

Title Page

Métis health in Canada: A scoping review of Métis-specific health literature

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Pronouns: *She, her, hers*

Abstract

Background: To understand what is known about health needs of Métis People and identify trends and gaps that may exist.

Methods: Using Arskey and O'Malley's five stage scoping review methods, we searched PubMed®, MEDLINE, iPortal Indigenous Studies Portal Research Tool, and pertinent reference lists using the terms "Métis", "health", and "Canada". We conducted searches in May 2022 and included studies available in English, published from 2012-2022, that focused on *only* Métis populations in Canada. We categorized studies based on relevant study metrics.

Results: Of the 572 studies available from searches, 26 studies were included. Fifty-eight percent were quantitative, 31% qualitative, and 12% mixed methods. Forty-two percent of studies used community-based participatory action research (CBPAR) methods; 54% extracted data from national surveys. Most (77%) studies only included adults; 4% specifically investigated children. Geographic focus was 35% pan-Canada, 19% Ontario, and 15% for each of Alberta, British Columbia, and Manitoba. Topics included health, well-being, and spirituality (19%); mental health (19%); physical diagnoses (19%); pandemic-related interventions (12%); access to urgent/emergency care health services (8%); support networks (8%); experience in health care (8%); and lifestyle risk factors (8%).

Interpretation: Métis-specific health services research is lacking in Canada. Mental health, well-being, and spirituality are important themes to explore in Métis communities. There is a lack of child and adolescence representation in the included studies, as well as 2SLGBTQIA+ Métis community members. This review illustrates the need for more studies with strong community engagement and CBPAR strategies to further explore Métis health and health services needs.

Introduction

The Métis are one of three federally recognized Indigenous Peoples in Canada, descendants of First Nation women and fur traders in the late 18th century (1). Métis People make up over one-third of the 1.7 million Indigenous Peoples in Canada and almost 2% of Canada's entire population (2). Métis People are a distinct Indigenous group, with their own culture, traditions, language, nationhood, and way of life (1).

Though endlessly resilient, Métis People have faced ongoing impacts of colonialism in Canada, including forced removal of children to residential and mission schools, overrepresentation of Métis children in the child welfare system, and land displacement strategies that have attempted to disconnect the Métis from their lands (3,4). There are also historical and continued racist policies implemented by the Canadian government that discriminate against Métis People, such as the Scrip system and exclusion from treaties (5). Métis People continually face policy and jurisdictional gaps in Canada as well, with many funded programs for Indigenous Peoples specifically targeting First Nations groups and excluding Métis (4,6). Métis are also facing federal exclusion from Non-Insured Health Benefits (NIHB), a federal government program that provides registered First Nations and Inuit Peoples with certain health benefits such as prescription drugs, mental health counselling, medical equipment, and dental care (7,8). As such, literature suggests that Métis People, like other Indigenous groups, experience poorer health outcomes, while also occupying a unique space of feeling caught between mainstream and First Nations-specific services (9).

Most of the literature and research available on Indigenous health matters include First Nations, Inuit, and Métis metrics combined (10). As each group is culturally distinct, there is a need to assess each group individually. For Métis People in particular, previous work has suggested that they can feel excluded and discriminated against in both mainstream and Indigenous-specific health services. It is therefore imperative to scan the existing literature to better understand the needs of Métis communities and improve their experiences accessing health care services (9,11).

The purpose of this scoping review is to identify the breath of literature available on Métis health research from the past decade. The secondary purposes are to understand what is known about Métis-specific health needs and service access in Canada, and to identify gaps and trends that may exist.

Methods

Study design

Our methodology was based off of the methods and principles laid out by Arksey and O'Malley (12) and refined by Levac et al. (13), as well as the PRISMA Extension for Scoping Reviews (14). We followed their five steps: identifying the research question; identifying relevant studies; selecting of studies; charting of data; collating and reporting data.

Identifying the research question

Our primary question was, “What is known about the general health and breadth of health care services and experiences among Métis People living in Canada.”

Identifying relevant studies

With the help of the University of British Columbia’s Island Medical Program Librarian, Dr. Christine J. Fontaine, we selected relevant databases and search terms. We searched PubMed®, iPortal Indigenous Studies Portal Research Tool, MEDLINE, and relevant reference lists with the search terms “Métis”, “health”, and “Canada”. Co-author and Métis scholar, Dr. Gabrielle Legault, identified additional sources to search based on expertise in the area. Searches were conducted in May 2022.

Study selection

We included studies available in English and published in the last decade, 2012-2022, primarily focused on *only* Métis populations in Canada. Scoping reviews, editorials and commentaries, guidelines and policies, and studies focused on other or more broadly defined Indigenous communities in Canada were excluded.

Charting the data and data analysis

Articles were coded in Microsoft Excel according to study type, aims, method, location, findings, and implications, as described by Levac et al. (12). Topics of research were coded based on a set of inductive codes developed throughout the review process. We analyzed the results of the studies for common themes and produced summative data on the included studies in Excel tables.

Ethics approval

We did not require ethics approval as all data were available in published records.

Results

The search yielded 572 entries: 95 from PubMed®, 233 from iPortal, 244 from MEDLINE, and 0 from Gale Primary Resources. After applying the inclusion and exclusion criteria described above, and removing duplicates, we identified 26 unique articles. Table 1 illustrates the characteristics for each selected study including year of publication, type of study, location, health topic code, age of studied population, main findings, and if the study methodologically included community-based participatory action research (CBPAR) or extraction of national level survey data.

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3 [insert table 1 here]
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5 Collation and summary of included studies (n=26) revealed interesting trends in Métis-related
6 research. Of the 26 included studies' methodology, 58% were quantitative, 31% qualitative, and
7 12% mixed methods. Quantitative studies covered vast topics, but tended to lean towards
8 lifestyle risk factors and specific diagnoses. The qualitative studies largely centered on mental
9 health, well-being, and spirituality; and Métis experience in health care services. The mixed
10 methods studies focused on pandemic-related interventions and health, well-being, and
11 spirituality.
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14 Only 42% of studies incorporated appropriate and respectful CBPAR and Indigenous-centered
15 methodology, which is an important piece of any research involving Indigenous communities in
16 Canada as outlined by Atzema et al. (15); First Nations principles of Ownership, Control,
17 Access, and Possession (OCAP®); and the Canadian Institute of Health Research (CIHR)
18 guidelines (16,17). Qualitative and mixed methods studies all had strong engagement with Métis
19 communities as a piece of their methodology, whereas only one quantitative study included
20 engagement with community members. Furthermore, 54% of the studies were based on
21 extraction of data from national level surveys, such as the 2006 Aboriginal Peoples Survey
22 (APS) or Canadian Census data, and did not involve any community engagement in the
23 extraction, utilization, and interpretation of the data.
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27 Representative geographical regions for each study were also mapped. Thirty-five percent of the
28 studies reflected Canada-wide data and did not break down results according to geographic
29 region. An additional 19% (5 studies) represented Ontario-specific Métis populations, two of
30 which were focused on the Toronto area specifically. Finally, 15% (4 studies) were focused on
31 each of the provinces of Alberta, British Columbia, and Manitoba. There were no dedicated
32 studies for any other province or territory.
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35 While all studies selected focused on Métis populations in Canada, only 4% (1 study)
36 specifically investigated children and youth, based on how parents or caregivers filled out the
37 2006 APS with respect to their child or youth in their home. The vast majority (77%) of the
38 selected articles involved only adults, and the remaining 19% did not specify ages of participants
39 in their methodology.
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42 The selected studies were inductively coded into eight categories based on the topic matter
43 researched: health, well-being, and spirituality; access to urgent/emergency health services;
44 support networks; experience with health care; mental health; physical diagnoses; pandemic-
45 related interventions; and lifestyle risk factors (Table 2).
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48 [insert table 2 here]
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51 The main findings and implications of the included studies are summarized in Table 1. Several
52 studies focused on health related outcomes, such as prevalence of diseases such as cancer or
53 incidence of smoking, found that health outcomes for Métis populations in the regions identified
54 tend to be worse than the non-Indigenous counter-parts. In qualitative studies where Métis
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3 perspectives and experiences were sought, the consistent themes that emerged included feelings
4 of Métis People facing discrimination in both Indigenous and non-Indigenous service streams
5 and a strong need for more Métis-specific services and Métis culturally sensitive services.
6 Several studies linked strengths in the health and well-being of Métis People to their support
7 network, cultural connectedness, and spirituality.
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10 Interpretation

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12 Over half of the identified studies used data from national surveys, most prominently the 2006
13 APS, as a source of data. While there is merit to this approach, namely in the volume and
14 accessibility of data, it is notable that these same studies did not participate in any CBPAR, and
15 thus lacked the perspective of the very communities they studied to help contextualize and give
16 insight on the findings or point out any difficulties or challenges that the APS poses. There are
17 also ethical considerations in using these types of data without community input regarding
18 ownership and control of the data, as outlined in the First Nations principles of OCAP®
19 guidelines, the CIHR guidelines, and the Métis centre at National Aboriginal History
20 Organisation (16–18) Furthermore, there are challenges with Métis data from APSs being used
21 for studies, as they are the product of self-identified Métis survey respondents. This means that
22 the data stem from a combination of Métis People as we have described thus far, a culturally,
23 historically, and geographically distinct group, and people who interpret Métis to broadly mean
24 “of mixed Indigenous and European ancestry”, which skews the data collected and the
25 implications of studies using these data (Andersen, 2014).
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30 The studies that engaged in meaningful CBPAR with Métis community members, incorporated
31 Métis values, had Métis investigators, and followed Indigenous-based methodology resulted in
32 rich data that uncovered the nuanced experiences of being Métis. For example, these practices
33 uncovered the themes of Métis women experiencing discrimination both in mainstream and
34 Indigenous-based services, and a follow-up study cultivated actionable recommendations to
35 improve health and social services from a Métis perspective (11,19). CBPAR is an important
36 methodology because the collaborative approach ensures research is more relevant to the
37 community being engaged (20).
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40 According to 2016 Census data, Métis people reside in all provinces and territories, with the
41 majority of them living in the provinces of Ontario, Alberta, Manitoba, and British Columbia (2).
42 The geographic breakdown of the identified studies reflects this, but notably lacks representation
43 in other areas where many Métis peoples reside, such as Saskatchewan.
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46 It is interesting to note that the two studies that centered around cancer incidence did not find the
47 same results. Sanchez-Ramirez et al. (34) found that Métis men in Alberta experience a higher
48 incidence of lung and bronchus cancer than their non-Métis counterparts, while no other
49 statistically significant differences in cancer incidence and mortality were found. Conversely,
50 Mazereeuw et al. (29) found that cancer incidence was higher in Métis people in female breast
51 cancer, lung, liver, larynx, gallbladder, and cervical cancers. These studies did investigate
52 different geographic regions, one pan-Canadian and one Alberta specific, suggesting that
53 different geographic subsets of Métis People may experience different incidences of cancers.
54 This suggests that more comprehensive cancer incidence studies for Métis People across various
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3 geographic regions could be important to further understand the differences in cancer incidence
4 in Métis People.
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7 There is a significant gap in the recent literature around Métis youth. Only one identified study
8 investigated children and adolescence, based on the 2006 APS responses filled out by their
9 caregivers (22). No studies have sought the perspectives and experiences of Métis youth, despite
10 Métis ages 15-24 making up 16% of the Métis population in Canada (23). Métis youth are sure to
11 have unique perspectives and experiences with respect to their health and well-being, as they
12 navigate their identities among a new generation of Indigenous Peoples. Furthermore, while
13 many of the studies performed gender analysis with respect to women and men, none of the
14 included studies explored 2SLGBTQIA+ individuals, leaving a glaring gap in the literature. With
15 only 26 studies in the last decade dedicated purely to research with Métis communities, there is
16 no shortage of gaps in the literature. Two categories (mental health; health, well-being, and
17 spirituality) made up nearly half of the topics of research, particularly in CBPAR studies, which
18 indicates that these things have been a research priority for Métis communities over the last
19 decade. With only 10 studies total existing in these categories, there is certainly still room for
20 more focus in this area, particularly in specific sub-populations of Métis People. Additionally, it
21 is worth noting that many of the rich qualitative studies that focused on Métis experiences had
22 limited numbers of participants, so there is value in repeating similar studies with more
23 participants, or even including larger or different geographic regions.
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29 Limitations

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32 There are a few limitations of this methodology based on resources. Only one researcher applied
33 inclusion and exclusion criteria and performed coding of selected articles, when ideally two
34 would be used. Due to resource and time constraints, the date range of selected articles was
35 limited to the past decade, when additional studies were available outside of that range. Finally,
36 no critical appraisal tools were used to appraise the literature selected, which could have
37 provided additional context for this review.
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41 Conclusion

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44 Only 26 studies in the last decade were identified that fit the inclusion criteria of this review.
45 This suggests that there is a lack of Métis-specific research in Canada. Notably, over half of
46 these studies were data extractions from large surveys and lacked any element of community
47 engagement in their methodology, thus missing important perspectives and context. Over half of
48 the studies were quantitative in their methodology. The themes of mental health and health, well-
49 being, and spirituality have been important themes explored in Métis communities over the last
50 decade, thus suggesting that this is a priority for research. There was a notable lack of children,
51 youth, and adolescence representation in the included studies, illustrating the need for more work
52 to explore the needs and perspectives of Métis young people, as well as 2SLGBTQIA+ Métis
53 community members. This review illustrates the need for more studies with strong community
54 engagement and CBPAR strategies to further explore Métis health in Canada.
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Footnotes

- **Competing interests:** None declared.
- **Contributors:** KG is a Métis medical student who conceived and designed the study. All authors contributed to data acquisition, analysis, and interpretation. KG drafted the first draft of the manuscript, which all authors critically revised. All authors gave final approval of the version to be published and agreed to be accountable for all aspects of the work.
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- **Supplemental information:** N/A

Confidential

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Table 1. Selected studies pertaining to Métis health in Canada, as determined by search of PubMed®, iPortal Indigenous studies research tool, MEDLINE, Gale Primary Resources, and relevant reference lists with search terms “Métis”, “health” and “Canada”. Studies available in English and published in the last decade, 2012-2022, primarily focused on *only* Métis populations in Canada were included, while scoping reviews, editorials and commentaries, guidelines and policies, and studies focused on other or more broadly defined Indigenous communities in Canada were excluded. Acronyms of medical abbreviations are listed below the table. Please note, the word ‘Aboriginal’ is only used in the context that the individual studies used it themselves. We note our preference for the language to be Indigenous.

Author and year	Type	Location	Code	Study aim	Age	Main findings	CBPAR	National Survey Data
Anderson et al., 2017 (15)	Quantitative	Canada	Health, well-being, and spirituality	To examine gender and sense of community belonging influences on sedentary behaviour	Adults, ages unspecified	Community belonging among Métis men may reduce sedentary behaviour, but increased community belonging among Métis women may increase sedentary behaviour.	No	Canadian Community Health Survey
Atzema et al., 2015 (16)	Quantitative	Ontario	Physical diagnoses	To determine rates of cardiovascular diseases in Métis population	Ages unspecified	Cardiovascular disease was higher in the Métis compared to the general population: prevalence of five cardiovascular conditions was 25% to 77% higher.	No	No - other Ontario registries used
Auger, 2019 (3)	Qualitative	British Columbia	Mental health	To contribute to an increased understanding of Métis People's experiences in mental health and wellness	Ages 18-84 (mean 46)	Mental health is a priority for Métis people in British Columbia, and there is a need for increased access to culturally responsive health care.	Yes	No
Auger, 2021 (17)	Qualitative	British Columbia	Mental health	To explore Métis People's experiences and conceptualizations of mental health and cultural continuity	Ages 19+	Themes identified: Métis stories of culture, identity, and mental health; the importance of community; and intergenerational knowledge transmission.	Yes	No
Carrière et al., 2017 (18)	Quantitative	Canada	Access to urgent/emergency health services	To describe ACSC hospitalizations among urban Métis adults relative to their non-Aboriginal counterparts	Ages 18-74	The ASHR for ACSCs among urban Métis adults was twice that among non-Aboriginal adults. These hospitalizations were for diabetes or COPD.	No	2006/2007 to 2008/2009 Discharge Abstract Database
Cooke et al., 2013 (19)	Quantitative	Canada	Lifestyle risk factors	To examine the socio-economic, behavioural, and Métis-specific factors that predict obesity among Métis children	Ages 6-14	An estimated 18.5% of Métis boys and 14.4% of girls were obese. Risk factors included living in a lone-parent family and rural, PMK residential schooling. The effects were negative among older girls.	No	2006 APS
Cooper et al., 2020 (20)	Qualitative	Manitoba	Support	To identify current supports, needs, and expectations of	Adults, ages	Need to have tools in place to help people age and to care for aging	Yes	No

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			networks	unpaid Métis caregivers caring for Métis seniors	unspecified	family members in a culturally responsive manner.		
Driedger et al., 2014 (21)	Mixed Methods	Manitoba	Pandemic-related intervention	To evaluate the 2009/10 H1N1 influenza pandemic door-to-door risk communication campaign that targeted at-risk Métis	Ages 18-65	This intervention ultimately did not meet its intended goals. Efforts can be made during inter-pandemic periods to build on established relationships, learn from past experiences, and develop new solutions.	Yes	No
Driedger et al., 2015 (22)	Qualitative	Manitoba	Pandemic-related intervention	To connect vaccine behavior with the attitudes and beliefs that influenced Métis study participants' H1N1 influenza vaccine decision-making	Adults, ages unspecified	The negatively influential factors were lack of knowledge about the vaccine and the pandemic, as well as concerns about vaccine safety. Risk of contracting H1N1 was the biggest positively influencing factor.	Yes	No
Gershon et al., 2014 (23)	Quantitative	Ontario	Physical diagnoses	To measure and compare burden of asthma and COPD between Métis and non-Métis populations	Adults (asthma 20+, COPD 35+)	Prevalence of asthma and COPD were 30% and 70% higher, respectively, in the Métis. Lower rates of physician visits suggest barriers in access to primary care services.	No	No - other Ontario registries used
Ginn et al., 2021 (24)	Qualitative	Alberta	Health, well-being, and spirituality	To explore links among health, spirituality, and well-being within Métis	Ages 28-80	Connection among ancestry, land, community, and tradition contributed to well-being.	Yes	No
Hayward et al., 2017 (25)	Quantitative	Ontario	Physical diagnoses	To compare the prevalence of chronic kidney disease and incidence of acute kidney injury and end-stage kidney disease among registered Métis citizens to general population	Ages 18+	Prevalence of chronic kidney disease was slightly higher among Métis citizens compared with the general population.	No	No - other Ontario registries and databases used
Hutchinson et al., 2014 (26)	Mixed Methods	British Columbia	Health, well-being, and spirituality	To investigate health benefits of participating in cultural activities (harvesting), and demonstrate how applying mixed methods meets and informs these research standards and creates a unique, participatory Indigenous research method relevant for Métis People	Ages unspecified	Details of the physical benefits of participating in the traditional activity of hunting, while also describing the wholistic health and well-being benefits related to harvesting amongst the Métis People.	Yes	No
Kaspar, 2014 (27)	Quantitative	Canada	Mental health	To explore link between SI and MDE and Métis who were fostered vs. not fostered	Adults, ages unspecified	More than one-third of emancipated respondents reported past year MDE, a prevalence rate nearly 50% higher than the rate of MDE among Métis respondents without a history of placement in foster care. The 25% lifetime prevalence rate of SI in the emancipated group was more than	No	2006 APS

King et al., 2022 (28)	Mixed methods	Alberta	Pandemic-related intervention	To describe the unique approach in implementing Canada's first Métis-led COVID-19 immunization clinic	Ages unspecified	twice the rate observed in the non-fostered group. 1300 people were vaccinated. Visitors shared appreciation for the culturally specific aspects of the clinic, which contributed to increased safety and comfort.	Yes	No
Kumar et al., 2012 (29)	Quantitative	Canada	Mental health	To determine the prevalence of SI among Métis and identify its associated risk and protective factors	Ages 20-59	Prevalence of SI was higher among Métis men than in men who did not report Aboriginal identity. Métis women were more likely to report SI compared with Métis men (14.9% vs. 11.5%, respectively).	No	2006 APS
Mazereeuw et al., 2018 (30)	Quantitative	Canada	Physical diagnoses	To estimate site-specific incidence rates and survival for the most common cancers among Métis	Ages 25-99	Incidence was significantly higher among Métis adults than among non-Aboriginal adults for the following cancers: female breast, lung, liver, larynx, gallbladder, and cervix. Métis People had poorer survival for prostate cancer. But, for all cancers and both sexes combined, cancer incidence was similar for Métis and non-Aboriginal adults.	No	1991 Canadian Census Health and Environment Cohort
Monchalín et al., 2020 (11)	Qualitative	Ontario	Experience in health care	To learn from Métis women's experiences to build an understanding on steps toward filling the health service gap	Adults, ages unspecified	Métis women experience racial discrimination such as witnessing, absorbing, and facing racism in mainstream service settings, while experiencing lateral violence and discrimination in Indigenous-specific services.	Yes	No
Monchalín et al., 2019 (31)	Qualitative	Ontario	Experience in health care	To gather recommendations made by urban Métis women for improving access to health and social services in Toronto, Canada	Ages 15+	Recommendations include (a) Métis presence, (b) holistic interior design, (c) Métis-specific or informed service space, (d) welcoming reception/front desk, and (e) culturally informed service providers	Yes	No
Ramage-Morin & Bougie, 2017 (32)	Quantitative	Canada	Support networks	To better understand family networks and self-perceived general and mental health among Métis	Ages 45+	Strong family networks are associated with positive self-perceived general and mental health among Métis adults.	No	2012 APS
Ryan et al., 2015 (33)	Quantitative	Canada	Lifestyle risk factors	To examine the correlates of current smoking among Métis with a particular focus on culturally-specific factors	Ages 18+	39.9% of adult Métis respondents in the sample were current smokers. Adult Métis who reported a high level of spirituality were less likely to be current smokers. Those who spoke an Indigenous language, or lived in a house where one was spoken, were more likely to be current smokers.	No	2006 APS
Ryan et al., 2018 (34)	Quantitative	Canada	Health, well-	To investigate the correlates of leisure-time physical activity (LTPA) and active	Ages 20-64	Having attended a Métis cultural event in the past year was positively	No	2006 APS

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being transportation (walking) associated with LTPA, as was a high level of spirituality. , and among adult Métis, with a particular focus on culturally specific variables

Sanchez-Ramirez et al., 2016 (35)	Quantitative	Alberta	Physical diagnoses	To explore cancer incidence and mortality burden among Métis and to compare disease estimates with non-Métis population	All ages based on Alberta registry used	A higher incidence of bronchus/lung cancer was found among Métis men. No other statistically significant differences in cancer incidence or mortality were found between Métis and non-Métis people.	No	No (2007 to 2012 obtained from Alberta Health Care Insurance Plan (AHCIP) – Central Stakeholder Registry – and Alberta Cancer Registry (ACR))
Sanchez-Ramirez et al., 2019 (36)	Quantitative	Alberta	Access to urgent/emergency health services	To examine injury-related health services use, defined as hospital admissions and emergency department (ED) visits, as well as mortality among Métis People in Alberta	Adults, ages unspecified	Injury related hospital admissions were 35% higher for Métis than non-Métis; injuries are a concern among Métis People.	No	No
Sanguins et al. (2013) (37) 1/1/0001 12:00:00 AM	Quantitative	Manitoba	Mental health	To explore differences between Métis and other Manitobans with depression and/or anxiety disorders	Ages 10+	Métis are more likely to develop depression and/or anxiety disorders compared to other Manitobans. Métis are 1.2 times more likely to have anxiety disorders and 1.3 times more likely to be diagnosed with substance misuse.	Yes	No
Wesche, 2013 (38)	Qualitative	British Columbia	Health, well-being, and spirituality	To examine links between Métis identity and health and well-being for Métis women at risk of sexual exploitation	Ages 25-54	Métis identity and well-being were strongly linked. Many Métis women reported negative experiences in accessing a range of both Aboriginal and mainstream services due to perceived prejudice. Métis-specific or Métis-inclusive services are desired but currently limited.	Yes	No

- Acronyms:
- ACSC- Ambulatory care sensitive conditions
 - ASHR- Age-standardized hospitalization rates
 - COPD- Chronic obstructive pulmonary disease
 - PMK- Person most knowledgeable about the child
 - APS- Aboriginal Peoples Survey
 - SI- Suicidal ideation
 - MDE- Major depressive episode

Table 2. N number and percentage of selected studies coded into each code. Codes were created based on an inductive and iterative process.

Topic Code	Number	Percentage
Health, well-being, and spirituality	5	19%
Mental health	5	19%
Physical diagnoses	5	19%
Pandemic-related interventions	3	12%
Access to urgent/emergency health services	2	8%
Support networks	2	8%
Experience in health care	2	8%
Lifestyle risk factors	2	8%