Deciding What Type of Literature Review to Perform

Systematic Review Training

Center for Knowledge Management

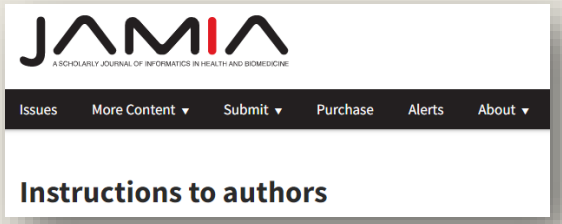
VANDERBILT UNIVERSITY MEDICAL CENTER

Objectives:

- ✓ ***Describe factors to consider when deciding which type of review to perform***
- ✓ ***Explain importance of appropriately labeling literature reviews and avoiding misclassifying a review as a systematic review***

Questions to consider when conducting a review:

- What type of literature review would be most appropriate?
  - What is the intent of the literature search?
  - How will it be used?
  - Feasibility of timeline
- Journal requirements
  - Look at instructions for authors



Reviews

Review articles contain systematic reviews of the literature or concise tutorials on topics of broad interest to the readers.
The structured abstract and text for a systematic review should follow the same format as the one required of Research & Applications articles described above.
The structured abstract for a tutorial should contain the headings: Objectives, Target Audience, and Scope (covered topics).

Word count: up to 4000 words.
Structured abstract: up to 250 words.
Tables: up to 4.
Figures: up to 6.
References: unlimited.

Instructions to Authors. JAMIA. [cited 2023 Sept 6]; Available from: https://academic.oup.com/jamia/pages/General_Instructions

Three broad classes of literature reviews

- Narrative review
- Systematic review
- Systematic-like review

Fox ZE, Williams AM, Blasingame MN, Koonce TY, Kusnoor SV, Su J, Lee P, Epelbaum MI, Naylor HM, DesAutels SJ, Frakes ET, Giuse NB. Why equating all evidence searches to systematic reviews defies their role in information seeking. J Med Libr Assoc. 2019 Oct;107(4):613-617. doi: 10.5195/jmla.2019.707. Epub 2019 Oct 1. PMID: 31607825; PMCID: PMC6774532.

Comparison of narrative and systematic reviews

Category	Narrative Review	Systematic Review
Scope	Unspecified	Narrow
Timeline	Rapid	12-18 months
Protocol	Not required	Required
Systematic Database Searching	Typically conducted	Required
Dual reviewer screening of articles	Not required	Required
Critical appraisal	Variable; can introduce bias	Defined by protocol; assessment of risk of bias in individual studies
Strength of the Evidence	Not required	Required
Synthesis	Qualitative	Qualitative and/or quantitative (meta-analysis)

Fox ZE, Williams AM, Blasingame MN, Koonce TY, Kusnoor SV, Su J, Lee P, Epelbaum MI, Naylor HM, DesAutels SJ, Frakes ET, Giuse NB. Why equating all evidence searches to systematic reviews defies their role in information seeking. J Med Libr Assoc. 2019 Oct;107(4):613-617. doi: 10.5195/jmla.2019.707. Epub 2019 Oct 1. PMID: 31607825; PMCID: PMC6774532.

Cook DJ, Mulrow CD, Haynes RB. Systematic reviews: synthesis of best evidence for clinical decisions. Ann Intern Med. 1997 Mar 1;126(5):376-80. doi: 10.7326/0003-4819-126-5-199703010-00006. PMID: 9054282.

Systematic-*like* Reviews

- Often protocol-driven, with ***selected features of the systematic review*** process, such as:
  - single or dual screening at abstract & full text level
  - evaluation of strength of evidence (SOE)
  - assessment of risk of bias
- Includes overview of the methods in the final publication

Fox ZE, Williams AM, Blasingame MN, Koonce TY, Kusnoor SV, Su J, Lee P, Epelbaum MI, Naylor HM, DesAutels SJ, Frakes ET, Giuse NB. Why equating all evidence searches to systematic reviews defies their role in information seeking. J Med Libr Assoc. 2019 Oct;107(4):613-617. doi: 10.5195/jmla.2019.707. Epub 2019 Oct 1. PMID: 31607825; PMCID: PMC6774532.

Literature Review Types

Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. Health Info Libr J. 2009 Jun;26(2):91-108. doi: 10.1111/j.1471-1842.2009.00848.x. PMID: 19490148.

Paré G, Kitsiou S. Chapter 9 Methods for Literature Reviews. In: Lau F, Kuziemsky C, editors. Handbook of eHealth Evaluation: An Evidence-based Approach [Internet]. Victoria (BC): University of Victoria; 2017 Feb 27. Available from: https://www.ncbi.nlm.nih.gov/books/NBK481583/.

Review type	Goal	Search	Appraisal	Synthesis
Rapid review	Uses components of the systematic review process to critically appraise literature	Limited based on time	Limited based on time	Narrative and tabular
Realist review	Interpretative review that uses evidence from qualitative and quantitative studies	Systematic and comprehensive	Uses different instruments for quality or risk of bias assessments	Qualitative evidence synthesis; may use conceptual frameworks; mixed methods
Umbrella review	Review of systematic reviews	Comprehensive; inclusion & exclusion criteria	Required	Extract data from systematic reviews; tables and figures
Scoping review	Assess scope of the literature; extent of evidence	Comprehensive; inclusion & exclusion criteria	Not required	Narrative; analytic frameworks; thematic construction
Critical review	Critical evaluation of the literature; used to generate hypothesis or model	May or may not include comprehensive searching; aims to identify representative articles	Not required	Narrative

Grant MJ, Booth A. A typology of reviews: an analysis of 14 review types and associated methodologies. Health Info Libr J. 2009 Jun;26(2):91-108. doi: 10.1111/j.1471-1842.2009.00848.x. PMID: 19490148.
Paré G, Kitsiou S. Chapter 9 Methods for Literature Reviews. In: Lau F, Kuziemsky C, editors. Handbook of eHealth Evaluation: An Evidence-based Approach [Internet]. Victoria (BC): University of Victoria; 2017 Feb 27. Available from: https://www.ncbi.nlm.nih.gov/books/NBK481583/.

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Review

Review

A narrative review of the impact of the transition to ICD-10 and ICD-10-CM/PCS

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ABSTRACT

Objectives: The United States transitioned to the tenth version of the International Classification of Diseases (ICD) system (ICD-10) for mortality coding in 1999 and to the International Classification of Diseases, Clinical Modification and Procedure Coding System (ICD-10-CM/PCS) on October 1, 2015. The purpose of this study was to conduct a narrative literature review to better understand the impact of the implementation of ICD-10/ICD-10-CM/PCS.

Materials and Methods: We searched English-language articles in PubMed, Web of Science, and Business Source Complete and reviewed websites of relevant professional associations, government agencies, research groups, and ICD-10 news aggregators to identify literature on the impact of the ICD-10/ICD-10-CM/PCS transition. We used Google to search for additional gray literature and used handsearching of the references of the most on-target articles to help ensure comprehensiveness.

Results: Impact areas reported in the literature include: productivity and staffing, costs, reimbursement, coding accuracy, mapping between ICD versions, morbidity and mortality surveillance, and patient care. With the exception of morbidity and mortality surveillance, quantitative studies describing the actual impact of the ICD-10/ICD-10-CM/PCS implementation were limited and much of the literature was based on the ICD-10-CM/PCS transition rather than the earlier conversion to ICD-10 for mortality coding.

Discussion: This study revealed several gaps in the literature that limit the ability to draw reliable conclusions about the overall impact, positive or negative, of moving to ICD-10/ICD-10-CM/PCS in the United States.

Conclusion: These knowledge gaps present an opportunity for future research and knowledge sharing and will be important to consider when planning for ICD-11.

Key words: International Classification of Diseases, clinical coding, population surveillance, diagnosis codes, claims

Search

- PubMed, Web of Science, Business Source Complete
- Government, association, and news websites
- Google search for white papers and presentations
- Hand-search references

Screen

- Address transition impact
- English
- Single reviewer

PubMed:

(((("International Classification of Diseases"[mh] OR "International Classification of Diseases"[tiab]) AND ("10"[tiab] OR ten[tiab] OR tenth[tiab] OR 10th[tiab] OR "version 10"[tiab] OR "tenth revision"[tiab] OR "10th revision"[tiab])) OR ICD10[tiab] OR ICD-10[tiab] OR ICD10CM[tiab] OR ICD10-CM[tiab] OR ICD-10-CM[tiab] OR ICD10PCS[tiab] OR ICD10-PCS[tiab] OR ICD-10-PCS[tiab]) AND (change[tiab] OR conversion[tiab] OR convert[tiab] OR converted[tiab] OR converting[tiab] OR crosswalk[tiab] OR crosswalks[tiab] OR implementation[tiab] OR implemented[tiab] OR implementing[tiab] OR map[tiab] OR mapped[tiab] OR mapping[tiab] OR maps[tiab] OR migration[tiab] OR migrations[tiab] OR rollout[tiab] OR switch[tiab] OR switched[tiab] OR switching[tiab] OR transition[tiab] OR transitioned[tiab] OR transitioning[tiab] OR translating[tiab] OR translation[tiab] OR translations[tiab]) AND ("Change Management"[mh] OR "Cost Control"[mh] OR "Cost-Benefit Analysis"[mh] OR "Costs and Cost Analysis"[mh] OR "Data Accuracy"[mh] OR "delivery of health care"[mh] OR "Diffusion of Innovation"[mh] OR "disease management"[tiab] OR "fraudulent claims"[tiab] OR "Health Care Costs"[mh] OR "Health Expenditures"[mh] OR "Health Information Interoperability"[mh] OR "insurance claim reporting"[mh] OR "insurance claim review"[mh] OR "Insurance, Health, Reimbursement"[mh] OR "lessons learned"[tiab] OR "morbidity/statistics and numerical data"[mh] OR "morbidity/trends"[mh] OR "mortality/statistics and numerical data"[mh] OR "mortality/trends"[mh] OR "Organizational Innovation"[mh] OR "Personnel Management"[mh] OR "Population Surveillance"[mh] OR "Quality Indicators, Health Care"[mh] OR "quality of health care"[mh] OR "rejected claims"[tiab] OR "system change"[tiab] OR "system changes"[tiab] OR "Time Factors"[mh] OR "Workforce"[mh] OR accuracy[tiab] OR Administrative data[tiab] OR advantage[tiab] OR advantages[tiab] OR align[tiab] OR alignment[tiab] OR beneficial[tiab] OR benefit[tiab] OR benefits[tiab] OR burnout[tiab] OR "Burnout, Psychological"[mh] OR challenge[tiab] OR challenges[tiab] OR comparability[tiab] OR concordance[tiab] OR cons[tiab] OR consequence[tiab] OR consequences[tiab] OR cost[tiab] OR costs[tiab] OR discontinuities[tiab] OR discontinuity[tiab] OR "economics"[mh] OR "economics"[sh] OR "efficiency"[mH] OR error[tiab] OR errors[tiab] OR financial[tiab] OR harms[tiab] OR impact[tiab] OR implication[tiab] OR Implications[tiab] OR interoperability[tiab] OR issues[tiab] OR limitation[tiab] OR limitations[tiab] OR payment[tiab] OR payments[tiab] OR personnel[tiab] OR problem[tiab] OR problems[tiab] OR productivity[tiab] OR pros[tiab] OR reimbursement[tiab] OR time[tiab] OR training[tiab] OR validation[tiab] OR workforce[tiab] OR "case mix"[tiab] OR "case mixes"[tiab] OR casemix[tiab] OR casemixes[tiab] OR Diagnosis-Related Groups[mh] OR DRG[tiab] OR DRGs[tiab] OR "diagnosis related groups"[tiab] OR "diagnosis-related groups"[tiab] OR "diagnosis related group"[tiab] OR "diagnosis-related group"[tiab] OR "Patient Generated Health Data"[mh]) AND English[la]

Web of Science:

TI=((((("International Classification of Diseases" OR ICD) NEAR (10 OR ten OR tenth OR 10th OR "version 10" OR "10th revision" OR "tenth revision")) OR ICD10 OR ICD-10 OR ICD10CM OR ICD10-CM OR ICD-10-CM OR ICD10PCS OR ICD10-PCS OR ICD-10-PCS)) AND TS=((change OR conversion OR convert OR converted OR converting OR crosswalk OR crosswalks OR implementation OR implemented OR implementing OR map OR mapped OR maps OR mapping OR migration OR migrations OR rollout OR switch OR switched OR switching OR transition OR transitioned OR transitioning OR translating OR translation OR translations) AND ("change management" OR cost OR costs OR accuracy OR delivery OR innovation OR diffusion OR "disease management" OR fraudulent OR expenditures OR interoperability OR "claim reporting" OR "claim review" OR reimbursement OR "lessons learned" OR morbidity OR mortality OR surveillance OR quality OR rejected OR rejection OR rejections OR "system change" OR "system changes" OR time OR workforce OR "administrative data" OR advantage OR advantages OR align OR alignment OR beneficial OR benefit OR benefits OR burnout OR challenge OR challenges OR comparability OR concordance OR cons OR consequence OR consequences OR discontinuities OR discontinuity OR economics OR efficiency OR error OR errors OR financial OR harms OR impact OR implication OR implications OR issues OR limitation OR limitations OR payment OR payments OR personnel OR problem OR problems OR productivity OR pros OR training OR validation OR "case mix" OR "case mixes" OR casemix OR casemixes OR "diagnosis-related groups" OR "diagnosis-related group" OR DRG OR DRGs OR "diagnosis related group" OR "diagnosis related groups"))

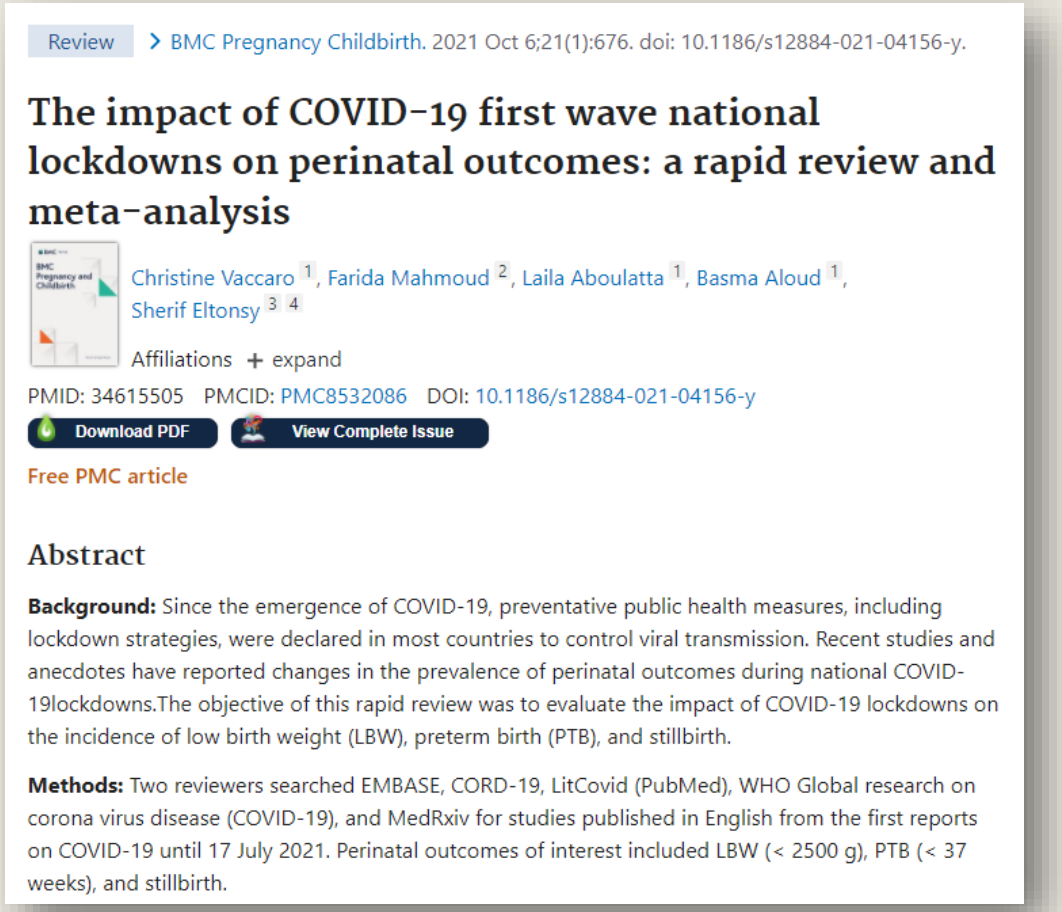
Business Source:

TI ((("International Classification of Diseases" OR ICD) AND (10 OR ten OR tenth OR 10th OR "version 10" OR "10th revision" OR "tenth revision")) OR ICD10 OR ICD-10 OR ICD10CM OR ICD10-CM OR ICD-10-CM OR ICD10PCS OR ICD10-PCS OR ICD-10-PCS) AND TI (change OR conversion OR convert OR converted OR converting OR crosswalk OR crosswalks OR implementation OR implemented OR implementing OR map OR mapped OR maps OR mapping OR migration OR migrations OR rollout OR switch OR switched OR switching OR transition OR transitioned OR transitioning OR translating OR translation OR translations)

Kusnoor SV, Blasingame MN, Williams AM, DesAutels SJ, Su J, Giuse NB. A narrative review of the impact of the transition to ICD-10 and ICD-10-CM/PCS. JAMIA Open. 2019 Dec 26;3(1):126-131. doi: 10.1093/jamiaopen/ooz066. PMID: 32607494; PMCID: PMC7309233.

Potential Advantages of a Systematic-Like Review

- Requires ***less time*** and ***fewer resources*** than a full Systematic Review
- Gives investigators flexibility in deciding which systematic review methods they wish to incorporate
- Can be performed on topics that may not lend themselves to full Systematic Reviews
- Ideal for ***informing policy makers***, other ***public health stakeholders*** more rapidly; important in case of ***public health crises***



Review > BMC Pregnancy Childbirth. 2021 Oct 6;21(1):676. doi: 10.1186/s12884-021-04156-y.

The impact of COVID-19 first wave national lockdowns on perinatal outcomes: a rapid review and meta-analysis

Christine Vaccaro [1], Farida Mahmoud [2], Laila Aboulatta [1], Basma Aloud [1], Sherif Eltonsy [3 4]

Affiliations + expand

PMID: 34615505 PMCID: PMC8532086 DOI: 10.1186/s12884-021-04156-y

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Free PMC article

Abstract

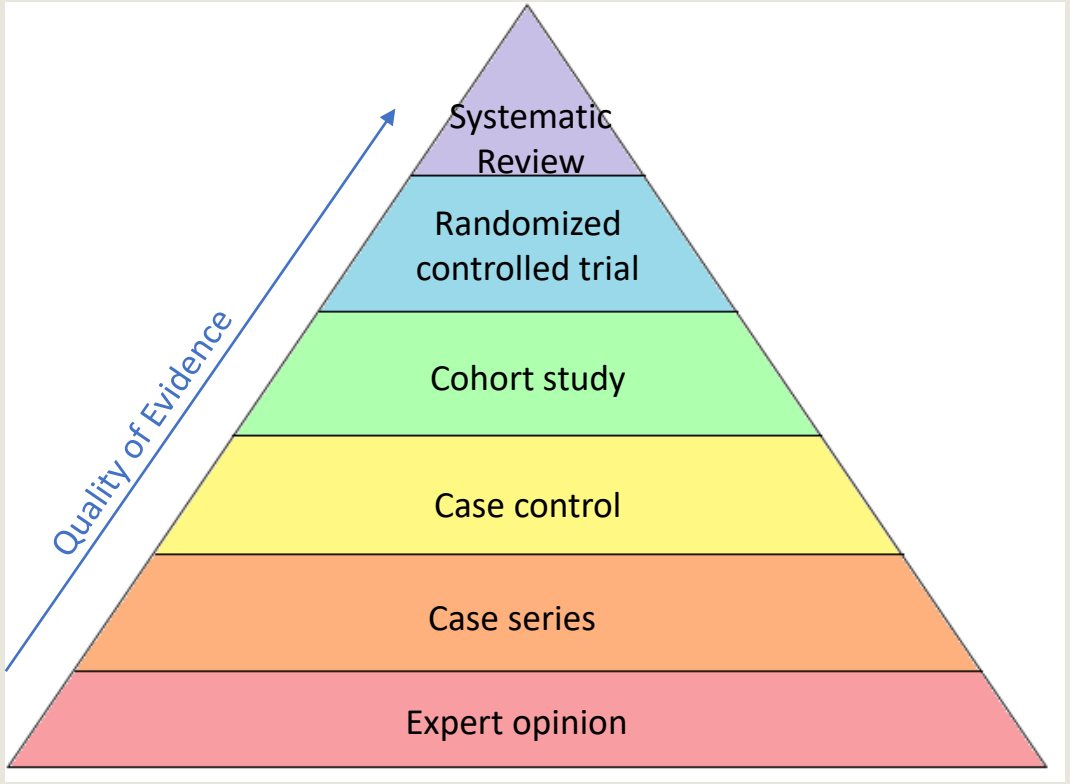
Background: Since the emergence of COVID-19, preventative public health measures, including lockdown strategies, were declared in most countries to control viral transmission. Recent studies and anecdotes have reported changes in the prevalence of perinatal outcomes during national COVID-19lockdowns.The objective of this rapid review was to evaluate the impact of COVID-19 lockdowns on the incidence of low birth weight (LBW), preterm birth (PTB), and stillbirth.

Methods: Two reviewers searched EMBASE, CORD-19, LitCovid (PubMed), WHO Global research on corona virus disease (COVID-19), and MedRxiv for studies published in English from the first reports on COVID-19 until 17 July 2021. Perinatal outcomes of interest included LBW (< 2500 g), PTB (< 37 weeks), and stillbirth.

Vaccaro C, Mahmoud F, Aboulatta L, Aloud B, Eltonsy S. The impact of COVID-19 first wave national lockdowns on perinatal outcomes: a rapid review and meta-analysis. BMC Pregnancy Childbirth. 2021 Oct 6;21(1):676. doi: 10.1186/s12884-021-04156-y. PMID: 34615505; PMCID: PMC8532086.

Purpose Behind Labeling Evidence Reviews

- A study conducted in 2007 found that of 8,989 articles labelled as systematic reviews, only ~2,500 (27%) were accurately labelled [2]



Ioannidis JP. The Mass Production of Redundant, Misleading, and Conflicted Systematic Reviews and Meta-analyses. Milbank Q. 2016 Sep;94(3):485-514. doi: 10.1111/1468-0009.12210. PMID: 27620683; PMCID: PMC5020151.
Moher D, Tetzlaff J, Tricco AC, Sampson M, Altman DG. Epidemiology and reporting characteristics of systematic reviews. PLoS Med. 2007 Mar 27;4(3):e78. doi: 10.1371/journal.pmed.0040078. PMID: 17388659; PMCID: PMC1831728.

Recap

- Factors to consider when deciding what type of literature review to perform
- Systematic reviews are not always appropriate or feasible
- How we label reviews is important

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