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giving sight

BACKGROUND

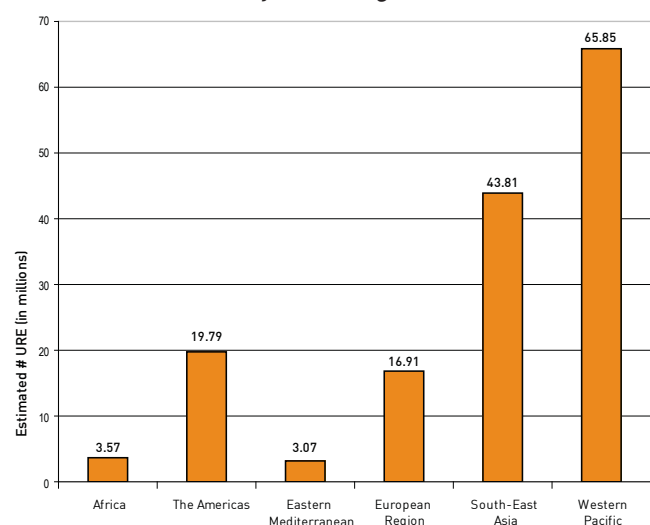
- Uncorrected refractive error is the most treatable cause of visual impairment¹ – most cases can be easily and cost-effectively managed²⁻⁴ with a basic eye examination and spectacles

Table 1: Global estimates of blindness and visual impairment

| | Number of people (millions) |
|--|-----------------------------|
| Total blindness and visual impairment due to refractive error | |
| Vision loss due to distance refractive error | 153 ^{2,5,6} |
| Blind | 8 ² |
| Visually impaired | 145 ⁵ |
| Vision loss due to near refractive error (presbyopia) | 517 ⁷ |
| Sub-total | 670 million |
| Total blindness and visual impairment due to eye disease | |
| Blind | 37 ⁵ |
| Visually impaired | 124 ⁵ |
| Sub-total | 161 million ⁵ |
| TOTAL GLOBAL BLINDNESS & VISUAL IMPAIRMENT | 831 MILLION |

- Millions in the developing world still do not have access to basic refractive services⁶, because of:
 - A shortage and uneven distribution of eye care personnel^{3,8}
 - Lack of appropriate infrastructure and affordable spectacles³
 - Barriers to the uptake of refractive services³

Figure 1: Global Distance Uncorrected Refractive Error Estimates by WHO Region⁹ (Total = 153 million)



- Addressing refractive error visual impairment requires¹⁰:
 - (1) The training and appropriate deployment of adequate numbers of eye care personnel to perform refractions, especially in remote and rural areas
 - (2) The provision of suitable infrastructure for eye care, including the availability of new, affordable, good quality spectacles

REPORT

Training of eye care personnel to provide refractive services:

- Eye care personnel should be trained to provide at least the following services:
 - Refraction, and prescribing, dispensing and distributing spectacles
 - Recognition of potentially blinding eye disease
 - Referrals where appropriate
- Countries should aim to have at least one refractive service provider per 100,000 population by 2010, and 1:50,000 by 2020¹¹



Infrastructure and the availability of suitable, affordable spectacles:

- Refractive services should always include access to affordable spectacles²
- Ready-made spectacles are cost-effective and convenient – they can be dispensed directly after the refraction, and are suitable in many cases of anisometropia < 0.50 D and astigmatism < 0.75 D³
- Approximately 30% to 50% of patients will need prescription or custom-made spectacles³
- The establishment of optical workshops staffed by spectacle technicians facilitates the availability of affordable spectacles, and can generate income
- Ideally such workshops should be available at the local level (1 per 50,000 people)
- The redistribution of used spectacles is not cost-effective³, nor does it help build capacity



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Creating sustainable solutions:

- Sustainability of refractive service programs can be achieved by:
 - Training local people to provide refractive services
 - Generating an affordable spectacle supply
 - Cost recovery through reduced fees or free spectacles to those in need, and by offering value-added services to wealthier patients, when appropriate
 - An identifiable career path for trained individuals
- Other strategies to help ensure sustainability include:
 - Engaging with the community and developing local partnerships
 - Integration within the existing health care system/ services in the country
 - Continuing education provision to ensure good services and follow-up
 - Committing sponsors for the program
- Refractive service provision also creates opportunities to screen for other ocular conditions

CONCLUSION

- The elimination of refractive error blindness and visual impairment is both achievable and crucial for the fulfillment of the goals of VISION 2020
- The provision of appropriate spectacles is one of the simplest, most cost effective strategies to improve vision
- The development of sustainable refractive services requires:

HUMAN RESOURCES

Eye care personnel, who can refract, dispense, undertake primary eye care and detect blinding diseases

+

AFFORDABLE TECHNOLOGY

Spectacles and low vision aids

+

SUSTAINABLE INFRASTRUCTURE

Vision care outlets including spectacle workshops

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