



## Plummeting corneal donations at the Gauteng Cornea and Eye Bank

Aubrey Mokokomadi Makgotloe, Trevor Robin Carmichael

**To the Editor:** Corneal opacification (e.g. scarring) or ectasia (e.g. keratoconus) are the most common indications for corneal transplantation, and patients wait longer than a year for routine transplantation in the Johannesburg public sector hospitals. The situation is similar in the rest of South Africa.<sup>1</sup> For those with financial resources, imported American corneas are available at US\$2 000 each.

The records of the Gauteng Cornea and Eye Bank (GCEB) over the 11-year period 1998 - 2008 showed that 1 516 individuals donated corneal tissue, with an average of 138 donors per year. The number of donations per month was fairly stable until 2005, but after that dropped off dramatically (Fig. 1). White donors were in an overwhelming majority (96.8%, 1 467 donors), followed by blacks (1.6%, 25 donors), Asians (1.2%, 18 donors) and people of mixed race (0.4%, 6 donors). Most referrals for donation came from mortuaries (786, 51.8%), followed by private hospitals (530, 35.0%), while public sector hospitals accounted for only 10.0% (151) of all the referrals.

Of the 3 032 corneas donated, 2 642 (87.1%) were suitable for use in recipients. Of the 390 corneas discarded, 36% were damaged, 32% were positive for HIV (or inconclusive) and 8% were positive for hepatitis. The corneas were mostly used for private patients (91.5%, 2 417), only 225 (8.5%) being used for patients in the public sector.

It seems that public sector needs are being neglected and that the white ethnic group provides almost all donations of corneal tissue. It is not known, however, whether the process of corneal harvesting favours certain ethnic groups over others or whether there are reasons such as religious beliefs why some groups donate less. Easier payment might favour the

*Division of Ophthalmology, Department of Neurosciences, University of the Witwatersrand, Johannesburg*

Aubrey Mokokomadi Makgotloe, MB BCH, FCOphth (SA)  
Trevor Robin Carmichael, MB BCH, FCOphth (SA), PhD (Med), MSc (Med)

*Corresponding author: T R Carmichael (Trevor.Carmichael@wits.ac.za)*

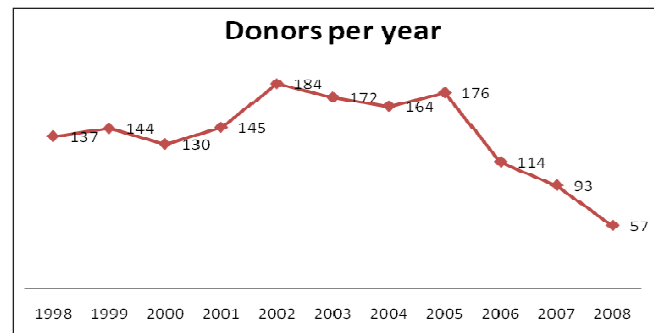


Fig. 1. A trendline graph showing numbers of donors of corneas per year.

dispersion of available corneas to private practitioners rather than the slower paying public sector.

The decline in corneal donations followed a change in procedures at mortuaries. In April 2006 government legislation shifted the forensic mortuaries from the South African Police Service to the Department of Health. There had been an informal agreement between mortuaries in Johannesburg and the GCEB that kept cases referred to the eye bank at reasonable levels. Various improvements were made in forensic procedures during 2006, for good reasons, but an unfortunate side-effect has been the decline in donations.

Some private hospitals, specifically the Netcare group of hospitals, have made it mandatory for their staff to refer potential donors to transplant co-ordinators with sufficient time to successfully retrieve tissue. Public hospitals generally have no such policy and therefore do not supply their own needs.

The demand for corneal tissue will probably never be met if the majority race group in South Africa does not participate sufficiently in the donation process. This highlights the importance of intensifying procurement programmes in traditionally black communities.

### Reference

- Meyer D. The new challenge of corneal transplantation in South Africa (Editorial). *S Afr Med J* 2007; 97: 512.

Accepted 9 August 2009.