

THE FINNISH REGISTER OF VISUAL IMPAIRMENT

ANNUAL STATISTICS 2016

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TERVEYDEN JA
HYVINVOINNIN LAITOS

**NATIONAL INSTITUTE FOR HEALTH
AND WELFARE (THL)**



Näkövammaisten
liitto ry

**FINNISH FEDERATION
OF THE VISUALLY IMPAIRED**

What is the Finnish Register of Visual Impairment?

The purpose of the Finnish Register of Visual Impairment is to study the incidence of visual impairment in Finland. The Register serves as a basis for preventive measures and treatment of visual impairment, as well as for planning of rehabilitation and other special services for persons with visual impairment. In addition, the Register provides research material on ophthalmological diseases and visual impairment. It also aims to promote and support research in the field.

The Register is maintained by the Finnish Federation of The Visually Impaired and is subject to the National Institute for Health and Welfare (THL). The National Board of Health established the Register in 1983. The operation of the Register is regulated by the Act (556/89) and Decree (774/89) on National Personal Records kept under the Health Care System. Health care authorities, institutions and personnel are, under the above-mentioned Act, responsible to forward to the Register such information on persons with visual impairment as is specified in the Decree.

Notification of visual impairment

Notification must be made by a specialist in ophthalmology or the ophthalmological unit of a hospital. Notification must be made if the corrected visual acuity is permanently less than 0.3 in the better eye of the patient, or if the person must for some other reason be considered comparable with a person with permanent visual impairment as described above.

Data on the Register

A notification form is used to compile personal data of persons with visual impairment and to record information on the nature (diagnoses), severity (visual acuity and visual field) and aetiology of the impairment, on multiple impairments and on the patient's visual ability in relation to reading and moving about. In connection with the updating of records, the Central Population Records provide information on the mother tongue, marital status and possible date of death of persons with visual impairment. The Central Statistical Office reports the cause of death.

Information compiled in the Finnish Register of Visual Impairment is confidential. Information concerning an individual with a visual impairment is not released to an outsider without the approval of the National Research and Development Centre for Welfare and Health.

Activities

Maintenance of the Register

A central goal of the Register is to compile as comprehensive as possible a data base on visual impairment in order to serve those interested. Special statistics are drawn up on the basis of records compiled in the Register. Central statistics illustrating the profile of visual impairment can be found in the statistical section of the annual report released by the Register.

Promotion of research on visual impairment

The Register promotes research on visual impairment by providing special statistics based on its records, and bibliographical references to researchers and students. In addition, the Register surveys study subjects related to visual impairment, maintains contacts with researchers in the field, takes part in joint research projects and international activities, and organizes research seminars.

Administration, personnel and contact addresses

Register staff:

Research Director
Chief Medical Officer

Matti Ojamo (M.Soc.Sc.),
Hannu Uusitalo MD, PhD,
professor of ophthalmology

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The Register operates on the premises of the Finnish Federation of the Visually Impaired in Helsinki.

Address:

THE FINNISH REGISTER OF VISUAL IMPAIRMENT

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email addresses, see register personnel

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The register has gathered information about the visually handicapped for 34 years (1.1.1983-). It is estimated that there are 50,000 - 60,000 visually impaired people in Finland (the population is 5,5 millions). The register contains information on 53,800 v.i. persons, of whom 18 189 are alive (31.12.2016). 1,800 - 2,000 new registrations are made annually. New entries received in the past few years have not changed the profile of visual impairment formed on the basis of the register. It can be assumed that the register contains a representative sample of those v.i.'s who have been using ophthalmological health care services in Finland since the year 1983.

Our register is not complete, we are on sample basis. Therefore the main distributions describing the registered persons are presented in the following tables as relative frequencies (%-distributions).

TABLE 1 GENDER

Registered visual impairment in Finland in 2016 (total and new registrations)

	Total %	New 2016 %
Female	60.5	65.3
Male	39.5	34.7
Total	100.0	100.0
N	18 189	1 603

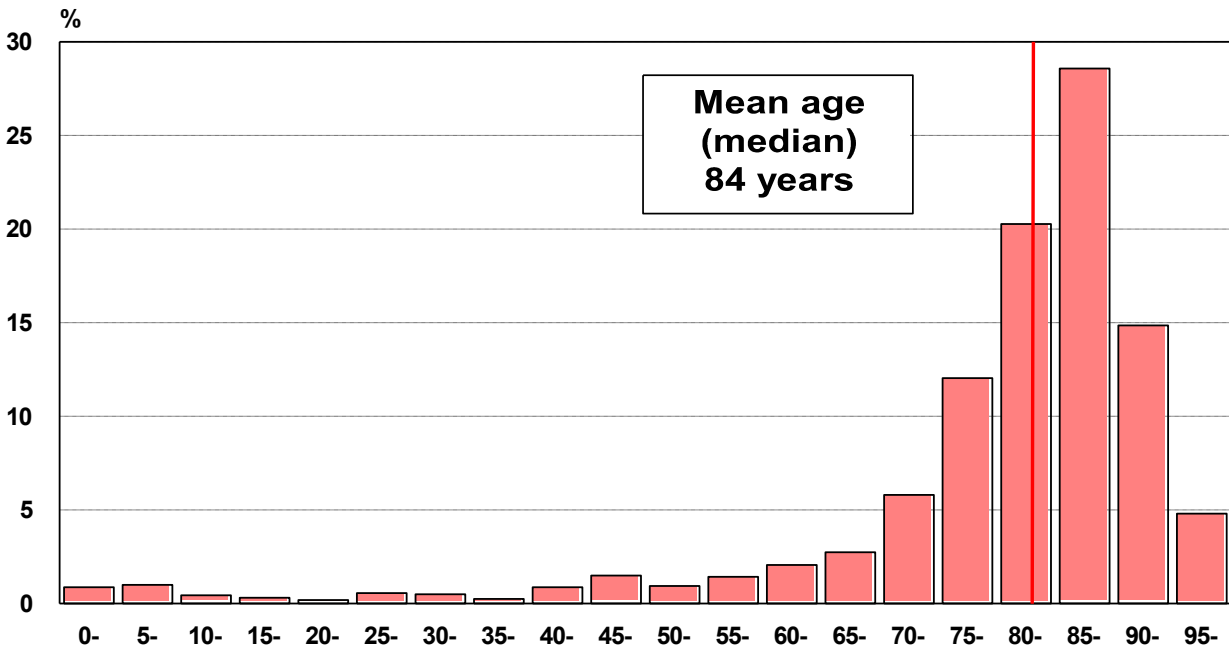
TABLE 2 AGE GROUPS

Registered visual impairment in Finland in 2016 (total and new registrations)

	Total %	New 2016 %
0 – 14	2.3	2.3
15 – 24	4.2	0.5
25 – 34	4.4	1.1
35 – 44	4.7	1.1
45 – 54	6.5	2.4
55 – 64	8.5	3.5
65 – 74	11.3	8.5
75 - 84	21.5	32.3
85 +	36.7	48.2
Total	100.0	100.0
N	18 189	1 603
0 - 17	3.4	2.6
18 - 39	9.8	1.6
40 - 64	17.4	6.8
65 - 84	32.7	40.9
85 +	36.7	48.2
Mean age	79	84

FIGURE 1 AGE GROUPS

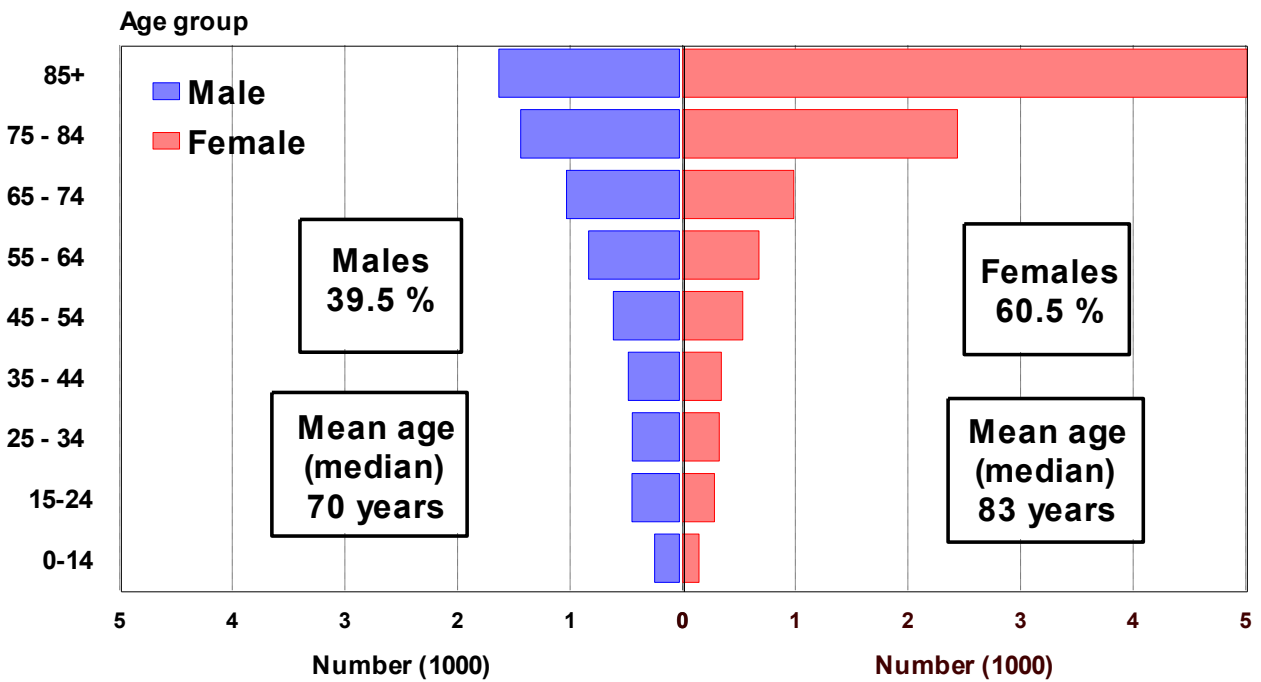
New registrants in Finland in 2016 (N = 1 603)



The Finnish Register of Visual Impairment 2016

FIGURE 2 AGE AND GENDER

Registered visual impairment in Finland in 2016 (N = 18 189)



The Finnish Register of Visual Impairment 2016

TABLE 3 PRINCIPAL DIAGNOSES OF VISUAL IMPAIRMENT BY AGE GROUPS

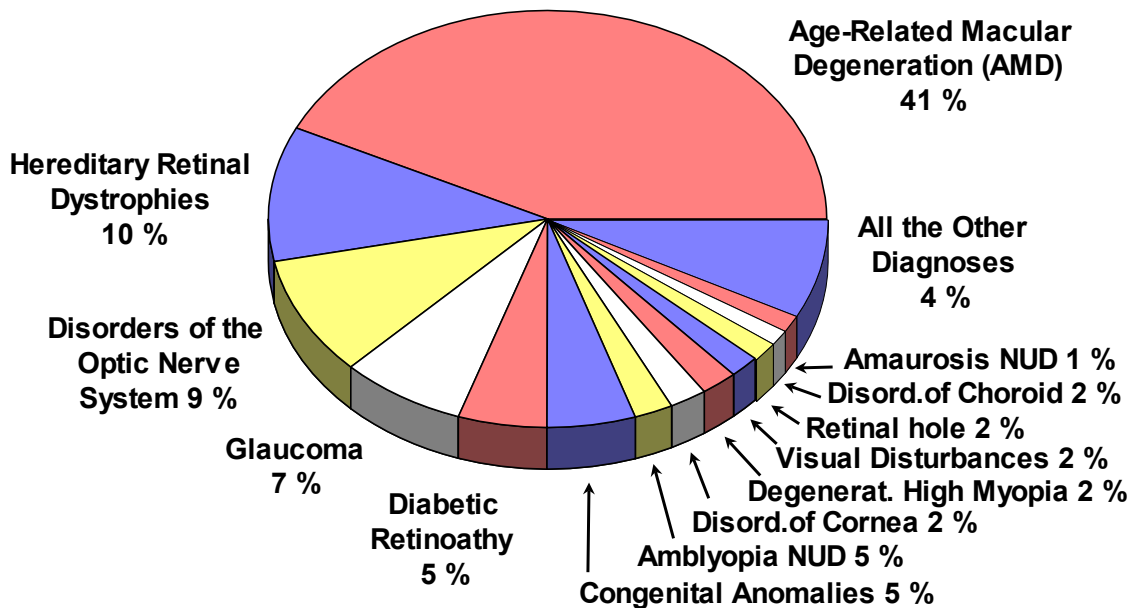
Registered visual impairment in Finland in 2016 (total and new registrations)

A. AGE GROUP 0 - 17 YEARS	Total %	New 2016 %
Disorders of optic nerve and visual pathways	36.7	19.5
- cortical blindness	24.7	14.6
Congenital anomalies of eye	21.7	19.5
Amblyopia NUD	11.8	7.3
Hereditary retinal dystrophies	10.5	19.5
ROP, retinopathy of prematurity	4.4	2.4
Albinism	3.1	4.9
Amaurosis NUD	1.9	4.9
Nystagmus	2.4	4.9
Disorders of refraction and accommodation	1.5	2.4
Other diagnoses	6.2	14.6
0 - 17 years total (total N = 621, new 2016 N = 41)	100.0	100.0
B. AGE GROUP 18 - 64 YEARS	Total %	New 2016 %
Hereditary retinal dystrophies	21.1	20.1
Disorders of optic nerve and visual pathways	19.6	15.7
- optic atrophy	10.5	3.0
Congenital anomalies of eye	12.4	2.2
Diabetic retinopathy	7.8	11.9
Amblyopia NUD	7.0	5.2
Visual field defects, other vis. disturbances (excl amblyopia)	3.4	7.5
High myopia (myopia maligna)	3.3	1.5
ROP, retinopathy of prematurity	3.5	0.0
Disorders of choroid	3.0	3.0
Glaucoma	2.7	11.2
Amaurosis NUD	2.2	1.5
Nystagmus (Irregular eye movement)	1.9	0.7
Disorders of cornea	1.7	3.0
Other diagnoses	10.5	4.8
18 - 64 years total (total N = 4 937, new 2016 N = 134)	100.0	100.0
C. AGE GROUP 65+ YEARS	Total %	New 2016 %
AMD, Age-related macular degeneration	59.1	74.4
Glaucoma	9.2	11.6
Hereditary retinal dystrophies	5.5	0.4
Diabetic retinopathy	3.6	1.4
Disorders of optic nerve and visual pathways	3.4	1.3
Amblyopia NUD	3.3	2.4
Retinal hole	2.1	0.6
Disorders of cornea	2.4	2.0
High myopia (myopia maligna)	1.6	0.2
Retinal vascular occlusion	1.4	1.8
Other diagnoses	8.5	3.8
65+ years total (total N = 12 631, new 2016 N = 1 428)	100.0	100.0

Coding manual for Medical Eye Services, 1980, Based on ICD-9

FIGURE 3 PRINCIPAL DIAGNOSES OF VISUAL IMPAIRMENT

Registered visual impairment in Finland in 2016 (N = 18 189)



The Finnish Register of Visual Impairment 2016

TABLE 4 MULTIPLE IMPAIRMENT AND DIABETES

Registered visual impairment in Finland in 2016
(total and new registrations)

	Total %	New 2016 %
Diabetes	9.5	10.2
Mobility	5.2	7.1
Hearing	4.6	4.0
Learning disabilities	4.2	0.7
CP, Cerebral Palsy	2.1	0.5
N	18 189	1 603

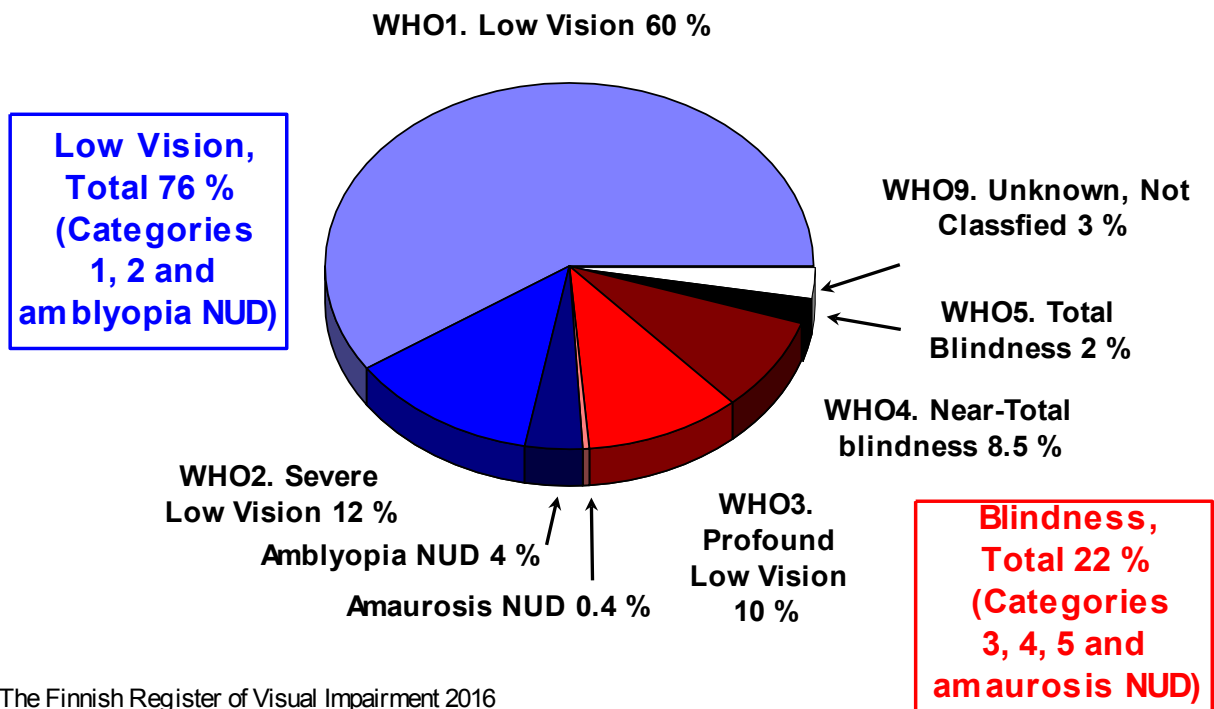
TABLE 5 AGE AT ONSET OF VISUAL IMPAIRMENT

Registered visual impairment in Finland in 2016
(total and new registrations)

	Total %	New 2016 %
0	9.7	2.1
1 – 17	4.1	0.7
18 – 39	7.1	0.8
40 – 64	10.5	3.8
65+	38.2	49.0
Unknown/not reported	30.4	43.5
Total	100.0	100.0
N	18 189	1 603

FIGURE 4 CATEGORIES OF VISUAL IMPAIRMENT BY WHO'S DEFINITION

Registered visual impairment in Finland in 2016 (N = 18 189)



The Finnish Register of Visual Impairment 2016

TABLE 6 CATEGORIES OF VISUAL IMPAIRMENT BY WHO'S DEFINITION

Registered visual impairment in Finland in 2016 (N = 18 189)

	Visual acuity	Visual field \varnothing	Total %	New 2016 %
1 Moderate low vision	less than 0.3 \rightarrow \geq 0.1		59.8	73.7
2 Severe low vision	less than 0.1 \rightarrow \geq 0.05		12.3	6.6
low vision, not specif			3.6	2.2
Low vision total	less than 0.3 \rightarrow \geq 0.05		75.7	82.6
3 Profound low vision	less than 0.05 \rightarrow \geq 0.02	less than 20°	10.4	9.5
4 Near-total blindness	less than 0.02 \rightarrow $1/\infty$	less than 10°	8.5	4.7
5 Total blindness	0		2.3	0.5
blindness not specified			0.4	0.0
Blindness total	less than 0.05	less than 20°	21.7	14.7
9 Unknown (Other)			2.6	2.7
Total			100.0	100.0
N			18 189	1 603

TABLE 7 NATIVE LANGUAGE

Registered visual impairment in Finland in 2016
(total and new registrations)

	Total %	New 2016 %
finnish	92.1	91.3
swedish	5.8	6.6
russian	0.5	0.3
other	0.6	0.5
unknown/not reported	1.6	1.7
Total	100.0	100.0
N	18 189	1 603

TABLE 8 FAMILY STATUS IN AGE GROUPS

Registered visually impaired 15 – 64 years old persons % in Finland according to
National Census in 2010 %

	Age group					Total
	0 - 14 y	15 - 24 y	25-44 y	45-64 y	65 y+	
A	95.7	74.2	17.2	3.3	0.0	7.8
B	-	3.6	40.4	54.2	34.1	35.4
C	-	15.7	35.6	38.8	59.2	50.7
D	4.3	6.5	6.8	3.8	6.7	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

A Child in a family
B Spouse, partner, mother/father
C Not belonging to families
D Institutionalised population

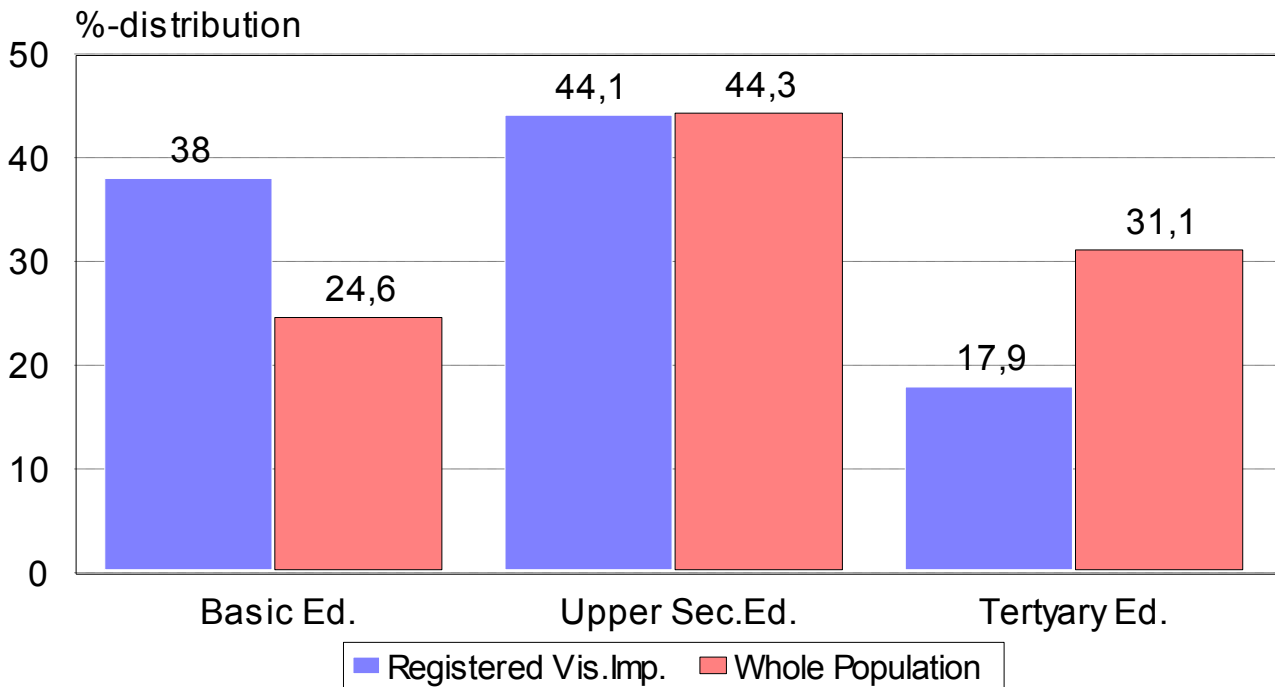
TABLE 9 MAIN TYPE OF ACTIVITY

Registered visually impaired 15 - 64 year old persons in Finland
according to National Census in 2010 compared with the whole
population

	Registered vis.impaired persons %	Whole popu- lation %
Fully employed	22.2	67.8
Partially employed	19.1	
Unemployed	2.2	6.3
Students	3.3	25.9
Pensioners	50.2	
Other or unknown	2.9	
Total	100.0	100.0
N (the registered visually impaired persons in this study)	4 269	

FIGURE 5 LEVEL OF EDUCATION IN 2012

Registered visually impaired 15 - 64 year old persons in Finland according to National Census in 2012 compared with the whole population



The Finnish Register of Visual Impairment 2013

TABLE 10 LEVEL OF EDUCATION

Registered visually impaired 15 - 64 years old persons in Finland according to National Census in 2012 and 2005 compared with the whole population

Level of education (1)	The duration of education	Regist.vis.imp. %		Whole population %	
		2012	2005	2012	2005
Basic education	up to 9 years	38.0	40.6	24.6	29.0
Upper secondary educ.	10 - 12 years	44.1	42.6	44.3	42.8
Tertiary education	13 years +	17.9	16.8	31.1	28.2
Total		100.0	100.0	100.0	100.0
N (the registered visually impaired persons in this study)		4 694	3 744		

(1) The Finnish Standard Classification of Education

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Street address: Marjaniementie 74*

More information: www.nkl.fi/ -> pages in english

