



UNITED STATES OF AMERICA
FEDERAL TRADE COMMISSION
WASHINGTON, D.C. 20580

Office of Policy Planning
Bureau of Competition
Bureau of Economics

February 9, 2018

The Hon. Paul Graves
State of Washington, House of Representatives
469 John L. O'Brien Bldg.
P.O. Box 40600
Olympia, WA 98504-0600

Dear Representative Graves:

We appreciate the opportunity to respond to your invitation for comments on the likely competitive impact of Substitute Senate Bill 5411/H.B. 1473 (“the Bill”).¹ In particular, you asked us to comment on the likely impact of the proposed legislation on Washington consumers and the market. If adopted, the Bill would require licensed ophthalmologists and optometrists to conduct an in-person, comprehensive eye examination before providing prescriptions for eyeglass and contact lenses. This requirement would restrict the use of telehealth eye care in which a practitioner distant from a patient uses data received by telecommunications as the basis for a prescription for corrective lenses.

We are concerned that the Bill may reduce competition, access, and consumer choice in eye care and might also raise costs for consumers.² First, the Bill’s requirements would restrict the use of telehealth eye care by qualified vision care providers, which would deny consumers the benefits of innovative eye care telehealth technologies. Second, the Bill might require unnecessary services by mandating a comprehensive examination before prescribing corrective lenses, regardless of the patient’s visual health status, examination history, or other circumstances. This requirement could override the judgment of a vision care provider who otherwise would have concluded that the standard of care could be met with more limited services, either in-person, or if allowed, by telehealth.

Accordingly, we encourage the legislature to consider the potential effects of the Bill on competition in the provision of eye care and to avoid restrictions that override the judgment of practitioners and are not narrowly tailored to address well-founded patient safety concerns.

I. Interest and Experience of the Federal Trade Commission

The FTC is charged under the FTC Act with preventing unfair methods of competition and unfair or deceptive acts or practices in or affecting commerce.³ Competition is at the core of America's economy,⁴ and vigorous competition among sellers in an open marketplace gives consumers the benefits of lower prices, higher quality products and services, and increased innovation. Because of the importance of health care competition to the economy and consumer welfare, anticompetitive conduct in health care markets has long been a key focus of FTC law enforcement,⁵ research,⁶ and advocacy.⁷ Many of our recent advocacy comments, including several about eye care, have addressed scope of practice and supervision requirements that may unnecessarily limit the range of procedures or services a practitioner may provide, or unnecessarily restrict a particular type of practitioner from competing in the market.⁸

Telehealth is an area of particular interest to the FTC because of its potential to increase the supply of available practitioners, encourage competition, and improve access to affordable, quality health care. In a 2004 report, the federal antitrust agencies considered the competitive effects of state restrictions on the interstate practice of telemedicine,⁹ and the central finding of that analysis remains applicable today: "When used properly, telemedicine has considerable promise as a mechanism to broaden access, lower costs, and improve health care quality."¹⁰ More recently, FTC staff submitted comments to the Alaska legislature and the Department of Veterans Affairs (VA) supporting proposals to allow licensed physicians to provide telehealth services across state lines.¹¹ FTC staff also recently commented on telehealth regulations proposed by three Delaware occupational licensing boards.¹² A common theme of these letters is recommending that health care practitioners be allowed to use their own judgment in deciding whether the use of telehealth services is appropriate under the circumstances. The conclusions of the agencies' 2004 report and these recent FTC staff comments, which support reduction of unjustified barriers to telehealth, underpin this comment.¹³

II. Washington's Proposed Legislation on Eye Care, S.S.B. 5411/H.B. 1473

The Bill would add a new chapter on eye care to Washington's Business and Professions Code¹⁴ that would make it unlawful for anyone, including both ophthalmologists and optometrists, to write a prescription for eyeglasses or contact lenses if the patient has not received an in-person, comprehensive eye examination.¹⁵ The Bill defines "comprehensive eye examination" as "an assessment of the ocular health and visual status of a patient, in order to establish a medical diagnosis and in connection with the establishment of the patient's refractive error."¹⁶

The Bill specifically excludes from the definition of "comprehensive eye examination" evaluations by ophthalmologists or optometrists based solely on the use of "remote technology."¹⁷ "Remote technology" is defined as "any automated equipment or testing device and any application designed to be used on or with a phone, computer, or internet-based device" used for the "purpose[] of determining an individual's apparent refractive error without the *physical presence* and actual participation of a qualified vision care provider."¹⁸

In sum, the Bill would prevent licensed ophthalmologists and optometrists from writing prescriptions for corrective lenses based on data from technology close to the patient but remote from the practitioner. Although the Bill does not specifically refer to telehealth or telemedicine, “remote technology” facilitates a form of telehealth, in which a practitioner distant from the patient uses telecommunications to provide health care services.¹⁹

The Bill would also affect the level of care required in-person (as well as that provided by a distant practitioner), because all examinations leading to a prescription would have to be “comprehensive” – including an assessment of ocular health as well as the determination of refractive error. The Bill would make no exceptions to the requirement of an in-person, comprehensive eye examination based on, for example, whether a prescription is initial or renewal, a patient’s age, or other potential risk factors.

The Bill purports to hold practitioners who use remote technology as the basis for a prescription to the same standards of practice that apply in-person.²⁰ It is difficult to understand when this provision would apply, however, because the Bill requires an in-person, comprehensive examination in connection with all corrective lens prescriptions.

The Bill’s comprehensive examination requirement would be a significant departure from Washington’s current laws and rules applicable to vision care providers, especially ophthalmologists. Washington’s current optometric rules require a comprehensive eye examination for contact lens prescriptions,²¹ but the optometric practice act and rules have no comparable requirement for prescription of eyeglass lenses.²² For ophthalmologists, Washington’s laws and rules have no specific requirements for contact or eyeglass lens prescriptions, or the nature of an eye examination.²³

III. Likely Competitive Impact of S.S.B. 5411/H.B. 1473

Generally, competition in health care markets benefits consumers by containing health care prices, expanding access and choice, and promoting innovation. Telehealth can potentially increase the supply of accessible practitioners and thereby enhance price and non-price competition, reduce transportation expenditures, and improve access to quality care.²⁴ Many health care professionals and expert bodies support the use of telehealth to address challenges to health care access arising from an aging population, health care workforce shortages, and geographic and other maldistributions of providers that can lead to shortages in urban as well as rural areas.²⁵

Despite these recognized benefits, the Bill would limit competition, access, and choice in vision care, and potentially increase costs, in two ways: (1) by requiring that all prescriptions for corrective lenses be determined in-person; and (2) by requiring that all prescriptions for corrective lenses be based on a comprehensive eye examination.

A. In-Person Examination Requirement for Prescriptions

The Bill would restrict the use of innovative technologies, such as online vision tests and teleophthalmological examinations, that could benefit Washington consumers who seek to use

telehealth rather than in-person vision care. When a consumer takes an online visual acuity and refraction test, a practitioner (typically a licensed ophthalmologist) who is not physically present with the patient interprets the results and may provide a prescription for corrective lenses. Such tests do not include an in-person examination of the eye. These tests typically are used for prescription renewals for young adults with a low risk of ocular disease; they are not appropriate for all patients and circumstances.²⁶

Refraction tests that do not require an in-person visit to a vision care provider could be a convenient option for the approximately 60% of American adults aged 18-44 who use some form of vision correction, such as prescription eyeglasses or contacts.²⁷ Indeed, the American Academy of Ophthalmology (AAO) has acknowledged that online vision tests may be appropriate for young adults seeking a prescription for corrective eyeglasses, if they have no eye conditions or risk factors for ocular disease.²⁸ Telehealth evaluation of online vision tests taken at home also could be especially helpful to disabled individuals who have difficulty making a trip to obtain in-person care. The availability of this option could potentially improve access to refraction services in the 24 percent of U.S. counties that have no optometrists or ophthalmologists.²⁹ In addition, refraction tests that can be taken in a patient's home and evaluated by a distant ophthalmologist may reduce transportation costs and be less costly to the consumer than in-person care, particularly care that includes a comprehensive examination.³⁰

The Bill could also limit the use of telehealth ophthalmological examinations that screen for ocular disease and include a refraction test used to prepare a prescription for corrective lenses.³¹ Unlike online refraction tests that can be taken at home, such screening relies on specialized equipment at a clinic, where an ophthalmic technician³² assists the patient and sends the results to a distant ophthalmologist who evaluates the data for abnormal ocular conditions. The Department of Veterans Affairs has successfully used such a program to screen for serious ocular disease and prescribe eyeglasses using auto-refraction equipment.³³ A study of that program concluded that teleophthalmology “has the potential to improve operational efficiency, reduce cost, and significantly improve access to care.”³⁴

The AAO reached a similar conclusion with respect to the potential benefits of the use of various technologies for remote eye care. Indeed, the AAO stated that it “recognizes the potential of information technology, including Internet-based screening, refraction, and other diagnostic tests, in increasing access to health care services, enhancing patient involvement in their health care decision making, improving efficiency, and reducing overall health care costs.”³⁵

The Bill's rigid restrictions on the use of telehealth in eye care would limit the supply of available telehealth practitioners and appear unnecessary to protect consumers. As discussed in a number of FTC staff advocacy comments, in-person examination requirements prevent qualified, licensed telehealth providers from providing care that they otherwise would deem appropriate. Accordingly, such restrictions potentially reduce competition, innovation, consumer choice, and the quality of care, while increasing price.³⁶

A better alternative to rigid restrictions is to allow qualified licensees to determine whether to use telehealth when it is sought by a patient. Leaving this determination to the practitioner is the approach suggested by the *Guideline on the Appropriate Use of Telemedicine*

of the Medical Quality Assurance Commission of the State of Washington (“MQAC”). Under the *Guideline*, the “practitioner may provide any treatment deemed appropriate for the patient . . . and is responsible for knowing the limitations of the care he or she can provide, no matter how the care is delivered.”³⁷ The AAO has a similar policy, advising ophthalmologists to evaluate the use of remote technologies such as internet-based screening and refraction as they would any other diagnostic modality.³⁸ Holding telehealth practitioners to an in-person standard of care, as is the policy of the MQAC as well as many health professional organizations and state rules, would ensure patient health and safety.³⁹

B. Requirement of a Comprehensive Eye Examination for Prescriptions

The Bill’s requirement of a comprehensive eye examination for *all* corrective lens prescriptions would limit consumer choice and increase consumer expenditures on eye care.

Although the Bill defines a comprehensive examination as an assessment of ocular health and visual status, neither the Bill nor the current rules requiring optometrists to conduct comprehensive examinations for contact lens prescriptions set forth the elements of a comprehensive eye examination.⁴⁰ The National Academies of Science, Engineering and Medicine have defined a comprehensive eye examination as an in-person clinical encounter intended to diagnose and treat any eye disease, based on a “dilated eye examination that may include a series of assessment and procedures to . . . assess eye and vision health . . .”⁴¹ Typically, such procedures include assessment of eye movement and alignment; examination of pupils, iris, cornea, lens, optic nerve, and retina; and determination of intraocular pressure.⁴²

Although comprehensive eye examinations are necessary to detect and diagnose ocular abnormalities and diseases of the eye, expert policies and guidelines suggest that this type of exam may not be necessary each time a prescription is written, at least for some individuals.⁴³ Rather, screenings, refractions, or less extensive evaluations may be appropriate for patients with no risk factors.⁴⁴ Indeed, the AAO has concluded that “routine comprehensive annual adult eye examination in individuals under the age of 40 unnecessarily escalates the cost of eye care” and is not indicated unless there are other risk factors.⁴⁵ According to the AAO, the need for a comprehensive examination should be determined by “the patient’s condition, symptoms, and the ophthalmologist’s medical judgment.”⁴⁶ In sum, the Bill’s rigid requirement of a comprehensive eye examination for every prescription for corrective lenses appears to be inconsistent with expert guidelines, and may subject patients to unnecessary procedures and unnecessarily increase health care expenditures.

Accordingly, we encourage the legislature to consider whether requiring licensed ophthalmologists and optometrists to conduct an in-person, comprehensive eye examination for *every* corrective lens prescription will improve consumer welfare. Well-intentioned laws and regulations may impose unnecessary, unintended, or overbroad restrictions on competition, thereby depriving health care consumers of the benefits of vigorous competition.⁴⁷ We suggest that regulators consider whether a restriction that could limit entry or access is narrowly tailored to the legitimate goals of the restriction, such as health and safety, and whether other provisions in the law or regulations already achieve, or could achieve, such goals through less competitively restrictive means.

In particular, we encourage the legislature to consider whether the goals of the Bill could be achieved by relying on the judgment of qualified vision care practitioners to determine whether to use telehealth, the appropriate type of examination, and the level of care that should be provided. Allowing the licensee to make these determinations puts the decision in the hands of the expert in the best position to address health and safety considerations while ensuring the greatest possible access to care. Moreover, this approach could enhance the availability of safe and appropriate telehealth-based eye care services, promote greater provider competition, reduce health care costs and prices, improve quality, and increase access to underserved locations or for patients for whom travel is a particular challenge.

IV. Conclusion

By requiring an in-person, comprehensive eye examination for all corrective lens prescriptions, the Bill would restrict the use of innovative telehealth eye care technologies, and also could require examinations that are more extensive and costly than necessary.

To ensure that the benefits of competition in the provision of vision care services are fully available to Washington state consumers, we suggest that the legislature consider the goals of the proposed legislation, and whether an inflexible in-person, comprehensive examination requirement is necessary to achieve those goals. As part of that analysis, we encourage the legislature to consider whether legitimate health and safety justifications support the proposed restrictions, or whether allowing licensees to decide the nature of the examination and whether and under what circumstances to use telehealth would better promote competition and access to safe and affordable care.

Thank you for the opportunity to provide our views. We appreciate your consideration.

Respectfully submitted,

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¹ Substitute S.B. 5411, 65th Leg., 2017 Reg. Sess. (Wa. 2017) (“S.S.B. 5411”); H.B. 1473, 65th Leg., 2017 Reg. Sess. (Wa. 2017). This letter expresses the views of the Federal Trade Commission’s Office of Policy Planning, Bureau of Economics, and Bureau of Competition. The letter does not necessarily represent the views of the Federal Trade Commission or of any individual Commissioner. The Commission, however, has voted to authorize us to submit these comments.

² General health insurance plans, both public and employer-based, often offer limited or no coverage of routine vision care services. Although vision care coverage can be obtained through stand-alone vision care plans, surveys suggest that a large portion of adults in the United States do not have vision insurance covering comprehensive eye examinations, eyeglasses, and contact lenses. Thus, many consumers bear the costs of vision care and the lack of insurance coverage is a major barrier to obtaining care. *See* NATIONAL ACADEMIES OF SCIENCES, ENGINEERING, AND MEDICINE, MAKING EYE HEALTH A POPULATION HEALTH IMPERATIVE: VISION FOR TOMORROW 286-288 (2016) [hereinafter NATIONAL ACADEMIES, MAKING EYE HEALTH A POPULATION HEALTH IMPERATIVE].

³ Federal Trade Commission Act, 15 U.S.C. § 45.

⁴ *Standard Oil Co. v. FTC*, 340 U.S. 231, 248 (1951) (“The heart of our national economic policy long has been faith in the value of competition.”).

⁵ *See generally* MARKUS H. MEIER ET AL., FTC, OVERVIEW OF FTC ACTIONS IN HEALTH CARE SERVICES AND PRODUCTS, [https://www.ftc.gov/tips-advice/competition-guidance/industry-guidance/health-care \(most recent version under “Core Health Care Competition Documents”\)](https://www.ftc.gov/tips-advice/competition-guidance/industry-guidance/health-care%20(most%20recent%20version%20under%20%E2%80%9C%20Core%20Health%20Care%20Competition%20Documents%E2%80%9D)).

⁶ *See, e.g.*, FTC & U.S. DEP’T OF JUSTICE, IMPROVING HEALTH CARE: A DOSE OF COMPETITION (2004), <http://www.ftc.gov/reports/healthcare/040723healthcarerpt.pdf>.

⁷ FTC and staff advocacy can include letters or comments addressing specific policy issues, Commission or staff testimony before legislative or regulatory bodies, amicus briefs, or reports. *See, e.g.*, Comment from FTC Staff to Sue M. Kornegay, NC State Board of Opticians (Jan. 13, 2011), https://www.ftc.gov/sites/default/files/documents/advocacy_documents/ftc-staff-comment-north-carolina-state-board-opticians-concerning-proposed-regulations-optical-goods/1101ncopticiansletter.pdf (questioning rules proposed by the North Carolina Board of Opticians that would restrict retail sales of contact lenses and eyeglasses); Brief of Amicus Curiae FTC in Support of No Party, In re Nexium (Esomeprazole) Antitrust Litig., No. 15-2005 (1st. Cir. Feb. 12, 2016), https://www.ftc.gov/system/files/documents/amicus_briefs/re-nexium-esomeprazole-antitrust-litigation/160212nexiumbrief.pdf; FTC STAFF, POLICY PERSPECTIVES: COMPETITION AND THE REGULATION OF ADVANCED PRACTICE NURSES (“APRNs”) (2014), <https://www.ftc.gov/system/files/documents/reports/policy-perspectives-competition-regulation-advanced-practice-nurses/140307aprnpolicypaper.pdf> (presenting an overview of FTC staff comments regarding APRNs, and an in depth analysis of the competitive effects of statutes and rules governing APRN scope of practice and supervision).

⁸ *See, e.g.*, Letter from Marina Lao, Dir., Off. of Pol’y Planning, Fed. Trade Comm’n, & Robert Potter, Chief, Legal Pol’y Sec., Antitrust Div., U.S. Dep’t of Justice, to Hon. Jose L. Báez Rivera, Puerto Rico Cámara de Representantes (May 18, 2016), https://www.ftc.gov/system/files/documents/advocacy_documents/joint-comment-federal-trade-commission-staff-antitrust-division-puerto-rico-senate-bill-991-which/160518puertoricanmedication.pdf (evaluating competitive considerations regarding Puerto Rico legislation to allow optometrists to use and prescribe certain medications); Letter from Marina Lao, Dir., Off. of Pol’y Planning, Fed. Trade Comm’n, & Robert Potter, Chief, Legal Pol’y Sec., Antitrust Div., U.S. Dep’t of Justice, to Hon. Bradley H. Jones, Jr., Mass. House of Representatives (Feb. 18, 2016), https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-usdoj-joint-comment-massachusetts-house-representatives-regarding-house-bill-1973-allow-non/160218optometrycomment.pdf (evaluating competitive considerations regarding Massachusetts legislation to lessen scope-of-practice restrictions on Massachusetts optometrists in the treatment of glaucoma). Most FTC staff competition advocacy comments have focused on proposed state-level changes to statutes and rules. *See, e.g.*, FTC STAFF, POLICY PERSPECTIVES, *supra* note 7.

⁹ *See* FTC & U.S. DEP’T OF JUSTICE, *supra* note 6, ch. 2, at 30 (section on “*State Restrictions on the Interstate Practice of Telemedicine*”). More recently, FTC staff held a workshop series, *Examining Health Care Competition*, where a panel on *Innovations in Health Care Delivery* explored competition issues related to telehealth. *See*

Transcript of Examining Health Care Competition Workshop 67-122, Fed. Trade Comm'n (Mar. 20, 2014), https://www.ftc.gov/system/files/documents/public_events/200361/transcriptmar20.pdf.

¹⁰ FTC & U.S. DEP'T OF JUSTICE, *supra* note 6, Executive Summary at 23.

¹¹ See Comment from FTC Staff to the Director, Regulation Pol'y and Mgmt., Dep't of Veterans Affairs (Nov. 1, 2017), https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-department-veterans-affairs-regarding-its-proposed-telehealth-rule/v180001vatelehealth.pdf (supporting the VA's proposed rule that would clarify the authority of VA health care providers to provide telehealth services to or from non-federal sites regardless of whether the provider is licensed in the state where the patient is located); Comment from FTC Staff to Steve Thompson, Representative, Alaska State Legislature (Mar. 25, 2016), <https://www.ftc.gov/policy/policy-actions/advocacy-filings/2016/03/ftc-staff-comment-alaska-state-legislature-regarding> (regarding telehealth provisions in Senate Bill 74, which would allow licensed Alaska physicians located out-of-state to provide telehealth services).

¹² See Comment from FTC Staff to the Delaware Bd. of Speech/Language Pathologists, Audiologists & Hearing Aid Dispensers (Nov. 29, 2016), https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-delaware-board-speech/language-pathologists-audiologists-hearing-aid-dispensers-regarding-its-proposed-revisions-its/161130_ftc_dealers_final_.pdf; Comment from FTC Staff to the Delaware Board of Dietetics/Nutrition (Aug. 16, 2016), https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-delaware-board-dietetics/nutrition-regarding-its-proposed-telehealth-regulation/de_telehealth-nutrition-v160015.pdf; and Comment from FTC Staff to the Delaware Board of Occupational Therapy Practice (Aug. 3, 2016), https://www.ftc.gov/system/files/documents/advocacy_documents/ftc-staff-comment-delaware-board-occupational-therapy-concerning-its-proposed-telehealth-regulation/v160014_delaware_ot_proposed_advocacy.pdf (regarding its proposed telehealth regulation).

¹³ This advocacy also draws on knowledge acquired during the *Innovations in Health Care Delivery* panel of the 2014 FTC workshop, *Examining Health Care Competition*, *supra* note 9.

¹⁴ WASH. REV. CODE tit. 18 (Business and Professions).

¹⁵ See S.S.B. 5411 § 3(1)(a).

¹⁶ *Id.* at § 2(1). The Bill would enforce the comprehensive examination requirement by making it illegal to sell eyeglasses or contact lenses without a prescription, with the exception of magnification-only over-the-counter eyeglasses. See S.S.B. 5411 §§ 2(8), 3(1)(b).

¹⁷ See S.S.B. 5411 § 2(1).

¹⁸ *Id.* at § 2(11) (emphasis added). See also *id.* at § 2(10) (“‘Qualified vision care provider’ means an ophthalmologist or optometrist who performs eye examinations . . .”).

¹⁹ While there is no single, universally accepted definition of telehealth or telemedicine, both terms “describe the use of medical information exchanged from one site to another via electronic communications to improve the patient’s health status.” BOARD ON HEALTH CARE SERVICES, INSTITUTE OF MEDICINE, THE ROLE OF TELEHEALTH IN AN EVOLVING HEALTH CARE ENVIRONMENT: WORKSHOP SUMMARY 3, 134 (Tracy A. Lustig, Rapporteur) (2012), <http://www.nap.edu/catalog/13466/the-role-of-telehealth-in-an-evolving-health-care-environment>. The use of remote technology described in the Bill also fits the definition of telemedicine used by Washington state’s Medical Quality Assurance Commission. See MEDICAL QUALITY ASSURANCE COMMISSION, STATE OF WASHINGTON, GUIDELINE: APPROPRIATE USE OF TELEMEDICINE 1, 2 (2014) (Telemedicine is “[t]he practice of medicine using enabling technology between a practitioner in one location and a patient in another location with or without an intervening practitioner.” Enabling technology includes technology and devices that are usually electronic and allow “a practitioner to engage in Telemedicine.”).

²⁰ See S.S.B. 5411 § 3(3).

²¹ See WASH. ADMIN. CODE § 246-851-520 (2016) (A contact lens prescription “shall be based upon a comprehensive vision and eye health examination, followed by a diagnostic or trial evaluation, and a final evaluation of the contact lens on the eye by a prescribing doctor.”). The rules do not specify “in person,” but

comprehensive eye examinations typically include components, such as measurement of intraocular pressure and examination of the interior surface of the eye (fundus), that would require a health practitioner, possibly a technician or “telepresenter,” to assist the patient and operate specialized equipment. *See infra* note 42 and accompanying text; April Y. Maa et al., *Early Experience with Technology-Based Eye Care Services*, 124 OPTHALMOL. 539, 540 (2016). Under the Bill, it appears that only a “qualified vision care provider”—an optometrist or ophthalmologist—could provide such assistance. *See* S.S.B. 5411 § 2(1), (10). With an in-person optometrist or ophthalmologist, it would be unnecessary to provide services remotely.

²² *See* WASH. REV. CODE tit. 18, chs. 53, 54; WASH. ADMIN. CODE § 246-851.

²³ *See* WASH. REV. CODE tit. 18, chs. 57, 71; WASH. ADMIN. CODE §§ 246-853, 246-919.

²⁴ *See, e.g.*, Comment from FTC Staff to Steve Thompson, *supra* note 11.

²⁵ *See generally* Am. Acad. of Pediatrics, *Policy Statement: The Use of Telemedicine to Address Access and Physician Workforce Shortages*, 136 PEDIATRICS 202, 203 (2015) (urban as well as rural children “face significant disparities in access and time-distance barriers, which could be partly alleviated by the use of telehealth”); Hilary Daniel & Lois Snyder Sulmasy, *Policy Recommendations to Guide the Use of Telemedicine in Primary Care Settings: An American College of Physicians Position Paper*, 163 ANN. INT. MED. 787, app. (2015) (“Limited access to care is not an issue specific to rural communities; underserved patients in urban areas have the same risks as rural patients if they lack primary or specialty care”); Rashid L. Bashshur et al., *The Empirical Foundations of Telemedicine Interventions for Chronic Disease Management*, 20 TELEMED. & E-HEALTH 769, 770 (2014) (“Differences in access to care reflect economic, geographic, and functional as well as social, cultural, and psychological factors . . . many residents of the inner city have limited access to medical resources for economic reasons.”).

²⁶ *See, e.g.*, News Release, American Academy of Ophthalmology, American Academy of Ophthalmology Provides Information to the Public on Online Vision Testing for Corrective Eyeglass Prescriptions (Sept. 15, 2015), <https://www.aaopt.org/newsroom/news-releases/detail/american-academy-of-ophthalmology-provides-information>. *See also* Stephen Barlas, *Vision Correction Goes Online*, EYENET MAG., Aug. 2017, at 41, 42-44 (discussing the online remote refraction industry and listing companies that provide telerefraction services).

²⁷ *See* VISION COUNCIL, VISIONWATCH 21 (Sept. 2016) (in the 12 months ending Sept. 2016, 60.6% of Americans aged 18-34, and 62.2% of those aged 35-44 used some form of vision correction).

²⁸ *See* News Release, American Academy of Ophthalmology, *supra* note 26 (discussing the use of online vision tests by people from 18-39 years of age).

²⁹ *See* Diane M. Gibson, *The geographic distribution of eye care providers in the United States: Implications for a national strategy to improve vision health*, 73 PREVENT. MED. 30 (2015). *But see* Cecelia S. Lee et al., *Evaluating access to eye care in the contiguous United States by calculated driving time in the United States Medicare population*, 123 OPTHALMOL. 2456 (2016) (finding that 90% of the Medicare population lives within a 30 minute drive of an ophthalmologist and a 15 minute drive to an optometrist). These sources are cited for their data on the distribution of eye care providers, not to imply that vision tests without comprehensive examinations are appropriate for Medicare beneficiaries.

³⁰ Although online refraction tests may be less costly than in-person services that include an eye examination as well as refraction, patients who have insurance should consider its coverage of eye examinations and refraction services when comparing costs. Refraction services may not be covered, even if conducted in-person. *See, e.g.*, Sue Vicchilli et al., *Testing Services, Part Four: Tests Performed by Staff*, EYENET MAG., Aug. 2012, at 49 (discussion of CPT 92015). Washington Medicaid (Apple Health) covers eye examination and refraction services for asymptomatic adults every two years, and also covers non-emergency transportation services. However, Washington Medicaid likely would not cover online refractive services without an associated office visit. *See* WASHINGTON APPLE HEALTH (MEDICAID), PHYSICIAN-RELATED SERVICES/HEALTH CARE PROFESSIONAL SERVICES BILLING GUIDE 77-78, 183, 188 (Oct. 1, 2017); WASH. ADMIN. CODE §§ 182-501-0065(2)(y), 182-531-1000(1), 182-531-1730. Thus, online testing may reduce consumer costs primarily for those without vision care insurance.

³¹ See, e.g., Maa et al., *supra* note 21, at 539 (2016). Visual acuity and refraction tests for prescription of corrective lenses are not necessarily included in teleophthalmology screening for serious disease. See, e.g., Steven L. Mansberger et al., *Long-term Comparative Effectiveness of Telemedicine in Providing Diabetic Retinopathy Screening Examinations: A Randomized Clinical Trial*, 133 JAMA OPTH. 518, 519 (2015) (discussing need for comprehensive exam in addition to screening for diabetic retinopathy).

³² An ophthalmic technician is not a “qualified vision care provider” under the Bill. See S.S.B. 5411 § 2(10). The bill appears to permit the use of “remote technology” to conduct a comprehensive examination with the “involvement or supervision of a qualified vision care provider.” S.S.B. 5411 § 2(1). However, this provision may not apply when a technician assists the patient, because a qualified, but distant, vision care provider may not suffice for the required “involvement or supervision.” The bill does not specifically provide for supervision by a distant practitioner.

³³ Ophthalmic technicians at a VA clinic collected screening data for diabetic retinopathy, cataract, age-related macular degeneration, and glaucoma; an auto-refractor was used to determine visual acuity and refractive status. The data were evaluated by an ophthalmologist at a VA hospital who prescribed eyeglasses. The need to remake eyeglasses prescribed with the use of auto-refraction (i.e., the rate of refraction inaccuracy) was comparable to that for in-person refractions. See Maa et al., *supra* note 21, at 540-543. As a form of “automated equipment,” an auto-refractor is presumably considered “remote technology” under the Bill, and would likely not meet the requirements for a comprehensive examination with the qualified vision care provider at a different location. See *supra* notes 17, 18, and 32. If so, similar telehealth programs that use auto-refraction and technicians to assist the patient would be prohibited under the Bill.

³⁴ See Maa et al., *supra* note 21, at 539.

³⁵ AMERICAN ACADEMY OF OPHTHALMOLOGY, INFORMATION STATEMENT: INNOVATIVE TECHNOLOGIES IN DIAGNOSING EYE DISEASES AND CONDITIONS (2014), <https://www.aao.org/clinical-statement/innovative-technologies-in-diagnosing-eye-diseases>.

³⁶ See Comment from FTC Staff to the Delaware Bd. of Speech/Language Pathologists, Audiologists & Hearing Aid Dispensers, *supra* note 12, at n.55, and accompanying text.

³⁷ See MEDICAL QUALITY ASSURANCE COMMISSION, *supra* note 19, at 4.

³⁸ See AMERICAN ACADEMY OF OPHTHALMOLOGY, *supra* note 35. As the AAO notes, the practitioner would potentially bear the risk of any harm to the patient, e.g., for a missed diagnosis or breach of PHI. *Id.*

³⁹ See MEDICAL QUALITY ASSURANCE COMMISSION, *supra* note 19, at 3 (Washington state practitioners “using Telemedicine will be held to the same standard of care as practitioners engaging in more traditional in-person care delivery”); Comment from FTC Staff to the Delaware Bd. of Speech/Language Pathologists, Audiologists & Hearing Aid Dispensers, *supra* note 12, nn.53, 54, and accompanying text.

⁴⁰ See *supra* notes 16, 21 and accompanying text.

⁴¹ NATIONAL ACADEMIES, MAKING EYE HEALTH A POPULATION HEALTH IMPERATIVE, *supra* note 2, at 32, Table 1-1.

⁴² Typical procedures in a comprehensive eye examination include visual acuity testing; assessment of eye movement and alignment; refraction; examination of pupils, iris, cornea, lens, optic nerve, and retina; visual field testing; determination of intraocular pressure; and dilation. *Id.* at 327, 328. See also Robert S. Feder et al., American Academy of Ophthalmology, *Preferred Practice Pattern: Comprehensive Adult Medical Eye Evaluation*, 123 OPTHALMOL. P209, 222-23 (2016).

⁴³ See, e.g., NATIONAL ACADEMIES, MAKING EYE HEALTH A POPULATION HEALTH IMPERATIVE, *supra* note 2, at 331, Table 7-1 (Comparison of AAO and American Optometric Association (AOA) Guidelines; AAO recommendation of comprehensive eye examination every 5-10 years for adults under 40 without risk factors; AOA recommendation of at least every 2 years for that group.).

⁴⁴ See Feder et al., American Academy of Ophthalmology, *supra* note 42, at 224.

⁴⁵ AMERICAN ACADEMY OF OPHTHALMOLOGY, POLICY STATEMENT ON THE FREQUENCY OF OCULAR EXAMINATIONS 3 (2015), <https://www.aaopt.org/clinical-statement/frequency-of-ocular-examinations>.

⁴⁶ Feder et al., American Academy of Ophthalmology, *supra* note 42, at 224.

⁴⁷ See FTC STAFF, POLICY PERSPECTIVES, *supra* note 7. See also THE WHITE HOUSE, OCCUPATIONAL LICENSING: A FRAMEWORK FOR POLICYMAKERS 30 (2015), https://obamawhitehouse.archives.gov/sites/default/files/docs/licensing_report_final_nonembargo.pdf (excessively stringent restrictions on the services that a practitioner can provide may limit the supply of labor, restrict competition, restrict access to services, and increase the price of services).