

## Memorandum

29 April 2022

To: Janice Donaldson – Central Region Technical Advisory Services

From: Ashley Milkop – Sapere Research Group

Re: Peer review of April 2022 forecast of expenditure on community Pharmacy services under the ICPSA (Integrated Community Pharmacy Services Agreement)

## Purpose/background

We have been asked to review the volume forecasts which drive the expenditure forecasts under the ICPSA. Previously we have assisted TAS to develop a forecast methodology and provided technical assistance to adapt the methodology once it was clear that Covid has challenged some underlying assumptions.

The main effects of Covid were:

- A decline in initial dispensings, which we understand to be due to limited access to healthcare and to limited spread of diseases during periods of travel restriction
- An increase in repeat dispensing because of the need to reduce stat dispensing as a result of supply chain issues

We have now been asked to provide a peer review of the ICPSA Expenditure forecast of April 2022 (the report) to ensure that the results are robust and able to withstand scrutiny.

Our review has included the following actions:

- Review of the report text
- Verification of calculations
- Sense checking of material assumptions
- Comment on any alternative scenarios or events that could impact on results

Our review does not include any consideration of changes to the Combined Pharmaceutical Budget (CPB), changes to margins or price effects.

We assume that all the raw data in the model provided to us is correct: although we have sense checked the data for anything that might seem anomalous.

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## Calculations are correct

We are satisfied to the best of our ability that the key calculations are correct. We have suggested some minor changes to the way that numbers are presented in a marked-up version of the report.

In reaching this conclusion we have taken the model and performed independent calculations to confirm the results on the spreadsheet tab, *12. Results – national*, which is reproduced on page 1 of the report.

## We review and broadly agree with key assumptions

### Initial dispensings

We broadly concur with the approach taken, which is to reduce the forecast result for FY2022 by 1 per cent. Since April 2020, 19 of the 22 months have been below the pre-pandemic trend. The one significant outlier was August 2021 when it is likely that a pre-lockdown surge caused initial dispensings to move to 0.6 per cent above the pre-pandemic trend. For the last three months actual initial dispensings have been 1.2 per cent below the pre-pandemic trend. In our view it is likely that the results for the first six months of the year will be similar, however it is possible that in the second half of the year that there could be a return to the pre-pandemic trend given likely policy announcements to lift Covid restrictions. If that is the case then a more conservative approach might be to reduce the pre-pandemic trend by something closer to 0.6 per cent (six months at -1.2 per cent, followed by 6 months at zero per cent).

On the reversion to the trend in FY2023 we concur. There is no indication at this stage of any enduring change to the fundamental picture. Compared to other countries there have been relatively few deaths as a result of Covid in New Zealand, which means that the demographic make-up of our population remains little changed. While migration to New Zealand has decreased we are not aware of any hard data on the effect of this reduction in arrivals on healthcare trends. Future effects from migration trends (both to and from New Zealand) are speculative.

### Repeats dispensing ratio (RDR)

In our view the approach taken in the report is sound. TAS is right to take into account for years after FY2022 Pharmac's intended approach to stat dispensing.

### Methodological assumptions

The approach taken is essentially a top-down one which casts forward prior year trends. Up until the Covid era the approach taken has been appropriate to the need. It is clear that dispensing volumes are a function of a complex system. To capture the complexity would require consideration of, among other variables, a demographic forecast, predictions on incidence of diseases, Government policy around pharmaceutical funding, innovations in pharmaceutical development, and an understanding of the international supply chain. Development of such a complex model would be unlikely to deliver much in the way of a more accurate model. Where necessary TAS has made marginal adjustments (e.g. to the RDR). Our view is that other adjustments would be entirely speculative unless further evidence becomes available. At this stage the forecast approach is adequate to the need.

## Australian experience shows similar trends

We have undertaken a quick review of dispensing data for Australia, which is a reasonable comparator for New Zealand given its restrictions on international travel, and relatively limited spread of Covid compared to most countries.

An update from the Australian Institute of Health and Welfare in February 2022 on total dispensings<sup>1</sup> shows some similarities with the New Zealand context:

- There was a major surge of dispensings in the March 2020 quarter prior to lockdown initiatives
- The year to March 2021 showed dispensings were 3.1 per cent lower than the year to March 2020
- Growth in dispensings have since recovered in the year: the most recent year reported (to September 2021) shows that dispensings are 1.6 per cent higher than the year to September 2020.

On the other hand, it is reported that:

Comparing the number of original prescriptions to repeats, the ratio of original prescriptions remained the same at 40% (repeats 60%). This consistency suggests that the pandemic did not have much effect on how consumers accessed their medicines, via first time dispensing of a prescription or a subsequent refill from an original prescription.

Finally it is noted that similar trends were observed in all Australian states and territories.

## What to monitor going forward

In our view there are several variables that could disrupt future trends: Covid variants, supply chain issues, and migration flows. These variables not mutually exclusive. These factors are addressed in the report and we agree with the treatment of them.

On supply chain interruptions, we note that it is likely that lockdowns in China could affect world supply chains. Pharmac acknowledges that:

A large number of the medicines imported to New Zealand do have some or all of their manufacturing and production steps in China, but [is] unable to give an exact number based on the information [held] at this time.<sup>2</sup>

Regarding Covid variants it is harder to predict what might happen. We suggest that, although lockdowns are less likely to be used as a policy choice, decisions made by individuals will limit disease spread and see initial dispensings decline again.

We consider that migration flows will be an important metric to take account of. However, given that migration flows are more likely to involve younger, healthier people (in both directions) and that net

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<sup>1</sup> <https://www.aihw.gov.au/reports/health-care-quality-performance/impacts-of-Covid19-mbs-pbs-quarterly-data/contents/impact-on-pbs-service-utilisation>

<sup>2</sup> <https://Pharmac.govt.nz/news-and-resources/official-information-act/official-information-act-responses/medicines-from-china/>

migration is harder to predict, there is little to say on this issue until observable outcomes are manifest.