0.8812	1.3011	0.4915
			0.8812	1.3011	0.4915
0.0684	0.0994	1.0708			
0.0684 0.0016	0.0994	1.0708 1.0016	1	1.0033	0.0535
	-0.0069 0.0068 0.6248 -0.0302 0.0002 0.2506 0.2262 -0.0826 0.059 -0.0141 0.0054 -0.272 -0.1654 0.0802 -0.027 0.0016 0.0056 -0.0143 0.0056 -0.0143 0.0056 -0.0143 0.0056 -0.0143 0.0056	-0.0069         0.0462           0.0068         0.0043           0.6248         0.0772           -0.0302         0.0316           0.0002         0.0031           0.2506         0.044           0.2262         0.1947           -0.0826         0.0268           0.059         0.0299           -0.0141         0.0473           0.054         0.073           -0.272         0.0653           -0.1654         0.0413           0.0802         0.0128           -0.027         0.0559           0.0016         0.0567           0.0056         0.031           0.0655         0.0266           0.0724         0.024           0.0775         0.0293           0.0516         0.0186           -0.1139         0.019           0.0618         0.0273           0.1383         0.024           0.1558         0.0177	-0.0069         0.0462         0.9931           0.0068         0.0043         1.0069           0.6248         0.0772         1.8678           -0.0302         0.0316         0.9702           0.0002         0.0031         1.0002           0.2506         0.044         1.2848           0.2262         0.1947         1.2538           -0.0826         0.0268         0.9207           0.059         0.0299         1.0608           -0.0141         0.0473         0.986           0.0054         0.073         1.0054           -0.272         0.0653         0.7619           -0.1654         0.0413         0.8476           0.0802         0.0128         1.0835           -0.027         0.0559         0.9734           0.0016         0.0567         1.0016           0.0056         0.031         1.0056           0.0056         0.031         1.0056           0.0724         0.024         1.0751           0.0775         0.0293         1.0806           0.0516         0.0186         1.053           0.0139         0.2489         1.01574           0.1461 <td< td=""><td>-0.0069         0.0462         0.9931         0.907           0.0068         0.0043         1.0069         0.9984           0.6248         0.0772         1.8678         1.6056           -0.0302         0.0316         0.9702         0.912           0.0002         0.0031         1.0002         0.9941           0.2506         0.044         1.2848         1.1787           0.2262         0.1947         1.2538         0.8561           -0.0826         0.0268         0.9207         0.8736           0.059         0.0299         1.0608         1.0004           -0.0141         0.0473         0.986         0.8987           0.0054         0.073         1.0054         0.8713           -0.272         0.0653         0.7619         0.6704           -0.1654         0.0413         0.8476         0.7816           0.0802         0.0128         1.0835         1.0568           -0.027         0.0559         0.9734         0.8724           0.0016         0.0567         1.0016         0.8963           0.0056         0.031         1.0056         0.9464           0.0056         0.031         1.0056         <td< td=""><td>-0.0069         0.0462         0.9931         0.907         1.0873           0.0068         0.0043         1.0069         0.9984         1.0154           0.6248         0.0772         1.8678         1.6056         2.1728           -0.0302         0.0316         0.9702         0.912         1.0322           0.0002         0.0031         1.0002         0.9941         1.0062           0.2506         0.044         1.2848         1.1787         1.4005           0.2262         0.1947         1.2538         0.8561         1.8363           -0.0826         0.0268         0.9207         0.8736         0.9704           0.059         0.0299         1.0608         1.0004         1.1248           -0.0141         0.0473         0.986         0.8987         1.0818           0.0054         0.073         1.0054         0.8713         1.1601           -0.272         0.0653         0.7619         0.6704         0.8658           -0.1654         0.0413         0.8476         0.7816         0.9191           0.0802         0.0128         1.0835         1.0568         1.111           -0.027         0.0556         1.0016         0.8963&lt;</td></td<></td></td<>	-0.0069         0.0462         0.9931         0.907           0.0068         0.0043         1.0069         0.9984           0.6248         0.0772         1.8678         1.6056           -0.0302         0.0316         0.9702         0.912           0.0002         0.0031         1.0002         0.9941           0.2506         0.044         1.2848         1.1787           0.2262         0.1947         1.2538         0.8561           -0.0826         0.0268         0.9207         0.8736           0.059         0.0299         1.0608         1.0004           -0.0141         0.0473         0.986         0.8987           0.0054         0.073         1.0054         0.8713           -0.272         0.0653         0.7619         0.6704           -0.1654         0.0413         0.8476         0.7816           0.0802         0.0128         1.0835         1.0568           -0.027         0.0559         0.9734         0.8724           0.0016         0.0567         1.0016         0.8963           0.0056         0.031         1.0056         0.9464           0.0056         0.031         1.0056 <td< td=""><td>-0.0069         0.0462         0.9931         0.907         1.0873           0.0068         0.0043         1.0069         0.9984         1.0154           0.6248         0.0772         1.8678         1.6056         2.1728           -0.0302         0.0316         0.9702         0.912         1.0322           0.0002         0.0031         1.0002         0.9941         1.0062           0.2506         0.044         1.2848         1.1787         1.4005           0.2262         0.1947         1.2538         0.8561         1.8363           -0.0826         0.0268         0.9207         0.8736         0.9704           0.059         0.0299         1.0608         1.0004         1.1248           -0.0141         0.0473         0.986         0.8987         1.0818           0.0054         0.073         1.0054         0.8713         1.1601           -0.272         0.0653         0.7619         0.6704         0.8658           -0.1654         0.0413         0.8476         0.7816         0.9191           0.0802         0.0128         1.0835         1.0568         1.111           -0.027         0.0556         1.0016         0.8963&lt;</td></td<>	-0.0069         0.0462         0.9931         0.907         1.0873           0.0068         0.0043         1.0069         0.9984         1.0154           0.6248         0.0772         1.8678         1.6056         2.1728           -0.0302         0.0316         0.9702         0.912         1.0322           0.0002         0.0031         1.0002         0.9941         1.0062           0.2506         0.044         1.2848         1.1787         1.4005           0.2262         0.1947         1.2538         0.8561         1.8363           -0.0826         0.0268         0.9207         0.8736         0.9704           0.059         0.0299         1.0608         1.0004         1.1248           -0.0141         0.0473         0.986         0.8987         1.0818           0.0054         0.073         1.0054         0.8713         1.1601           -0.272         0.0653         0.7619         0.6704         0.8658           -0.1654         0.0413         0.8476         0.7816         0.9191           0.0802         0.0128         1.0835         1.0568         1.111           -0.027         0.0556         1.0016         0.8963<

Amount of time the person was covered						
under the plan (years)	1.3178	0.0313	3.7351	3.513	3.9712	<.0001

HMO = health maintenance organization IND = indemnity plan PPO = perferred provider organization

EPO = exclusive provider organization

Table 9: Logistic for other ocular imaging testing for those under the exclusive care of ophthalmologists

Model Information				
Distribution	Binomial			
Link Function	Logit			
Number of Observations Used	1546292			
Number of Events	297317			
Number of Trials	1546292			
Missing Values	153			

Response Profile				
Ordered	Donandant variable	Total		
Value	Dependent variable	Frequency		
1	1	297317		
2	0	1248975		

Generalized Estimating Equations Model Information			
Correlation Structure 8-Dependent			
Within-Subject Effect	year (9 levels)		

Generalized Estimating Equations Fit Criteria			
Quasi-likelihood Information Criterion (QIC)	1311243.053		

Score Statistics For Type 3 Generalized Estimating Equations Analysis				
Source	Degrees of Freedom	Chi-Square	p-value	
Year	1	758.84	<.0001	
Year-squared	1	328.89	<.0001	
Open-angle glaucoma	1	5290.16	<.0001	
Year*Open-angle glaucoma	1	140.86	<.0001	
Year-squared*Open-angle glaucoma	1	54.05	<.0001	
Glaucoma suspect	1	4707.37	<.0001	
Year*Glaucoma suspect	1	337.48	<.0001	
Year-squared*Glaucoma suspect	1	98.03	<.0001	
Macular Edema	1	131.98	<.0001	
Year*Macular Edema	1	122.32	<.0001	
Year-squared*Macular Edema	1	135.06	<.0001	

Exudative Macular degeneration	1	1.21	0.2706
Year*Exudative Macular degeneration	1	112.02	<.0001
Year-squared*Exudative Macular			
degeneration	1	21.5	<.0001
Other retina conditions	1	110.46	<.0001
Year*Other retinal conditions	1	19.39	<.0001
Year-squared*Other retinal conditions	1	0.39	0.5312
Other nerve conditions	1	343.24	<.0001
Year*Other nerve conditions	1	133.59	<.0001
Year-squared*Other nerve conditions	1	79.17	<.0001
Non-Proliferative Diabetic Retinopathy	1	662.2	<.0001
Proliferative Diabetic Retinopathy	1	206.29	<.0001
Race	4	15.31	0.0041
Insurance type	2	177.25	<.0001
Sex	1	18.34	<.0001
Education	4	174.32	<.0001
Household Net Worth	4	183.34	<.0001
US Region of residence			
OS Region of residence	4	716.16	<.0001
Insurance plan	5	224.87	<.0001
Age	1	7.73	0.0054
Obesity	1	49.16	<.0001
Hypertension	1	1.23	0.2676
Hyperlipidemia	1	62	<.0001
Amount of time the person was covered under			
the plan (years)	1	15954.2	<.0001

Parameter estimates						
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value
Intercept	-5.7222	0.0491	0.0033	0.003	0.0036	<.0001
Year	0.4159	0.0148	1.5157	1.4723	1.5603	<.0001
Year-squared	-0.0273	0.0015	0.9731	0.9703	0.9759	<.0001
Open-angle glaucoma	2.7286	0.0363	15.3111	14.2599	16.4397	<.0001
Year*Open-angle glaucoma	-0.1853	0.015	0.8308	0.8068	0.8556	<.0001
Year-squared*Open-angle glaucoma	0.0114	0.0015	1.0114	1.0085	1.0144	<.0001
Glaucoma suspect	2.5963	0.0362	13.4134	12.4949	14.3995	<.0001
Year*Glaucoma suspect	-0.2848	0.015	0.7522	0.7304	0.7746	<.0001
Year-squared*Glaucoma suspect	0.0152	0.0015	1.0153	1.0124	1.0183	<.0001
Macular Edema	0.9528	0.0675	2.5931	2.2718	2.9599	<.0001
Year*Macular Edema	0.3149	0.0273	1.3702	1.2988	1.4455	<.0001

Year-squared*Macular Edema	-0.0316	0.0026	0.9689	0.9639	0.974	<.0001
Exudative Macular degeneration	-0.0977	0.0812	0.9069	0.7735	1.0633	0.2288
Year*Exudative Macular degeneration	0.3512	0.0332	1.4208	1.3312	1.5163	<.0001
Year-squared*Exudative Macular	-0.0153	0.0032	0.9848	0.9786	0.991	<.0001
Other retire conditions	1					-
Other retina conditions	-0.3021	0.0281	0.7392	0.6996	0.7811	<.0001
Year*Other retinal conditions	0.0537	0.0119	1.0551	1.0309	1.08	<.0001
Year-squared*Other retinal conditions	-0.0008	0.0012	0.9992	0.9969	1.0016	0.5215
Other nerve conditions	0.448	0.0223	1.5652	1.4983	1.6352	<.0001
Year*Other nerve conditions	-0.1184	0.0098	0.8883	0.8714	0.9056	<.0001
Year-squared*Other nerve conditions	0.0093	0.001	1.0093	1.0073	1.0113	<.0001
Non-Proliferative Diabetic Retinopathy	0.345	0.0126	1.4119	1.3774	1.4474	<.0001
Proliferative Diabetic Retinopathy	0.3202	0.0213	1.3774	1.321	1.4362	<.0001
Race: Blacks (vs Whites)	-0.0051	0.0111	0.9949	0.9735	1.0168	0.6443
Race: Latinos (vs Whites)	0.0348	0.0116	1.0355	1.0123	1.0592	0.0026
Race: Asians (vs Whites)	0.0327	0.0153	1.0333	1.0027	1.0647	0.0324
Race: Other races (vs Whites)	0.0441	0.0283	1.0451	0.9888	1.1046	0.1188
Insurance type: Commercial &	0.0111	0.0200	1.0101	0.0000	1.1010	0.1100
Medicaid (vs Commercial only)	-0.3058	0.0342	0.7366	0.6888	0.7876	<.0001
Insurance type: Commercial &				0.000		
Medicare (vs Commercial only)	-0.1692	0.0158	0.8444	0.8186	0.8709	<.0001
Sex: Females (vs Males)	0.0246	0.0057	1.0249	1.0135	1.0364	<.0001
Education: High school diploma (vs	0.02.70					
less than High School)	0.0419	0.0229	1.0428	0.9971	1.0907	0.0667
Education: Some college (vs less than						
High School)	0.0296	0.0231	1.03	0.9844	1.0778	0.2008
Education: College diploma (vs less						
than High School)	-0.0552	0.0238	0.9463	0.9031	0.9915	0.0205
Education: Advanced degree (vs less						
than High School)	-0.2527	0.0523	0.7767	0.701	0.8605	<.0001
Household Net Worth: 25K-75K (vs	0.0400	0.0455	4.047	0.0005	4.0404	0.0775
<25K)	0.0169	0.0155	1.017	0.9865	1.0484	0.2775
Household Net Worth: 75K-150K (vs <25K)	0.000	0.0124	1 0712	1 0424	1 0007	- 0001
Household Net Worth: 150K-500K (vs	0.0688	0.0134	1.0712	1.0434	1.0997	<.0001
<25K)	0.1058	0.0117	1.1117	1.0864	1.1375	<.0001
Household Net Worth: >500K (vs	0.1000	0.0117	1.1117	1.0004	1.1373	<.0001
<25K)	0.1543	0.0132	1.1669	1.1371	1.1974	<.0001
US Region of residence: South-East	0.1010	0.0102	1.1000	1.1071	1.1071	1.0001
(vs North-East)	0.0518	0.008	1.0532	1.0368	1.0697	<.0001
US Region of residence: Mid-West (vs						
North-East)	-0.1396	0.0089	0.8697	0.8546	0.8851	<.0001
US Region of residence: West (vs						
North-East)	0.0429	0.0101	1.0438	1.0234	1.0646	<.0001
US Region of residence: Other regions						
(vs North-East)	-0.08	0.1058	0.9231	0.7503	1.1358	0.4495
Insurance Plan: PPO (vs HMO)	0.0022	0.0109	1.0022	0.9809	1.0239	0.8425
Insurance Plan: EPO (vs HMO)	0.0514	0.0121	1.0528	1.0281	1.0781	<.0001
Insurance Plan: POS (vs HMO)	0.0447	0.0094	1.0458	1.0267	1.0652	<.0001
Insurance Plan: IND (vs HMO)	-0.0964	0.0139	0.9081	0.8837	0.9331	<.0001
Insurance Plan: Other plans (vs HMO)	-0.4163	0.0515	0.6595	0.5961	0.7295	<.0001

Age	0.0009	0.0003	1.0009	1.0003	1.0016	0.0051
Obesity	-0.0618	0.0088	0.9401	0.9239	0.9565	<.0001
Hypertension	-0.0076	0.0068	0.9924	0.9793	1.0058	0.2654
Hyperlipidemia	0.0537	0.0068	1.0552	1.0412	1.0693	<.0001
Amount of time the person was						
covered under the plan (years)	1.5657	0.014	4.7862	4.6566	4.9195	<.0001

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 10: Logistic for other ocular imaging testing for those under the care of both provider types

Model Information				
Distribution	Binomial			
Link Function	Logit			
Number of Observations Used	467803			
Number of Events	92549			
Number of Trials	467803			
Missing Values	43			

Response Profile				
Ordered	Donandant variable	Total		
Value	Dependent variable	Frequency		
1	1	92549		
2	0	375254		

Generalized Estimating Equations Model Information				
Correlation Structure 8-Dependent				
Within-Subject Effect year (9 levels)				

Generalized Estimating Equations Fit Cr	iteria
Quasi-likelihood Information Criterion (QIC)	400492.5892

Score Statistics For Type 3 G	Score Statistics For Type 3 Generalized Estimating Equations Analysis				
Source	Degrees of Freedom	Chi-Square	p-value		
Year	1	276.62	<.0001		
Year-squared	1	128.23	<.0001		
Open-angle glaucoma	1	1557.6	<.0001		
Year*Open-angle glaucoma	1	51.08	<.0001		
Year-squared*Open-angle glaucoma	1	19.21	<.0001		
Glaucoma suspect	1	1433.92	<.0001		
Year*Glaucoma suspect	1	169.64	<.0001		
Year-squared*Glaucoma suspect	1	62.82	<.0001		
Macular Edema	1	51.4	<.0001		
Year*Macular Edema	1	39.41	<.0001		
Year-squared*Macular Edema	1	51.83	<.0001		

<b>Exudative Macular degeneration</b>	1	0.14	0.7076
Year*Exudative Macular degeneration	1	33.99	<.0001
Year-squared*Exudative Macular degeneration	1	4.55	0.0329
Other retina conditions	1	27.1	<.0001
Year*Other retinal conditions	1	6.19	0.0128
Year-squared*Other retinal conditions	1	0	0.9594
Other nerve conditions	1	65.54	<.0001
Year*Other nerve conditions	1	20.84	<.0001
Year-squared*Other nerve conditions	1	9.04	0.0026
Non-Proliferative Diabetic Retinopathy	1	239.22	<.0001
<b>Proliferative Diabetic Retinopathy</b>	1	101.52	<.0001
Race	4	3.06	0.5481
Insurance type	2	123.14	<.0001
Sex	1	0.52	0.4692
Education	4	8.79	0.0667
Household Net Worth	4	31	<.0001
US Region of residence	4	474.01	<.0001
Insurance plan	5	212.19	<.0001
Age	1	1.41	0.2354
Obesity	1	22.82	<.0001
Hypertension	1	4.23	0.0397
Hyperlipidemia	1	1.87	0.1715
Amount of time the person was covered under the plan (years)	1	3242.76	<.0001

Parameter estimates								
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value		
Intercept	-5.5198	0.0893	0.004	0.0034	0.0048	<.0001		
Year	0.4314	0.0252	1.5395	1.4652	1.6175	<.0001		
Year-squared	-0.0288	0.0025	0.9716	0.9669	0.9763	<.0001		
Open-angle glaucoma	2.7201	0.0634	15.1812	13.4064	17.1911	<.0001		
Year*Open-angle glaucoma	-0.1926	0.0257	0.8248	0.7843	0.8675	<.0001		
Year-squared*Open-angle glaucoma	0.0116	0.0025	1.0116	1.0066	1.0166	<.0001		
Glaucoma suspect	2.6015	0.0636	13.4834	11.9037	15.2729	<.0001		
Year*Glaucoma suspect	-0.3483	0.0257	0.7059	0.6712	0.7424	<.0001		
Year-squared*Glaucoma suspect	0.0207	0.0025	1.0209	1.0159	1.0259	<.0001		
Macular Edema	0.9995	0.1163	2.7169	2.1629	3.4127	<.0001		
Year*Macular Edema	0.301	0.0449	1.3512	1.2374	1.4755	<.0001		
Year-squared*Macular Edema	-0.0318	0.0042	0.9687	0.9608	0.9767	<.0001		

Exudative Macular degeneration	0.0512	0.1236	1.0526	0.8261	1.3412	0.6785
Year*Exudative Macular degeneration	0.0312	0.1236	1.3359	1.2128	1.4714	<.0001
Year-squared*Exudative Macular	0.2030	0.0433	1.0000	1.2120	1.47.14	<u> </u>
degeneration	-0.0103	0.0047	0.9897	0.9807	0.9989	0.0278
Other retina conditions	-0.2744	0.0512	0.7601	0.6875	0.8403	<.0001
Year*Other retinal conditions	0.0542	0.0211	1.0557	1.0129	1.1003	0.0103
Year-squared*Other retinal conditions	0.0001	0.0021	1.0001	0.996	1.0042	0.9581
Other nerve conditions	0.3641	0.0421	1.4392	1.3252	1.563	<.0001
Year*Other nerve conditions	-0.0848	0.0179	0.9187	0.8871	0.9515	<.0001
Year-squared*Other nerve conditions	0.0056	0.0018	1.0056	1.002	1.0091	0.002
Non-Proliferative Diabetic Retinopathy	0.3579	0.0218	1.4304	1.3705	1.4928	<.0001
Proliferative Diabetic Retinopathy	0.3783	0.0359	1.4598	1.3605	1.5664	<.0001
Race: Blacks (vs Whites)	-0.0112	0.0216	0.9889	0.9478	1.0317	0.6054
Race: Latinos (vs Whites)	0.008	0.0242	1.008	0.9613	1.057	0.7418
Race: Asians (vs Whites)	-0.0521	0.0345	0.9493	0.8871	1.0157	0.1317
Race: Other races (vs Whites)	-0.0331	0.0538	0.9675	0.8706	1.0751	0.5389
Insurance type: Commercial & Medicaid	0.00					1
(vs Commercial only)	-0.3117	0.0538	0.7322	0.6589	0.8136	<.0001
Insurance type: Commercial & Medicare						
(vs Commercial only)	-0.2896	0.0286	0.7485	0.7077	0.7917	<.0001
Sex: Females (vs Males)	0.0075	0.0104	1.0076	0.9873	1.0283	0.467
Education: High school diploma (vs less than High School)	-0.0346	0.0445	0.9659	0.8853	1.054	0.4362
Education: Some college (vs less than	2 2224	0.0454	0.0740	2 2000	1 004	\
High School)  Education: College diploma (vs less than	-0.0291	0.0451	0.9713	0.8892	1.061	0.5178
High School)	-0.0684	0.0464	0.9339	0.8526	1.0228	0.1406
Education: Advanced degree (vs less than	-0.000 .	0.0-10 1	0.000	0.0020	1.0220	0.1700
High School)	0.0741	0.1336	1.0769	0.8288	1.3993	0.5793
Household Net Worth: 25K-75K (vs <25K)	0.0935	0.0265	1.098	1.0425	1.1566	0.0004
Household Net Worth: 75K-150K (vs						
<25K)	0.0245	0.0231	1.0248	0.9795	1.0723	0.288
Household Net Worth: 150K-500K (vs		- 2004		1 2 4 2 5		2224
<25K)	0.0796	0.0204	1.0829	1.0405	1.127	<.0001
Household Net Worth: >500K (vs <25K)	0.1044	0.0237	1.1101	1.0598	1.1627	<.0001
US Region of residence: South-East (vs North-East)	0.0987	0.0153	1.1038	1.0711	1.1374	<.0001
US Region of residence: Mid-West (vs	0.0507	0.0100	1.1000	1.07 11	1.1317	<.0001
North-East)	-0.1691	0.016	0.8445	0.8184	0.8713	<.0001
US Region of residence: West (vs North-	-					1
East)	0.0524	0.0208	1.0538	1.0117	1.0977	0.0118
US Region of residence: Other regions				<u> </u>		
(vs North-East)	0.2809	0.1869	1.3243	0.9181	1.9102	0.1329
Insurance Plan: PPO (vs HMO)	0.1902	0.0196	1.2095	1.1638	1.2569	<.0001
Insurance Plan: EPO (vs HMO)	0.1271	0.0207	1.1355	1.0903	1.1827	<.0001
Insurance Plan: POS (vs HMO)	0.1748	0.0157	1.191	1.1548	1.2284	<.0001
Insurance Plan: IND (vs HMO)	0.0439	0.024	1.0449	0.997	1.0952	0.0666
Insurance Plan: Other plans (vs HMO)	-0.4323	0.0867	0.649	0.5476	0.7693	<.0001
			<b>-</b>	'		
Age	0.0007	0.0006	1.0007	0.9995	1.0019	0.2325
Obesity	-0.072	0.0151	0.9306	0.9034	0.9586	<.0001

Hypertension	-0.0257	0.0124	0.9746	0.9511	0.9986	0.0386
Hyperlipidemia	0.0171	0.0124	1.0172	0.9927	1.0423	0.17
Amount of time the person was covered						
under the plan (years)	1.4754	0.0294	4.373	4.1279	4.6327	<.0001

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 11: Logistic for other ocular imaging testing, including all provider types

Model Information					
Distribution	Binomial				
Link Function	Logit				
Number of Observations Used	2364531				
Number of Events	439290				
Number of Trials	2364531				
Missing Values	236				

Response Profile						
Ordered Dependent Total						
Value	variable	Frequency				
1	1	439290				
2	0	1925241				

Generalized Estimating Equations Model Information					
Correlation Structure 8-Depender					
Within-Subject Effect	year (9 levels)				

Generalized Estimating Equations Fit Crite	ria
Quasi-likelihood Information Criterion (QIC)	1961894.52

Score Statistics For Type 3 Generalized Estimating Equations Analysis							
Source	Degrees of Freedom	Chi- Square	p-value				
Year	1	1132.79	<.0001				
Year-squared	1	536.94	<.0001				
Open-angle glaucoma	1	7388.14	<.0001				
Year*Open-angle glaucoma	1	211.08	<.0001				
Year-squared*Open-angle glaucoma	1	96.69	<.0001				
Glaucoma suspect	1	6534.63	<.0001				
Year*Glaucoma suspect	1	462.06	<.0001				
Year-squared*Glaucoma suspect	1	141.65	<.0001				
Macular Edema	1	189.03	<.0001				
Year*Macular Edema	1	162.78	<.0001				
Year-squared*Macular Edema	1	182.9	<.0001				

Exudative Macular degeneration	1	0.65	0.4211
Year*Exudative Macular degeneration	1	153.44	<.0001
Year-squared*Exudative Macular degeneration	1	27.1	<.0001
Other retina conditions	1	140.38	<.0001
Year*Other retinal conditions	1	17.28	<.0001
Year-squared*Other retinal conditions	1	0.3	0.5863
Other nerve conditions	1	454.39	<.0001
Year*Other nerve conditions	1	148.95	<.0001
Year-squared*Other nerve conditions	1	83.58	<.0001
Non-Proliferative Diabetic Retinopathy	1	949	<.0001
Proliferative Diabetic Retinopathy	1	335.83	<.0001
Race	4	15.29	0.0041
Insurance type	2	311.71	<.0001
Sex: Females (vs Males)	1	33.7	<.0001
Education	4	144	<.0001
Household Net Worth	4	193.5	<.0001
US Region of residence	4	1245.5	<.0001
Insurance plan	5	399.51	<.0001
Age	1	11.6	0.0007
Obesity	1	95.67	<.0001
Hypertension	1	6.73	0.0095
Hyperlipidemia	1	67.52	<.0001
Amount of time the person was covered under			
the plan (years)	1	21560	<.0001
Eye-care	3	1913.73	<.0001

Parameter estimates

Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value
Intercept	-5.7141	0.0409	0.0033	0.003	0.0036	<.0001
Year	0.4235	0.0123	1.5274	1.4909	1.5647	<.0001
Year-squared	-0.0288	0.0012	0.9716	0.9693	0.9739	<.0001
Open-angle glaucoma	2.7577	0.0305	15.764	14.8481	16.7365	<.0001
Year*Open-angle glaucoma	-0.1896	0.0125	0.8273	0.8072	0.8478	<.0001
Year-squared*Open-angle glaucoma	0.0126	0.0012	1.0127	1.0103	1.0152	<.0001
Glaucoma suspect	2.5903	0.0304	13.3342	12.5626	14.1533	<.0001
Year*Glaucoma suspect	-0.2777	0.0124	0.7575	0.7392	0.7762	<.0001
Year-squared*Glaucoma suspect	0.0151	0.0012	1.0152	1.0128	1.0177	<.0001
Macular Edema	0.9761	0.058	2.654	2.3686	2.9737	<.0001
Year*Macular Edema	0.3091	0.0231	1.3622	1.3019	1.4254	<.0001
Year-squared*Macular Edema	-0.0309	0.0022	0.9696	0.9654	0.9738	<.0001

Exudative Macular degeneration	-0.0598	0.0679	0.9419	0.8245	1.076	0.3781
Year*Exudative Macular degeneration	0.3406	0.0275	1.4058	1.3319	1.4838	<.0001
Year-squared*Exudative Macular						
degeneration	-0.0141	0.0026	0.986	0.9809	0.9911	<.0001
Other retina conditions	-0.2919	0.0241	0.7469	0.7125	0.7829	<.0001
Year*Other retinal conditions	0.0429	0.01	1.0439	1.0235	1.0646	<.0001
Year-squared*Other retinal conditions	0.0006	0.001	1.0006	0.9986	1.0025	0.5762
Other nerve conditions	0.44	0.0191	1.5528	1.4958	1.6119	<.0001
Year*Other nerve conditions	-0.1053	0.0083	0.9001	0.8856	0.9148	<.0001
Year-squared*Other nerve conditions	0.0079	0.0008	1.008	1.0063	1.0096	<.0001
Non-Proliferative Diabetic Retinopathy	0.3472	0.0106	1.4151	1.3859	1.4448	<.0001
Proliferative Diabetic Retinopathy	0.3523	0.0183	1.4223	1.3721	1.4744	<.0001
Race: Blacks (vs Whites)	-0.0138	0.0092	0.9863	0.9686	1.0043	0.1359
Race: Latinos (vs Whites)	0.0312	0.0099	1.0317	1.012	1.0518	0.0015
Race: Asians (vs Whites)	0.0162	0.0033	1.0163	0.99	1.0433	0.2257
Race: Other races (vs Whites)	0.0162	0.0134	1.0163	0.99	1.0433	0.2257
Insurance type: Commercial & Medicaid	0.0240	0.0237	1.0249	0.9704	1.0730	0.2997
(vs Commercial only)	-0.3038	0.0263	0.738	0.7009	0.7771	<.0001
Insurance type: Commercial & Medicare	0.0000	0.0203	0.730	0.7003	0.7771	V.0001
(vs Commercial only)	-0.1881	0.013	0.8286	0.8077	0.85	<.0001
Sex: Females (vs Males)	0.0271	0.0047	1.0275	1.0182	1.0369	<.0001
Education: High school diploma (vs less	0.027	0.0017	1.02.70	110102	110000	4,0001
than High School)	0.0233	0.0191	1.0236	0.986	1.0626	0.2224
Education: Some college (vs less than						
High School)	0.0194	0.0193	1.0196	0.9817	1.059	0.3153
Education: College diploma (vs less than						
High School)	-0.0479	0.0199	0.9533	0.9168	0.9912	0.0162
Education: Advanced degree (vs less	0.0047	0.047	0.0470	0.7454	0.000	2004
than High School)	-0.2017	0.047	0.8173	0.7454	0.8962	<.0001
Household Net Worth: 25K-75K (vs <25K)	0.0323	0.0123	1.0328	1.0083	1.058	0.0084
Household Net Worth: 75K-150K (vs	0.0323	0.0123	1.0320	1.0063	1.056	0.0004
<25K)	0.0596	0.0106	1.0614	1.0396	1.0837	<.0001
Household Net Worth: 150K-500K (vs	0.0000	0.0100	1.0014	1.0000	1.0007	V.0001
<25K)	0.0948	0.0093	1.0995	1.0795	1.1198	<.0001
Household Net Worth: >500K (vs <25K)	0.1345	0.0107	1.1439	1.1203	1.1681	<.0001
US Region of residence: South-East (vs						
North-East)	0.0625	0.0066	1.0645	1.0508	1.0784	<.0001
US Region of residence: Mid-West (vs						
North-East)	-0.1386	0.0072	0.8706	0.8584	0.8829	<.0001
US Region of residence: West (vs North-						
East)	0.0483	0.0086	1.0494	1.0319	1.0672	<.0001
US Region of residence: Other regions	0.0070	0.007	0.0000	0.0007	4 4707	0.0000
(vs North-East)	-0.0078	0.087	0.9923	0.8367	1.1767	0.9288
Insurance Plan: PPO (vs HMO)	0.0625	0.0088	1.0645	1.0464	1.083	<.0001
Insurance Plan: EPO (vs HMO)	0.0838	0.0096	1.0874	1.0672	1.108	<.0001
Insurance Plan: POS (vs HMO)	0.0903	0.0073	1.0945	1.0789	1.1103	<.0001
Insurance Plan: IND (vs HMO)	-0.0485	0.0114	0.9527	0.9317	0.9741	<.0001
Insurance Plan: Other plans (vs HMO)	-0.352	0.0407	0.7033	0.6493	0.7617	<.0001
Age	0.001	0.0003	1.001	1.0004	1.0015	0.0006
Obesity	-0.0692	0.0071	0.9331	0.9202	0.9462	<.0001

Hypertension	-0.0144	0.0055	0.9857	0.9751	0.9964	0.0092
Hyperlipidemia	0.0453	0.0055	1.0463	1.0351	1.0577	<.0001
Amount of time the person was covered under the plan (years)	1.5172	0.0117	4.5595	4.456	4.6654	<.0001
Eye-care: Visited unspecified eye provider (vs visited ophthalmologists	0.0544	0.0444	0.427	0.2020	0.4020	. 0004
only)	-0.8511	0.0411	0.427	0.3939	0.4628	<.0001
Eye-care: Visited optometrists only (vs	0.0045	0.0000	0.004.4	0.7000	0.0400	0004
visited ophthalmologists only)	-0.2215	0.0069	0.8014	0.7906	0.8123	<.0001
Eye-care: Visited both (vs visited						
ophthalmologists only)	0.0598	0.0059	1.0616	1.0494	1.074	<.0001

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 12: Logistic for other ocular imaging testing including all provider types, but only in open-angle glaucoma patients

Model Information			
Distribution	Binomial		
Link Function	Logit		
Number of Observations Used	463782		
Number of Events	167311		
Number of Trials	463782		

Response Profile				
Ordered	Donondont variable	Total		
Value	Dependent variable	Frequency		
1	1	167311		
2	0	296471		

Generalized Estimating Equations Model Information			
Correlation Structure 8-Dependent			
Within-Subject Effect year (9 levels)			

Generalized Estimating Equations Fit Cr	iteria
Quasi-likelihood Information Criterion (QIC)	583622.6715

Score Statistics For Type 3 Generalized Estimating Equations Analysis				
Source	Degrees of Freedom	Chi-Square	p-value	
Year	1	1337.81	<.0001	
Year-squared	1	509.26	<.0001	
Macular Edema	1	1.49	0.2228	
Year*Macular Edema	1	13	0.0003	
Year-squared*Macular Edema	1	9.18	0.0024	
<b>Exudative Macular degeneration</b>	1	0.31	0.579	
Year*Exudative Macular degeneration	1	1.03	0.3097	
Year-squared*Exudative Macular				
degeneration	1	1.06	0.3033	
Other retina conditions	1	0.49	0.4847	
Year*Other retinal conditions	1	0.59	0.4413	
Year-squared*Other retinal conditions	1	0.07	0.7942	

Other nerve conditions	1	21.78	<.0001
Year*Other nerve conditions	1	10.99	0.0009
Year-squared*Other nerve conditions	1	10.17	0.0014
Non-Proliferative Diabetic Retinopathy	1	23.61	<.0001
Proliferative Diabetic Retinopathy	1	15.34	<.0001
Race	4	21.06	0.0003
Insurance type	2	113.54	<.0001
Sex	1	56.53	<.0001
Education	4	41.91	<.0001
Household Net Worth	4	170.01	<.0001
US Region of residence	4	165.21	<.0001
Insurance plan	5	160.34	<.0001
Age	1	83.69	<.0001
Obesity	1	31.23	<.0001
Hypertension	1	20.31	<.0001
Hyperlipidemia	1	97.5	<.0001
Amount of time the person was covered			
under the plan (years)	1	9503.81	<.0001
Eye-care	3	302.3	<.0001

Parameter estimates						
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value
Intercept	-2.9927	0.0505	0.05015	0.04543	0.05537	<.0001
Year	0.2385	0.0066	1.26936	1.25312	1.28582	<.0001
Year-squared	-0.0161	0.0007	0.98399	0.98261	0.98536	<.0001
Macular Edema	0.1495	0.1134	1.16129	0.92979	1.45042	0.1874
Year*Macular Edema	0.1759	0.0482	1.19236	1.08481	1.31057	0.0003
Year-squared*Macular Edema	-0.0147	0.0048	0.9854	0.9762	0.9947	0.0021
Exudative Macular degeneration	-0.0684	0.1185	0.93389	0.74034	1.17803	0.5638
Year*Exudative Macular degeneration	0.0531	0.0509	1.05456	0.95443	1.16519	0.2966
Year-squared*Exudative Macular degeneration	0.0055	0.0051	1.00549	0.99544	1.01563	0.2854
Other retina conditions	0.0248	0.0347	1.02513	0.95782	1.09717	0.4738
Year*Other retinal conditions	0.0119	0.0152	1.01198	0.98225	1.04261	0.4336
Year-squared*Other retinal conditions	0.0004	0.0016	1.00042	0.99734	1.0035	0.7913

l ou	l o 4040	0.0075	4.44000	1 400440	1 4 00005	1 0004 1
Other nerve conditions	0.1318	0.0275	1.14088	1.08112	1.20395	<.0001
Year*Other nerve conditions	-0.0416	0.0123	0.95924	0.93635	0.98268	0.0007
Year-squared*Other nerve conditions	0.0042	0.0013	1.00417	1.00164	1.00671	0.0012
Non-Proliferative Diabetic Retinopathy	0.0888	0.0181	1.0929	1.05476	1.13243	<.0001
Proliferative Diabetic Retinopathy	-0.1176	0.0301	0.88905	0.83816	0.94304	<.0001
Race: Blacks (vs Whites)	-0.0484	0.0143	0.95274	0.92648	0.97975	0.0007
Race: Latinos (vs Whites)	-0.0245	0.0182	0.97582	0.94157	1.01131	0.1793
Race: Asians (vs Whites)	0.0681	0.0251	1.07043	1.01905	1.12439	0.0067
Race: Other races (vs Whites)	-0.0249	0.0437	0.97545	0.8954	1.06265	0.5694
Insurance type: Commercial & Medicaid						
(vs Commercial only)	-0.4028	0.0438	0.66843	0.61339	0.7284	<.0001
Insurance type: Commercial & Medicare						
(vs Commercial only)	-0.1286	0.0199	0.87934	0.84576	0.91425	<.0001
Sex: Females (vs Males)	0.0628	0.0083	1.06486	1.04758	1.08242	<.0001
Education: High school diploma (vs less						
than High School)	0.0481	0.0312	1.04932	0.98713	1.11542	0.1225
Education: Some college (vs less than	0.0770	0.0047	4 0004	4.04500	4.44005	0.04.47
High School)	0.0773	0.0317	1.0804	1.01533	1.14965	0.0147
Education: College diploma (vs less than	0.0208	0.033	1.02102	0.95701	1 0002	0.5390
High School)  Education: Advanced degree (vs less than	0.0206	0.033	1.02102	0.93701	1.0893	0.5289
High School)	-0.2914	0.0965	0.74719	0.61845	0.90271	0.0025
Household Net Worth: 25K-75K (vs <25K)	0.062	0.0303	1.064	1.02038	1.10949	0.0023
Household Net Worth: 75K-150K (vs <25K)	0.002	0.0214	1.004	1.02030	1.10949	0.0037
<25K)	0.0811	0.0185	1.08445	1.04579	1.12454	<.0001
Household Net Worth: 150K-500K (vs	0.0011	0.0100	1.00110	1.01070	1.12101	4.0001
<25K)	0.1442	0.0162	1.15508	1.11894	1.19239	<.0001
Household Net Worth: >500K (vs <25K)	0.226	0.0188	1.25358	1.20814	1.30073	<.0001
US Region of residence: South-East (vs						
North-East)	-0.0467	0.0123	0.95435	0.9317	0.97756	0.0001
US Region of residence: Mid-West (vs						
North-East)	-0.1554	0.0132	0.85604	0.83417	0.87848	<.0001
US Region of residence: West (vs North-						
East)	-0.0754	0.0159	0.92741	0.89893	0.95679	<.0001
US Region of residence: Other regions	0.0540	0.4704	0.04700	0.07400	4 00005	0.7544
(vs North-East)	-0.0542	0.1731	0.94722	0.67468	1.32985	0.7541
Insurance Plan: PPO (vs HMO)	0.0496	0.0157	1.05081	1.019	1.08362	0.0016
Insurance Plan: EPO (vs HMO)	0.1048	0.018	1.11049	1.07193	1.15045	<.0001
Insurance Plan: POS (vs HMO)	0.0989	0.0137	1.10393	1.0747	1.13396	<.0001
Insurance Plan: IND (vs HMO)	-0.0353	0.0188	0.9653	0.93039	1.00153	0.0603
Insurance Plan: Other plans (vs HMO)	-0.368	0.0555	0.69209	0.62071	0.77168	<.0001
Age	-0.0045	0.0005	0.99552	0.99456	0.99647	<.0001
Obesity	-0.0724	0.013	0.93014	0.90678	0.95409	<.0001
Hypertension	-0.0473	0.0105	0.95383	0.93449	0.97358	<.0001
Hyperlipidemia	0.0999	0.0101	1.10501	1.08329	1.12715	<.0001
Amount of time the person was covered						
under the plan (years)	1.9038	0.0209	6.71109	6.44189	6.99155	<.0001
Eye-care: Visited unspecified eye provider						
(vs visited ophthalmologists only)	-1.1529	0.0842	0.31573	0.26768	0.37242	<.0001
Eye-care: Visited optometrists only (vs						
visited ophthalmologists only)	-0.074	0.0159	0.92863	0.90009	0.95808	<.0001
Eye-care: Visited both (vs visited	0.0811	0.0103	1.0845	1.06285	1.10659	<.0001

ophthalmologists only)			

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 13: Logistic for fundus photography testing for those under the exclusive care of optometrists

Model Information				
Distribution	Binomial			
Link Function	Logit			
Number of Observations Used	338783			
Number of Events	60059			
Number of Trials	338783			
Missing Values	40			

Response Profile				
Ordered	Donandant variable	Total		
Value	Dependent variable	Frequency		
1	1	60059		
2	0	278724		

Generalized Estimating Equations Model Information				
Correlation Structure 8-Dependent				
Within-Subject Effect year (9 levels)				
Generalized Estimating Equations Fit Criteria				
Quasi-likelihood Information Criterion	307144.1228			

Score Statistics For Type 3 Generalized Estimating Equations Analysis							
Source	Degrees of Freedom	Chi-Square	p-value				
Year	1	0.23	0.6316				
Year-squared	1	0.7	0.4033				
Open-angle glaucoma	1	9.74	0.0018				
Year*Open-angle glaucoma	1	9.21	0.0024				
Year-squared*Open-angle glaucoma	1	4.95	0.0261				
Glaucoma suspect	1	15.18	<.0001				
Year*Glaucoma suspect	1	1.23	0.2683				
Year-squared*Glaucoma suspect	1	1.48	0.2238				
Macular Edema	1	0.28	0.5996				
Year*Macular Edema	1	0	0.9804				
Year-squared*Macular Edema	1	0.01	0.9422				

Exudative Macular degeneration	1	0.18	0.6741
Year*Exudative Macular degeneration	1	0.18	0.6722
Year-squared*Exudative Macular degeneration	1	0.08	0.7782
Other retina conditions	1	40.27	<.0001
Year*Other retinal conditions	1	28.97	<.0001
Year-squared*Other retinal conditions	1	25.42	<.0001
Other nerve conditions	1	42.66	<.0001
Year*Other nerve conditions	1	26.6	<.0001
Year-squared*Other nerve conditions	1	22.08	<.0001
Non-Proliferative Diabetic Retinopathy	1	381.32	<.0001
Proliferative Diabetic Retinopathy	1	0	0.9964
Race	4	18.09	0.0012
Insurance type	2	14.05	0.0009
Sex	1	7.7	0.0055
Education	4	2.91	0.5723
Household Net Worth	4	78.57	<.0001
US Region of residence	4	709.07	<.0001
Insurance plan	5	260.23	<.0001
Age	1	129.44	<.0001
Obesity	1	5.91	0.015
Hypertension	1	1.7	0.1924
Hyperlipidemia	1	1.38	0.2406
Amount of time the person was covered under the plan (years)	1	2989.27	<.0001

Para	Parameter estimates					ı
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value
Intercept	-3.0597	0.1025	0.0469	0.03836	0.05734	<.0001
Year	0.016	0.032	1.01618	0.95434	1.08202	0.6164
Year-squared	-0.0027	0.0031	0.99728	0.99118	1.00343	0.3853
Open-angle glaucoma	0.304	0.0919	1.35531	1.13193	1.62278	0.0009
Year*Open-angle glaucoma	0.1193	0.0384	1.12672	1.04496	1.21489	0.0019
Year-squared*Open-angle glaucoma	-0.0086	0.0038	0.99139	0.98403	0.99881	0.023
Glaucoma suspect	0.3235	0.0777	1.38197	1.18675	1.6093	<.0001
Year*Glaucoma suspect	0.037	0.0321	1.03769	0.97442	1.10507	0.2491
Year-squared*Glaucoma suspect	-0.0039	0.0031	0.99607	0.98998	1.00219	0.2079
Macular Edema	0.2059	0.3385	1.22868	0.63282	2.38558	0.543
Year*Macular Edema	0.0037	0.1404	1.00375	0.76226	1.32174	0.9787

Year-squared*Macular Edema	-0.0011	0.0136	0.99895	0.9727	1.0259	0.9381
Exudative Macular degeneration	0.1713	0.3584	1.1868	0.58786	2.39597	0.6328
Year*Exudative Macular degeneration	0.0665	0.1467	1.06879	0.80167	1.42491	0.6503
Year-squared*Exudative Macular degeneration	-0.0043	0.0144	0.99567	0.96794	1.0242	0.7634
Other retina conditions	0.5165	0.0745	1.67619	1.44848	1.93969	<.0001
Year*Other retinal conditions	0.1708	0.0306	1.18631	1.1173	1.25958	<.0001
Year-squared*Other retinal conditions	-0.0155	0.003	0.98463	0.97891	0.99038	<.0001
Other nerve conditions	0.4731	0.0647	1.60492	1.4138	1.82188	<.0001
Year*Other nerve conditions	-0.1482	0.0267	0.86222	0.81823	0.90857	<.0001
Year-squared*Other nerve conditions	0.013	0.0026	1.01308	1.00788	1.01831	<.0001
Non-Proliferative Diabetic Retinopathy	0.7485	0.0322	2.11384	1.98441	2.25171	<.0001
Proliferative Diabetic Retinopathy	0.0006	0.1362	1.00062	0.76617	1.30682	0.9964
Race: Blacks (vs Whites)	-0.0577	0.0247	0.94395	0.8993	0.99082	0.0196
Race: Latinos (vs Whites)	0.047	0.0269	1.04817	0.99442	1.10482	0.0798
Race: Asians (vs Whites)	0.1212	0.0399	1.12885	1.04384	1.22078	0.0024
Race: Other races (vs Whites)	-0.0216	0.0633	0.97861	0.86441	1.1079	0.7327
Insurance type: Commercial & Medicaid	0.0210	0.0000	0.07001	0.00441	1.1075	0.7027
(vs Commercial only)	-0.1777	0.0555	0.83723	0.75096	0.93341	0.0014
Insurance type: Commercial & Medicare						
(vs Commercial only)	0.0424	0.0335	1.04332	0.97695	1.11421	0.206
Sex: Females (vs Males)	0.0309	0.0111	1.03136	1.00907	1.05413	0.0056
Education: High school diploma (vs less						
than High School)	-0.0466	0.049	0.9545	0.86706	1.05077	0.3422
Education: Some college (vs less than	0.0500	0.0407	0.04400	0.0545	4 00044	0.0004
High School) Education: College diploma (vs less	-0.0598	0.0497	0.94198	0.8545	1.03841	0.2294
than High School)	-0.041	0.0513	0.95984	0.8681	1.06127	0.4239
Education: Advanced degree (vs less	-0.041	0.0313	0.95904	0.0001	1.00127	0.4233
than High School)	-0.0793	0.1516	0.92379	0.68635	1.24337	0.601
Household Net Worth: 25K-75K (vs	010100			0.0000		
<25K)	0.0075	0.0276	1.00757	0.95452	1.06356	0.7847
Household Net Worth: 75K-150K (vs						
<25K)	0.0317	0.0237	1.03216	0.9854	1.08114	0.1809
Household Net Worth: 150K-500K (vs	0.4050	0.0040	4 400 40	4 00700	4 4040	0004
<25K)	0.1253	0.0212	1.13343	1.08723	1.1816	<.0001
Household Net Worth: >500K (vs <25K)	0.1665	0.0257	1.1812	1.12318	1.24221	<.0001
US Region of residence: South-East (vs North-East)	0.0974	0.0155	1.10228	1.06936	1.13621	<.0001
US Region of residence: Mid-West (vs	0.0974	0.0155	1.10220	1.00930	1.13021	<.0001
North-East)	-0.2585	0.0163	0.77224	0.74791	0.79735	<.0001
US Region of residence: West (vs	01200			011 11 01	011 01 00	
North-East)	-0.115	0.0236	0.89139	0.85116	0.93353	<.0001
US Region of residence: Other regions						
(vs North-East)	-0.2324	0.218	0.79265	0.51708	1.21509	0.2864
Insurance Plan: PPO (vs HMO)	0.1699	0.0202	1.18523	1.13922	1.23309	<.0001
Insurance Plan: EPO (vs HMO)	0.1466	0.0219	1.15794	1.10932	1.20869	<.0001
Insurance Plan: POS (vs HMO)	0.2389	0.016	1.26986	1.23073	1.31022	<.0001
Insurance Plan: IND (vs HMO)	0.103	0.0345	1.10844	1.03597	1.18598	0.0028
Insurance Plan: Other plans (vs HMO)	-0.2898	0.0988	0.74842	0.61667	0.90832	0.0034
Age	-0.008	0.0007	0.99202	0.99064	0.99339	<.0001

Obesity	-0.0413	0.0171	0.95955	0.92793	0.99225	0.0157
Hypertension	0.0166	0.0128	1.01678	0.99162	1.04258	0.193
Hyperlipidemia	0.0147	0.0126	1.01483	0.99015	1.04012	0.2414
Amount of time the person was covered						
under the plan (years)	1.3173	0.0277	3.73323	3.53626	3.94117	<.0001

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 14: Logistic for fundus photography testing for those under the exclusive care of ophthalmologists

Model Information					
Distribution	Binomial				
Link Function	Logit				
Number of Observations Used	1546292				
Number of Events	168891				
Number of Trials	1546292				
Missing Values	153				

Response Profile					
Ordered	Dependent variable	Total			
Value	Dependent variable	Frequency			
1	1	168891			
2	0	1377401			

Generalized Estimating Equations Model Information					
Correlation Structure 8-Dependent					
Within-Subject Effect year (9 level					
Generalized Estimating Equations Fit Criteria					
Quasi-likelihood Information Criterion 1007817.635					

Score Statistics For Type 3	Score Statistics For Type 3 Generalized Estimating Equations Analysis							
Source	Source Degrees of Freedom Chi-S		p-value					
Year	1	22.36	<.0001					
Year-squared	1	18.5	<.0001					
Open-angle glaucoma	1	330.76	<.0001					
Year*Open-angle glaucoma	1	5.91	0.015					
Year-squared*Open-angle glaucoma	1	0	0.9602					
Glaucoma suspect	1	357.31	<.0001					
Year*Glaucoma suspect	1	2.44	0.1184					
Year-squared*Glaucoma suspect	1	1.96	0.1615					
Macular Edema	1	806.58	<.0001					
Year*Macular Edema	1	88.31	<.0001					
Year-squared*Macular Edema	1	7.29	0.0069					

<b>Exudative Macular degeneration</b>	1	1120.54	<.0001
Year*Exudative Macular degeneration	1	52.74	<.0001
Year-squared*Exudative Macular			
degeneration	1	0.01	0.9209
Other retina conditions	1	1129.87	<.0001
Year*Other retinal conditions	1	47.05	<.0001
Year-squared*Other retinal conditions	1	17.2	<.0001
Other nerve conditions	1	6.1	0.0135
Year*Other nerve conditions	1	4.1	0.043
Year-squared*Other nerve conditions	1	4.73	0.0297
Non-Proliferative Diabetic Retinopathy	1	2758.58	<.0001
<b>Proliferative Diabetic Retinopathy</b>	1	666.67	<.0001
Race	4	158.63	<.0001
Insurance type	2	186.8	<.0001
Sex	1	0.37	0.5424
Education	4	157.65	<.0001
Household Net Worth	4	17.62	0.0015
US Region of residence	4	2670.46	<.0001
Insurance plan	5	299.36	<.0001
Age	1	274.69	<.0001
Obesity	1	1.55	0.2134
Hypertension	1	28.42	<.0001
Hyperlipidemia	1	13.23	0.0003
Amount of time the person was covered under the plan (years)	1	8149.86	<.0001

Parameter estimates								
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value		
Intercept	-3.5083	0.0465	0.02995	0.02734	0.0328	<.0001		
Year	-0.0621	0.0127	0.93978	0.91675	0.9634	<.0001		
Year-squared	0.006	0.0013	1.00598	1.00333	1.0086	<.0001		
Open-angle glaucoma	0.5471	0.0285	1.72818	1.63438	1.8274	<.0001		
Year*Open-angle glaucoma	0.0333	0.0133	1.03384	1.00722	1.0612	0.0124		
Year-squared*Open-angle glaucoma	0.0001	0.0014	1.00007	0.9973	1.0029	0.9593		
Glaucoma suspect	0.5605	0.028	1.75158	1.65796	1.8505	<.0001		
Year*Glaucoma suspect	-0.0212	0.0131	0.97899	0.95409	1.0045	0.1061		
Year-squared*Glaucoma suspect	0.002	0.0014	1.00201	0.99928	1.0047	0.15		
Macular Edema	1.9639	0.0509	7.12706	6.45033	7.8748	<.0001		

Year*Macular Edema	-0.2234	0.0229	0.79983	0.76466	0.8366	<.0001
Year-squared*Macular Edema	0.0065	0.0024	1.00647	1.00182	1.0111	0.0063
Exudative Macular degeneration	2.2875	0.0487	9.85041	8.95428	10.8362	<.0001
Year*Exudative Macular degeneration	-0.1659	0.0228	0.84715	0.81019	0.8858	<.0001
Year-squared*Exudative Macular						
degeneration	-0.0002	0.0024	0.99976	0.99498	1.0046	0.9216
Other retina conditions	0.9007	0.0246	2.46139	2.34546	2.583	<.0001
Year*Other retinal conditions	-0.0818	0.0115	0.92142	0.90079	0.9425	<.0001
Year-squared*Other retinal conditions	0.0052	0.0012	1.00523	1.00282	1.0076	<.0001
Other nerve conditions	0.0622	0.0241	1.0642	1.01513	1.1157	0.0098
Year*Other nerve conditions	-0.0236	0.0113	0.97663	0.95529	0.9984	0.0359
Year-squared*Other nerve conditions	0.0027	0.0012	1.00267	1.00033	1.005	0.0254
Non-Proliferative Diabetic Retinopathy	0.7674	0.0121	2.15419	2.10352	2.2061	<.0001
Proliferative Diabetic Retinopathy	0.5187	0.0185	1.67977	1.61988	1.7419	<.0001
Race: Blacks (vs Whites)	0.1324	0.0126	1.14161	1.11376	1.1702	<.0001
Race: Latinos (vs Whites)	0.0687	0.013	1.07107	1.04403	1.0988	<.0001
Race: Asians (vs Whites)	0.1178	0.0174	1.12502	1.08726	1.1641	<.0001
Race: Other races (vs Whites)	0.0834	0.0319	1.08702	1.02119	1.1571	0.0089
Insurance type: Commercial & Medicaid	0.0004	0.0010	1.00702	1.02110	1.1071	0.0000
(vs Commercial only)	-0.3677	0.0385	0.69233	0.642	0.7466	<.0001
Insurance type: Commercial & Medicare						
(vs Commercial only)	-0.1797	0.0172	0.83549	0.80781	0.8641	<.0001
Sex: Females (vs Males)	-0.004	0.0065	0.99605	0.98345	1.0088	0.5427
Education: High school diploma (vs less						
than High School)	0.0613	0.0254	1.06319	1.01163	1.1174	0.0157
Education: Some college (vs less than						
High School)	0.0819	0.0257	1.08533	1.032	1.1414	0.0014
Education: College diploma (vs less than	0.0000	0.0000	0.07744	0.00704	4 0000	0.0005
High School) Education: Advanced degree (vs less	-0.0229	0.0266	0.97741	0.92784	1.0296	0.3895
than High School)	-0.1492	0.0605	0.86137	0.76507	0.9698	0.0136
Household Net Worth: 25K-75K (vs	-0.1492	0.0003	0.00137	0.70307	0.9090	0.0130
<25K)	-0.0451	0.017	0.95587	0.92454	0.9883	0.008
Household Net Worth: 75K-150K (vs		0.00.1		0.000.00	313 3 3 3	0.000
<25K)	-0.0376	0.0147	0.96311	0.93568	0.9913	0.0108
Household Net Worth: 150K-500K (vs						
<25K)	-0.0303	0.0129	0.97019	0.94605	0.9949	0.0186
Household Net Worth: >500K (vs <25K)	-0.0053	0.0146	0.99473	0.9666	1.0237	0.7181
US Region of residence: South-East (vs						
North-East)	0.0076	0.0089	1.00766	0.99016	1.0255	0.3932
US Region of residence: Mid-West (vs	0.0450	0.0400	0.70007	0.00400	0.7004	0004
North-East)	-0.3452	0.0102	0.70807	0.69402	0.7224	<.0001
US Region of residence: West (vs North- East)	-0.3406	0.0121	0.71131	0.69466	0.7284	<.0001
US Region of residence: Other regions	-0.3400	0.0121	0.71131	0.09400	0.7204	<u> </u>
(vs North-East)	-0.1011	0.1184	0.90384	0.71671	1.1398	0.3929
Insurance Plan: PPO (vs HMO)	-0.0208	0.0125	0.97944	0.95582	1.0036	0.0952
Insurance Plan: EPO (vs HMO)	0.0608	0.0123	1.06274	1.0345	1.0917	<.0001
Insurance Plan: POS (vs HMO)	0.0000	0.0107	1.04306	1.02145	1.0651	<.0001
Insurance Plan: IND (vs HMO)	-0.1308	0.0161	0.87742	0.85022	0.9055	<.0001
Insurance Plan: Other plans (vs HMO)	-0.1308	0.0603	0.55928	0.83022	0.6294	<.0001
mourance Flan. Other plans (vs filvio)	1100.0-	U.U0U3	U.33928	U.49098	∪.0∠94	<.UUU1

Age	-0.0063	0.0004	0.99374	0.993	0.9945	<.0001
Obesity	-0.0123	0.0099	0.98774	0.96869	1.0072	0.2147
Hypertension	0.0419	0.0079	1.04277	1.02677	1.059	<.0001
Hyperlipidemia	0.0283	0.0078	1.02872	1.01309	1.0446	0.0003
Amount of time the person was covered						
under the plan (years)	1.2586	0.0168	3.52054	3.40645	3.6384	<.0001

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 15: Logistic for fundus photography testing for those under the care of both provider types

Model Information					
Distribution	Binomial				
Link Function	Logit				
Number of Observations Used	467803				
Number of Events	73741				
Number of Trials	467803				
Missing Values	43				

Response Profile					
Ordered	Dependent variable	Total			
Value	Dependent variable	Frequency			
1	1	73741			
2	0	394062			

Generalized Estimating Equations Model Information					
Correlation Structure	8-Dependent				
Within-Subject Effect year (9 level:					
Generalized Estimating Equations Fit Criteria					
Quasi-likelihood Information Criterion 386027.3452					

Score Statistics For Type 3 G	Score Statistics For Type 3 Generalized Estimating Equations Analysis						
Source	Degrees of Freedom	Chi-Square	p-value				
Year	1	7.21	0.0073				
Year-squared	1	7.42	0.0065				
Open-angle glaucoma	1	13.91	0.0002				
Year*Open-angle glaucoma	1	21.19	<.0001				
Year-squared*Open-angle glaucoma	1	8.37	0.0038				
Glaucoma suspect	1	36.37	<.0001				
Year*Glaucoma suspect	1	0.01	0.9318				
Year-squared*Glaucoma suspect	1	0.01	0.9036				
Macular Edema	1	348.74	<.0001				
Year*Macular Edema	1	69.43	<.0001				
Year-squared*Macular Edema	1	13.92	0.0002				
Exudative Macular degeneration	1	498.65	<.0001				

Year*Exudative Macular degeneration	1	47.56	<.0001
Year-squared*Exudative Macular degeneration	1	4.1	0.0429
Other retina conditions	1	340.96	<.0001
Year*Other retinal conditions	1	0.07	0.7972
Year-squared*Other retinal conditions	1	1.39	0.2384
Other nerve conditions	1	3.98	0.046
Year*Other nerve conditions	1	2.67	0.102
Year-squared*Other nerve conditions	1	2.07	0.1499
Non-Proliferative Diabetic Retinopathy	1	982.47	<.0001
Proliferative Diabetic Retinopathy	1	200.74	<.0001
Race	4	4.44	0.3499
Insurance type	2	34.22	<.0001
Sex	1	0.03	0.8641
Education	4	60.64	<.0001
Household Net Worth	4	27.38	<.0001
US Region of residence	4	898.68	<.0001
Insurance plan	5	156.85	<.0001
Age	1	156.43	<.0001
Obesity	1	12.02	0.0005
Hypertension	1	13.46	0.0002
Hyperlipidemia	1	0.09	0.7647
Amount of time the person was covered under the plan (years)	1	2181.11	<.0001

Parameter estimates								
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value		
Intercept	-2.9936	0.0787	0.0501	0.04294	0.05846	<.0001		
Year	-0.0571	0.0206	0.94447	0.90714	0.98334	0.0055		
Year-squared	0.006	0.0021	1.00602	1.0018	1.01025	0.0051		
Open-angle glaucoma	0.1876	0.0487	1.2064	1.09663	1.32715	0.0001		
Year*Open-angle glaucoma	0.1028	0.0218	1.10832	1.06189	1.15677	<.0001		
Year-squared*Open-angle glaucoma	-0.0067	0.0023	0.99332	0.98892	0.99775	0.0032		
Glaucoma suspect	0.3051	0.0485	1.35679	1.23371	1.49215	<.0001		
Year*Glaucoma suspect	-0.0019	0.0218	0.99808	0.95643	1.04155	0.9297		
Year-squared*Glaucoma suspect	0.0003	0.0022	1.00028	0.99589	1.00469	0.9011		
Macular Edema	1.9788	0.085	7.23436	6.12368	8.54649	<.0001		
Year*Macular Edema	-0.3057	0.0362	0.7366	0.68619	0.79072	<.0001		
Year-squared*Macular Edema	0.0134	0.0036	1.01353	1.00638	1.02073	0.0002		

Exudative Macular degeneration	2.1213	0.0745	8.34232	7.20907	9.65372	<.0001
Year*Exudative Macular degeneration	-0.2296	0.0745	0.79481	0.74433	0.84872	<.0001
Year-squared*Exudative Macular	-0.2230	0.0000	0.73401	0.74433	0.04072	<.0001
degeneration	0.007	0.0035	1.00704	1.00014	1.01398	0.0455
Other retina conditions	0.8408	0.0426	2.31827	2.13265	2.52005	<.0001
Year*Other retinal conditions	-0.0051	0.0191	0.99496	0.9584	1.03291	0.7912
Year-squared*Other retinal conditions	-0.0024	0.002	0.99761	0.99374	1.00149	0.2264
Other nerve conditions	0.0832	0.0402	1.08674	1.00449	1.17571	0.0383
Year*Other nerve conditions	-0.0303	0.0179	0.97019	0.93669	1.00489	0.0914
Year-squared*Other nerve conditions	0.0027	0.0019	1.00274	0.99911	1.00638	0.1399
Non-Proliferative Diabetic Retinopathy	0.6829	0.0189	1.97962	1.90775	2.05419	<.0001
Proliferative Diabetic Retinopathy	0.4233	0.0285	1.52695	1.44399	1.61468	<.0001
Race: Blacks (vs Whites)	0.028	0.0222	1.02837	0.98453	1.07416	0.2082
Race: Latinos (vs Whites)	0.0018	0.0244	1.00185	0.95514	1.05084	0.9396
Race: Asians (vs Whites)	0.0067	0.035	1.00671	0.94005	1.07808	0.8484
Race: Other races (vs Whites)	-0.0903	0.0558	0.91364	0.81905	1.01916	0.1053
Insurance type: Commercial & Medicaid	0.0000	0.000	0.0.00.	0.0.000		011000
(vs Commercial only)	-0.2893	0.0527	0.74881	0.67536	0.83024	<.0001
Insurance type: Commercial & Medicare						
(vs Commercial only)	-0.043	0.0256	0.95791	0.9111	1.00713	0.0925
Sex: Females (vs Males)	-0.0018	0.0103	0.99824	0.97828	1.01861	0.8643
Education: High school diploma (vs less						
than High School)	0.0125	0.0449	1.01262	0.92727	1.10582	0.7802
Education: Some college (vs less than	0.0005	0.0455	0.00440	0.00405	4.05.407	0.4005
High School)  Education: College diploma (vs less than	-0.0365	0.0455	0.96418	0.88195	1.05407	0.4225
High School)	-0.1169	0.0469	0.88963	0.81143	0.97538	0.0127
Education: Advanced degree (vs less than	-0.1103	0.0403	0.00903	0.01143	0.97556	0.0121
High School)	0.0327	0.1375	1.03319	0.78912	1.35276	0.8123
Household Net Worth: 25K-75K (vs <25K)	-0.0068	0.0261	0.99325	0.94376	1.04532	0.7949
Household Net Worth: 75K-150K (vs <25K)	-0.0239	0.0227	0.97641	0.93388	1.02086	0.2932
Household Net Worth: 150K-500K (vs	010000	0.0000		0.0000		0.202
<25K)	0.0381	0.0199	1.03883	0.99906	1.08019	0.0558
Household Net Worth: >500K (vs <25K)	0.0723	0.0234	1.07493	1.0267	1.12542	0.002
US Region of residence: South-East (vs						
North-East)	0.0462	0.0149	1.04733	1.01717	1.07839	0.0019
US Region of residence: Mid-West (vs				0 = 1 = 0		2224
North-East)	-0.3044	0.0156	0.73759	0.71536	0.76052	<.0001
US Region of residence: West (vs North- East)	-0.1966	0.0216	0.82152	0.78748	0.85704	<.0001
US Region of residence: Other regions (vs	-0.1900	0.0216	0.02102	0.76746	0.65704	<.0001
North-East)	-0.3629	0.2685	0.69563	0.41099	1.1774	0.1765
Insurance Plan: PPO (vs HMO)	0.1413	0.0195	1.15179	1.10867	1.19659	<.0001
Insurance Plan: EPO (vs HMO)	0.1092	0.0211	1.11542	1.07021	1.16254	<.0001
Insurance Plan: POS (vs HMO)	0.1782	0.0157	1.19501	1.1589	1.23224	<.0001
Insurance Plan: IND (vs HMO)	0.0624	0.0237	1.06435	1.01611	1.11489	0.0084
Insurance Plan: Other plans (vs HMO)	-0.0995	0.0237	0.90527	0.79084	1.03626	0.1489
modifice i fan. Other plans (vs i livio)	0.0333	0.0003	0.00021	0.73004	1.00020	0.1703
Age	-0.0075	0.0006	0.9925	0.99132	0.99368	<.0001
Obesity	-0.0513	0.0000	0.94998	0.99132	0.99308	0.0006
Hypertension	0.0464	0.0149	1.04747	1.02173	1.07387	0.0003
пурененаюн	0.0404	0.0121	1.04/4/	1.02173	1.07307	0.0003

Hyperlipidemia	-0.0038	0.0125	0.99626	0.97206	1.02106	0.7649
Amount of time the person was covered						
under the plan (years)	1.1966	0.0302	3.30883	3.11884	3.51039	<.0001

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 16: Logistic for fundus photography testing, including all provider types

Model Information					
Distribution	Binomial				
Link Function	Logit				
Number of Observations Used	2364531				
Number of Events	303455				
Number of Trials	2364531				
Missing Values	236				

Response Profile						
Ordered	Donondont variable	Total				
Value	Dependent variable	Frequency				
1	1	303455				
2	0	2061076				

Generalized Estimating Equations Model Information							
Correlation Structure 8-Dependent							
Within-Subject Effect year (9 levels)							
Generalized Estimating Equations Fit Criteria							
Quasi-likelihood Information Criterion 1710081.79							

Score Statistics For Type 3 Generalized Estimating Equations Analysis						
Source	Degrees of Freedom Chi-Square		p-value			
Year	1	10.18	0.0014			
Year-squared	1	9.39	0.0022			
Open-angle glaucoma	1	382.25	<.0001			
Year*Open-angle glaucoma	1	8.77	0.0031			
Year-squared*Open-angle glaucoma	1	0.1	0.7478			
Glaucoma suspect	1	395.05	<.0001			
Year*Glaucoma suspect	1	3.56	0.0592			
Year-squared*Glaucoma suspect	1	1.39	0.2391			
Macular Edema	1	1181.59	<.0001			
Year*Macular Edema	1	189.14	<.0001			
Year-squared*Macular Edema	1	29.31	<.0001			
Exudative Macular degeneration	1	1651.07	<.0001			
Year*Exudative Macular degeneration	1	137.1	<.0001			

Year-squared*Exudative Macular degeneration	1	6.15	0.0132
Other retina conditions	1	1538.46	<.0001
Year*Other retinal conditions	1	20.82	<.0001
Year-squared*Other retinal conditions	1	5.29	0.0214
Other nerve conditions	1	36.35	<.0001
Year*Other nerve conditions	1	22.84	<.0001
Year-squared*Other nerve conditions	1	19.61	<.0001
Non-Proliferative Diabetic Retinopathy	1	4174.5	<.0001
<b>Proliferative Diabetic Retinopathy</b>	1	862.14	<.0001
Race	4	123.54	<.0001
Insurance type	2	192.48	<.0001
Sex	1	1.49	0.2216
Education	4	142.02	<.0001
Household Net Worth	4	65.81	<.0001
US Region of residence	4	4181.82	<.0001
Insurance plan	5	527.78	<.0001
Age	1	549.16	<.0001
Obesity	1	15.79	<.0001
Hypertension	1	39.66	<.0001
Hyperlipidemia	1	10.18	0.0014
Amount of time the person was covered under the plan (years)	1	13351.3	<.0001
Eye-care	3	13545.5	<.0001

Parameter estimates						
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value
Intercept	-3.5979	0.0368	0.02738	0.02548	0.0294	<.0001
Year	-0.0334	0.0101	0.96718	0.94823	0.9865	0.0009
Year-squared	0.0033	0.0011	1.00333	1.00126	1.0054	0.0016
Open-angle glaucoma	0.4886	0.0237	1.63002	1.55604	1.7075	<.0001
Year*Open-angle glaucoma	0.0328	0.0108	1.03337	1.01176	1.0554	0.0023
Year-squared*Open-angle glaucoma	-0.0004	0.0011	0.99963	0.99742	1.0018	0.7422
Glaucoma suspect	0.4836	0.0231	1.62196	1.55021	1.697	<.0001
Year*Glaucoma suspect	-0.0205	0.0105	0.97973	0.95982	1.0001	0.0507
Year-squared*Glaucoma suspect	0.0013	0.0011	1.00132	0.99919	1.0035	0.2257
Macular Edema	1.9898	0.043	7.31373	6.72198	7.9576	<.0001
Year*Macular Edema	-0.2721	0.019	0.76179	0.73392	0.7907	<.0001
Year-squared*Macular Edema	0.0106	0.0019	1.01068	1.00684	1.0145	<.0001
Exudative Macular degeneration	2.2715	0.0405	9.69386	8.95474	10.494	<.0001

Year*Exudative Macular degeneration	-0.219	0.0186	0.80331	0.77457	0.8331	<.0001
Year-squared*Exudative Macular	0.2.0	0.0.00	0.0000	0	0.000	11000.
degeneration	0.0049	0.002	1.00486	1.00098	1.0088	0.014
Other retina conditions	0.8709	0.0205	2.38909	2.29513	2.4869	<.0001
Year*Other retinal conditions	-0.0439	0.0093	0.95705	0.93975	0.9747	<.0001
Year-squared*Other retinal conditions	0.0023	0.001	1.00229	1.00039	1.0042	0.0181
Other nerve conditions	0.1241	0.0196	1.1321	1.08951	1.1764	<.0001
Year*Other nerve conditions	-0.0441	0.0089	0.95682	0.9403	0.9736	<.0001
Year-squared*Other nerve conditions	0.0042	0.0009	1.00423	1.00241	1.006	<.0001
Non-Proliferative Diabetic Retinopathy	0.7478	0.0003	2.1124	2.07254	2.153	<.0001
Proliferative Diabetic Retinopathy	0.4828	0.0097	1.62055	1.57263	1.6699	<.0001
Race: Blacks (vs Whites)		0.0133	1.02033		1.1111	<.0001
· · · ·	0.0857			1.06823		
Race: Latinos (vs Whites)	0.056	0.0105	1.05762	1.03599	1.0797	<.0001
Race: Asians (vs Whites)	0.0936	0.0144	1.09815	1.0675	1.1297	<.0001
Race: Other races (vs Whites)	0.0281	0.0253	1.0285	0.97866	1.0809	0.2676
Insurance type: Commercial & Medicaid	0.0045	0.0070	0.7000	0.00500	0.7000	0004
(vs Commercial only)	-0.3245	0.0273	0.7229	0.68526	0.7626	<.0001
Insurance type: Commercial & Medicare (vs Commercial only)	0.0004	0.0131	0.00653	0.00250	0.0204	1,0001
Sex: Females (vs Males)	-0.0981 0.006	0.0131	0.90653 1.00603	0.88359 0.99637	0.9301 1.0158	<.0001
Education: High school diploma (vs less	0.006	0.0049	1.00003	0.99637	1.0156	0.2221
than High School)	0.0299	0.02	1.03038	0.99068	1.0717	0.1355
Education: Some college (vs less than	0.0299	0.02	1.03030	0.99000	1.07 17	0.1333
High School)	0.03	0.0203	1.0305	0.99028	1.0724	0.1391
Education: College diploma (vs less	0.00	0.0200	1.0000	0.00020	1.0724	0.1001
than High School)	-0.0462	0.021	0.95486	0.91641	0.9949	0.0276
Education: Advanced degree (vs less	01010	010=1			0.00.10	0.000
than High School)	-0.1367	0.0516	0.87226	0.78832	0.9651	0.0081
Household Net Worth: 25K-75K (vs						
<25K)	-0.0247	0.0127	0.97558	0.95166	1.0001	0.051
Household Net Worth: 75K-150K (vs						
<25K)	-0.0174	0.011	0.98279	0.96189	1.0041	0.1136
Household Net Worth: 150K-500K (vs	0.0004	0.0000	4 00074	4 00457	4.0400	0.045
<25K)	0.0234	0.0096	1.02371	1.00457	1.0432	0.015
Household Net Worth: >500K (vs <25K)	0.0487	0.0112	1.0499	1.02716	1.0731	<.0001
US Region of residence: South-East (vs	0.0224	0.0060	1 02206	1 02040	1.0470	4 0004
North-East) US Region of residence: Mid-West (vs	0.0334	0.0068	1.03396	1.02019	1.0479	<.0001
North-East)	-0.3172	0.0075	0.72817	0.71749	0.739	<.0001
US Region of residence: West (vs	-0.0172	0.0075	0.72017	0.11148	0.738	\.UUU1
North-East)	-0.2772	0.0096	0.75792	0.74386	0.7722	<.0001
US Region of residence: Other regions	0.2772	0.000	007.02	3 1000	J 122	1.0001
(vs North-East)	-0.1549	0.0967	0.85653	0.70867	1.0352	0.1092
Insurance Plan: PPO (vs HMO)	0.06	0.0093	1.06183	1.04266	1.0814	<.0001
Insurance Plan: EPO (vs HMO)	0.1042	0.0102	1.10981	1.08786	1.1322	<.0001
Insurance Plan: POS (vs HMO)	0.1239	0.0077	1.13196	1.1149	1.1493	<.0001
Insurance Plan: IND (vs HMO)	-0.0331	0.0077	0.96746	0.94451	0.991	0.0069
Insurance Plan: Other plans (vs HMO)	-0.3619	0.0123	0.90740	0.64249	0.991	<.0001
insurance Fian. Other plans (vs filvio)	-0.3019	0.0411	0.09032	0.04249	0.7347	<.UUU1
٨٥٥	0.0060	0.0003	0.00224	0.00065	0.0020	4 0004
Age	-0.0068	0.0003	0.99321	0.99265	0.9938	<.0001
Obesity	-0.0294	0.0074	0.97102	0.95695	0.9853	<.0001
Hypertension	0.0371	0.0059	1.03781	1.02586	1.0499	<.0001

Hyperlipidemia	0.0186	0.0058	1.01878	1.00717	1.0305	0.0015
Amount of time the person was covered						
under the plan (years)	1.256	0.0129	3.51144	3.42353	3.6016	<.0001
Eye-care: Visited unspecified eye			 			
provider (vs visited ophthalmologists	1		ļ			
only)	-0.4301	0.0436	0.65048	0.59725	0.7084	<.0001
Eye-care: Visited optometrists only (vs			<u> </u>			
visited ophthalmologists only)	0.8147	0.0067	2.25847	2.22907	2.2883	<.0001
Eye-care: Visited both (vs visited						
ophthalmologists only)	0.3951	0.0061	1.48456	1.46699	1.5023	<.0001

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 17: Logistic for fundus photography testing including all provider types, but only in open-angle glaucoma patients

Model Information		
Distribution	Binomial	
Link Function	Logit	
Number of Observations Used	463782	
Number of Events	66680	
Number of Trials	463782	
Missing Values	46	

Response Profile		
Ordered	Dependent	Total
Value	variable	Frequency
1	1	66680
2	0	397102

Generalized Estimating Equations Model Information		
Correlation Structure	8-Dependent	
Within-Subject Effect	year (9 levels)	
Generalized Estimating Equations Fit Criteria		
Quasi-likelihood Information Criterion	363747.6116	

Score Statistics For Type 3 Generalized Estimating Equations Analysis				
Source	Degrees of Freedom	Chi-Square	p-value	
Year	1	0.82	0.3638	
Year-squared	1	7.29	0.0069	
Macular Edema	1	148.25	<.0001	
Year*Macular Edema	1	33.98	<.0001	
Year-squared*Macular Edema	1	8.25	0.0041	
<b>Exudative Macular degeneration</b>	1	155.68	<.0001	
Year*Exudative Macular degeneration	1	14.1	0.0002	
Year-squared*Exudative Macular degeneration	1	0.7	0.4013	
Other retina conditions	1	343.67	<.0001	
Year*Other retinal conditions	1	20.53	<.0001	
Year-squared*Other retinal conditions	1	6.41	0.0113	
Other nerve conditions	1	19.09	<.0001	

Year*Other nerve conditions	1	1.99	0.1584
Year-squared*Other nerve conditions	1	1.39	0.2382
Non-Proliferative Diabetic Retinopathy	1	515.01	<.0001
Proliferative Diabetic Retinopathy	1	113.43	<.0001
Race	4	50.14	<.0001
Insurance type	2	54.17	<.0001
Sex	1	14.98	0.0001
Education	4	34.07	<.0001
<b>Household Net Worth</b>	4	38.36	<.0001
US Region of residence	4	1167.34	<.0001
Insurance plan	5	187.62	<.0001
Age	1	176.96	<.0001
Obesity	1	8.42	0.0037
Hypertension	1	0.06	0.7998
Hyperlipidemia	1	33.99	<.0001
Amount of time the person was covered under the			
plan (years)	1	3631.56	<.0001
Eye-care	3	1288.8	<.0001

Parameter estimates							
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value	
Intercept	-3.1974	0.0655	0.04087	0.03594	0.04647	<.0001	
Year	0.0085	0.0091	1.00853	0.99072	1.02666	0.3501	
Year-squared	0.0028	0.001	1.00276	1.00081	1.00471	0.0055	
Macular Edema	1.8435	0.1213	6.31876	4.98145	8.01508	<.0001	
Year*Macular Edema	-0.3105	0.0518	0.73309	0.66237	0.81136	<.0001	
Year-squared*Macular Edema	0.0149	0.0052	1.01498	1.00477	1.0253	0.004	
Exudative Macular degeneration	1.8434	0.1193	6.31793	5.00071	7.98212	<.0001	
Year*Exudative Macular degeneration	-0.1967	0.0523	0.82142	0.74143	0.91004	0.0002	
Year-squared*Exudative Macular degeneration	0.0045	0.0054	1.00448	0.99396	1.01512	0.4052	
Other retina conditions	0.872	0.0403	2.39175	2.21028	2.58812	<.0001	
Year*Other retinal conditions	-0.0867	0.0184	0.91691	0.88436	0.95066	<.0001	
Year-squared*Other retinal conditions	0.005	0.0019	1.00501	1.00122	1.00882	0.0096	

Other perus conditions	0.1669	0.0364	1 101/0	1.10016	1 26002	<.0001
Other nerve conditions	0.1668		1.18149	0.94484	1.26883	1
Year*Other nerve conditions	-0.0241	0.0167	0.97619		1.00858	0.1478
Year-squared*Other nerve conditions	0.0021	0.0017	1.00209	0.99868	1.00551	0.2298
Non-Proliferative Diabetic Retinopathy	0.5383	0.0209	1.71304	1.64424	1.78472	<.0001
Proliferative Diabetic Retinopathy	0.3718	0.0329	1.45037	1.35985	1.54692	<.0001
Race: Blacks (vs Whites)	0.0886	0.0181	1.09266	1.05465	1.13204	<.0001
Race: Latinos (vs Whites)	0.0427	0.0236	1.04365	0.99644	1.09311	0.0704
Race: Asians (vs Whites)	0.1659	0.0316	1.18048	1.10966	1.25582	<.0001
Race: Other races (vs Whites)	-0.0772	0.0606	0.92569	0.82207	1.04237	0.2024
Insurance type: Commercial &	0.0005	0.0000	0.07405	0.50500	0.75000	. 0004
Medicaid (vs Commercial only) Insurance type: Commercial &	-0.3985	0.0608	0.67135	0.59589	0.75636	<.0001
Medicare (vs Commercial only)	0.002	0.0261	1.00196	0.95201	1.05454	0.9401
Sex: Females (vs Males)	0.0422	0.0109	1.04306	1.021	1.0656	0.0001
Education: High school diploma (vs	0.0422	0.0103	1.04000	1.021	1.0000	0.0001
less than High School)	0.0459	0.039	1.04696	0.97	1.13002	0.2388
Education: Some college (vs less than	0.0.00	0.000		0.01		0.200
High School)	0.0489	0.0398	1.05015	0.97144	1.13525	0.2183
Education: College diploma (vs less						
than High School)	-0.0375	0.0416	0.96315	0.88765	1.04507	0.3673
Education: Advanced degree (vs less						
than High School)	-0.1367	0.1189	0.87219	0.69094	1.10099	0.2499
Household Net Worth: 25K-75K (vs	0.0404	0.0070	0.00070	0.00045	4 0050	0.4000
<25K)	-0.0194	0.0276	0.98079	0.92915	1.0353	0.4822
Household Net Worth: 75K-150K (vs <25K)	0.0316	0.0237	1.03206	0.98517	1.08118	0.1835
Household Net Worth: 150K-500K (vs	0.0310	0.0237	1.03200	0.96517	1.00110	0.1033
<25K)	0.0581	0.0209	1.05985	1.01736	1.10413	0.0054
Household Net Worth: >500K (vs		0.0000				
<25K)	0.1191	0.0245	1.12653	1.07374	1.18191	<.0001
US Region of residence: South-East						
(vs North-East)	-0.0204	0.0153	0.97985	0.95091	1.00967	0.1833
US Region of residence: Mid-West (vs						
North-East)	-0.4081	0.0172	0.66489	0.64282	0.68772	<.0001
US Region of residence: West (vs	0.4405	0.0045	0.66224	0.63500	0.60494	1 0001
North-East) US Region of residence: Other regions	-0.4105	0.0215	0.66331	0.63598	0.69181	<.0001
(vs North-East)	-0.4113	0.2616	0.66281	0.3969	1.10687	0.116
Insurance Plan: PPO (vs HMO)	0.0716	0.0211	1.07418	1.03074	1.11945	0.0007
Insurance Plan: EPO (vs HMO)	0.1613	0.0237	1.17506	1.1217	1.23096	<.0001
Insurance Plan: POS (vs HMO)	0.1598	0.0237	1.17325	1.13154	1.23656	<.0001
Insurance Plan: IND (vs HMO)	-0.0323	0.0165	0.96821	0.92089	1.01796	0.2063
, ,	-0.0323	0.0256	0.6396	0.92089	0.74762	1
Insurance Plan: Other plans (vs HMO)	1					<.0001
Age	-0.0084	0.0006	0.99167	0.99045	0.9929	<.0001
Obesity	-0.048	0.0167	0.95312	0.92244	0.98482	0.004
Hypertension	-0.0035	0.0138	0.99652	0.96999	1.02377	0.7999
Hyperlipidemia	0.0773	0.0134	1.08039	1.0524	1.10913	<.0001
Amount of time the person was	1.4686	0.0296	4.34323	4.09877	4.60226	<.0001
covered under the plan (years)  Eye-care: Visited unspecified eye	1.4080	0.0296	4.34323	4.09677	4.00220	<.0001
provider (vs visited ophthalmologists						
only)	-0.7694	0.1256	0.4633	0.36218	0.59264	<.0001
)	J 00 1	0	3555	J.532.10	0.00=01	

Eye-care: Visited optometrists only (vs visited ophthalmologists only)	0.6768	0.019	1.9676	1.89572	2.04221	<.0001
Eye-care: Visited both (vs visited ophthalmologists only)	0.283	0.0131	1.32713	1.29355	1.36159	<.0001

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 18: Logistic for visual field testing for those under the exclusive care of optometrists

Model Information		
Distribution	Binomial	
Link Function	Logit	
Number of Observations Used	242318	
Number of Events	73269	
Number of Trials	242318	
Missing Values	32	

Response Profile				
Ordered	Ordered Popularit variable Total			
Value	Dependent variable	Frequency		
1	1	73269		
2	0	169049		

Generalized Estimating Equations Model Information		
Correlation Structure 8-Dependent		
Within-Subject Effect year (9 levels)		

Generalized Estimating Equations Fit Criteria		
Quasi-likelihood Information Criterion	285923.7392	

Score Statistics For Type 3 Generalized Estimating Equations Analysis					
Source	Degrees of Freedom	Chi-Square	p-value		
Year	1	28.34	<.0001		
Year-squared	1	5.28	0.0215		
Open-angle glaucoma	1	215.37	<.0001		
Year*Open-angle glaucoma	1	0.34	0.5603		
Year-squared*Open-angle glaucoma	1	0.13	0.7197		
Glaucoma suspect	1	138.06	<.0001		
Year*Glaucoma suspect	1	3.46	0.063		
Year-squared*Glaucoma suspect	1	1.52	0.2178		
Other nerve conditions	1	54.56	<.0001		
Year*Other nerve conditions	1	0.02	0.8915		
Year-squared*Other nerve conditions	1	0.49	0.4849		
Macular Edema	1	11.71	0.0006		
<b>Exudative Macular degeneration</b>	1	0.22	0.6413		

Other retina conditions	1	23.65	<.0001
Non-Proliferative Diabetic Retinopathy	1	9.35	0.0022
Proliferative Diabetic Retinopathy	1	1.07	0.3003
Race	4	46.86	<.0001
Insurance type	2	23.96	<.0001
Sex	1	47.18	<.0001
Education	4	22.87	0.0001
Household Net Worth	4	39.07	<.0001
US Region of residence			
03 Region of residence	4	76.45	<.0001
Insurance plan	5	499.61	<.0001
Age	1	9.47	0.0021
Obesity	1	0.94	0.3313
Hypertension	1	2.22	0.1361
Hyperlipidemia	1	1.37	0.2412
Amount of time the person was covered under the plan (years)	1	3030.42	<.0001

Parameter estimates							
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value	
Intercept	-2.3162	0.1164	0.09865	0.07853	0.12393	<.0001	
Year	-0.2152	0.0399	0.80634	0.74564	0.87199	<.0001	
Year-squared	0.0092	0.004	1.00922	1.00136	1.01715	0.0214	
Open-angle glaucoma	1.3945	0.0983	4.03297	3.3259	4.89036	<.0001	
Year*Open-angle glaucoma	0.0241	0.0417	1.02443	0.94398	1.11174	0.5629	
Year-squared*Open-angle glaucoma	0.0015	0.0042	1.00149	0.99334	1.00971	0.721	
Glaucoma suspect	1.0549	0.0922	2.87162	2.39698	3.44025	<.0001	
Year*Glaucoma suspect	-0.0721	0.0393	0.93041	0.86143	1.00492	0.0665	
Year-squared*Glaucoma suspect	0.0048	0.0039	1.00482	0.99712	1.01259	0.2202	
Other nerve conditions	0.5727	0.0818	1.77299	1.51033	2.08132	<.0001	
Year*Other nerve conditions	-0.0046	0.0343	0.99545	0.93074	1.06467	0.8943	
Year-squared*Other nerve conditions	-0.0023	0.0034	0.99769	0.99114	1.00429	0.4925	
Macular Edema	0.4822	0.1318	1.61969	1.25097	2.09709	0.0003	
Exudative Macular degeneration	0.0739	0.16	1.0767	0.7868	1.4734	0.6443	
Other retina conditions	-0.0916	0.0191	0.91251	0.87894	0.94736	<.0001	
Non-Proliferative Diabetic Retinopathy	0.1245	0.0404	1.13255	1.04624	1.22598	0.0021	
Proliferative Diabetic Retinopathy	-0.182	0.1794	0.8336	0.58646	1.18489	0.3104	
Race: Blacks (vs Whites)	0.0731	0.0233	1.07587	1.02789	1.1261	0.0017	
Race: Latinos (vs Whites)	0.1111	0.0269	1.11748	1.06013	1.17794	<.0001	
Race: Asians (vs Whites)	0.1913	0.0386	1.21077	1.12247	1.30602	<.0001	

Race: Other races (vs Whites)	0.0385	0.0647	1.03927	0.91555	1.17969	0.5514
Insurance type: Commercial &						
Medicaid (vs Commercial only)	-0.0315	0.0514	0.96901	0.87622	1.07163	0.5399
Insurance type: Commercial &						
Medicare (vs Commercial only)	-0.1673	0.0346	0.84598	0.79045	0.9054	<.0001
Sex: Females (vs Males)	0.0761	0.0112	1.07907	1.05564	1.10301	<.0001
Education: High school diploma (vs						
less than High School)	-0.0916	0.0499	0.91249	0.82752	1.00617	0.0663
Education: Some college (vs less than						
High School)	-0.0378	0.0506	0.96288	0.87203	1.0632	0.4545
Education: College diploma (vs less						
than High School)	-0.0832	0.0522	0.92016	0.83064	1.01934	0.1111
Education: Advanced degree (vs less	0.0000	0.475	0.7000	0.50700	4.40700	0.0004
than High School)	-0.2233	0.175	0.7999	0.56763	1.12722	0.2021
Household Net Worth: 25K-75K (vs	0.0000	0.0000	4 00000	0.07747	4 00504	0.0700
<25K)	0.0296	0.0269	1.03008	0.97717	1.08584	0.2706
Household Net Worth: 75K-150K (vs	0.0044	0.0000	4 00400	0.07574	4.00000	0.0050
<25K)	0.0211	0.0233	1.02133	0.97571	1.06908	0.3653
Household Net Worth: 150K-500K (vs <25K)	0.0667	0.0209	1.06896	1.02603	1 11260	0.0014
Household Net Worth: >500K (vs	0.0007	0.0209	1.00090	1.02003	1.11368	0.0014
<25K)	0.1387	0.0256	1.14878	1.09265	1.2078	<.0001
US Region of residence: South-East	0.1367	0.0230	1.14070	1.09203	1.2070	<.0001
(vs North-East)	0.0517	0.0166	1.05311	1.01936	1.08797	0.0018
US Region of residence: Mid-West (vs	0.0017	0.0100	1.05511	1.01930	1.00737	0.0010
North-East)	0.0773	0.0166	1.08031	1.04573	1.11604	<.0001
US Region of residence: West (vs	0.0110	0.0.00	1100001	1101010	1111001	1,0001
North-East)	0.2025	0.024	1.22451	1.16828	1.28344	<.0001
US Region of residence: Other regions	0.2020	0.02.			00	110001
(vs North-East)	0.1875	0.2369	1.20625	0.75823	1.919	0.4286
Insurance Plan: PPO (vs HMO)	0.2513	0.02	1.28573	1.23634	1.33709	<.0001
Insurance Plan: EPO (vs HMO)	0.2907	0.0212	1.33737	1.28305	1.39399	<.0001
Insurance Plan: POS (vs HMO)	0.3245	0.0154	1.38337	1.34212	1.42589	<.0001
Insurance Plan: IND (vs HMO)	0.1057	0.0374	1.11144	1.03288	1.19596	0.0047
, ,		0.0374	0.80867			
Insurance Plan: Other plans (vs HMO)	-0.2124	0.0972	0.00007	0.66839	0.9784	0.0289
A ===	0.0000	0.0007	0.00770	0.00007	0.00040	0.0000
Age	-0.0023	0.0007	0.99772	0.99627	0.99918	0.0022
Obesity	-0.0164	0.0171	0.98371	0.95131	1.01722	0.3366
Hypertension	-0.0188	0.0127	0.98137	0.95716	1.00619	0.1399
Hyperlipidemia	0.0146	0.0126	1.01472	0.98998	1.04009	0.2458
Amount of time the person was						
covered under the plan (years)	1.3624	0.0264	3.90558	3.70878	4.11282	<.0001

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

The fitted model coefficients reported here were used to predict odds (or probabilities) of the outcome for different groups of enrollees in different years. Various comparisons were then made between the

all other predictors were assumed to be at their average value or reference value.					

estimated odds and these comparative odds were reported in the paper. While estimating these odds,

Table 19: Logistic for visual field testing for those under the exclusive care of ophthalmologists

Model Information	
Distribution	Binomial
Link Function	Logit
Number of Observations Used	1073736
Number of Events	370030
Number of Trials	1073736
Missing Values	110

Response Profile					
Ordered	Dependent	Total			
Value	variable	Frequency			
1	1	370030			
2	0	703706			

Generalized Estimating Equations Model Information				
Correlation Structure 8-Dependen				
Within-Subject Effect	year (9 levels)			

Generalized Estimating Equations Fit Criteria	
Quasi-likelihood Information Criterion	1271873.168

Score Statistics For Type 3 G	Score Statistics For Type 3 Generalized Estimating Equations Analysis						
Source	Degrees of Freedom	Chi-Square	p-value				
Year	1	199.44	<.0001				
Year-squared	1	30.99	<.0001				
Open-angle glaucoma	1	2954.81	<.0001				
Year*Open-angle glaucoma	1	12.21	0.0005				
Year-squared*Open-angle glaucoma	1	0.78	0.3763				
Glaucoma suspect	1	1151.72	<.0001				
Year*Glaucoma suspect	1	1.64	0.1997				
Year-squared*Glaucoma suspect	1	5.13	0.0236				
Other nerve conditions	1	450.51	<.0001				
Year*Other nerve conditions	1	17.56	<.0001				
Year-squared*Other nerve conditions	1	8.38	0.0038				

Macular Edema	1	18.89	<.0001
Exudative Macular degeneration	1	50.55	<.0001
Other retina conditions	1	676.7	<.0001
Non-Proliferative Diabetic Retinopathy	1	4.88	0.0272
Proliferative Diabetic Retinopathy	1	327.12	<.0001
Race	4	71.64	<.0001
Insurance type	2	132.5	<.0001
Sex	1	96.8	<.0001
Education	4	80.61	<.0001
Household Net Worth	4	141.41	<.0001
US Region of residence			
	4	73.8	<.0001
Insurance plan	5	275.33	<.0001
Age	1	11.02	0.0009
Obesity	1	34.92	<.0001
Hypertension	1	14.8	0.0001
Hyperlipidemia	1	131.51	<.0001
Amount of time the person was covered under			
the plan (years)	1	18245.6	<.0001

			Pa	rameter estima	ates	
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value
Intercept	-2.9763	0.0435	0.05098	0.04681	0.05552	<.0001
Year	-0.2009	0.0138	0.818	0.79614	0.84048	<.0001
Year-squared	0.0085	0.0015	1.00852	1.00557	1.01147	<.0001
Open-angle glaucoma	1.5776	0.0289	4.84326	4.57689	5.12514	<.0001
Year*Open-angle glaucoma	0.048	0.0135	1.04922	1.02185	1.07732	0.0004
Year-squared*Open-angle glaucoma	0.0013	0.0015	1.00131	0.99846	1.00416	0.368
Glaucoma suspect	0.9982	0.0293	2.71343	2.56207	2.87373	<.0001
Year*Glaucoma suspect	-0.0181	0.0139	0.98211	0.95579	1.00915	0.1927
Year-squared*Glaucoma suspect	0.0034	0.0015	1.00345	1.00051	1.00639	0.0214
Other nerve conditions	0.471	0.0227	1.60167	1.53191	1.6746	<.0001
Year*Other nerve conditions	-0.0431	0.0104	0.95782	0.93845	0.97758	<.0001
Year-squared*Other nerve conditions	0.0031	0.0011	1.00315	1.001	1.00531	0.0041
Macular Edema	-0.0947	0.022	0.90965	0.8713	0.94969	<.0001
Exudative Macular degeneration	-0.194	0.0277	0.82365	0.78007	0.86966	<.0001
Other retina conditions	-0.1851	0.0072	0.831	0.81933	0.84283	<.0001
Non-Proliferative Diabetic Retinopathy	-0.0291	0.0132	0.97137	0.94649	0.9969	0.0282
Proliferative Diabetic Retinopathy	-0.4323	0.0242	0.64903	0.61894	0.68059	<.0001
Race: Blacks (vs Whites)	0.053	0.0107	1.05445	1.0326	1.07675	<.0001

Race: Latinos (vs Whites)	0.0069	0.0112	1.00687	0.98502	1.02921	0.5406
Race: Asians (vs Whites)	0.1033	0.0146	1.10877	1.07745	1.14101	<.0001
Race: Other races (vs Whites)	0.0147	0.0275	1.01476	0.96155	1.07093	0.5939
Insurance type: Commercial &						
Medicaid (vs Commercial only)	-0.0533	0.0315	0.94811	0.89143	1.00839	0.0902
Insurance type: Commercial &						
Medicare (vs Commercial only)	-0.1636	0.0143	0.84909	0.8256	0.87325	<.0001
Sex: Females (vs Males)	0.0544	0.0056	1.05586	1.04443	1.06742	<.0001
Education: High school diploma (vs						
less than High School)	-0.0203	0.0216	0.97991	0.93929	1.02229	0.3476
Education: Some college (vs less than						
High School)	-0.0091	0.0219	0.99097	0.94939	1.03437	0.6783
Education: College diploma (vs less	0.0740	0.000	0.00040	0.00700	0.07000	0.000
than High School)	-0.0746	0.0226	0.92813	0.88798	0.97009	0.0009
Education: Advanced degree (vs less	0.0000	0.0400	0.00000	0.00004	0.00000	0.0400
than High School) Household Net Worth: 25K-75K (vs	-0.0983	0.0498	0.90639	0.82204	0.99939	0.0486
<25K)	0.0136	0.015	1.01369	0.98439	1.04387	0.3636
Household Net Worth: 75K-150K (vs	0.0130	0.015	1.01309	0.96439	1.04367	0.3030
<25K)	0.0474	0.0129	1.04858	1.02232	1.07552	0.0002
Household Net Worth: 150K-500K (vs	0.0474	0.0123	1.04000	1.02202	1.07332	0.0002
<25K)	0.0986	0.0113	1.10367	1.07955	1.12834	<.0001
Household Net Worth: >500K (vs	0.0000	0.0110	1110001	1107 000	1112001	4,0001
<25K)	0.1208	0.0127	1.12846	1.10063	1.15698	<.0001
US Region of residence: South-East						
(vs North-East)	0.0105	0.0079	1.01058	0.99512	1.02629	0.181
US Region of residence: Mid-West (vs						
North-East)	0.0114	0.0086	1.01147	0.99453	1.0287	0.1857
US Region of residence: West (vs						
North-East)	0.0762	0.0099	1.07917	1.05839	1.10035	<.0001
US Region of residence: Other regions						
(vs North-East)	-0.172	0.1005	0.84199	0.69142	1.02535	0.0871
Insurance Plan: PPO (vs HMO)	0.0129	0.0104	1.01299	0.9926	1.03381	0.2134
Insurance Plan: EPO (vs HMO)	0.1232	0.0116	1.13111	1.10559	1.15722	<.0001
Insurance Plan: POS (vs HMO)	0.0851	0.0089	1.0888	1.07001	1.10793	<.0001
Insurance Plan: IND (vs HMO)	-0.016	0.0136	0.98411	0.95823	1.01069	0.2387
Insurance Plan: Other plans (vs HMO)	-0.309	0.0471	0.73417	0.66939	0.80521	<.0001
. , ,						
Age	0.0011	0.0003	1.00111	1.00045	1.00177	0.0009
Obesity	-0.0505	0.0086	0.95075	0.93485	0.96692	<.0001
Hypertension	0.0252	0.0066	1.02552	1.01237	1.03885	0.0001
Hyperlipidemia	0.0753	0.0066	1.07825	1.06437	1.09231	<.0001
Amount of time the person was	3.3733	3.5555		1.00107	1100201	1.5001
covered under the plan (years)	1.7213	0.0135	5.59161	5.44609	5.74102	<.0001
(J)						

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization

Table 20: Logistic for visual field testing for those under the care of both provider types

Model Information				
Distribution	Binomial			
Link Function	Logit			
Number of Observations Used	310470			
Number of Events	107822			
Number of Trials	310470			
Missing Values	19			

Response Profile				
Ordered	Dependent variable	Total		
Value	Dependent variable	Frequency		
1	1	107822		
2	0	202648		

Generalized Estimating Equations Model Information		
Correlation Structure 8-Dependent		
Within-Subject Effect	year (9 levels)	

Generalized Estimating Equations Fit Cr	iteria
Quasi-likelihood Information Criterion	370060.5684

Score Statistics For Type 3 Generalized Estimating Equations Analysis					
Source	Degrees of Freedom	Chi-Square	p-value		
Year	1	105.25	<.0001		
Year-squared	1	19.65	<.0001		
Open-angle glaucoma	1	620.51	<.0001		
Year*Open-angle glaucoma	1	15.7	<.0001		
Year-squared*Open-angle glaucoma	1	0.35	0.5536		
Glaucoma suspect	1	290.2	<.0001		
Year*Glaucoma suspect	1	3.61	0.0575		
Year-squared*Glaucoma suspect	1	7.14	0.0075		
Other nerve conditions	1	101.31	<.0001		
Year*Other nerve conditions	1	0.24	0.6216		
Year-squared*Other nerve conditions	1	0.05	0.8257		
Macular Edema	1	7.92	0.0049		

Exudative Macular degeneration	1	37.3	<.0001
Other retina conditions	1	240.91	<.0001
Non-Proliferative Diabetic Retinopathy	1	12.48	0.0004
Proliferative Diabetic Retinopathy	1	93.46	<.0001
Race	4	37.53	<.0001
Insurance type	2	25.55	<.0001
Sex	1	19.71	<.0001
Education	4	8.1	0.0878
Household Net Worth	4	40.81	<.0001
US Region of residence	4	58.23	<.0001
Insurance plan	5	229.86	<.0001
Age	1	13.51	0.0002
Obesity	1	10.16	0.0014
Hypertension	1	0.03	0.8645
Hyperlipidemia	1	12.04	0.0005
Amount of time the person was covered under the plan (years)	1	3355.83	<.0001

Parameter estimates						
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value
Intercept	-2.4205	0.0837	0.08888	0.07543	0.10473	<.0001
Year	-0.2583	0.0246	0.77233	0.73604	0.81041	<.0001
Year-squared	0.0118	0.0026	1.01182	1.00666	1.01701	<.0001
Open-angle glaucoma	1.3056	0.0523	3.69	3.33023	4.08865	<.0001
Year*Open-angle glaucoma	0.0953	0.0237	1.10003	1.05018	1.15225	<.0001
Year-squared*Open-angle glaucoma	-0.0015	0.0025	0.9985	0.99362	1.0034	0.5482
Glaucoma suspect	0.9182	0.0538	2.50482	2.25412	2.7834	<.0001
Year*Glaucoma suspect	-0.0472	0.0246	0.95388	0.9089	1.00109	0.0554
Year-squared*Glaucoma suspect	0.007	0.0026	1.00707	1.00193	1.01224	0.0069
Other nerve conditions	0.4177	0.0426	1.51844	1.3969	1.65056	<.0001
Year*Other nerve conditions	-0.0092	0.0189	0.99083	0.95479	1.02822	0.6258
Year-squared*Other nerve conditions	0.0004	0.002	1.00043	0.9966	1.00426	0.827
Macular Edema	-0.092	0.033	0.91211	0.85493	0.97312	0.0054
Exudative Macular degeneration	-0.2321	0.0387	0.79286	0.73493	0.85535	<.0001
Other retina conditions	-0.1873	0.0122	0.8292	0.80963	0.84925	<.0001
Non-Proliferative Diabetic						
Retinopathy	-0.084	0.024	0.91942	0.87723	0.96364	0.0005
Proliferative Diabetic Retinopathy	-0.4005	0.042	0.66997	0.61708	0.7274	<.0001
Race: Blacks (vs Whites)	0.1196	0.021	1.12702	1.08157	1.17438	<.0001
Race: Latinos (vs Whites)	0.0151	0.0246	1.01525	0.9675	1.06535	0.5381

Race: Asians (vs Whites)	0.0808	0.0333	1.08413	1.01554	1.15735	0.0154
Race: Other races (vs Whites)	-0.0055	0.0537	0.99451	0.89514	1.10492	0.9184
Insurance type: Commercial &	0.0000	0.000.	0.00 .0 .	0.000		0.0.0.
Medicaid (vs Commercial only)	-0.1416	0.0482	0.86801	0.78978	0.95398	0.0033
Insurance type: Commercial &		0.0.0		011 001 0	0.0000	010000
Medicare (vs Commercial only)	-0.1163	0.0257	0.89019	0.84641	0.93624	<.0001
Sex: Females (vs Males)	0.046	0.0104	1.04703	1.02588	1.06862	<.0001
Education: High school diploma (vs						
less than High School)	0.0011	0.0447	1.0011	0.91721	1.09265	0.9804
Education: Some college (vs less						
than High School)	0.0188	0.0452	1.01893	0.93257	1.1133	0.6781
Education: College diploma (vs less						
than High School)	-0.0139	0.0466	0.98623	0.90021	1.08047	0.7659
Education: Advanced degree (vs less						
than High School)	-0.2165	0.1504	0.80536	0.59978	1.0814	0.15
Household Net Worth: 25K-75K (vs						
<25K)	0.0156	0.0266	1.01568	0.96405	1.07007	0.5589
Household Net Worth: 75K-150K (vs	0.0405	0.000	4.04.000	0.07400	4 000 40	0.4705
<25K)	0.0165	0.023	1.01662	0.97182	1.06349	0.4735
Household Net Worth: 150K-500K	0.0700	0.0000	1 00210	1 0411	1.12697	. 0001
(vs <25K) Household Net Worth: >500K (vs	0.0799	0.0202	1.08319	1.0411	1.12097	<.0001
<25K)	0.1162	0.0235	1.12322	1.07258	1.17625	<.0001
US Region of residence: South-East	0.1102	0.0233	1.12322	1.07230	1.17023	<.0001
(vs North-East)	0.0533	0.0156	1.05471	1.02299	1.08742	0.0006
US Region of residence: Mid-West	0.0000	0.0100	1100111	1102200	11001 12	0.0000
(vs North-East)	0.0479	0.0158	1.04904	1.017	1.08209	0.0025
US Region of residence: West (vs				-		
North-East)	0.1626	0.0214	1.1766	1.12825	1.22704	<.0001
US Region of residence: Other						
regions (vs North-East)	0.032	0.2166	1.03255	0.67541	1.57855	0.8824
Insurance Plan: PPO (vs HMO)	0.1904	0.0193	1.20973	1.16477	1.25644	<.0001
Insurance Plan: EPO (vs HMO)	0.2046	0.0205	1.22698	1.17861	1.27733	<.0001
Insurance Plan: POS (vs HMO)	0.1994	0.0153	1.22062	1.18457	1.25776	<.0001
Insurance Plan: IND (vs HMO)	0.1228	0.0241	1.13069	1.07855	1.18536	<.0001
Insurance Plan: Other plans (vs						
HMO)	-0.3336	0.0774	0.71632	0.61553	0.83361	<.0001
,						
Age	-0.0023	0.0006	0.99768	0.99644	0.99892	0.0003
Obesity	-0.0479	0.0151	0.95324	0.92539	0.98193	0.0015
Hypertension	0.0021	0.0124	1.0021	0.97811	1.02667	0.8653
Hyperlipidemia	0.043	0.0125	1.04396	1.01872	1.06982	0.0006
Amount of time the person was	0.040	0.0120	1.07000	1.01072	1.00002	0.0000
covered under the plan (years)	1.5763	0.0288	4.83696	4.57156	5.11776	<.0001
23.3.00 dilaci dio pian (youro)	1.07.00	0.0200			0	1.0001

IND = indemnity plan

PPO = perferred provider organization EPO = exclusive provider organization

Table 21: Logistic for visual field testing, including all provider types

Model Information			
Distribution	Binomial		
Link Function	Logit		
Number of Observations Used	1634251		
Number of Events	552916		
Number of Trials	1634251		
Missing Values	161		

Response Profile				
Ordered	Dependent variable	Total		
Value	Dependent variable	Frequency		
1	1	552916		
2	0	1081335		

Generalized Estimating Equations Model Information		
Correlation Structure 8-Dependent		
Within-Subject Effect	year (9 levels)	

Generalized Estimating Equations Fit Criteria			
Quasi-likelihood Information Criterion	1937717.273		

Score Statistics For Type 3 Generalized Estimating Equations Analysis						
Source	Degrees of Freedom	Chi-Square	p-value			
Year	1	311.6	<.0001			
Year-squared	1	44.98	<.0001			
Open-angle glaucoma	1	3838.52	<.0001			
Year*Open-angle glaucoma	1	17.44	<.0001			
Year-squared*Open-angle glaucoma	1	1.82	0.1778			
Glaucoma suspect	1	1606.86	<.0001			
Year*Glaucoma suspect	1	8.94	0.0028			
Year-squared*Glaucoma suspect	1	13.93	0.0002			
Other nerve conditions	1	608.57	<.0001			
Year*Other nerve conditions	1	13.76	0.0002			
Year-squared*Other nerve conditions	1	6.39	0.0115			
Macular Edema	1	23.55	<.0001			
Exudative Macular degeneration	1	86.6	<.0001			

	į.	1	1
Other retina conditions	1	929.37	<.0001
Non-Proliferative Diabetic Retinopathy	1	5.76	0.0164
Proliferative Diabetic Retinopathy	1	442.95	<.0001
Race	4	135.4	<.0001
Insurance type	2	151.12	<.0001
Sex	1	161.63	<.0001
Education	4	96.98	<.0001
Household Net Worth	4	211.35	<.0001
LIS Pagion of residence			
US Region of residence	4	152.89	<.0001
Insurance plan	5	734.1	<.0001
Age	1	0.04	0.8415
Obesity	1	46.02	<.0001
Hypertension	1	6.68	0.0098
Hyperlipidemia	1	123.8	<.0001
Amount of time the person was covered under the plan			
(years)	1	24766.8	<.0001
Eye-care	3	366.29	<.0001

Parameter estimates							
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value	
Intercept	-2.815	0.0361	0.0599	0.05581	0.06429	<.0001	
Year	-0.2061	0.0114	0.81374	0.79578	0.83209	<.0001	
Year-squared	0.0083	0.0012	1.00832	1.00593	1.01073	<.0001	
Open-angle glaucoma	1.505	0.0242	4.50419	4.2954	4.72314	<.0001	
Year*Open-angle glaucoma	0.0472	0.0111	1.0483	1.02571	1.07139	<.0001	
Year-squared*Open-angle glaucoma	0.0016	0.0012	1.00162	0.9993	1.00394	0.1717	
Glaucoma suspect	0.9851	0.0245	2.67798	2.55238	2.80977	<.0001	
Year*Glaucoma suspect	-0.0345	0.0114	0.96613	0.94481	0.98794	0.0025	
Year-squared*Glaucoma suspect	0.0046	0.0012	1.0046	1.00221	1.007	0.0002	
Other nerve conditions	0.4659	0.0194	1.59347	1.53409	1.65514	<.0001	
Year*Other nerve conditions	-0.032	0.0088	0.96848	0.95201	0.98523	0.0003	
Year-squared*Other nerve conditions	0.0023	0.0009	1.00229	1.0005	1.00408	0.0122	
Macular Edema	-0.0868	0.018	0.91687	0.88502	0.94987	<.0001	
Exudative Macular degeneration	-0.2033	0.0222	0.816	0.7812	0.85235	<.0001	
Other retina conditions	-0.1772	0.0059	0.83758	0.82795	0.84731	<.0001	
Non-Proliferative Diabetic Retinopathy	-0.0265	0.0111	0.97383	0.95284	0.99528	0.0171	
Proliferative Diabetic Retinopathy	-0.4292	0.0207	0.65106	0.62517	0.67801	<.0001	
Race: Blacks (vs Whites)	0.072	0.0088	1.0747	1.0564	1.09333	<.0001	
Race: Latinos (vs Whites)	0.0221	0.0095	1.02234	1.0035	1.04154	0.0199	
Race: Asians (vs Whites)	0.1072	0.0126	1.11314	1.08601	1.14094	<.0001	

Race: Other races (vs Whites)	0.0146	0.0228	1.01469	0.9703	1.0611	0.5229
Insurance type: Commercial & Medicaid	0.00.00	0.0000				0.0000
(vs Commercial only)	-0.0731	0.0233	0.92955	0.888	0.97304	0.0017
Insurance type: Commercial & Medicare						
(vs Commercial only)	-0.141	0.0116	0.86848	0.84889	0.88853	<.0001
Sex: Females (vs Males)	0.0566	0.0045	1.05819	1.04895	1.06752	<.0001
Education: High school diploma (vs less	0.000	0.00	1100010			
than High School)	-0.0266	0.018	0.97377	0.93993	1.00882	0.1407
Education: Some college (vs less than						
High School)	-0.004	0.0183	0.99605	0.96101	1.03236	0.8283
Education: College diploma (vs less than						
High School)	-0.0616	0.0189	0.9403	0.90619	0.97569	0.0011
Education: Advanced degree (vs less						
than High School)	-0.1207	0.0452	0.88628	0.81116	0.96835	0.0075
Household Net Worth: 25K-75K (vs						
<25K)	0.0174	0.0117	1.01753	0.99447	1.04113	0.1374
Household Net Worth: 75K-150K (vs						
<25K)	0.0367	0.0101	1.03734	1.01698	1.0581	0.0003
Household Net Worth: 150K-500K (vs						
<25K)	0.0905	0.0089	1.09469	1.07583	1.11388	<.0001
Household Net Worth: >500K (vs <25K)	0.1204	0.0102	1.128	1.1057	1.15075	<.0001
US Region of residence: South-East (vs						
North-East)	0.0254	0.0064	1.02569	1.01282	1.03873	<.0001
US Region of residence: Mid-West (vs						
North-East)	0.0306	0.0068	1.03103	1.0173	1.04495	<.0001
US Region of residence: West (vs North-	0.4000		4.40=00	4 00=00	4 4000=	2224
East)	0.1002	0.0084	1.10536	1.08736	1.12365	<.0001
US Region of residence: Other regions	0.4000	0.0045	0.00005	0.70000	4.05047	0.400
(vs North-East)	-0.1088	0.0845	0.89695	0.76008	1.05847	0.198
Insurance Plan: PPO (vs HMO)	0.0848	0.0082	1.08846	1.07101	1.1062	<.0001
Insurance Plan: EPO (vs HMO)	0.1729	0.0091	1.18875	1.16774	1.21013	<.0001
Insurance Plan: POS (vs HMO)	0.1516	0.0069	1.16366	1.14814	1.17939	<.0001
Insurance Plan: IND (vs HMO)	0.0469	0.0111	1.04802	1.0255	1.07103	<.0001
Insurance Plan: Other plans (vs HMO)	-0.2971	0.0369	0.74299	0.69115	0.79872	<.0001
Age	0.0001	0.0003	1.00005	0.99952	1.00059	0.8421
Obesity	-0.046	0.0068	0.95508	0.94238	0.96794	<.0001
Hypertension	0.0135	0.0053	1.01362	1.00321	1.02415	0.0102
Hyperlipidemia	0.0583	0.0053	1.06006	1.04915	1.07108	<.0001
Amount of time the person was covered	0.0000	0.0000	1.00000	1.0-1010	1.07 100	1.0001
under the plan (years)	1.6412	0.011	5.16151	5.05104	5.27439	<.0001
Eye-care: Visited unspecified eye		5.511	5.10101	5.55.61	5.2. 100	
provider (vs visited ophthalmologists						
only)	-0.3528	0.0323	0.70272	0.65957	0.7487	<.0001
Eye-care: Visited optometrists only (vs						
visited ophthalmologists only)	0.084	0.0064	1.0876	1.07396	1.1014	<.0001
Eye-care: Visited both (vs visited	3.301	3.3301				1.0001
ophthalmologists only)	0.0566	0.0058	1.05827	1.04625	1.07042	<.0001
-p	0.0000	2.0000	50021			

HMO = health maintenance organization IND = indemnity plan

PPO = perferred provider organization EPO = exclusive provider organization

Table 22: Logistic for visual field testing including all provider types, but only in openangle glaucoma patients

Model Information				
Distribution	Binomial			
Link Function	Logit			
Number of Observations Used	463782			
Number of Events	241734			
Number of Trials	463782			
Missing Values	46			

Response Profile				
Ordered	Total			
Value	Dependent variable	Frequency		
1	1	241734		
2	0	222048		

Generalized Estimating Equations Model Information				
Correlation Structure 8-Dependent				
Within-Subject Effect	year (9 levels)			

Generalized Estimating Equations Fit Criteria			
Quasi-likelihood Information Criterion	620880.7074		

Score Statistics For Type 3 Generalized Estimating Equations Analysis					
Source	Degrees of Freedom	Chi-Square	p-value		
Year	1	584.08	<.0001		
Year-squared	1	181.13	<.0001		
Other nerve conditions	1	115.82	<.0001		
Year*Other nerve conditions	1	10.52	0.0012		
Year-squared*Other nerve conditions	1	12.12	0.0005		
Macular Edema	1	93.39	<.0001		
<b>Exudative Macular degeneration</b>	1	106.63	<.0001		
Other retina conditions	1	43.91	<.0001		
Non-Proliferative Diabetic Retinopathy	1	61.14	<.0001		
Proliferative Diabetic Retinopathy	1	304.43	<.0001		
Race	4	50.99	<.0001		
Insurance type	2	63.66	<.0001		

Sex	1	43.25	<.0001
Education	4	17.35	0.0017
Household Net Worth	4	280.16	<.0001
US Region of residence	4	49.8	<.0001
Insurance plan	5	284.54	<.0001
Age	1	49.51	<.0001
Obesity	1	58.1	<.0001
Hypertension	1	31.39	<.0001
Hyperlipidemia	1	176.59	<.0001
Amount of time the person was covered under the			
plan (years)	1	12580.2	<.0001
Eye-care	3	116.48	<.0001

Parameter estimates							
Parameter	Estimate	Std error of estimate	Exponentiated estimate	95% lower confidence limit for exponentiated estimate	95% upper confidence limit for exponentiated estimate	p-value	
Intercept	-1.6541	0.0464	0.19127	0.17464	0.20949	<.0001	
Year	-0.1392	0.0058	0.87008	0.86023	0.88004	<.0001	
Year-squared	0.0086	0.0006	1.0086	1.00733	1.00986	<.0001	
Other nerve conditions	0.2722	0.0259	1.31287	1.24779	1.38134	<.0001	
Year*Other nerve conditions	-0.038	0.0119	0.96268	0.94053	0.98535	0.0014	
Year-squared*Other nerve conditions	0.0043	0.0013	1.00433	1.00187	1.0068	0.0006	
Macular Edema	-0.2652	0.0271	0.76707	0.72738	0.80892	<.0001	
Exudative Macular degeneration	-0.3256	0.0313	0.72209	0.67914	0.76776	<.0001	
Other retina conditions	-0.0667	0.0101	0.93544	0.91714	0.9541	<.0001	
Non-Proliferative Diabetic Retinopathy	-0.1353	0.0172	0.87342	0.84446	0.90338	<.0001	
Proliferative Diabetic Retinopathy	-0.5146	0.0289	0.59772	0.56479	0.63257	<.0001	
Race: Blacks (vs Whites)	0.0454	0.0133	1.04649	1.01958	1.0741	0.0006	
Race: Latinos (vs Whites)	-0.0135	0.0172	0.98655	0.95386	1.02036	0.4308	
Race: Asians (vs Whites)	0.1508	0.0246	1.16278	1.10798	1.2203	<.0001	
Race: Other races (vs Whites)	-0.01	0.0415	0.99004	0.91274	1.07388	0.8092	
Insurance type: Commercial & Medicaid (vs Commercial only)	-0.2631	0.0389	0.76865	0.71228	0.82948	<.0001	
Insurance type: Commercial & Medicare (vs Commercial only)	-0.0959	0.0179	0.90853	0.87724	0.94095	<.0001	
Sex: Females (vs Males)	0.0513	0.0078	1.05266	1.03663	1.06893	<.0001	

Education: High school diploma (vs less						
than High School)	-0.0088	0.0289	0.99128	0.93667	1.04909	0.7621
Education: Some college (vs less than	0.0004	0.0005	4 00000	0.00500	4 00000	0.4475
High School)  Education: College diploma (vs less than	0.0224	0.0295	1.02262	0.96526	1.08339	0.4475
High School)	-0.0139	0.0308	0.9862	0.92849	1.0475	0.6516
Education: Advanced degree (vs less than	-0.0139	0.0300	0.9002	0.92049	1.0473	0.0310
High School)	-0.0789	0.0902	0.92409	0.77436	1.10277	0.3814
Household Net Worth: 25K-75K (vs <25K)	0.0389	0.0197	1.03963	1.00032	1.08049	0.0481
Household Net Worth: 75K-150K (vs <25K)	0.0808	0.017	1.08413	1.04852	1.12095	<.0001
Household Net Worth: 150K-500K (vs						
<25K)	0.1712	0.0149	1.18675	1.15262	1.22189	<.0001
Household Net Worth: >500K (vs <25K)	0.2532	0.0175	1.28818	1.24484	1.33302	<.0001
US Region of residence: South-East (vs						
North-East)	0.0131	0.0116	1.01323	0.99036	1.03662	0.2592
US Region of residence: Mid-West (vs						
North-East)	0.0711	0.0124	1.07364	1.04777	1.10015	<.0001
US Region of residence: West (vs North-						
East)	0.0511	0.0152	1.05243	1.02159	1.08419	0.0008
US Region of residence: Other regions (vs	0.0004	0.4507	4 000 40	0.75044	4 00707	0.0050
North-East)	0.0261	0.1537	1.02643	0.75944	1.38727	0.8652
Insurance Plan: PPO (vs HMO)	0.08	0.0145	1.0833	1.05294	1.11454	<.0001
Insurance Plan: EPO (vs HMO)	0.1785	0.0171	1.19546	1.15617	1.23609	<.0001
Insurance Plan: POS (vs HMO)	0.1523	0.0127	1.16454	1.13581	1.194	<.0001
Insurance Plan: IND (vs HMO)	0.0221	0.0175	1.02239	0.988	1.05797	0.2047
Insurance Plan: Other plans (vs HMO)	-0.3765	0.0487	0.68629	0.62386	0.75495	<.0001
Age	-0.0033	0.0005	0.99672	0.99581	0.99763	<.0001
Obesity	-0.0926	0.0121	0.91157	0.89015	0.93351	<.0001
Hypertension	-0.0548	0.0098	0.94669	0.92864	0.96508	<.0001
Hyperlipidemia	0.1257	0.0095	1.13392	1.11308	1.15514	<.0001
Amount of time the person was covered						
under the plan (years)	2.1749	0.0188	8.80131	8.48314	9.1314	<.0001
Eye-care: Visited unspecified eye provider						
(vs visited ophthalmologists only)	-0.5053	0.064	0.6033	0.53215	0.68396	<.0001
Eye-care: Visited optometrists only (vs						
visited ophthalmologists only)	-0.1084	0.0149	0.89728	0.8715	0.92382	<.0001
Eye-care: Visited both (vs visited						
ophthalmologists only)	0.0158	0.0098	1.01588	0.9965	1.03564	0.1088

IND = indemnity plan

PPO = perferred provider organization

EPO = exclusive provider organization