Setting up a prevalence study: Visual function and/or functional vision?

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Annual EBU conference 2026

SNABLIND
Swiss National Association
of and for the Blind

Who is SNABLIND?

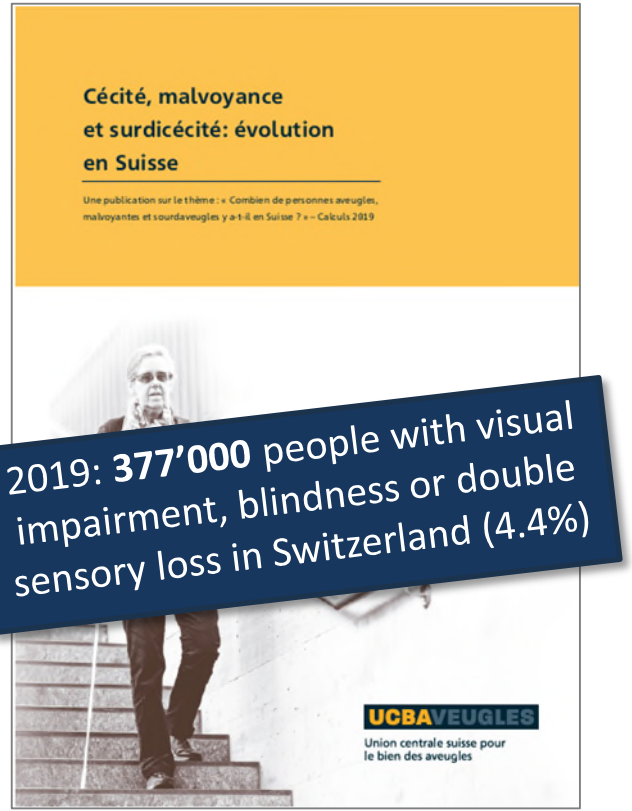
- Umbrella organisation for organisations supporting and counselling people with visual impairment (VI), blindness, double sensory impairment or deafblindness
- 64 member organisations dispersed over Switzerland, of which 43 offer professional support to people with VI
- UCBA VEUGLES
  Union centrale suisse pour le bien des aveugles
  SZB LIND
  Schweizerischer Zentralverein für das Blindenwesen
  UCBC IECHI
  Unione centrale svizzera per il bene dei ciechi
- SNABLIND: Offers support and counselling services to adults with acquired double sensory impairment or deafblindness

Data availability in Switzerland

- No registry for people with visual impairment in Switzerland
  - Health insurance data are insufficient
  - Data of the disability insurance are incomplete; no clear criteria
  - Client data of counselling services and other member organisations are incomplete
  - Many children with VI are registered, but large uncertainty regarding children with additional special needs; cantons are responsible
- Very few scientific studies on prevalence of VI within Switzerland; mostly surveys.

SNABLIND estimates

- Most recent publication in 2020
- No criteria for (grade of) visual impairment; focus on functional vision
- Based on grey literature, surveys within Switzerland and few scientific studies (mostly from neighbouring countries)
- Very popular:
  - for awareness raising and educational purposes of professionals, the public, fundraising activities
  - used by our member organisations and SNABLIND
  - also by others: researchers, students, policy makers, media etc.



(UCBA, 2020)

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How to assess visual impairment?

Vision function

- Physical condition of the visual system
- Objective measurements of e. g.:
  - visual acuity
  - visual field
  - contrast sensitivity
- ICD-11: 9D90 Vision impairment incl. blindness
- Clear classification of vision impairment, e. g.
  - Mild: visual acuity < 0.5 and ≥ 0.3
  - Moderate: visual acuity < 0.3 and ≥ 0.1, etc.
- Measurable among everyone
- Controlled conditions, but resource intensive

(Teoh et. al., 2021; van Splunder et al., 2006; Wolfram et al., 2019).



Original Article

The Prevalence of Visual Impairment in the Adult Population

Insights From the Gutenberg Health Study

Christian Wolfram, Alexander K. Schuster, Heike M. Elflein, Stefan Nickels, Andreas Schulz, Philipp S. Wild, Manfred E. Beutel, Maria Blettner, Thomas Münzel, Karl J. Lackner, Norbert Pfeiffer

Summary

Visual impairment, severe visual impairment, and blindness in children in Britain (BCVIS2): a national observational study

Lucinda J Teoh, Amrenat Lola Soleba, Jugnoo S Rahi, on behalf of the British Childhood Visual Impairment and Blindness Study Interest Group

Summary

Eye (2006) 20, 1004–1010

Prevalence of visual impairment in adults with intellectual disabilities in the Netherlands: cross-sectional study

J van Splunder, JS Stilma, RMD Bernsen and HM Evenhuis

Abstract

Functional vision (1)

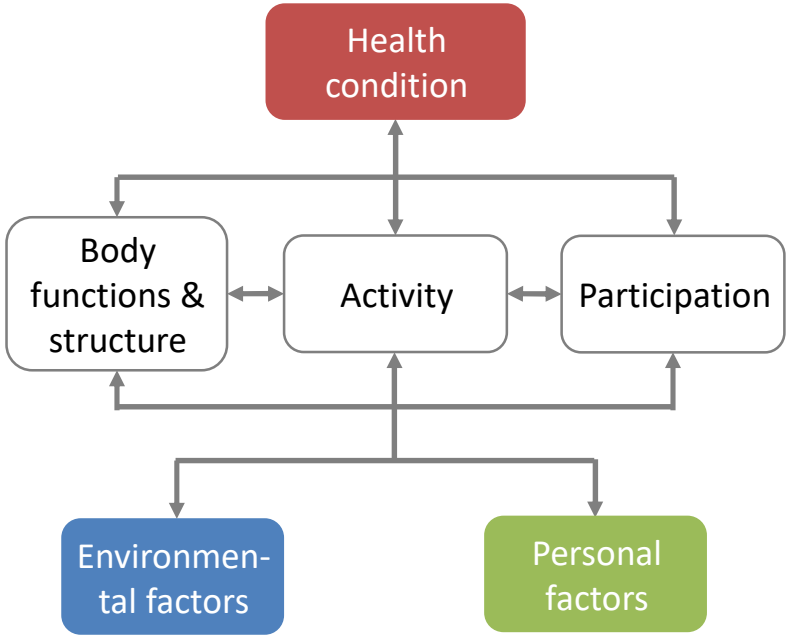
- Everyday functioning, relevant for daily life
- International Classification of Functioning, Disability and Health (ICF, WHO, 2002): disability = the interaction with the environment



Mrs. Brunner:
- with RP, central field < 15 degrees
- massage therapist
- marginally disabled in her job



Mr. Müller:
- very sensitive to glare after retinal surgery
- truck diver
- profoundly disabled in his job



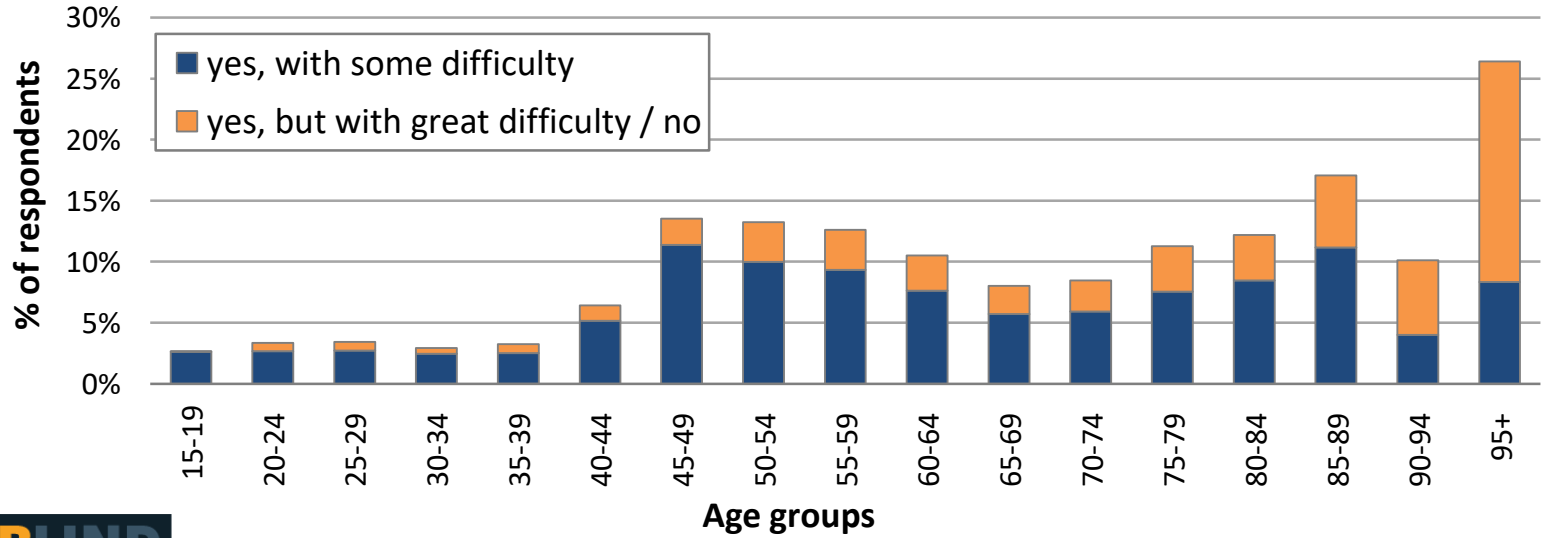
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Functional vision (2)

- How to assess?
  - Observation of daily life activities: realistic, but resource intense
  - Self-reports: easy, low costs, large samples, e. g.:

Swiss Health Survey (2022): «Do you see well enough to read a book or newspaper?»

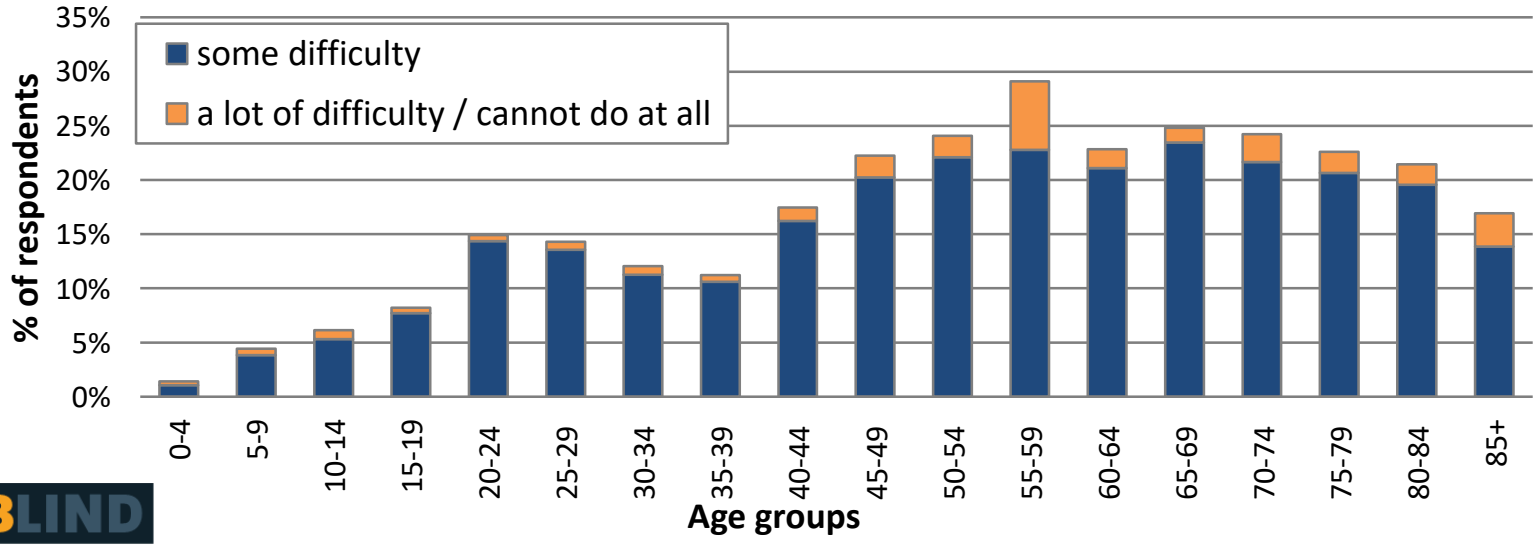


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Functional vision (3)

- How to assess?
  - Observation of daily life activities: realistic, but resource intense
  - Self-reports: easy, low costs, large samples, e. g.:

NHIS (2023): «Do you have difficulty seeing, even when wearing glasses / contact lenses?»
(Blewett et al., 2024)



Functional vision (4)

- How to assess?
  - Observation of daily life activities: realistic, but resource intense
  - Self-reports: easy, low costs, large representative samples, but
    - subjective
    - measurability depends on cognitive level – people with intellectual disabilities and people living in nursing homes excluded
  - Self-reports about several specific activities (Colenbrander, 2010)
    - see ICF Core Set for Vision Loss, e. g. walking, acquiring goods and services, leisure activities (Billiet et al., 2025)
    - also answerable for children and people with multiple disabilities (care givers)
    - classification to be defined.

How to assess visual impairment?

- Be clear: vision function or functional vision
  - Describe the scope and limitations of the chosen concept

- Choose the appropriate research method

- Make sure all sections of the population are investigated: special attention to elderly and people with intellectual and multiple disabilities.

Literature

Billiet, L., van Nispen, R., van de Velde, D., et al. (2025). Brief ICF Core Set Vision loss. https://doi.org/10.17605/OSF.IO/7XEA3

Blewett, L. A., Rivera Drew, J. A., King, M. L., et al. (2024). IPUMS Health Surveys: National Health Interview Survey, Version 7.4 [dataset]. Minneapolis, MN. https://www.ipums.org/projects/ipums-health-surveys/d070.V7.4

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Thank you for your attention!

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www.szblind.ch/forschung / www.ucba.ch/recherche

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