

Cataracts make the lens of the eye unclear, which causes visual impairment and, if left untreated, blindness. Visual impairment usually develops slowly over time, on one or both sides, and is part of the aging process. Some eye conditions are caused by new blood vessels growing, which can cause blindness. The most important such condition is age-related macular degeneration (AMD, wet type), and other examples include diabetes-related changes in the retina (diabetic retinopathy) and blood clots in the eye.

### Background

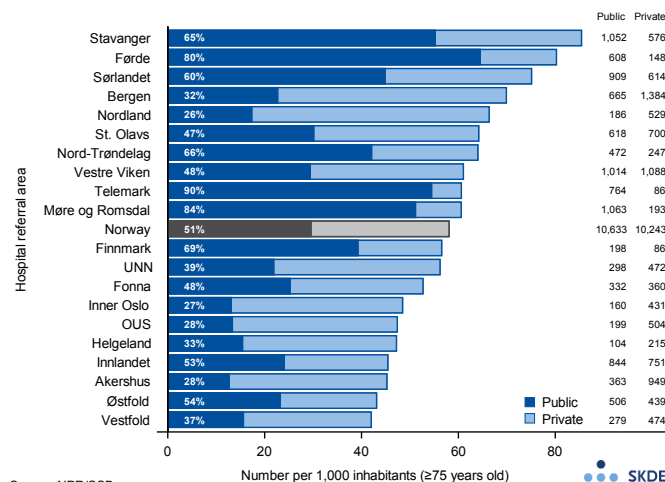
Cataracts are treated surgically. The surgery is usually an outpatient procedure performed at a hospital or by a specialist in private practice under a public funding contract, and it consists of removing the old lens from the eye and inserting an artificial one.

Medication that inhibits the growth of new blood vessels in the retina is injected directly into the eye (in the vitreous body). The injection is repeated after a few weeks. The medication prevents further deterioration and can also improve the patient's vision. It is well documented that injection treatment is effective against wet AMD, and it is increasingly used for diabetic retinopathy and blood clots in the eye as well.

### Results

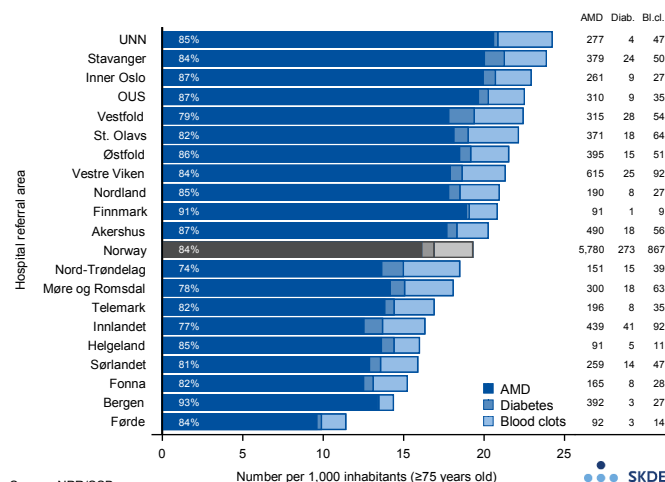
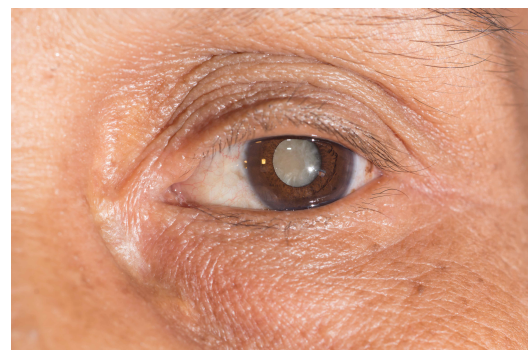
Approx. 21,000 procedures per year are performed on elderly patients for age-related cataracts, and the breakdown between the public and private sectors is relatively even. For Norway as a whole, the number of procedures per year remained stable during the three-year period. Twice as many cataract operations are carried out on residents of Stavanger hospital referral area as among people resident in the Vestfold area. In the hospital referral areas with the highest treatment rates, namely Stavanger, Førde and Sørlandet, a relatively high proportion of patients are treated in the public sector, ranging from 60 to 80%. Residents of central parts of Eastern Norway (Inner Oslo, OUS and Akershus hospital referral areas) are more often treated by specialists in private practice under public funding contracts, and the rates for these areas are relatively low.

Each year, nearly 7,000 elderly patients are treated with repeated eye injections. AMD is the most common indication for treatment, followed by blood clots and to a lesser extent retinal changes caused by diabetes. Residents of UNN hospital referral area undergo such treatment twice as often as the residents of the Førde area.



Source: NPR/SSB

Cataracts, number of procedures per 1,000 population, adjusted for gender and age, broken down by public and private service providers. Av. number public and private per year.



Source: NPR/SSB

Eye injection treatment for AMD, diabetic retinopathy and blood clots, number of patients per 1,000 population, adjusted for gender and age. Av. number per condition per year.

### Comments

Many cataract operations are performed each year. There are no indications that there are geographical differences in the prevalence of cataracts in Norway, and the variation must thus be considered moderate and probably unwarranted. The indication for the procedure is relatively clear, but variations in practice nevertheless exist.

Of the retinal diseases, only AMD has sufficient volume for an assessment to be made. It has only been documented fairly recently that injections of growth-inhibiting medication are effective against blood clots and diabetic retinopathy. There is no known geographical variation in the prevalence of AMD. The variation described is greater than can be ascribed to random variation. There is a striking difference between nearby hospital areas such as Stavanger and Bergen. Haukeland University Hospital has experienced capacity problems, but has now started using nurses to perform this treatment. Capacity problems could necessitate prioritisation that results in the population not having equitable access to health services. The absence of national guidelines and different interpretations of the existing documentation are also potential reasons for variation in this area.