CALIFORNIA
HEALTH BENEFITS REVIEW PROGRAM

# Analysis of Assembly Bill 1084
# Vision Care Providers

A Report to the 2003-2004 California Legislature
February 9, 2004
*Revised October 8, 2004*


Established in 2002 to implement the provisions of Assembly Bill 1996 (*California Health and Safety Code*, Section 127660, et seq.), the California Health Benefits Review Program (CHBRP) responds to requests from the State Legislature to provide independent analysis of the medical, financial, and public health impacts of proposed health insurance benefit mandates. The statute defines a health insurance benefit mandate as a requirement that a health insurer and/or managed care health care service plan (1) permit covered individuals to receive health care treatment or services from a particular type of health care provider; (2) offer or provide coverage for the screening, diagnosis, or treatment of a particular disease or condition; or (3) offer or provide coverage of a particular type of health care treatment or service, or of medical equipment, medical supplies, or drugs used in connection with a health care treatment or service.

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**A REPORT TO THE 2003-2004 CALIFORNIA STATE LEGISLATURE**

# An Analysis of Assembly Bill 1084
# Vision Care Providers

**February 9, 2004**
***Revised October 8, 2004***

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## PREFACE

This report provides an analysis of the medical, financial, and public health impacts of Assembly Bill 1084, a proposal to require health care service plans that provide vision care benefits to offer "a meaningful, accessible, and adequate choice between" a licensed optometrist and a physician. In response to a request from the California Assembly Committee on Health on May 19, 2003, the California Health Benefits Review Program (CHBRP) undertook this analysis pursuant to the provisions of Assembly Bill 1996 (2002) as chaptered in Section 127660, et seq., of the *California Health and Safety Code*.

Rebecca R. Paul, MPH, MA, and Susan Philip, MPP, CHBRP analysts, prepared this report. Robert Cosway, FSA, MAAA, and Jay Ripps, FSA, MAAA, both of Milliman USA, provided actuarial analysis. Sidra Goldman and Adil Moiduddin, MPP, both of the National Organization for Research at the University of Chicago, contributed to the literature review and medical effectiveness section. Catherine Nancarrow of the University of California Office of the President provided editorial guidance on early drafts of this report, and Katrina Mather, freelance editor, served as copy editor. In addition, a balanced subcommittee of CHBRP's National Advisory Council (see final pages of this report), reviewed the analysis for its accuracy, completeness, clarity, and responsiveness to the Legislature's request.

CHBRP gratefully acknowledges all of these contributions but assumes full responsibility for all of the report and its contents. Please direct any questions concerning this report to CHBRP:

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*Revision:*
October 8, 2004: Added a standard preface and appendix to appear in all CHBRP reports, identifying individual contributions to the analysis

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## EXECUTIVE SUMMARY

### California Health Benefits Review Program Analysis of Assembly Bill 1084

Assembly Bill 1084 (AB 1084) proposes to require health care service plans that provide vision care benefits to offer "a meaningful, accessible, and adequate choice between" a licensed optometrist and a physician. The California Health Benefits Review Program (CHBRP) has been asked by the California Legislature under Assembly Bill 1996 to assess the impact of this bill. This bill analysis discusses the potential impacts of AB 1084 on the utilization of various vision care providers and the resulting costs to health care service plans, vision care plans, and plan members. Medical effectiveness and public health impacts are also addressed.

There are two factors, however, that make a comprehensive analysis of AB 1084 difficult. First, the language in the bill is conflicting and vague on key points. (CHBRP) analysis specifies the assumptions made for purposes of assessing the impacts of AB 1084. Second, the literature is not sufficient to support a conclusion about medical effectiveness and public health impacts; notwithstanding this, the analysis presents relevant issues to consider.

### I. Impacts on Health Care Service and Vision Care Plans

- Health care service and vision care plans may have to modify their vision provider networks. This impact depends on the regulatory criteria used to determine compliance with the bill language.
- Affected plans may need to change their referral criteria and processes. This impact also depends on the regulatory criteria used to determine compliance with the bill language.

### II. Utilization, Cost, and Coverage Impacts

- Members of health care service and vision care plans generally have a choice of providers for basic vision care services. Complex vision care services are generally subject to some utilization and access controls.
- No change in relative utilization of vision care provider types is estimated because choice of providers is already available for basic vision care, and plan referral practices for complex vision care may not change.
- Total medical costs are not projected to change.
- Health plans may experience some increase administrative workload associated with AB 1084. The extent to which plans will need to change their networks and referral criteria depends on how regulations are written, the nature of state oversight, and any resulting litigation.
- Premiums are not projected to change.

## III. Medical and Public Health Impacts

- There is a lack of reliable information regarding the quality-of-care differentials associated with optometrists versus ophthalmologists and the public demand for access to either provider type; therefore, the medical and public health impact of AB 1084 is inconclusive.

## INTRODUCTION

Assembly bill 1084 (AB 1084) proposes to amend the California Health and Safety Code to require that health care service plans that offer vision care benefits "contract with sufficient providers to offer enrollees a meaningful, accessible, and adequate choice between" a licensed optometrist and a physician. It applies only to health care services and vision care plans that are licensed under Knox-Keene[1] and regulated by the Department of Managed Health Care (DMHC), not to health insurers regulated by the Department of Insurance. Under the proposed legislation, plans would not be able to prevent "an enrollee who is entitled to vision care that may be rendered by either an optometrist or a physician and surgeon within the scope of the provider's license from selecting a provider from either profession…."

Current California state law does not allow health care service plans that cover vision care services to prevent members "from selecting any … optometrist" who is affiliated, or under contract, with the plan.[2] In addition, current law requires California agencies that are funded by the state to ensure that patients have adequate choice between an optometrist and a physician or surgeon for vision care services that fall within the providers' scope of practice.[3]

The analysis that follows identifies constraints on assessing the impact of AB 1084, clarifies terminology used in this report, discusses the expected impacts on health care services and vision care plans, and addresses the cost, medical, and public health impacts to the extent possible.

### Other State Experiences with Vision Care Provider Mandates

Texas Senate Bill 857, signed into law in May 2003, requires that managed care plans that provide or arrange for vision or medical eye care services or procedures allow therapeutic optometrists who are on their vision panels "to be fully participating providers on the plan's medical panels to the full extent of the therapeutic optometrist's license to practice therapeutic optometry." The bill does not specify the standards to be used to determine at what point an optometrist is "fully participating" in the plan's panel. This bill required contracts to come into compliance by January 1, 2004; there has not been enough time to assess the bill's impacts on medical care, costs, and public health.

In the late 1990s, North Dakota enacted a law that prohibits discrimination in optometric services.[4] The law forbids "a person" from discriminating "between licensed practitioners of optometry and physicians," or from interfering "with any individual's right to free choice of ocular practitioner, with respect to the providing of professional services" within the scope of North Dakota law. The law applies to all health, accident, or disability policies, or any benefit that provides for payment of optometric services and requires that payment be made regardless of whether the service is performed by a physician or optometrist. The California Health Benefits Review Program's analysis of this bill projected a 0.1% increase in premiums across all

[1] Health maintenance organizations in California are licensed under the Knox-Keene Health Care Services Plan Act, which is part of the California Health and Safety Code.
[2] Section 1373 (h) of the California Health and Safety Code.
[3] Section 690 of the California Business and Professions Code.
[4] North Dakota Century Code, Title 43, 43-13-31.

market segments. The North Dakota bill is somewhat different than AB 1084 in that it serves as an any-willing-provider mandate, which does not seem to be the intent of the California bill. Second, the North Dakota market differs from the California market in that it has less managed care,[5] and managed care plans may have a greater tendency to include optometrists in their networks.

## CONSTRAINTS ON THE ANALYSIS

It is difficult to assess what changes health care service and vision care plans would need to make to come into compliance with AB 1084 as written. Health plan implementation would be dependent on how state regulations are written, how the DMHC enforcement is carried out, and the extent to which parties challenge uncertainties in court. Therefore, it is not possible to carry out an analysis similar to that done for other bills. Instead, this analysis focuses on the possible operational impacts on health care service and vision care plans and explains why various outcomes are not possible to assess. Uncertainty regarding the impact of AB 1084 stems from the following language:

- Two proposed sections that would be added to the California Health and Safety Code appear to impose conflicting requirements on health care service plans. Section 1373.35(c) states that plans may not prohibit an enrollee from selecting either an optometrist or an ophthalmologist as long as the provider has not been removed or suspended from participation in the plan for cause. Section 1373.35(d) states that plans may prepare a list of providers and require enrollees to select a provider from the list as a condition of payment by the plan. Subsection (c) appears to allow enrollees unlimited choice, as long as the provider has not been removed for cause, but subsection (d) appears to allow plans to restrict choice to a list of providers. It is unclear which requirement prevails. Consequently, no prediction can be made as to whether health care service plans can focus on a limited provider panel that enables "meaningful, accessible, and adequate choice of providers"; whether plans would be required to open their panels to any optometrist or ophthalmologist who has not been removed or suspended for cause; or whether plans would need to establish arrangements to reimburse any providers who provide services to their enrollees, even if they are not on their panels. For the purposes of this analysis, (d) is assumed to prevail. However, if (c) prevails, the administrative changes that health plans would need to make may be greater than assumed in this analysis.

  Whether (c) or (d) prevails, it is unclear if plans may continue their practice of requiring referrals for complex vision care services, even if the patient is permitted to choose the provider (and the provider type) of the service. For purposes of this analysis, plans that currently require referrals for any vision care services are assumed to continue to do so. If

[5] In 2002, the health maintenance organization penetration rate in California was 50.7%, in North Dakota it was 0.4%, and nationally it was 25.7% (State Health Facts Online, Kaiser Family Foundation, citing The Interstudy Competitive Edge 13.1, Part II: HMO Industry Report, April 2003. (800-844-3351); http://www.statehealthfactsonline.org/cgi-bin/healthfacts.cgi?action=profile&area=North+Dakota&category=Managed+Care+%26+Health+Insurance&subcategory=HMOs&topic=HMO+Penetration+Rate).



AB 1084 results in an inability of plans to continue their current referral practices, both per-unit and administrative costs may be affected.

- The legal implications of the phrase, "meaningful, accessible, and adequate choice of providers," are unknown, as the phrase does not clearly specify standards that provider panels must meet. Therefore, the extent to which plans would have to make changes in their provider panels is unknown. A number of plans that have vision care provider panels have indicated they do not foresee having to make changes to their panels in response to this bill, so this analyses is based on the assumption that, if plans modify their panels, only small additions may be needed. If this assessment is incorrect, the impact of the bill on administrative costs may be greater than assumed in this analysis.

## DEFINITION OF TERMS

In the proposed legislation, "vision care" is defined as including, "but not limited to, comprehensive primary eye care services, medical eye conditions, and emergency care." For the purposes of this analysis and discussion of AB 1084, the following categories of vision care are considered:

- "**Basic**" **vision care** is used to describe those services that are generally provided by optometrists. Their scope of practice "includes the prevention and diagnosis of disorders and dysfunctions of the visual system, and the treatment and management of certain disorders and dysfunctions of the visual system, as well as provision of rehabilitative optometric services,"[6] and includes the following activities: eye exams; vision assessments and refraction; prescribing and directing the use of optical devices; prescribing and fitting of glasses and contacts; and the use of topical pharmaceutical agents for use in examining the eyes.

- "**Complex**" **vision care** is used to describe services that may be provided only by an optometrist certified to use therapeutic pharmaceutical agents (TPA-certified) or by an ophthalmologist. TPA-certified optometrists[7] are also permitted to treat certain infections of the anterior segment and adnexa;[8] ocular allergies of the anterior segment and adnexa; ocular inflammation resulting from certain conditions, nonsurgical in cause; traumatic or recurrent conjunctival or corneal abrasions and erosions; corneal surface disease and dry eyes; ocular pain, nonrelated to surgery; and, under certain conditions, primary open-angle glaucoma. In specified circumstances, optometrists must consult with, or refer a patient to, an

[6] Section 3041(a) of Division 2 of the California Business and Professions Code.

[7] California certifies optometrists to use therapeutic pharmaceutical agents based on various requirements, depending on when they graduated from a school of optometry. For those graduating from an accredited school of optometry after January 1, 1996, optometrists licensed in the state of California are granted a certificate to use therapeutic pharmaceutical agents if they have passed the National Board of Examiners in Optometry exam; successfully completed at least 65 hours of clinical training on the diagnosis, treatment, and management of ocular, systemic disease; and are certified by an accredited school of optometry as competent in the diagnosis, treatment, and management of ocular, systemic disease and as having completed at least 10 hours of experience with a board-certified ophthalmologist (Section 3041.3 of Division 2 of the California Business and Professions Code).

[8] "The accessory structures of the eye, including the eyelids, lacrimal apparatus, etc." Glossary from The Council for Refractive Surgery Quality Assurance; http://www.usaeyes.org/glossary/glossary.html.

ophthalmologist.[9] TPA-certified optometrists are permitted to use only specified treatment modalities.[10]

Vision care providers are defined as follows:

- **Ophthalmologists** are medical doctors who have completed medical school and a residency program in ophthalmology. Ophthalmologists perform routine eye and vision exams, prescribe glasses and contact lenses, provide diagnostic services, surgery, prescribe medication, and manage eye disease. Ophthalmologists are licensed by the Medical Board of California. There are approximately 2,000 board-certified ophthalmologists in California.[11]

- **Optometrists** receive four years of postgraduate training in a school of optometry. Optometrists perform routine eye and vision exams; prescribe glasses, contact lenses, and some eye medications; and perform minor procedures, such as removal of foreign objects from the eye. Optometrists are licensed by the California State Board of Optometry. There are approximately 5,300 licensed optometrists practicing in California, of which approximately 4,800 are TPA-certified.[12]

## IMPACTS ON HEALTH CARE SERVICE AND VISION CARE PLANS

### Access to Vision Care Providers

AB 1084 would require that health care service plans that offer vision care benefits "contract with sufficient providers" to offer enrollees a "meaningful, accessible, and adequate choice between" vision care providers. Based on information collected from health care service plans, vision care plans, the California Optometric Association (COA), the California Academy of Ophthalmology (CAO), a review of the literature on the availability of vision care providers, and an analysis of vision care plan networks, there does not appear to be a current or projected aggregate shortage in the supply of either ophthalmologists or optometrists that would hamper access to either provider type. All of the publications summarizing vision care provider work force issues suggest a growing surplus of both ophthalmologists and optometrists over the next two to three decades, although changes in the economy and the demographics of vision care providers may affect this supply (personal communication, Paul Lee, Ph.D., January 2004).

The existing literature on access to vision care offers some evidence on the convenience of using optometrists versus ophthalmologists. For example, a national telephone survey conducted in the late 1980s of eye care practitioners in the United States found that a patient's average wait for the earliest available appointment was 5 days for an optometrist appointment compared with 20 days for an ophthalmologist appointment (Soroka et al., 2003). The same study concluded that

[9] Section 3041(b)(1) of Division 2 of the California Business and Professions Code.
[10] Section 3041(c) of Division 2 of the California Business and Professions Code.
[11] Verbal communication with membership representative from the American Academy of Ophthalmology, January, 2004.
[12] Verbal communication with the California Board of Optometry, December, 2003.

optometrists were more likely than ophthalmologists to offer weekend appointments. A follow-up study conducted in Oregon in 1990 showed a similar pattern (Gauer et al., 1994). Neither study distinguished between visits for basic or complex vision care services.

Currently, 15 health care service plans are licensed by the DMHC to cover vision care or dental and vision care (Department of Managed Health Care, 2003). Of the seven largest health care service plans in California,[13] five use vision care provider networks from one of three vision care plans to provide basic vision care; in aggregate, the following three vision care plans cover approximately 77% of vision care plan enrollees in California.[14] These plans are Vision Service Plan, covering approximately 73% of the vision care market, Medical Eye Services, and SafeGuard (see Table 1, following page).[15]

An assessment of the number of optometrists and ophthalmologists in selected areas of the state for two vision care plans shows that provider panels tend to include two to three times as many optometrists as ophthalmologists, although few or no empanelled ophthalmologists were available in certain rural areas. This finding is consistent with the limited supply of specialty care in some rural areas.

The remaining two of the seven largest health care service plans in California, Aetna and Kaiser Permanente, use other arrangements to provide vision care benefits. Aetna uses Vision One Eye Care Program (a product of Cole Managed Vision) to offer discounts on basic vision care benefits (such as eyeglasses and fittings). For members with vision care benefits (including basic and complex vision care), Aetna uses Vision One as well as its own network of optometrists and ophthalmologists. Kaiser Permanente has its own vision care providers (employed through the Permanente Medical Group and the Southern California Permanente Medical Group), and they include approximately 350 optometrists and 250 ophthalmologists.

**Table 1.** Vision Care Plans Associated with the Seven Largest Health Care Service Plans in California, 2003

| Health Care Service Plan | Arrangement for Basic Vision Care Benefits |
|---|---|
| Cigna | Vision Service Plan |
| Blue Cross | Vision Service Plan |
| Blue Shield | Medical Eye Services |
| PacifiCare | Medical Eye Services |
| Health Net | SafeGuard (formerly Health Net Vision) |
| Aetna | Vision One Eye Care (Cole Managed Vision) |
| Kaiser Foundation Health plans | Vision care providers included on staff of the Permanente Medical Group and the Southern California Permanente Medical Group |

[13] Aetna, Blue Cross, Blue Shield, Cigna, Health Net, Kaiser Permanente, and PacifiCare.
[14] Enrollment figures were obtained from health plan's financial report submitted to DMHC and available at http://wpso.dmhc.ca.gov/fe/flash/. The September 2003 reports were used for 14 of the 15 vision and dental/vision plans, and the August 2003 report was used for the other vision plan.
[15] Health Net had its own vision product, called Health Net Vision. Although it retains the same name and continues to provide vision care services to Health Net members, the product was purchased by SafeGuard in April 2003.

How the requirement in AB 1084 will be enforced will have an impact on the extent of changes that health care service and vision care plans may need to make. For example, although vision care panels typically include both types of providers, provider types are represented unequally. If state regulation determines that plans must have equity in the number of each provider type, some of the plans would have to change their panels, thus incurring a greater administrative workload than assumed here. However, if regulation permitted plans to determine demand for each type of provider, and such demand was determined in part based on existing utilization patterns, no change in provider panels may be needed. Further, plans that offer vision care benefits in rural areas may be unable to meet the requirements of AB 1084 if they are required to have an equal number of both types of providers in their panels, because there is a limited supply of certain types of providers in these areas. However, if state regulation permits use of current practice patterns in determining the "adequate choice of providers," or allows "adequate choice" to be assessed based on larger geographic areas (e.g., that combine urban and rural areas), there may be little need for changes to panels in rural areas.

## Health Care Service Plans' Referral Practices

In general, health care service plans use optometrists to provide basic vision care benefits, such as preventive screenings, and require referrals or some type of co-management with a primary care physician or an ophthalmologist for complex vision care services. Vision care plans typically contract with health care service plans or directly with purchasers to provide basic vision care services. Therefore, these vision care plans are generally required to refer patients back to the health plan for coverage of complex vision care benefits.

The following section discusses literature review findings and then describes the referral behavior of health care service plans in California.

*Case Studies of Staffing Models*

Descriptive and case-based articles detailing different models for the delivery of vision care in managed care arrangements indicate no single trend among health plans regarding optimal use of ophthalmologists versus optometrists. In general, health plans seem to endorse the use of optometrists for routine, preventive vision care services and some level of co-management (with ophthalmologists and MDs) of non-routine vision-related conditions.

Researchers examining staff-model health maintenance organizations (HMOs) found that there is no standard model for staffing or consistent policy regarding use of optometrists versus ophthalmologists for treatment of common eye diseases (glaucoma, diabetic retinopathy, macular degeneration, cataract, corneal abrasion, and conjunctivitis) that both providers are authorized to perform (Soroka et al., 2003). The three staff-model HMOs that were studied employed optometrists for routine, preventive care vision services. However, one HMO heavily used optometrists to the "full extent of their training" for management of eye conditions, using ophthalmologists only on a contract basis mainly for surgical procedures. Another HMO provided all eye care exclusively through staff ophthalmologists. A third predominantly used optometrists but made more use of ophthalmologists for serious cases of the conditions described above. The study suggested that heavier use of optometrists resulted in cost savings with no evidence of diminished quality of care.

One study assessed differences in utilization, cost, and patient satisfaction with vision care services following a health plan's transition to using a vision care plan "carve-out" arrangement. The vision care plan exclusively used optometrists for routine eye care and co-management for patients with common eye disease. Study findings showed decreased numbers of medical eye care visits after implementation of the carve-out and an increased number of patients having at least one routine eye exam. The authors found that the optometrist-driven model increased access to basic vision care overall and decreased reliance on physician/ophthalmologist visits for the provision of routine care, suggesting a possible preference for using optometrists more heavily for basic vision care services (Coleman et al., unpublished).

*Referral Behavior of Health Care Service Plans in California*
Based on discussions with health care service plans in California, most plans that cover vision care benefits do not require a referral for basic vision care services. Therefore, AB 1084 may have the largest impact on care for complex vision care services. By requiring a referral for complex vision care, the health care service plan can play a role in directing the type of provider that members use.

Some purchasers may contract with a health care service plan that subcontracts with a vision care plan for use of its vision care provider panel, while others may contract directly with vision care plans. Vision care plans typically provide a limited portion of the vision benefit provided to enrollees, and vision-plan providers would then refer patients back to their primary care provider to access vision services that fall outside the scope of the contract.

Health care service plans such as Blue Cross and Aetna require members to obtain a referral from their primary care physician to see an ophthalmologist for complex vision care service. Health care service plans that currently require a referral prior to the provision of complex eye care services may need to modify their referral criteria under AB 1084 to account for the possibility that patients will prefer a specific provider type (or may need to eliminate their referral process if AB 1084 would require plans to permit members to choose any vision care provider). Documents that incorporate these referral requirements, such as provider contracts, may also need to be modified.

## UTILIZATION, COST, AND COVERAGE IMPACTS

Because evidence in the literature regarding preferences for ophthalmologists versus optometrists is lacking, and because patients typically rely on referring physicians' recommendations, *actual* utilization patterns and, therefore, costs are projected to remain the same.

Below is outlined information about present baseline costs for vision services and choice of vision care provider, and the impact of AB 1084 on these costs and members' choice of providers.

**Present Baseline Cost and Coverage**

1. Current utilization levels and current costs of mandating access (Section 3(h))

Available data sources do not provide sufficient information to project the impact of AB 1084 on costs of vision services and the utilization of different types of vision care providers. Based on an analysis of commercial utilization data, the respective utilization rates of ophthalmologists and optometrists for vision exams are as follows:

- 125 optometry vision exam visits per 1,000 commercial members
- 104 ophthalmology vision exam visits per 1,000 commercial members

Because available claims data did not adequately differentiate between the cost of procedures conducted by optometrists and those conducted by ophthalmologists, reliable information on per-unit cost is unavailable.

2. Current coverage of the mandated choice of vision care providers (Section 3(i))

As discussed above, health care service and vision care plans typically allow for enrollee choice between optometrists and ophthalmologists for basic vision services. Complex vision services are typically covered as medical benefits by health care service plans, and plans may have referral requirements for these services.

3. Public demand for a choice of vision care providers (Section 3(j))

Although there is typically a choice between optometrists and ophthalmologists for basic vision services, there is little information regarding how enrollees select vision care providers when plans do not require referrals for their services. Currently available literature does not provide sufficient evidence to distinguish patients' demand for optometrists versus ophthalmologists for basic or complex vision care. Several studies address demand for vision care providers by identifying how many full-time equivalents are needed to provide vision services,[16] but none speaks to the type of vision care provider patients would demand. Conversations with health care service plans, the COA, and the CAO suggest that health care service plan members generally defer to their primary care physician's referrals to specific providers, given that most are not aware of the full scope of optometry practice for either provider type. This suggests that actual referral and utilization patterns may not change, even if health care service plans are legally required to change their policies and procedures to be in compliance with AB 1084.

[16] One study estimated national demand for vision care providers (both ophthalmologists and optometrists) at approximately 22,149 full time equivalents (FTEs) in the mid to late 1990s. Of this demand, 12,660 FTEs accounted for preventive care that included routine vision exams and screenings (Lee, 1995). Another study, conducted by Abt Associates for the American Optometric Association (AOA), concluded that the number of vision care providers demanded was 35,636 total FTEs for the same time period. The Abt study also estimated demand for routine eye health examinations to be 19,095 FTEs. Both studies used a similar approach, combining survey data on level of effort necessary for preventive and therapeutic care, utilization patterns, and demographic trends to model demand. However, Abt used higher assumptions for optometrist time spent on routine vision exams and contact lens examinations (White et al., 2000).



**Impacts of Mandated Access to Vision Care Providers**

4. How will changes in coverage related to the mandate affect the benefit of the newly covered service and the per-unit cost? (Section 3(a))

Without more information about current demand for ophthalmologists and optometrists, it is not possible to project changes in per-unit costs for vision care services. However, given what is known about patients' reliance on physician referrals to specialists, AB 1084 is unlikely to have an effect on per-unit costs (see Appendix A for an analysis of AB 1084's impact on premiums).

If the assumption regarding the interpretation of "meaningful, accessible, and adequate choice" is not accurate and plans are required to make changes to their vision care provider panels, a provider type that is in short supply (for instance, in a rural area) theoretically could experience increased negotiating power relative to the health care service or vision care plan. In that case, those providers may use their leverage to negotiate higher fees or rates for services rendered to the plan's members.

Per-unit costs are not projected to change if health care service plans are required to permit enrollees to go to any vision care provider who is not removed or suspended for cause (instead of permitting health care service plans to require enrollees to choose from a list of contracted providers). This is largely because the bill does not appear to prevent plans from limiting their reimbursement to providers outside their networks.

5. How will utilization change as a result of the mandate? (Section 3(b))

Without more information about current utilization of ophthalmologists and optometrists, or the differential demand for either provider type, it is not possible to project changes in utilization of each vision care provider type. However, given what is known about patients' reliance on physician referrals to specialists, utilization rates for either provider type under AB 1084 is estimated to stay the same.

If compliance with AB 1084 necessitates that plans allow members *direct* access to vision care providers (i.e., prohibit plans from requiring referrals), then the ratio of visits to the different provider types may change. However, without additional information about current utilization of and demand for different vision care provider types, it is not possible to project what this change may entail.

If either of the assumptions—that health care service plans can limit choice to contracted providers and that the state regulation would take into account current practice and utilization patterns—does not hold, utilization still may not change because plans can continue or modify their limits on vision care benefits.

6. To what extent does the mandate affect administrative and other expenses? (Section 3(c))

Plans may incur an increased administrative workload to the extent that AB 1084 requires some plans to make changes in their provider panels and in their referral policies and

practices in order to ensure "meaningful, accessible, and adequate choice" between optometrists and ophthalmologists. This increased workload might include expanded network analysis, determination of member demands or preferences for vision care providers, changes in member communication materials, and revision and distribution of provider manuals. If AB 1084 is interpreted as assumed above, then the administrative costs incurred would be mostly salary and printing costs that may not affect the premiums that a plan charges. If AB 1084 is interpreted more broadly, the impact of the resulting workload on administrative costs may be greater. For instance, if plans either have to allow access to all vision care providers who have not been removed or suspended for cause or, if the definition of "meaningful, accessible, and adequate choice" is interpreted to require specific ratios of provider types, plans may have to make extensive changes to their networks, provider contracts, and billing systems. Additionally, if the meaning of the bill language is not clarified, legal challenges initiated by stakeholders may increase plans' administrative costs. Because the way in which the bill would be implemented is unknown, it is not possible to estimate the impact of the bill on administrative costs.

7. Impact of the mandate on total health care costs (Section 3(d))

Based on the discussion above, no overall increase or decrease in health care costs is estimated as a result of implementing AB 1084.

8. Costs or savings for each category of insurer resulting from the benefit mandate (Section 3(e))

Because no increase or decrease in overall health care costs is anticipated to result from AB 1084, the actuarial analysis does not project a change in health care costs for any specific category of insurers.

9. Current costs borne by payers (both public and private entities) in the absence of the mandated benefit (Section 3(f))

Current costs and costs that would exist under the mandate are estimated to be similar. Therefore, public or private payers would experience no cost impact should the mandate be enacted.

10. Impact on access and health service availability (Section 3(g))

Because choice of vision care providers for health care service plan and vision care plan enrollees is currently available for basic vision services, there would be no impact on access to basic vision services under the mandate. Because of the unspecific mandate language and lack of studies on preferences for vision care providers, there is insufficient information regarding what would happen for complex vision care services if enrollees were given more flexibility to choose their vision care provider—whether enrollees would increase their utilization of optometrists for those services that fall within their scope of practice, or whether enrollees would act on a preference to utilize ophthalmologists.

## MEDICAL AND PUBLIC HEALTH IMPACTS

This section of the analysis reviews the literature regarding quality of care provided by optometrists and ophthalmologists. Although undocumented claims exist regarding differences in quality of care provided by optometrists and ophthalmologists, no peer-reviewed publications have addressed this issue. Because the literature discussed below does not directly address differences in the quality of care provided by different types of vision care providers, and utilization of providers is not predicted to change, no determination is made regarding the medical and public health impacts of the mandate.

An American Optometric Association (AOA)–sponsored study on quality of care for co-managed patients requiring cataract surgery concluded that optometrist co-management produced error rates in the detection of postoperative complications that were similar to historical error rates. However, important shortcomings of this study may have affected its findings (Revicki et al., 1993).

Observing a sample of predominantly elderly African American patients visiting the Johns Hopkins Internal Medicine Associates primary care clinic in 1992, authors of another study concluded that underlying eye diseases were substantially more likely to be undetected among patients whose last eye exam was conducted by an optometrist versus an ophthalmologist (Wang et al., 1994).

An Office of Technology Assessment report from 1988 cautions against use of optometrists for complex medical conditions, but this recommendation is based on a review of optometrist and ophthalmologist training programs rather than data on care outcomes (Office of Technology Assessment, 1988). Another study looking at the frequency and content of postoperative examinations by ophthalmologists and optometrists treating cataract surgery patients identified through provider surveys found that the majority of both professions generally follow American Academy of Ophthalmology (AAO) recommendations regarding the number of appropriate follow-ups after surgery. However, the study also found that optometrists were less likely to conduct some specific types of follow-up examinations, such as slit-lamp examination and tonometry (measuring tension of the eyeball), which, the authors point out, *may* lead to differences in the ability of optometrists compared with ophthalmologists to detect complications. The authors also raised concerns that not all optometrists refer patients to ophthalmologists following detection of postoperative complications such as acute glaucoma or unexplained decrease in visual acuity. Finally, ophthalmologists reported wanting to stay involved with a patient after a cataract operation for a substantially longer period of time (median of 60 days) compared with optometrists, who indicated ophthalmologists should stay involved for a median of 21 days following surgery. Twenty-five percent of optometrists indicated that ophthalmologists should only stay involved for 7 days following surgery (Bass et al., 1996).

An unpublished PriceWaterhouseCoopers study commissioned by the American Ophthalmology Association indicated that California optometrists practice at the same competence level or better

than either ophthalmologists or primary care providers when managing common eye conditions. The authors assessed competence based on compliance with eye care standards derived from those published by AAO and AOA (PriceWaterhouseCoopers, 1999). The study was designed specifically to assess the competence of optometrists to perform services that the Therapeutic Pharmaceutical Agent legislation in California authorized them to perform. The eye care standards against which competence was measured for the study were largely process-oriented measures extracted from chart documentation (e.g., appropriate history taking, recording of physical examination results, and making referrals) rather than output- or outcomes-oriented measures.

Although there is no literature directly comparing patient satisfaction with optometrists versus ophthalmologists for the same services, there is some indication that patients who receive routine eye care through vision care carve-outs that make heavy use of optometrists are satisfied with the care they receive (Coleman et al., unpublished).

## APPENDIX A: Literature Review

This section contains information relevant to the methods used by the California Health Benefits Review Program (CHBRP) to analyze and report on the impacts of Assembly Bill 1084. Specifically, this section contains information on how the literature review was conducted.

As part of the analysis of Assembly Bill 1084, CHBRP contracted with the National Organization for Research at the University of Chicago (NORC). CHBRP selected NORC to review the relevant literature because NORC has a proven ability to conduct high-quality, policy-relevant research. NORC was asked to review and synthesize available evidence in the literature about whether mandating that health insurers and managed care plans provide access to optometrists and physicians would provide enrollees with choice between optometrists and physicians *and* whether providing such choice would be clinically effective and cost-effective. In its assessment of the literature, NORC addressed the following questions:

- Is there evidence in the literature to suggest patient demand for and/or utilization of one provider type versus the other for routine vision care services? In this case, the "best available" evidence may be presented along with appropriate caveats.

- Is there evidence in the literature to suggest whether health care service plans (traditional health insurers and managed care plans) use tools to steer patients to one provider type or another? Is there evidence of other relevant access issues? If so, among what populations?

- Is there evidence in the literature to suggest whether the supply of ophthalmologists or optometrists might be insufficient to provide the level of choice required by the mandate?

- Is there literature to suggest whether there are differences in the quality of basic or complex eye care provided by ophthalmologists versus optometrists?

NORC was also asked to (1) identify and synthesize any well-designed studies of the cost-effectiveness of optometrists and ophthalmologists in the provision of routine vision care; and (2) identify unanswered questions about the effectiveness of optometrists and ophthalmologists in basic and complex vision care relevant to Assembly Bill 1084.

NORC's review and analysis are an integral part of this report.

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A group of faculty and staff undertakes most of the analysis that informs reports by the California Health Benefits Review Program (CHBRP). The CHBRP **Faculty Task Force** comprises rotating representatives from six University of California (UC) campuses and three private universities in California. In addition to these representatives, there are other ongoing contributors to CHBRP from UC. This larger group provides advice to the CHBRP staff on the overall administration of the program and conducts much of the analysis. The CHBRP **staff** coordinates the efforts of the Faculty Task Force, works with Task Force members in preparing parts of the analysis, and coordinates all external communications, including those with the California Legislature. The level of involvement of members of CHBRP's Faculty Task Force and staff varies on each report, with individual participants more closely involved in the preparation of some reports and less involved in others.

As required by CHBRP's authorizing legislation, UC contracts with a certified actuary, Milliman USA, to assist in assessing the financial impact of each benefit mandate bill. Milliman USA also helped with the initial development of CHBRP's methods for assessing that impact.

The **National Advisory Council** provides expert reviews of draft analyses and offers general guidance on the program to CHBRP staff and the Faculty Task Force. CHBRP is grateful for the valuable assistance and thoughtful critiques provided by the members of the National Advisory Council. However, the Council does not necessarily approve or disapprove of or endorse this report. CHBRP assumes full responsibility for the report and the accuracy of its contents.

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