



Supporting Information

CHEERS statement

**This appendix was part of the submitted manuscript and has been peer reviewed.
It is posted as supplied by the authors.**

Appendix to: Wright M, Bates S, Bazemore AW, Kidd MR. Evaluating primary care expenditure in Australia: the Primary Care Spend (PC Spend) model. *Med J Aust* 2025; doi: 10.5694/mja2.52574.

CHEERS 2022 checklist Please note: the locations refer to the submitted manuscript, not to the published article

| Topic | No. | Item | Location where item is reported | Comment |
|--------------------------------------|-----|---|---------------------------------------|--|
| Title | 1 | Identify the study as an economic evaluation and specify the interventions being compared. | Title, Page 1 | Improving the evaluation of primary care spending in Australian health care using the primary care spend model |
| | 2 | Provide a structured summary that highlights context, key methods, results, and alternative analyses. | Abstract, Page 1 | The abstract follows journal requirements. Context is provided in 'setting'; key methods in 'design', results in 'main outcome measures' and 'results', and alternative analysis not undertaken due to data limitations – detailed in 'limitations'. |
| Introduction | | | | |
| Background and objectives | 3 | Give the context for the study, the study question, and its practical relevance for decision making in policy or practice. | Introduction | Overall context paras 1 and 2, setting and practical relevance in decision making policy and practice paras 3 and 4, study question – last two sentences of para 4. |
| Methods | | | | |
| Health economic analysis plan | 4 | Indicate whether a health economic analysis plan was developed and where available. | Section 2 'study design' | Description of two components of study design, data sources, intended outcomes, ethics. |
| Study population | 5 | Describe characteristics of the study population (such as age range, demographics, socioeconomic, or clinical characteristics). | Methods, Section 2 'study population' | The study population is all Australians accessing the health system. |
| Setting and location | 6 | Provide relevant contextual information that may influence findings. | Methods, 'setting and location' | We map the tiers of health expenditure including Federal, jurisdictional and private expenditure to develop the PC Spend Model (Australia). Also highlight what data excludes |
| Comparators | 7 | Describe the interventions or strategies being compared and why chosen. | Methods 'comparators' | No direct comparator in Australian setting, although comparison with PC Spend using USA data is described as the USA was the original setting for the model |
| Perspective | 8 | State the perspective(s) adopted by the study and why chosen. | Methods, 'perspective' | Costs are described from a health sector perspective in order to inform health funders and policymakers as key audience. |
| Time horizon | 9 | State the time horizon for the study and why appropriate. | Methods, 'Time horizon' | We use 2020/2021 data as this was the most complete and up to date data at the time of this research. |

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|---|-----|---|--|---|
| Discount rate | 10 | Report the discount rate(s) and reason chosen. | Not relevant | For the main study we use data from a single year to create the baseline. Where contextual information comparing expenditure with prior years is provided, this is reported in 'todays' dollars so no discount rate is required. |
| Selection of outcomes | 11 | Describe what outcomes were used as the measure(s) of benefit(s) and harm(s). | Methods 'measurement' | While no health outcomes are reported, we identify outcomes according to three tiers of primary health expenditure Tier A, B or C. Health system spending for primary healthcare (Tier A), comprehensive primary care (PC) (Tier B) and long-term holistic patient care (Tier C) quantified in Australian dollars (AUD) and as a proportion of Australia's total health expenditure |
| Measurement of outcomes | 12 | Describe how outcomes used to capture benefit(s) and harm(s) were measured. | Methods, 'measurement' | Using published health expenditure data from AIHW |
| Valuation of outcomes | 13 | Describe the population and methods used to measure and value outcomes. | Methods, 'measurement' | Two lead authors classified reported categories of expenditure. |
| Measurement and valuation of resources and costs | 14 | Describe how costs were valued. | Methods, 'Study design' and 'measurement' | Provides explanation of inclusions and exclusions compared to original model. |
| Currency, price date, and conversion | 15 | Report the dates of the estimated resource quantities and unit costs, plus the currency and year of conversion. | Methods, 'study population' and 'time horizon' | 2020/2021 expenditure reports in Australian dollars (AUD). |
| Rationale and description of model | 16 | If modelling is used, describe in detail and why used. Report if the model is publicly available and where it can be accessed. | Methods, 'study design' | This section explains the adaptation of the PC Spend Model to the Australian context. The model is referenced and the Australian model reported in Table 1. |
| Analytics and assumptions | 17 | Describe any methods for analysing or statistically transforming data, any extrapolation methods, and approaches for validating any model used. | Methods, 'Analytics and assumptions' | In terms of analysis, the two lead authors classified expenditure from available data to form the new model and extrapolated expenditure data from accounts. No statistical transformations were required. The strengths and weaknesses of this approach is explained in Section 2.2. |
| Characterising heterogeneity | 18 | Describe any methods used for estimating how the results of the study vary for subgroups. | Not relevant | The study examines population level data and not data for subgroups of the population. |
| Characterising distributional effects | 19 | Describe how impacts are distributed across different individuals or adjustments made to reflect priority populations. | Not relevant | As above. |
| Characterising uncertainty | 20 | Describe methods to characterise any sources of uncertainty in the analysis. | Methods, 'analytics and assumptions' | Lack of data granularity limits the ability to classify Tier B and C expenditure. This is an important finding of the analysis |

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|--|-----|---|--|--|
| Approach to engagement with patients and others affected by the study | 21 | Describe any approaches to engage patients or service recipients, the general public, communities, or stakeholders (such as clinicians or payers) in the design of the study. | Not relevant | The authors engaged with developers of the original PC Spend model and have included them in authorship. Two of the authors are clinicians and were able to provide clinical input into the study design and interpretation. |
| Results | | | | |
| Study parameters | 22 | Report all analytic inputs (such as values, ranges, references) including uncertainty or distributional assumptions. | Results, Table 2 | Each source of data is noted in Table 2 – both the expenditure report and the field within the report |
| Summary of main results | 23 | Report the mean values for the main categories of costs and outcomes of interest and summarise them in the most appropriate overall measure. | Results, Table 2 | We provide total expenditure and provide results as proportion of both primary health care expenditure and total health care expenditure. |
| Effect of uncertainty | 24 | Describe how uncertainty about analytic judgments, inputs, or projections affect findings. Report the effect of choice of discount rate and time horizon, if applicable. | Results, para 2 | Explains choices in classifying expenditure and limitations in data source which would permit alternative analyses to test for uncertainty. More granular data may provide greater ability to classify expenditure and potentially different results. Discount rate and time horizon are not applicable. |
| Effect of engagement with patients and others affected by the study | 25 | Report on any difference patient/service recipient, general public, community, or stakeholder involvement made to the approach or findings of the study | Not relevant | Clinicians were involved in review of the results and original designers of PC Spend model are included within authorship. |
| Discussion | | | | |
| Study findings, limitations, generalisability, and current knowledge | 26 | Report key findings, limitations, ethical or equity considerations not captured, and how these could affect patients, policy, or practice. | Discussion, paras 1 and 2, limitations are presented in 4.1 | This study is at a population level and therefore equity considerations were not possible at this point. |
| Other relevant information | | | | |
| Source of funding | 27 | Describe how the study was funded and any role of the funder in the identification, design, conduct, and reporting of the analysis | Funding statement in article submission process | As submitted (not included here as potentially identifiable) |
| Conflicts of interest | 28 | Report authors conflicts of interest according to journal or International Committee of Medical Journal Editors requirements. | Conflict of interest statement in article submission process | As submitted (not included here as potentially identifiable) |

From: Husereau D, Drummond M, Augustovski F, et al. Consolidated Health Economic Evaluation Reporting Standards 2022 (CHEERS 2022) Explanation and Elaboration: A Report of the ISPOR CHEERS II Good Practices Task Force. Value Health 2022;25. doi:10.1016/j.jval.2021.10.008