

LITERATURE REVIEWS

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February 7, 2018

AGENDA

- How do I get started?
- How does a literature review differ from other types of papers and database searches?
- How can I keep my search and sources organized?
- When do I stop searching and start writing?
- How do I structure the written part of the review?

HOUSEKEEPING

- Slides & recording available at <http://researchguides.uic.edu/phlitreviews>
- Questions welcome throughout
- Online participants: type questions in chat box (no audio participation)
- Chat box will be recorded

GETTING STARTED

WHY WRITE A LITERATURE REVIEW?

- Give credit to other scholars.
- Provide the context for the rest of your work – for instance, describe the population, describe the setting...
 - Depth and focus may change depending on the review, but ALL literature reviews must provide context.
- Review basic facts necessary for understanding your topic.
- Some literature reviews need to stand alone: They are a complete document (e.g., systematic reviews)

WHY WRITE A LITERATURE REVIEW?

- As students, especially in the context of a capstone, the literature review has two main purposes:
 - Provides the context for your project, justifies the reason for your research
 - Explains public health relevance
 - Identifies gaps in knowledge
 - Warrants your mastery of the topic, i.e., demonstrates that you know the field

TYPES OF LITERATURE REVIEWS

- I. Part of the introduction in a larger document.
 - Cut to the chase.
 - Expect it to be short and dense with citations.
 - Still has to be organized – the methods section will probably be 3-5 sentences.
 - The results (article summaries) and analysis sections (synthesis, thematic presentation) will vary in length depending on the topic.

TYPES OF LITERATURE REVIEWS

- 2. Standalone document
 - Needs to be well organized – IMRAD is helpful
 - Introduction has to defend selection of the topic.
 - Saturation comes into play ...
 - How do I know if I have enough information?
 - How in-depth does it need to be?
 - Have you been given parameters for your capstone literature review?

I	Introduction
M	Methods
R	Results
A	And [analysis]
D	Discussion

TYPES OF LITERATURE REVIEWS

- 3. Systematic review
 - Most in-depth version
 - Usually a standalone document
 - Very detailed methods section; follows strict, established research protocol (meet with a librarian)
 - Sets inclusion/exclusion criteria for literature reviewed
 - Describes the database[s] used
 - Discloses keywords/MeSH terms

BEFORE YOU START
CRAFTING THE QUESTION IS KEY.

- Questions are posed at the beginning of a project – even when the project is the literature review.
- A good question supports your larger capstone project and guides your search for resources.
- Do not ask a question for which you already know the answer – unless you are going to elaborate and describe the answer further.
- Is anyone writing a literature review as the sole element of their capstone?

BEFORE YOU START
CRAFTING THE QUESTION IS KEY.

- New knowledge depends on the question the researcher asks. E.g., we know that Black women with breast cancer are more likely to die from their disease. Why is this?
- Do Black women have a genetic pre-disposition to more virulent breast cancer?
- Do Black women have equal access to screening opportunities?
- Do Black women follow doctors' treatment recommendations differently than non-Black women?

GETTING STARTED

- Who has a topic? Please share.
- What problem(s) are associated with your topic?
- Need to ask a question or questions.
- REMEMBER: The literature review describes the state of the knowledge.

**EVERY PROCESS HAS A
METHOD.**

SEARCHING FOR INFORMATION

- Your goal is to find evidence.
 - Peer-reviewed literature
 - Government websites: CDC, SEER, EPA
 - News outlets
 - Grey literature
 - "That which is produced on all levels of government, academics, business and industry in print and electronic formats, but which is not controlled by commercial publishers."
 - Dissertations

SEARCHING FOR INFORMATION

GOALS OF A LITERATURE REVIEW SEARCH

- Get a thorough lay of the land = cast a wide net with your search by:
- Searching multiple databases
- Use long search strings to search every possible combination of synonyms and related terms

Search (((("community health workers" OR "community health services" OR "home visits" OR "home care services" OR "in-home" OR "home visiting")))) AND (("prenatal care" OR "prenatal education" OR "maternal health services" OR "antenatal care")) AND (("low income" OR "poverty" OR "socioeconomic status"))

BEFORE YOU SEARCH

- Is your topic clearly defined?
- Can you explain what you're looking for in a single sentence?

PICO

Population/Problem

Intervention

Comparison

Outcome

SPIDER

Sample

Phenomenon of Interest

Design

Evaluation

Research Type

SELECT KEYWORDS

Research Question —————> **Search Terms**

Is distributing educational materials to pregnant women an effective means of increasing Tdap uptake?

- P: pregnant women
- I: educational materials
- C: (no intervention/current standard)
- O: Tdap vaccine uptake

SELECT KEYWORDS

SPIDER often fits with qualitative or mixed methods

How do pregnant women perceive Tdap vaccination?

- Sample – Pregnancy/pregnant women
- Phenomenon of Interest – Tdap vaccination
- Design –Interviews/grounded theory/phenomenological
- Evaluation – barriers/perceptions/attitudes
- Research Type – qualitative

BEFORE YOU SEARCH

- Do some planning:
- Choose databases to search
- Decide where you will save citations
 - Citation management software (RefWorks/Endnote/Zotero etc.)
 - Excel
 - Other strategies?

CHOOSING DATABASES

- PubMed and...
- PAIS
- EconLit
- Sociological Abstracts
- ERIC
- PsycINFO
- Several others to choose from...

Which databases will be most fruitful? It depends on your topic. Find a list of recommended databases at researchguides.uic.edu/publichealth or ask a librarian for help selecting databases.

FINDING THE BEST SEARCH TERMS

- Keywords vs. controlled vocabulary
- Controlled vocabulary = terms added by the database to indicate major concepts in an article
- Most databases have their own controlled vocabulary
 - e.g. PubMed = MeSH (Medical Subject Headings)
 - Often found below the abstract when viewing an article in a database

FINDING THE BEST SEARCH TERMS

- Search by controlled vocabulary to find all articles tagged with a certain concept
- Search by keywords to locate articles not yet indexed/tagged
- The most comprehensive searches will include both keywords and controlled vocabulary terms
- For example...

FOR EXAMPLE...

Are Local Wellness Policies effective in improving physical activity among school-aged children, esp. those from low-income families?

Search PubMed:

local wellness policy AND physical activity AND low-income

Local Wellness Policy 5 years later: is it making a difference for students in low-income, rural Colorado elementary schools?

Belansky ES¹, Cutforth N, Gilbert L, Litt J, Reed H, Scarbro S, Marshall JA.

Author information

Keywords that retrieve this & other relevant articles:

- “wellness policy”
- low-income
- recess

Wellness Policy (LWP) was intended to promote student health in schools. This study examined the health practices of rural elementary schools in Colorado.

After the LWP mandate, a survey was administered to a random sample of principals, physical educators, and teachers in 45 rural, low-income elementary schools in Colorado. Response rates were

low, and no change was seen in school practices. More schools adopted policies for physical education (9.7% in 2005 vs 38.5% in 2011, $P = .02$) or for making up missed subjects (3.2% in 2005 vs 28.2% in 2011, $P = .03$). More schools scheduled recess (3.2% in 2005 vs 28.2% in 2011, $P = .03$) and developed policies for vending machines (42.9% in 2005 vs 65.7% in 2011, $P = .004$).

Changes in school practices were modest, and arguably the important school practices such as increased PE and recess were not implemented. Changes in the lunch line have not changed in the 5 years since the mandate went into

effect. Further investigation is needed to identify the knowledge, skills, and attitudes as well as financial and physical resources required for school administrators to make changes in school practices.

PMID: 24199737 [PubMed - indexed for MEDLINE] PMCID: PMC3820520

[Free PMC Article](#)



Publication Types **MeSH Terms**, Grant Support



Publication Types, MeSH Terms, Grant Support

Publication Types

Research Support, U.S. Gov't, P.H.S.

MeSH Terms

Child

Child Nutritional Physiological Phenomena

Colorado

Exercise

Food Habits

Food Services

Health Knowledge, Attitudes, Practice

Health Policy*

Health Promotion

Humans

Poverty*

Program Evaluation

Rural Population*

Schools*

Time Factors

Grant Support

U48 DP001938/DP/NCCDPHP CDC HHS/United States

**MeSH terms that
retrieve this & other
relevant articles:**

- Health Policy
- Poverty
- Exercise

ORGANIZING SEARCH TERMS

Wellness	Low-income	“Physical activity”
Health Promotion [mesh]	Poverty [mesh]	Exercise [mesh]
	SES	Recess

FINAL PUBMED SEARCH STRING:

(“Health Promotion”[mesh] OR “health promotion”[tiab] OR “student health”[tiab] OR wellness[tiab]) AND (Poverty[mesh] OR poverty[tiab] OR low-income[tiab] OR “socioeconomic status”[tw]) AND (Exercise[mesh] OR exercise[tiab] OR recess[tiab])

[mesh] or [mh] = MeSH term

[tw] = text word (searches most fields except journal title & author name)

[tiab] = title, abstract, and keywords only

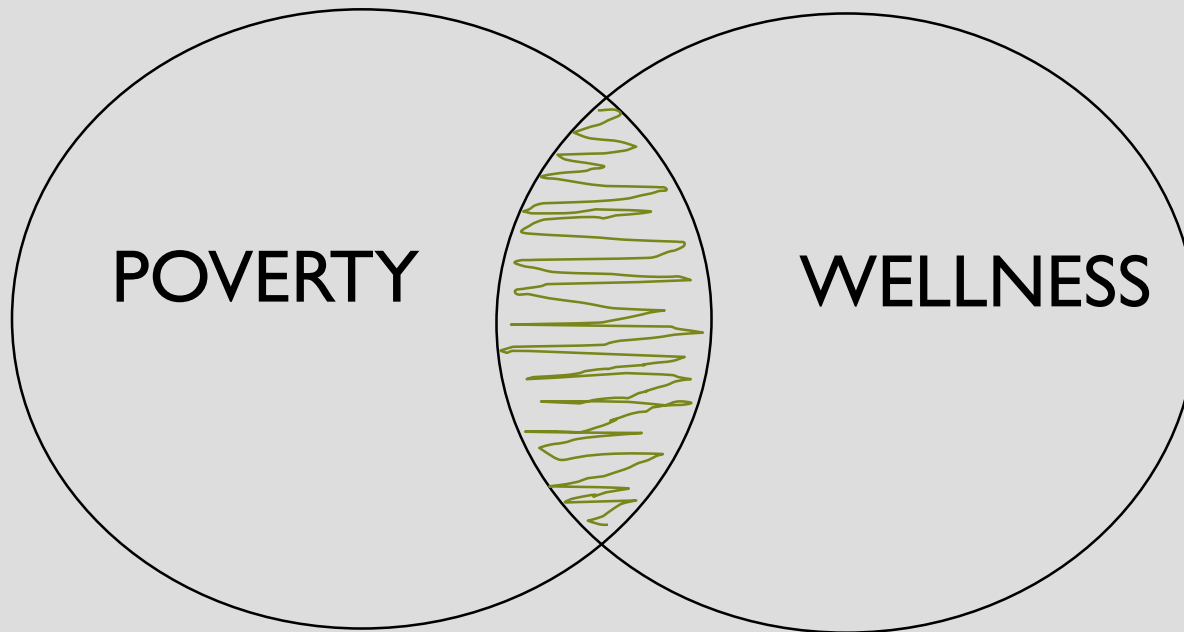
BOOLEAN REFRESHER

AND

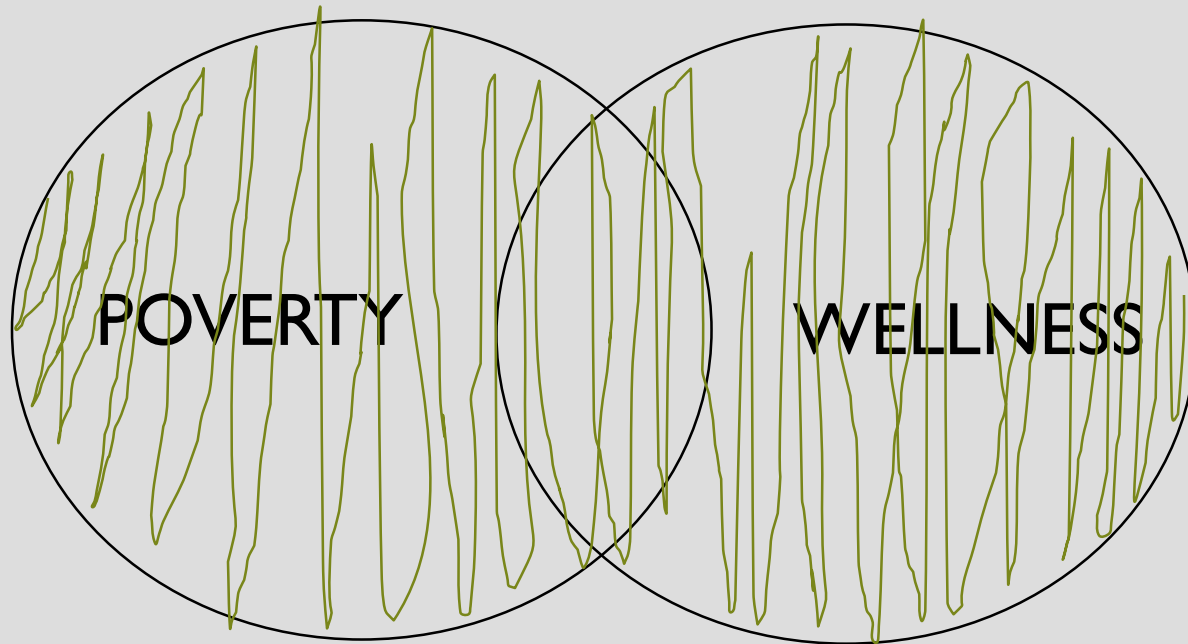
OR

NOT

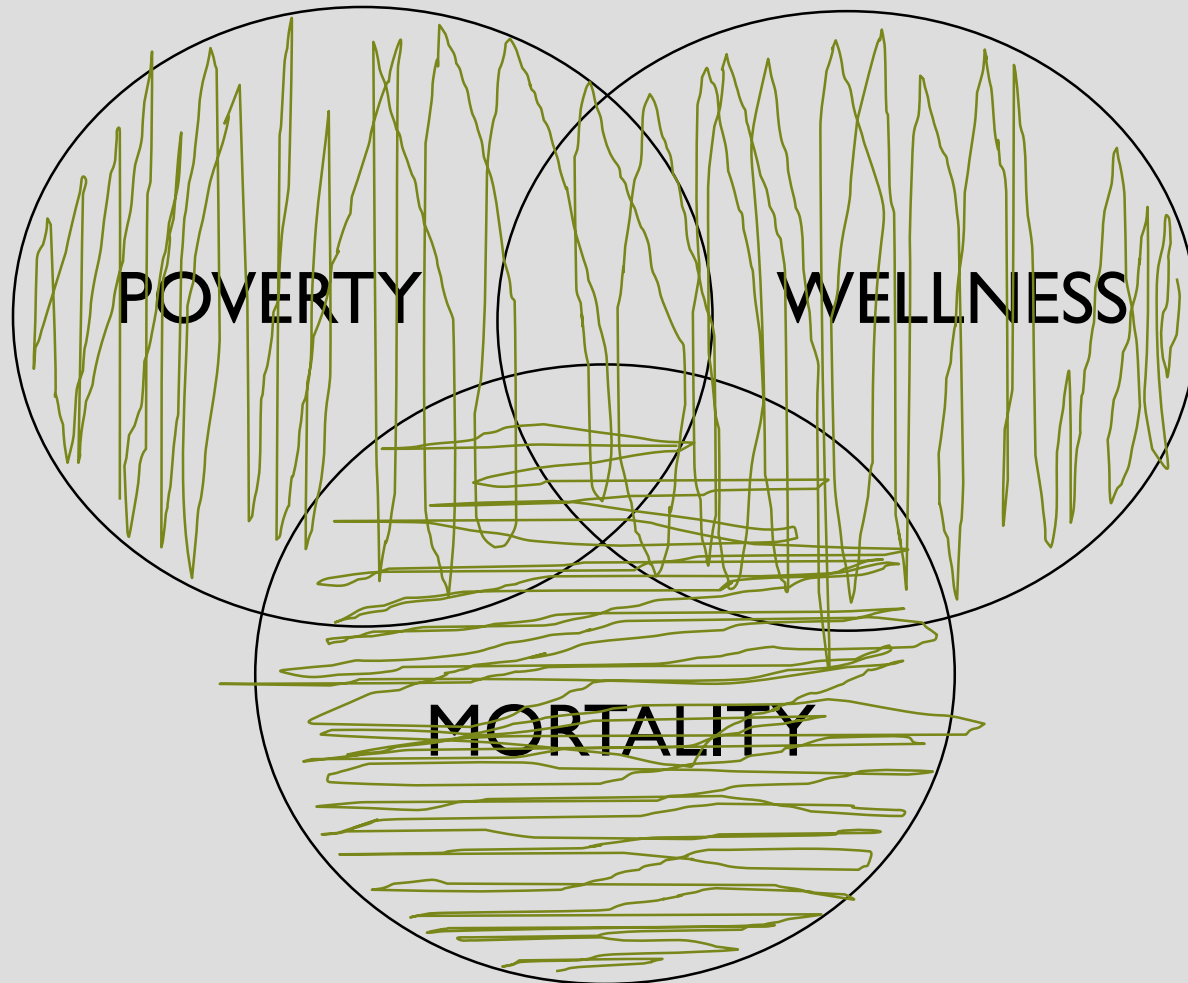
POVERTY AND WELLNESS



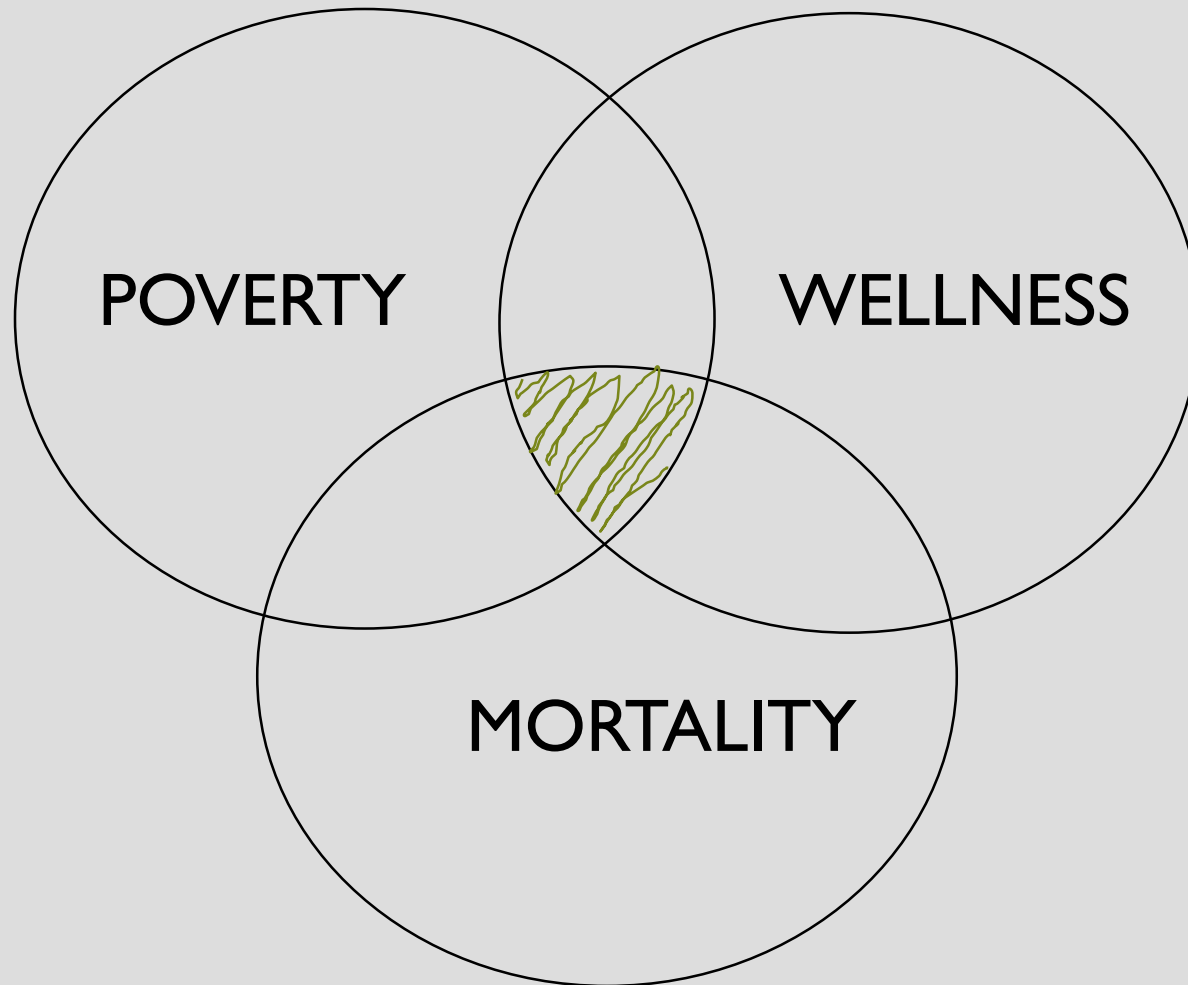
POVERTY OR WELLNESS



POVERTY OR WELLNESS OR MORTALITY



POVERTY AND WELLNESS AND MORTALITY



BOOLEAN OPERATORS: TAKEAWAYS

- AND focuses/narrows your search results
- OR gives you MORE
- Any time you use more than one term to describe the same concept:
 - Separate terms with OR
 - Use parentheses around related terms

EXAMPLE

What are the most common barriers and facilitators to breast cancer screening in rural settings in the U.S.?

What are the most common barriers and facilitators to breast cancer screening in rural settings in the U.S.?

- **Breast cancer screening = 106,331**
results in PubMed
- **Breast cancer screening rural barriers
facilitators = 5 results**

Breast cancer	Screening	Rural	Barriers
“Breast neoplasms” [mesh]	Mammograms	“rural population” [mesh]	Facilitators
	“Early detection of cancer”[mesh]		“Healthcare Disparities” [mesh]
	“Mammography” [mesh]		Insurance
			Cost
			“Health Knowledge, Attitudes, Practice” [mesh]
			Culture
			Cultural

START SEARCH WORKBOOK

- New tab for each database
- Separate column for each concept
- Use spreadsheet to track # of results and where you saved them
- Downloadable template available at researchguides.uic.edu/phlitreviews

("breast cancer"[tiab] OR "breast neoplasms"[mh]) AND (screening[tiab] OR mammograms[tiab] OR "early detection of cancer"[mh] OR mammography[mh]) AND (rural[tiab] OR "rural population"[mh]) AND (barriers[tiab] OR facilitators[tiab] OR "healthcare disparities"[tiab] OR cost[tiab] OR insurance[tiab] OR "health knowledge, attitudes, practice"[mh] OR culture[tiab] OR cultural[tiab])
= 236 results

SAVE YOUR RESULTS

- In PubMed:
 - Use a MyNCBI account
- Save to RefWorks or another citation manager
- One approach:
 - Save all results to citation manager
 - Create separate “Yes” and “No” folders
 - Review articles later

Log in to RefWorks

RefWorks allows you to keep track of citations and to automatically generate a bibliography using a variety of citation styles.

Create an account

Sign up or log in with your NetID. RefWorks is also offering a new beta version that is still in development, which you can try out.

[Log in to RefWorks →](#)

[Try the new RefWorks →](#)

Topics

[Accessibility →](#)

[Borrowing →](#)

[Citations →](#)

[Computers, Printing & Scanning →](#)

[Copyright & Scholarly Publishing →](#)

How Do I...?

[Log in to RefWorks](#)

[Get textbooks](#)

[Access library resources from off-campus](#)

[Set up a library account](#)


[Faculty services](#)

[Distance student services](#)

[Visitor services](#)

[Alumni services](#)

[Chat with a Librarian](#)

Library 

Issue. To

UIC Today 

Search 

RefWorks - Google Chrome
RefWorks

Secure | <https://refworks.proquest.com/library/all/>

Apps ★ Bookmarks Save to RefWorks Analyze MeSH! UIC WebHome < Library UIC Library Bookmark Ask a Librarian: Add Record Data to Unive » Other bo

ProQuest®
RefWorks

University of Illinois at Chicago Language (en) ▼ Rosie Hanneke ▼

+ [Folder Icon] [Share Icon] [Quote Icon] [Trash Icon] [Tag Icon] [More Icon] [Search Icon]

All Documents

Search Databases

Last Imported

Sharing ▼

My Folders ▲

+ Add a folder

Not in Folder

DrPH literature review

My Publications

Carow - CEMHA - AMCs

Ithaka-related research pro...

MHA

CHS 421

IVF

lit review

Policy Analysis

☐ Select all

☐ New challenges in adolescent safeguarding
CHS 421

☐ Sexual Risk Behaviors, Sexual Offenses, and Sexual Vict
CHS 421

☐ HIV prevalence in children and youth living on the street
CHS 421

☐ New challenges in adolescent safeguarding
CHS 421

☐ Expert searching in public health
Policy Analysis
Alpi, 2005

All Documents sorted by date added

Find duplicates
Search your library for duplicate documents.

Tools
Tools to improve your workflow

Global edit
Manage metadata for all your references.

1 — 50 of 1593 references ▼ < > Normal View



All Documents

Search Databases

Last Imported

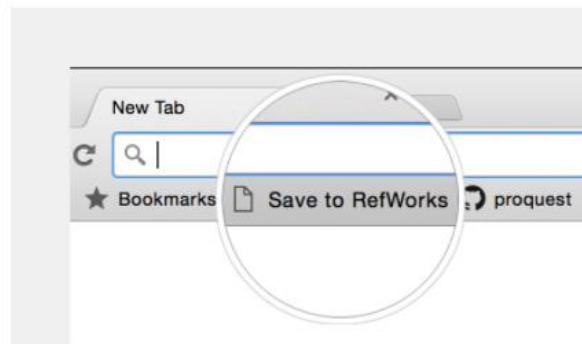
Sharing ▾

My Folders ▾

Tags ▾

Deleted

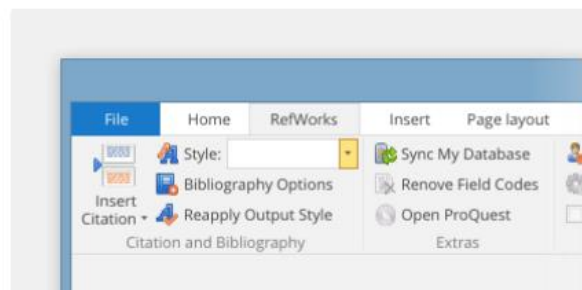
Save references on the web



Use Save to RefWorks to add references and full-text to RefWorks from any website.

[Install Save to RefWorks](#)

Cite in Microsoft Word



If you use Microsoft Word for writing papers, you'll love the tools RefWorks provides you. It's a plugin that allows you to quickly insert and edit citations, adding them to your bibliography as you go.

[Download & install](#)

Office 32-bit version

[Other Windows and Mac Versions](#)

“TRANSLATING” SEARCH FROM PUBMED

- Use PubMed search as starting point for next database
- Each database will have its own controlled vocabulary; find alternatives to your MeSH terms
- Look beside search results for suggested terms (often labeled “Subjects” or “Subject Headings”)

CITATION TRACKING

- If a literature review is a summary of the scholarly conversation happening around your topic, citations are a record of that conversation.
- Follow citations backwards and forwards from the articles you find to track the conversation.
- Find highly cited articles – most impact
- Web of Science, Scopus, and Google Scholar – tell # of times an article has been cited

THREE MAIN PATHS TO LITERATURE

- I. Search for articles in databases
 - “Find It @ UIC” button searches for full text
 - Submit requests through Interlibrary Loan

Find it @ UIC

The screenshot displays the UIC library website interface. On the left, under the heading "How Do I...?", there is a grid of buttons. The button "Request items from other libraries" is circled in orange. An orange arrow points from this button to a pop-up window on the right. The pop-up window, titled "What is your home library?", contains a list of library locations. The item "Chicago-Health Sciences" in the list is also circled in orange.

How Do I...?

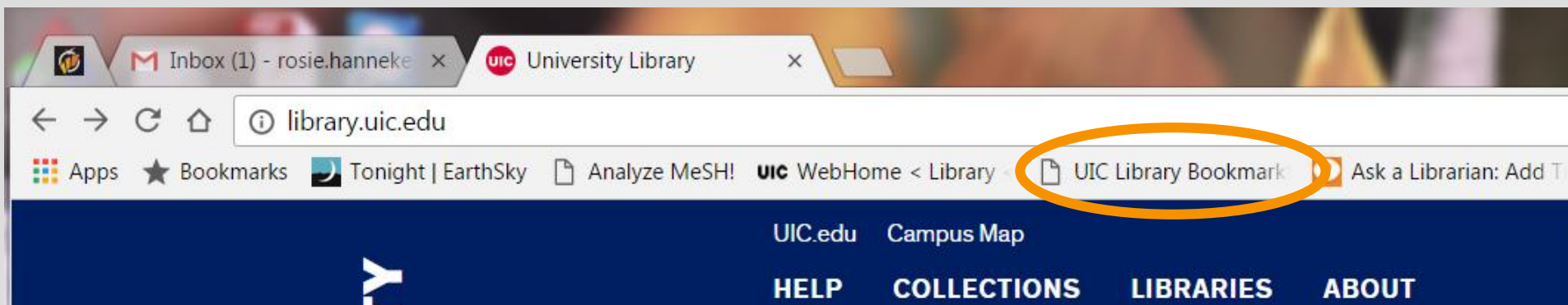
Find books and e-books	Get help with writing, style
Request items from other libraries	Find articles, databases and
Renew or find out when items are due	Reserve a study room
Make an appointment with a librarian	Visit Special Collections and

What is your home library?

- ~~Chicago-Daley~~
- **Chicago-Health Sciences**
- Peoria-Health Sciences
- Quad Cities
- Rockford-Health Sciences
- Springfield-Nursing
- Urbana-Health Sciences
- Distance education-health sciences
- Distance education-other

THREE MAIN PATHS TO LITERATURE

- 2. Look in reference lists/bibliographies of articles for authors writing on the same topic
- Use Library **Bookmarklet** off campus to access full text
researchguides.uic.edu/phlitreviews (library browser button)



THREE MAIN PATHS TO LITERATURE

- 3. use Scopus, Web of Science, and Google Scholar to find newer articles that cited a particular work

WEB OF SCIENCE™



THOMSON REUTERS™

Search

Return to Search Results

My Tools ▾

Search History

Marked List

Full Text Options ▾

Look Up Full Text



Save to EndNote online ▾

Add to Marked List

◀ 1 of 1

Association between breastfeeding and intelligence, educational attainment, and income at 30 years of age: a prospective birth cohort study from Brazil

By: Victora, CG (Victora, Cesar G.)^[1]; Horta, BL (Horta, Bernardo Lessa)^[1]; de Mola, CL (de Mola, Christian Loret)^[1]; Quevedo, L (Quevedo, Luciana)^[2]; Pinheiro, RT (Pinheiro, Ricardo Tavares)^[2]; Gigante, DP (Gigante, Denise P.)^[1]; Goncalves, H (Goncalves, Helen)^[1]; Barros, FC (Barros, Fernando C.)^[2]

[View ResearchID and ORCID](#)

Citation Network

55 Times Cited

24 Cited References

[View Related Records](#)

[View Citation Map](#)

[Create Citation Alert](#)

STAY ORGANIZED!

- As you search, keep track of:
 - Databases searched
 - Search terms used
 - Where articles were saved
 - RefWorks/Zotero/EndNote/Mendeley
 - Use the cloud as backup

HOW DO I KNOW I'VE FOUND EVERYTHING?

- Reaching “saturation”
- Have you searched in more than one place/database?
- Have you developed a comprehensive search string, using synonyms and avoiding bias?
- Have you used citations to follow the scholarly conversation?
 - “Similar articles” or “Articles viewed together” features

HOW DO I KNOW I'VE FOUND EVERYTHING?

- Is there one journal in particular that specializes in your topic? Search its Table of Contents.
- Web of Science and Scopus will display the top 10 journals that publish on a search topic—click “analyze results.”
- Have you consulted with a librarian?
- Are you seeing the same author/study names/themes repeated again and again?

WHEN CAN I STOP?

- It's your own judgment call; there's no definitive cut-off.
- Remember: only true systematic reviews must guarantee that every piece of relevant literature has been located.
- Choose a certain # of databases & build single search strings to keep the process contained.
- If context permits, be transparent about your methods; this helps your reader understand your approach.

WHEN CAN I STOP? THE SNOWBALL/FALLING DOWN THE RABBIT HOLE EFFECT

- Set inclusion/exclusion criteria for yourself if you fear the “snowball effect.”
 - e.g., I’m looking for primary studies from the last 10 years that evaluate a particular intervention
- Take notes on these results, then remark on what you’re missing
 - Background/theory
 - Systematic reviews/meta-analyses
 - A single component of your question rather than all variables together

TIPS FOR SUCCESS

- Expand your search to be as thorough as you can in the time you have
- You'll probably find more irrelevant results than relevant
- Take notes so you can retrace your steps
- Think creatively – seek input from others

NEXT STEPS:

SYNTHESIS & WRITING

EVALUATING INDIVIDUAL ARTICLES

After you have assembled a collection of readings:

- Read through them all—more than once
- Take notes in a notebook or separate document
- Main points to note for each article:
 - Strengths
 - Weaknesses
 - What it contributes to your research/topic

CODING/FINDING THEMES: MATRIX METHOD

- In a table, create one row for each article and columns for article themes, topics, methodology & findings, etc.
- Garrard & Aveyard books linked from phlitreviews page.

Table 6.1 Summarizing your information

Author/date	Aim of study/ paper	Type of study/ information	Main findings/ conclusions	Strengths and limitations
Brown (2006)	To explore student views of campus life	Questionnaire study	35% of students preferred campus-based universities	Random sample of students not obtained. Very low response rate
George (2005)	To express opinion on campus life	Expert opinion	Campus-based universities prevent integration into the community	Anecdotal opinion only

Aveyard, p. 129.

LITERATURE SEARCH WORKBOOK

- Final sheet can be used for matrix/coding/notes

[illegible]

ORGANIZE BY THEMES

- This will help you see the conversation as a whole
- Notice names of researchers that reappear
- Identify gaps
 - Is it missing because it doesn't exist, or because you didn't find it?
- Stand-alone lit reviews: use these themes as section headings

STRUCTURE OF ACADEMIC WRITING

*

I

Introduction

M

Methods

R

Results

A

And [analysis]

D

Discussion

*

* *Confine your comments
to these sections.*

Adapted from: A-Z of Medical Writing by Tim Allen, published by the British Medical Journal Press, 2000.

INTRODUCTION

- The introduction should set the tone for the rest of what you write. Are you going to compare and contrast published authors? Are you going to evaluate evidence? Are you going to enumerate gaps in the research? Are you going to delineate a specific policy change or advocacy approach?
- Be prepared to revisit the introduction when you finish writing the paper. The introduction and the conclusion should reinforce each other.

INTRODUCTION

- This paper discusses two issues related to parental compliance with recommended childhood vaccinations. Parental compliance with the established childhood vaccination schedule ensures individual-level and community-level protection against a wide variety of diseases and thus, is an important public health issue. The specific issues discussed in this paper are: To what extent is lack of compliance related to parental preferences? Or, is lack of compliance more strongly related to parental understanding and knowledge of the requirements?

METHODS

- The process you followed to select the materials you are including is reported in the Methods section.
- “Using the xx databases and search terms related to the concepts of “smoking cessation” and “Latinos,” I found xx articles, xx of which were published in the last five years.”
- “In preparing this literature review, I consulted the xx website and, using the search term “immunization,” I found xx articles concerning federal policy related to immunization.”

RESULTS – WHAT DID YOU FIND?

- This section presents the findings. It includes facts and figures – anything that will explain to the reader what was learned.
- Think of this section as, “Just the facts, ma’am.”
- In academic writing, the author takes the role of the narrator. It is your job to let the data tell the story – in a literature review, the data points are your articles.

SAMPLE LANGUAGE RESULTS – WHAT DID YOU FIND?

- “Of the 13 articles retrieved using the search terms “smoking cessation” and “Latinos,” seven focused on adolescents; in three, the sample spanned all adult age groups; the remainder focused on narrow age ranges.”
- “According to the xx website, immunization policy related to xx clearly states xx.
- Of course, neither of these examples is complete! They represent possible first sentences of a paragraph.

ANALYSIS – WHAT DO THE FINDINGS MEAN?

- This is the tricky one. The distinction between results and analysis is most clear in statistical research. In statistical research, we can separate things like frequencies into results and tests of interaction into analysis.
- In a literature review, we write an analysis section when we need to show the relationships between the topics discussed in the results section.

ANALYSIS – WHAT DO THE FINDINGS MEAN?

- Use this section to summarize the findings and present an analysis of their meaning.
- “In these 13 studies, it was found that it is most difficult to impact the smoking behavior of the xx-xx age group.”
- “Federal immunization policy clearly states xx; however, this does not match with state-level policies in the majority of states.” citation
- Do not state your opinion! However, the points you choose to highlight will reflect your understanding of the topic and give the reader an idea of your opinion.

DISCUSSION (CONCLUSION)

- This is where you get to say in your own words, “What does this all mean?” The first sentence plays a key role and describes the main findings. The final sentence should be conclusive and provide a clear message.
- This section often includes comments regarding gaps found in the present research and/or the need for further research.
- Tie your comments into the way you set up the introduction and the substance of your capstone.

QUESTIONS?

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