Memorandum

Date:	22 August 2024
To:	Bronwyn Croxson, Chief Economist, Ministry of Health
From:	David Moore, Matt Williamson
Re:	Waikato Medical School cost-benefit analysis: comments on Minister Seymour's letter of 21 August 2024

The letter from Minister Seymour highlights several concerns about:

- the benefits quantified, and
- evidence base of the CBA.

The letter raises the issue of whether the CBA meets the test required without further quantification and possibly monetisation of the benefits expected from non-GP medical specialists. We address the comments in this memorandum.

General comments

All options for expanding training give strong positive Net Present Values (NPVs).

The CBA is built around the investment objectives particularly objectives three and four which point to rural needs, primary care clinical placements, and rural training opportunities. In our analysis, training of doctors who are not general practitioners (GPs) is a positive benefit, recognised as a qualitative benefit.

The NPV for all options is likely to improve greatly if the benefit of specialists is quantified. Because of the positive effects of GPs, and positive health outcomes and system cost efficiencies of continuity of care, the options may not change in ranking. Measuring and monetising the benefits of specialists could, however, be explored, although we are not aware where this analysis has been done or whether there is evidence for such a calculation.

The benefits of continuity of care are only offered in primary care, not with other hospital and specialist services doctors. Those benefits are decreased morbidity and mortality, reduced health system cost and greater health system resilience. Although we have not gone through the exercise of quantifying the value of doctors who do not become general practitioners, there is a balancing of evidence and outcomes to consider.

The evidence used in the cost benefit analysis is the best available to us, is highly relevant, generalisable to New Zealand, and is recent. Those assumptions and the evidence underpinning those assumptions have been reviewed by an Expert Advisory Group of leading medical academics and educationists. Although there is imperfect evidence, there is better evidence than in a lot of health sector decision making, and that thinking has been reviewed and tested with experts. The final interpretation in the context of a cost benefit analysis is, however, Sapere's.

Other benefits of option 3 are not commented on and may have been ignored. Those benefits include competition effects, additional options for expanding training and, if it were all to go poorly, residual value in education infrastructure.

Addressing specific concerns and comments

Concern: Comparators chosen do not consider the options of incentive payments to rural GPs or increased immigration, which might have offered higher value-for-money.

Response:

Comparators chosen reflect the decision of cabinet. As noted in the cabinet paper proposing the work programme [CAB-24-SUB-0183], "further options [were] ruled out as they will not meet all the investment objectives".

Concern: Non-quantification of the health benefits produced by specialists creates an incomplete CBA that does not enable a decision to be made.

Response:

We regard our treatment of specialists, as a benefit secondary to the primary objective of the investment. We regard this treatment as correct.

As we say above, training of doctors who are not general practitioners (GPs) is currently not quantified but is included in as a qualitative benefit. However, we could attempt to value other doctors who are not general practitioners. We are not sure we have a basis for that calculation so assumptions, uncertainty and range of benefits might be quite wide.

Concern: Effectiveness of producing rural GPs

Concern is raised around the replicability of the Wollongong medical school's success at raising GP propensity rates, or the work of Kwan et al (2017) that suggests longer term intentions for rural practice increase with an increase in the number of years of clinical placement in these settings.

Further to Minister Seymour's letter, the Minister of Health's office raises two questions on the applicability of Australian examples:

1. Do we expect self-selection to have concentrated GP propensity in Wollongong, while reducing it in other schools, rather than simply increasing it?

2. Do we consider that Kwan et al (2017) provides a causal link?

Response:

By way of background, medical schools are over-subscribed and places in schools are rationed with some aspects of positive discrimination. There are no doubts that additional places offered by medical schools will be filled.

The evidence is clear conditions of your training, and the environment you train in, influence your future career choices. Post-graduation career intentions are surveyed throughout student's time at medical school and change over the course of their studies as understanding of the options available, and exposure to different specialities grows. If opportunities to gain exposure and understanding to a particular specialty do not exist or are highly limited, it is likely that many students who were interested in this specialty will end up pursuing different paths.

In response to question 1 above, we can't say whether self-selection may have concentrated GP propensity, but we doubt it. We could look at a before and after comparison of Wollongong School but that is likely to be very difficult to draw a statistically significant causal link from. There is reinforcing evidence of the Wollongong results in Kwan et al (2017), and Matthews et al (2015). Matthews et al (2015) analysed practicing intentions for students who attended the Pukawakawa programme in Northland. The findings of Kwan et al, Mathews et al, and the increased GP propensity from the Wollongong medical school were tested with an Expert Advisory Group.

All else being equal, a medical school that focuses on training rural general practitioners, will likely lead to an increase in the number of rural general practitioners produced at a whole of system level. We expect that effect to be over and above what we would expect from any self-selection effects.

There is not one single factor in the Wollongong offering; rather there is a package of steps, from recruitment process, to training modalities, and clinical placements. Wollongong places more emphasis on selection processes including interviewing, as well as clinical placements giving more exposure to rural and general practice training and placements. University of Waikato is well placed to replicate that effect particularly as the Waikato region has a network of rural, satellite hospitals.

Concern: The closeness of BCRs once value of specialists is included.

Response:

A key differentiating factor between the options is found in the discussion of qualitative benefits. Option three provides significant additional benefits which we have not sought to measure or monetise. Option three also provides value from real options to expand training and competitive effects.

All options have similar BCR values in our base case, with option one (2.2), option two (2.6), and option three (2.7). All options confer strong returns on investment. If the value provided by specialist doctors was included (with the operational costs associated with their activity)

then we suspect the BCRs could become even closer. We suspect this is the case as each option trains a similar number of doctors, the costs of paying both GPs and non-GP specialists over the course of their careers is substantially greater than the costs of training, and both GPs, and non-GP specialists probably have a net positive impact on society.