

## Resolution adopted by the International Council of Ophthalmology Sydney, Australia, April 20, 2002 (1)

WHEREAS lack of clarity about the appropriate use of the term “Blindness” has led to confusion about its definition and to varying reports about its prevalence and incidence and

WHEREAS the mission of ophthalmology and the International Council of Ophthalmology is not limited to the prevention of blindness, but also includes the prevention and remediation of lesser levels of vision loss, which do not fit under the term “blindness”,

THEREFORE, be it resolved that the International Council of Ophthalmology, at its meeting in Sydney, Australia, April 2002

(A) Recommends to the World Vision Community the use of the following terminology (2):

- **Blindness** – to be used only for total vision loss and for conditions where individuals have to rely predominantly on *vision substitution* skills.
- **Low Vision** – to be used for lesser degrees of vision loss, where individuals can be helped significantly by *vision enhancement* aids and devices.
- **Visual Impairment** – to be used when the condition of vision loss is characterized by a loss of visual functions (such as visual acuity, visual field, etc.) at the organ level. Many of these functions can be measured quantitatively.
- **Functional Vision** – to be used to describe a person’s ability to use vision in Activities of Daily Living (ADL). Presently, many of these activities can be described only qualitatively.
- **Vision Loss** – to be used as a general term, including both total loss (Blindness) and partial loss (Low Vision), characterized either on the basis of visual impairment or by a loss of functional vision.

(B) For reporting the prevalence of vision loss in population studies and clinical research, reconfirms its earlier recommendation (Kyoto, 1978) to describe vision loss in more detail by classifying it into multiple **Ranges of Vision Loss** (based on visual acuity):

• <b>Normal vision</b>			>= 0.8
• <b>Mild vision loss</b>	< 0.8	and	>= 0.3
• <b>Moderate vision loss</b>	< 0.3	and	>= 0.125
• <b>Severe vision loss</b>	< 0.125	and	>= 0.05
• <b>Profound vision loss</b>	< 0.05	and	>= 0.02
• <b>Near-total vision loss</b> (near blindness)	< 0.02	and	>= NLP
• <b>Total vision loss</b> (total blindness)	NLP		

Recommends that, where such detailed reporting is not feasible, the categories defined in ICD-9 and ICD-10 of the World Health Organization be used as a minimum:

• <b>Low Vision</b>	< 0.3	and	>= 0.05
• <b>Blindness</b>	< 0.05	including	NLP

with additional detail where feasible.

- (C) Recommends with reference to its **“Visual Acuity Measurement Standard”** (Kos, 1984),
- That the **ETDRS protocol** of the National Eye Institute, National Institutes of Health, USA, be adopted as the “gold standard” for visual acuity measurement in population studies and clinical research. *The ETDRS charts are characterized by a proportional layout and a geometric (logarithmic) progression of letter sizes.*
  - That **deviations from that protocol** be spelled out if adherence to the complete protocol is not feasible.
  - That the **geometric progression** be maintained to assure equal accuracy at all levels of vision loss, even if the full proportional layout is not feasible (as in projector charts). *It is recognized that the use of the full ETDRS charts is often not practical in present clinical practice.*
  - That **measurement conditions** be specified, including (but not limited to) whether best-corrected acuity, presenting acuity, pinhole acuity, distance and/or near acuity are reported. *The functional importance of near acuity is emphasized.*

- (1) A full discussion of the rationale behind these recommendations can be found in the ICO report **“Visual Standards – Aspects and Ranges of Vision Loss, with emphasis on Population Surveys”**, prepared by August Colenbrander, MD, for the 2002 meeting. The report can be down-loaded from the ICO web site: [www.icoph.org/pdf/visualstandardsreport.pdf](http://www.icoph.org/pdf/visualstandardsreport.pdf).
- (2) This terminology does not preclude the possibility that the visual condition could subsequently be improved by medical, refractive or surgical intervention.

**BRIEF DISCUSSION** of the ICO Resolution  
August Colenbrander, MD, San Francisco

**(A)** The term “blindness”, though often defended as necessary for fundraising, is frequently extended to include individuals with residual vision. It is estimated that 90% of those considered “legally blind” in the U.S.A. have residual vision. Accordingly, it has been said that “*More people are blinded by DEFINITION, than by any other cause*”. Yet, even if extended the term blindness cannot be used for mild and moderate vision loss, conditions which also warrant reporting in population surveys.

Using the term **vision loss** avoids these problems. “Vision loss” can be used for partial vision loss (low vision – *the word low indicates that the vision is less than normal, the word vision indicates that the individual is not blind*) as well as for total vision loss (*blindness*).

In section (A) low vision and blindness are defined in functional terms by whether the individual predominantly relies on vision enhancement or predominantly on vision substitution (the use of senses other than vision). These definitions describe **functional vision** (visual skills and abilities of the individual). The word predominantly is used because even a person with mild vision loss may occasionally use vision substitution (e.g. talking books) and a person with near-total vision loss may still benefit from mere light perception.

**(B)** In section (B) ranges of vision loss are defined based on impairment of visual acuity, i.e. based on a **visual function**, a function of the organ of vision. Visual functions can be measured for each eye separately, whereas functional vision (see above) applies to the person. The report shows that there is a reasonable correlation between these two aspects; yet it is important to be clear about the basis upon which classifications are made, e.g. based on visual acuity (a visual function) or based on reading ability (functional vision).

Not all users are equally interested in all ranges. Clinical ophthalmologists are mainly interested in the upper ranges and are usually satisfied with estimates, such as “count fingers” and “hand motions” for the lower ranges. Services for the blind, on the other hand, are mainly interested in the lower ranges; the WHO classification does not even have codes for normal vision. Low Vision rehabilitation deals mainly with the middle ranges. The advantage of a geometric (logarithmic) progression is that a single framework can serve these diverse groups of users.

Tables in the report indicate how the listed ranges can be further subdivided. Each range contains 4 lines on a chart with a geometric (logarithmic) progression; each line represents 5 letters on an ETDRS-type chart. The ranges can also be collapsed to three, as in the WHO classification: Normal + mild loss = (near-)normal vision (no code in ICD-9 or ICD-10); moderate + severe loss = low vision (WHO) and profound loss + (near-)total loss = blindness (WHO).

Note how switching back to the term “blindness” causes confusion: the term “legal blindness” (used in the U.S.A. for social security and in other statutes) = severe loss and worse, but in the ICD-9-CM classification (used for hospital reporting) blindness = near-total loss and worse, while blindness (WHO) = profound loss and worse and blindness (dictionary) = total loss.

**(C)** In section (C) the ETDRS protocol is recognized as the “gold standard”. For population surveys the use of an actual, printed ETDRS chart (with 5 letters on the largest line) is recommended. In clinical practice such a wide chart may not be feasible, especially if a projector chart is used. It is recommended, however, that even in clinical practice the geometric (logarithmic) progression of letter sizes be adopted. This will fill the gap between 0.2 (20/100, 6/30) and 0.1 (20/200, 6/60), which represents a 3-line interval on an ETDRS-type chart and allows extension to the lower ranges. Projector slides with a geometric progression (logMAR) are available commercially.

*(See the full report for additional detail)*