

16 May 2007

David Goddard QC & Diane Salter  
Physiotherapy Review  
C/- Kevin Morris, Director of Clinical Services, ACC

By e-mail: [kevin.morris@acc.co.nz](mailto:kevin.morris@acc.co.nz)

Dear Mr Goddard and Ms Salter

**Re: Endorsed Provider Network Extension Pilot – a cost benefit assessment (July 2002)**

On 15 May 2007 you asked me to review the adequacy and completeness of the cost benefit assessment in the above-mentioned report, focusing in particular on Table 12: Summary of impacts of implementing the EPN Scheme.

You also asked me to comment on the statistical analysis in that report.

I submit this review as an independent expert witness, in accordance with the Code of Conduct for expert witnesses.

***Background***

Some background is important. At the end of 2001 NZIER was asked by ACC to review an ACC evaluation of the cost benefit analysis of an EPN trial. We identified a number of short-comings. (NZIER. 2002. *Endorsed Provider Network. Review of Analysis*. Report to ACC)

In 2002 we were asked to provide an economic framework to assess the impact of the EPN, to guide ACC's cost-benefit assessment of a second stage of the EPN trial. This assessed the implications of differential subsidies on both the demand for services from endorsed and non-endorsed providers, the volume of services, and the benefit of any additional services, and likely responses by non-endorsed providers. It formed the basis of the hypotheses in the evaluation. (NZIER. 2002. *Framework for the analysis of the Endorsed Provider Network*. Report to ACC)

I was then asked to assist ACC analysts with preparing their evaluation report. I provided detailed comment on parts of the report I am now asked to comment on.

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### ***Adequacy and completeness of the cost benefit assessment***

**Based on the information in the report about the observed impacts, and noting one omission, Table 12 seems to be an appropriate treatment.**

The costs on ACC show the impact of higher provider subsidies less savings in weekly compensation. They are an estimate of the present value of the lifetime cost of a claim commenced in the relevant year. This is not a standard approach, but useful from ACC's point of view, and not problematic in this case. (It may become an issue when trying to assess the overall net impact if the analysis yielded net benefits in some years and net costs in others.)

Providers face the additional costs of gaining and keeping accreditation. There is no benefit from increased subsidies to providers, as the analysis indicated that there was no growth in volumes and no change in treatment per claim, just a re-allocation between endorsed and non-endorsed providers, and as it is assumed that the loss from copayment income is exactly offset by the extra subsidy.

The benefits to consumers are the reductions in their copayments. This is a transfer from levy payers to claimants, not a real resource cost. It should be similar to the increase in ACC claim costs (and thus cancel out). It is not clear from the documentation why the numbers are not exactly the same. But they seem close enough, and differences would not affect the broad result.

Consumers are shown to benefit from a reduction in lost output (the value of the output gained due to the reduction in lost working days). This should really be assigned to employers or society. But it does not matter to the end result.

What is missing is an estimate of the reduction in lost wages. Claimants who receive weekly compensation only receive 80% of their wages (up to a maximum). The amount can be inferred from the workers compensation line (e.g. for March 04,  $\$1.4\text{m}/0.8 = \$1.75\text{m}$ , and 20% of that is  $\$0.35\text{m}$ . That would increase the net benefit reported.

While Table 12 may appear sparser than Table 34 in *GP & Radiology Access Pilots – Outcome and economic evaluation* (NZIER, 2006), this is readily explained by the lack of impact on volumes, and the lack of sharing of the subsidy increase between providers and consumers in the EPN analysis.

Intuitively the reduction in weekly compensation attributed to the EPN and the absence of any impact on number of treatments seem contradictory. The report indicates that the time between appointments is longer for EPN providers, which may explain some of the effect. This issue warranted more analysis, given the importance of weekly compensation to the outcome of the cost benefit analysis.

### ***Comment on the statistical analysis***

**The approach seems reasonable, but there is potential for biased results.** Establishing the extent to which that potential is controlled for would require a more in-depth review of the models and outputs not contained in the report. Similarly, it is difficult to comment on the veracity of the tables and numbers in the report.

The sites were selected for their high concentration of accredited providers (and high claim volumes, to allow statistical testing). But site selection cannot be taken to be random. Almost by definition providers that were accredited before there were ACC incentives to do so are different from other providers. Any differences that are observed point to something, but it cannot be inferred that such differences are *caused* by accreditation. So it cannot be said that expanding accreditation would lead to a desired change in provider practice.

The report on page 10 outlines a number of hypotheses to be tested, and summarises the approach for each.

The approach to testing hypothesis 1 seems appropriate (noting the caveat about causality).

The approach to testing hypothesis 2 and 3 require a view on what otherwise would have occurred. The report indicates time series techniques were used to forecast such counterfactual. This seems reasonable, but is obviously sensitive to estimation error.

The approach to other hypotheses (before and after comparison and comparisons between accredited and non-accredited providers) is reasonable in principle. But the results are likely to be subject to case mix and claimant type. There are techniques to control for differences, but it is not clear from the report that this was done. The risk is that the analysis compares apples and oranges. I cannot be sure that this was the case – this level of detail may simply have been omitted from what is intended to be largely a non-technical report.

The report does use words such as ‘significantly’ and so forth, but lacks an explicit reporting on whether any differences were statistically significant or not.

Finally, while the report includes a risk section, some sensitivity analysis (of the discount rate and of the projections of what otherwise would have happened) would have been a good addition to the report.

Jean-Pierre de Raad  
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