

Supplemental materials for:

Fried JE, Basu S, Phillips RS, Landon BE. Financing buprenorphine treatment in primary care: a microsimulation model. *Ann Fam Med.* 2020;18(6):535-544.

Supplemental Table 1. CHEERS checklist

Consolidated Health Economic Evaluation Reporting Standards (CHEERS) checklist.²⁹

Section/item	Item No	Recommendation	Reported on
Title and abstract			
Title	1	Identify the study as an economic evaluation or use more specific terms such as “cost-effectiveness analysis”, and describe the interventions compared.	Title
Abstract	2	Provide a structured summary of objectives, perspective, setting, methods (including study design and inputs), results (including base case and uncertainty analyses), and conclusions.	Abstract
Introduction			
Background and objectives	3	Provide an explicit statement of the broader context for the study.	Intro paragraph 1
		Present the study question and its relevance for health policy or practice decisions.	Intro paragraph 3
Methods			
Target population and subgroups	4	Describe characteristics of the base case population and subgroups analyzed, including why they were chosen.	Methods paragraph 5

Setting and location	5	State relevant aspects of the system(s) in which the decision(s) need(s) to be made.	Methods paragraph 5
Study perspective	6	Describe the perspective of the study and relate this to the costs being evaluated.	Methods paragraph 5
Comparators	7	Describe the interventions or strategies being compared and state why they were chosen.	Figure 1, Methods paragraphs 2-4
Time horizon	8	State the time horizon(s) over which costs and consequences are being evaluated and say why appropriate.	Methods paragraph 12
Discount rate	9	Report the choice of discount rate(s) used for costs and outcomes and say why appropriate.	Methods paragraph 12
Choice of health outcomes	10	Describe what outcomes were used as the measure(s) of benefit in the evaluation and their relevance for the type of analysis performed.	Methods paragraph 11
Measurement of effectiveness	11a	Single study-based estimates: Describe fully the design features of the single effectiveness study and why the single study was a sufficient source of clinical effectiveness data.	Methods paragraph 11
	11b	Synthesis-based estimates: Describe fully the methods used for identification of included studies and synthesis of clinical effectiveness data.	Methods paragraphs 2-4
Measurement and valuation of preference-based outcomes	12	If applicable, describe the population and methods used to elicit preferences for outcomes.	Methods paragraph 11

Estimating resources and costs	13a	Single study-based economic evaluation: Describe approaches used to estimate resource use associated with the alternative interventions. Describe primary or secondary research methods for valuing each resource item in terms of its unit cost. Describe any adjustments made to approximate to opportunity costs.	Methods paragraph 8-10
	13b	Model-based economic evaluation: Describe approaches and data sources used to estimate resource use associated with model health states. Describe primary or secondary research methods for valuing each resource item in terms of its unit cost. Describe any adjustments made to approximate to opportunity costs.	Methods paragraph 8-10
Currency, price date, and conversion	14	Report the dates of the estimated resource quantities and unit costs. Describe methods for adjusting estimated unit costs to the year of reported costs if necessary. Describe methods for converting costs into a common currency base and the exchange rate.	Methods paragraph 12
Choice of model	15	Describe and give reasons for the specific type of decision-analytical model used. Providing a figure to show model structure is strongly recommended.	Methods paragraph 6-7
Assumptions	16	Describe all structural or other assumptions underpinning the decision-analytical model.	Methods paragraph 6-7, Table 1
Analytical methods	17	Describe all analytical methods supporting the evaluation. This could include methods for dealing with skewed, missing, or censored data; extrapolation methods; methods for pooling data; approaches to validate or make adjustments (such as half cycle corrections) to a model; and methods for handling population heterogeneity and uncertainty.	Methods paragraph 6-7

Results			
Study parameters	18	Report the values, ranges, references, and, if used, probability distributions for all parameters. Report reasons or sources for distributions used to represent uncertainty where appropriate. Providing a table to show the input values is strongly recommended.	Table 1
Incremental costs and outcomes	19	For each intervention, report mean values for the main categories of estimated costs and outcomes of interest, as well as mean differences between the comparator groups. If applicable, report incremental cost-effectiveness ratios.	Table 2
Characterizing uncertainty	20a	Single study-based economic evaluation: Describe the effects of sampling uncertainty for the estimated incremental cost and incremental effectiveness parameters, together with the impact of methodological assumptions (such as discount rate, study perspective).	Methods paragraph 13, Table 2
	20b	Model-based economic evaluation: Describe the effects on the results of uncertainty for all input parameters, and uncertainty related to the structure of the model and assumptions.	Methods paragraph 13, Table 2
Characterizing heterogeneity	21	If applicable, report differences in costs, outcomes, or cost-effectiveness that can be explained by variations between subgroups of patients with different baseline characteristics or other observed variability in effects that are not reducible by more information.	Table 2
Discussion			

Study findings, limitations, generalizability, and current knowledge	22	Summarize key study findings and describe how they support the conclusions reached. Discuss limitations and the generalizability of the findings and how the findings fit with current knowledge.	Discussion paragraphs 1-4
Other			
Source of funding	23	Describe how the study was funded and the role of the funder in the identification, design, conduct, and reporting of the analysis. Describe other non-monetary sources of support.	Funding statement
Conflicts of interest	24	Describe any potential for conflict of interest of study contributors in accordance with journal policy. In the absence of a journal policy, we recommend authors comply with International Committee of Medical Journal Editors recommendations.	Conflicts of interest statement

Supplemental Appendix. Interview guide.

Please help our research group understand the clinical pathway that your practice uses for new patients with opioid use disorder, and the costs and revenues associated with it. Please answer as many of the questions below as you feel comfortable answering. On page 2, we have also provided a table for you to fill out that describes each step of the process.

Workflow

- *What is the general workflow or clinical pathway you use for a typical new patient with opioid use disorder in your practice?*
- *Do you have a written protocol / workflow / visit template, and can you share it?*
- *Who is involved in Suboxone prescribing in your practice? (MD, NP, RN, SW, pharmacist, behavioral health specialists, etc.) Please provide FTE equivalents, if available.*

If not already addressed:

- *Do you have a dedicated MAT or addictions practice, or are patients seen during routine clinic sessions?*
- *Do you use group visits?*
- *Do you collaborate with specialists (e.g. addiction psychiatry) or bridge clinics?*
- *Do you have mental health or pharmacist services on-site?*
- *Do you dedicate practice sessions to your OUD patients? How many sessions per week? How many patients per session?*

Intake / Initial Visit / Induction

- *Who is eligible for medication-assisted treatment? How are patients referred for treatment?*
- *Length of visit(s), billing code(s) used, providers involved*
- *Home vs in-office induction*
- *Use of and billing for telephone outreach*
- *No-show rate*

Follow-up

- *Frequency of visit, length of visit, providers involved, billing codes used*
- *Urine drug screening protocol*
- *Use of and billing for telephone outreach*
- *No-show rate*

Revenues

- *# of pts/provider*
- *General business model and overall profitability of Suboxone prescribing, if applicable*
- *Payer mix of patients, if applicable*

Costs

- *Physical space required, with cost per sq ft if available*
- *Change in malpractice premium*
- *Start-up costs (space, hiring staff, unfilled office visits, training) and process.*

Clinical Pathway Step	Description of Clinical Pathway	Site	Staffing (FTE Equivalent) and Time
Referral and Screening			
Intake, Initial Assessment and Development of Treatment Plan			
Offer of Medication			
Induction and Withdrawal Management			
Stabilization			
Maintenance			
Discontinuation and Medical Withdrawal			