

we lack much scientific knowledge of the visual processes. More than 90 million Americans—about half our population—have some ocular malfunction.

The New York Times, in publishing a new large-type weekly newspaper, estimated its potential market at 6 million people whose vision is so poor that they cannot read standard-size news type or can do so only with the greatest difficulty. These are not numbered among the blind. But they live in a far different world than that of the fully sighted, accepting the fact of fading vision—because as a nation we seem to accept it as an unalterable act of fate.

Just think what the result would be in terms of human life, health, and happiness if our scientific genius were put to work in a full-scale effort to find and eradicate the causes of cataract and glaucoma and diabetic retinopathy and those other diseases of the eye which are the primary causative factors in more than 80 percent of all blindness in America today.

For instance, cataract is the leading cause of blindness in the United States. At age 60, cataract is present in 60 percent of our people. By age 80, the incidence is almost 100 percent. If we could discover what causes cataracts and eliminate that cause, we could reduce blindness in this country by 25 percent. But we do not know the cause of cataract.

Another example—glaucoma. This is the second leading cause of blindness in this country, an insidious disease that often is not diagnosed until irreparable damage to vision has been done. Some 2 million Americans over 40 years of age have glaucoma, and more than half are not yet aware of it. By age 65, about 10 percent of our population is so afflicted. If we eradicate the cause of glaucoma, up to 15 percent of all blindness can be eliminated. But the cause is not known, and we will find it only through a much more imaginative and extensive eye research effort than we are now supporting.

The advance of medical science is creating a desperate need for greater knowledge of the eye. People are living longer, but unless we halt deterioration of the eyes due to progressive diseases, millions of Americans will live out these extra years in darkness. We are saving the lives of infants who once would have died as a result of prenatal and perinatal conditions which also affect the eyes. Much of our research must be aimed at the visual problems of these youngsters, otherwise we have saved lives only to number them among the visually disabled.

It is time we recognized that visual problems are not confined primarily to our aging population. It is estimated that 12 million American schoolchildren—one out of every four—need some form of eye care. And nearly 2 percent of all children in the country have crossed eyes.

Another example—blindness due to diabetes. Through the use of insulin, the the lifespan of diabetics is being vastly extended. But we have learned that insulin does not always halt the progress of one major vascular complication of diabetes—diabetic retinopathy. This disease is the most rapidly growing cause of blindness in the United States today.

In 1930, it was the causative factor in less than 1 percent of all new cases of blindness. Today, it is responsible for almost 15 percent of newly reported cases. In this one area of vision alone, the prospects for the future are frightening, unless we begin to do something about