

# Health and Wellness Literacy Initiatives for Immigrant Populations Delivered Through Faith-Based Entities: A Scoping Review Study Protocol Towards Understanding the Challenges of Knowledge to Action

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## ABSTRACT

**Background:** Health literacy has been shown to be low among immigrant populations globally, leading to limited ability to locate, access and use health information. Religious entities are often the initial contact for many immigrants regarding health and social supports, there are a lack of knowledge about how initiatives to improve health literacy of the immigrant population may be offered through faith-based entities. The objective of this proposed scoping review is to identify available evidence on health literacy initiatives delivered through faith-based entities for immigrant populations.

**Methods/Design:** Using a scoping review framework we will complete a comprehensive search of relevant keywords in major academic and grey literature databases. Eligible articles will be identified through screening by two independent reviewers according to predefined inclusion and exclusion criteria to include articles relevant to our research question. Selected articles will be charted into data extraction tables for analysis, synthesis and presentation of narrative description and visual graphics.

**Discussion:** This scoping review will identify and assess existing health literacy initiatives delivered through faith-based entities to improve health literacy of immigrant communities. This review will inform which initiatives are commonly practiced, and which immigrant groups are most benefitted from and can potentially be benefitted. It will also describe how to conduct those initiatives and what resources are needed and identify the stakeholders of such initiatives those needed to be engaged with to conduct a successful and acceptable program. The challenges and facilitators of those initiatives will also be identified.

**Keywords:** health wellness literacy, immigrant, refugee, faith-based entities, religious leader

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## 1. Background

As health care systems become increasingly complex, adequate health literacy levels are crucial to an individual's capacity to understand, navigate and advocate for their care. Health literacy, as defined by the World Health Organization (WHO), represents the cognitive and social skills which determines an individual's motivation and ability to gain access to, to understand and to use information in ways which promote and maintain good health (Nutbeam, 1998). Numerous factors contribute health literacy, including degree of personal experience within health care systems, complexity presented information, cultural factors influencing decision making, information delivery method and baseline literacy level (Weiss, 2007). Limited or low levels of health literacy are associated with high levels of morbidity at both individual and societal levels, supported by research reporting that health literacy is a stronger predictor of health status than socioeconomic status, age or ethnic background (Speros, 2005).

Globally, low levels of health literacy are experienced by older adults, people with low English language skills and immigrants (Kimbrough, 2007). Individuals with low health literacy experience significant barriers to accessing health information and services, perpetuating health disparities and inequalities within these populations. It is estimated that more than 50% of the adults in various countries such as Australia, Canada, Spain, Austria, Italy, Germany, Switzerland, Japan, Slovenia, Turkey, Portugal and Czech Republic have low health literacy levels, in which these individuals lack the capacity to access, understand and act on health information and services in order to make appropriate autonomous health care decisions (Moreira, 2018; Murray et al., 2008). In addition to aging populations, it has been showing that the growing proportions of immigrants in many countries such as Australia, Canada and the United States are also contributing to low levels of health literacy, where it has been shown that 75% of immigrants lack the requisite literacy skills to maintain health (Murray et al., 2008; Ng & Omariba, 2010). Although it is known that immigrants have low levels of health literacy, we have not identified any reviews of programs or initiatives to address this important issue among this population.

Compared to non-immigrants, newcomers to Canada, the United States, Europe and Australia initially have better health status, which can be partly attributed to immigration selection factors including good health, self-motivation, and physical and financial ability to immigrate (Omariba & Ng, 2011; Vang et al., 2017). Over time, this health advantage disappears and equilibrates to the level of non-immigrants due to various cultural and linguistic adjustment challenges associated with settling in a new country (Ng & Omariba, 2010), such as limited knowledge of services (Steele et al., 2002), limited social supports (Stewart et al., 2008), poor access to health care (Vissandjée et al., 2001), low income (Dunn & Dyck, 2000), and low proficiency in English (Zanchetta & Poureslami, 2006). Lower levels of health literacy among newcomers contributes to the loss of this immigrant health advantage, which has been observed in decreased self-reported overall physical and mental health (Ng & Omariba, 2010), as well as increased incidence of chronic disease, disability and mortality (McDonald & Kennedy, 2004).

Up until now, most research efforts have been concentrated on studying the factors and barriers contributing to low levels of health literacy among immigrant populations compared to non-immigrant populations. This inequality has been ascribed to linguistic and cultural barriers, community and institutional discrimination, and income disparity, all of which influence access to health services and health outcomes (Zanchetta & Poureslami, 2006). Health literacy levels among immigrants are also impacted by their prior education about health issues in their country of origin, cultural beliefs about illness, familiarity with the healthcare system in country of settlement, and the perceptions of cultural awareness among local health service providers (Simich, 2009).

Immigrants to various countries often integrate into their new country through the communities established in faith-based settings. It has been shown that nearly 40% of immigrants to Canada lead a faith-based lifestyle, yielding increasingly diverse religious affiliations including Christian, Muslim, Jewish, Buddhist, Hindu, Sikh and many others (Chui & Flanders, 2013). Compared to native-born Canadians, newcomers are twice as likely to attend religious services regularly, establishing community and seeking supports within their faith-based organization (Lee et al., 2008). One study determined that religious communities are often the first point of contact for many immigrants when they are faced with various health, adjustment and settlement issues, highlighting the importance of culturally appropriate health literacy initiatives delivered through these organizations (Lee et al., 2008). With this, the scoping review is intended to identify initiatives increasing health literacy levels among immigrants delivered through faith-based entities globally.

A preliminary exploratory search on this topic found that there are no scoping reviews on health literacy initiatives for immigrant populations delivered through faith-based entities. This paper outlines the protocol for a scoping review identifying faith-based initiatives aimed to increase health literacy among immigrants. The objectives of this scoping review are to (1) scope the presence and extent of health literacy initiatives delivered through faith-based entities; (2) identify other studies regarding faith-based entities' health literacy initiatives for immigrants; and (3) identify gaps to guide future research, education and health promotion practice for immigrants centred on faith-based entities.

The overarching guiding question of this scoping review is to identify what research has been conducted about health literacy initiatives for immigrant populations being delivered through religious or faith-based entities?

## **2. Methods/Design**

### **2.1 Research design**

We chose a scoping review methodology for this topic because scoping reviews are particularly useful for examining the breadth of research in a specific area (Samnani et al., 2017). The methodology of a scoping review allows for comprehensive and systematic search of existing literature and identification of key evidence or research gaps. The proposed scoping review will be conducted following the Arksey & O'Malley's (2005) framework enhanced by Levac et al. (2010). This scoping review will follow the guidelines described in the PRISMA Extension for Scoping Reviews (PRISMA-ScR) to enhance methodological and reporting quality, see Appendix 1 (Moher et al., 2009; Tricco et al., 2018). For citation management, we used Zotero 5.0.93 (Center for History and New Media, George Mason University).

#### ***Search strategy:***

Our search strategy will include (1) an initial limited search to finalize keywords and index terms; (2) search for sources in all included databases using identified keywords and index terms; and (3) search reference lists of identified articles for additional sources (Ahmed et al., 2016; Vaska et al., 2019).

- 1) We will conduct an initial limited search of three online databases, MEDLINE, JBI Database of Systematic Reviews and Implementation Reports, and Cochrane Database of Systematic Reviews, for sources relevant to the topic of this scoping review. This initial search will be followed by an analysis of the text words contained in the title, abstracts and index terms of retrieved papers in order to create a search string. Any duplicate terms or index words will be discarded. Preliminary search terms are

presented in Table 1 and a full preliminary search strategy of MEDLINE is shown in Appendix 2.

**Table 1.** Search terms for the scoping review.

<b><i>Keywords for Health Literacy:</i></b>
<p>“Health literacy” [keyword, MeSH]; “wellbeing literacy” [keyword]; “well-being literacy” [keyword]; “wellness literacy” [keyword]; well* adj3 literacy; “Patient Education as Topic” [MeSH]; “Health Education [keyword, MeSH]; “health knowledge” [Keyword]; “Information Literacy” [keyword, MeSH]; “Prenatal Education” [keyword, MeSH]; “Patient Education Handout” [keyword, MeSH]; Health Education, Dental [MeSH]; “Consumer Health Information” [keyword, MeSH]; “Health information” [keyword]; “Health knowledge, attitudes, practice” [MeSH]; “Health Promotion” [keyword, MeSH]; “health numeracy” [keyword]; “patient participation” [MeSH]; “health behaviour” [keyword]; “health behavior” [keyword, MESH]; “Self-administration” [MeSH]; “decision-making” [keyword, MeSH]; “informed decision” [keyword]; “informed consent” [MeSH]; “health-related decision making” [keyword]; (Health literacy adj3 intervention*); (Health literacy adj3 initiative*); (Health literacy adj3 program*); (Health literacy adj3 project*); (Health literacy adj3 strateg*); (Health literacy adj3 curricul*); (Health literacy adj3 activit*); (Health literacy adj3 training*);</p>
<b><i>Keywords for faith based entities</i></b>
<p>“Religion” [keyword, MeSH]; “Religion and Medicine” [MeSH]; “Religion and Science” [MeSH]; “Religion and Psychology” [MeSH]; “Religion and Sex” [MeSH]; religious [keyword]; religiosity [keyword]; prayer* [keyword]; congregation [keyword]; spiritual support [keyword]; spiritual [keyword]; spiritual therap* [keyword]; spiritual therapies [keyword, MeSH]; spirituality [keyword, MeSH]; spiritual belief* [keyword]; religious belief* [keyword]; religious leader* [keyword]; Religious Personnel* [keyword]; Religious Personnel [MeSH]; religious personalit* [keyword]; spiritual leader* [keyword]; spiritual personalit* [keyword]; faith leader* [keyword]; faith personalit* [keyword]; faith-based organizations; [keyword, MeSH] religious organization* [keyword]; religious institution* [keyword]; religious group* [keyword]; religious event* [keyword]; spiritual event* [keyword]; religious function* [keyword]; spiritual function [keyword]; religious gathering* [keyword]; faith-based group [keyword]; faith-based community [keyword]</p>
<b><i>Keywords for immigrant:</i></b>
<p>Immigrant* [keyword]; Immigrants [MeSH]; emigrant* [keyword]; alien* [keyword]; “emigrants and immigrants” [MeSH]; Undocumented immigrant* [keyword, MeSH]; Newcomer* [keyword]; Refugee* [keyword, MeSH]; asylum [keyword]; asylum seeker [keyword]; displaced [keyword]; resettle [keyword]; Humanitarian [keyword]; entrant [keyword]; settle [keyword]; displaced person [keyword]; displaced population [keyword]; “internally displaced person” [keyword]; “war population” [keyword]; “forced migra*” [keyword]; “refugee camp*” [keyword]; Refugee Camps [MeSH]</p>

<b>Search String Formation:</b>
<p>(“Health literacy” OR “wellbeing literacy” OR “well-being literacy” OR “wellness literacy” OR well* adj3 literacy OR “Patient Education as Topic” OR “Health Education” OR “health knowledge” OR “Information Literacy” OR “Prenatal Education” OR “Patient Education Handout” OR Health Education, Dental OR “Consumer Health Information” OR “Health Information” OR “Health knowledge, attitudes, practice” OR “health promotion” OR “health numeracy” OR “patient participation” OR “health behaviour” OR “health behavior” OR “self-administration” OR “decision-making” OR “informed decision” OR “informed consent” OR “health-related decision making” OR (Health literacy adj3 intervention*) OR (Health literacy adj3 initiative*) OR (Health literacy adj3 program*) OR (Health literacy adj3 project*) OR (Health literacy adj3 strateg*) OR (Health literacy adj3 curricul*) OR (Health literacy adj3 activit*) OR (Health literacy adj3 training*))</p> <p>AND</p> <p>(“Religion” OR “Religion and Medicine” OR "Religion and Science" OR "Religion and Psychology" OR “Religion and Sex” OR religious OR religiosity OR prayer* OR congregation OR spiritual support OR spiritual OR spiritual therapies OR spirituality OR spiritual belief* OR religious belief* OR religious leader*OR religious personalit* OR spiritual leader*OR spiritual personalit*OR faith leader*OR faith personalit* OR faith-based organizations OR religious organization* OR religious institution* OR religious group* : religious event* OR spiritual event* OR religious gathering*)</p> <p>AND</p> <p>(Immigrant* OR Immigrants OR emigrant* OR alien* OR “emigrants and immigrants” OR Undocumented immigrant* OR Newcomer* OR Refugee* OR asylum OR asylum seeker OR displaced OR resettle OR Humanitarian OR entrant OR settle OR displaced person OR displaced population OR “internally displaced person” OR “war population” OR “forced migra*” OR “refugee camp*” OR Refugee Camps)</p>
<b>Search string formation for grey literature search for certain website repository:</b>
<p>("health literacy" OR "wellbeing literacy" OR "wellness literacy" OR "health knowledge" OR "well-being literacy" OR "decision-making") AND (Immigrant OR emigrant OR alien OR Newcomer OR Refugee OR "asylum seeker" OR migrant) AND (religion OR religious OR faith OR spiritual OR “religious leader” OR “religious organization” OR “faith-based organization”)</p>

- 2) A second extended search using all identified keywords and index terms will be undertaken across all selected databases, see Table 2. Medical Subject Headings (MeSH) terms will be included in the search for relevant articles within the search string. For this scoping review, we will conduct our search in 12 academic databases. A search of grey literature will also be conducted including national and international organizations’ websites that fund or work on health literacy programs. If needed, we will adapt the search strategy to suit each database (i.e.: character limit in search bar). Each search will include detailed documentation of date of search and number of publications retrieved.

- 3) The reference lists of identified reports and articles selected only for full-text review will be searched for additional sources. To increase sensitivity in the search, we will look at all sources of evidence and will not exclude any type of study.

**Table 2.** Databases to be searched for the scoping review.

<b>Database type</b>	<b>Database</b>
A. Health and wellness science	1. MEDLINE (Ovid) 2. EMBASE 3. CINAHL 4. PsycInfo
B. Social sciences and Humanities	5. Sociological Abstracts 6. Social Work Abstracts 7. SocINDEX with full text
C. Education	8. Education Research Complete 9. ERIC
D. Multidisciplinary	10. Academic Search Complete 11. Scopus 12. Web of Science
E. Grey literature	13. Google Scholar 14. OAIster 15. OpenGrey 16. ProQuest (theses and dissertations) 17. World Health Organization (WHO) 18. Global Health Literacy Academy 19. Health Services Research and Information Central 20. International Organization of Social Sciences and Behavioral Research (IOSSBR)

For our scoping review, the main search will be completed by a librarian and then peer-reviewed by the another researcher as recommended by the evidence-based guideline for Peer Review of Electronic Search Strategies (PRESS) (McGowan et al., 2016). The scoping review will include a complete search strategy for at least one major database as an appendix.

***Study selection:***

Selection criteria were developed in order to ensure that relevant studies on health literacy initiatives for immigrants delivered by faith-based entities would be included in the scoping review.

**1.2 Inclusion criteria**

***Population:***

This review will consider studies that discussed the roles of faith-based entities on improving health and wellness among the immigrant populations. For the purpose of this

review, we define immigrant as a person who has settled permanently in another country, including refugees, temporary foreign workers, and documented and undocumented persons.

***Concept:***

The concepts considered in this review are health literacy initiatives, programs, and strategies. For the purpose of this review, we will accept the definition from the World Health Organization (WHO), which refers to health literacy as the required “level of knowledge, personal skills and confidence to take action to improve personal and community health by changing personal lifestyles and living conditions” (Nutbeam, 1998). The review will consider any interventions aimed to disseminate health-related knowledge to maintain and promote health, including community outreach programs, healthy public policies, educational resources, and other initiatives promoting functional health literacy.

***Context:***

The review will explore health literacy initiatives delivered through faith-based entities. We will not limit these entities or organizations to a particular religion or faith. Faith-based entities include, but are not limited to, places of worship, religious centres, faith teaching institutions, faith leaders, faith groups, faith based volunteers.

***Types of sources:***

The scoping review will consider primary research, irrespective of study design, that describes health literacy initiatives engaging faith-based entities for immigrants in any country.

### **1.3 Exclusion criteria**

Sources will be excluded if they do not meet all of the following inclusion criteria: (1) focus on health literacy initiatives for immigrants delivered through faith-based entities; (2) initiatives can include any type of program, policy, and educational resources; (3) faith-based entities include any religion; and (4) initiatives for any disease process, condition or health promotion topic. We will not place any publication date or country of publication restrictions. We will exclude literature written in any other language than English due to feasibility and resource limitations.

Following the inclusion and exclusion criteria pertaining to the research question, two-stage screening will be conducted for all stages of selection. For the initial stage of screening, two researchers will independently review the title and abstract for each article to determine whether it should be included. For the second stage of screening, two researchers will examine full-text articles independently. Any disagreements occurring at either stage of screening will be solved by consensus or by the decision of a third reviewer. Covidence software will be used to manage all sources included in the two-stage screening process. A PRISMA-ScR flow diagram will report final numbers once the scoping review is completed (Moher et al., 2009).

***Data extraction:***

We will collect information from the selected full-text articles, as described in the study selection of this scoping review protocol. Data will be extracted into an Excel spreadsheet in Microsoft Excel software using the draft data extraction tool. The preliminary variables we have decided upon include is described in Table 3.

At this stage, a pilot extraction will be conducted on a randomly selected five papers to determine whether other variables should be included on the updated charting form and if some variables need to be altered or removed. The draft data extraction tool will be modified as required throughout the course of the review. Any modifications will be documented in the full

scoping review report. Data will be extracted and inputted by one reviewer, then independently examined by a second reviewer. Any disagreement or ambiguity in data charted will be discussed and resolved.

**Table 3.** Data extraction tool for the scoping review.

Citation details					
Title	Authors	Publication date	Country of publication	Journal	Format of paper
Study Demographics					
Participants demographics	Sample size	Immigrant country of origin	Country where initiative occurred	Religion, faith	FBO type
Health literacy characteristics					
Disease, condition, topic	Indication	Initiative type	Primary aim of initiative	Duration	Frequency
Initiative details					
Delivered by	Recruitment	Incentive	Challenges described	Facilitators described	
Study findings					
Outcomes	Recommendations	Future directions	Gaps, limitations	Applicability	

***Data analysis and presentation:***

The final scoping review report will present the results of the search in full according to this protocol in order to identify, characterize and summarize research evidence on the given topic and identify research gaps. Extracted data from all included full-text articles will be synthesized and present in tabular or diagrammatic form in a manner that aligns with the objective of this scoping review. Narrative description will complement the charted results and will describe how the results address both the objectives and questions of this review. We also plan to present results in tables and diagrams best suited to summarize and describe findings.

**3. Discussion**

***3.1 Anticipated outcomes***

This scoping review will identify and assess existing health literacy initiatives delivered through faith-based entities to improve health literacy of immigrant communities. We will be able to inventory all types of such programs and to inform which initiatives are commonly

practiced, and which immigrant groups are most benefitted from and can potentially be benefitted. It will also describe how to conduct those initiatives and what resources are needed, and identify the stakeholders of such initiatives those needed to be engaged with to conduct a successful and acceptable program. The challenges and facilitators of those initiatives will also be identified.

To our knowledge this is the first scoping review within this topic area, therefore, our results will advance knowledge in this field. A reflective analysis of literature pertaining to this topic may reveal new research and public health practice directions for faith-based initiatives aimed at improving health literacy among immigrants in any country based on other successful initiatives worldwide. As a result of this scoping review we will be able to deliver evidence-based recommendations for designing programs for improving health literacy among immigrants. Thus, this research will contribute to the community development and improvement of the quality of life of the immigrant populations.

### ***3.2 Strengths and limitations***

A key strength of this scoping review protocol is that it follows a well-established methodological framework. Having an experienced research team, we have already developed our search strategy with a comprehensive list of search terms and keywords, selected appropriate databases, and crafted the search string that produce most relevant and adequate results. We have also developed a data extraction template to extract all relevant and significant data that are required to answer our research questions.

However, there are certain limitations in this study protocol. Health literacy is a topic of multidisciplinary interest and stakeholders including researchers, government and non-government service provider organizations, policymakers and many others work on this and only so much of those activities may be published in the form of scientific literature. Despite our attempt to cover healthcare, education, social sciences and humanities, several multidisciplinary and grey literature databases we may still miss many important health literacy initiatives. Also, the definition of health literacy initiatives may vary from discipline to discipline and it will be difficult to incorporate the appropriate in our review.

## **4. Conclusion**

Health literacy levels among immigrants are lower compared to non-immigrants, which is contributing to high rates of morbidity and mortality among these populations. Earlier studies indicated that faith-based entities are an effective platform for delivering health programs (Dehaven et al., 2004). It has been documented that religious platforms such as churches are often considered most important social institution to the immigrants and can act as key link to connect them with health care providers and researchers (Peterson et al., 2002; Schoenthaler et al., 2018). It is important to identify initiatives that are being developed and implemented by faith-based entities aimed to improve health literacy for immigrants. Improving health literacy is a complex process and there is no ‘one size fits all’ method that work for all individuals and communities (Wilson-Stronks et al., 2008). Health literacy initiatives using faith-based entities also may work for some immigrant groups and may not. Different religious groups may require different types of initiatives to address their health literacy needs.

## Declarations

**Competing interests:** The authors declare no conflict of interest.

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## References

- Ahmed, S., Vaska, M., & Turin, T. C. (2016). Comprehensive systematic search process of health literature: Hunting pearls out of the sea. *Journal of National Heart Foundation of Bangladesh*, 5(2), 12–16.
- Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1), 19–32. <https://doi.org/10.1080/1364557032000119616>
- Chui, T. W., & Flanders, J. (2013). *Immigration and ethnocultural diversity in Canada: National Household Survey, 2011*. Statistics Canada. <https://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-010-x/99-010-x2011001-eng.pdf>
- Dehaven, M., Hunter, I., Wilder, L., Walton, J., & Berry, J. (2004). Health programs in faith-based organizations: Are they effective? *American Journal of Public Health*, 94, 1030–1036. <https://doi.org/10.2105/AJPH.94.6.1030>
- Dunn, J. R., & Dyck, I. (2000). Social determinants of health in Canada's immigrant population: Results from the National Population Health Survey. *Social Science & Medicine*, 51(11), 1573–1593. [https://doi.org/10.1016/s0277-9536\(00\)00053-8](https://doi.org/10.1016/s0277-9536(00)00053-8)
- Kimbrough, J. (2007). Health literacy as a contributor to immigrant health disparities. *Journal of Health Disparities Research and Practice*, 1, 6. <https://digitalscholarship.unlv.edu/cgi/viewcontent.cgi?article=1114&context=jhdrp&httpsredir=1&referer=>
- Lee, H. B., Hanner, J. A., Cho, S.-J., Han, H.-R., & Kim, M. T. (2008). Improving access to mental health services for Korean American immigrants: Moving toward a community partnership between religious and mental health services. *Psychiatry Investigation*, 5(1), 14–20. <https://doi.org/10.4306/pi.2008.5.1.14>
- Levac, D., Colquhoun, H., & O'Brien, K. K. (2010). Scoping studies: Advancing the methodology. *Implementation Science*, 5(1), 1–9. <https://doi.org/10.1186/1748-5908-5-69>
- McDonald, T., & Kennedy, S. (2004). Insights into the 'Healthy Immigrant Effect': Health status and health service use of immigrants to Canada. *Social Science & Medicine*, 59(8), 1613–1627. <https://doi.org/10.1016/j.socscimed.2004.02.004>
- McGowan, J., Sampson, M., Salzwedel, D. M., Cogo, E., Foerster, V., & Lefebvre, C. (2016). PRESS peer review of electronic search strategies: 2015 guideline statement. *Journal of Clinical Epidemiology*, 75, 40–46. <https://doi.org/10.1016/j.jclinepi.2016.01.021>
- Moher, D., Liberati, A., Tetzlaff, J., & Altman, D. G. (2009). Preferred reporting items for systematic reviews and meta-analyses: The PRISMA statement. *British Medical Journal*, 339(7716), 332–336. <https://doi.org/10.1136/bmj.b2535>
- Moreira, L. (2018). *Health literacy for people-centred care: Where do OECD countries stand?* (OECD Health Working Papers, Vol. 107). Organisation for Economic Co-operation and Development.

- Murray, T. S., Hagey, J., Willms, D., Shillington, R., & Desjardins, R. (2008). *Health literacy in Canada: A healthy understanding*. <https://escholarship.org/uc/item/890661nm>
- Ng, E., & Omariba, D. (2010). *Health literacy and immigrants in Canada: Determinants and effects on health outcomes*. Canadian Council on Learning. <https://deslibris.ca/ID/228545>
- Nutbeam, D. (1998). Health promotion glossary. *Health Promotion International*, 13(4), 349–364. <https://doi.org/10.1093/heapro/13.4.349>
- Omariba, D. W. R., & Ng, E. (2011). Immigration, generation and self-rated health in Canada: On the role of health literacy. *Canadian Journal of Public Health*, 102(4), 281–285. <https://doi.org/10.1007/BF03404049>
- Peterson, J., Atwood, J., & Yates, B. (2002). Key elements for church-based health promotion programs: Outcome-Based Literature Review. *Public Health Nursing*, 19, 401–411. <https://doi.org/10.1046/j.1525-1446.2002.19602.x>
- Samnani, S. S., Vaska, M., Ahmed, S., & Turin, T. C. (2017). Review typology: The basic types of reviews for synthesizing evidence for the purpose of knowledge translation. *Journal of College of Physicians and Surgeons Pakistan*, 27(10), 635–641.
- Schoenthaler, A. M., Lancaster, K. J., Chaplin, W., Butler, M., Forsyth, J., & Ogedegbe, G. (2018). Cluster randomized clinical trial of FAITH (FAITH-based approaches in the treatment of hypertension) in blacks: Main trial results. *Circulation: Cardiovascular Quality and Outcomes*, 11(10), e004691.
- Simich, L. (2009). *Health literacy and immigrant populations* (p. 18) [Policy brief]. Public Health Agency of Canada. <https://pdfs.semanticscholar.org/ebce/08b55090a75c701e73b91e51505a9d9f4899.pdf>
- Speros, C. (2005). Health literacy: Concept analysis. *Journal of Advanced Nursing*, 50(6), 633–640. <https://doi.org/10.1111/j.1365-2648.2005.03448.x>
- Steele, L. S., Lemieux-Charles, L., Clark, J. P., & Glazier, R. H. (2002). The impact of policy changes on the health of recent immigrants and refugees in the inner city. *Canadian Journal of Public Health*, 93(2), 118–122. <https://doi.org/10.1007/BF03404551>
- Stewart, M., Anderson, J., Beiser, M., Mwakarimba, E., Neufeld, A., Simich, L., & Spitzer, D. (2008). Multicultural meanings of social support among immigrants and refugees. *International Migration*, 46(3), 123–159. <https://doi.org/10.1111/j.1468-2435.2008.00464.x>
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D., Horsley, T., & Weeks, L. (2018). PRISMA extension for scoping reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, 169(7), 467–473. <https://doi.org/10.7326/M18-0850>
- Vang, Z. M., Sigouin, J., Flenon, A., & Gagnon, A. (2017). Are immigrants healthier than native-born Canadians? A systematic review of the healthy immigrant effect in Canada. *Ethnicity & Health*, 22(3), 209–241. <https://doi.org/10.1080/13557858.2016.1246518>
- Vaska, M., Chowdhury, M. Z. I., Naidu, J., Baig, K., & Turin, T. C. (2019). Exploring all that is grey in the health sciences: What is grey literature and how to use it for comprehensive knowledge synthesis. *Journal of National Heart Foundation of Bangladesh*, 8(1), 14–19.
- Vissandjée, B., Weinfeld, M., Dupéré, S., & Abdool, S. (2001). Sex, gender, ethnicity, and access to health care services: Research and policy challenges for immigrant women in Canada. *Journal of International Migration and Integration*, 2(1), 55–75. <https://doi.org/10.1007/s12134-001-1019-7>
- Weiss, B. (2007). *Health literacy and patient safety: Help patients understand*. American Medical Association. <https://www.pogoe.org/sites/default/files/Health%20Literacy%20-%20Reducing%20the%20Risk%20by%20Designing%20a%20Safe,%20Shame-Free%20Health%20Care%20Environment.pdf>

- Wilson-Stronks, A., Lee, K. K., Cordero, C. L., Kopp, A. L., & Galvez, E. (2008). *One size does not fit all: Meeting the health care needs of diverse populations*. Joint Commission Oakbrook Terrace, IL. <https://www.jointcommission.org/-/media/deprecated-unorganized/imported-assets/tjc/system-folders/assetmanager/hlconesizefinalpdf.pdf?db=web&hash=049E1D78DE7CEE31F47AF4C9A53F67F9>
- Zanchetta, M. S., & Poureslami, I. M. (2006). Health literacy within the reality of immigrants' culture and language. *Canadian Journal of Public Health*, 97, S26–S30. JSTOR.

## Appendix 1

Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) Checklist (Tricco et al., 2018).

Section	Item	PRISMA-ScR checklist item	Reported on page #
<b>Title</b>			
Title	1	Identify the report as a scoping review.	Title page
<b>Abstract</b>			
Structured summary	2	Provide a structured summary that includes (as applicable): background, objectives, eligibility criteria, sources of evidence, charting methods, results, and conclusions that relate to the review questions and objectives.	x
<b>Introduction</b>			
Rationale	3	Describe the rationale for the review in the context of what is already known. Explain why the review questions/objectives lend themselves to a scoping review approach.	x
Objectives	4	Provide an explicit statement of the questions and objectives being addressed with reference to their key elements (e.g., population or participants, concepts, and context) or other relevant key elements used to conceptualize the review questions and/or objectives.	x
<b>Methods</b>			
Protocol and registration	5	Indicate whether a review protocol exists; state if and where it can be accessed (e.g., a Web address); and if available, provide registration information, including the registration number.	x
Eligibility criteria	6	Specify characteristics of the sources of evidence used as eligibility criteria (e.g., years considered, language, and publication status), and provide a rationale.	x
Information sources*	7	Describe all information sources in the search (e.g., databases with dates of coverage and contact with authors to identify additional sources), as well as the date the most recent search was executed.	x
Search	8	Present the full electronic search strategy for at least 1 database, including any limits used, such that it could be repeated.	x
Selection of sources of evidence†	9	State the process for selecting sources of evidence (i.e., screening and eligibility) included in the scoping review.	x
Data charting process‡	10	Describe the methods of charting data from the included sources of evidence (e.g., calibrated forms or forms that have been tested by the team before their use, and whether data charting was done independently or in duplicate) and any processes	x

		for obtaining and confirming data from investigators.	
Data items	11	List and define all variables for which data were sought and any assumptions and simplifications made.	x
Critical appraisal of individual sources of evidence§	12	If done, provide a rationale for conducting a critical appraisal of included sources of evidence; describe the methods used and how this information was used in any data synthesis (if appropriate).	N/A
Synthesis of results	13	Describe the methods of handling and summarizing the data that were charted.	x
<b>Results</b>			
Selection of sources of evidence	14	Give numbers of sources of evidence screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally using a flow diagram.	x
Characteristics of sources of evidence	15	For each source of evidence, present characteristics for which data were charted and provide the citations.	x
Critical appraisal within sources of evidence	16	If done, present data on critical appraisal of included sources of evidence (see item 12).	x
Results of individual sources of evidence	17	For each included source of evidence, present the relevant data that were charted that relate to the review questions and objectives.	x
Synthesis of results	18	Summarize and/or present the charting results as they relate to the review questions and objectives.	x
<b>Discussion</b>			
Summary of evidence	19	Summarize the main results (including an overview of concepts, themes, and types of evidence available), link to the review questions and objectives, and consider the relevance to key groups.	x
Limitations	20	Discuss the limitations of the scoping review process.	x
Conclusions	21	Provide a general interpretation of the results with respect to the review questions and objectives, as well as potential implications and/or next steps.	x
<b>Funding</b>			
Funding	22	Describe sources of funding for the included sources of evidence, as well as sources of funding for the scoping review. Describe the role of the funders of the scoping review.	x

## Appendix 2

Search strategy for MEDLINE

#	Searches
1	health literacy.mp. or exp Health Literacy/
2	wellbeing literacy.mp.
3	well-being literacy.mp.
4	wellness literacy.mp.
5	(well* adj3 literacy).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
6	exp Patient Education as Topic/
7	Health education.mp. or exp Health Education/
8	health knowledge.mp.
9	information literacy.mp. or exp Information Literacy/
10	Prenatal education.mp. or exp Prenatal Education/
11	Patient education handout.mp. or exp Patient Education Handout/
12	exp Health Education, Dental/
13	Consumer Health Information.mp. or exp Consumer Health Information/
14	Health information.mp.
15	exp Health Knowledge, Attitudes, Practice/
16	health promotion.mp. or exp Health Promotion/
17	health numeracy.mp.
18	exp Patient Participation/
19	exp Health Behavior/ or health behaviour.mp.
20	exp Self Administration/
21	decision-making.mp. or exp Decision Making/
22	informed decision.mp.
23	exp Informed Consent/
24	health-related decision making.mp.
25	(health literacy adj3 intervention*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
26	(health literacy adj3 initiative*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
27	(Health literacy adj3 program*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading

	word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
28	(Health literacy adj3 project*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
29	(Health literacy adj3 strateg*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
30	(Health literacy adj3 curricul*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
31	(Health literacy adj3 activit*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
32	(Health literacy adj3 training*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
33	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 or 26 or 27 or 28 or 29 or 30 or 31 or 32
34	exp "Emigrants and Immigrants"/ or Immigrant*.mp.
35	emigrant*.mp.
36	alien*.mp.
37	exp "Transients and Migrants"/ or undocumented migrant*.mp.
38	exp Undocumented Immigrants/
39	Newcomer*.mp.
40	Refugee*.mp. or exp Refugees/ or exp Refugee Camps/
41	asylum seeker.mp.
42	displaced.mp.
43	resettle.mp.
44	Humanitarian.mp.
45	entrant.mp.

46	settle.mp.
47	displaced person.mp.
48	displaced population.mp.
49	internally displaced person.mp.
50	war population.mp.
51	forced migration*.mp.
52	34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51
53	exp "Religion and Medicine"/ or exp "Religion and Sex"/ or exp Religion/ or exp "Religion and Science"/ or exp "Religion and Psychology"/ or Religion.mp.
54	religious.mp.
55	religiosity.mp.
56	prayer*.mp.
57	congregation.mp.
58	spiritual support.mp.
59	spiritual.mp.
60	exp Spiritual Therapies/ or spiritual therap*.mp.
61	spirituality.mp. or exp Spirituality/
62	spiritual belief*.mp.
63	religious leader*.mp.
64	exp Religious Personnel/ or religious personnel*.mp.
65	religious personalit*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
66	spiritual leader*.mp.
67	spiritual personalit*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
68	faith leader*.mp.
69	faith personalit*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
70	exp Faith-Based Organizations/ or faith-based organization*.mp.
71	religious organization*.mp.
72	religious institution*.mp. [mp=title, abstract, original title, name of

	substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
73	religious group*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
74	religious event*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
75	spiritual event*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
76	religious function*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
77	spiritual function*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
78	religious gathering*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
79	spiritual gathering*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
80	spiritual group*.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier,

	synonyms]
81	faith-based community.mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms]
82	53 or 54 or 55 or 56 or 57 or 58 or 59 or 60 or 61 or 62 or 63 or 64 or 65 or 66 or 67 or 68 or 69 or 70 or 71 or 72 or 73 or 74 or 75 or 76 or 77 or 78 or 79 or 80 or 81
83	33 and 52 and 82