STROBE Statement—checklist of items that should be included in reports of observational studies

	Item No	Recommendation
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract Cohort study design - in title and abstract.
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found done
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported Done - line 49 to 69
Objectives	3	State specific objectives, including any prespecified hypotheses Done – line 69 to 72.
Methods		
Study design	4	Present key elements of study design early in the paper Key elements of design included in methods
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection Described in first 2 paragraphs of the methods.
Participants	6	(*a*) *Cohort study*—Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up Data sources, inclusion and exclusion criteria described in detail in the first 2 paragraphs of the methods. *Case-control study*—Give the eligibility criteria, and the sources and methods of case ascertainment and control selection. Give the rationale for the choice of cases and controls *Cross-sectional study*—Give the eligibility criteria, and the sources and methods of selection of participants
		(*b*) *Cohort study*—For matched studies, give matching criteria and number of exposed and unexposed No matching but characteristics of total cohort and non-users and users described in Table 1. *Case-control study*—For matched studies, give matching criteria and the number of controls per case
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable Utilization study. Pregnancy definition and ICD codes used are defined in detail in 2nd paragraph of methods. Exposure to opioids and conversions to MEQ in paragraphs 3 and 4 of methods.
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group Detailed information on sources of information and derivation of opioid dose provided in paragraph 1 and 4 of methods.
Bias	9	Describe any efforts to address potential sources of bias Data limitations – OTC, methadone and no hospital prescriptions – described and could bias results – underestimate exposure to opioids.
Study size	10	Explain how the study size was arrived at Population-based study
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why N/A
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for

	confounding Described in last paragraph of methods.
	(*b*) Describe any methods used to examine subgroups and interactions N/A
	(*c*) Explain how missing data were addressed
	(*d*) *Cohort study*—If applicable, explain how loss to follow-up was addressed The issues of follow up and incomplete time are discussed and addressed in 3rd paragraph of the methods. *Case-control study*—If applicable, explain how matching of cases and controls was addressed *Cross-sectional study*—If applicable, describe analytical methods taking account of sampling strategy
	(*e*) Describe any sensitivity analyses As a comparative sensitivity analysis – we examined the opioid use after the first pregnancy related visit (i.e. when would be expected to know that they were pregnant. – Described bottom of third paragraph of methods and results 172-176.

Continued on next page

Results		
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed Flow of cohort inclusion described in the 1st paragraph of the results.
		(b) Give reasons for non-participation at each stage Number for exclusions included in the first paragraph of the results.
		(c) Consider use of a flow diagram Flow diagram not used but information included as described above.
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders Provided in Table 1.
		(b) Indicate number of participants with missing data for each variable of interest
		(c) *Cohort study*—Summarise follow-up time (eg, average and total amount) Followed patients pre-pregnancy and in each trimester of pregnancy. Weighted pregnancy approach for incomplete data was described in the third paragraph of methods and total for live births, stillbirths/intrauterine death.
Outcome data	15*	*Cohort study*—Report numbers of outcome events or summary measures over time Utilization study but exposure and MEQ over time reported in figure 1 and 2.
		Case-control study—Report numbers in each exposure category, or summary measures of exposure
		Cross-sectional study—Report numbers of outcome events or summary measures
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included Population based utilization analysis - N/A
		(*b*) Report category boundaries when continuous variables were categorized N/A
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period N/A
Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses analyses As a comparative sensitivity analysis – we examined the opioid use after the first pregnancy related visit (i.e. when would be expected to know that they were pregnant. – Described bottom of third paragraph of methods and results 172-176.
Discussion		
Key results	18	Summarise key results with reference to study objectives First paragraph of interpretations summarizes major results related to study objectives.
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias Study limitations are discussed in second last paragraph of the interpretation section. Potential for unrecorded opioid use to underestimate the true level of use is noted.
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence Population based utilization analysis
Generalisability	21	Discuss the generalisability (external validity) of the study results Population based study – Interpretations section compares to other jurisdictions and generalizable implications are discussed in the conclusions section.
Other information		
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based Funding from the University of

Manitoba acknowledged in funding section.

*Give information separately for cases and controls in case-control studies and, if applicable, for exposed and unexposed groups in cohort and cross-sectional studies.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at www.strobe-statement.org.