

Seeing Clearly

Ensuring Patient Safety, Professional Standards, and Accountability of Automated Sight Testing by Opticians



**Submission to Health Services Minister Colin Hansen on the
proposed amendments to the Opticians Regulation**

By

The College of Opticians of British Columbia

June 11, 2004

Table of Contents

Table of Contents	2
Executive Summary	3
1. Introduction.....	6
Why we are making this submission	6
2. Role of Opticians in B.C.....	8
3. Background on Automated Sight Testing.....	10
Limitations to sight testing.....	11
4. Overview of Eye Health Issues.....	12
Design of the Screening Process.....	12
1. Screening for Age	13
2. Screening for Specific Health Conditions.....	14
3. Screening for Specific Risk Conditions.....	14
4. Screening for Specific Procedures.....	15
Screening and referral following automated sight testing	15
“Commonsense Referrals”	16
5. Training of Refracting Opticians: Building on Professionalism.....	17
6. Certifying Refracting Opticians.....	19
7. Clear Communication with Clients.....	20
8. Quality Assurance, Monitoring and Complaints	20
9. Momentum for Change.....	21
10. Technical Changes to the Regulation	23
Appendices.....	25
#1 Board Resolutions	
#2 Important Patient Guide, Automated Vision Testing	
#3 Client Notice	
#4 Standards of Practice	
#5 Canadian Ophthalmological Society	
#6 Douglas College and NAIT	
#7 Automated Sight Testing – What You Need to Know	
#8 Automated Sight Testing, Client Information	
#9 Schedule, Limitations	
#10 Technical Responses to Regulation and Bylaws	
#11 Request from stakeholders	

Executive Summary

The Provincial Government has released proposed amendments to the **Opticians Regulation** that would enable opticians in B.C. to perform automated sight testing on British Columbians between the ages of 19 and 65, and for the first time dispense corrective lenses based on the results.

These two changes will expand the scope of practice of opticians in B.C. The College of Opticians of British Columbia (COBC), as the regulating body that oversees opticianry in the province, will require that all opticians providing an automated sight test be duly trained and certified. In addition, the College will stipulate that an automated sight test can only be given to consenting adults with good health who have been fully informed that the test only measures visual acuity and is not a complete eye health exam.

The COBC believes the proposed amendment is good public policy that will increase the accessibility to vision care services in B.C. and provide a much needed benefit throughout the province. However, the COBC and its regulated members in B.C. fully understand that the proposed amendments are contingent on B.C. opticians ensuring that public safety will be paramount and that the public is fully educated and informed about the strengths and weaknesses of automated sight testing.

The vast majority of opticians' clients are individuals who are long-time wearers of eyeglasses and contact lenses. They seek opticians' services because they want to update their eyewear or replace lost or damaged glasses. Before making a considerable investment in new glasses, many clients want to have their vision checked to be sure the prescription is still the best to enable them to see most clearly.

In the past opticians were not allowed to check their clients' visual acuity and dispense new corrective lenses, even with a slight modification – they could only repeat the previous prescription. This meant the client who wanted to be assured of their visual acuity was required to return to the ophthalmologist or optometrist for a sight test, but would also in many cases get a complete eye health exam with it.

The B.C. government, as well as most other provincial government, has recognized that this service was not medically necessary and de-listed the eye health exam and sight test from the Medical Services Plan in 2001, requiring the clients to pay for the service themselves. The cumbersome expensive process often created delays because ophthalmologists are in short supply in B.C. This meant that some individuals would not bother to update their eyewear or have their vision checked at all.

An automated sight test, also called auto-refraction, has been scientifically proven to be a safe, reliable and reproducible test. It uses equipment and a sophisticated computer program to test and measure visual acuity. It also calculates whether clients would see more clearly with the help of corrective lenses and determines the strength of lenses needed.

Seeing Clearly: Submission on Automated Sight Testing

This service will be a great benefit to the estimated 50 per cent of the population who use corrective lenses and wish, from time to time, to replace lost or broken glasses and at the same time obtain slight modifications in lenses to ensure they continue to see with the utmost clarity. However, an automated sight test is not a complete eye health exam and this is a distinction that must be clearly and unequivocally communicated to users of the service.

As detailed in this submission, opticians in B.C. are highly trained individuals who are well regulated by the College and are highly capable of providing safe and effective automated sight testing.

In addition, this submission sets out the multi-level screening program the COBC has designed to exclude from automated sight testing those individuals at higher risk for eye health problems who instead need to have complete eye health exams.

This screening process excludes from the test all individuals over the age of 65 since the leading causes of visual impairment are age-related. Specific illnesses, symptoms, and procedures will also make individuals ineligible for automated sight testing, unless they are already under a doctor's supervision for their condition.

Clients will also be screened based on the results of the sight tests. Visual acuity alone is a highly sensitive and practical method of identifying those asymptomatic individuals at high risk of eye disease and in need of further investigations. Those persons who after receiving a sight test cannot achieve 20/30 or better vision will be referred for a complete eye health examination. In addition, any person showing a change of more than one dioptres in a six-month period or total change of more than two dioptres from the original prescriptions will be referred for further investigation.

Strict standards of practice that will be applied to all automated sight tests in B.C. performed by opticians are reviewed, as well as the process of mandatory education and certification that opticians will be required to undergo before being able to provide an automated sight test.

A fundamental aspect of patient safety is ensuring that consumers are fully and completely aware of the difference between an automated sight test and a full eye health examination and the specific risks that may indicate a more serious issue of eye health. This submission outlines the process of clear and concise patient communication that will fully inform clients about the contraindications for automated sight testing and the advisability of periodic complete eye health exams for all age groups.

Finally, this submission also provides an overview of the process of accountability, monitoring and quality assurance that the College will oversee in the provision of sight-testing services by refracting opticians. In short, automated sight testing by opticians in B.C. will meet the highest standards of patient safety and consumer need and therefore improve vision care services in B.C.

Seeing Clearly: Submission on Automated Sight Testing

In fact, in light of the de-listing of complete eye health exams, it is our belief that the process of more widely available sight testing will provide an important screening function, will make better use of human resources in the eye health field, and will alert many British Columbians to the need for periodic, in-depth eye health exams.

We believe the amendment to the Opticians Regulation will provide a safe and effective service, will better inform the public about issues of eye health, and will increase the identification and appropriate referral to other eye specialists of potential vision problems in citizens that might otherwise go unidentified.

1. Introduction

On April 6, 2004, the Provincial Government released proposed amendments to the **Opticians Regulation** that would enable opticians in B.C. to perform automated sight testing on British Columbians between the ages of 19 and 65. Opticians would also be permitted to dispense corrective lenses based on the results of a properly performed automated sight test under clearly delineated situations.

The changes to the Opticians regulations have undergone extensive public scrutiny. In a process initiated April 2001 by the Government of British Columbia, several stakeholder organizations participated in mediated discussions. These discussions resulted in the publication of draft regulations circulated by the Minister in June 2002. The proposals underwent the required 90-day consultation period in which all stakeholders had a further opportunity to comment. The input both from the public of British Columbia and from the various professional organizations resulted in the revised proposals that were announced by Health Services Minister Colin Hansen in March of this year.

Minister of Health Services Colin Hansen has invited submissions to comment on these draft amendments and in particular, the schedule of limitations attached to the regulations and their potential impact on the health and wellness of British Columbians.

Why we are making this submission?

The College of Opticians of British Columbia (COBC), as the professional regulating body overseeing the 1187 licensed and registered opticians in B.C., firmly believes that the proposed amendments will:

- Provide a much needed service in the province
- Expand patient choice
- Improve accessibility to vision services
- Ensure high levels of patient safety
- Improve vision care for citizens of British Columbia

While automated sight testing has been proven safe and effective, it is not suitable for individuals with serious eye disorders or underlying systemic illnesses that may impact vision. The COBC understands that the amendments to the regulations are contingent on B.C. opticians ensuring that public safety will be more than adequately met and that the public is fully educated and informed about the strengths and weaknesses of the automated sight test. In addition, we acknowledge that opticians in B.C. and the College have a duty to guarantee the professional standards, training, and accountability of all opticians who are performing the test.

The COBC will require that all opticians providing an automated sight test are duly trained and certified. In addition, the College will stipulate that an automated sight test can only be given to consenting adults with good health who have been fully informed that the test only measures visual acuity and is not a complete eye health exam. These

requirements are being set out through bylaw changes by the COBC. Appendix #1, Board Resolutions.

The proposed regulation outlines that screening procedures must adequately identify individuals with potential eye health problems or underlying illnesses who are not suitable for automated sight testing. These individuals will instead be referred to an optometrist or physician for a complete eye health exam.

In this submission, the COBC will establish that the College and practicing opticians in B.C. fully understand the additional responsibilities and accountability required by opticians under the draft amendments to the Opticians Regulation. We will establish that opticians are more than prepared to provide the professional standards and practices to ensure patient safety and appropriate use of safe and effective automated vision tests. While the COBC strongly endorses the amendments to the Opticians Regulation, in this submission we suggest a few very specific technical changes to wording to ensure that the regulation achieves its desired aims.

We will establish the following:

- Opticians in B.C. are already highly trained individuals who are well regulated by the College and are highly capable of providing safe and effective automated sight testing.
- Opticians in B.C. who perform the test will have passed a certification exam to ensure they all meet high quality professional standards for automated sight testing and for safeguarding public safety.
- The COBC has developed a clear and effective Standards of Practice document that outlines the necessary protocol for providing a safe and effective automated test.
- Opticians in B.C. who perform automated sight testing will receive additional training to ensure they fully understand the limitations of automated sight testing and that they have effective communication and education skills for their interactions with consumers.
- Opticians in B.C. will fully inform and educate consumers about the limited nature of sight tests. This process will include both the oral and written provision of clear and understandable information about who should have the test and who should instead have a complete eye health exam. All clients will be required to sign a duly executed informed consent form before proceeding with the test.
- Opticians in B.C. will properly identify those individuals who should not have automated sight testing and who should instead have a complete eye health exam by an optometrist or a physician.
- The COBC will enforce the Standards of Practice around the use of automated sight testing, will hold opticians accountable for their professional practice, and effectively and rapidly deal with any identified instance of misuse.
- The COBC will ensure that all refracting opticians in B.C. will abide by these clear and stringent set of conditions.

The establishment of clear rules will effectively control the appropriate and safe use of automated sight testing procedures for the benefit of all British Columbians.

The Government of British Columbia has made a decision to enable qualified opticians to conduct automated sight testing. The College of Opticians of B.C. will demonstrate that amending the Opticians Regulation to allow automated sight testing and dispensing eyeglasses on the basis of that testing will not only result in safe and effective sight testing services to British Columbians and will improve the access to necessary vision services.

In fact, in light of the de-listing of complete eye health exams, it is our belief that the process of more widely available sight testing will provide an important screening function that may alert many British Columbians to the need for periodic, in-depth eye health exams. We believe expanding the scope of practice of opticians to perform these tests will better inform the public about issues of eye health and could increase the identification and appropriate referral to other eye specialists of potential vision problems in citizens who might otherwise go unidentified.

2. Role of Opticians in B.C.

Opticians in British Columbia design and dispense eyeglasses, contact lenses, low vision aids and prosthetic ocular devices for B.C. customers. Opticians are non-medical practitioners trained in the theory and practical application of ophthalmic optics who fill prescriptions for corrective lenses issued by ophthalmologists and optometrists. Opticians also educate and advise consumers about what product choices will provide maximum visual acuity.

Opticians can obtain three levels of training. The first level provides high quality skills in designing and dispensing corrective eyeglasses. The second level of training enables the dispensing and fitting of contact lenses as well as eyeglasses. The third level trains opticians in the skill of refraction – the measurement of how the eye bends and focuses an image on the retina. A **refracting optician** is an eye professional who is specially trained to conduct sight testing.

Opticians are governed by the College of Opticians of British Columbia (COBC), which regulates the practice of opticianry in British Columbia in order to serve and protect the public. The COBC acts in accordance with the *Health Professions Act*, the *Opticians Regulation* and College Bylaws, which include Standards of Practice for opticians. Currently, 1187 opticians are registered with the COBC in the province.

Opticians complement the role of two other vision care specialists in the health care system:

- **Ophthalmologists**, who are medical doctors specially trained in eye disorders, eye examinations, eye surgery, and eye treatment.

- **Optometrists**, who are non-medical health professionals licensed to examine the eyes to detect the presence of vision problems and eye disorders, and to dispense corrective lenses and in some cases specific drug therapies.

Opticians practise primarily in retail settings and as such are more widely dispersed across the province in both urban and rural locations than other eye health professionals. They are often the first point of contact for individuals seeking information on vision care.

The vast majority of opticians' clients, however, are individuals who are long-time wearers of eyeglasses and contact lenses. They seek opticians' services because they want to update their style of frames, replace old, lost, or damaged eyeglasses, or acquire eyewear with new features, such as light sensitive lenses. Naturally, when purchasing a new pair of eyeglasses – a considerable investment in an essential device that will be used daily – clients want to be assured that if their eyesight has changed by even the slightest margin their new glasses will have the best prescription to enable them to see most clearly.

Historically, opticians have not been allowed to check their clients' visual acuity and dispense new corrective lenses with even a slight modification – they could only repeat the previous prescription. This meant that clients who wanted to be assured of their visual acuity were required to return to the ophthalmologist or optometrist for a sight test.

The process could entail lengthy waits and delays when all the consumer wanted was a new pair of glasses with the optimal strength for their visual needs. This cumbersome and expensive process meant that some individuals would not bother to update their eyewear or have their vision checked – a situation which is arguably more detrimental to patient safety as those individuals with changes to their eye health that need further investigation might not seek care and be identified.

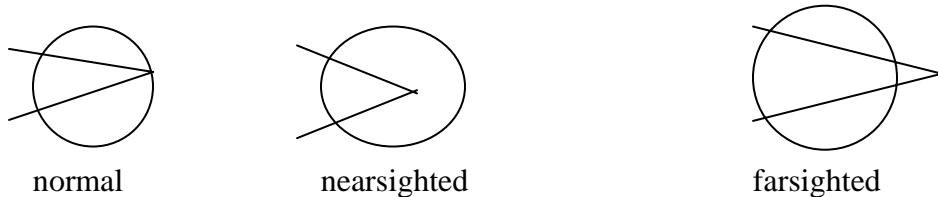
By continuing to recognize that a complete eye health exam and a sight test do not need to be combined, and enabling trained and certified opticians to perform the latter, the B.C. Government has enabled a more efficient and effective use of vision services and improved the options for individuals who need corrective lenses to see clearly. Allowing opticians to perform the test without the oversight of physicians will be a great advantage to the eyeglass wearing public between the ages of 19 and 65, with no underlying health problems or eye disease, who want to update their eyewear and receive a slight modification to the lenses of their eyeglasses on site to ensure they are seeing most clearly. The advantages of both the opticians and optometrists regulations include reducing the reliance on overburdened ophthalmologists, saving time and money for both the health system and the consumer, increasing accessibility to eye care professionals and improving the range of provider choice to the consumer.

As we will discuss in detail in the next sections, this change will not lead to any increased rate of harm for clients. The College of Opticians has already established a clear process

of training, rules, guidelines, and screening procedures, as set out in its Standards of Practice, which will ensure a high level of patient safety.

3. Background on Automated Sight Testing

Automated sight testing is also called “automated refraction.” Refraction is the process of measurement that assesses how the eye is bending and focusing an image—usually letters from an eye-chart – on the retina of the eye. A person with normal vision focuses an image in a precise point – the focal point – exactly on the retina. In someone who is nearsighted (myopic) the image comes to a point in front of the retina, making close objects appear clearly but rendering objects far away more difficult to see. When someone is farsighted (hyperopic), the image is focused behind the retina making them able to see distant objects but less able to see objects that are near.



A sight test using refraction measures the angles and distance from the retina where the focal point falls. Various powers of concave or convex lens are then placed in front of the eye to modify the angles at which light is bent and to move the focal point so that it falls exactly on the retina. In this way, the strength of the corrective lens is determined that will best enable the individual to focus an image most clearly in a precise point on the retina.¹

For decades, the process of measuring refraction has been done manually by specially trained professionals, whether medical doctors, optometrists or refracting opticians. In recent years, however, computer software and sophisticated equipment has been developed that can automatically measure and calculate focal point length. This equipment calculates the power and prescriptions of corrective lenses necessary to adjust the focal point so that it falls exactly on the retina. The test consists of subjective refraction in which the patient responds to questions and tests (for example reading a wall chart) and objective refraction, in which the optician determines the patient's refractive error by using different instruments.

In the offices of many North American ophthalmologists and optometrists, auto-refraction tests are now routinely delegated to office assistants who are unregulated. However, opticians in British Columbia who provide automated sight testing will have

¹ Auto-refraction is not a medical procedure but is rather a process of precise measurement of visual acuity. According to the Canadian Ophthalmological Society, refractive examination, whether manual or automated “involves the taking of measurements from the visual system, which is simply a data-gathering procedure and involves no medical expertise.”

received specialized training and be regulated and certified by the College of Opticians of B.C., to which they are accountable.

To date, some 320 opticians in B.C. have been trained to conduct refractions on behalf of physicians and optometrists who receive and review the results and write a prescription for new strengths of corrective lenses. Under the new regulations, these opticians will be required to be certified by January 2005.

Research has clearly established that automated sight testing is reliable and accurate and provides reproducible results. Ophthalmologists, optometrists and opticians all agree that the equipment is safe and effective. Canadian opticians have been providing sight testing services using various models of automated devices since 1998 in B.C., Alberta and Ontario. To date, more than 300,000 sight tests have been provided, and the accuracy of the results and safety of the technology has been demonstrated and validated.

Limitations to sight testing

An automated sight test, however, is not a complete eye health exam. A refractive examination simply measures how clearly an image is being focused, but does not provide any information about why a person's eye may not be focusing an image clearly. In certain situations, some individuals may have underlying pathology that needs further investigation, such as the dilation of their eyes to enable a complete eye health exam examination by a ophthalmologist or optometrist or in some cases systemic medical testing by other medical specialists.

This distinction is most important and is the crux of the public safety issue. The concern is that eyeglass-wearing members of the public, when having an automated sight test, will mistakenly presume that they have had a complete eye health exam and will leave the optician's practice with a new set of glasses but potentially have underlying and serious eye health issues that need further investigation.

British Columbia opticians, however, clearly understand and respect this fundamental concern. Now, in addition to the intensive training opticians already have, they will receive additional training to ensure further public safety around automated sight tests. The following steps are being taken:

1. Proper training and certification of refracting opticians to ensure that all opticians providing the automated test have the skills and competencies to effectively screen the public; to communicate the safety issues to the public; and to refer those identified at risk to appropriate providers for full eye health examinations.
2. Effective public education, including clear, understandable and concise written information given to individuals before all automated sight tests; a verbal summary of the issues before sight testing, and the signing of a clear and understandable informed consent document before proceeding with the test.

3. Accountability and monitoring of automated sight testing in the province by the College of Opticians of B.C., including swift and effective handling of any complaints or evidence of misuse.

From the outset of optician-performed sight testing in 1998, the College of Opticians of B.C recognized that as health care professionals, opticians had an extra burden of responsibility to ensure public safety. In fact, when the B.C. Supreme Court ruled in 2001 that opticians had a right to provide this service to consumers, the COBC took the initiative to establish a Standard of Practice that would ensure public safety, consulting with physicians to create an effective process. This Standard of Practice has been enforced by the COBC for the last three years and has recently been revised to be even more stringent.

The Minister of Health Services' regulatory amendments build on rigorous measures already implemented by the College of Opticians.

4. Overview of Eye Health Issues

The overlying concern about separating the sight test from the complete eye health exam is that individuals who have underlying pathology affecting their vision will not be identified. In addition, the concern is that members of the general public, when having an automated sight test, will mistakenly presume that they have had a complete eye health exam and may ignore visual symptoms that require further investigation.

However, as we will clearly outline in this section, the Standards of Practice established by the College put in place layers of screening that make certain individuals at risk for eye health problems ineligible for the automated sight test. These layers of screening identify those individuals whose history disqualifies them from automated sight testing and alerting them of their increased need for regular and complete eye health exams.

Design of the Screening Process

A screening process designed in layers and based on the scientifically validated evidence of the greatest risk factors for visual impairment will capture all those seeking automated sight testing service who are at highest risk of underlying eye health issues and need to be referred for a complete eye health exam. The eyeglass wearing public seeking refinement of existing prescriptions is the focus of this commentary and of the regulation. The protocols surrounding the regulation will appropriately address issues of risk for that group of citizens.

In passing, it must be pointed out that there should be greater concern for the individuals with 20/20 vision or better who may go many years, or even most of their life, without seeking service from any vision care professional. It is more likely that these non-eyeglass wearing individuals may harbor rare conditions that may go undetected. Working as a team the vision care community along with the Ministry of Health need to develop a vision screening strategy for that demographic.

It is important to stress that individuals who wear eyeglasses (which we have noted is the vast majority of the clientele of opticians) do not have a higher rate of rare or unusual eye conditions than the general public and therefore are not at a higher risk of having diagnosis missed because of automated sight testing. Those at risk for eye disease fall into identifiable risk groups that can be screened for and notified that they need a complete eye health examination on a regular basis. Using risk factors as a basis, people will be excluded from the automated sight test first based on age. Those younger than 19 or older than 65 will be ineligible for the service.

Ophthalmological guidelines suggest that adults should have one eye health examination between the age of 19 and 40. Those individuals who have not had an eye health examination since the age of 19 will be excluded from automated sight testing.

Those individuals who are in the eligible age group but who may be at higher risk for eye health issues will be further screened by disqualifying those with specific diagnosed health conditions, unusual visual symptoms, recent injuries, or recent histories of surgical eye procedures. Finally, those individuals who have a sight test and are found to have specific visual limitations would be referred for further investigation.

This process, along with effectively disqualifying individuals for whom sight testing is not appropriate, will also serve the purpose of providing an important reminder and educational service to the public aged 19 to 65 about the need for periodic complete eye health exams across the life spectrum.

This design of multiple levels of screening is described in more detail in the following section.

1. Screening for Age

There are four main causes of vision impairment: cataract, glaucoma, diabetic retinopathy, and age-related macular degeneration.² The incidence of these conditions increases dramatically with increasing age, particularly after age 75.² For example, the prevalence of cataracts in those aged 50 is about two per cent, but it jumps to 75 per cent in those ages 80 and older. Those individuals under the age of 65 who may have cataracts can be easily identified because the conditions are always symptomatic, causing visual distortions and the clouding of the crystalline portion of the lens. Cataracts are curable with surgery.

The rate of age-related macular degeneration also take a dramatic leap after age 75 with only one to two percent of individuals suffering the condition between 50 and 65. However, almost 50 per cent of individuals age 90 and older will have evidence of the disease. Likewise, glaucoma affects fewer than two per cent of individuals under the age of 70.

² Canadian National Institute for the Blind, Submission to the Commission on the Future of Health Care in Canada.

² National Eye Institute, a division of the U.S. National Institutes of Health: see www.nei.nih.gov/eyedata.pbd_tables.htm

Diabetic retinopathy affects an estimated 40 per cent of individuals over the age of 40 with Type I or Type II diabetes.³ The incidence increases with age and length of time with diabetes and is never the first symptom of undiagnosed diabetes. Diabetes is never diagnosed by eye tests but rather by medical physicians conducting blood tests. As detailed below, individuals with diagnosed diabetes will be excluded from the sight test unless the test is requested by a physician supervising their health condition.

By disqualifying anyone over the age of 65 from automated sight testing, the largest population at risk for eye health problems will be diverted from the test and informed of their need for complete eye health exams from an optometrist or physician on a regular basis.

The major physiological changes affecting vision take place from birth to puberty. Shortsightedness, the most common condition affecting this age group, is prevalent after age 8 and levels off in the late teens. Farsightedness decreases by age 2 and levels off to near zero by age 6. A threshold of age 19 to be eligible for sight testing is therefore reasonable, though adults should have had at least one eye health examination since the age of 19..

Between the ages of 19 and 65, automated sight testing is appropriate for most individuals who have had at least one eye health examination since the age of 19, unless they have a history of specific medical illnesses, are experiencing unusual visual symptoms, have undergone certain procedures or upon testing of their sight reveal a specific visual limitation. These risk factors will then be revealed through the subsequent levels of screening and again trigger an automatic referral to appropriate health providers.

2. Screening for Specific Health Conditions

The second level of screening arises from asking all individuals who want the automated test whether they have a personal or family history of glaucoma, Type I or II diabetes, cataracts or macular degeneration. Those with diagnosed hypertension are also identified and excluded. These individuals are not eligible for the test except where a physician is currently treating the patient and authorizes the optician to perform the assessment.

3. Screening for Specific Risk Conditions

The third level of screening aims to exclude individuals with the potential for specific risk conditions and diverts them to a complete eye health exam. The condition with the highest risk is retinal detachment, which affects 10 people per 100,000. All individuals wishing to undergo an automated sight test will be asked if any of the following applies to them:

⁴ Ferris, F, Kempen J. (2004) Prevalence of Diabetic Retinopathy in the United States. *Archives of Ophthalmology*.

- Hypertension
- Recent trauma to the head
- Recent pain in eye
- Diagnosed retinal detachment

Individuals with “high” prescriptions may be more likely to develop conditions such as glaucoma and retinal detachment. To ensure the appropriate eye health examinations, such persons are not eligible for sight testing.

- Prescriptions over + 8.00 dioptres and -10.00 dioptres

4. Screening for Specific Procedures

To avoid interfering with ongoing treatment by a physician or optometrist, individuals who have a history of any eye surgery will be excluded from the automated sight test. Surgical procedures include treatment of a detached retina, treatment of cataracts, vision correction, and corneal transplants.

The screening process will include a clearly written handout that outlines the risk factors and differentiates the automated sight test from a complete eye health exam, Appendix #2. In addition, the optician will verbally discuss the information with the client. This will be followed by the signing of the consent form, Appendix #3. A positive response to any of these prompts precludes an automated sight test and necessitates a referral to a physician or optometrist for a complete eye health examination. This multi-level screening process will create a fine mesh that will capture the vast majority of individuals at risk for more serious eye health conditions.

Screening and Referral Following Automated Sight Testing

A visual acuity test is a final, effective part of the screening and referral process. This will occur for all those who undergo automated sight testing. The results of the sight test itself can be one of the strongest indicators of the need for a complete eye health exam. Tests of visual acuity – particularly the ability to read a “Snellen” eye chart -- are one of the most practical, inexpensive and effective ways of identifying individuals with asymptomatic problems of eye health.

The College of Opticians of British Columbia will require opticians to refer individuals whose visual acuity and/or prescriptive results following an automated sight test indicate the possibility of disease.

- **Visual Acuity Limitations**

The Canadian Ophthalmological Society in a policy statement suggests that a non-medical person should refer to a person to a physician if they fail to achieve a corrected 20/40 visual acuity in either eye unless the cause for the impairment has previously been

medically confirmed and appropriately treated.⁴ To ensure a safe screening process the College of Opticians recommends a more stringent standard.

Opticians must not dispense eyeglasses if because of an automated sight test the client did not achieve a visual acuity in either eye of at least 20/30 in a person between the ages of 19 and 65.

- **Limitations on Prescriptions**

Rapid changes in the lens strength required for clear vision is also a trigger for referral. The eye is comprised of highly elastic tissue. Any physiological changes in the eye that create pressure will have the affect of altering the physical optics of the components of the eye. This will affect the correcting lens and cause unexpected changes in the power of the lens.

An optician must not dispense eyeglasses if the results of an automated sight test indicate changes of more than plus or minus 1.00 dioptres of power in either eye in a six month period. Even if there has been no change greater than plus or minus 1 dioptres in the past six months, the optician shall not dispense new glasses if the change is greater than plus or minus 2 dioptres from the original prescription.

“Commonsense Referrals”

This multi-level process of screening will effectively identify the vast majority at risk of eye health problems. It is important to note, however, opticians have always referred clients to physicians and optometrists when they note unusual symptoms, visual acuity results or physical characteristics in the eyes of their clients that warrant further investigation. Opticians are in an ideal position to note unusual physical anomalies or symptoms that may indicate a more serious problem.

Clients who want an automated sight test but complain of specific visual symptoms will be excluded from the test. Complaints such as flashing lights, recent onset of floaters, haloes, transient dimming or distortion of vision, obscured vision, loss of vision or pain in the eyes, lids or orbits, double vision or excessive tearing will make them ineligible for the test and they will be referred to a physician or optometrist.

Clearly visible symptoms such as differing pupil sizes or a visible mole in the iris or conjunctiva are easily seen without specialized equipment and would logically invite referral to a physician or optometrist. This identification is not “diagnosis” or screening per se but rather the role of enlightened observer similar to the role of the government B.C. Health Guide, which alerts individuals to symptoms that warrant further investigation from qualified health professionals.

⁵ Vision impairment is defined as having 20/40 or worse vision in the better eye even with eyeglasses. People with vision worse than 20/40 cannot obtain an unrestricted driver’s license in most regions in Canada

For decades, opticians have been routinely doing these commonsense referrals to health professionals as they fit individuals with eyeglasses. This expectation is also reflected in the “Standards of Practice” of the College, Appendix #4. The College has referred to the Canadian Ophthalmological Society (COS) policy statements and guidelines, “Appropriate Referral” for guidance when non-medical personnel should refer clients, Appendix #5.

5. Training of Refracting Opticians: Building on Professionalism

The training of refracting opticians is of the highest caliber and produces opticians with the skills to be able to safely administer an automated sight test, and to dispense eyeglasses based on the results of that test. The training of opticians is being augmented, however, to ensure they understand the limitations of the sight test and are able to provide good, clear communication to their clients and the public about the limitations of the sight test.

Opticians can obtain three levels of training. The first level provides high quality skills in designing and dispensing corrective eyeglasses. The second level of training builds on the first and enables the dispensing and fitting of contact lenses as well as eyeglasses. The third level trains opticians in the skill of refraction – the measurement of how much the eye bends and focuses an image on the retina. Training is followed by a rigorous practicum, which requires both time and a number of repetitions for specific competencies.

Education of opticians is designed to address escalating specialties so that, for instance, persons registered to dispense contact lenses require more training than those registered to dispense eyeglasses. Of B.C.’s 1187 registered opticians, two thirds have advanced training as contact lens practitioners. Certified Refracting Opticians require another and higher level of education. More than 320 opticians now have experiential training to use technologically advanced automated sight testing equipment.

In B.C., full time opticians training programming is offered by both Douglas College and the Northern Alberta Institute of Technology through alternate delivery programming options, specifically correspondence and distance learning.

The current range of full time, part time, and alternative delivery formats offered by these institutions address the needs of a geographically diverse province such as B.C. and in particular the needs of individuals located in remote settings. This system is well positioned to facilitate a widespread sight-testing network and referral system.

The College of Opticians of B.C. has demonstrated its commitment to maintaining high standards of education. It is a member of the National Association of Canadian Optician Regulators (NACOR), which consists of regulator representatives from all Canadian provinces (except Quebec). NACOR has developed national competency standards

which the COBC endorses and applies in B.C. As well, the College initiated an independent review of its qualifying examinations in 2001, which validated COBC's educational standards.⁵

Both NAIT and Douglas College have been designing courses and curriculum to address the proposed legislative changes. The College of Opticians of B.C. has requested both schools to redesign their sight testing programs to recognize the limited increase to optician's scope of practice. Both schools will provide the theoretical training necessary to conducting assessments with technologically advanced sight testing equipment. They have also designed courses so that graduating opticians clearly understand their role and responsibilities to ensure public safety in conducting automated sight testing.

Under the amended regulation, opticians will be limited to assessing visual acuity using automated technology and not manual refraction techniques. For that reason the technical requirements of sight testing courses will be limited to understanding and operating the advanced automated equipment and not manual refraction techniques. The Board of the COBC has determined that a fundamental component of the courses will focus on the aspects of public education and communication (ensuring persons understand the sight test is not an eye health examination), the limitations on the delivery of the service and ensuring that opticians recognize those persons who must receive frequent periodic eye health examinations.

The education program will identify at-risk groups and the history, signs and symptoms that will necessitate the immediate referral to the appropriate health care practitioner. The courses will also ensure that opticians understand the importance of periodic eye examinations and the frequency of those examinations for various age groups.

The COBC has been assured that the teaching institutions will incorporate into their education programs specific aspects in the curricula that address the fundamental issues of safe sight testing. A letter of endorsement from the Deans Health Science, Douglas College and NAIT is attached in Appendix #6. Dean Joy Holmwood, of Douglas College, notes that they have been working collaboratively with the COBC to define the required competencies and skills required for opticians to offer automated sight testing services, recognizing that opticians will be required to undertake appropriate training and education in order to be designated by the COBC to provide this service.

These skills include:

- Developing interview and communications skills with consumers
- Identifying the signs and symptoms that would indicate referral for a complete eye health exam
- Competency in public education methods
- Competency in record keeping requirements
- Understanding limitations on practice

⁵ NACOR, National Association of Canadian Optician Regulators, Competencies. www.naco.ca

The continuing education program will be offered on a part-time distance delivery basis and will therefore be accessible throughout the province. Douglas College has also installed automated sight testing equipment at its vision centre at the David Lam campus, so that they can provide the training on site, as required by students. Aside from teaching the knowledge and skills required to perform automated sight testing, a very important part of the course is to provide information and aids for patient teaching about the limitations of this service and the need to have an eye health examination by an optometrist or ophthalmologist.

In short, the course will enhance the already large body of knowledge of opticians by ensuring they continue their vital role of providing good information to the public on the importance of eye health.

6. Certifying Refracting Opticians

The Board of the College of Opticians has experience in facilitating unregulated practices into a regulated environment. Opticianry was one of the first professions regulated under the Health Professions Act. In 1995, the Board provided a transition process that both protected British Columbians and at the same time recognized the training and expertise of practicing opticians.

A similar process will be undertaken in formally regulating sight-testing opticians. All opticians who have been providing or who will provide automated sight testing will be certified to ensure they have the skills, competencies and knowledge not only in how to provide safe and effective sight tests, but how to communicate with and educate the consumer population they may be testing. Certification will require that refracting opticians not only complete the necessary theoretical course requirements and practicums, but that they pass a certification exam. This process will be applied as follows:

- **Existing Refracting Opticians:** Those who have provided sight testing services prior to January 1, 2004 will have until January 1, 2005 to complete the educational and certification process.
- **Opticians wanting to sight test in the future:** Those who wish to commence sight testing will be required to take the theoretical and practical portions of an accredited training program and then successfully pass a certification exam.

An essential part of certification process will be to establish that sight testing opticians complete technical and ethical grasp of their obligations to patient safety. Those obligations are outlined in detail in the next section.

7. Clear Communication with Clients

Individuals electing to have their eyes assessed by automated equipment will clearly understand the health conditions and symptoms that preclude an automated sight test and will be fully informed of the difference between the automated sight test and a full eye health examination. To ensure they understand these issues, they will be required to sign an informed consent document that clearly describes the issues.

To this end, the College of Opticians has initiated a public education campaign that includes a notice to clients written in clear concise language, Appendix # 7. This notice informs clients that the procedure to be performed is an auto-refraction and is not an ocular examination. It explains the difference between the two procedures and describes the ocular conditions that preclude a person from being able to have an auto-refraction by an optician.

The College of Opticians also is committed to providing consumers with a clear understanding of the need for periodic eye examinations in addition to automated vision tests. The written notice informs all individuals undergoing automated sight testing – even if they have no identified risk factors that periodic eye health exams are important through one’s life time. In addition, the College has also produced a series of one-page information sheets for the use of registrants and their clients. It also posts public information material on the College web site, and provides sample documentation to the opticians’ associations for dissemination through all mediums. Sample documents are attached as Appendix #8.

These clear and concise public information products, available at opticians’ practices throughout the province, are designed to greatly increase the awareness of good visual health among the general public and encourage individuals at risk to seek appropriate follow-up. The information will also act as a catalyst to spur some individuals with decreasing visual symptoms to obtain necessary medical care in a timely fashion.

In short, another group of trained professionals screening for eye health and referring to appropriate providers will provide a greater safety net for eye health for British Columbians.

8. Quality Assurance, Monitoring and Complaints

The regulation of the profession of opticianry requires both proactive and reactive measures by the COBC. To that end, proactively the College has established mandatory continuing education, the establishment of standards of practice and the establishment and maintenance of educational standards, as described earlier in the document.

Likewise, in its reactive role, the College has established protocols for the monitoring of standards for optician conduct and performance and for the processing of public concerns

and complaints. The day-to-day affairs of the College are conducted by the Registrar and the Registrar staff.

Regulations Limiting Use of Automated Sight Testing

The new regulations have attached a schedule of performance indicators that must be met by opticians using advanced technology automated sight testing equipment. The schedule outlines the conditions that must be met for each individual consumer prior to an optician providing sight-testing services.

The College's recommendations regarding these guidelines are attached as Appendix #9.

Certification of Automated Equipment

The Board acknowledges that there are many different types of automated refracting equipment marketed to eye care professionals. The Board, through published standards of practice, requires that opticians providing automated services must use equipment that provides both a subjective and objective assessment of visual acuity.

Monitoring

The Board appoints inspectors to monitor opticians' practices on a periodic and random schedule. The inspection process involves a systemized inspection of records, equipment, and premises. The College of Opticians has a proven record of monitoring opticians' compliance to ensure consumer safety and the excellence of opticianry services.

Public Complaints

The College has an established protocol for processing public complaints and concerns. Any public complaints are swiftly and effectively investigated. A person who wishes to make a complaint against a registrant puts the complaint in writing and sends it to the registrar of the COBC. After receiving a complaint, the registrar must deliver to the inquiry committee a copy of the complaint, an assessment of the complaint and any recommendations of the registrar for the disposition of the complaint. If a complaint is delivered to the inquiry committee by the registrar, the inquiry committee must investigate the matter raised by the complaint.

9. Momentum for Change

B.C. is building on momentum for a similar change in scope of practice that has been gathering across Canada. Opticians' regulatory organizations in Alberta, Saskatchewan, Manitoba, and Ontario are all seeking similar changes to legislation. Internationally jurisdictions such as Washington State, New Zealand, Florida, and Alaska have also been considering the change. While sight testing by opticians has been relatively common in jurisdictions throughout North America, B.C. will be one of the first jurisdictions to pass regulations that ensure clear standards of practice for independent sight testing opticians.

In doing so, the public's access to health care services will be increased.

The provincial government removed eye examinations (specifically routine refractions by optometrists and physicians) as an insured medical procedure for all but seniors and youth under the Medical Services Plan in 2001. Eye exams for patients between the ages of 19-65, in B.C. as in all other provinces, are no longer covered by MSP because they are considered medically unnecessary. As a result, many people never seek eye examinations at all. Many purchase ready-made reading glasses at drug stores at the first indication of vision change, delaying eye examinations for years. Others opt to have existing eyewear duplicated without eye examinations.

The disincentive to pay for visits to eye health professionals is particularly strong where simple eye tests for minor adjustments to lens power are called for rather than full eye health examinations. In Washington State, a random review of Ophthalmological records showed that in the majority of office visits (as much as 70-80%), the consumer merely needed a fine-tuning or “modification” of their existing prescription. The Opticians Association of Washington suggested this could just as easily be accomplished if a Certified Refracting Optician could take the consumer’s original prescription and make the necessary adjustments to it.

In B.C., as across Canada, there are too few ophthalmologists to meet patient needs. Ophthalmologists are aging and only half the number of ophthalmologists are graduating compared with a decade ago. There were only 800 ophthalmologists in Canada and just 183 in B.C. 2002/03. In light of the dwindling supply of these ophthalmologists, aspects of their work that can be undertaken by other health care professions will free them to better serve their patients, particularly those over age 65 who have more visual concerns and who will not be eligible for automated sight tests.

The role of opticians has been evolving over time. The result is not an erosion of health care, but a health care system made more accessible and more affordable through the appropriate and wise use of health human resources as education, training, technology, and changing health care needs dictate. Indeed, the ever-increasing costs of the health care system dictate that health professionals are best used when they are able to serve to the fullest of their abilities. The shift from the emphasis on health care as reactive and crisis driven to one that is preventive and pro-active is embracing a much broader definition of health care service.

Opticians providing automated sight tests throughout British Columbia can reach clients in hard to serve urban locations as well as remote and rural areas of the province who might not otherwise access eye care professionals, or who feel the costs prohibitive in undertaking routine eye checks or seeking minor changes in their eyewear. In performing stand-alone sight tests, opticians will in fact be able to increase public eye health awareness and increase the number of referrals to appropriate health professionals in cases where need is identified. Indeed, the amendments to the Opticians Regulation will create an avenue for health care referral that previously did not exist.

Together, the two key considerations of rigorous public safety protection and increased public access to eye care make a strong argument that British Columbians will benefit

from the recognition and support of a significant preventive health procedure supplied by a well-trained and regulated opticianry profession.

The Ministry of Health has made a decision to expand the scope of practice of opticians to enable automated sight test under a strict set rules. A shift to recognizing a limited role for opticians in conducting eye tests would allow B.C. consumers to opt for a sight testing procedure alone, from a provider of their choice. It would remove a barrier to service. It would introduce a measure of competition into an area that is currently more of a monopoly. Moreover, most importantly, it would broaden the reach of eye health service to an increasing number of British Columbians.

The College of Opticians of B.C. will ensure that automated sight tests are offered in a safe and effective way in B.C. by ensuring high standards of education and certification, effective client education and screening, and strict monitoring and enforcement.

10. Technical Changes to the Regulation

The College of Opticians of B.C. strongly endorses the amendments to the Opticians Regulation. However, we suggest a few very specific changes to wording to ensure that the regulation achieves its desired aims.

Technical Response to Regulations

The College has identified the following technical concerns about the proposed amendments to the *Opticians Regulation*:

1. Addition of automated refractions to section 5(1):

The College recognizes that the Ministry intends to prescribe a new list of "reserved actions" for the purposes of Part 4.1 of the *Health Professions Act*, when that Part is brought into force in the Fall, and that it will likely be necessary to make consequential changes to section 5 of the *Opticians Regulation* at that time.

Nevertheless, until Part 4.1 of the *Act* is brought into force, the College suggests that the dispensing of eyeglasses based on an assessment from an automated refraction should be added to the list of actions under section 5(1) of the *Opticians Regulation*, which, subject to section 14 of the *Act*, must not be done by any person other than a refracting optician.

This change is necessary to ensure that automated refractions will be only conducted by refracting opticians, who will be required to comply with the limitations set out in the proposed Schedule to the *Regulation*, and any additional limitations or standards of practice established by the College (or by registrants of other health professions having appropriate skill and training, such as physicians or optometrists).

The College therefore proposes the following change to section 5(1) of the *Opticians Regulation*:

- 5(1) Subject to section 14 of the Act, no person other than an optician may
- (a) fill a prescription by dispensing eyeglasses, ~~or~~
 - (a.1) dispense eyeglasses based on an assessment from an auto-refraction, or
 - (b) duplicate eyeglass lenses without a prescription.

2. Clarification of prohibition under section 6(1):

The proposed change to section 6(1) of the *Regulation* is ambiguous, and could be misinterpreted. The College suggests the following alternative wording for that subsection, to clarify its intent:

- 6(1) A registrant must not conduct an eye examination, except to the extent required for the proper fitting of eyeglasses or contact lenses.

3. Obligation to retain records under sections 3(b) and 6(c) of the Schedule:

Sections 3(b) and 6(c) of the proposed Schedule establish obligations for a refracting optician to retain copies of the client notice referred to in section 1, and the assessment produced by an automated refraction, in the client file.

The College is concerned, however, that this obligation appears to be open-ended, and it is unclear when, if ever, opticians would be allowed to dispose of these records.

The College therefore suggests the following changes to these proposed provisions, which would allow refracting opticians eventually to dispose of these records in accordance with rules for the retention and destruction of health care records established by the Board under the bylaws:

3. The refracting optician must, in relation to a notice signed under section 2 of this Schedule,
- (a) provide a copy to the client;
 - (b) retain a copy until it may be disposed of in accordance with a bylaw made under section 19(1)(y.1) of the Act. ~~in the client file.~~

...

6. An optician must, in relation to an assessment produced by an auto-refraction,
- (a) provide a copy to the client;
 - (b) provide a copy to the client's prescriber, if requested by the client;
 - (c) retain a copy until it may be disposed of in accordance with a bylaw made under section 19(1)(y.1) of the Act. ~~in the client file.~~

Appendix #10

Appendices:

- #1 Board Resolutions
- #2 Important Patient Guide, Automated Vision Testing
- #3 Client Notice
- #4 Standards of Practice
- #5 Canadian Ophthalmological Society
- #6 Douglas College and NAIT
- #7 Automated Sight Testing – What You Need to Know
- #8 Automated Sight Testing, Client Information
- #9 Schedule, Limitations
- #10 Technical Responses to Regulation and Bylaws
- #11 Request from stakeholders