ACCESS AND BARRIERS TO VISION, EYE, AND HEALTH CARE

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Chapter Overview

Access to vision, eye and health care is a major problem in the United States. Without access to care, an individual’s health and quality of life are reduced and diseases are not prevented, diagnosed, treated or managed. Without access to vision care, individuals may not be able to effectively participate in their communities, drive safely, perform effectively on their jobs, read, learn in schools, access information needed for activities of daily living, avoid accidents and falls, and will not have adequate protection from eye injuries and accidents. All other vision, eye and health care issues are secondary to having access to care.

Objectives

1. Define access and barriers to vision, eye and health care
2. Provide a model for access barriers to vision, eye and health care
3. Describe barriers that impact access: pre-care, during care delivery, and post care
4. Describe unique access barriers to vision and eye care
5. Describe future barriers to access

Public Health Principles

The basic public health principle in this chapter is that all Americans should have access to health care. This principle precedes other health care issues such as cost of health care and quality of health care. Without access to health care services, other health care issues are not significant. There are several underlying public health care principles that impact access to health care, which are listed below.

1. Health care systems need to be organized to provide primary care as the entry point into the health care system, recognizing that family physicians, general internists, optometrists, obstetrician/gynecologists, and dentists often serve as entry points into the health care system.
2. Access to health care needs to be provided in the broadest sense and include prevention, chronic disease management, eye and vision care, vaccinations, exercise programs, and similar services.
3. Open and effective means of communication and health literacy must exist between health care providers and their patients.
4. Providers should use best practices with patients and evidenced-based principles where available.
5. Patients must assume responsibility for their health and adopt behaviors to maximize their health including regular exercise and healthy lifestyle choices,
and minimizing their risk of accidents.

6. Health care access should be provided across the entire life span.

7. No one is excluded from health care because of pre-existing conditions or genetic traits.

8. Life is to have the highest value from conception through death and all health care must be directed at preserving it.

Introduction and Background

From the earliest provision of health care there have been those with access to it and those without access to it. Those with the appropriate friends, family, clan, or tribe had access to the healers, nutrition, and other treatments and supports. In the modern times, those who lived in the appropriate state or country had a job or access to social programs that included health insurance, necessary knowledge, or had the financial means, were able to access health care.

Prior to modern medicine, access was often limited by lack of knowledge about the etiology, natural history, diagnosis, treatment and management of diseases, the lack of trained health care providers, and lack of knowledge about disease prevention through access to clean water and sewage disposal. With increases in knowledge, professionals of ever-expanding subspecialties are more common than primary care providers, new and costly diagnostic technologies are used more than simple preventive strategies, and new and costly treatments have replaced conservative care. The explosion in knowledge and technology has exacerbated the access problem. Professionals struggle to maintain their clinical skills and knowledge.

While some people still lack basic knowledge about how to be healthy and what are healthy behaviors, most people lack access to health care because of the socioeconomic barriers that exist today. Media promulgation of cutting edge care has driven patient expectations for health and eye treatment outcomes to unrealistic levels. For many people, catastrophic health crises lead to disability, bankruptcy, and often long term state supported assistance, where it is available. Access to eye and health care is also being dramatically affected by changes in demography, a change that is beginning to be recognized in the United States and one that is seriously impacting other countries. Life expectancy continues to rise due to clean water, excellent sewage and garbage disposal, cleaner environments, vaccinations significantly reducing childhood mortality, accident prevention, successful treatment of acute diseases, and more effective treatments or management of chronic diseases. There has been a greater increase in life expectancy in many nations including the United States during the 20th century than at any other time in history. Health care needs increase with age; one of the most obvious is presbyopia, the diminishment of near vision focus, which affects 100% of the population over age 40. The most common surgery paid for by Medicare is cataract surgery\(^1\) with 3.1 million extraction of lenses in 2006. With the central bulge in the population pyramid of the United States caused by the expanding group of those born between 1946 and 1965, the ‘baby-boomers’, there is an increasing need and demand for vision, eye and health care. The combination of a larger proportion of the population living longer will significantly contribute to creating the ‘perfect storm’ for access to care, as those who are older utilize and demand more
vision, eye and health care services while the younger working population who provide the financing shrink. Medicare, like Social Security, is funded by Medicare and Social Security taxes paid by current workers whose taxes are deducted from their wages. Because there is no ‘savings account’ for these taxes, more retirees and fewer workers per retiree will result in inadequate funds for future health care of retirees. In addition to the predictable health care needs, demand fluctuates when politicians increase or decrease Medicare benefits.

Access in this chapter is defined as the ability to obtain and to actually receive preventive and primary eye, vision and health care services including follow-up care from a primary care clinician, who serves as a resource for assessing the need for care and coordinating specialty and subspecialty eye and health care. Most commonly this clinician is an optometrist, family physician, or internist. While some people receive their care through emergency rooms and community or in-store (retail) walk-in clinics, these are not considered venues where primary care including the coordination of care is provided, but rather places for the delivery of intermittent and episodic care. Barriers to care in this chapter are defined broadly as those factors which impede people from being able to access health care prior to any care being delivered or needed, during its actual delivery or provision, or long term and follow-up care. Examples of these barriers to access are: the health beliefs of the person, the family and the community; lack of necessary knowledge about the need for care; the absence of primary care or specialty clinicians in the community; inadequate public transportation; lack of resources including insurance to pay for health care, and lack of social support and other factors that make access difficult or impossible.

Some barriers have been addressed by society, such as mandating vaccinations as a requirement to entering school, and the initiation of the Medicaid program for those with limited financial resources, but most barriers have not been addressed. Governmental and institutional responses in the United States have usually been limited to selected segments of the population or to individual barriers to access. The solution to the access problem will require everyone involved in vision, eye and health care to contribute to its solution. It is important to understand that many barriers exist, even in countries where there is universal health care. This will be true even if the United States government enacts health care reform.

**KEY CONCEPT:** Barriers to care can hinder health care access, which is the ability to obtain and to actually receive preventive and primary health care including follow-up care, treatment, and rehabilitation services.

This chapter is designed to increase awareness of the broad range of barriers to vision, eye and health care that currently exist in the United States. It is hoped that with increased awareness, individuals, employers, professional associations and politicians will jointly initiate actions to reduce barriers to vision, eye and health care. To help provide a framework for this discussion, a model for access has been developed

**Barriers to Health, Eye, and Vision Care**

There are a wide range of factors that can be barriers to accessing vision, eye and
health care. These factors often overlap and multifactorial solutions will be needed to address them. Some barriers affect people of all ages, races and genders independent of income and other socio-economic factors. Other barriers are community or group specific and more amenable to localized solutions. To provide a starting point for conceptualizing these barriers, we have categorized them as unique barriers while recognizing that there is considerable overlap and interaction between them.

KEY CONCEPT: Access to health care is the most important factor in the delivery of health care.

CLINICAL PEARL: Optometrists need to know the barriers to accessing eye and vision care in their practices and develop and implement strategies for removing them

Figure 1. Model - Barriers to Access - Vision, Eye and Health Care

KEY CONCEPT: Model Barriers to Access

CLINICAL PEARL: Optometrists need to understand this model and use it as they participate in health care reforms at the local, state and national level and advocate strategies for the removal of these barriers
Health Care System

The health care system in the United States is currently in a state of flux. Most people recognize that the current health care ‘system’ is not actually a truly integrated system and that major changes are needed in it. While quality health care is often available, the delivery of health care is usually fragmented and episodic. Public health and other health care professionals are aware that our health care system is actually an acute-disease care system that also attempts to provide care for chronic diseases. A true health care system would address the multiple health prevention and other health needs ranging from the health needs of infants before birth to people across their lifespan. A true health care system would be much broader than our current disease-oriented care ‘system’. Therefore, this chapter will not include a discussion about the effect of our health care ‘system’ overall, on access to care.

Socio-Cultural Barriers

Socio-cultural factors encompass the demographic characteristics of people, such as age, gender, and ethnicity, as well as the factors that define them socially, such as marital status and their social support system. Culture refers to the integrated patterns of human behavior that include the language, thoughts, communications, actions, customs, beliefs, values, and institutions of racial, ethnic, religious, or social groups. Culture is transmitted both verbally and nonverbally. Verbal transmission occurs within the home starting at birth and continues to be transmitted and influenced through language, institutions, social groups, and the media. Nonverbal attributes are learned through sensory experiences including vision, reading body language, touch, various forms of greeting from kissing and hugging to handshakes or bows, to name just a few. Culture is a dynamic concept and is continually changing with changes in society, knowledge, discoveries and beliefs. Commonalities between people of different cultures and the recognition of cultural differences are needed in order to bridge this barrier to access.

Race and ethnicity can result in beliefs and values that limit access to care. For example, there are differing beliefs on the effectiveness of vaccines. Some believe that vaccines prevent disease occurrence while others believe they increase the risk of acquiring diseases. This barrier is prevalent in part because of media that sensationalize the occurrence of rare events that occur when large numbers of people are vaccinated. Politicians in some parts of Africa banned polio vaccination because they accused the western health system of infecting their people with HIV. In other areas, it was denied that HIV caused AIDS, and in still others it is taboo to discuss sex education, so explaining the transmission of HIV and methods to prevent transmission is not allowed.

Race and ethnicity are also important factors because of diseases that have a higher prevalence in one group than another. Although it is not clear whether race and ethnicity are the primary or surrogate cause of disparities in disease prevalence, they do help identify groups that need access to care for specific diseases or disorders. There are many examples of differences by race and ethnicity in the prevalence of eye...
diseases. For example, the Baltimore Eye Survey found that African American participants were twice as likely to be blind or visually impaired than the white participants.\(^3\) For the entire US population, the leading cause of blindness is cataract, however, when the population is divided by race, the leading causes differ. Among Caucasian Americans, the leading cause of legal blindness is age-related macular degeneration, and among African American persons the leading eye diseases are cataract and glaucoma.\(^4\) In a review of the National Health and Nutrition Examination Survey (NHANES) III, the prevalence and severity of diabetic retinopathy was found to be greater in African Americans and Mexican Americans with type 2 diabetes.\(^5\)

The effect of race and ethnicity on the prevalence of eye problems may be caused by genetic factors, environmental factors or other unknown factors. However, it could also be influenced by differences in access and utilization of health care services. For example, lack of access to nutrition services could result in unnecessary obesity and increase the risk of diabetes onset. After a person has diabetes, a review of NHANES III showed that only ‘about two thirds of patients had a dilated eye examination during the previous year’. Without an annual examination, there is a high risk of developing significant diabetic retinopathy and blindness.\(^6\)

There may also be cultural differences in the treatment of disease after it has been diagnosed. For example, in a study of racial variation in treatment of glaucoma and cataracts in Medicare recipients, it was found that ‘black beneficiaries were half as likely to be surgically treated for glaucoma compared to white beneficiaries, and 80% as likely to be treated for cataract’.\(^7\) This could reflect cultural differences among providers regarding the effectiveness of treatment among patients of different races, reluctance for surgery in different racial groups, inadequate access to care or other factors such as differences in surgical success rates.

**KEY CONCEPT:** A person’s race or ethnicity can affect his or her likelihood of having a disease, not only due to genetic factors, but also due to socio-cultural factors and barriers to health care directly or indirectly related to race.

Many cultures, or groups of people within a culture, are not accustomed to or aware of the benefits of seeking preventive health care services, but to only seeking care when there is an obvious problem or symptom. This problem is also true for preventive eye and vision care and for asymptomatic vision and eye diseases. Although it is difficult to understand how race and ethnicity affect the need to seek and utilize preventive and traditional eye and vision care services, some studies suggest that it may occur. For example, the 2005 Survey of Public Knowledge, Attitudes, and Practices Related to Eye Health and Disease showed that ‘…Blacks (95%) and Caucasians (94%) more often report having had their eyes examined than Asians (87%) and Hispanics (73%)’.\(^8\)

Care giving responsibilities and gender can also be barriers to health care. Women are the typical caregivers in most societies and these responsibilities can be a barrier to their receiving care or for obtaining care for members of the family. Gender may also be a barrier. For example, there is a common perception that males, more than females are impatient and unwilling to wait for a scheduled appointment or to go to an inconvenient location for care.

Several aspects of a person’s culture can influence his or her tendencies to seek
eye and vision care. There may be differences in perceived susceptibility to disease, distrust of doctors and the health care system; a fear or belief that they will not be treated with respect nor have their cultural beliefs considered. For example, pride, or the belief that suffering in silence is their fate, has been cited in the African American community as a barrier to seeking dilated eye exams. Language difficulties may be a problem. For example, Spanish-speaking Hispanics reported far worse health status and access to care than did English-speaking Hispanics (39% vs 17% in fair or poor health, 55% vs 23% uninsured, and 58% vs 29% without a personal doctor) and received less preventive care.

**Educational Barriers**

Educational barriers affect both the general population and health care providers. Both groups may experience a lack of education. This lack impacts understanding of the need for care and the best way to provide it.

The level of education can influence access to vision, eye and health care because it may affect the ability to obtain, understand and use information, and influence perceptions about health in general. An individual with lower educational level may experience confusion about medication use, have difficulty reading printed material, or have difficulty comprehending health care information. The lack of knowledge about the importance of vision and eye care can prevent a person from recognizing signs and symptoms of vision and eye disorders and disease, obtaining regular eye exams, complying with prescribed treatment regimens and adhering to follow-up care. The ability to receive health care information and participate in one’s own care is generally referred to as health literacy. Lack of knowledge about eye diseases and systemic conditions that have visual consequences can prevent a person from seeking eye care. People may have the perception that if they had an eye disease, they would have symptoms, and that is not always the case. Many people have asymptomatic disorders or diseases. For example, a patient with glaucoma slowly loses peripheral vision, but may not notice a loss until the condition is well advanced. Patients with glaucoma may not believe that there is a problem with their eyes. The poor knowledge about glaucoma’s effect on vision may cause the patient to delay seeking eye care and to not comply with the recommended treatment. Low health literacy has been shown to be associated with poor follow-up in glaucoma patients. Another example, is the case of amblyopia, in which decreased vision may go unnoticed. Parents may think that if a child had an eye problem, it would be observable, however, a large percentage of amblyopia cases are due to uncorrected refractive error which can cause the child’s vision to be below normal. This problem may be affecting only one eye and there might be no outward signs for the parent or pediatrician.

**KEY CONCEPT:** *Educational barriers affect both the general population and health care providers.*

Poor knowledge about the resources available in the community for eye care may preclude its members from utilizing them. There may be opportunities for free vision
screenings; some communities have programs to help provide eye care for the uninsured. Drug companies have drug-assistance programs and some pharmacies offer discounted drug prices. However, people who need eye care may not be aware of the opportunities available in their communities. Some may even be eligible for insurance coverage, and not be aware. Even if people are covered by insurance, they may be confused about the level of coverage, and not seek eye care for fear of having unpredictable medical bills.

Education is also a strong influence on whether to seek non-emergency care or not. People need to determine if they have a general health problem or need immediate care. This determination requires the ability of a person to assess their own health status and to have a general knowledge of illnesses. If the assessment is that there is a need for care, then other assessments are needed such as where to go for care, and what resources are needed for care. These assessments are influenced by perceptions of quality of care and beliefs about health care providers.

Health care providers also have an educational barrier. Because of the exploding amount of new information on prevention, diagnosis, natural history, treatment and disease management, providers at all levels. In addition to technical information, providers must continually learn and increase their knowledge of different approaches for their patients to access care, improved methods for patient education, providing an environment for people with different backgrounds, educations, languages, disabilities and many other factors. They must work to learn the thinking, beliefs, and attitudes of the cultures of their changing patient populations. (see the related chapter “Cultural and Linguistic Competence” in section 4.)

Environmental Barriers

The environment in which people live may influence their access to screening, diagnosis, treatment and rehabilitation and other health care services. Difficulties with the home environment, transportation, long appointment wait times, and scheduling hinder access to care or makes access impossible.

There are many examples of environmental barriers. A few of these examples are described below.

A person’s home environment may preclude them from having the time and means necessary to seek eye care. A caregiver’s difficulty leaving family members under his or her care can have an effect on how often he or she seeks eye care, with smaller families possibly having more opportunity to access eye care than larger families. For example, a single mother of five small children who also takes care of her terminally ill grandfather can have difficulties finding time and someone to help with her responsibilities while she attends an eye appointment.

Lack of caregiver can also hinder a person’s access to care and compliance with treatment. For instance, a patient with diabetes who lives alone and is not able to drive can have difficulty going to the optometrist for evaluations without anyone to escort him. Similarly not having someone to help administer medications could increase this patient’s problems, especially if the patient has low vision or other disabling physical conditions. Nursing home patients may also have the same issues if their relatives live in another city.
Lack of accessible and affordable transportation options frequently hinders a person’s access to care. When a patient with macular degeneration does not own a car or is unable to drive due to decreased vision, the option of public transportation may not be possible as this transportation is not available or is not able to be used because of the poor vision. The patient may need to ask friends and relatives to take off work in order to take him to an eye appointment, if they have jobs that allow them to do this.

People may not have telephones or other mechanisms for communication. Doctor’s offices typically have reminder systems to encourage patients to come in for their follow-up appointments, but if communication via telephone or mail is not possible (phone disconnected, or change of address occurs), this process is hindered. Patients who are homeless, or who change addresses often, can make care challenging because of inability to have continuity of treatment.

**Financial Barriers**

Financial factors such as income, employment status, and insurance status can greatly influence access and utilization of health care. When people have financial difficulties and they cannot afford eye care, their priorities may not be centered on prevention or treatment of vision or eye conditions, even if they seem serious. Survival priorities, such as shelter and food may seem more important; health care, especially preventive care will be ignored or deferred. Things which can provide immediate gratification such as television, travel, cell phones, alcohol, tobacco, etc, may be chosen over having an eye examination, replacing glasses, getting a flu vaccine, refilling a blood pressure medication, or getting a cancer screening.

People of low income may not have insurance coverage for vision, eye, and health care if their income exceeds the Medicaid qualifying requirement within their state. Among these uninsured there are many who do have access to insurance but do not enroll in available plans (not even the individual plans offered by most Blue Cross plans which cover major medical problems). Examples include people in their 20s, transients, workers whose employers do not offer health insurance, and those who are labeled the ‘working poor’, that is their income is too high for Medicaid but with insufficient income for insurance.

People who are uninsured for the above reasons have the tendency to seek only emergency care for acute conditions due to their lack of insurance and difficulty paying for services. The federal government requires emergency care to be provided to everyone, regardless of income or insurance, and does not define emergency.

Other factors related to finance are employment conditions. For example, some hourly employees taking time off work to attend an appointment would lose wages or could be fired. Eye conditions that are acute in nature such as injuries and infections may be taken care off as an emergency, but there are many devastating eye diseases that are chronic in nature, such as glaucoma and diabetic retinopathy, that require treatment not available in an emergency clinic. All of these financial barriers and the social factors associated with financial difficulties place people in vulnerable positions for receiving health care. These financial barriers increase a person’s stress level, which in turn can interfere with health care. Even if affordable care is available, financial barriers may cause difficulty in paying for prescribed treatments.
**Geographical Barriers**

Geographical barriers to health care exist throughout the United States. These barriers are most apparent in rural areas where people have no or minimal local access to health care and have to travel long distances to receive it. Rural barriers occur because of inappropriate distribution of health care providers in which most providers are located in urban and suburban communities. It is estimated that about 20% of the population lives in a rural area but only 9% of physicians practice there. 

There are also geographical barriers in urban and suburban areas. These barriers are caused by lack of public transportation for people who do not have their own automobiles or who are unable to drive. Imagine the barrier for a single young parent with several children who needs to take a sick child seven miles across town for an appointment. She needs to make child care arrangements for her other children, wait for a bus to arrive, make one or more bus transfers in order to get to the clinic, wait to be seen, get a prescription, get to a pharmacy, wait for the prescription, and then get home. Imagine the barrier for an older adult with arthritis who needs to use a walker for support and who has to make the same bus trip as the young parent, and who also has difficulty climbing up and down the bus steps. Even in communities that have some public transportation available for those with handicaps, the handicapped individuals may need to live within a few miles of a public bus route in order to be eligible for these special transportation services.

Geographical barriers can also be considered as a disparity in either overall care or care for specific conditions that varies by the region in which one lives, whether rural, suburban or urban. The region in which a person lives can “...itself have a large impact on the level and quality of health care the patient receives.” These regional differences in health care may result from low quality care, slow diffusion of technology, differential supply of specialists, differences in rates of surgical procedures among similar patient populations and the practice patterns in local medical communities regarding specific treatments.

In a study by Banerjee et al, an “effective care’ index of 11 measures, including the administration of angiotensin-converting enzyme inhibitors, aspirin, and beta-blockers after heart attacks; mammograms for older women; influenza and flu vaccines; eye exams; and the evaluation of lipid profiles and HbA1c for diabetics” was compared across the U.S. in both gross proportion and after adjusting for age, race, gender, and illness. These are measures that most clinicians would agree upon and ones which everyone with the appropriate condition should be receiving. Many rural and urban areas were found to have variations in the index with some as high as 57% compliance and some as low as 30%. Areas of the highest and lowest quintiles occurred in all states and some were adjacent to each other.

**Health status Barriers**

A person’s health status can affect his or her access to prevention, diagnosis, treatment, and rehabilitation of health conditions. There is a cycle created when there is a constellation of health problems. For example, a patient with diabetes and
hypertension may not be aware that these conditions, when not controlled properly, can lead to serious eye problems. Even if this patient is aware of the possible visual consequences, he or she may not have access to the diagnostic and treatment services and may lack the money for all the medications needed to treat the diabetes and hypertension. As the health status of this patient deteriorates, the visual problems can become more serious and lead to low vision that could make the management of their systemic conditions more challenging, such as trying to measure blood glucose levels without being able to see properly. This, in turn, can lead to deterioration of health as the diabetes is not controlled. Illnesses and poor health status can also make it physically more difficult to access health care.

A patient’s mental status can also affect his or her access and utilization of eye care services. For example, a person who is depressed may experience lack of interest in seeking eye care, or may have fatalistic perceptions about eye diseases. The person may have difficulties in interacting and communicating with others which further impacts access to care. Obviously, dementia and Alzheimer’s disease are serious barriers for remembering appointments, and treatments, and taking care of oneself. This is especially true in the early mild stages because the patient or family may deny its presence or be unable to care for an intermittently lucid patient, or put in place assisted care, a legal health care proxy, and a power of attorney.

When a patient has low vision and is no longer able to do all the activities they used to do, such as driving a car, they may become depressed. On the other hand, when a patient has a milder form of disease, or a disease that does not have obvious signs, such as glaucoma, people may assume there is not a sight-threatening condition and not be compliant with treatment

**Health Care System Barriers**

**INSURANCE**

According to the National Health Interview Survey for 2004 to 2006, 67.8% of the population under age 65 in the United States had private health insurance, 13.2% had insurance through Medicaid or State Children’s Health Insurance Program (SCHIP) and 3.4% had other types of public coverage, leaving 16.6% uninsured during this period. The U.S. has no centralized system of care, and patients receive care through multiple entry points that change as patients age, change jobs or insurance plans, or lose health insurance coverage. A patient’s lack of insurance or insufficient insurance may preclude a referring physician from prescribing further diagnostic tests or treatments so that the patient will not incur further expenses. The lack of a usual source of care leads to a lack of preventive care and no emphasis on wellness, only accessing health care in an emergency.

**FRAGMENTATION OF CARE**

Another barrier to health care in the US is the fragmentation of care. Many people do not have their care coordinated through the use of a primary care provider. This results in their care being provided by several physicians with each only addressing the problem related to their specialty. This results in duplication of services, increases the
risk of bad drug interactions and inadequate care.

**Vision and Eye Care Barriers**

Having health insurance in the United States does not necessarily mean that eye and vision care is covered unless a medical problem is diagnosed. If a patient’s reason to seek eye care is because of poor eye health, insurance may not cover the examination or treatment, although the consequences of poor vision may be catastrophic, such as an automotive accident or a fall caused by the poor vision. Access to the U.S. healthcare system is exceedingly complex. Cost of co-payments and lack of sufficient insurance can influence a patient’s decision to seek eye care. Even if a patient has insurance, he or she may not be able to afford the co-payment and glasses. Medically necessary vision treatments may require lengthy preauthorization paperwork which discourages providers and patients from attempting to get the treatment. Finally, reimbursement may be so little, that providers are not able to participate in the patient’s insurance plan. According to the CDC, in 2005, “more than 40 million adults (about 19%) did not receive "needed services" because they could not afford them”, including, “nearly 15 million adults who did not obtain eyeglasses”.

The arbitrary separation of “vision care” from “eye health care” can exclude or discourage people from getting vision or eye care. Most medical insurance, including Medicare, specifically exclude refractions, optical corrections, low vision, and vision therapy from coverage. Thus, patients in need of these services may not receive necessary examinations and treatments. Vision care carve out plans are separate insurance plans subcontracted out of the main health insurance plan. These carve-out plans often restrict eye exams and optical correction to once every year or once every other year. This may cause patients with chronic conditions such as glaucoma, diabetes, or amblyopia to mistakenly believe they can only see their eye care provider once every one or two years. This can also cause patients to seek emergency eye care from a primary care provider, hospital emergency department, or urgent care clinic rather than an optometrist.

**Summary**

Although the barriers described in this chapter are presented separately, they are actually synergistic in preventing people from accessing eye and vision care resulting in adverse health outcomes. For example, a patient with glaucoma who has financial difficulties and who lives in a rural area has problems accessing eye care due to the cost of the eye exam, inadequate or no transportation, difficulty in taking time away from work, and the cost of the medicines. These difficulties may lead to the deterioration of his condition, eventually worsen his health status and cause him to become visually impaired.

There are additional barriers that are not included in this chapter that directly impact the delivery of eye and vision care. Examples of these barriers include: inadequate distribution of eye surgeons, inadequate assessment of the vision needs of patients, inadequate assessment of the need for eye protection, inadequate number of researchers and funding to address the diagnostic and treatment effectiveness for
prevalent eye and vision problems, and inadequate understanding about the impact of poor vision on activities of daily living. All of these other barriers also reduce access to quality eye and vision care.

There is a poor distribution of primary and surgical eye care providers. This poor distribution frequently occurs in rural areas and in inner city urban areas. People in these areas often have to travel long distances for eye care. Insurance reimbursement does not vary with a patient’s occupational and recreational needs, so there is little incentive for a provider to spend extra time asking about ocular hazards, ergonomic needs, etc., and writing additional prescriptions. This type of vision care should be available and can improve quality of life and productivity. It also decreases the risk of eye injuries, and in the long term decreases health care costs.

All areas of health care and eye and vision care suffer from inadequate research and application. This lack of clinical and translational research results in the delivery of much care without knowledge of its effectiveness. There is also a barrier to quality care that results from the lag in transfer of new knowledge to clinical practice. It has been reported that for medicine overall this lag can be as much as 15 years. These specific barriers are not usually considered to be barriers, but in fact they have the same results as better-recognized barriers. They result in people not receiving needed care and not receiving quality care.

**Future Barriers**

The advent of new technology increases the cost of care and results in a lag in its widespread use. New technologies that are likely to impact eye and vision care are genetic tests and treatments, new ophthalmic devices, new and more effective drugs, new nutritional knowledge and agents related to eyes and vision, and approaches for the prevention of myopia, among others. With increasing cost associated with these new technologies and the overall increasing cost of health care, it is very likely that new technology for eye and vision care will increase the amount of eye and vision care that is rationed.

Another potential barrier has been legislatively proposed at the federal level as part of the discussion on health care reform. This proposal is for a national board to determine which diagnostic and therapeutic approaches, devices, drugs and other treatments are effective. This board would have the power to limit health care by mandating what would be reimbursable under federal health care plans, Medicare and Medicaid. This would be a new approach to rationing from the current methods.

**Case Studies**

CASE 1 An unemployed and uninsured 42-year-old white female presented at a community clinic seeking glasses for her near vision problems. The patient has type II diabetes, diagnosed when she was 36 years old and systemic hypertension with blood pressure of 180/95. However she is only able to obtain the treatments that she needs of these conditions sporadically. The patient also smokes two packs of cigarettes a day.

Her entering visual acuities were 20/30 with each eye at distance and 1 M at 40 cm. There was no significant refractive error and no improvement with a pinhole test.
Her near vision improved to 0.5 M with a +1.50 add. Her intraocular pressures were 22 mmHg in each eye with Goldman tonometry. The fundus examination showed several dot and blot hemorrhages in the posterior pole and the optic nerves appeared suspicious for glaucoma.

The assessment was mild non-proliferative diabetic retinopathy, glaucoma suspect due to her optic nerve head appearance and family history, presbyopia, reduced distance visual acuity of unknown etiology and moderate risk for AMD secondary to her cigarette smoking.

The patient was prescribed glasses for reading only and scheduled for a follow-up visit with a volunteer optometrist who donates eye exams. The patient stated that she only wants reading glasses and would not seek follow-up care because of transportation difficulties and lack of money for medicines. There was also an attempt to schedule her to see a general physician to address her systemic conditions, but the patient refused because she felt there was no hope for her getting better and even if she got better, her life would continue ‘to go downhill’.

This case presents several barriers that people who are uninsured and unemployed may have. First, there are financial barriers. Being unemployed, her priorities are not immediately addressing her eye diseases. Second, there is an educational barrier, demonstrated by her lack of knowledge regarding the consequences of her health problems. Third, there is a health-status barrier in which she feels there is an overwhelming constellation of problems.

**Public Health Barriers Related To Case Study**

Financial: unemployment, lack of savings or other resources for health care.

Education: lack of knowledge about her health conditions and the implications for her current and future quality of life.

Health-status: presence of multiple conditions and risk factors for other conditions which are chronic and potentially disabling, blinding or fatal. Complicated by probable depression.

Priorities and choices: excessive use of tobacco but claims unable to afford medicine.

Cultural: belief that she is destined to be ill. Refuses care even when other barriers are removed.

**Discussion of Case Study**

The primary access barriers are the patient’s belief system and emotional affect. She either believes her conditions cannot be treated due to a long standing cultural indoctrination against conventional public health and medicine, or she desires to be chronically ill and slowly die. Educating the patient is not effective if the patient is incapable of believing the best knowledge available, or does not desire to improve her health, or does not utilize no or low cost health care.

There are a number of approaches that could be used to help this patient. In such a serious case, the provider could ask the patient directly: “Do you want to die?” If the patient responds yes, then a psychological evaluation needs to be done. The
patient may even need an emergency referral. Assuming the patient is concerned about her health, then other questions about family or support groups may elicit permission for contacting someone who could help the patient participate in her health care. In addressing her depression, it might be helpful to explain that chronic conditions such as diabetes, heart disease, and high blood pressure can, by themselves, cause depression and that treatment of these conditions can improve mood.

Next, the patient should be encouraged to apply for Medicaid or seek care at a community health clinic or a clinic for those who earn too much to qualify for Medicaid (the working poor). At these clinics, directions to the local social services office would be helpful and bus schedules or other public transportation can be on hand. Appropriate follow-up care should be provided.

Finally, there should be an effort to obtain help from family or other support groups from a similar background to help the patient participate in her health care. Sharing success stories of patients with similar problems could be very effective.

Public Health Barriers Addressed
Financial- provide access through Medicaid, charity care, or indigent care and transportation.
Education- enroll a friend, family member, or a health care professional from a similar background to reinforce and explain the concerns.
Health Status- triage and prioritize. Begin with emotional affect and most life threatening conditions. Avoid scheduling too many referrals at once. Allow the patient to work on one condition at a time.
Priorities and choices- address financial needs

CASE 2 An eight-year-old Hispanic male presented to a church screening complaining of blur at distance and near with his left eye. Parents reported no unusual history. He was referred to a local optometrist who volunteers several no cost eye exams per year for children who cannot afford them. The child was diagnosed with panuveitis (a severe inflammation of the anterior and posterior segments of the eye), sent for laboratory testing and prescribed oral steroids.

The single mother of the child is a migrant worker who was in town for the agricultural season. The child has no insurance, birth certificate, or social-security number. They have no money for the medicines or the laboratory testing. They also had a difficult time understanding the urgency of the need for treatment. They finally obtained the prescribed medicine through a local church ten days after being diagnosed. The agricultural season finished and the family did not come back until eight months later.

Public health barriers
Geographic- migrant workers are one of the most challenging populations to provide health care. They move from different parts of the US and back to their home country. Sometimes they follow a similar circuit and return to the same area, but other times they do not.
Education- migrant children may be bilingual but often their parents are not. Explaining a serious condition to an 8 year old and trusting them to explain it to
their parent(s) gives little feedback to the provider.

Cultural- migrant workers may not be familiar with the means to access U.S. health care, or have beliefs different from western medicine.

Financial- migrant workers may be undocumented and not eligible for U.S. public health insurance. Their wages may not be adequate to pay for health care.

Informed consent- the patient is a minor. His parents may not be able to understand the condition due to language barrier. They may refuse registering for care or insurance for fear of being deported.

Discussion of Case Study

With the help of their church members, they were able to get the laboratory testing and medicines. The child was diagnosed with toxocariasis (helminthic infection) and treated appropriately. After the treatment, the child was referred for a vitrectomy (surgical removal of the vitreous) due to the significant vitreous cells and remnants of the inflammation. One year after the initial diagnosis, they were finally able to collect the money and obtain the surgery.

This case represents an array of barriers to access to eye care that an undocumented migrant child may have. There are socio-cultural barriers represented in the importance the mother places on the need for prompt treatment. There are also financial barriers in accessing medications and laboratory testing. There are geographic barriers in the mobility of the family which makes contact with them difficult. The family had a significant support system in their church which plays an important role in many communities.

Documented migrant workers can receive health care in some instances. They can go to federally funded community health centers and receive care based on their ability to pay. Farm owners and agricultural businesses may pay for a worker’s care as needed. Federal, state, and municipal programs and grants have been used in communities or through agribusinesses.

Breaking the language barrier takes resourcefulness. Providing written literature may not be sufficient as there may still be low health literacy in their native language. Arranging a translator is very helpful.

Public Health Barriers Addressed

Geographic and cultural- despite frequent moves, the family maintained an interest and active role in solving the child’s eye health needs. They overcame the barrier of undocumented status to get health care.

Education- through a support system, the family was able to understand enough to get the help the child needed.

Financial- the family and their church performed a fund raising mission to fulfill the financial needs for treatment.

Informed consent- through local support, the parents were able to make an informed decision and proceed with care for their child.
Conclusions

Access to health care is a major health care challenge in the United States. This problem affects people of all ages, races, ethnicities and genders. The multi-factorial nature of this problem makes its solution difficult, especially when it is not recognized as the primary problem people have for obtaining health care.

Access barriers are multiple and the basic ones described in this chapter are some of the most common. These barriers include education, environment, finance, geography, health status, health care system, and socio-cultural. There are also specific barriers that affect eye and vision care including the utilization of surgeons as primary care providers, the distribution of eye care providers outside and inside urban areas, the lack of patient education by providers and the increasing difficulty providers have in maintaining their clinical competency with the rapid expansion of knowledge and technology.

Through increased understanding about the overall problem of access, the knowledge of common barriers to health care, the awareness of specific barriers to eye and vision care, the authors of this chapter believe that optometrists will be able to contribute solutions to the problem of access. With increased awareness of the access problem, practicing and future optometrists will be able to remove or ameliorate access barriers within their own private or institutional practices. This awareness, participation in health care reform at all levels of government and changes in individual practices will hopefully begin and contribute to the solution of the health care access problem.

Study Questions

1. Describe the public health principles of access and support the argument that it is the most essential principle underlying health care reform and the delivery of health care services.

2. Using the conceptual model in this chapter, rank the initial barriers to health care access for three different populations: rural Appalachian English-Americans, rural southern African-Americans, and inner city, southern California Mexican-Americans. Present your reasoning for your differential ranking of access barriers for these three groups.

3. Using the conceptual model in this chapter, rank the secondary barriers to health care that occur following the initial entry into the health care system for three different populations: urban, Midwest, middle-class European-Americans, inner-city middle class new York Puerto-Rican Americans, and suburban, Atlanta, middle class African-Americans. Present your reasoning for the your differential ranking of access barriers for these three groups.

4. Access barriers present differing degrees of difficulty in their resolution. Choose and list two barriers to initially accessing health care and two barriers to access following entry into the health care system. Present three solutions to either remove or ameliorate these barriers, ranking your solutions from the most likely to be implemented to least likely.

5. Health care reform has been hailed as ‘the’ panacea for solving the problem of access
to health care. Others have stated that with health care reform, access will continue to be a problem. State three arguments for health care reform solving the problem of health care access. State three arguments for health care reform not solving the problem of health care access, but rather having the unintended consequences of creating other barriers to access.

6. Specifically for eye care, state and rank the four most common barriers to receiving eye and vision care from optometrists from most to least common. State the four most common barriers to receiving eye and vision care from ophthalmologists from most to least common. For each profession, state three approaches for overcoming the most common barrier to accessing eye and vision care.

7. Describe the different types of geographical barriers and list financial, educational, professional and delivery of care solutions for solving them.

References


