

Appendix
Site Neutrality: Impact of Payment Differentials and
Updated Savings Estimates

May 4, 2026

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APPENDIX 1: METHODOLOGY - NATIONAL VERSUS MARYLAND HOPD SHARE TRENDS

Overview

To compare the share of services provided in hospital outpatient departments (HOPDs) in Maryland to the rest of the country, we analyzed traditional Medicare enrollment and claims data from 2017 through 2024. We selected the study period because of the relative stability in relevant APC definitions since 2017.

We defined service volume at the level of unique service instances by year, state, site-of-service, and HCPCS code, combining outpatient and carrier claims. To account for changes in service mix and other fixed differences across states or services, we estimated linear regression models. Models were fit at both the individual APC level and selected groupings of APCs. In each specification, the outcome variable was the share of services delivered in HOPDs, and the primary independent variable was the interaction between year indicators and a binary indicator for non-Maryland states (i.e. states with higher payment for services in HOPDs).

Data

We used the 2017-2024 Medicare 5% sample Limited Data Set (LDS) outpatient and carrier files and the Medicare Master Beneficiary Files (MBSF). HCPCS codes were mapped to APCs using the Outpatient Prospective Payment System (OPPS) Addendum B corresponding to the year of the service.

Measures

The primary outcome measure was the proportion of unique service instances with an HOPD site-of-service ("HOPD share"). HOPD share was constructed both at the APC level and for groupings of related APCs.

Unique service instances were derived from deduplicated line-level data from the outpatient and carrier files. The denominator included all deduplicated services identified in the carrier and/or outpatient file that took place in a physician office, HOPD, or ASC. The numerator included services delivered in HOPDs. Emergency department services were excluded from both the numerator and denominator. HOPD services were identified using place-of-service codes on the carrier line or, when no corresponding carrier line existed, using the bill type and revenue center codes on outpatient data.

To construct unique service instances across carrier and outpatient data, we first excluded carrier lines that represented only the technical component of a service (i.e. lines with a 'TC' modifier and not also a '26' modifier, or with a CMS type-of-service code 'F'). We then matched outpatient revenue center lines to the remaining carrier lines, based on beneficiary id, service date, and HCPCS code, and assumed any matched outpatient and carrier pair represented a single service. HCPCS code G0463 was allowed to match any carrier line for the same beneficiary and date. Unmatched carrier and outpatient revenue center lines were retained as unique service instances.

Methodology

We grouped data at the year, state, and HCPCS level of detail and estimated linear regression models with the HOPD share as the dependent variable. The primary independent variables were the interactions between year indicators and an indicator for non-Maryland states. All models included HCPCS and year fixed effects.

We estimated separate regression models for individual APCs and/or groupings of APCs. APC groupings included the 66 APCs identified by MedPAC as candidates for site neutral payment in Exhibit 1, Panel A, and related series

of APCs such as the four drug administration levels in Panel B. To fit a model to an APC or APC group, all year-state-HCPCS data were included for HCPCS that mapped to the APC(s) in the OPSS. For the clinic visit APC, we also included the professional office visit evaluation and management HCPCS codes (992xx), because those HCPCS codes are different than the single office visit evaluation and management code used under OPSS (G0463). Otherwise, HCPCS code definitions are typically consistent across payment systems used for outpatient and carrier claims.

To present adjusted levels and trends in HOPD share while holding service mix across time and geographies constant, we used the regression results to generate predicted HOPD share for Maryland and non-Maryland states under fixed weighting. Specifically, predictions were computed using a constant distribution of APC-state observations based on the average distribution across the full study period. We then aggregated these predicted values, resulting in standardized estimates of HOPD share for Maryland and non-Maryland states by year. This approach isolated differences in site-of-service patterns, normalizing for changes in the composition of services over time.

Appendix 2 presents the results for all 66 APCs identified by MedPAC as candidates for site neutral payment. Where appropriate, APCs representing different levels of the same service categories have been grouped into APC series. Appendix 3 presents results using an alternative set of non-Maryland states, limited to neighboring states rather than all states.

APPENDIX 2: FULL RESULTS - NATIONAL VERSUS MARYLAND HOPD SHARE TRENDS

We compared HOPD share using 28 APC or APC group models. Table A2.1 summarizes the results for all 28 models, showing the difference in HOPD share between non-Maryland states and Maryland in 2024, and how that difference changed since 2017. The following pages provide additional detail for each APC or APC group, including year-by-year HOPD share in both table and graphical formats (In graphical formats, the red line, labeled “non-Maryland = 1”, represents non-Maryland states and the blue line represents Maryland).

Across all services in the 66 APCs MedPAC has recommended for site neutrality, the HOPD share was 23.9% outside of Maryland in 2024, 9.9pp higher than in Maryland. This difference was significant at the 99% level. The gap in HOPD share grew by 3.1pp since 2017, also significant at the 99% level.

For nearly all APC groups (27 out of 28, including 22 statistically significant at the 90% level), HOPD share was higher in non-Maryland states. For most APC groups (20 out of 28), the HOPD share grew outside of Maryland relative to Maryland from 2017 to 2024. In other words, the gap in HOPD share widened. This growth in gap was statistically significant in total and for several of the larger APC groups, including Imaging without Contrast, Drug Administration, Diagnostic Tests, Minor Procedures, and Urology Services. Note in the sensitivity test (Appendix 3), comparing utilization in neighboring states to Maryland, the growth in HOPD share gap was also significant for Clinic Visits and Ear Nose and Throat (ENT) services, and significant at lower p-values for Drug Administration and Diagnostic Tests.

Table A2.1: HOPD share differences and difference-in-differences, 2017-2024

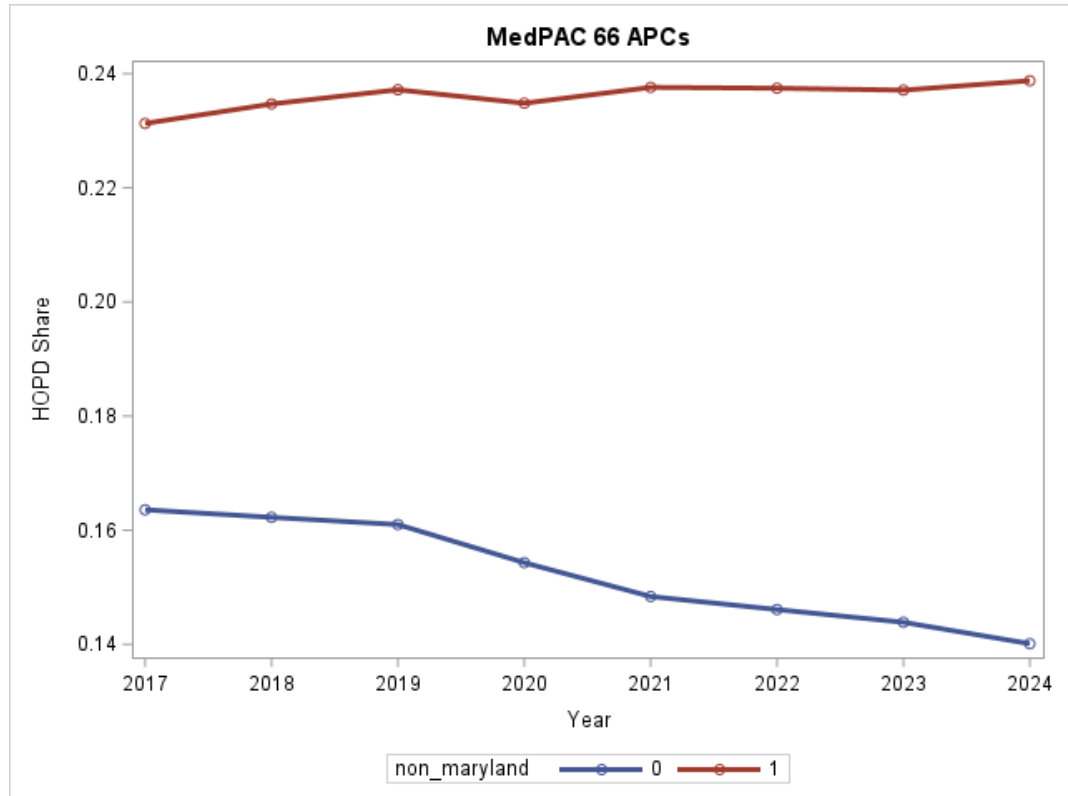
	Service Count		2024 HOPD Share		Difference in 2024 HOPD Share		Difference-in-Difference, 2017-2024	
	Non-Maryland	Maryland	Non-Maryland	Maryland	Difference	SE	DID	SE
MedPAC 66 APCs	213,464,545	5,444,404	0.239	0.140	0.099	0.003***	0.031	0.004***
Clinic Visits	97,572,915	2,670,483	0.144	0.064	0.081	0.014***	0.030	0.020
Imaging without Contrast (Levels 1-4)	24,046,564	630,168	0.498	0.239	0.259	0.010***	0.072	0.014***
Minor Procedures (Levels 1-5)	22,215,518	601,059	0.328	0.285	0.042	0.006***	0.014	0.008*
Drug Administration (Levels 1-4)	19,384,755	387,070	0.389	0.231	0.158	0.022***	0.055	0.030*
Skin Procedures (Levels 1-5)	10,089,868	238,402	0.123	0.088	0.035	0.006***	(0.003)	0.009
Health and Behavior Services (Levels 1-3)	8,688,324	262,599	0.101	0.072	0.029	0.013**	0.014	0.019
Manipulation Therapy	7,515,617	94,937	0.003	0.001	0.002	0.008	(0.000)	0.011
Nerve Injections (Levels 1-3)	5,123,592	118,026	0.179	0.089	0.090	0.014***	0.019	0.020
Diagnostic Tests (Levels 1-4)	4,557,021	123,809	0.341	0.254	0.088	0.014***	0.033	0.018*
Pathology (Level 1)	4,120,209	87,938	0.580	0.478	0.102	0.041***	0.003	0.058
Electronic Analysis of Devices (Levels 1-3)	2,545,605	52,755	0.216	0.099	0.117	0.026***	(0.050)	0.048
Lower GI Procedures (Levels 1-2)	1,229,475	29,473	0.499	0.288	0.211	0.024***	0.028	0.034
Intraocular Procedures (Levels 1-2)	941,991	19,424	0.199	0.108	0.090	0.020***	0.043	0.027
Urology and Related Services (Levels 1-3)	877,837	22,762	0.294	0.160	0.134	0.019***	0.101	0.027***
Therapeutic Radiation Treatment Prep. (Level 1)	854,103	18,292	0.561	0.556	0.006	0.071	(0.011)	0.096
Nuclear Medicine and Related Services (Level 3)	644,726	18,134	0.545	0.161	0.384	0.064***	0.090	0.087

	Service Count		2024 HOPD Share		Difference in 2024 HOPD Share		Difference-in-Difference, 2017-2024	
	Non-Maryland	Maryland	Non-Maryland	Maryland	Difference	SE	DID	SE
Airway Endoscopy (Levels 1-3)	606,492	16,550	0.202	0.140	0.061	0.021***	0.042	0.031
Strapping and Cast Application (Levels 1-2)	443,911	12,620	0.412	0.467	(0.055)	0.042	(0.006)	0.057
Excision/ Biopsy/ Incision and Drainage (Level 1)	390,708	8,483	0.265	0.205	0.060	0.022***	0.021	0.029
Laser Eye Procedures	378,257	7,571	0.053	0.016	0.037	0.021*	(0.012)	0.028
Extraocular Eye Procedures (Levels 1-4)	353,508	5,840	0.085	0.081	0.004	0.018	0.018	0.028
Nerve Procedures (Level 1)	219,354	4,615	0.318	0.119	0.199	0.042***	0.066	0.061
Musculoskeletal Procedures (Levels 1-2)	207,830	5,295	0.325	0.172	0.152	0.024***	0.035	0.032
ENT Procedures (Levels 1-4)	193,961	3,970	0.206	0.165	0.041	0.025	(0.020)	0.035
Radiation Therapy (Level 1)	111,025	827	0.044	0.029	0.014	0.098	(0.110)	0.177
Gynecologic Procedures (Levels 1-3)	110,249	2,660	0.260	0.170	0.090	0.041**	0.059	0.055
Neurostimulator Procedures (Level 2)	41,130	642	0.368	0.093	0.275	0.086***	0.134	0.135

Note: A positive difference indicates higher HOPD share outside of Maryland. A positive difference-in-difference means the HOPD share outside of Maryland has increased relative to Maryland. DID = Difference-in-Difference; SE = Standard Error; *** = p-value < .01; ** = p-value < .05; * = p-value < 0.1.

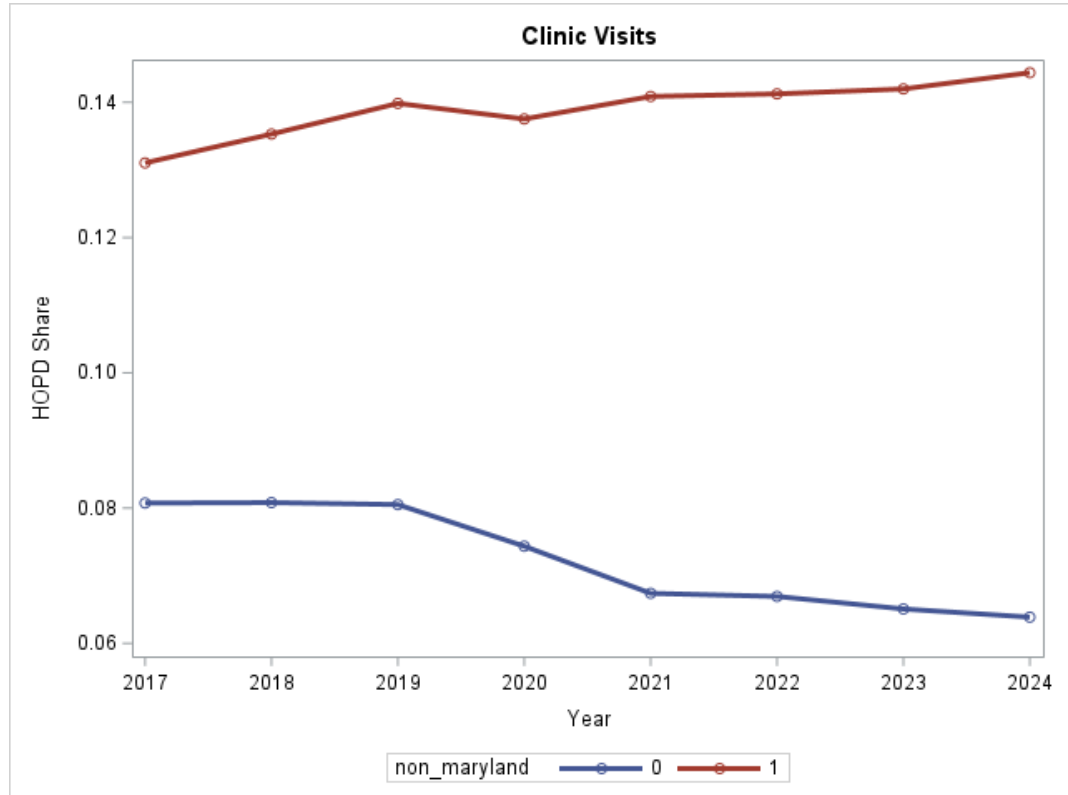
MedPAC Recommended 66 APCs

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.231	0.164	0.068 (0.003)
2018	0.235	0.162	0.072 (0.003)
2019	0.237	0.161	0.076 (0.003)
2020	0.235	0.154	0.081 (0.003)
2021	0.238	0.148	0.089 (0.003)
2022	0.237	0.146	0.091 (0.003)
2023	0.237	0.144	0.093 (0.003)
2024	0.239	0.140	0.099 (0.003)
2024 vs 2017	0.008	-0.024	0.031 (0.004)



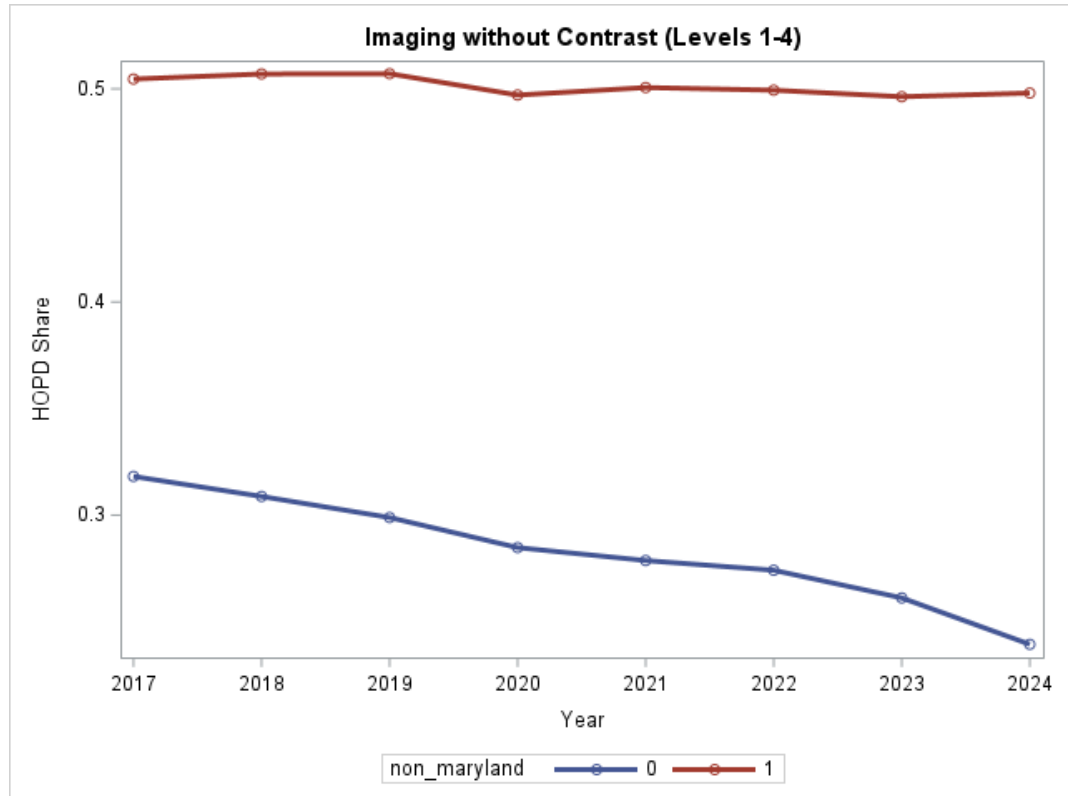
Clinic Visits

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.131	0.081	0.050 (0.014)
2018	0.135	0.081	0.054 (0.014)
2019	0.140	0.081	0.059 (0.014)
2020	0.138	0.074	0.063 (0.015)
2021	0.141	0.067	0.073 (0.014)
2022	0.141	0.067	0.074 (0.014)
2023	0.142	0.065	0.077 (0.014)
2024	0.144	0.064	0.081 (0.014)
2024 vs 2017	0.013	-0.017	0.030 (0.020)



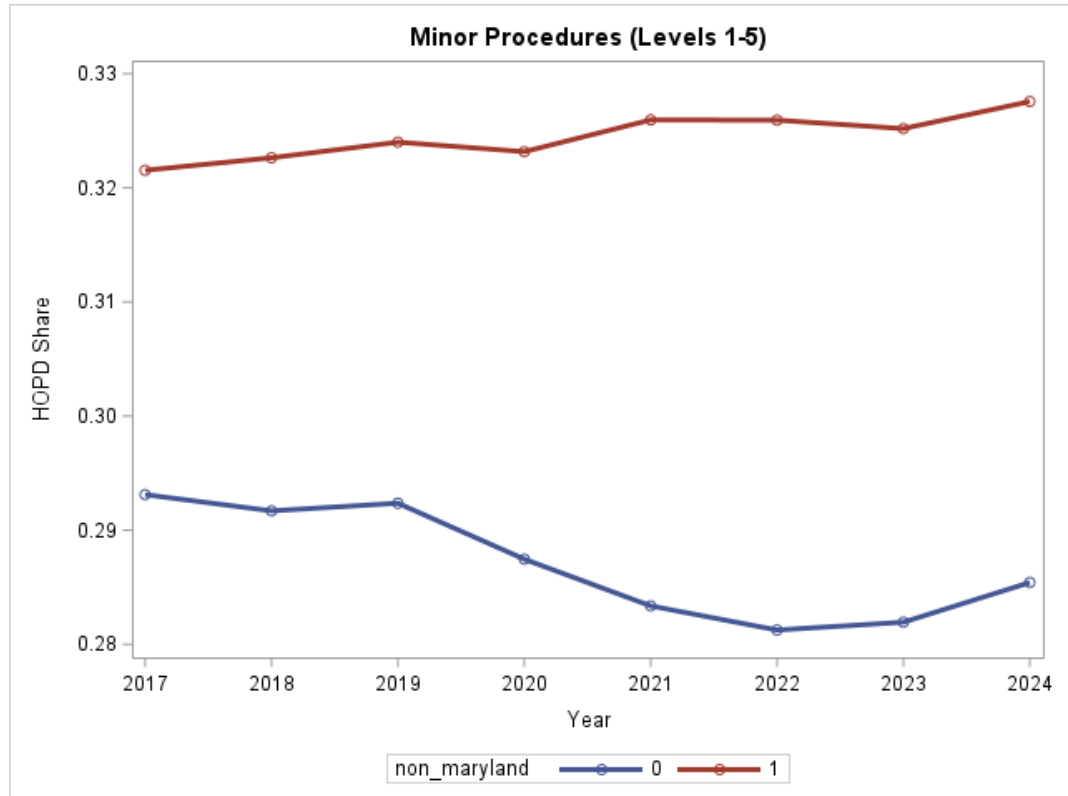
Imaging without Contrast (Levels 1-4)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.505	0.318	0.186 (0.010)
2018	0.507	0.309	0.198 (0.010)
2019	0.507	0.299	0.208 (0.010)
2020	0.497	0.285	0.212 (0.011)
2021	0.501	0.279	0.222 (0.010)
2022	0.499	0.274	0.225 (0.010)
2023	0.496	0.261	0.235 (0.010)
2024	0.498	0.239	0.259 (0.010)
2024 vs 2017	-0.007	-0.079	0.072 (0.014)



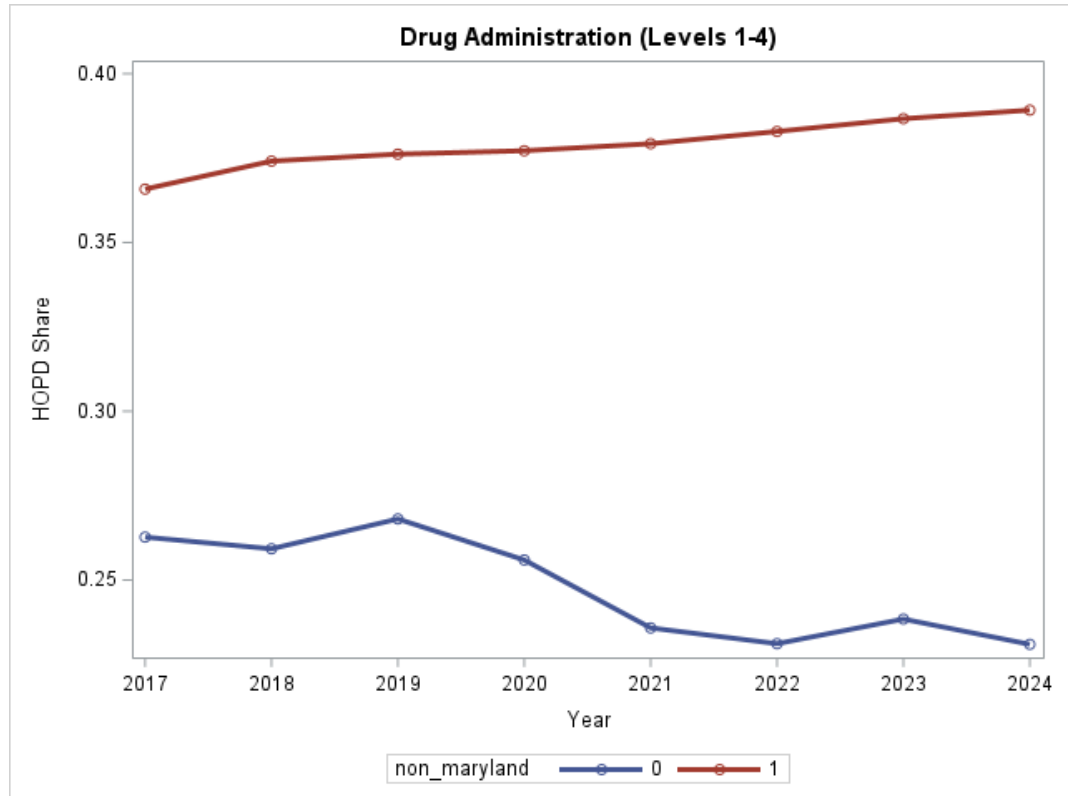
Minor Procedures (Levels 1-5)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.322	0.293	0.028 (0.006)
2018	0.323	0.292	0.031 (0.006)
2019	0.324	0.292	0.032 (0.005)
2020	0.323	0.287	0.036 (0.006)
2021	0.326	0.283	0.043 (0.006)
2022	0.326	0.281	0.045 (0.006)
2023	0.325	0.282	0.043 (0.006)
2024	0.328	0.285	0.042 (0.006)
2024 vs 2017	0.006	-0.008	0.014 (0.008)



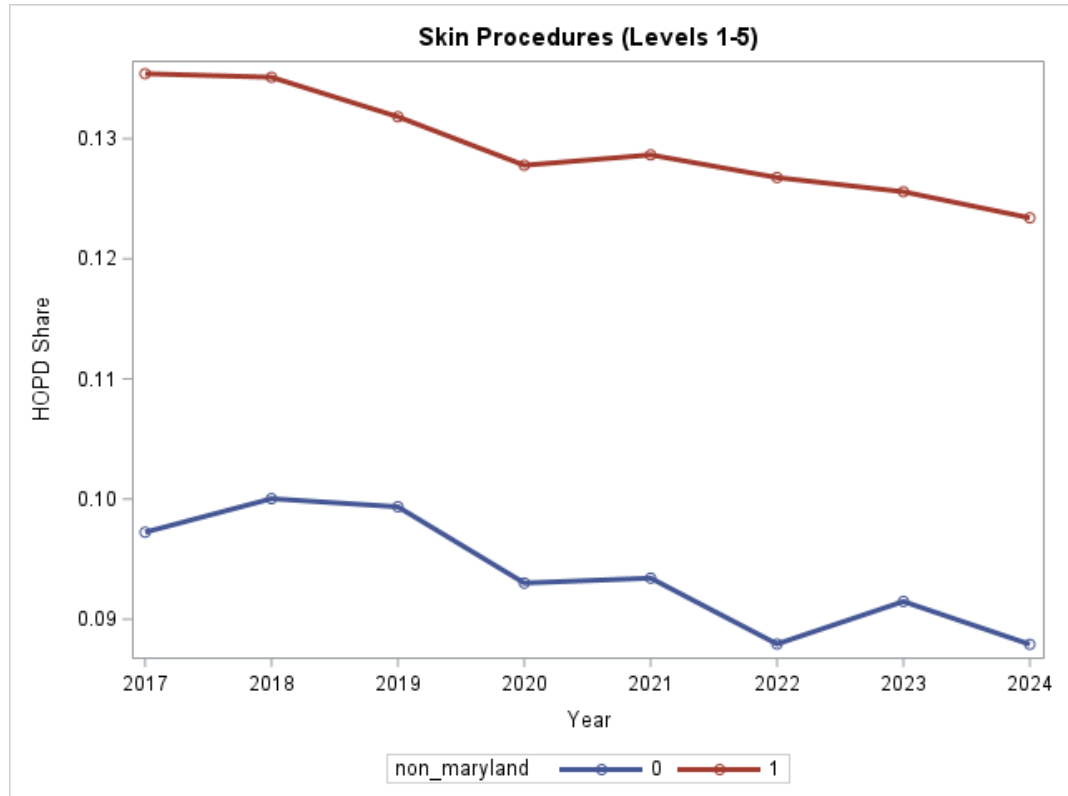
Drug Administration (Levels 1-4)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.366	0.263	0.103 (0.020)
2018	0.374	0.259	0.115 (0.020)
2019	0.376	0.268	0.108 (0.020)
2020	0.377	0.256	0.121 (0.021)
2021	0.379	0.236	0.143 (0.021)
2022	0.383	0.231	0.152 (0.021)
2023	0.387	0.238	0.148 (0.021)
2024	0.389	0.231	0.158 (0.022)
2024 vs 2017	0.023	-0.032	0.055 (0.030)



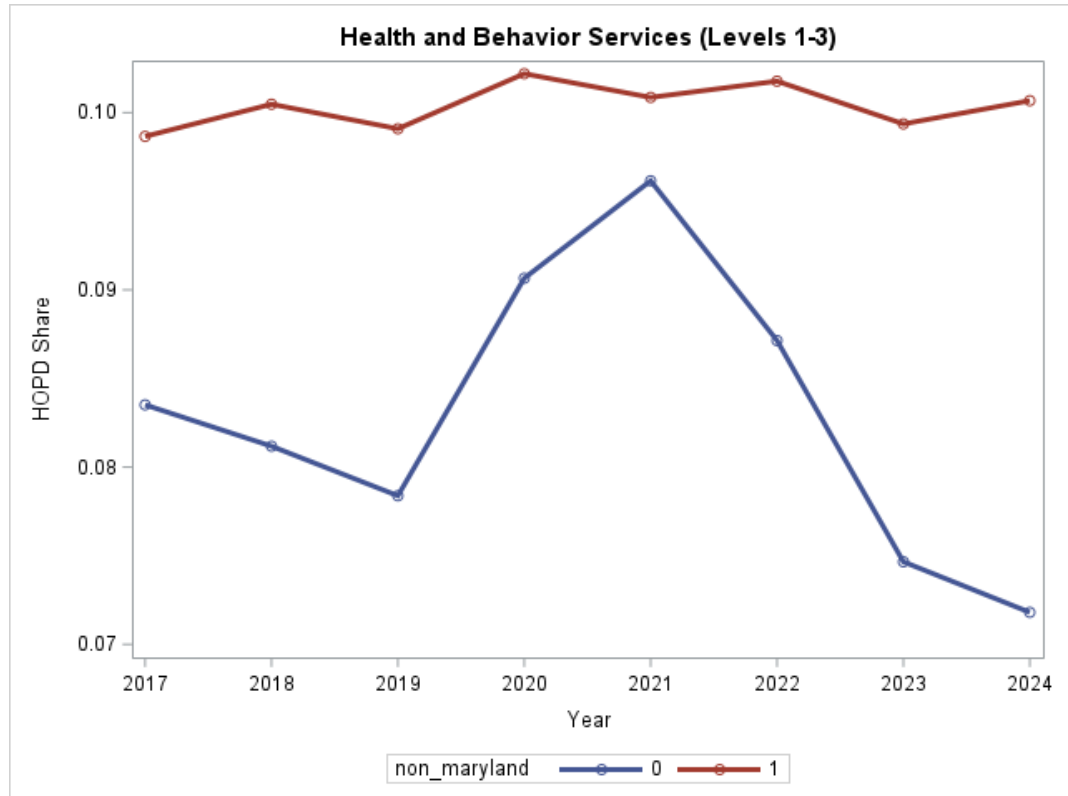
Skin Procedures (Levels 1-5)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.135	0.097	0.038 (0.006)
2018	0.135	0.100	0.035 (0.006)
2019	0.132	0.099	0.032 (0.006)
2020	0.128	0.093	0.035 (0.007)
2021	0.129	0.093	0.035 (0.007)
2022	0.127	0.088	0.039 (0.007)
2023	0.126	0.091	0.034 (0.007)
2024	0.123	0.088	0.035 (0.006)
2024 vs 2017	-0.012	-0.009	-0.003 (0.009)



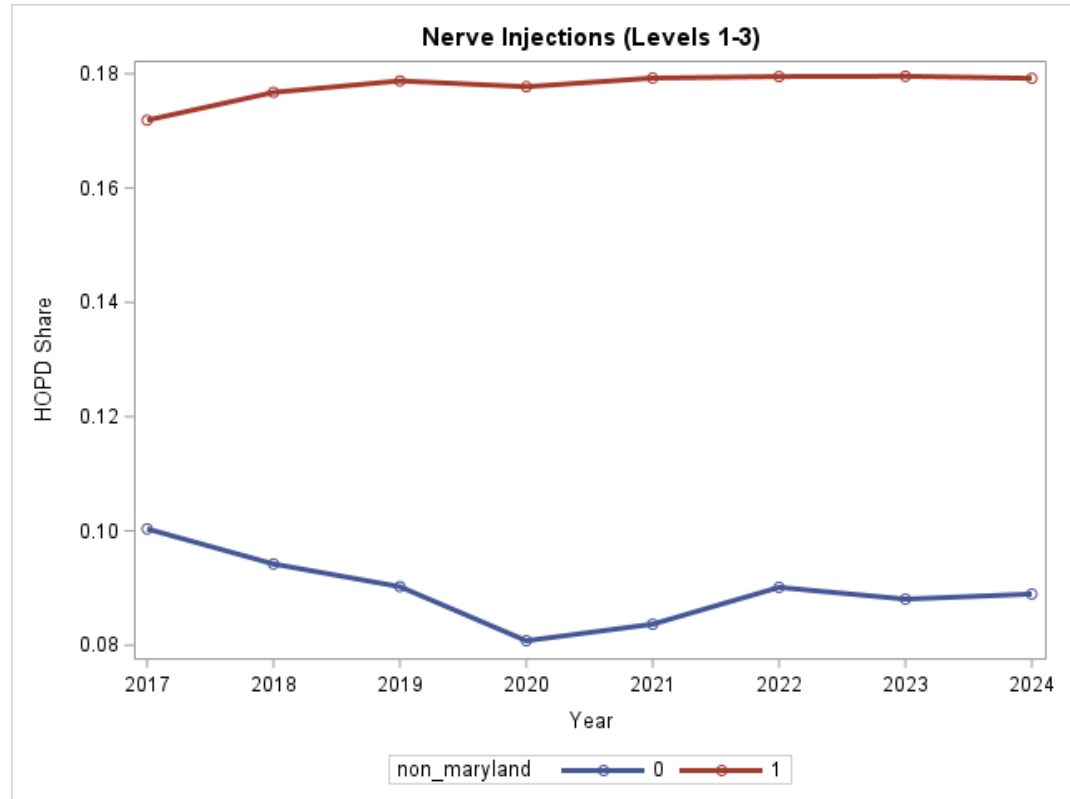
Health and Behavior Services (Levels 1-3)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.099	0.084	0.015 (0.015)
2018	0.100	0.081	0.019 (0.014)
2019	0.099	0.078	0.021 (0.014)
2020	0.102	0.091	0.012 (0.014)
2021	0.101	0.096	0.005 (0.014)
2022	0.102	0.087	0.015 (0.014)
2023	0.099	0.075	0.025 (0.013)
2024	0.101	0.072	0.029 (0.013)
2024 vs 2017	0.002	-0.012	0.014 (0.019)



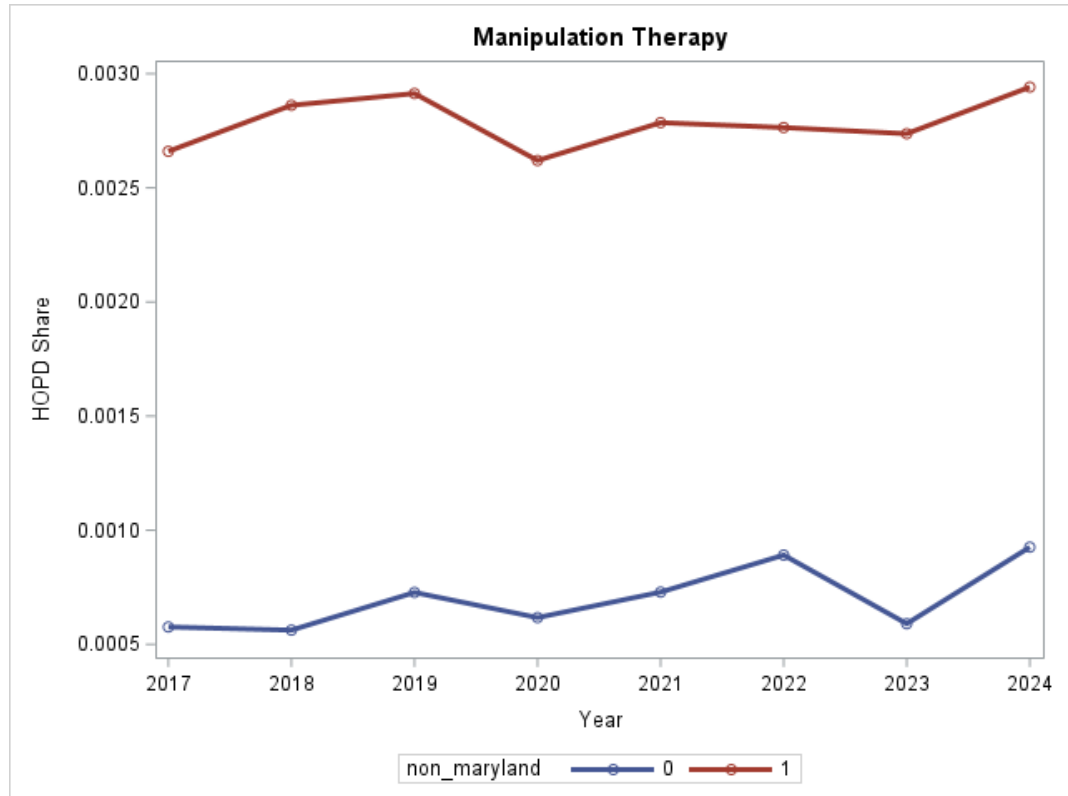
Nerve Injections (Levels 1-3)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.172	0.100	0.072 (0.014)
2018	0.177	0.094	0.083 (0.014)
2019	0.179	0.090	0.089 (0.014)
2020	0.178	0.081	0.097 (0.015)
2021	0.179	0.084	0.096 (0.015)
2022	0.180	0.090	0.089 (0.015)
2023	0.180	0.088	0.092 (0.014)
2024	0.179	0.089	0.090 (0.014)
2024 vs 2017	0.007	-0.011	0.019 (0.020)



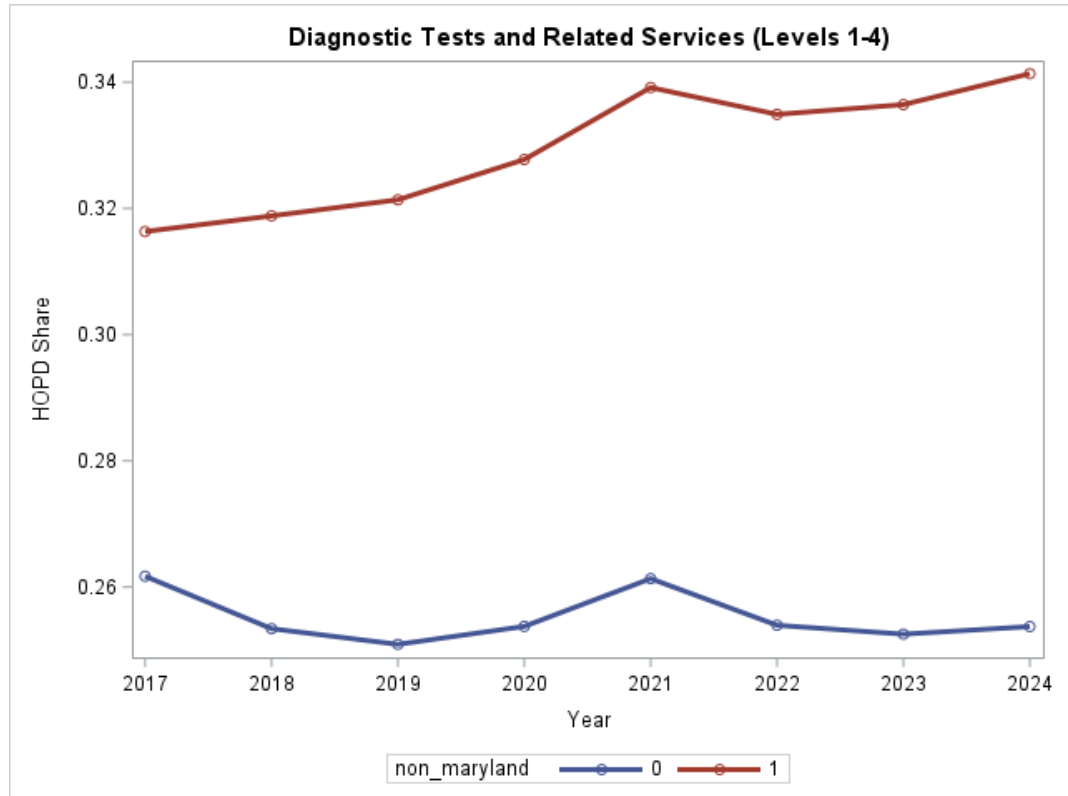
Manipulation Therapy

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.003	0.001	0.002 (0.008)
2018	0.003	0.001	0.002 (0.008)
2019	0.003	0.001	0.002 (0.007)
2020	0.003	0.001	0.002 (0.008)
2021	0.003	0.001	0.002 (0.008)
2022	0.003	0.001	0.002 (0.008)
2023	0.003	0.001	0.002 (0.008)
2024	0.003	0.001	0.002 (0.008)
2024 vs 2017	0.000	0.000	0.000 (0.011)



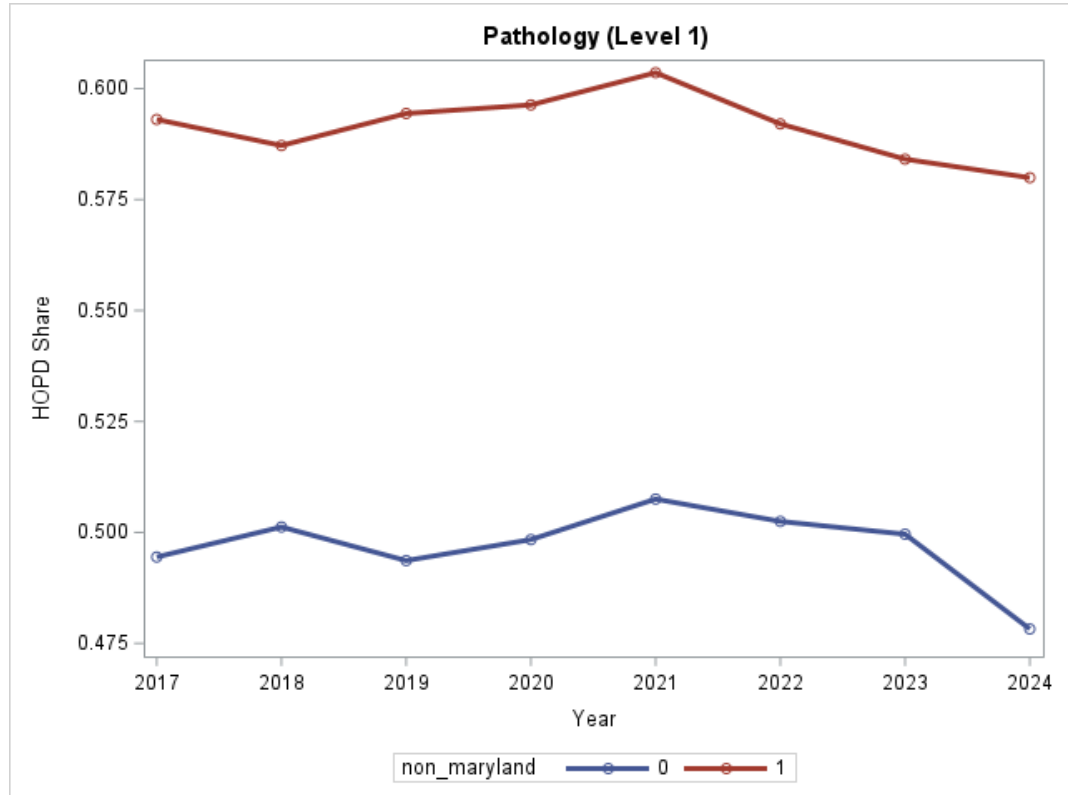
Diagnostic Tests and Related Services (Levels 1-4)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.316	0.262	0.055 (0.012)
2018	0.319	0.253	0.065 (0.012)
2019	0.321	0.251	0.070 (0.012)
2020	0.328	0.254	0.074 (0.015)
2021	0.339	0.261	0.078 (0.014)
2022	0.335	0.254	0.081 (0.014)
2023	0.336	0.253	0.084 (0.014)
2024	0.341	0.254	0.088 (0.014)
2024 vs 2017	0.025	-0.008	0.033 (0.018)



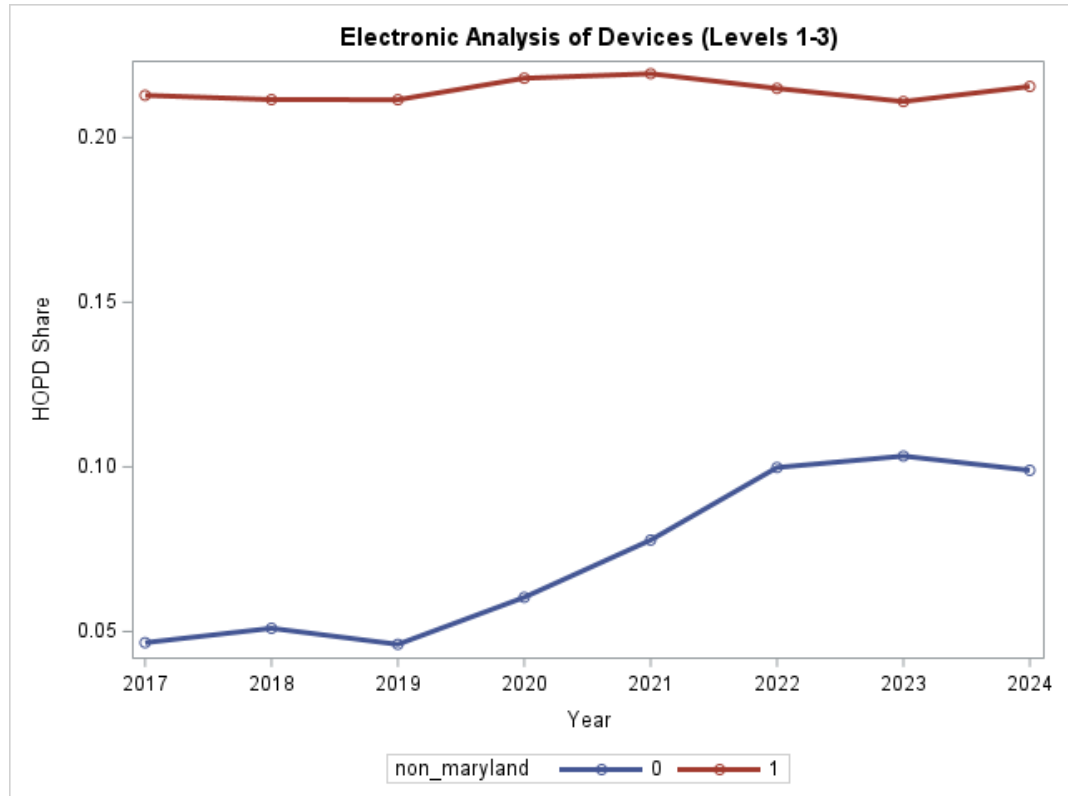
Pathology (Level 1)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.593	0.494	0.099 (0.041)
2018	0.587	0.501	0.086 (0.041)
2019	0.594	0.494	0.101 (0.040)
2020	0.596	0.498	0.098 (0.044)
2021	0.604	0.508	0.096 (0.042)
2022	0.592	0.502	0.090 (0.042)
2023	0.584	0.500	0.085 (0.042)
2024	0.580	0.478	0.102 (0.041)
2024 vs 2017	-0.013	-0.016	0.003 (0.058)



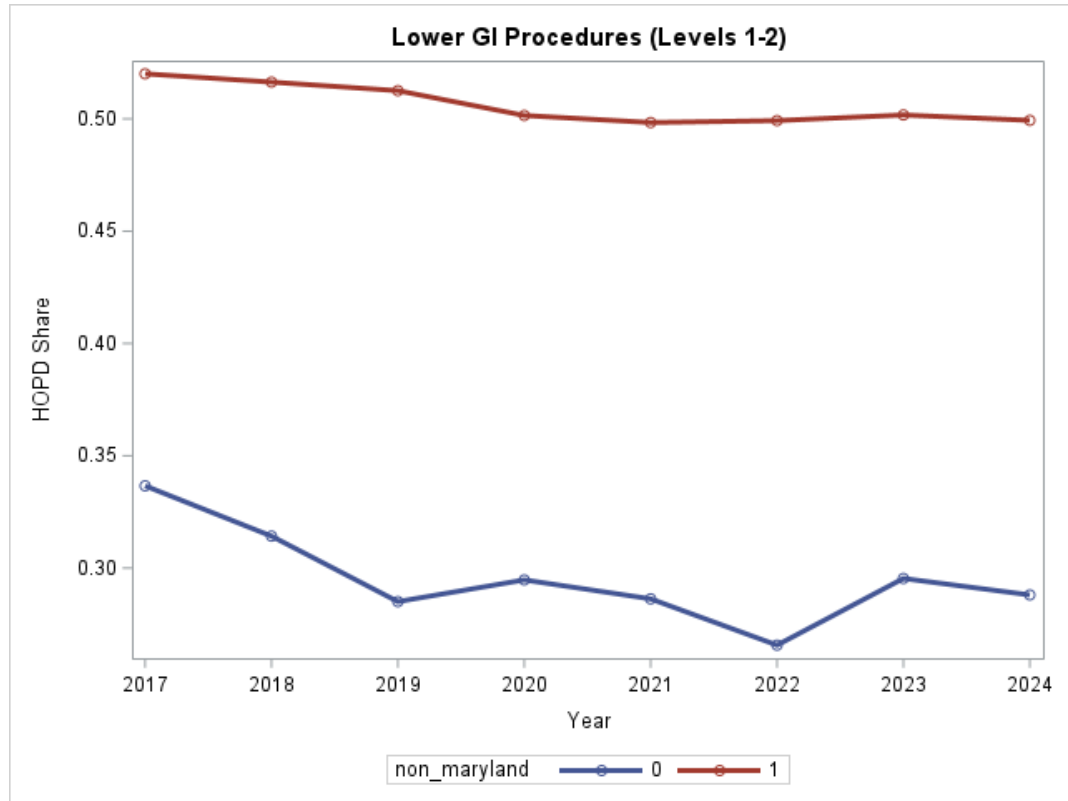
Electronic Analysis of Devices (Levels 1-3)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.213	0.047	0.166 (0.040)
2018	0.212	0.051	0.161 (0.039)
2019	0.211	0.046	0.165 (0.037)
2020	0.218	0.060	0.158 (0.035)
2021	0.219	0.078	0.142 (0.031)
2022	0.215	0.100	0.115 (0.029)
2023	0.211	0.103	0.108 (0.028)
2024	0.216	0.099	0.117 (0.026)
2024 vs 2017	0.003	0.052	-0.050 (0.048)



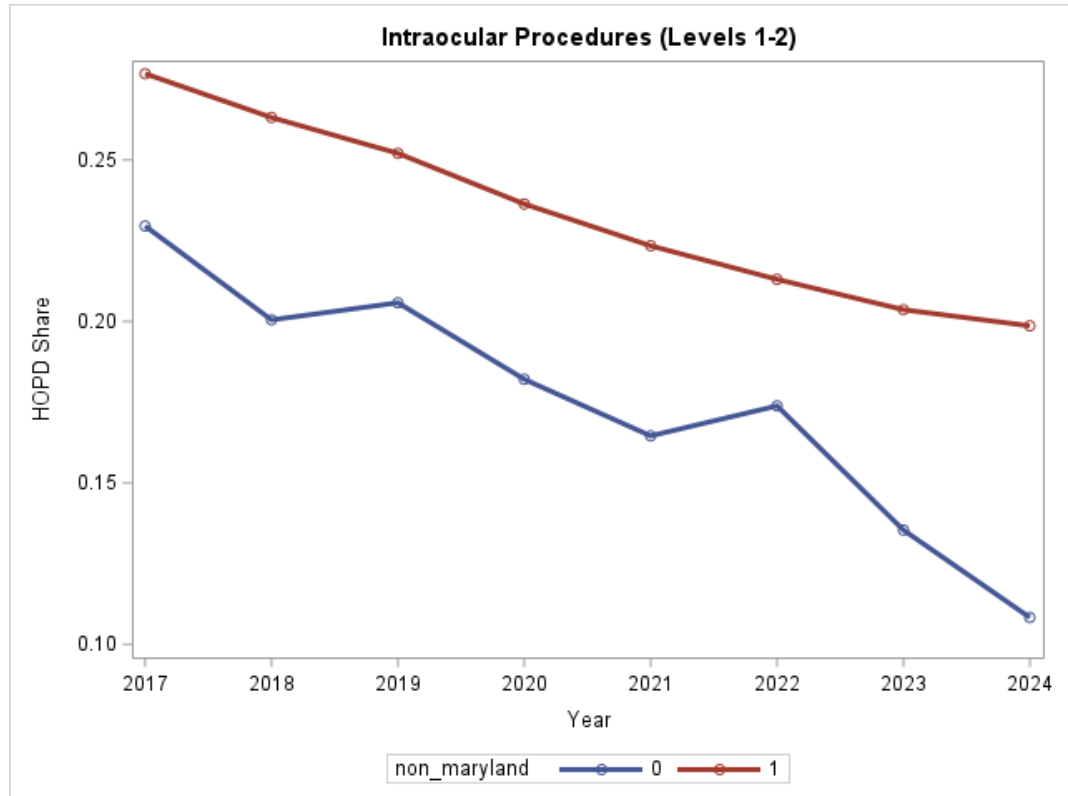
Lower GI Procedures (Levels 1-2)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.520	0.337	0.183 (0.024)
2018	0.516	0.314	0.202 (0.024)
2019	0.513	0.285	0.227 (0.023)
2020	0.502	0.295	0.207 (0.027)
2021	0.498	0.286	0.212 (0.024)
2022	0.499	0.266	0.234 (0.024)
2023	0.502	0.295	0.206 (0.024)
2024	0.499	0.288	0.211 (0.024)
2024 vs 2017	-0.021	-0.049	0.028 (0.034)



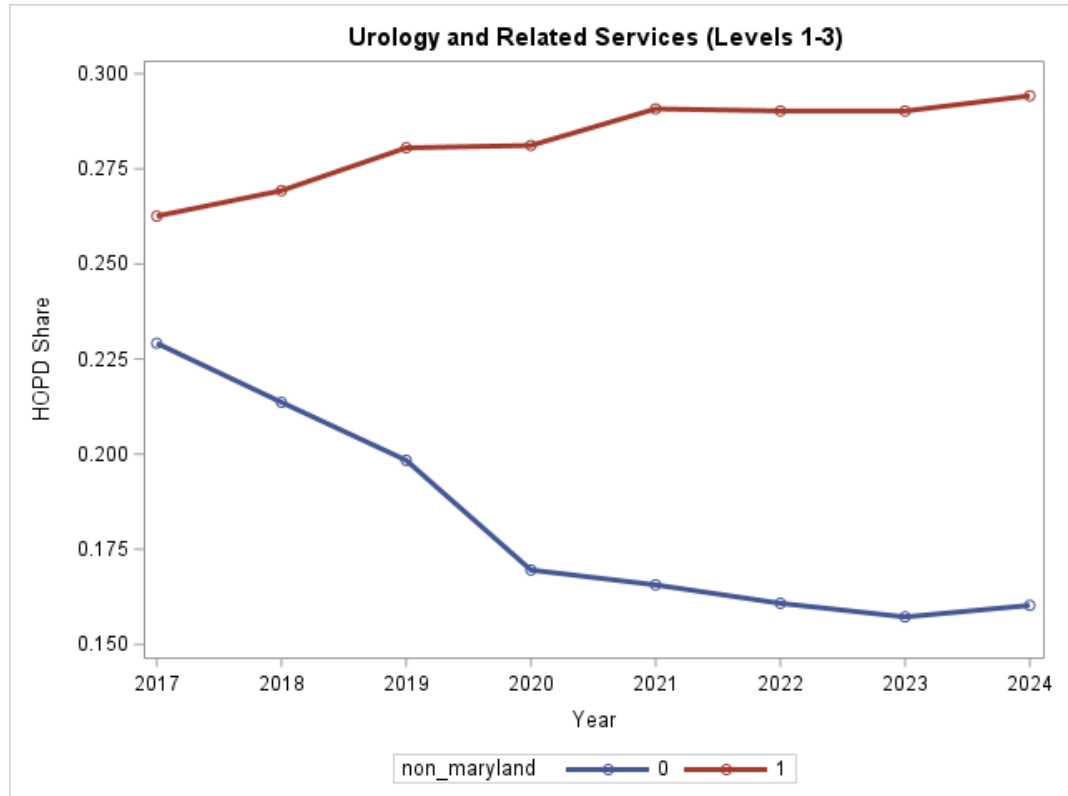
Intraocular Procedures (Levels 1-2)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.277	0.230	0.047 (0.019)
2018	0.263	0.200	0.063 (0.019)
2019	0.252	0.206	0.046 (0.019)
2020	0.236	0.182	0.054 (0.022)
2021	0.223	0.165	0.059 (0.019)
2022	0.213	0.174	0.039 (0.019)
2023	0.204	0.135	0.068 (0.021)
2024	0.199	0.108	0.090 (0.020)
2024 vs 2017	-0.078	-0.122	0.043 (0.027)



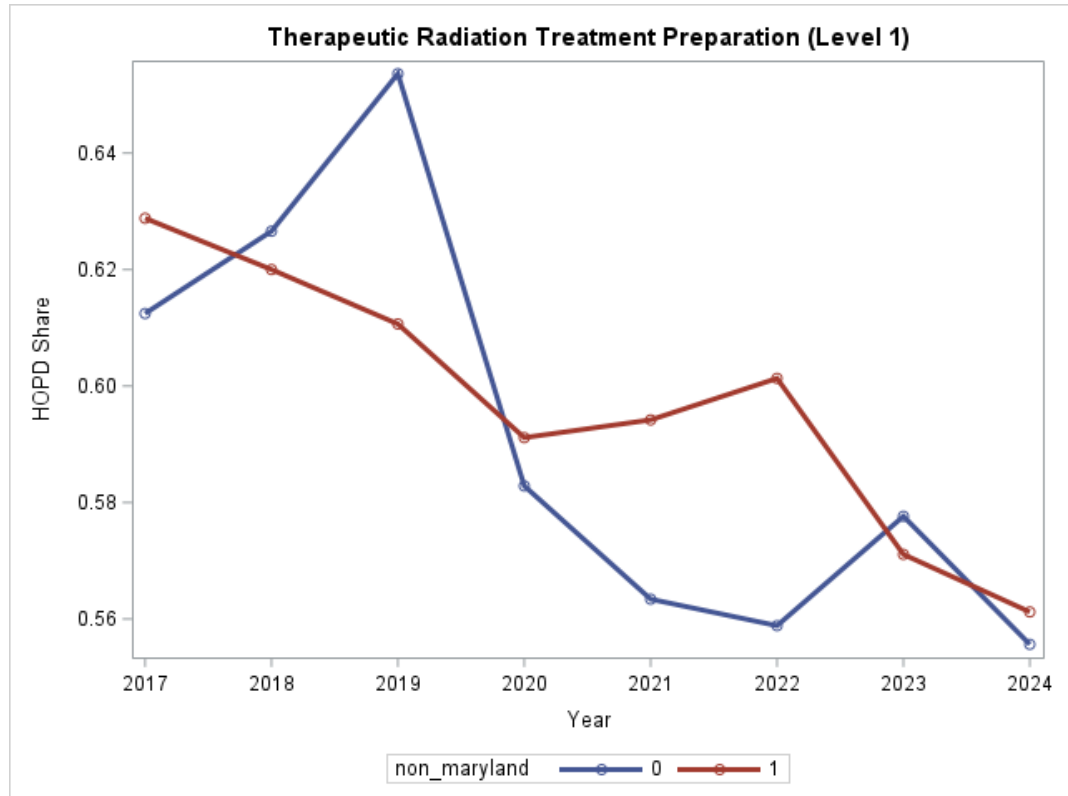
Urology and Related Services (Levels 1-3)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.263	0.229	0.033 (0.018)
2018	0.269	0.214	0.056 (0.019)
2019	0.281	0.198	0.082 (0.018)
2020	0.281	0.170	0.112 (0.020)
2021	0.291	0.166	0.125 (0.020)
2022	0.290	0.161	0.129 (0.020)
2023	0.290	0.157	0.133 (0.020)
2024	0.294	0.160	0.134 (0.019)
2024 vs 2017	0.031	-0.069	0.101 (0.027)



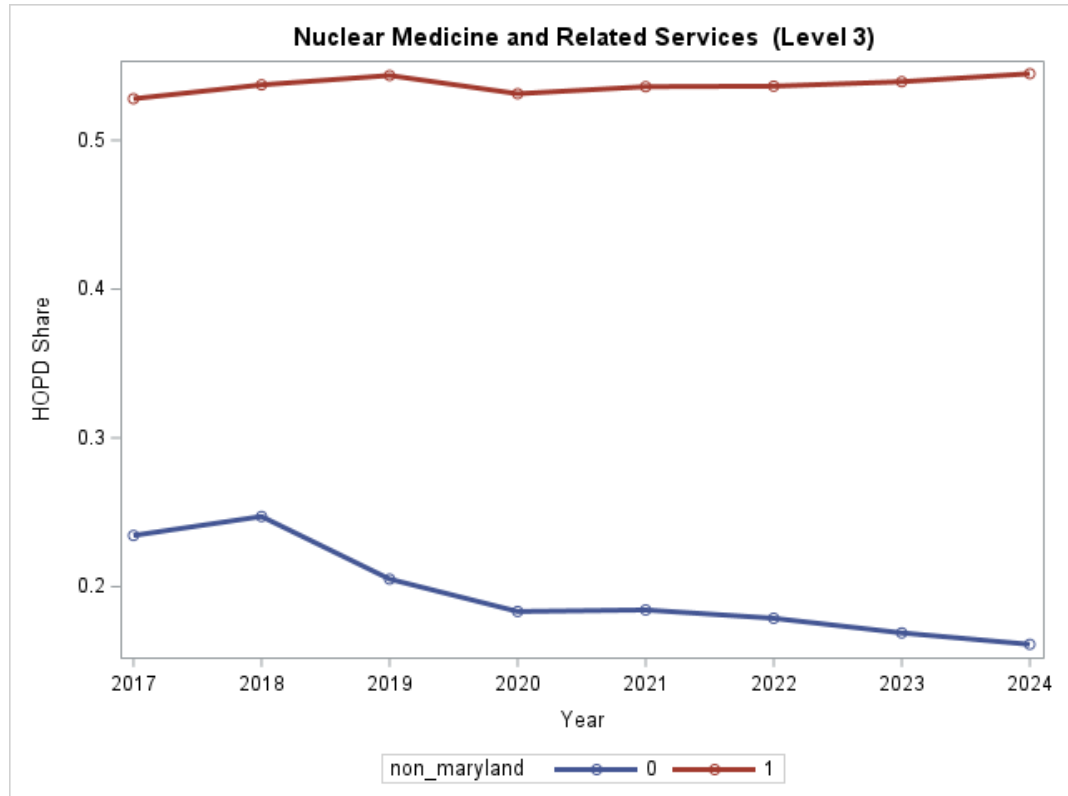
Therapeutic Radiation Treatment Preparation (Level 1)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.629	0.612	0.016 (0.064)
2018	0.620	0.627	-0.007 (0.069)
2019	0.611	0.654	-0.043 (0.069)
2020	0.591	0.583	0.008 (0.073)
2021	0.594	0.563	0.031 (0.071)
2022	0.601	0.559	0.042 (0.073)
2023	0.571	0.578	-0.007 (0.073)
2024	0.561	0.556	0.006 (0.071)
2024 vs 2017	-0.068	-0.056	-0.011 (0.096)



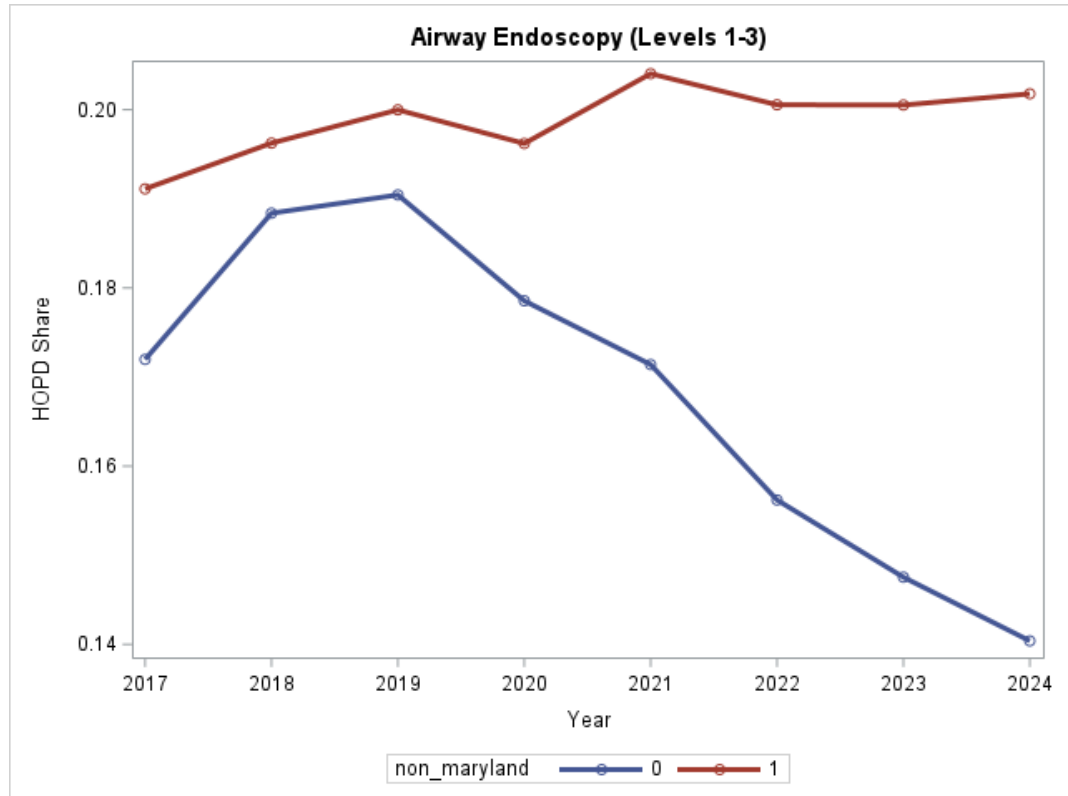
Nuclear Medicine and Related Services (Level 3)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.528	0.234	0.294 (0.059)
2018	0.537	0.247	0.290 (0.059)
2019	0.544	0.205	0.339 (0.059)
2020	0.531	0.183	0.348 (0.066)
2021	0.536	0.184	0.352 (0.061)
2022	0.536	0.179	0.358 (0.065)
2023	0.539	0.169	0.370 (0.065)
2024	0.545	0.161	0.384 (0.064)
2024 vs 2017	0.017	-0.073	0.090 (0.087)



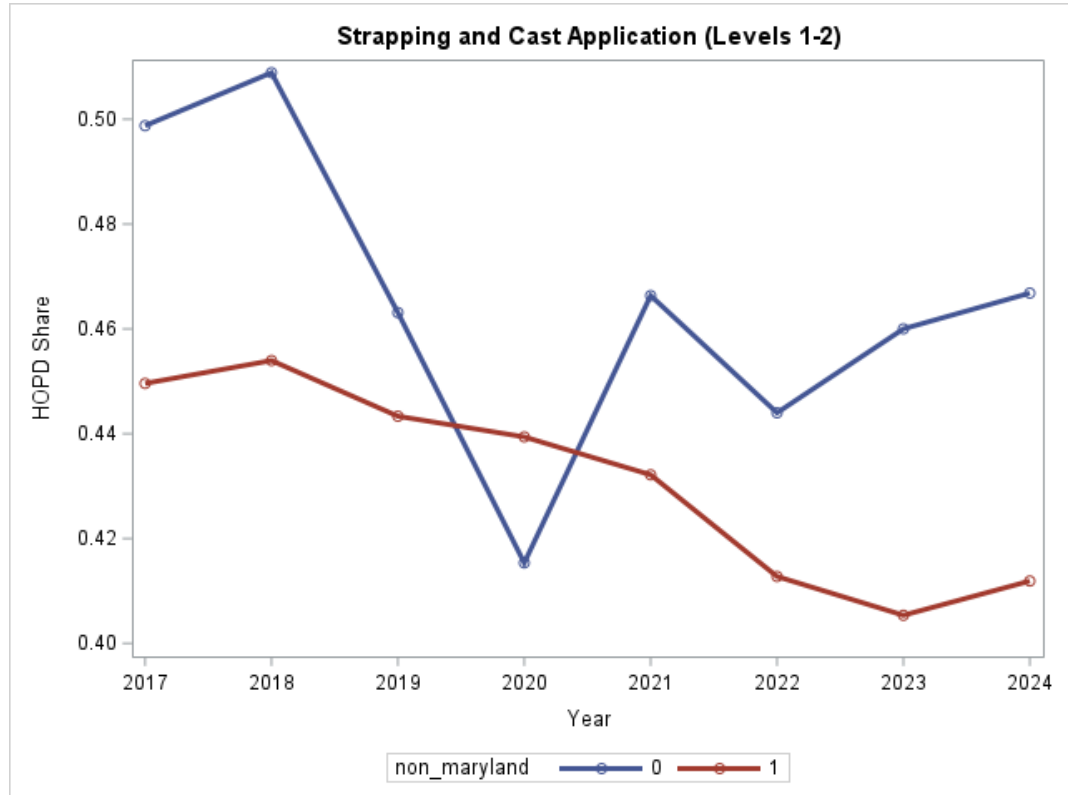
Airway Endoscopy (Levels 1-3)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.191	0.172	0.019 (0.022)
2018	0.196	0.188	0.008 (0.022)
2019	0.200	0.190	0.010 (0.021)
2020	0.196	0.179	0.018 (0.025)
2021	0.204	0.171	0.033 (0.022)
2022	0.201	0.156	0.044 (0.022)
2023	0.201	0.148	0.053 (0.022)
2024	0.202	0.140	0.061 (0.021)
2024 vs 2017	0.011	-0.032	0.042 (0.031)



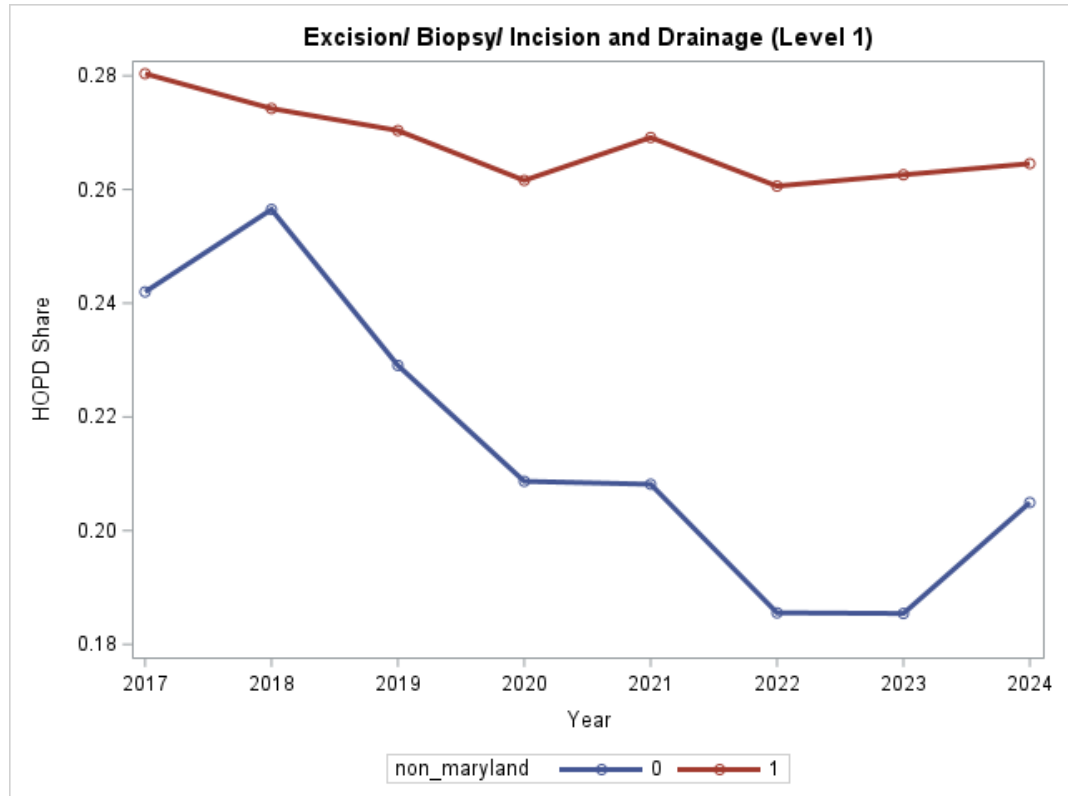
Strapping and Cast Application (Levels 1-2)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.450	0.499	-0.049 (0.039)
2018	0.454	0.509	-0.055 (0.037)
2019	0.443	0.463	-0.020 (0.034)
2020	0.439	0.415	0.024 (0.037)
2021	0.432	0.466	-0.034 (0.037)
2022	0.413	0.444	-0.031 (0.040)
2023	0.405	0.460	-0.055 (0.039)
2024	0.412	0.467	-0.055 (0.042)
2024 vs 2017	-0.038	-0.032	-0.006 (0.057)



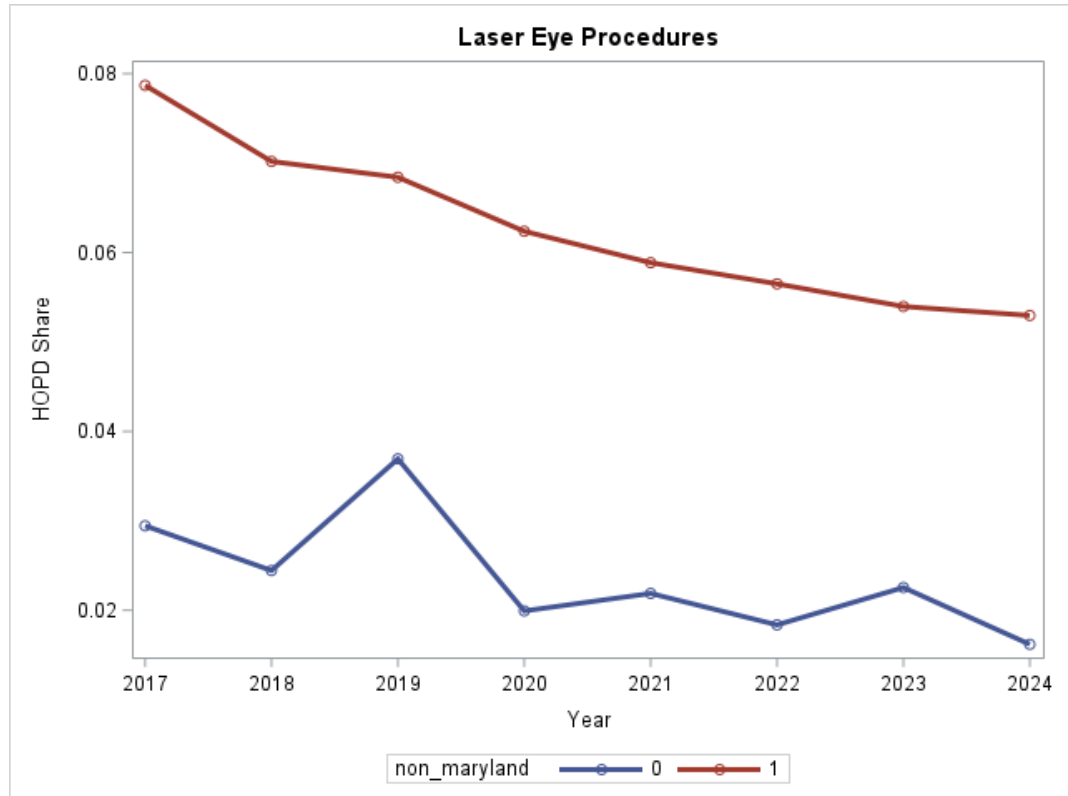
Excision/ Biopsy/ Incision and Drainage (Level 1)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.280	0.242	0.038 (0.019)
2018	0.274	0.256	0.018 (0.020)
2019	0.270	0.229	0.041 (0.020)
2020	0.262	0.209	0.053 (0.022)
2021	0.269	0.208	0.061 (0.022)
2022	0.261	0.186	0.075 (0.021)
2023	0.263	0.185	0.077 (0.022)
2024	0.265	0.205	0.060 (0.022)
2024 vs 2017	-0.015	-0.037	0.021 (0.029)



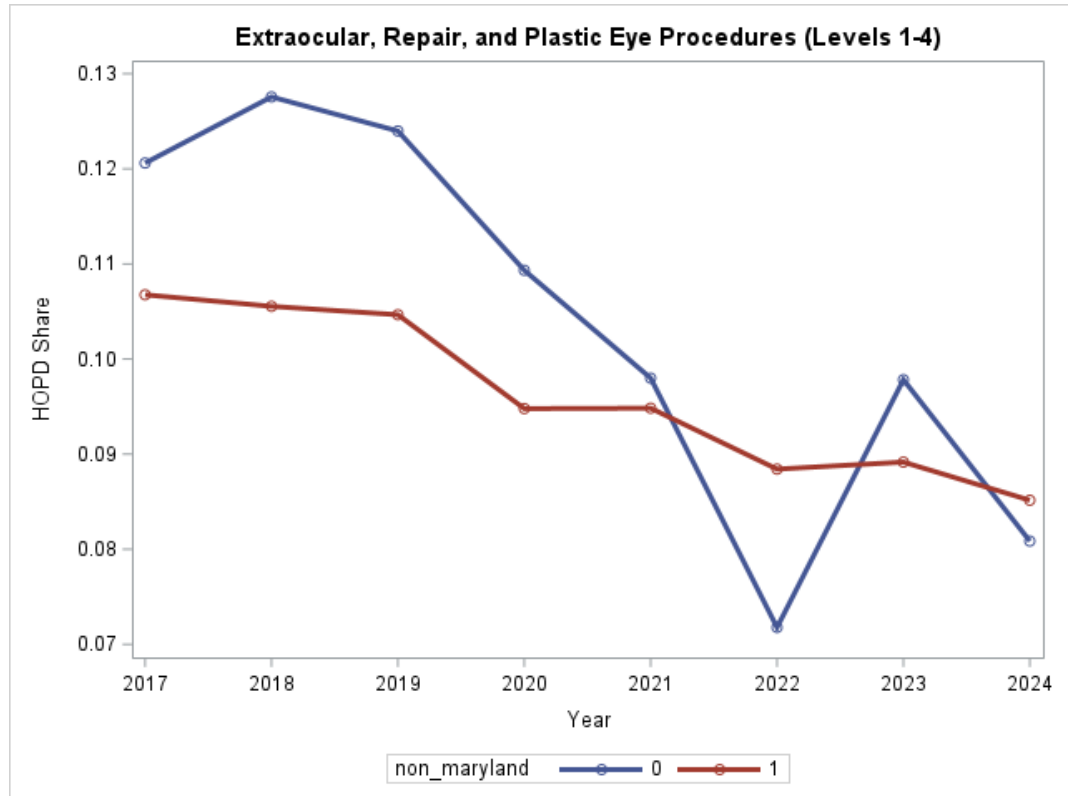
Laser Eye Procedures

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.079	0.029	0.049 (0.020)
2018	0.070	0.024	0.046 (0.020)
2019	0.068	0.037	0.031 (0.020)
2020	0.062	0.020	0.042 (0.023)
2021	0.059	0.022	0.037 (0.020)
2022	0.057	0.018	0.038 (0.022)
2023	0.054	0.023	0.031 (0.021)
2024	0.053	0.016	0.037 (0.021)
2024 vs 2017	-0.026	-0.013	-0.012 (0.028)



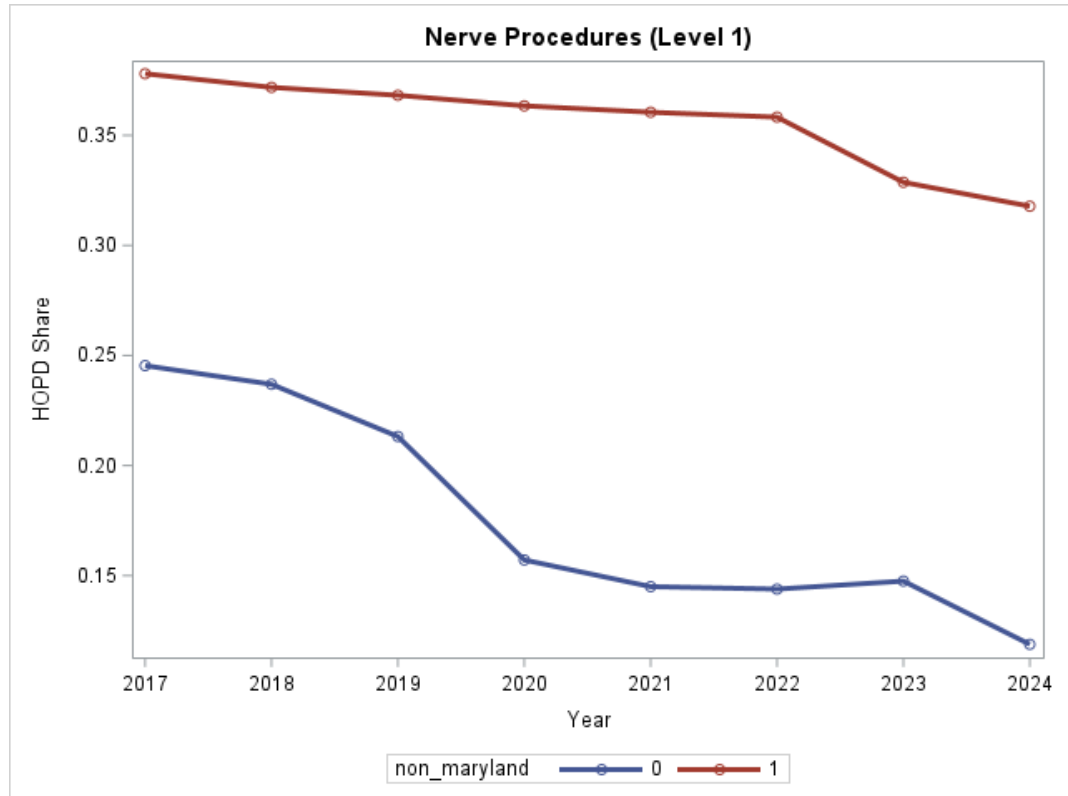
Extraocular, Repair, and Plastic Eye Procedures (Levels 1-4)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.107	0.121	-0.014 (0.021)
2018	0.106	0.128	-0.022 (0.020)
2019	0.105	0.124	-0.019 (0.020)
2020	0.095	0.109	-0.015 (0.024)
2021	0.095	0.098	-0.003 (0.021)
2022	0.088	0.072	0.017 (0.022)
2023	0.089	0.098	-0.009 (0.020)
2024	0.085	0.081	0.004 (0.018)
2024 vs 2017	-0.022	-0.040	0.018 (0.028)



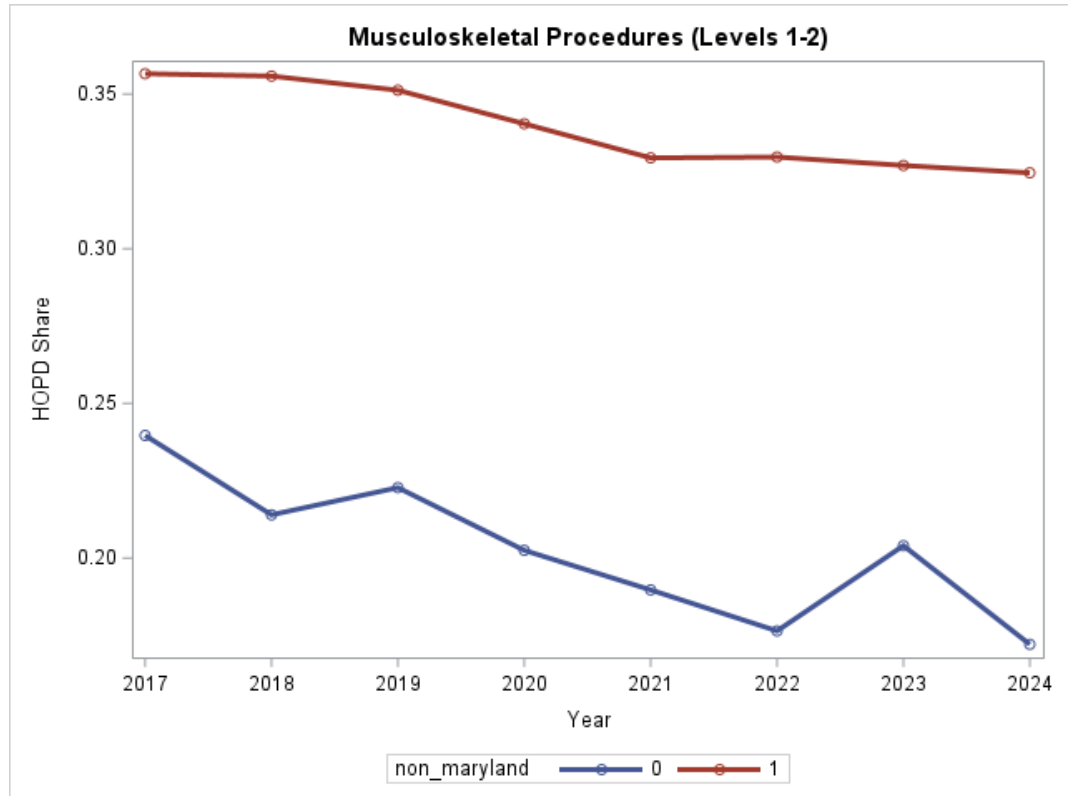
Nerve Procedures (Level 1)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.378	0.245	0.133 (0.045)
2018	0.372	0.237	0.135 (0.042)
2019	0.368	0.213	0.155 (0.043)
2020	0.363	0.157	0.206 (0.045)
2021	0.360	0.145	0.216 (0.042)
2022	0.358	0.144	0.214 (0.044)
2023	0.329	0.148	0.181 (0.043)
2024	0.318	0.119	0.199 (0.042)
2024 vs 2017	-0.060	-0.126	0.066 (0.061)



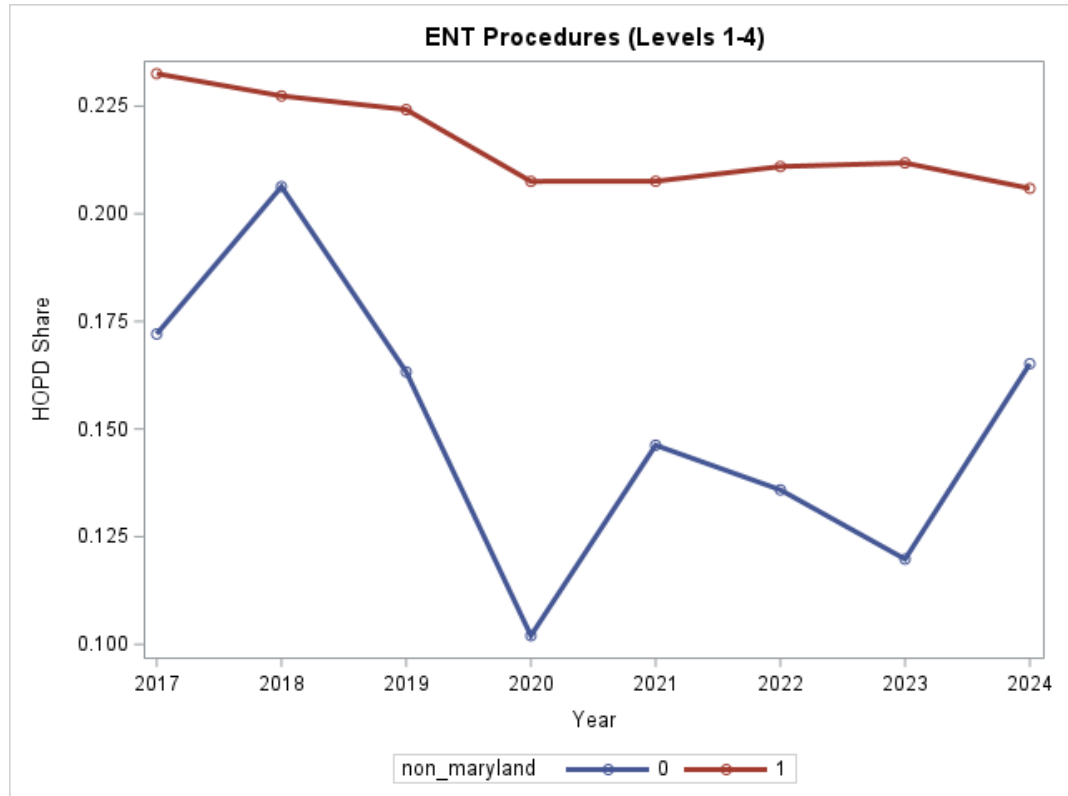
Musculoskeletal Procedures (Levels 1-2)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.357	0.240	0.117 (0.021)
2018	0.356	0.214	0.142 (0.021)
2019	0.351	0.223	0.128 (0.021)
2020	0.340	0.202	0.138 (0.024)
2021	0.329	0.190	0.140 (0.022)
2022	0.330	0.176	0.153 (0.023)
2023	0.327	0.204	0.123 (0.023)
2024	0.325	0.172	0.152 (0.024)
2024 vs 2017	-0.032	-0.068	0.035 (0.032)



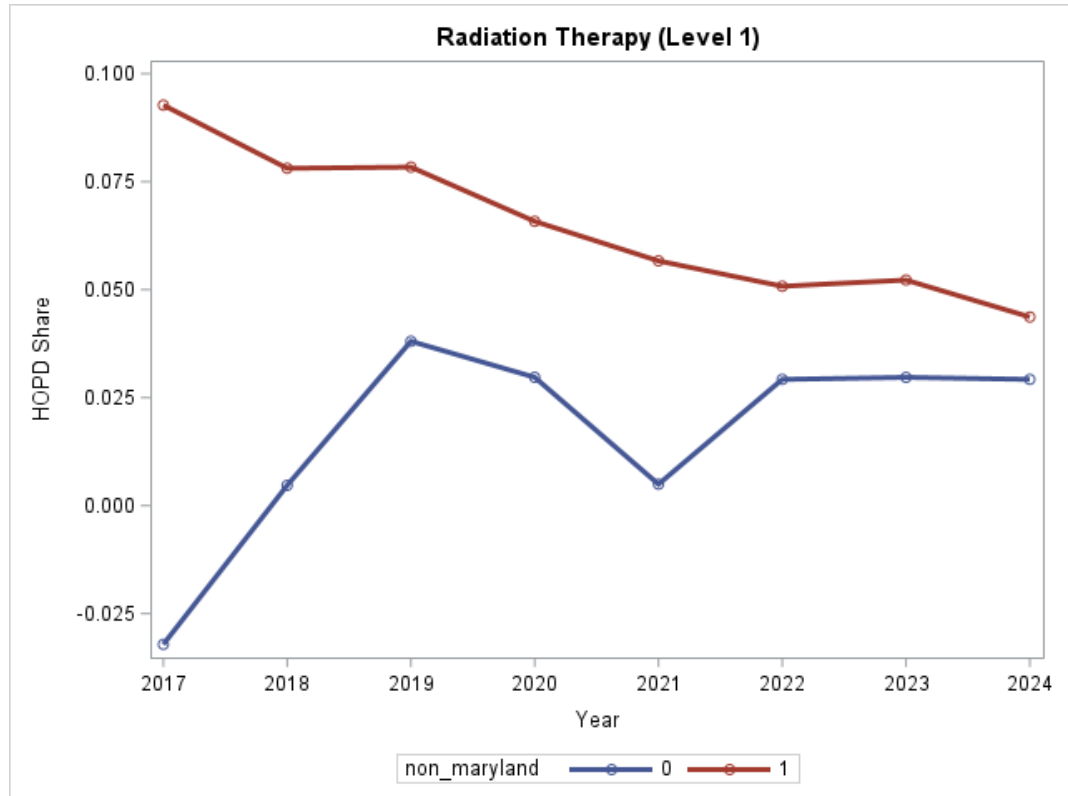
ENT Procedures (Levels 1-4)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.233	0.172	0.060 (0.024)
2018	0.227	0.206	0.021 (0.024)
2019	0.224	0.163	0.061 (0.023)
2020	0.208	0.102	0.106 (0.026)
2021	0.208	0.146	0.061 (0.025)
2022	0.211	0.136	0.075 (0.026)
2023	0.212	0.120	0.092 (0.025)
2024	0.206	0.165	0.041 (0.025)
2024 vs 2017	-0.027	-0.007	-0.020 (0.035)



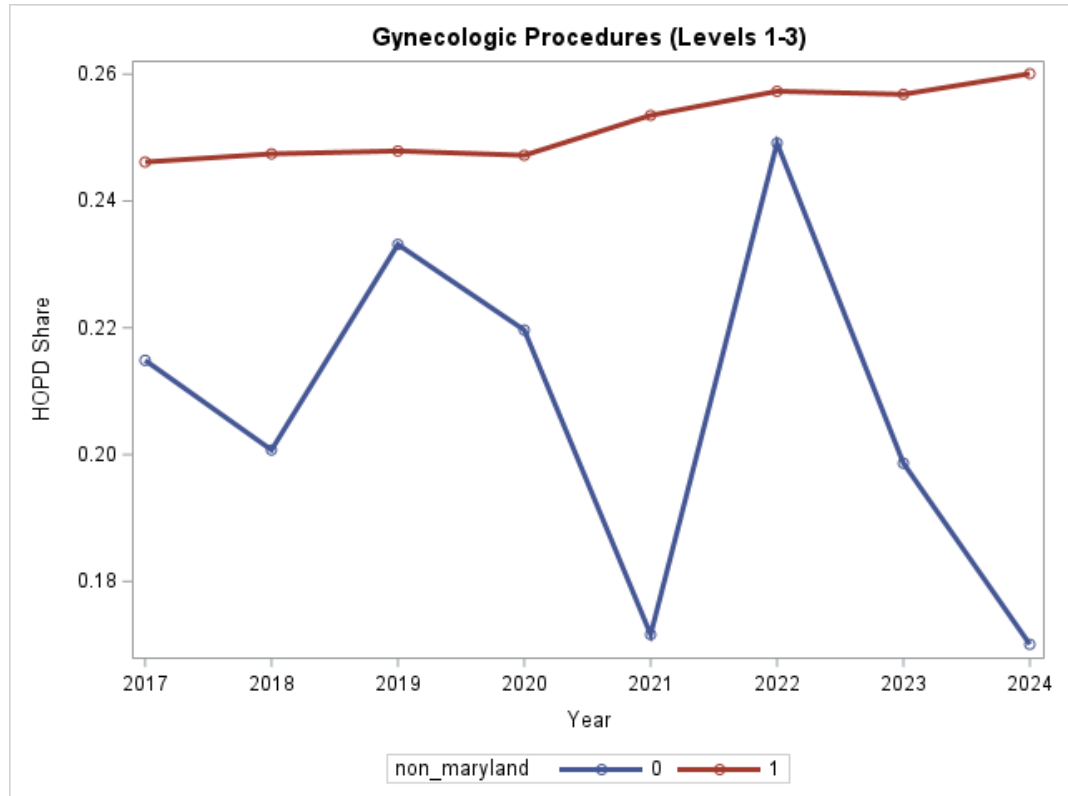
Radiation Therapy (Level 1)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.093	-0.032	0.125 (0.147)
2018	0.078	0.005	0.073 (0.104)
2019	0.078	0.038	0.040 (0.114)
2020	0.066	0.030	0.036 (0.125)
2021	0.057	0.005	0.052 (0.105)
2022	0.051	0.029	0.022 (0.173)
2023	0.052	0.030	0.023 (0.123)
2024	0.044	0.029	0.014 (0.098)
2024 vs 2017	-0.049	0.061	-0.110 (0.177)



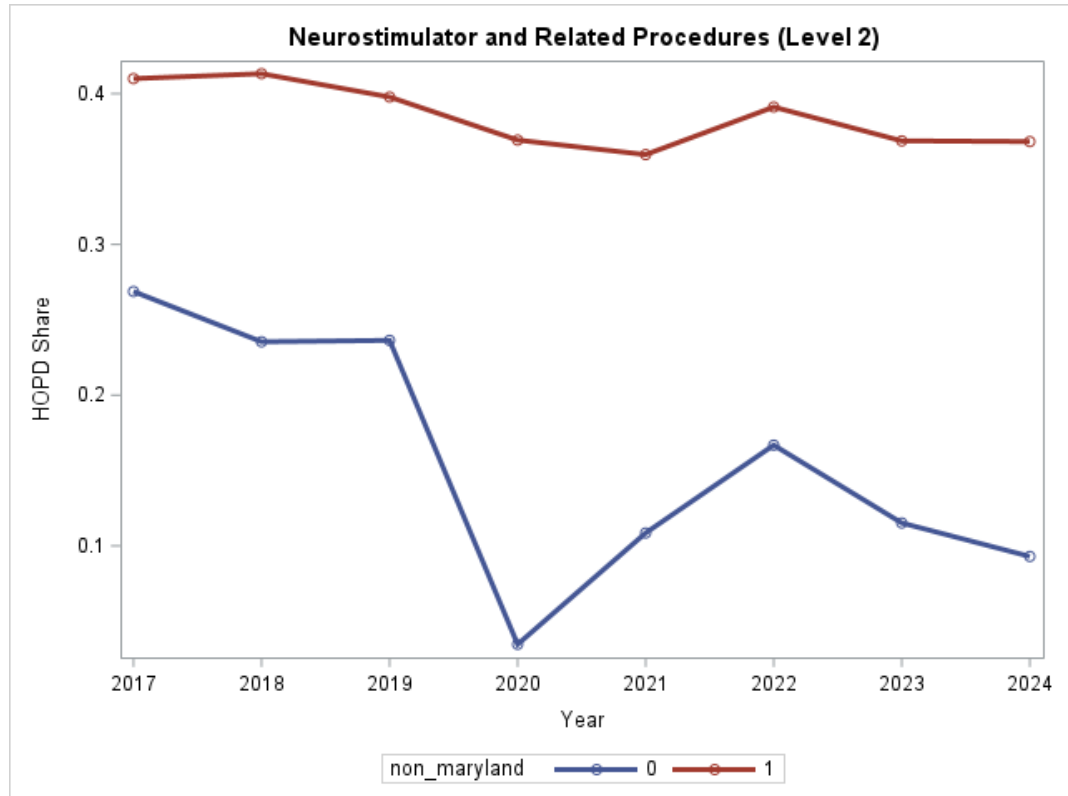
Gynecologic Procedures (Levels 1-3)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.246	0.215	0.031 (0.037)
2018	0.247	0.201	0.047 (0.039)
2019	0.248	0.233	0.015 (0.036)
2020	0.247	0.220	0.028 (0.039)
2021	0.254	0.172	0.082 (0.035)
2022	0.257	0.249	0.008 (0.036)
2023	0.257	0.199	0.058 (0.039)
2024	0.260	0.170	0.090 (0.041)
2024 vs 2017	0.014	-0.045	0.059 (0.055)



Neurostimulator and Related Procedures (Level 2)

Year	HOPD Share - Non-Maryland	HOPD Share - Maryland	Difference (Standard Error)
2017	0.410	0.269	0.141 (0.103)
2018	0.413	0.235	0.178 (0.117)
2019	0.398	0.236	0.161 (0.119)
2020	0.369	0.035	0.335 (0.103)
2021	0.360	0.109	0.251 (0.116)
2022	0.391	0.167	0.224 (0.096)
2023	0.369	0.115	0.253 (0.084)
2024	0.368	0.093	0.275 (0.086)
2024 vs 2017	-0.042	-0.176	0.134 (0.135)



APPENDIX 3: SENSITIVITY TEST - NEIGHBORING STATES ONLY

As a sensitivity test of the results, we restricted non-Maryland states to neighboring states of Maryland (Delaware, New Jersey, Virginia, Pennsylvania, New York, North Carolina, and West Virginia). Table A3.1, which uses the same structure as Table A2.1, summarizes the results for all 28 models using this alternative set of non-Maryland states.

Across all services in the 66 APCs MedPAC has recommended for site neutrality, the HOPD share was 8.4pp higher outside of Maryland than in Maryland in 2024 (compared with 9.9pp in the primary analysis), and was significant at the 99% level. This difference in HOPD share grew by 3.1pp since 2017, also significant at the 99% level, and identical to the primary analysis. Results for individual APCs and APC groups were also similar to the primary analysis, though more services had growth in the HOPD share gap that was significant at lower p-values.

Table A3.1: HOPD share differences and difference-in-differences, neighboring non-Maryland states, 2017-2024

	Service Count		2024 HOPD Share		Difference in 2024 HOPD Share		Difference-in-Difference, 2017-2024	
	Non-Maryland	Maryland	Non-Maryland	Maryland	Diff	SE	DID	SE
MedPAC 66 APCs	48,041,581	5,444,404	0.214	0.130	0.084	0.003***	0.031	0.004***
Clinic Visits	22,123,786	2,670,483	0.122	0.060	0.061	0.009***	0.024	0.013*
Imaging without Contrast (Levels 1-4)	5,193,063	630,168	0.461	0.232	0.228	0.013***	0.073	0.018***
Minor Procedures (Levels 1-5)	5,554,317	601,059	0.276	0.250	0.026	0.005***	0.013	0.008*
Drug Administration (Levels 1-4)	4,075,487	387,070	0.397	0.215	0.182	0.015***	0.080	0.021***
Skin Procedures (Levels 1-5)	2,120,962	238,402	0.100	0.078	0.023	0.005***	0.003	0.007
Health and Behavior Services (Levels 1-3)	2,221,705	262,599	0.087	0.067	0.020	0.011***	(0.007)	0.016
Manipulation Therapy	1,442,370	94,937	0.002	0.001	0.001	0.004*	(0.001)	0.006
Nerve Injections (Levels 1-3)	1,140,218	118,026	0.142	0.074	0.068	0.011	0.020	0.016
Diagnostic Tests (Levels 1-4)	1,101,252	123,809	0.279	0.225	0.054	0.013***	0.039	0.018**
Pathology (Level 1)	874,875	87,938	0.616	0.498	0.117	0.036***	0.022	0.052
Electronic Analysis of Devices (Levels 1-3)	566,494	52,755	0.193	0.083	0.110	0.021***	(0.032)	0.039
Lower GI Procedures (Levels 1-2)	266,961	29,473	0.445	0.284	0.161	0.025***	0.045	0.035
Intraocular Procedures (Levels 1-2)	182,965	19,424	0.230	0.111	0.119	0.021***	0.044	0.029
Urology and Related Services (Levels 1-3)	191,317	22,762	0.282	0.166	0.116	0.019***	0.097	0.026***
Therapeutic Radiation Treatment Prep. (Level 1)	172,738	18,292	0.701	0.567	0.134	0.049***	0.004	0.066
Nuclear Medicine and Related Services (Level 3)	136,787	18,134	0.484	0.155	0.329	0.051***	0.075	0.069
Airway Endoscopy (Levels 1-3)	166,371	16,550	0.148	0.115	0.032	0.017*	0.054	0.024**
Strapping and Cast Application (Levels 1-2)	106,676	12,620	0.450	0.460	(0.010)	0.041	0.067	0.057
Excision/ Biopsy/ Incision and Drainage (Level 1)	79,924	8,483	0.281	0.225	0.056	0.023**	0.027	0.030
Laser Eye Procedures	77,078	7,571	0.029	0.016	0.013	0.013	(0.014)	0.018
Extraocular Eye Procedures (Levels 1-4)	79,024	5,840	0.075	0.074	0.001	0.017	0.020	0.026
Nerve Procedures (Level 1)	36,946	4,615	0.310	0.123	0.187	0.037***	0.060	0.054
Musculoskeletal Procedures (Levels 1-2)	46,451	5,295	0.280	0.144	0.136	0.022***	0.051	0.029
ENT Procedures (Levels 1-4)	36,468	3,970	0.186	0.164	0.023	0.025	(0.014)	0.034*
Radiation Therapy (Level 1)	15,099	827	0.072	0.064	0.007	0.071	(0.135)	0.130

	Service Count		2024 HOPD Share		Difference in 2024 HOPD Share		Difference-in-Difference, 2017-2024	
	Non-Maryland	Maryland	Non-Maryland	Maryland	Diff	SE	DID	SE
Gynecologic Procedures (Levels 1-3)	26,446	2,660	0.222	0.162	0.060	0.035*	0.057	0.047
Neurostimulator Procedures (Level 2)	5,801	642	0.432	0.101	0.330	0.075***	0.152	0.116

Note: A positive difference indicates higher HOPD share outside of Maryland. A positive difference-in-difference means the HOPD share outside of Maryland has increased relative to Maryland. DID = Difference-in-Difference; SE = Standard Error; *** = p-value < .01; ** = p-value < .05; * = p-value < 0.1.

APPENDIX 4: METHODS AND RESULTS - ADDITIONAL SERVICES TO CONSIDER FOR SITE NEUTRAL REFORM

Overview

In addition to analyzing trends in site-of-service utilization rates, we used service-level site-of-service mix in Maryland to identify services which may be candidates for site neutral payment reform but have not been previously identified for site neutrality consideration by MedPAC or other stakeholders.

Data and Measures

We used the same data as the primary National versus Maryland site of service trend analysis described in Appendix 1. This included the 2024 Medicare 5% sample Limited Data Set (LDS) outpatient and carrier files and the Medicare Master Beneficiary Files (MBSF). HCPCS codes were mapped to APCs using the OPPI Addendum B.

We calculated the ASC share, Office share, and HOPD share for each APC-level of service, using the same approach to deduplicate services and calculate shares described in Appendix 1.

Methodology

We reviewed the Office, HOPD, and ASC shares at the APC level in 2024 to identify instances where (1) the most common site of service was the physician office or ASC in Maryland; (2) the office share was more than 10 percentage points higher in Maryland than nationally; or (3) the most common site of service nationally was the physician office or ASC based on 2024 data (i.e. APCs where physician office share has increased since MedPAC's 2016-2021 analysis).

We performed this comparison across all APCs, and Table A4.1 presents the results for the 16 APCs that met at least one of these criteria and may be candidates for site neutral payment.

Table A4.1: HOPD, Office, and ASC Shares, Nationally and in Maryland, 2024

APC	Description	National			Maryland		
		ASC Share	Office Share	HOPD Share	ASC Share	Office Share	HOPD Share
5072	Level 2 Excision/ Biopsy/ Incision and Drainage	4%	36%	60%	5%	47%	48%
5113	Level 3 Musculoskeletal Procedures	37%	4%	59%	50%	3%	47%
5183	Level 3 Vascular Procedures	4%	38%	58%	4%	53%	42%
5192	Level 2 Endovascular Procedures	14%	40%	46%	18%	48%	34%
5193	Level 3 Endovascular Procedures	2%	16%	82%	4%	40%	56%
5194	Level 4 Endovascular Procedures	3%	51%	46%	2%	85%	12%
5301	Level 1 Upper GI Procedures	36%	5%	59%	55%	3%	42%
5465	Level 5 Neurostimulator and Related Procedures	35%	1%	64%	57%	1%	43%
5571	Level 1 Imaging with Contrast	0%	21%	79%	0%	42%	58%
5572	Level 2 Imaging with Contrast	0%	28%	72%	1%	58%	41%
5591	Level 1 Nuclear Medicine and Related Services	0%	15%	85%	0%	41%	59%
5592	Level 2 Nuclear Medicine and Related Services	0%	11%	89%	0%	25%	75%
5594	Level 4 Nuclear Medicine and Related Services	0%	40%	60%	0%	76%	24%
5661	Therapeutic Nuclear Medicine	0%	17%	83%	0%	31%	69%

5672	Level 2 Pathology	1%	20%	79%	1%	39%	61%
5673	Level 3 Pathology	1%	18%	81%	1%	35%	64%