

## Trends in Organ Donation in the UK

*Sue Pioli<sup>1</sup>, Richard Lawton<sup>2</sup>, UK Transplant - Bristol<sup>1</sup>, University of the West of England - Bristol<sup>2</sup>*

There is a concern throughout the organ transplant community that the demand for organs greatly exceeds the numbers donated and at present, donor numbers are declining whilst the number of patients needing a transplant continues to grow. This study examines trends in organ donation in the hope that a better understanding of donation patterns and influences may help to identify some causes of action to improve future donor numbers. Of particular interest is whether the extent of press coverage issues concerning organ donation leads to changes in the refusal rate of the next of kin, and hence the actual number of donors.

Monthly donor numbers, for the period 1 January 1992 to 31 March 2005, were obtained from the National Transplant Database held by UK Transplant and modelled using various univariate time series techniques. Multivariate time series techniques were employed to assess the effect of associated press coverage, donation publicity campaigns and events of adverse publicity relating to organ transplantation. Models based on campaign data and adverse publicity events were developed on the monthly data using intervention analysis. Dynamic regression models were developed to assess the influence of press coverage based on weekly data for the period 5 August 2003 to 27 December 2004.

None of the press coverage variables considered were identified as significant in the dynamic regression models for weekly donor numbers. Intervention analysis performed on monthly donor numbers indicated that none of the awareness campaigns or the adverse publicity associated with George Best and Alder Hey had a significant impact. Although there was no evidence of a significant influence, press coverage and awareness campaigns undoubtedly improve public understanding of issues surrounding organ donation but it has not been possible to attribute the influence to any one campaign or any specific measure of press coverage.

*[Keywords: Organ donation, press coverage, publicity campaigns, multivariate time series analysis, dynamic regression.]*