Submission to the Productivity Commission on the *progress report concerning the Impacts of Medical Technology in Australia (released 19 April 2005)*

While the progress report provides a welcome overview of the process of the evaluation of new technology and highlights the importance of economic evaluation of new medical technologies, there are currently several gaps and shortcomings we feel need to be addressed by the Commission in the final report.

Firstly, the draft report fails to adequately delineate the differences in the process between Pharmaceutical Benefits Advisory Council (PBAC) and other Health Technology Assessment (HTA) organisations in Australia. In the case of PBAC, its role has been concerned with the assessment of industry submissions (without regard to horizon scanning, or even undertaking its own independent evaluations). However, the role of the PBAC is set to be extended following the 2005 Budget - PBAC will undertake reviews of pharmaceuticals that have been listed; and in addition, the PBAC are now responsible for appraising and making recommendations on vaccines and vaccination programs. In contrast to the PBAC, the Medical Services Advisory Committee (MSAC) has a broader role, as it commissions independent evaluations, but these evaluations are generally limited to the available evidence. MSAC does not normally commission studies such as randomised trials in order to collect information that is unavailable in the published literature.

Secondly, the implications of the assessment process for technological assessment have not been adequately addressed. For example, PBAC contracts groups of evaluators whose role is to critique submissions using pre-specified guidelines, whereas MSAC contracts groups to undertake systematic reviews and develop economic models.

In the case of PBAC, where the public sector acts as reviewer of industry submissions, there is a less than optimal process of assessment. In particular, there are few incentives to build independent models in order to test industry claims, or for reviewers to develop the science of evaluation to keep pace with their academic peers. The task of PBAC evaluators is made more complex by having to review detailed models that often involve widely differing assumptions regarding costs, effectiveness and outcomes. In Australia, unlike other countries (e.g. United Kingdom) there has been no attempt to develop a reference case (i.e. a common set of assumptions that all submissions are required to use), or for the public sector to develop generic disease models that could be used to independently evaluate different submissions.

In the case of MSAC, its emphasis is on using existing literature, and so contractors spend much of their time searching for and sifting through articles looking for data. MSAC models are developed in relation to particular issue and so again the potential economies of scope that arise from developing more generic models are generally not exploited.

Thirdly, there have been relatively few changes to the PBAC and MSAC assessment process since their inception. This has meant that Australia has failed to progress with other nations in the methods used to evaluate therapies and interventions. For example, in submissions to the PBAC and MSAC probabilistic sensitivity analysis is rarely used (and is not required). This is contrary to the National Institute for Clinical Excellence (NICE) in the UK where this approach is required.

Fourthly, while the draft report highlights that there are important methodological debates (e.g. role of indirect costs in evaluation), it is important to note the public sector has not systematically funded research to try to resolve these issues. The key issue here is that Australia lacks a funding mechanism, such as the Health Technology Assessment programme in the United Kingdom, to encourage and co-ordinate new methodological research.

Finally, while the progress report rightly points out that the mandatory requirement of the PBAC meant that Australia led the world in policy-making on pharmaceuticals. This has given great international impetus for appraisal of pharmaceuticals, health technologies, and now clinical practice guidelines to undergo economic evaluation before being accepted. Consequently, the demand for economic evaluations (and health economists) has increased over the last decade. However, there has been no systematic attempt to provide funding to train additional health economists to meet future workforce demands in this area. If it is the intention of the public sector to expand the role of economic evaluation in the assessment of technology, then substantial increases in investment for training and development is required now in order to develop the workforce to undertake this task. The extension of the PBAC's role to appraise vaccines will increase the demand for specialist skills in economic evaluation. This is because dynamic transmission models are required to project effects of infection and vaccine in the population; these models are substantially more complex compared with Markov models as instead of modelling a single cohort, a multitude of cohorts that interact with each other need to be modelled.

In summary, the demand for health economics will expand because of the increasing use of economic evaluation of new technology (e.g. the PBS increased role - see point one above). The progress report understates the need for strategic funding to build infrastructure in health economics, develop methodologies and enhance capacity through investments in human capital. Only when these issues are addressed will Australia again become a world leader in health economics through development of theory, methods and policy.

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