ONESIGHT
EssilorLuxottica Foundation

ADVOCACY FACT SHEET

Netherlands Overview

1. **Robust System Facing Growing Demand in Care:** Netherlands healthcare is robust and well-regulated yet faces growing challenges in eye care. A 2011 study projected a 200-300% rise in eye care demand from 2010-2020, with a 34% increase in individuals over 65, a 43% rise in patients with eye conditions, and a 20% rise in the number of blind and visually impaired individuals.
2. **Barriers in Eye Care:** Residents may face barriers to care, due to excessive costs for certain needs, travel distance, waiting times, and a shortage of doctors. About $^1/_5$ of migrants experience language and cultural barriers in service delivery, and a lack of knowledge on access.
3. **Increasing Prevalence of Visual Impairment and Myopia:** By 2020, the total number of visually impaired individuals in the Netherlands had increased by over 13% from 2010 and by nearly 42% from 1990. Additionally, about 1 in 4 children suffer from myopia, with the prevalence increasing significantly with age, highlighting the need for early detection and management.

The Global State of Vision

The World Health Organization (WHO) recognizes uncorrected refractive error (URE) as **the primary cause of vision impairment** (VI), **the second cause of blindness**, and **the largest unaddressed disability worldwide**.[1]

Globally, 2.7 billion or 1 in 3 people live with poor vision caused by URE[2]

(URE includes myopia, hyperopia, astigmatism and presbyopia. It results in reduced visual acuity, leading to blurred vision and, when severe, visual impairment).[3]

Vision impairment costs the global economy **US$411 billion** in yearly **productivity losses**.[4]

Without action, half the global population, roughly **4.8 billion,** is set to have a VI, primarily myopia, by **2050.**[4]

Over 90% of VI cases **are preventable**, and/or **treatable** with existing, cost-effective interventions.[4] Globally, only 36% of people with distance VI due to refractive error have access to the appropriate care they need.[5]

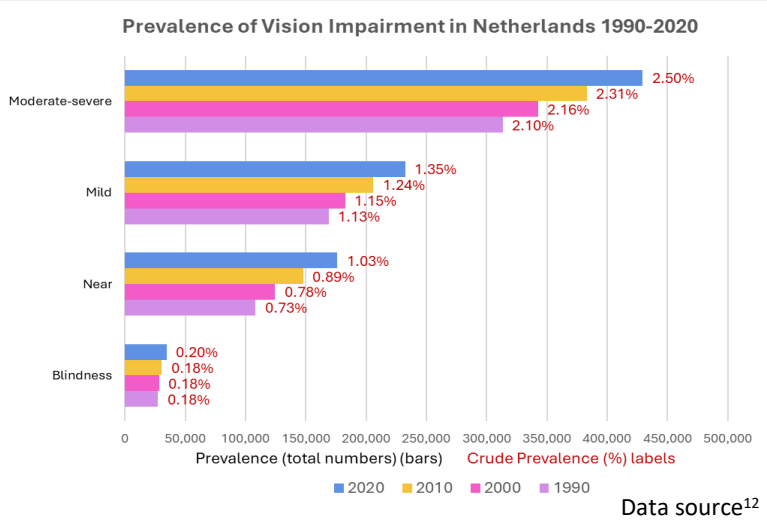
40% eREC

With this baseline (36%), the 74th World Health Assembly (WHA) endorsed a global target for a **40% increase in effective coverage of refractive errors (eREC)** by 2030.[6]

The **WHO SPECS 2030 Initiative**[7], building on WHA[8]/UNGA[9] resolutions and particularly the eREC target, assists countries and stakeholders in addressing the unmet need for spectacles while ensuring the delivery of quality eye care.

Vision Needs in Netherlands

- The demand for eye care in the Netherlands was estimated in a 2011 study, to increase by 200-300% between 2010-2020 due to an aging population (a 34% increase in people over 65 years old), a 43% rise in patients with eye conditions, x3 an increase in new treatments, and a 20% rise in the number of blind and visually impaired individuals.[10]
- It is estimated that at least 140,000 people will likely become visually impaired, and an additional 50,000 people will become blind in the next 30 years in the Netherlands alone.[11]
- Total VI (near, mild, moderate-severe) in 2020 was 838,003 - an increase from 2010 to 2020 by 13.6937%, and an increase from 1990 to 2020 by 41.7922%.[12]



Data source[12]

- Approximately 1 in 4 children in the Netherlands suffers from myopia, with the number and severity increasing over time. Many parents are unaware of myopia and its long-term consequences, thus education is crucial for early detection and management.[11]
- The prevalence of myopia has increased with age from 2.4% at age 6; 11.6% at age 9; 22.5% at age 13; and 28.9% at age 18. Girls showed a faster eye growth between age 9 and 13, and had a slightly higher risk of myopia from age 13.[13]
- Among 6 and 7 year old children wearing spectacles, 29.8 and 34.6% had myopia respectively, of which 21.1 and 21.6% combined with astigmatism; 19.6 and 6.8% had hyperopia, 37.2 and 11.1% hyperopia and astigmatism, and 12.5 and 32.7% astigmatism only.[14]
- The prevalence of spectacle wear was 1.5%, 2.3%, 6.6%, 8.2% and 11.8% at 3, 3.75, 5, 6 and 7 years of age, respectively.[15] In a 2018 survey among adults, 25% wore contact lenses 50% wore spectacles, totaling 75% of people receiving vision correction.[16]

(1) World Health Organization. (2019, October 8). World report on vision. Www.who.int; Geneva: World Health Organization. https://www.who.int/publications/i/item/9789241516570 (2) Essilor. (2019, November 5). Eliminating Poor Vision in a Generation. What Will It Take To Eliminate Uncorrected Refractive Errors by 2050? The OneSight EssilorLuxottica Foundation. https://onesight.essilorluxottica.com/research/eliminate-poor-vision-by-2050/ (3) WHO TEAM Noncommunicable Diseases. (2013, October 6). Blindness and vision impairment: Refractive errors. Www.who.int; World Health Organization. https://www.who.int/news-room/questions-and-answers/item/blindness-and-vision-impairment-refractive-errors (4) Burton, MJ, Ramke, J, Marques, AP, Bourne, RRA, Congdon, N, Jones, I, et al. The Lancet Global Health Commission on Global Eye Health: Vision beyond 2020. Lancet Glob Health (2021), 9(4), e489–e551. https://doi.org/10.1016/S2214-109X(20)30488-5 (5) World Health Organization. (2022). Report of the 2030 targets on effective coverage of eye care. World Health Organization. https://iris.who.int/handle/10665/363158 (6) World Health Organization. (2021). Integrated people-centred eye care, including preventable vision impairment and blindness Global targets for 2030 Draft decision. In World Health Organization. https://apps.who.int/gb/ebwha/pdf_files/WHA74/A74_9Add3-en.pdf (7) World Health Organization. (n.d.). SPECS 2030. Www.who.int; WHO. http://www.who.int/initiatives/specs-2030 (8) Resolution WHA73.4. Integrated people-centred eye care, including preventable vision impairment and blindness. In: Seventy-third World Health Assembly, Geneva, 3 August 2020. Geneva: World Health Organization; 2020, https://apps.who.int/gb/ebwha/pdf_files/WHA73/A73_R4-en.pdf (9) United Nations General Assembly Resolution A/75/L.108 – Vision for Everyone; accelerating action to achieve the Sustainable Development Goals, 6 July 2021. New York: United Nations; 2021, https://www.undocs.org/en/A/75/L.108 (10) Keunen, J., Verezen, A., Imhof, S., van Rens, G., Asselbergs, M., & Limburg, J. J. (Hans). (2011). Toename in de vraag naar oogzorg in Nederland 2010-2020. Www.ntvg.nl, 155(A3461). Nederlands Tijdschrift voor Geneeskunde. https://www.ntvg.nl/artikelen/toename-de-vraag-naar-oogzorg-nederland-2010-2020 (11) Catalyze Group. (2022). The risk of rising myopia in the Netherlands. Dutch EyeFoundation, CooperVision Specialty EyeCare EMEA. https://www.coopervisionsec.nl/files/2022-07/Catalyze_Myopia_report_EN_V7F_Digital.pdf (12) The International Agency for the Prevention of Blindness (IAPB). (2020). Country Map & Estimates of Vision Loss: Netherlands. IAPB; The International Agency for the Prevention of Blindness. https://www.iapb.org/learn/vision-atlas/magnitude-and-projections/countries/netherlands/ (13) Kneepkens, S., Tideman, J., Polling, J., & Klaver, C. (2023). Prevalence of myopia in the current young generation in the Netherlands. Investigative Ophthalmology & Visual Science, 64(8), 805–805. https://iovs.arvojournals.org/article.aspx?articleid=2786140 (14) Iyer, V., Enthoven, C. A., Dommelen, P., van Samkar, A., Groenewoud, J. H., Jaddoe, V. V. W., et al. (2022). Rates of spectacle wear in early childhood in the Netherlands. BMC Pediatrics, 22(1). https://doi.org/10.1186/s12887-022-03467-z (15) Iyer, V., Enthoven, C., van Dommelen, P., Samkar, A. van, Groenewoud, J., Reijneveld (2021). Spectacle wear and refractive errors in Dutch children. European Journal of Public Health, 31(Supplement_3). https://doi.org/10.1093/eurpub/ckab164.787 (16) European Council of Optometry and Optics (ECOO). (2020). Blue Book 2020: Trends in optics and optometry - comparative European data. In ECOO. European Council of Optometry and Optics. https://ecoo.info/wp-content/uploads/2022/02/ECOO_BlueBook_2020-compressed_png.pdf (17) Polling, J. R., Klaver, C. & Tideman, J. W. Myopia progression from wearing first glasses to adult age: the DREAM Study. Br. J. Ophthalmol. (2021) https://doi.org/10.1136/bjophthalmol-2020-316234

- The DREAM study on a large Dutch cohort discovered that all participants suffering from myopia higher than -3.00D before the age of 10 developed high myopia as adults. [17]
- From COVID-19 questionnaires sent to participants in the Netherlands Generation R study in 2020, pandemic lockdowns accelerated myopia progression and increased risk from increased screen time and near work, particularly for teens and adolescents.[18] Myopia risk factors identified were, spending more time indoors as compared to non-myopic children, having lower vitamin D levels, having a higher BMIs, and less sports participation. Children of non-European descent, low maternal education, and low family income were often more myopic, due to similar factors.[19]

Vision Care in Netherlands

- **Government Regulated:** The Dutch government regulates and governs three systems that together provide comprehensive universal health coverage for all residents[20]. The health system is governed by 4 basic health-related acts[21]. Beyond these 4, the Public Health Act covers public health, prevention, and disease control[22]. The act granting health coverage is implemented by private, competitive health insurers and healthcare providers[23].
- **Access**: Virtually the entire Dutch population (99.9 %) benefits from health insurance that encompasses a wide range of services. The system incorporates cost-sharing mechanisms including a mandatory annual deductible (€385 in 2019) along with employer contributions and government grants for children.[22] However, approximately 84% of the population opt for supplementary voluntary insurance to cover additional services such as dental care, physiotherapy, and higher-end medical devices.[23]
- **Referrals:** Netherlands operates a strict gatekeeper system. Patients require a referral from a GP to visit hospitals and specialists. Eye care services are largely covered under the basic health insurance package, including consultations, certain treatments, and basic (not premium) spectacles.[22]
- **Eye Care:** 238 opticians-, 73 optometrists-, 38 ophthalmologists-, 129 vision retail outlets-*per million*. Children under 8 years require a practitioner with a special qualification to test their vision and prescribe spectacles, so they are seen by an orthoptist. Free ophthalmologist exams paid by the social system for adults with low vision, children (<16 years), elderly (>50 years), low income/unemployed individuals.[24]
- **Child Vision Screening:** Since Child Health Care centers were introduced, visual acuity has been measured in children 3 years and up[25], at approximately 1400 centers as of 2018. This is embedded into a general preventative child healthcare screening system, however local initiatives to omit vision screening are allowed. The total annual cost of all screening in 2018 was 433 million Euros annual costs (323 million from municipalities and 110 million from vaccination programmes).[26] The sensitivity of the Dutch vision screening programme was 73% at age 7 years and the specificity of the Dutch vision screening programme was 83% at age 7 years, as per findings from the RAMSES study in 2013.[25]
- **Barriers**: In 2021, health spending per capita stood at EUR 4 570 – the third highest amount in the EU. Only 0.2 % of the population in the Netherlands reported unmet medical care needs in 2022, due to excessive costs, travel distance or waiting times[22]. Health system challenges: **1)** a shortage of general practitioners[22], **2)** out-of-pocket expenses for specific types of corrective lenses or advanced surgical procedures[27], **3)** healthcare spending is at 10.2% of GDP but is struggling to meet growing demand[22], **4)** residents must wait 11 weeks on average for eye care, more than the 4-week standard, **5)** a nationwide shortage of ophthalmologists[28], **6)** about $^{1}/_{5}$ of migrants face difficulties accessing healthcare (language and cultural barriers in service delivery, health literacy, knowledge of access & entitlement)[29] many from Ukraine, Poland, Syria, Turkey[30], Suriname & Morocco.[31]

Action and Policy

- **Professional bodies and associations:** OVN (De Optometristen Vereniging Nederland), or The Optometrists Association of the Netherlands; NOG (Nederlands Oogheelkundig Gezelschap), or the Dutch Ophthalmological Society; NVVO (Nederlandse Vereniging van Orthoptisten), or the Dutch Association of Orthoptists; NUVO (De Nederlandse Unie Van Optiekbedrijven), or The Dutch Union of Opticians; VOVZ (De Vereniging voor Oogheelkundige Verpleging en Zorgverlening), or The Association for Ophthalmic Nursing and Care; ANVC (Algemene Nederlandse Vereniging van Contactlensspecialistin), or the General Dutch Association of Contact Lens Specialists.
- **Organizations supporting the visually impaired and blind:** Bartiméus and Visio (support children with visual impairment and their parents) including Royal Dutch Visio Centre of Expertise, Visio Foundation, Bartiméus and The Bartiméus Fund (Bartiméus Fonds); Oogvereniging, or Eye Association Netherlands, which also includes the Migrants Support Service; ANVVB (algemene nederlandse vereniging ter voorkoming van blindheid), or the General Dutch Association For The Prevention Of Blindness; ODAS Stichting, or The ODAS Foundation; LSBS (De Landelijke Stichting voor Blinden en Slechtzienden), or The National Foundation for the Blind and Visually Impaired; Stichting Blindenhulp, or the Foundation for the Blind; Oog in Oog, or Face to Face.
- **Research entities:** Erasmus Myopia Research Group at Sophia Children's Hospital; CREAM (Consortium for Refractive Error and Myopia); Myopie.NL; Stichting CORR (The Combined Ophthalmic Research Rotterdam Foundation); Oogfonds, or The Eye Fund; Rotterdamse Stichting Blindenbelangen, or the Rotterdam Foundation for the Interests of the Blind; Rotterdam Oog Ziekenhuis or the Rotterdam Eye Hospital, which includes Rotterdams Oogheelkundig Insituut, or the Rotterdam Ophthalmic Institute

- There is growing demand for general[22] and specialist care[28]. The shortage of GPs is projected to intensify in the coming years[22]. Annual training capacity for ophthalmology however is to increase by about 10%. Dutch Optometrists Association has recommended GPs to refer patients to optometrists who can take on up to 25% of ophthalmologists' care.[28] According to the Dutch Ophthalmic Society, to provide adequate eye care in 2020, the capacity will have to be significantly expanded and a reallocation of tasks and more intensive cooperation between various eyecare professionals is necessary.[10] The "Right Eye Care in the Right Place" national program aims to improve the delivery of ophthalmological services through improved collaboration between GPs, optometrists, and ophthalmologists to ensure eye care is more accessible and efficient, reducing the burden on hospitals.[24] Access, awareness, and competency barriers keep migrants from receiving quality care.[29] Education on vision care and its access, and particularly myopia, are key in early detection and management.[11,14]
- Joint efforts of government, public and private actors will allow the Netherlands to ensure access to eye care for all, including migrants, and meet growing needs. The OneSight EssilorLuxottica Foundation can support expansion and delivery of care via eye clinics for in-need communities, to eliminate uncorrected poor vision in a generation, while leveraging the expertise of eye care professionals and partnerships with local organizations.

(18) Kneepens, S., de Vlieger, J., Tideman, J. W., Enthoven, C., Polling, J., & Klaver, C. (2023). Myopia risk behaviour related to the COVID-19 lockdown in Europe: The generation R study. Ophthalmic and Physiological Optics, 43(3), 402–409. https://doi.org/10.1111/opo.13100 (19) Tideman, J. W. L., Polling, J. R., Hofman, A., Jaddoe, V. W., Mackenbach, J. P., & Klaver, C. C. (2018). Environmental factors explain socioeconomic prevalence differences in myopia in 6-year-old children. British Journal of Ophthalmology, 102(2), 243–247. https://doi.org/10.1136/bjophthalmol-2017-310292 (20) European Observatory on Health Systems and Policies. (n.d.). Netherlands health system information. Eurohealthobservatory.who.int; World Health Organization. https://eurohealthobservatory.who.int/countries/netherlands (21) Ministerie van Volksgezondheid. (2018, August 15). The Dutch health care system - About us - National Health Care Institute. English.zorginstituutnederland.nl; Zorginstituut Nederland. https://english.zorginstituutnederland.nl/about-us/healthcare-in-the-netherlands (22) European Observatory on Health Systems and Policies, Organisation for Economic Co-operation and Development (OECD), & European Commission. (2023). State of Health in the EU | The Netherlands - Country Health Profile 2023. In eurohealthobservatory.who.int. World Health Organization. https://eurohealthobservatory.who.int/publications/m/netherlands-country-health-profile-2023 (23) Ministerie van Volksgezondheid. (2018, August 15). The Dutch health care system - About us - National Health Care Institute. English.zorginstituutnederland.nl; Zorginstituut Nederland. https://english.zorginstituutnederland.nl/about-us/healthcare-in-the-netherlands (24) European Council of Optometry and Optics (ECOO). (2020). Blue Book 2020: Trends in optics and optometry - comparative European data. In ECOO. European Council of Optometry and Optics. https://ecoo.info/wp-content/uploads/2022/02/ECOO_BlueBook_2020-compressed_png.pdf (25) de Koning, H. J., Groenewoud, J. H., Lantau, V. K., Tjiam, A. M., Hoogeveen, W. C., de Faber, J. T. H. N., Juttmann, R. E., & Simonsz, H. J. (2013). Effectiveness of screening for amblyopia and other eye disorders in a prospective birth cohort study. Journal of Medical Screening, 20(2), 66–72. https://doi.org/10.1177/0969141313497355 (26) Mazzone, P., Carlton, J., & Griffiths, H. (2018). Summary Vision Screening Data: Netherlands. In euscreen.org. EU Screen, European Union, The University of Sheffield. https://www.euscreen.org/wp-content/uploads/2019/02/Netherlands-Country-Report-Vision_def.pdf (27) Expat Focus. (2023, August 19). Netherlands - Eye Care. Expat Focus. https://www.expatfocus.com/netherlands/guide/netherlands-eye-care (28) NL Times. (2023, November 14). Average 11 weeks waiting time for eye care due to ophthalmologists shortage | NL Times. NL Times. https://nltimes.nl/2023/11/14/average-11-weeks-waiting-time-eye-care-due-ophthalmologists-shortage (29) Bil, J. P., Zuure, F. R., Alvarez-del Arco, D., Prins, J. M., Brinkman, K., Leyten, E., et al. (2019). Disparities in access to and use of HIV-related health services in the Netherlands by migrant status and sexual orientation: a cross-sectional study among people recently diagnosed with HIV infection. BMC Infectious Diseases, 19(1). https://doi.org/10.1186/s12879-019-4477-2 (30) Statista Research Department. (2023, July 18). Largest groups of foreign immigrants to the Netherlands in 2022, by nationality. Statista; Statista . https://www.statista.com/statistics/525804/netherlands-largest-groups-of-immigrants-by-nationality/ (31) CBS Netherlands. (2023, January 18). How many residents have a foreign country of origin? CBS Netherlands; CBS. https://www.cbs.nl/en-gb/dossier/asylum-migration-and-integration/how-many-residents-have-a-foreign-country-of-origin-#:~:text=Of%20the%2017.6%20million%20people