CAPTURE-RECAPTURE; A METHOD FOR DETERMINING THE PREVALENCE OF VISION IMPAIRMENT IN THE POPULATION

Purpose: Capture?recapture (CR) is a valid and highly cost-effective method for determining disease prevalence compared with traditional cross-sec- tional, population-based surveys. We report on three separate studies that have utilized this method to determine the prevalence of vision loss and impairment.

Method: CR studies were conducted in Western Australia (WA), New Zealand and in Portugal to determine the prevalence of vision loss or impair- ment from lists of residents. Independent lists of identiftable individuals were utilised using: regis- ters of blind persons, patients attending hospital outpatient eye clinics, patients attending ophthal- mologists? routine clinical appointments, optometry clinics or local health authority lists. Log-linear models were used to estimate the prevalence of per- sons with a vision impairment in each of the three countries.

Results: The prevalence of blindness (?6/60) in WA was estimated to be 0.15% (95% CI 0.13 to 0.18) of the total population or 0.43% of the adult popula- tion aged ?50 years. In New Zealand, the combined prevalence of vision impaired adults in the three regions studied (aged ?15 years) meeting the Blind Foundation criteria for membership (?6/24) was 0.82% (95% CI 0.60 to 1.29). The prevalence of visual impairment in Braga, Portugal (?6/19) was 1.51% (95% CI 1.10 to 2.26).

Conclusion: Capture-recapture is a relatively inex- pensive method for accurately calculating the preva- lence of vision loss in whole populations. Thus CR provides hard data to assist with ftnancial planning and the timely provision of appropriate support ser- vices for an increasing number of vision impaired people in communities worldwide.