

Quantifying impact of COVID-19 on hospital costs in a post-pandemic environment

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Outline

- Introduction to IHACPA and Australian hospital funding
- COVID-19 in Australia
- Data exploration
- Model assumptions
- Methodology
- Results
- Next steps





Introduction

- Independent Health and Aged Care Pricing Authority (IHACPA) is independent of all governments.
- Elected by states, territories, and the Commonwealth.
- Established to facilitate implementation of national activity based funding for public hospitals.
- Strong consultation and transparency values.



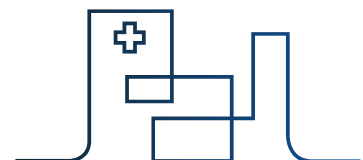
Introduction

IHACPA determines the national efficient price annually



$$\Delta\text{Funding} = f(\Delta\text{Price}, \Delta\text{Volume})$$

Commonwealth funding is provided by the National Health Funding Body to the local hospital network



States and territories determine the volume and distribution of services



COVID-19 in Australia

- ~8,000 cases at 20 June 2020
- ~7,000 recovered
- ~2,600 hospitalisations
- ~100 deaths
- ~50 cases per day



The data tells us...

- ~270,000 decrease in weighted separations from March 2020
- ~2,600 COVID-19 hospitalisations
- Total costs remained consistent through the pandemic response*
- Average cost increase of ~16%
 - Partly due to fully staffed, operating under capacity



Assumptions for 2022

Developed in 2021

1. Volume will return to historical trends
2. Price relativities will remain stable within streams of care
3. Step increase in average cost (additional cleaning, screening, etc)
4. Funding guarantee top up was used in full
5. Technical assumption around inflexible labour costs

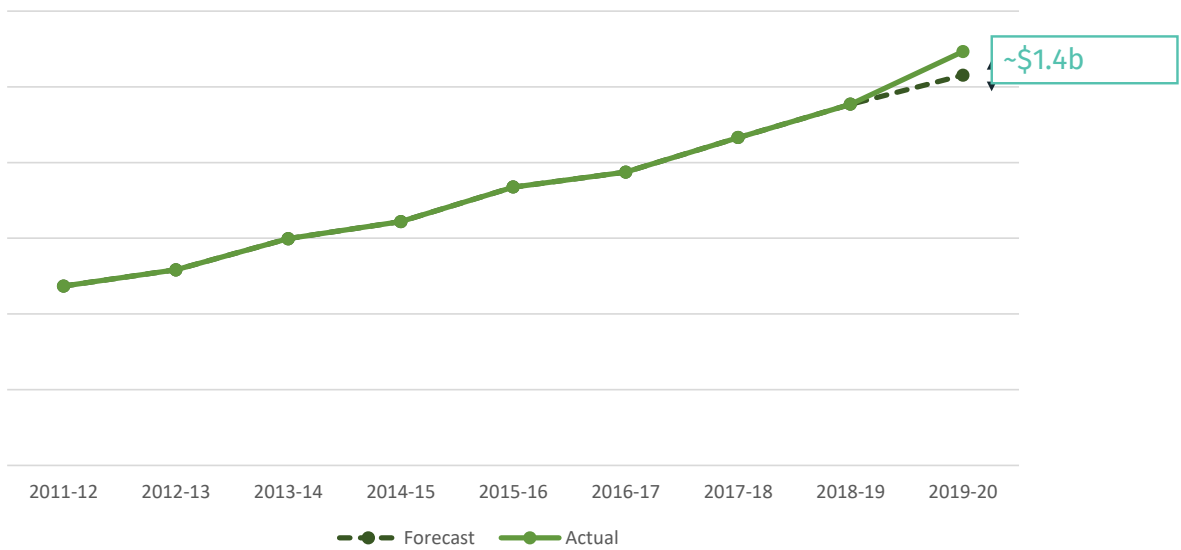
Paraphrased from <https://www.ihacpa.gov.au/resources/national-efficient-price-determination-2022-23>



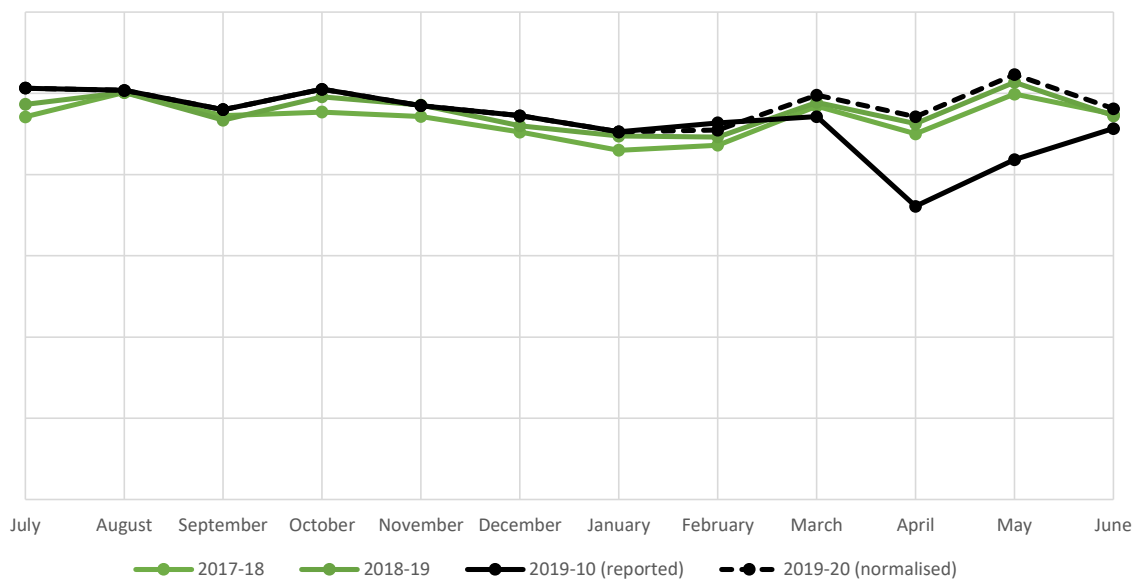
Method

- Use pre-pandemic data to fit non-COVID cost model
- Normalise activity - assume hospitals operating at capacity
- Normalise cost - estimate increase in variable component of cost for normalised activity
- Measure difference in expected vs actual cost

Forecast non-COVID costs

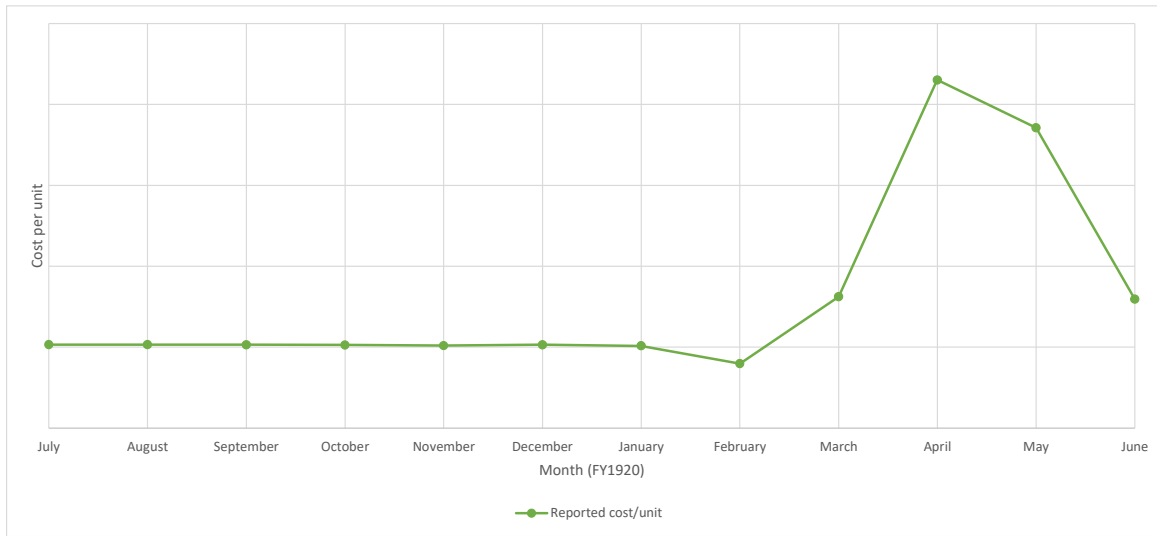


Normalise activity

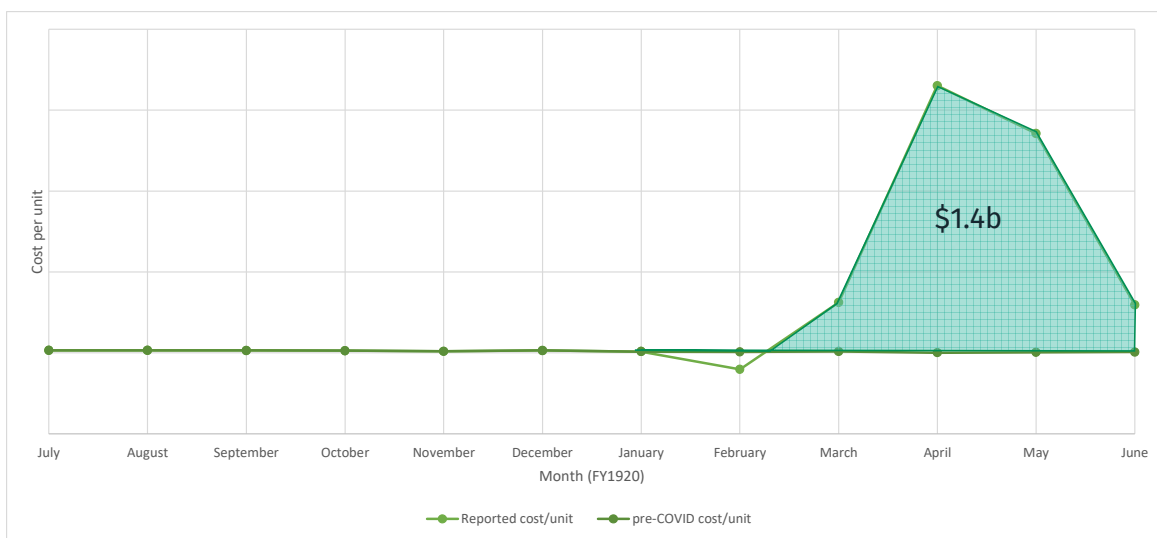




Average costs

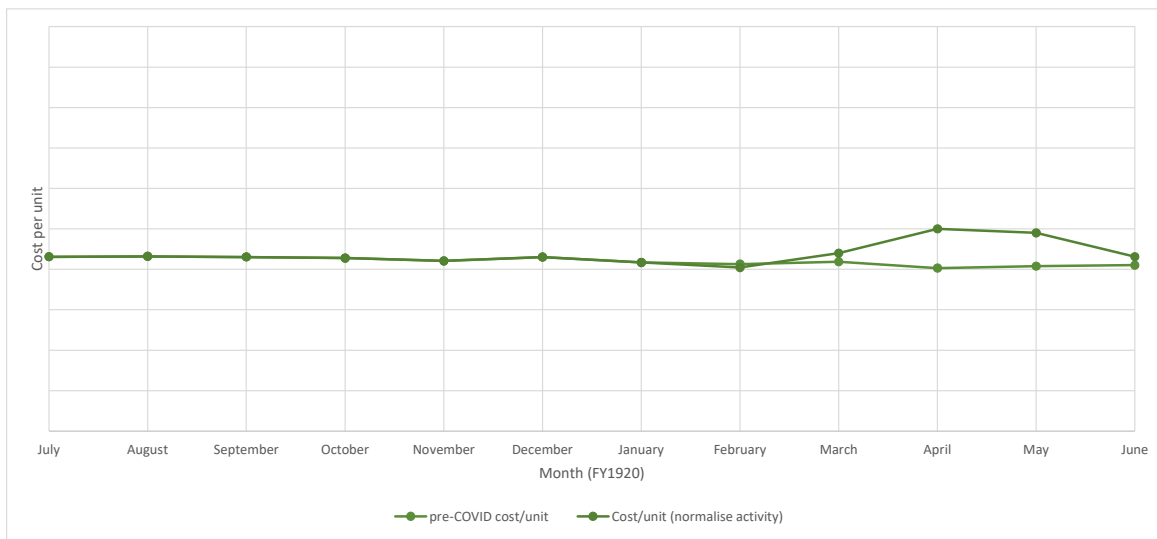


Average costs

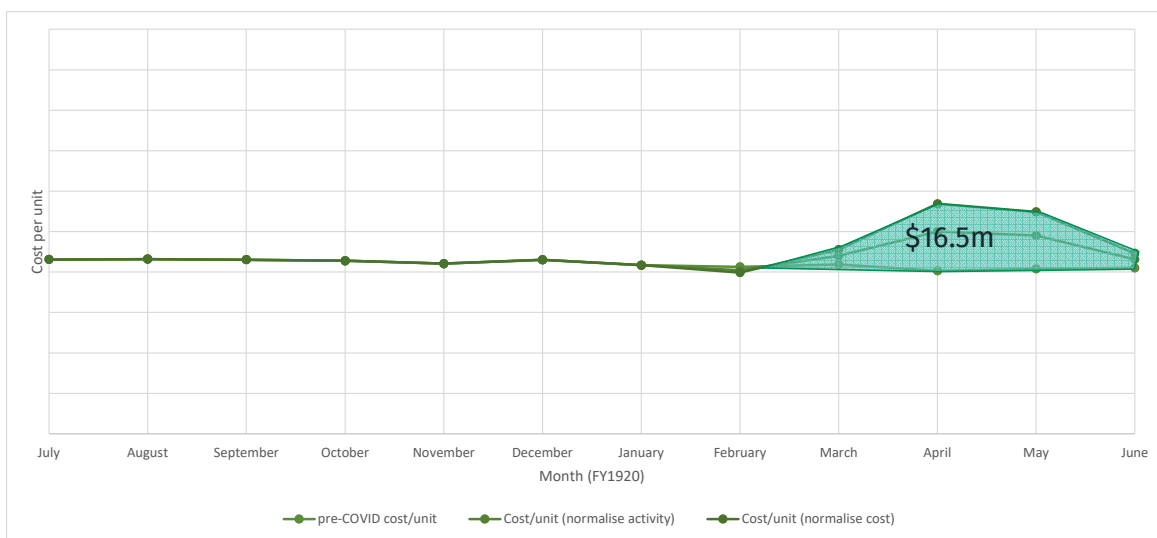




Average costs



Average costs





Next steps

- The COVID-19 pandemic continued
- 2020-21 was a relatively quiet year
- 2021-22 data collection underway...
- 2022-23 data will let us test assumptions

