

## ECOO Blue Book: Countries Surveyed

	Austria	Finland		Italy	•	Slovenia
	Belgium	France		Netherlands		Spain
	Bulgaria	Germany		Norway		Sweden
<b>*</b>	Cyprus	Greece		Poland	÷	Switzerland
	Czech	Hungary		Portugal	C*	Turkey
	Denmark	Ireland	ŧ	Slovakia		UK

#### **Executive Summary**

With the rising cost of medical care and the decline of the number of ophthalmologists in some countries of Europe, primary eye health care is transferred increasingly to optometrists and opticians. But the ability of optometrists and opticians to develop beyond their traditional handicraft activities and to offer primary health care is not uniform, it varies according to the circumstances of their country.

Optometry and optics are linked professions and are in some countries of Europe considered to be one profession. In other countries they reflect separate areas of professional activity and are considered as separate professions. Optometry is concerned with the clinical assessment of the human eye and the prescribing and after care of optical appliances (spectacles or contact lenses) to correct defects of sight. Optics (or opticianry) focuses on assembling and dispensing such appliances.

In some countries professionals combine the two functions. In other countries they restrict their assessment to refracting the patient and then dispensing the corrective appliances. Beginning with the lowest level of training, we can say that in Europe we have dispensing opticians, followed by refracting opticians, followed by optometrists who are trained to detect pathology. In a minority of countries such optometrists also use diagnostic drugs and even a limited range of therapeutic drugs.

The varied scope of practice of optometrists and opticians in Europe is the result of the extent of available training, the law, the organisation of the profession, and the relative size, political weight and attitude of ophthalmology towards optometry. Optometry is still outlawed in some countries.

Education and training are recognised as the key to the advancement of the profession. A general trend is emerging, whereby opticians continue to be trained from the age of 16 onwards through a mixture of study and practical work experience; while optometrists are increasingly trained at university, having an element of supervised training in clinical practice.

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#### **Introduction**

ECOO is the European Council of Optometry and Optics. Its member organisations are the national bodies representing optometrists, opticians and optical companies in 27 countries. As such, they are recognised as *bona fide* interlocutors by the national authorities of the countries concerned. ECOO is recognised by the institutions of the European Union.

The current version of ECOO's Blue Book is a 'snap shot' (or overview) of the profession of optometry and optics in Europe in 2008. It is based on the information provided by ECOO's member organisations of 24 countries. (Three countries did not respond.)

The purpose of the Blue Book is to illustrate the field of activities of the profession of optometry and optics and its growing importance in public health in Europe. Whereas the profession has its origins in the handicraft sector, it is increasingly becoming a health care profession, independent, well trained and working in collaboration with other health care professions.

#### **Optometrists and Opticians in Europe**

The profession of optometry and optics has evolved at varying speeds within Europe and remains at different stages of development. Thus it is difficult to paint a uniform picture of the profession, easily perceptible at a glance.

Generally optometry has emerged from optics, as the education of opticians has expanded to include clinical subjects and as their scope of practice has been enlarged as a consequence. Some opticians have become optometrists.

Opticians continue to make and fit corrective spectacles, according to the prescription of an ophthalmologist (a medical practitioner) or an optometrist, depending on whether optometry is practised in that country. Such opticians are sometimes called dispensing opticians.

Optometrists perform full eye examinations on patients, resulting in the prescription of corrective optical appliances if necessary and, in a minority of cases, the detection of signs of possible disease, injury or abnormality of the eye. In such cases the optometrist refers the patient to a medical doctor for further investigation and possible treatment.

Some opticians have evolved to the stage of performing partial eye examinations, consisting mainly of refracting and prescribing corrective optical appliances, but not searching for or detecting pathology of the eye. Such opticians may be called refracting opticians.

In some countries optometrists and dispensing opticians are regarded as distinct professions, either in law or *de facto*. In other countries the profession is considered as a single profession, the optician-optometrist, irrespective of the professional's scope of practice and day-to-day activities.

#### **Contents of Blue Book**

The Blue Book looks at five main areas of the profession:

- The number and size of the profession
- The status of the profession
- The scope of practice of the profession
- The profession's role in public health
- The education and training of the profession.

# Number and Size of Profession



#### Number and Size of Profession

For the purpose of comparing the density of the profession in relation to each country's population, the profession has been divided into optometrists and opticians.

The comparisons are expressed as numbers of optometrists and opticians per 10,000 of the population in the relevant country.

The comparisons show not only the differences in the availability of the profession; but they also indicate, for example, that **Denmark**, **Finland**, **Ireland** the **United Kingdom** have a proportionally greater number of optometrists compared to opticians. In Spain the profession is a single profession, and no opticians are indicated for that country. In Norway, Poland and Sweden, there appear to be equal numbers of optometrists and opticians. (No data were supplied for Greece.) In the remaining countries, opticians outnumber optometrists.

The number of **ophthalmologists** per 10,000 people is remarkably similar in most countries, with the exceptions of **Greece** (where there are more ophthalmologists) and the **Netherlands** and **UK** (where there are fewer ophthalmologists). (No data were given for Ireland, Turkey and Slovenia.)

Further figures show the numbers of student optometrists as a proportion of 10,000 of the population of most of the countries surveyed. The proportions are remarkably similar in most countries, although slightly higher in **Belgium**, the **UK**, Spain, Norway, Sweden and Ireland, and much higher in Denmark. (No data were supplied on student opticians.)

The numbers of optical retail outlets per 10,000 of the population is also remarkably similar in most countries, between one and two outlets per 10,000. The proportions are slightly lower in the **Czech Republic** and **Turkey**; and slightly higher in Belgium, Greece and Cyprus.

On the other hand, there is a very large variation in the proportions of *primary sight tests* performed by ophthalmologists compared to optometrists or refracting opticians. Generally speaking, two factors account for this variation: the relative size and political weight of the ophthalmological profession; and the state of optometry. (See below for the legally permitted scope of practice of the profession.) Thus, for example, where there are large numbers of ophthalmologists, or optometry is prohibited, or both - as for example in Greece, Turkey and Bulgaria - most primary sight tests are performed by ophthalmologists. Very few are performed by ophthalmologists in Denmark, Ireland, the Netherlands, Norway, Sweden and the UK.



Note that in **Spain** there is a unique profession which encompasses both Optician and Optometrist



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How many of the total refractions/primary eye exams are done by ophthalmologists?











## Status of Profession



#### **Status of Profession**

As a profession in evolution, optometry and optics are viewed less and less as a <u>handicraft</u> and more and more as a <u>health care profession</u>. In many countries they are viewed as being both.

With the clear exception of **Portugal**, the profession is <u>regulated</u> under national laws to a greater or lesser extent, either directly by the government or indirectly by an agency of the government. An interesting case offers The Netherlands with three optical professions. Opticians and contactlens-opticians are not regulated whereas full scope optometry is.

However, the exact nature of regulation varies considerably between countries. Periodic <u>re-licensing</u> (or re-registration) of the profession in order to practise legally is only required in a minority of countries (**Cyprus**, **Czech Republic**, **Ireland**, **Spain** and the **UK**). While the profession is not legally protected at all in **Portugal** and only weakly in **Belgium** and **Poland**, the profession is protected in most countries (either wholly or partly) in relation to <u>entry to the profession</u>, the use of <u>professional title</u> and the profession's <u>scope of practice</u>. (See also below.)

The *opening of optical retail outlets* is regulated in fewer countries, but still in the majority.

The legal or ethical requirement on a member of the profession to carry *professional indemnity insurance* or to undergo a check of a possible *criminal record* is common only in a minority of countries.

In nearly all countries entry to the profession is only permissible after completion of a specified level of <u>state education</u>. In addition, in most countries, it is also necessary to complete some type of <u>professional</u> <u>exam</u>.

In summary, taking all these <u>regulatory requirements</u> together, we can say that only **Portugal** is totally unregulated, while the profession is partly regulated in the **Netherlands**, and heavily regulated in **Austria**, **Cyprus**, the **Czech Republic**, **Germany**, **Greece**, **Poland**, **Slovakia**, **Spain**, **Switzerland** and the **UK**.<sub>17</sub>

What type of profession?

health care



a mixture of health care & craft / trade



How is the profession generally regulated?

government



professional or regulatory body



not regulated



Is the profession closely monitored (must licensing be renewed)?



Is the profession protected by law?



What aspect of the profession is NOT regulated? shaded dark blue



What aspect of the profession is NOT regulated? shaded dark blue



What aspect of the profession is NOT regulated? shaded dark blue



	AUSTRIA	BELGIUM	BULGARIA	CYPRUS	CZECH	DENMARK	FINLAND	FRANCE	GERMANY	GREECE	HUNGARY	IRELAND	ITALY	NETHERLANDS	NORWAY	POLAND	PORTUGAL	SLOVAKIA	SLOVENIA	SPAIN	SWEDEN	SWMTZERLAND	TURKEY	UNITED KINGDOM	CROATIA
entry to profession (licensing)																									
professional title																									
scope of practice																									
open retail outlets																									
finishing exam required by law																									
special professional exam required by law																									
professional indemnity insurance																									
criminal record check required by law																									

# Scope of Practice



#### **Scope of Practice**

The profession's scope of practice should be approached from three angles: what is permitted, what is prohibited, and what is prohibited but is practised either openly or discreetly.

While, understandably, the dispensing and selling of *corrective spectacles* is either permitted in all countries or is wholly or partly unregulated, in a small number of countries refraction and the prescribing of corrective spectacles are still wholly prohibited to the profession (for example, Bulgaria, Greece and Turkey) or partly prohibited (for example, France).

The procedures normally included in a *primary eye examination* (such as *ophthalmoscopy*, *tonometry* and *perimetry*) are allowed in most countries and are undertaken guasi-legally in a handful of other countries. (These procedures are prohibited of course in those countries where the profession is not allowed to test sight and to prescribe.)

The use of *diagnostic drugs* is only allowed to the profession in a small number of countries (Ireland, the Netherlands, Norway and the UK). (In the case of Ireland, where the profession is divided legally into optometrists and opticians, only optometrists may use diagnostic drugs.) The use of *therapeutic drugs* is permitted to optometrists only in the **UK**, although it is practised informally in **Cyprus**.

There are also restrictions on the profession in a minority of countries with regard to testing the sight of *drivers*, of users of *computers* (VDUs or display screen equipment), and of *visually impaired* patients (blind or partially sighted).

In most countries optometrists and opticians refer patients if necessary to a medical doctor; but in some of those countries they are restricted in how they may refer (for example to a hospital) and in what they may indicate about the patient's clinical condition as part of the referral.

The table included lists the responses given for each country relating to the procedures which are part of, and which surround, an eye examination.

While the fitting and supplying corrective spectacles to *children* are allowed in all countries, there are still various restrictions on the testing of children's sight and the prescribing of spectacles, either in relation to the child's age or the complementary role of an ophthalmologist in testing the child's sight.

In some countries the regulatory regime governing the prescribing and sale of *corrective contact lenses* is not the same as that for corrective spectacles. Thus, while the sale of corrective contact lenses is regulated in a majority of countries, it is unregulated in Belgium (in certain outlets only), Finland, Hungary, the Netherlands, Norway, Poland, Portugal, Slovenia and Switzerland. Moreover, the type of outlet where contact lenses may be sold is greater (for example, pharmacies and supermarkets). Secondly, in some countries (Austria, Denmark, Slovakia, Sweden and the UK), the profession must have additional qualifications in order to be allowed to fit and sell contact lenses.







spectacles

for CLs









#### scope of practice

permitted



not permitted but done in practice

By country (Grey = non response)	AUSTRIA	BELGIUM	BULGARIA	CYPRUS	CZECH	DENMARK	FINLAND	FRANCE	GERMANY	GREECE	HUNGARY	IRELAND	ΙΤΑLΥ	NETHERLANDS	NORWAY	POLAND	PORTUGAL	SLOVAKIA	SLOVENIA	SPAIN	SWEDEN	SWATZERLAND	TURKEY	UNITED KINGDOM	CROATIA
dispensing optics (make/fit spectacles)																									
sell optical appliances																									
examine exterior of eye with ophthalmic instruments	i																								
examine interior of eye with ophthalmic instruments																									
subjective refraction																									
objective refraction																									
check binocular vision																									
ophthalmoscopy																									
tonometry																									
perimetry																									
write prescriptions for corrective spectacles																									
write prescriptions for contact lenses																									
fit contact lens/provide aftercare																									
use diagnostic drugs																									
test the sight of drivers																									
test the sight of VDU users																									
fit optical appliances for VDU users																									
test the sight of patients with low vision																									
prescribe low vision aids for the visually impaired																									
refer patients to medical doctors																									
refer patients directly to eye hospital																									
detect ocular pathology																									
formally inform doctors of patients' ocular pathology																									
use therapeutic drugs																									
pre/post-monitoring of refractive surgery																									
orthoptics																									
sports vision																									



\* not under 6 years
\*\* done under supervision of ophthalmologist
\*\*\* not under 5 years
\*\*\* not under 8 years

## scope of practice

Is the sale of corrective contact lenses regulated?



# Society and Public Health



#### **Society and Public Health**

In recent years the national health or social system in many countries has withdrawn from meeting the <u>cost of testing sight and providing corrective</u> <u>appliances</u> to the population, either wholly or partly (for example in the **UK** and **Germany**). In some countries (for example, **France**) part of these costs are met by medical insurance companies for those persons insured by those companies.

Nevertheless, a majority of national systems still pay for the sight tests of <u>children</u> either wholly or partly. The exceptions are **Cyprus** and **Denmark**. The majority of national systems also make a contribution towards meeting the cost of appliances for children.

The same is true to a lesser extent with regard to the **elderly** (however defined).

### society and public health

Does the social system pay for eye exams in children?



### society and public health

Does the social system pay for eye exams in the elderly?







# **Education and Training**



#### **Education and Training of Profession**

The pattern of education and training of the profession in Europe is complicated. There are at least *four main pathways* to becoming an optometrist or optician or both.

In summary, as the general table shows, there is one pathway to becoming an optician, and three pathways to becoming an optometrist (one of which continues after training to become an optician).

The training pathway to becoming an <u>optician</u> consists of two years' education at school after the age of 14, followed by four years of mixed study and practical work experience (usually as a type of apprentice or trainee). This pathway is followed in all countries, <u>except</u> **Spain**, **Italy**, **Switzerland** and **Scandinavia**. In **Belgium** the period of mixed study and practical work can vary between three and five years. In the **Czech Republic** the four years are spent gaining practical work experience only. In **Bulgaria** the student leaves secondary school aged 18 and undertakes one year of vocational training.

The first possible training pathway to becoming an <u>optometrist</u> following qualification as an optician normally consists of a year of preliminary study and then three years' study at a university or other institution of higher (tertiary) education. This 'combined' pathway is currently available in **Belgium**, **Denmark**, **Finland**, **France**, **Germany**, **Italy** and **Poland** and will become available in the **UK**. In the **Czech Republic** the student goes straight from secondary school to university, where the course includes practical work experience.

The most common training pathway to becoming an optometrist begins after the student has completed secondary education at the age of 18. The student then gains practical work experience for a year before completing three years of study at a university or other institution of higher education. This is the pathway followed in **Austria**, **Germany**, **Ireland**, **Italy**, **Hungary**, the **Netherlands**, **Norway**, **Poland**, **Spain**, **Sweden** and **Switzerland**. In **Portugal** the period of practical work experience is six months and is integrated into <u>five</u> years of study at university. In **Belgium** the student can start at 16 to study for four years and then spend three years of mixed study and practical work experience in order to qualify.

The third pathway to becoming an optometrist, which is followed only in the **UK**, is similar to the common pathway, except that the year of practical work experience under supervision is spent after completing three years of study at university. At the **god** of this fourth year the student takes a professional qualifying exam.



## General pathways





## Austria Belgium Germany Ireland 3 Hungary Netherlands

1

4

С

Italy

Norway

Poland

Portugal

Spain

Sweden

Switzerland



## General pathways

## General pathways



## Notes and exceptions to general pathways

In **Belgium**, to become optician: 2 year post-14 school education+ 3 or 5 year fulltime study+ part-time apprenticeship in optics. To become optometrists: 2 year post-14 school education+ 4 year + 3 year full-time study and part time apprenticeship in optics and optometry.

In **Bulgaria** the vocational training takes only one year after secondary school (4 year post 14 school education) Therefore, optician/dispensing can become 'qualified' at age 19.

In **Czech Republic** 4 year training after 2 year post-14 school education to become an optician. To become an Optometrist a subject must study 3 years at university post 18 and it is also possible to do more years at Masters level. Practical work or work experience is normally integrated into the University programme.

In **Portugal** optometry training involves 4 years of post-14 school education, followed by 5 years of university training which includes a 6 month practice placement. This will soon be reformed to the model seen in the UK: 3 years of University education followed by a 1 year practice.



# Discussion

Some areas of clear agreement
Generally, a mixed pattern
Training pathways vary

