

In submission for the Hospital Performance Study of the Productivity Commission (2009) please find attached papers and presentations, as referenced below. These describe and illustrate a robust framework and method for identification of peers, comparison of performance and measures of hospital efficiency allowing for costs and quality of hospital performance, with direct relevance to the fourth stated objective of the hospital performance study.

The methods and framework provide distinct advantages over other methods in allowing efficiency measurement across hospitals:

- (i) consistent with maximising net benefit, the underlying objective of evidence based medicine and service industries more generally (Graham 1981, 1992; Stinnett and Mullahy 1998; Willan and Lin 2001; Eckermann 2004; Willan and Briggs 2006; Eckermann, Briggs et al. 2008; Eckermann and Coelli 2008);
- (ii) explicitly preventing incentives for cost shifting and cream skimming in respectively addressing coverage and comparability conditions of the net benefit correspondence theorem (Eckermann 2004, 2006, 2009);
- (iii) enabling estimation of the shadow price for value of quality in current industry behaviour in the absence of prices for admission, in addition to technical, allocative, scale and economic efficiency consistent with maximising net benefit (Eckermann 2004; Eckermann and Coelli 2008).

Hence, the methods and framework allow policy to be informed of hospital efficiency in relation to use of resources, size, value of quality and overall performance and to support evidence based medicine in practice in benchmarking, peer identification and general performance measurement.

Further, the net benefit correspondence theorem provides radial properties and, hence, can be applied with any existing efficiency measurement instruments, including index methods, data envelopment analysis and stochastic frontier analysis with cross-sectional or longitudinal data.

Consequently, the methods and framework result in the best integration of cost and outcome data in comparison of performance and efficiency across public and private hospitals, allowing for quality of care and preventing incentives for cream skimming and cost shifting.

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