



AVALON HEALTH ECONOMICS

**Analysis of Dental and Vision Plan Non-Covered Services and Materials
Mandates and the Projected Role of H.R. 3323 in the Vision and Dental Markets**

REPORT

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John E. Schneider, PhD¹
Robert L. Ohsfeldt, PhD^{1,2}
Cara M. Scheibling¹

¹Avalon Health Economics

²Texas A&M University, School of Public Health

Primary Contact:

John E. Schneider, PhD
CEO, Avalon Health Economics LLC
26 Washington St., 3rd Floor
Morristown, NJ 07960
+1 862-260-9193 (office)
John.schneider@avalonecon.com

1. Background

Doctors of optometry, doctors of dental medicine, and doctors of dental surgery are critical providers in the health care value chain. Optometrists are a critical component of the overall health care workforce, particularly the primary care workforce.¹ Optometrists provide “front line” prevention, detection and treatment of a variety of eye conditions, including cataract, glaucoma, age-related macular degeneration, diabetes (which can lead to diabetic macular edema or retinopathy) and other malignancies.² Dentists play a similarly important role in providing dental care services, which have been associated with a wide variety of health benefits including reducing the risk of infection, lowering the risk of heart disease and improving productivity at school and work.³

While coverage for the diagnosis and treatment of a wide range of ailments often exists under traditional (medical) health insurance plans, coverage for some preventive and other services and materials provided by optometrists (as well as ophthalmologists) and dentists has typically existed under separate vision plan and dental plan coverage. These plans are typically defined-benefit plans, covering one eye exam per year and providing for an eyeglass or contact lenses allowance. In the case of dental services, these plans often cover one dental health check-up and cleaning every six months along with some additional coverage. Though, as many of these plans do not provide more than the defined benefit, they are not typically regulated as a health insurance product in many states and have not had to comply with the same rules governing traditional health insurance plans. Though, vision and dental plans do enjoy anti-trust exemptions under the McCarran-Ferguson Act.

¹ See generally "Routine Eye Examinations for Persons 20-64 Years of Age: An Evidence-Based Analysis," *Ont Health Technol Assess Ser* 6, no. 15 (2006).; N. J. Ammary-Risch and S. S. Huang, "The Primary Care Physician's Role in Preventing Vision Loss and Blindness in Patients with Diabetes," *J Natl Med Assoc* 103, no. 3 (2011).; E. Hoppe and R. Frankel, "Optometrists as Key Providers in the Prevention and Early Detection of Malignancies," *Optometry* 77, no. 8 (2006).; N. S. Logan and B. Gilmartin, "School Vision Screening, Ages 5-16 Years: The Evidence-Base for Content, Provision and Efficacy," *Ophthalmic Physiol Opt* 24, no. 6 (2004).; J. Schaneman et al., "The Role of Comprehensive Eye Exams in the Early Detection of Diabetes and Other Chronic Diseases in an Employed Population," *Popul Health Manag* 13, no. 4 (2010).; P. Shin and B. Finnegan, "Assessing the Need for on-Site Eye Care Professionals in Community Health Centers," *Policy Brief George Wash Univ Cent Health Serv Res Policy* (2009).; M. Soroka, "The New York State Optometry Workforce Study," *J Community Health* 37, no. 2 (2012).; J. E. Winters et al., "Coordinating Eye and Primary Medical Care in a Low-Income and Uninsured Population: The Experience of the Vision of Hope Health Alliance," *Optometry* 79, no. 12 (2008).

² International Council of Ophthalmology, "Number of Ophthalmologists in Practice and Training Worldwide," <http://www.icoph.org/ophthalmologists-worldwide.html>.

³ V. Bhaskar, K. A. McGraw, and K. Divaris, "The Importance of Preventive Dental Visits from a Young Age: Systematic Review and Current Perspectives," *Clin Cosmet Investig Dent* 8 (2014); S. Listl et al., "Global Economic Impact of Dental Diseases," *J Dent Res* 94, no. 10 (2015).

While enjoying this special legal treatment, vision and dental plans have expanded into having large national presences. According to the American Optometric Association, roughly 150 million Americans have coverage for primary and preventive eye and vision care through a supplemental vision plan and the two most dominant vision plan companies provide coverage to roughly two-thirds of Americans with this type of coverage.⁴ The dental plan market has also become consolidated, with a small group of national players dominating up to 80 percent of the market in any given state. With a large amount of covered lives in most communities around the country, these major national vision and dental plans have been able to assert vision and dental plan market dominance (or near dominance) in many communities around the country.

Utilizing both market dominance and the special legal treatment of not having to comply with the same rules and regulations as traditional health insurers, some limited-scope vision and dental coverage ("vision plans" and "dental plans") have increasingly relied on "non-covered services" or NCS mandates to increase the profitability and marketability of their plans. Through these mandates, vision and dental plans force optometrist and dentists to charge specific rates for services and materials *not* covered by the vision or dental plan. Often, doctors are compelled to accept these NCS terms and conditions in provider-plan agreements due to the fact that the plans coverage a large number of lives in that specific market, providers have little ability to negotiate with these large national plans and, providers are also barred from banding together to negotiate contract due to anti-trust laws.

The American Optometric Association opposes non-covered services and materials mandates because "for patients, abusive vision plan practices have led to confusion and frustration, as well as increasing overall costs and diminished access to needed care. Patients are increasingly finding that local doctors may no longer accept their vision plan, which too often leads to delayed or completely missed diagnosis and treatment opportunities. Patients with these restrictive plans also likely face additional financial burdens, including higher out-of-pocket costs, as plans increasingly leverage these types of provisions to increase the marketability and profitability of their products at the expense of doctors. Additionally, those without vision insurance and those with an alternate vision plan may face higher overall prices as margins are squeezed and costs shifted. Eye doctors, along with dentists, typically face an overhead of 60 to 70 percent—among the highest for health care providers."

The American Dental Association has said that "patients and the public at large are disadvantaged by the negative impact of non-covered services provisions. Non-covered services provisions are generally used by larger carriers as a marketing ploy. The larger plans can be successful because they have greater market share and negotiating leverage. Such entities reap the marketing advantage but at no cost to them or the plan payer. This practice puts the smaller carriers at an

⁴ American Optometric Association, "Put Patients and Doctors Back in Control of Important Health Care Decisions: Co-Sponsor the DOC Access Act (HR. 3323)", AOA Advocacy Fact Sheet Series, 2015-2016

unfair competitive disadvantage, making it harder for them to compete. When competition is not robust, consumers are less likely to see high levels of innovation and variety in the marketplace.”⁵

The American Academy of Pediatric Dentistry states that “capping of non-covered services occurs when an insurance carrier sets a maximum allowable fee for a service ineligible for third-party reimbursement. While most contractual matters between insurers and providers are those of a private business relationship, this particular business practice is contrary to the public interest for the following reasons:

- Larger dental benefit carriers with greater market share and more negotiating power are favored in this arrangement. Dentists typically may refuse to contract with smaller plans making this requirement, while unable to make the same decision with larger plans controlling greater numbers of enrollees. Eliminating this practice levels the playing field for all insurers and encourages greater competition among dental plans. If smaller plans and insurers are unable to survive, the group purchaser and subscriber are ultimately left with less market choice and potentially higher insurance cost.
- It is unreasonable to allow plans to set fees for services in which they have no financial liability, and which may not cover the overhead expense of the services being provided. When this provision precludes dentist participation in a reimbursement plan, subscribers realize less choice in their selection of available providers. In many cases, especially in rural or other areas with limited general or specialty practitioners, this adversely affects access to care. This is particularly true for vulnerable populations, including children with special health care needs.
- For dentists forced to accept this provision, the artificial pricing of uncovered services results in cost-shifting from those covered under a particular plan to uncovered patients. Thus, the uninsured and those covered under traditional indemnity or other plans will shoulder the costs of these provisions. Capping of non-covered services is not cost saving; it is cost-shifting — often to those least able to afford healthcare.⁶

The Dental and Optometric Care Access Act (HR 3323)

HR 3323; the Dental and Optometric Care Access Act, states that “the plan or coverage shall provide, with respect to a doctor of optometry, doctor of dental surgery, or doctor of dental medicine that has an agreement to participate in the plan or coverage and that furnishes items or services that are not covered by the plan or coverage to a person enrolled under such plan or coverage, that the doctor may charge the enrollee for such items or services any amount

⁵ American Dental Association, “Dental and Optometric Care Access Act of 2015 ‘DOC Access Act’”, ADA Advocacy Fact Sheet, 2016 http://www.ada.org/~media/ADPAC/WLC%202016_IssueSheet_HR3323.pdf?la=en

⁶ American Academy of Pediatric Dentistry, “Policy on Third-Party Fee Capping of Non-Covered Services,” Oral Health Policies, pg. 101 V. 37, No. 6, 15/16.

determined by the doctor that is equal to, or less than, the usual and customary amount that the doctor charges individuals who are not so enrolled for such items or services.”⁷

The proposed legislation seeks to level the playing field in the business dealings between doctors and vision and dental plans, address anti-competitive practices in the health care marketplace, and improve overall access to and quality of patient care. HR 3323 would bar vision and dental plans from forcing discounts on non-covered services, forcing doctors to participate in a vision or dental plan as a condition for participation in a medical plan, and restricting a doctor's choice of laboratory.⁸

HR 3323 would also establish other rules relating to the insurance contracting process including: permitting changes to the provider network agreement only when agreed to in writing by the doctor; limiting network agreements to two years; and prohibiting vision and dental plans from attempting to circumvent these laws, as has been the case in a number of states.⁹ HR 3323 would not supersede any state-level laws governing vision and dental plans.

Most states (39) already have in place laws which prohibit either vision or dental plans (or both) from forcing optometrists or dentists to charge specific rates for services and materials *not* covered by the vision or dental plan. (**Appendix A**). At the federal level, H.R. 3323, in part, was introduced to complement these state laws by prohibiting this practice on the part of plans regulated at the federal-level.

2. Economics

The practice on the part of plans is an example of monopsony, which is an economic term referring to a practice that is similar to a monopoly, but on the “buyer’s” side; that is, whereas monopoly is defined as a single (or concentrated) producer, monopsony is defined by a single (or concentrated) buyer.¹⁰ In the case of NCS, the vision and dental plans are essentially using their market power to dictate pricing structures on items and services for which they bear no financial responsibility.

⁷ Colleen E. McCarthy, "New Federal Bill Targets Vision and Dental Care Plans," *Optometry Times*, <http://optometrytimes.modernmedicine.com/optometrytimes/news/new-federal-bill-targets-vision-and-dental-care-plans?page=0,2>.

⁸ American Optometric Association., "Aoa-Backed 'Doc Access Act' Targets Health and Vision Plan Abuses," AOA, <http://www.aoa.org/news/advocacy/aoa-backed-doc-access-act-targets-health-and-vision-plan-abuses?sso=y>.

⁹ http://www.aaoms.org/docs/govt_affairs/day_on_the_hill/noncovered_services.pdf

¹⁰ M. V. Pauly, "Monopsony Power in Health Insurance: Thinking Straight While Standing on Your Head," *J Health Econ* 6, no. 1 (1987).



This practice is not necessarily undesirable from a consumer perspective, but only if there are no negative effects or externalities from the practice. If providers were “overcharging” patients on NCSs, and the plan used its monopsony buying power to reduce all fees charged to its members, then consumers would benefit. However, if providers are not “overcharging” patients, then the fee limits can be viewed as a form of leverage, used to essentially “transfer” some part of provider’s operating margins to the plans, with no gain for consumers (and, at times, may actually be detrimental to consumers through higher overall costs to compensate for these transfers.)

The transfers take place as plans use the fee restrictions as non-price competition to compete with each other. The practice on the part of plans is a form of “leverage tactics,” a practice that has been associated with monopoly and monopsony market structures. Economists generally view leverage tactics as having three characteristics:¹¹ (1) they are generally exploitative because monopolist or monopsonist are using market structure (i.e., market concentration) to maximize returns; (2) they impeded competition because they are restrictive; and (3) the effects of the leveraging are often distal to the entity on the “receiving end” of the leverage—in this case, providers are leveraged by plans as a means of plans maximizing returns rather than negotiating lower prices for consumers.

3. Study Methods

To assess how pricing of NCSs might be affected by laws prohibiting plans from forcing providers to adhere to NCS mandates, Avalon conducted a survey-based study of doctors of optometry and dentists in North Carolina and Texas. Both of these states currently enforce state laws that limit the ability of state-regulated dental and vision plans to enforce fee limits on non-covered services. In each state, the NCS laws have been in effect for at least 3 years. The rationale for choosing states with NCS laws was to enable the survey questions to have a “before and after” component to assess changes in providers’ behavior in response to NCS fee limits and the laws limiting the practice on the part of plans.

If the survey research fails to indicate a marked change in charges and payments for typical NCSs after the implementation of the NCS law, then it is clear that providers had not been “overcharging” patients for NCSs. If providers had not been overcharging patients, then in this case the plans’ exercise of monopsony power over providers with respect to NCSs is not as beneficial to consumers —it simply transfers operating margins from providers to plans without benefiting consumers.

Avalon created the survey using the online survey tool Survey Gizmo. The survey questions are shown in **Appendix B**. The link to the survey was sent out to dentists and doctors of optometry in North Carolina and Texas via e-mail lists maintained by the groups’ respective associations. After the 3-week period that the survey was in the field, Avalon closed the survey and

¹¹ T.M. Jorde and D.J. Teece, *Antitrust, Innovation, and Competitiveness* (New York, NY: Oxford University Press, 1992).

downloaded the results. There were a total of 297 responses: 228 dentists and 69 doctors of optometry. After cleaning the data (deleting responses with a large number of missing data, deleting illogical responses, etc.), there were 212 dentists and 53 doctors of optometry available for data analysis.

4. Study Results

The results are summarized on **Table 1**. The upper part of the table reports data on dentists, and the lower part of the table reports data on doctors of optometry. The columns show averages, within each provider type, for five common non-covered materials and services that faced forced fee limits in North Carolina and Texas prior to the passage of legislation controlling forced fee limits for NCSs in those states. The optometry questionnaire asks an additional question regarding average discounted fees; apart from that, the questionnaires are similar and, overall, the trends in survey responses are comparable across the two states and between the two provider groups. -

Table 1					
Summary Data from Survey, North Carolina and Texas: <i>Dentists & Doctors of Optometry</i>					
	D2960 Labial Veneer (Resin Laminate)- Chairside	D7286 Incisional Biopsy of Oral Tissue	D0350 2D Oral/ facial photo image; intra-extra	D9972 External bleaching (per arch)- office	D9940 Occlusal guard- by report
DENTISTS					
Avg. non-discounted charges (Q2)	\$727	\$298	\$66	\$308	\$555
Percent providers required to discount NCSs (Q3) (a)	32.8%	32.8%	32.8%	32.8%	32.8%
Avg. charges after required plan discount (Q4)	\$467	\$186	\$36	\$281	\$321
Avg. percent increase in charges due to NCS (Q5) (b)	40.0%	93.3%	0.0%	0.0%	51.7%
Avg. payment received (Q6)	\$458	\$127	\$13	\$139	\$394
Percent providers who continue to offer discount (Q7) (c)	15.8%	16.0%	20.6%	17.6%	23.7%
DOCTORS OF OPTOMETRY					
	Eyeglasses 2nd pair, etc.	Eyeglass lens features (AR, tint, etc.)	Contact lens fitting/ evaluation services	Digital imaging & machine- based tests	Low Vision/ Vision Therapy
Avg. non-discounted charges (Q2)	\$342	\$214	\$96	\$72	\$114
Avg. discounted charges (Q2)	\$227	\$158	\$71	\$56	\$107
Percent providers required to discount NCSs (Q3) (a)	80.0%	80.0%	80.0%	80.0%	80.0%
Avg. charges after required plan discount (Q4)	\$175	\$99	\$49	\$40	\$124
Avg. percent increase in charges due to NCS (Q5) (b)	19.3%	14.7%	11.4%	7.1%	4.1%
Avg. payment received (Q6)	\$158	\$93	\$54	\$36	\$52
Percent providers who continue to offer discount (Q7) (c)	72.3%	63.0%	36.2%	19.1%	11.6%

Notes: - Data from November 2015 and earlier. (a) question was asked for all non-covered materials and services on average (i.e., data are not broken out by type of NCS); (b) question refers to the period prior to passage of laws limiting forced fee limits for non-covered materials and services; (c) percent continuing to offer discounts (i.e., offering approximately the same discounts before and after passage of laws limiting forced fee limits for non-covered materials and services).

Several observations can be made from these data. First, both types of providers routinely offer substantial discounts to patients on non-covered materials and services, before and after the passage of legislation addressing plan leveraging. In the dentist group, this can be seen in similarities between enforced discounts and paid amounts. Even after state laws were enacted, providers continue to receive, as payment in full, amounts that well under their list prices. For example, dentists in North Carolina and Texas typically charge \$308 for external bleaching. When plans enforced fee limits in NCSs, dentists had to lower fees to \$281. However, before and after state laws, dentists were receiving on average only \$139 for these services—well below list prices *and*, more importantly, well below the amount enforced by the plans. The same patterns can be observed for the other dental services and each of the optometry services.

Second, for some of the NCSs, dentists and doctors of optometry reported having to increase the prices on other services in order to cross-subsidize losses on NCSs with forced fee limits. Some of these offsetting fee increases were substantial, as high as 93%.

Third, for all NCSs both types of providers reported that they continued to offer discounts on NCSs similar to those enforced by plans, even after laws limiting the plans' ability to enforce NCS fee limits. As the optometry data show, the "regular" discounts offered by providers represent substantial discounts off list prices. For example, the average discount on eyeglasses, in the absence of NCS fee limits imposed by plans, is more than 30% (\$342 vs. \$227). Moreover, for these same services, doctors of optometry accept more than 50% less (\$158) as payment in full.

Finally, in data not shown on the table, all providers very consistently answered the question "how did your voluntary discount compare to that which had been required or forced by the [vision/dental] plan?" For both providers, the vast majority of respondents reported that their voluntary discounts were either "marginally less" or "about the same" as those NCS discounts enforced by plans prior to legislation.

5. Discussion

Our research found that for doctors of optometry and dentists in both states, even after the enactment of laws barring NCS mandates, the vast majority of providers continued to offer normal discounts and receive payments from patients that were below their charged amounts. Thus, the laws had no effect on the providers—they continued billing their "usual, customary and reasonable" (UCR) amounts and continued receiving amounts up to 50% less than their charged amounts, just as in the years prior to the NCS laws. It is clear from the findings that the providers were not "overcharging" for the services before the NCS laws and they continue to not overcharge for the services in the presence of the NCS laws.

Our research also found that in these states, NCS mandates, when in place before the enactment of state-based NCS laws, led to higher overall costs for all consumers in the vision and dental plan markets. While vision and dental plan mandates on doctors may have artificially set pricing structures (without any net benefit for patients, as discussed above) for some patients with this limited-scope vision and dental coverage, the NCS mandates have another effect - they lead to higher overall costs for these consumers and, did especially, for all other consumers in the market as doctors were forced to compensate for the "transfer" of operating margins to the plans due to NCS mandates.

6. Conclusions

Our research suggests that the kind of monopsony behavior engaged in by vision and dental plans is not benefiting consumers (and is actually harming consumers in the short-term and even more in the long-run) but is instead benefiting only the plans themselves.

APPENDIX A

States with Laws Capping Non-Covered Services and Materials					
State	Dental	Effective Date (dental)	Vision	Effective Date (vision)	Dental or Vision
Alabama	1	9/1/2015	1	6/11/2015	1
Alaska	1	9/13/2010	0		1
Arizona	1	1/1/2011	0		1
Arkansas	1	3/22/2011	1	4/2/2015	1
California	1	1/1/2011	0		1
Colorado	0		0		0
Connecticut	1	1/1/2012	1	6/10/2015	1
Delaware	0		0		0
Florida	1	7/1/2014	1	7/1/2016	1
Georgia	1	7/1/2011	1		1
Hawaii	0		0		0
Idaho	1	7/1/2010	0		1
Illinois	1	1/1/2013	0		1
Indiana	0		0		0
Iowa	1	7/1/2010	0		1
Kansas	1	7/1/2010	1	4/18/2014	1
Kentucky	1	7/11/2012	1	3/30/2015	1
Louisiana	1	1/1/2011	0		1
Maine	0		1	6/13/2015	1
Maryland	1	10/1/2011	1	4/1/2014	1
Massachusetts	0		0		0
Michigan	0		0		0
Minnesota	1	8/1/2011	0		1
Mississippi	1	7/1/2010	0		1
Missouri	1		0		1
Montana	1	7/1/2013	0		1
Nebraska	1	7/19/2012	0		1
Nevada	0		0		0
New Hampshire	0		0		0
New Jersey	1	11/28/2014	0		1
New Mexico	1	4/7/2011	0		1
New York	0		1		1
North Carolina	1	7/21/2010	1	10/1/2014	1
North Dakota	1	8/11/2011	0		1
Ohio	0		0		0
Oklahoma	1	11/1/2010	0		1
Oregon	1	3/18/2010	1	8/12/2015	1
Pennsylvania	1	12/24/2012	0		1
Rhode Island	1	6/18/2009	1	7/10/2015	1
South Carolina	0		0		0
South Dakota	1	7/1/2010	0		1
Tennessee	1	5/23/2011	0		1
Texas	1	9/1/2011	1	6/20/2015	1
Utah	0		0		0
Vermont	0		1	6/10/2014	1
Virginia	1	7/1/2010	1	4/15/2015	1
Washington	1	6/10/2010	0		1
West Virginia	0		1		1
Wisconsin	1	1/1/2014	0		1
Wyoming	1	7/1/2011	0		1
TOTAL	35		17		39

APPENDIX B

Summaries of Questionnaires:

Optometry. The questions for the optometry survey were:

1. Estimate of Annual Volume:
 - a. Eyeglasses (Rx second pair, Rx and non-Rx sun wear, etc.)
 - b. Eyeglass lens features (AR, tint, UV, progressives, etc.)
 - c. Contact lens fitting/ evaluation services
 - d. Digital Imaging and Machine-based tests (retinal screening, visual field screening)
 - e. Low Vision/ Vision Therapy
2. Estimate of Average, Listed Non-Discounted Charges:
 - a. Eyeglasses (Rx second pair, Rx and non- Rx sun wear, etc.)
 - b. Eyeglass lens features (AR, tint, UV, progressives, etc.)
 - c. Contact lens fitting/ evaluation services
 - d. Digital Imaging and Machine-based tests (retinal screening, visual field screening)
 - e. Low Vision/ Vision Therapy
3. Estimate of Average, Listed Non-Discounted Charges:
 - a. Eyeglasses (Rx second pair, Rx and non- Rx sun wear, etc.)
 - b. Eyeglass lens features (AR, tint, UV, progressives, etc.)
 - c. Contact lens fitting/ evaluation services
 - d. Digital Imaging and Machine-based tests (retinal screening, visual field screening)
 - e. Low Vision/ Vision Therapy
4. For the charges listed above, did a vision plan require you to discount any of these charges for procedures not covered by the plan? (Yes/No)
5. Estimate of Average Charges after required vision plan discount:
 - a. Eyeglasses (Rx second pair, Rx and non- Rx sun wear, etc.)
 - b. Eyeglass lens features (AR, tint, UV, progressives, etc.)
 - c. Contact lens fitting/ evaluation services
 - d. Digital Imaging and Machine-based tests (retinal screening, visual field screening)
 - e. Low Vision/ Vision Therapy
6. Estimate of Average Increase in Charges in Response to Plan- Required Discounting:
 - a. Eyeglasses (Rx second pair, Rx and non- Rx sun wear, etc.)
 - b. Eyeglass lens features (AR, tint, UV, progressives, etc.)
 - c. Contact lens fitting/ evaluation services
 - d. Digital Imaging and Machine-based tests (retinal screening, visual field screening)
 - e. Low Vision/ Vision Therapy
7. Estimate of Average Net Payment:
 - a. Eyeglasses (Rx second pair, Rx and non- Rx sun wear, etc.)
 - b. Eyeglass lens features (AR, tint, UV, progressives, etc.)
 - c. Contact lens fitting/ evaluation services
 - d. Digital Imaging and Machine-based tests (retinal screening, visual field screening)
 - e. Low Vision/ Vision Therapy

8. Continues to Offer Discount? (Yes/No)
 - a. Eyeglasses (Rx second pair, Rx and non- Rx sun wear, etc.)
 - b. Eyeglass lens features (AR, tint, UV, progressives, etc.)
 - c. Contact lens fitting/ evaluation services
 - d. Digital Imaging and Machine-based tests (retinal screening, visual field screening)
 - e. Low Vision/ Vision Therapy
9. If the answer to the preceding question is yes, how did your "voluntary" discount compare to that which had been required or forced by the vision plan?
 - a. Eyeglasses (Rx second pair, Rx and non- Rx sun wear, etc.)
 - b. Eyeglass lens features (AR, tint, UV, progressives, etc.)
 - c. Contact lens fitting/ evaluation services
 - d. Digital Imaging and Machine-based tests (retinal screening, visual field screening)
 - e. Low Vision/ Vision Therapy

Dental. The questions for the dental survey were:

1. Estimate of Annual Volume:
 - a. D2960 Labial Veneer (Resin Laminate)- Chairside
 - b. D7286 Incisional Biopsy of Oral Tissue- Soft
 - c. D0350 2D Oral/ facial Photographic Image obtained Intra-Orally or Extra-Orally
 - d. D9972 External Bleaching- per arch- Performed in Office
 - e. D9940 Occlusal Guard- By report
2. For these same services, what is your full fee for each of these services?
 - a. D2960 Labial Veneer (Resin Laminate)- Chairside
 - b. D7286 Incisional Biopsy of Oral Tissue- Soft
 - c. D0350 2D Oral/ facial Photographic Image obtained Intra-Orally or Extra-Orally
 - d. D9972 External Bleaching- per arch- Performed in Office
 - e. D9940 Occlusal Guard- By report
3. For the charges listed above, did a dental plan require you to discount any of these charges for procedures not covered by the plan? (Yes/No)
 - a. D2960 Labial Veneer (Resin Laminate)- Chairside
 - b. D7286 Incisional Biopsy of Oral Tissue- Soft
 - c. D0350 2D Oral/ facial Photographic Image obtained Intra-Orally or Extra-Orally
 - d. D9972 External Bleaching- per arch- Performed in Office
 - e. D9940 Occlusal Guard- By report
4. If the answer to the above question is "yes", list the average charges after the required dental plan discount.
 - a. D2960 Labial Veneer (Resin Laminate)- Chairside
 - b. D7286 Incisional Biopsy of Oral Tissue- Soft
 - c. D0350 2D Oral/ facial Photographic Image obtained Intra-Orally or Extra-Orally
 - d. D9972 External Bleaching- per arch- Performed in Office
 - e. D9940 Occlusal Guard- By report

5. For these five services, would you say that you raised your fees for these services when the dental plan began requiring you to discount them? If you raised fees one or more times in response to the dental plan's policies on non-covered services, please indicate the amount by which your listed charges were increased in response to the plan-required discounts.
 - a. D2960 Labial Veneer (Resin Laminate)- Chairside
 - b. D7286 Incisional Biopsy of Oral Tissue- Soft
 - c. D0350 2D Oral/ facial Photographic Image obtained Intra-Orally or Extra-Orally
 - d. D9972 External Bleaching- per arch- Performed in Office
 - e. D9940 Occlusal Guard- By report
6. Thinking about the five services, what was your average payment for each of these products or services? Think about the amount that you actually received in satisfaction of the bill or invoice.
 - a. D2960 Labial Veneer (Resin Laminate)- Chairside
 - b. D7286 Incisional Biopsy of Oral Tissue- Soft
 - c. D0350 2D Oral/ facial Photographic Image obtained Intra-Orally or Extra-Orally
 - d. D9972 External Bleaching- per arch- Performed in Office
 - e. D9940 Occlusal Guard- By report
7. Thinking about the five services, after your state approved a law banning forced discounts, did you continue to offer a discount on non-covered services even when you were not forced to do so? (Yes/No)
 - a. D2960 Labial Veneer (Resin Laminate)- Chairside
 - b. D7286 Incisional Biopsy of Oral Tissue- Soft
 - c. D0350 2D Oral/ facial Photographic Image obtained Intra-Orally or Extra-Orally
 - d. D9972 External Bleaching- per arch- Performed in Office
 - e. D9940 Occlusal Guard- By report
8. If the answer to the preceding question is yes, how did your "voluntary" discount compare to that which had been required or allowed by the dental plan?
 - a. D2960 Labial Veneer (Resin Laminate)- Chairside
 - b. D7286 Incisional Biopsy of Oral Tissue- Soft
 - c. D0350 2D Oral/ facial Photographic Image obtained Intra-Orally or Extra-Orally
 - d. D9972 External Bleaching- per arch- Performed in Office
 - e. D9940 Occlusal Guard- By report

References

- Ammary-Risch, N. J., and S. S. Huang. "The Primary Care Physician's Role in Preventing Vision Loss and Blindness in Patients with Diabetes." [In eng]. *J Natl Med Assoc* 103, no. 3 (Mar 2011): 281-3.
- Association., American Optometric. "Aoa-Backed 'Doc Access Act' Targets Health and Vision Plan Abuses." AOA, <http://www.aoa.org/news/advocacy/aoa-backed-doc-access-act-targets-health-and-vision-plan-abuses?sso=y>.
- Bhaskar, V., K. A. McGraw, and K. Divaris. "The Importance of Preventive Dental Visits from a Young Age: Systematic Review and Current Perspectives." [In eng]. *Clin Cosmet Investig Dent* 8 (2014): 21-7.
- Hoppe, E., and R. Frankel. "Optometrists as Key Providers in the Prevention and Early Detection of Malignancies." [In eng]. *Optometry* 77, no. 8 (Aug 2006): 397-404.
- International Council of Ophthalmology. "Number of Ophthalmologists in Practice and Training Worldwide." <http://www.icoph.org/ophthalmologists-worldwide.html>.
- Jorde, T.M., and D.J. Teece. *Antitrust, Innovation, and Competitiveness*. New York, NY: Oxford University Press, 1992.
- Listl, S., J. Galloway, P. A. Mossey, and W. Marcenes. "Global Economic Impact of Dental Diseases." [In eng]. *J Dent Res* 94, no. 10 (Oct 2015): 1355-61.
- Logan, N. S., and B. Gilmartin. "School Vision Screening, Ages 5-16 Years: The Evidence-Base for Content, Provision and Efficacy." [In eng]. *Ophthalmic Physiol Opt* 24, no. 6 (Nov 2004): 481-92.
- McCarthy, Colleen E. "New Federal Bill Targets Vision and Dental Care Plans." *Optometry Times*, <http://optometrytimes.modernmedicine.com/optometrytimes/news/new-federal-bill-targets-vision-and-dental-care-plans?page=0,2>.
- Pauly, M. V. "Monopsony Power in Health Insurance: Thinking Straight While Standing on Your Head." [In eng]. *J Health Econ* 6, no. 1 (Mar 1987): 73-81.
- "Routine Eye Examinations for Persons 20-64 Years of Age: An Evidence-Based Analysis." [In eng]. *Ont Health Technol Assess Ser* 6, no. 15 (2006): 1-81.
- Schaneman, J., A. Kagey, S. Soltesz, and J. Stone. "The Role of Comprehensive Eye Exams in the Early Detection of Diabetes and Other Chronic Diseases in an Employed Population." [In eng]. *Popul Health Manag* 13, no. 4 (Aug 2010): 195-9.
- Shin, P., and B. Finnegan. "Assessing the Need for on-Site Eye Care Professionals in Community Health Centers." [In eng]. *Policy Brief George Wash Univ Cent Health Serv Res Policy* (Feb 2009): 1-23.
- Soroka, M. "The New York State Optometry Workforce Study." [In eng]. *J Community Health* 37, no. 2 (Apr 2012): 448-57.
- Winters, J. E., L. V. Messner, E. M. Gable, and D. P. Korajczyk. "Coordinating Eye and Primary Medical Care in a Low-Income and Uninsured Population: The Experience of the Vision of Hope Health Alliance." [In eng]. *Optometry* 79, no. 12 (Dec 2008): 730-6.