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BMJ Open

Barriers to HIV care among Francophone African Caribbean and Black immigrant people living with HIV in Canada: a protocol for a scoping systematic review

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Barriers to HIV care among Francophone African Caribbean and Black immigrant people living with HIV in Canada: a protocol for a scoping systematic review

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Key words: African, Caribbean, Black, French speaking, Francophone, Canada, HIV

Word count: 2120

Strength and limitations of the study

- One strength is that we will conduct a comprehensive exhaustive search strategy with an experienced research team.
- Another strength of this study is the novelty of the research question: Barriers to Quality HIV care among Francophone and French speaking African Caribbean and Black immigrant people living with HIV in Canada.
- One limitation is that it is unlikely that we will find experimental studies

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- Another limitation of this scoping review is that it focused only on Canada and therefore its global relevance is limited; however, theoretical generalizations can be postulated and tested with Francophone Diaspora minorities in predominantly Anglophone communities.

For peer review only

ABSTRACT

Introduction: Language is a social determinant of health. Addressing social determinants of health are paramount to successful progression along the HIV care continuum. Canada is a bilingual country with French and English as official languages. There are few studies to date that have focused on the impact of being a French-speaking linguistic minority on the HIV care continuum. The primary objective of this scoping systematic review of the literature is to evaluate existing gaps in access to HIV care among French-speaking people living with HIV in Canada. Our primary outcome is health care services availability and access for French speaking people living with HIV.

Methods and analyses: Our scoping systematic review will draw on a systematic search of published literature, both quantitative and qualitative studies published on the French-speaking individuals' health care and HIV status in Canada, with particular emphasis on the Province of Ontario. We will conduct our search in MEDLINE, the Excerpta Medica Database (EMBASE), the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science, EBSCO and Google Scholar for work published between 1986 and 2018. Identified articles will be screened in duplicate and full text articles of relevant studies will be retrieved. Data will also be extracted by two researchers working independently. Any discrepancies that arise will be resolved by consensus or by consulting a third author. Our findings will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).

Ethic and dissemination: Our proposed research will not be conducted with human participants. We will only use secondary published data and therefore ethics approval is not required. Our findings will be disseminated as peer reviewed manuscripts, at conferences, student rounds and could be of interest to government health agencies and local HIV/AIDS service organizations.

Protocol Registration number: In progress at Prospero

INTRODUCTION

It is well established that language is more than a translation of words.¹ In Canada the term "minority Francophone" refers to people living outside of the province of Quebec in majority English speaking provinces, whose mother tongue or First Official Language Spoken (FOLS) is French.² Francophone individuals represent approximately 5% of the Ontario population.³ The population of the Francophone now includes immigrants from African countries with French as their official language.^{2,4} Almost 7.5% of Francophone in Ontario speak French only, regardless of their mother tongue.³ Therefore African, Caribbean and Black (ACB) people who identify French as their primary language represent a growing segment of the Francophone population in Ontario.

The French Language Service Act, 1986 (FLSA)⁵ guarantees the right of individuals to receive French-language services from the Ontario government ministries and agencies, including access to French health care services. However providing high quality French health care services remains a challenge across the province of Ontario and other English speaking provinces in Canada.^{4,6-9} A study done in New Brunswick, the only official bilingual province in Canada, has shown that Francophone individuals are less likely to report their health as being "good" compared to their Anglophone majority counterparts¹⁰. Other studies have reported that the quality of French health care services in Canadian Anglophone provinces is suboptimal.^{4,7,9,11,12}

In the United States (US), language barriers and immigration status have been identified as barriers to HIV testing for new immigrants from sub-Saharan Africa and the Caribbean.¹³ Immigrants, once healthy compared to their Canadian-born counterparts, have self-reported poor health associated with language barriers, discrimination and immigration status.^{14,15} In some places, the quality of French health care services has resulted in avoidance of care by Francophone living in Anglophone majority provinces.¹⁶ In 2016, the Public Health Agency of Canada (PHAC) reported that about 36,319 people were living with HIV (PLWH) in Ontario with about one third of them from the African, Caribbean and Black (ACB) communities.¹⁷ Social determinants of health such as language barriers, stigma, and discrimination have negative consequences on linkage and engagement to care for HIV positive immigrants and ACB in Ontario^{4,12}, and may be worse in ACB Francophone minorities.

The purpose of this systematic scoping review is to inform policy makers, community health centers and HIV organizations on the outcomes associated with being a Francophone minority living with HIV in Ontario. The primary objective of this scoping systematic review is to document access to health services by French-speaking people living with HIV. The secondary objective is to assess the state of the HIV care continuum for Francophone ACB people living with HIV in Ontario. HIV care continuum or cascade includes the following: HIV diagnosis, linkage and retention to care, receipt of antiretroviral therapy (ART) and achievement of viral suppression.¹⁸ We will also summarize data on participation in health promotion, finding a regular provider, receiving preventive care, satisfaction with care; the effects of race, stigma and discrimination, including immigration status.

METHODS AND ANALYSES

We will adopt the scoping systematic review approach proposed by Peterson et al, that ensures that the review is executed such that it can inform practice, policy, education, and research.¹⁹

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3 The scoping review approach is different than the standard systematic review in that we will not
4 attempt to answer a specific research question, but rather appraise a broad body of evidence in
5 order to describe HIV care for French speaking people living with HIV in Canada.
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7

8 **Inclusion criteria for studies**

9 **Types of studies**

10 We will consider experimental (randomized or non-randomized), observational studies
11 (longitudinal, cross-sectional), evidence syntheses (systematic reviews) and qualitative or mixed-
12 methods studies.

13 For a study to be eligible, it must include data on French-speaking people with HIV in an
14 Anglophone majority province and address at least one of the outcomes of interest.
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16

17 **Outcomes**

18 Our primary outcome is the quality of and access to health services for Francophone living with
19 HIV in Anglophone majority provinces.
20
21

22 **Our secondary outcomes will be:**

- 23 • Participation in health promotion
- 24 • Finding regular provider
- 25 • Receiving preventive care
- 26 • Direct service by bilingual health providers
- 27 • Patient satisfaction
- 28 • Effects of race, stigma, discrimination
- 29 • Effects of immigration status
- 30 • Proximity to health centers
- 31 • Quality of care provided
- 32 • Satisfaction with care
- 33 • Quality of life
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37 **Search strategy for identification of studies**

38 We will conduct an exhaustive search for published studies in English and French reporting on
39 health and healthcare in Francophone populations in Canada and Ontario. The search will
40 include the following search terms, adapted for each database (**Box 1**).
41
42

43 **Electronic searches**

44 We'll conduct our searches in MEDLINE, Excerpta Medica Database (EMBASE), Cumulative
45 Index to Nursing and Allied Health Literature (CINAHL), Web of Science, EBSCO, Google
46 Scholar, from 1990 (date that the French Language Service Act was enacted in Ontario) to 2018.

47 ⁵ We'll use specific search terms in various combination. The search will be conducted by a
48 health sciences librarian at the Scotia Bank Health Sciences library, at St Michael Hospital.
49
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51 **Reference lists**

52 The reference lists of all relevant citations will be searched for available related articles.
53
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55 **Grey literature**

We will search for available theses and reports. Furthermore, experts, authors and relevant organization such as African and Caribbean Council on HIV/AIDS in Ontario (ACCHO), Association Francophone pour le Savoir (ACFAS), The Ontario HIV Treatment Network (OHTN), and CATIE will be contacted.

Data collection and analyses:

Data extraction will be collected from each study independently and in duplicate by PD and JN. We'll extract from eligible studies data such as publication details, study design, sample population, outcomes measured and specific barriers.

Screening

We will import all citations obtained using the search strategy into DistillerSR™ to facilitate study screening and selection, de-duplication of citations prior to undertaking the abstract review. DistillerSR™ will also allow screeners to check each other's work.

A customized form reflecting the previously described inclusion will be pilot tested by two reviewers. Specifically, the data collection form will be developed and will be applied by two reviewers independently to a sample of 50 abstracts to ensure consistency of use and clarity of the instrument. A Cohen's kappa statistic²⁰ will be estimated to measure inter-rater reliability, and screening will begin when >60% agreement is achieved.

Study selection will proceed according to the following: First, we will conduct a title and abstract screening. The full text of potentially relevant articles will be retrieved and screened in detail for relevance prior to data extraction. All screening, data extraction and quality assessment will be conducted in duplicate by (PD and JN). Disagreements will be resolved by consensus. When consensus can't be reached a third author will arbitrate (LM or LN).

Data extraction

We will extract bibliometric information such as author names, journal, and year of publication, in addition to the location of the study, study design, number of participants, outcomes reported, outcome measures overall and outcome measures in French-speaking participants. For each outcome, measures of magnitude mean (standard deviation) or percent (95% confidence intervals²¹), and where possible measures of effect of the outcome in French-speaking people versus non-French speaking people (odds or risk ratios, mean differences, accompanied with 95% CIs).

Assessment of methodological quality of the included studies

Two authors will independently appraise the methodological quality of the studies using the Cochrane risk of bias tool or the Newcastle-Ottawa scale for randomized and non-randomized studies respectively.²² Systematic review will be assessed using the Risk Of Bias in Systematic Review tool (ROBIS)²³ and the Assessing Quality of Systematic Reviews (AMSTAR) criteria.²⁴

Analyses and reporting

Our findings will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.^{25 26} Our findings will be summarized narratively and using tables. Data will be grouped by outcomes, with the number of studies, their design and

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2
3 their methodological quality. Key findings of each study will also be summarized using tables.
4 We will conduct a narrative synthesis of the data to identify common themes and knowledge
5 gaps.
6

7 **DISCUSSION**

9 The evidence of lack of French Language Healthcare Services (FLHS) in Ontario has been
10 highlighted in previous research.⁸ Stigma, discrimination and race are associated with poor HIV
11 care retention and access to care.^{27 28} In this review we will answer important question related to
12 access to care for Francophone ACB living in Ontario and Canada. Furthermore, we will
13 evaluate the impact of intersectionality on French language, race and HIV stigma on ACB
14 accessibility to HIV care. The findings of this scoping systematic review will have implications
15 for health policy making and how community organizations and HIV/AIDS centres provide care
16 to Francophone ACB immigrants and Canadians.

18 One limitation of this scoping review is that it focused only on Canada and therefore its global
19 relevance is limited; however, theoretical generalizations can be postulated and tested with
20 Francophone Diaspora minorities in predominantly Anglophone communities. Nonetheless, we
21 will conduct a comprehensive exhaustive search, on a novel topic with an experienced research
22 team.
23

25 **Ethic and dissemination:** Our proposed research will not be conducted with human participants.
26 We will only use secondary published data and therefore ethics approval is not required. Our
27 findings will be disseminated as peer reviewed manuscripts, at conferences, student rounds and
28 could be of interest to government health agencies and local HIV/AIDS service organizations.
29

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35 program (P30 AI078498).
36

38 **Competing interests statement:** None
39

40 **Author contributions**

41 The study was conceived by PD, LM, JN and LEN. All authors revised the research question and
42 provided content to the design. Manuscript was written and edited by PD, LM, JN, LEN, AJO,
43 DL. Principal investigator of the study is LEN. All authors read and approved the final version of
44 the manuscript.
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Box 1: Proposed search strategy for MEDLINE

Database: MEDLINE

Search strategy:

1. exp "Emigrants and Immigrants"/
2. immigrant*.mp.
3. Emigrant*.mp.
4. migrant*.mp.
5. (landed adj5 status).tw.
6. (landed adj5 person*).tw.
7. (landed adj5 resident*).tw.
8. exp Refugees/
9. asylum.tw.
10. new Canadian.tw.
11. resident.tw.
12. refugee.tw.
13. *POPULATION/
14. communit*.tw.
15. exp MINORITY GROUPS/
16. MINORITY HEALTH/
17. minorit*.tw.
18. exp patient/ or patient.tw.
19. 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
20. french.tw.
21. francophone*.tw.
22. Francophonie.mp.
23. exp Language/
24. (french or francais or franco* or quebec*).tw.
25. 23 and 24
26. ((french or francais or franco*) adj5 language).tw.
27. 20 or 21 or 22 or 25 or 26
28. exp African Continental Ancestry Group/
29. (Africa* or African or Afrique or Africain*).tw.
30. Benin.tw.
31. Burkina Fas*.tw.
32. Burundi.tw.
33. Cameroon.tw.
34. "Central African Republic".tw.
35. Centrafrique.tw.
36. centrafricain*.tw.
37. Caribbean.mp. or exp Caribbean Region/
38. exp CHAD/
39. (Congo or congol*).tw.
40. Brazzaville.tw.
41. Kinshasa.tw.
42. Djibouti.tw.
43. Guinea.tw.

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- 4 44. French africa.tw.
- 5 45. Gabon*.tw.
- 6 46. Haiti*.tw.
- 7 47. (Ivory Coast or Ivoire or Ivorian).tw.
- 8 48. Madagascar.tw.
- 9 49. Mali.tw.
- 10 50. Morroc*.tw.
- 11 51. Niger.tw.
- 12 52. Rwanda*.tw.
- 13 53. (St? Martin or saint Martin).tw.
- 14 54. Senegal*.tw.
- 15 55. Togo.tw.
- 16 56. Black-White.tw.
- 17 57. Black.ti,ab.
- 18 58. "black canadian".tw.
- 19 59. mixed race.tw.
- 20 60. 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42
- 21 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 58 or
- 22 59
- 23 61. 19 and 60
- 24 62. canada/
- 25 63. (Canada or Canad*).tw.
- 26 64. (canada or canadian\$ or alberta or british columbia or columbie britannique).tw.
- 27 65. (saskatchewan or manitoba or ontario or quebec or new brunswick or nouveau
- 28 brunswick).tw.
- 29 66. (nova scotia or nouvelle ecosse or prince edward island or ile du prince edward or
- 30 newfoundland or terre neuve or labrador or nun?v?t or nun?v?t or nwt or territoires du
- 31 nord ouest or northwest territories or yukon).tw.
- 32 67. OHIP.tw.
- 33 68. "health canada".tw.
- 34 69. "sante canada".tw.
- 35 70. medicare.tw.
- 36 71. CIHR.tw.
- 37 72. ("Alberta Health Care Insurance Plan" or AHCIP).tw.
- 38 73. ("Medical Services Plan" or MSP).tw.
- 39 74. Manitoba health.tw.
- 40 75. ("Vitalite Health Network" or "Horizon Health Network").tw.
- 41 76. "Department of Health and Community Services".tw.
- 42 77. "Health Care Card".tw.
- 43 78. ("Nova scotia health card" or MSI).tw.
- 44 79. Nunavut Health Insurance Card.tw.
- 45 80. ("Carte d'assurance maladie" or "Health Insurance Card" or "RAMQ").tw.
- 46 81. (health card adj25 canada).tw.
- 47 82. 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
- 48 or 78 or 79 or 80 or 81
- 49 83. 61 and 82
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- 3 84. exp "Delivery of Health Care"/
- 4 85. proximity.ti,ab.
- 5 86. "healthcare or health care".tw.
- 6 87. exp Health Care Quality, Access/ and Evaluation/
- 7 88. Quality of care/
- 8 89. Health Promotion/
- 9 90. Primary Health Care/
- 10 91. Patient Acceptance of Health Care/
- 11 92. Healthcare Disparities/
- 12 93. exp racism/
- 13 94. multilingualism/
- 14 95. Needs Assessment/
- 15 96. exp Culturally Competent Care/
- 16 97. Health Services Accessibility/
- 17 98. exp Physicians, Family/
- 18 99. quality indicators/
- 19 100. Patient Medication Knowledge/
- 20 101. Patient Navigation/
- 21 102. Patient Compliance/
- 22 103. exp patient satisfaction/
- 23 104. exp HIV/
- 24 105. Preventive Medicine/
- 25 106. HIV.mp.
- 26 107. exp HIV infections/
- 27 108. seropositivity/
- 28 109. seroconversion/
- 29 110. Quality of Life/
- 30 111. (HRQOL or karnofsky).tw.
- 31 112. 84 or 86 or 87 or 90 or 91 or 92 or 95 or 96 or 97 or 98 or 100 or 101 or 102 or
- 32 104 or 106
- 33 113. 19 and 27 and 60 and 83 and 112
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Secondary Subject Heading:	Global health, Infectious diseases, Public health, Sexual health, Epidemiology
Keywords:	HIV & AIDS < INFECTIOUS DISEASES, Francophone, African, Caribbean, Black, Canada

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Strengths and limitations of the study

- One strength is that we will conduct a comprehensive exhaustive search strategy with an experienced research team.
- Another strength of this study is the novelty of the research question: Barriers to Quality HIV care among Francophone and French speaking African Caribbean and Black immigrant people living with HIV in Canada.
- One limitation is that it is unlikely that we will find experimental studies

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3 1• Another limitation of this scoping review is that it will be focused only on Canada and therefore
4 2 its global relevance is limited; however, theoretical generalizations can be postulated and tested
5 3 with Francophone Diaspora minorities in predominantly Anglophone communities.
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8 5 **Significance of the study**

9 6 This scoping review will answer important questions related to access to care for Francophone
10 7 HIV infected ACB living in Canada. Furthermore, this review will evaluate the impact of
11 8 intersectionality, the French language, race and HIV stigma on ACB accessibility to HIV care.
12 9 The findings of this scoping systematic review will have implications for health policy and
13 10 practice in the provision of care to Francophone HIV-infected and affected ACB immigrants and
14 11 Canadians.
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For peer review only

1 ABSTRACT

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1 **Introduction:** Language is a social determinant of health. Addressing social determinants of health are paramount to successful progression along the HIV care continuum. Canada is a bilingual country with French and English as official languages. There are few studies to date that have focused on the impact of being a French-speaking linguistic minority on the HIV care continuum. The primary objective of this scoping systematic review of the literature is to evaluate existing gaps in access to HIV care among French-speaking people living with HIV in Canada. Our primary outcome is health care services availability and access for French speaking people living with HIV.

12 **Methods and analyses:** Our scoping systematic review will draw on a systematic search of published literature, both quantitative and qualitative studies published on French-speaking individuals' health care and HIV status in Canada, with particular emphasis on the Province of Ontario. We will conduct our search in MEDLINE, the Excerpta Medica Database (EMBASE), the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science, EBSCO and Google Scholar for work published between 1990 and 2018. Identified articles will be screened in duplicate and full text articles of relevant studies will be retrieved. Data will also be extracted by two researchers working independently. Any discrepancies that arise will be resolved by consensus or by consulting a third author. Our findings will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA).

23 **Ethics and dissemination:** Our proposed research will not be conducted with human participants. We will only use secondary published data and therefore ethics approval is not required. Our findings will be disseminated as peer reviewed manuscripts, at conferences, student rounds and could be of interest to government health agencies and local HIV/AIDS service organizations.

1 INTRODUCTION

2 It is well established that language is more than a translation of words. ¹ In Canada the term
3 "minority Francophone" refers to people living outside of the province of Quebec in majority
4 English speaking provinces, whose mother tongue or First Official Language Spoken (FOLS) is
5 French. ² Francophone individuals represent approximately 5% of the Ontario population. ³ The
6 population of the Francophone now includes immigrants from African countries with French as
7 their official language. ^{2 4} Almost 7.5% of Francophone in Ontario speak French only, regardless
8 of their mother tongue. ³ Therefore African, Caribbean and Black (ACB) people who identify
9 French as their primary language represent a growing segment of the Francophone population in
10 Ontario.

11 The French Language Service Act, 1986 (FLSA) ⁵ guarantees the right of individuals to receive
12 French-language services from the Ontario government ministries and agencies, including access
13 to French health care services. However providing high quality French health care services
14 remains a challenge across the province of Ontario and other English speaking provinces in
15 Canada. ^{4 6-9} A study done in New Brunswick, the only official bilingual province in Canada, has
16 shown that Francophone individuals are less likely to report their health as being "good"
17 compared to their Anglophone majority counterparts ¹⁰. Other studies have reported that the
18 quality of French health care services in Canadian Anglophone provinces is suboptimal. ^{4 7 9 11 12}

19 In the United States (US), language barriers and immigration status have been identified as
20 barriers to HIV testing for new immigrants from sub-Saharan Africa and the Caribbean. ¹³
21 Immigrants, once healthy compared to their Canadian-born counterparts, have self-reported poor
22 health associated with language barriers, discrimination and immigration status. ^{14 15} In some
23 places, the quality of French health care services has resulted in avoidance of care by
24 Francophone living in Anglophone majority provinces. ¹⁶ In 2016, the Public Health Agency of
25 Canada (PHAC) reported that an estimated 36,319 people were living with HIV (PLWH) in
26 Ontario with about one third of them from the ACB communities. ¹⁷ Social determinants of
27 health such as language barriers, stigma, and discrimination have negative consequences on
28 linkage and engagement to care for HIV positive immigrants and ACB in Ontario ^{4 12}, and may
29 be worse in ACB Francophone minorities. The core of any community services providing
30 support to PLWH are health promotion, quality of care, counseling and preventive care as well
31 as case management and patient satisfaction. ^{18 19}

32 The purpose of this systematic scoping review is to inform policy makers, community health
33 centers and HIV organizations on the outcomes associated with being a Francophone minority
34 living with HIV in Canada. The primary objective of this scoping systematic review is to
35 document access to health services by French-speaking people living with HIV in Canada. The
36 secondary objective is to assess the state of the HIV care continuum for Francophone ACB
37 people living with HIV in Canada. HIV care continuum or cascade includes the following: HIV
38 diagnosis, linkage and retention to care, receipt of antiretroviral therapy (ART) and achievement
39 of viral suppression. ²⁰ We will also summarize data on participation in health promotion, finding
40 a regular provider, receiving preventive care, satisfaction with care; the effects of race, stigma
41 and discrimination, including immigration status.

METHODS AND ANALYSES

We will adopt the scoping review approach proposed by Peterson et al, that ensures that the review is executed such that it can inform practice, policy, education, and research.²¹ The scoping review approach is different than the standard systematic review in that we will not attempt to answer a specific research question, but rather appraise a broad body of evidence in order to describe HIV care for French speaking people living with HIV in Canada. HIV care continuum or cascade includes the following: HIV diagnosis, linkage and retention to care, receipt of antiretroviral therapy (ART) and achievement of viral suppression.

Patient and Public Involvement

Patients and public will not be involved in the study.

Inclusion criteria for studies

Types of studies

We will consider experimental (randomized or non-randomized), observational studies (longitudinal, cross-sectional), evidence syntheses (systematic reviews) and qualitative or mixed-methods studies.

For a study to be eligible, it must include data on French-speaking people with HIV in an Anglophone majority Canadian province and address at least one of the outcomes of interest. Studies from Quebec will be excluded.

Outcomes

Our primary outcome is the quality of and access to health services for Francophones living with HIV in Anglophone majority provinces in Canada. We will look at the HIV care cascade which includes HIV diagnosis, linkage and retention to care, receipt of antiretroviral therapy (ART) and achievement of viral suppression.

Our secondary outcomes will focus on the participation of Canadian Francophone ACB PLWH in health promotion, their proximity to health care centers and quality of life. We will extract data on the quality of care provided to this population as well as the effect of race, stigma and discrimination on care provided. Furthermore we will also collect data on access of Francophone ACB PLWH to bilingual health care providers and preventive care, and patient satisfaction.

Search strategy for identification of studies

We will conduct an exhaustive search for published studies in English and French reporting on health and healthcare in Francophone populations in Canada. The search will include the search terms listed in Box 1 and will be adapted for each database (**Box 1**).

Electronic searches

We will conduct our searches in MEDLINE, Excerpta Medica Database (EMBASE), Cumulative Index to Nursing and Allied Health Literature (CINAHL), Web of Science, EBSCO, Google Scholar, from 1990 (date that the French Language Service Act was enacted in Ontario) to 2018.⁵ We will use specific search terms in various combinations. The search will be conducted by a health sciences librarian at the Scotia Bank Health Sciences library, at St Michael's Hospital.

1 **Reference lists**

2 The reference lists of all relevant citations will be searched for available related articles.

4 **Grey literature**

5 We will search for available theses and reports. Furthermore, experts, authors and relevant
6 organization such as African and Caribbean Council on HIV/AIDS in Ontario (ACCHO),
7 Association Francophone pour le Savoir (ACFAS), The Ontario HIV Treatment Network
8 (OHTN), and CATIE will be contacted.

10 **Data collection and analyses:**

11 Data extraction will be collected from each study independently and in duplicate by PD and JN.
12 We will extract data from eligible studies such as publication details, study design, sample
13 populations, outcomes measured and specific barriers.

14 **Screening**

15 We will import all citations obtained using the search strategy into DistillerSR™ to facilitate
16 study screening and selection, de-duplication of citations prior to undertaking the abstract
17 review. DistillerSR™ will also allow screeners to check each other's work.

19 A customized form reflecting the previously described inclusion criteria will be pilot tested by
20 two reviewers. Specifically, the data collection form will be developed and applied by two
21 reviewers independently to a sample of 50 abstracts to ensure consistency of use and clarity of
22 the instrument. A Cohen's kappa statistic²² will be estimated to measure inter-rater reliability,
23 and screening will begin when >60% agreement is achieved.

25 Study selection will proceed according to the following: First, we will conduct a title and abstract
26 screening. The full text of potentially relevant articles will be retrieved and screened in detail for
27 relevance prior to data extraction. All screening, data extraction and quality assessment will be
28 conducted in duplicate by (PD and JN). Disagreements will be resolved by consensus. When
29 consensus can't be reached a third author will arbitrate (LM or LN).

31 **Data extraction**

32 We will extract bibliometric information such as author names, journal, and year of publication,
33 in addition to the location of the study, study design, number of participants, outcomes reported,
34 outcome measures overall and outcome measures in French-speaking participants. For each
35 outcome, measures of magnitude mean (standard deviation) or percent (95% confidence intervals
36 ²³), and where possible measures of effect of the outcome in French-speaking people versus non-
37 French speaking people (odds or risk ratios, mean differences, accompanied with 95% CIs) will
38 also be extracted.

40 **Assessment of methodological quality of the included studies**

41 Two authors will independently appraise the methodological quality of the studies using the
42 Cochrane risk of bias tool or the Newcastle-Ottawa scale for randomized and non-randomized
43 studies respectively.²⁴ Systematic reviews will be assessed using the Risk Of Bias in Systematic
44 Review tool (ROBIS)²⁵ and the Assessing Quality of Systematic Reviews (AMSTAR) criteria.²⁶

Analyses and reporting

Our findings will be reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines.^{27 28} Our findings will be summarized narratively and using tables. Data will be grouped by outcomes, with the number of studies, their design and their methodological quality. Key findings of each study will also be summarized using tables. We will conduct a narrative synthesis of the data to identify common themes and knowledge gaps.

DISCUSSION

The evidence of lack of French Language Healthcare Services (FLHS) in Ontario has been highlighted in previous research.⁸ Stigma, discrimination and race are associated with poor HIV care retention and access to care.²⁹⁻³¹ In this review we will answer important questions related to access to care for Francophone ACB living in Canada. Furthermore, we will evaluate the impact of intersectionality on French language, race and HIV stigma on ACB accessibility to HIV care. The findings of this scoping systematic review will have implications for health policy making and how community organizations and HIV/AIDS centres provide care to Francophone ACB immigrants and Canadians.

One limitation of this scoping review is that it is focused only on Canada and therefore its global relevance is limited; however, theoretical generalizations can be postulated and tested with Francophone Diaspora minorities in predominantly Anglophone communities. Nonetheless, we will conduct a comprehensive exhaustive search, on a novel topic with an experienced research team.

Ethics and dissemination: Our proposed research will not be conducted with human participants. We will only use secondary published data and therefore ethics approval is not required. Our findings will be disseminated as peer reviewed manuscripts, at conferences, student rounds and could be of interest to government health agencies and local HIV/AIDS service organizations.

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Competing interests statement: None

Author contributions

The study was conceived by Pascal Djiadeu, Lawrence Mbuagbaw, Joseph Nguemo and LaRon E. Nelson. All authors revised the research question and provided content to the design. Manuscript was written and edited by Pascal Djiadeu, Lawrence Mbuagbaw, Joseph Nguemo, LaRon E. Nelson, Chantal Mukandoli, Apondi J. Odhiambo and David Lightfoot. Principal investigator of the study is LaRon E. Nelson. All authors read and approved the final version of the manuscript.

Box 1: Proposed search strategy for MEDLINE

Database: MEDLINE

Search strategy:

1. exp "Emigrants and Immigrants"/
2. immigrant*.mp.
3. Emigrant*.mp.
4. migrant*.mp.
5. (landed adj5 status).tw.
6. (landed adj5 person*).tw.
7. (landed adj5 resident*).tw.
8. exp Refugees/
9. asylum.tw.
10. new Canadian.tw.
11. resident.tw.
12. refugee.tw.
13. *POPULATION/
14. communit*.tw.
15. exp MINORITY GROUPS/
16. MINORITY HEALTH/
17. minorit*.tw.
18. exp patient/ or patient.tw.
19. 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
20. french.tw.
21. francophone*.tw.
22. Francophonie.mp.
23. exp Language/
24. (french or francais or franco* or quebec*).tw.
25. 23 and 24
26. ((french or francais or franco*) adj5 language).tw.
27. 20 or 21 or 22 or 25 or 26
28. exp African Continental Ancestry Group/
29. (Africa* or African or Afrique or Africain*).tw.
30. Benin.tw.
31. Burkina Fas*.tw.
32. Burundi.tw.
33. Cameroon.tw.
34. "Central African Republic".tw.
35. Centrafrique.tw.
36. centrafricain*.tw.
37. Caribbean.mp. or exp Caribbean Region/
38. exp CHAD/
39. (Congo or congol*).tw.
40. Brazzaville.tw.
41. Kinshasa.tw.
42. Djibouti.tw.

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- 1 43. Guinea.tw.
- 2 44. French africa.tw.
- 3 45. Gabon*.tw.
- 4 46. Haiti*.tw.
- 5 47. (Ivory Coast or Ivoire or Ivorian).tw.
- 6 48. Madagascar.tw.
- 7 49. Mali.tw.
- 8 50. Morroc*.tw.
- 9 51. Niger.tw.
- 10 52. Rwanda*.tw.
- 11 53. (St? Martin or saint Martin).tw.
- 12 54. Senegal*.tw.
- 13 55. Togo.tw.
- 14 56. Black-White.tw.
- 15 57. Black.ti,ab.
- 16 58. "black canadian".tw.
- 17 59. mixed race.tw.
- 18 60. 27 or 28 or 29 or 30 or 31 or 32 or 33 or 34 or 35 or 36 or 37 or 38 or 39 or 40 or 41 or 42
- 19 or 43 or 44 or 45 or 46 or 47 or 48 or 49 or 50 or 51 or 52 or 53 or 54 or 55 or 56 or 58 or
- 20 59
- 21 61. 19 and 60
- 22 62. canada/
- 23 63. (Canada or Canad*).tw.
- 24 64. (canada or canadian\$ or alberta or british columbia or columbie britannique).tw.
- 25 65. (saskatchewan or manitoba or ontario or quebec or new brunswick or nouveau
- 26 brunswick).tw.
- 27 66. (nova scotia or nouvelle ecosse or prince edward island or ile du prince edward or
- 28 newfoundland or terre neuve or labrador or nun?v?t or nun?v?t or nwt or territoires du
- 29 nord ouest or northwest territories or yukon).tw.
- 30 67. OHIP.tw.
- 31 68. "health canada".tw.
- 32 69. "sante canada".tw.
- 33 70. medicare.tw.
- 34 71. CIHR.tw.
- 35 72. ("Alberta Health Care Insurance Plan" or AHCIP).tw.
- 36 73. ("Medical Services Plan" or MSP).tw.
- 37 74. Manitoba health.tw.
- 38 75. ("Vitalite Health Network" or "Horizon Health Network").tw.
- 39 76. "Department of Health and Community Services".tw.
- 40 77. "Health Care Card".tw.
- 41 78. ("Nova scotia health card" or MSI).tw.
- 42 79. Nunavut Health Insurance Card.tw.
- 43 80. ("Carte d'assurance maladie" or "Health Insurance Card" or "RAMQ").tw.
- 44 81. (health card adj25 canada).tw.

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3 1 82. 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
4 2 or 78 or 79 or 80 or 81
5 3 83. 61 and 82
6 4 84. exp "Delivery of Health Care"/
7 5 85. proximity.ti,ab.
8 6 86. "healthcare or health care".tw.
9 7 87. exp Health Care Quality, Access/ and Evaluation/
10 8 88. Quality of care/
11 9 89. Health Promotion/
12 10 90. Primary Health Care/
13 11 91. Patient Acceptance of Health Care/
14 12 92. Healthcare Disparities/
15 13 93. exp racism/
16 14 94. multilingualism/
17 15 95. Needs Assessment/
18 16 96. exp Culturally Competent Care/
19 17 97. Health Services Accessibility/
20 18 98. exp Physicians, Family/
21 19 99. quality indicators/
22 20 100. Patient Medication Knowledge/
23 21 101. Patient Navigation/
24 22 102. Patient Compliance/
25 23 103. exp patient satisfaction/
26 24 104. exp HIV/
27 25 105. Preventive Medicine/
28 26 106. HIV.mp.
29 27 107. exp HIV infections/
30 28 108. seropositivity/
31 29 109. seroconversion/
32 30 110. Quality of Life/
33 31 111. (HRQOL or karnofsky).tw.
34 32 112. 84 or 86 or 87 or 90 or 91 or 92 or 95 or 96 or 97 or 98 or 100 or 101 or 102 or
35 33 104 or 106
36 34 113. 19 and 27 and 60 and 83 and 112
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