

# Culturally safe interventions in primary care for the management of chronic diseases of urban Indigenous People: a scoping review

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## ABSTRACT

**Objectives** Chronic conditions represent an important source of major health issues among Indigenous People. The same applies to those, who live off-reserve and in urban areas. However, very few healthcare services are considered culturally safe, resulting in some avoidance of the public healthcare system. Our goal was to review the literature on culturally safe practices available to urban Indigenous People who suffer from chronic diseases.

**Design** We conducted a scoping review to determine what culturally safe healthcare services are currently offered for the management of chronic conditions in urban Indigenous populations, to contribute to a tailored, holistic and safe space in mainstream healthcare systems.

**Eligibility criteria** Peer-reviewed original research articles had to be published by 27 October 2020, in English or French.

**Information source:** In October 2020, we searched five academic databases (EBSCO, PsycArticles, SocINDEX, MEDLINE and PsycINFO) and also reviewed grey literature and the websites of organisations or governments. The data were extracted and collected in an EXCEL spreadsheet. Two reviewers independently screened 326 titles and abstracts, followed by an independent evaluation of 48 full text articles. A total of 19 studies were included in this scoping review, as well as 5 websites/documents from the grey literature.

**Results** In total, 19 studies were included in our analysis. We found that Elders, family and the assistance of an interpreter are crucial elements to include to make urban Indigenous feel safe when they seek healthcare services. With this scoping review, we report interventions that are successful in terms of healthcare delivery for this population. Our findings provide insight on what services should be in place in mainstream healthcare settings to create a culturally safe experience for urban Indigenous People.

**Conclusions** In recent years, there appears to be a growing awareness of the need to provide culturally safe health services. This scoping review identified multiple strategies to promote cultural safety in this context, as well as barriers and facilitators to their implementation. These elements, which have been extensively documented in the literature, should be included in the chronic diseases management interventions to be developed by urban and primary care settings.

## Key points

### What is already known on this topic

- ⇒ The number of Indigenous People living in urban areas is increasing.
- ⇒ Number of chronic diseases for Indigenous People is higher than in non-Indigenous people.
- ⇒ Urban Indigenous people suffer from the lack of culturally appropriate services for management of chronic diseases and this leads to poor health outcomes.

### What this study adds

- ⇒ Interventions need to be culturally safe and are essential to prevent and manage chronic diseases among urban Indigenous People.
- ⇒ Patient-reported outcomes and experience measures increase when using culturally safe intervention in primary care.

### How this study might affect research, practice and/or policy

- ⇒ Primary care clinicians should be adequately trained to provide culturally safe services to urban Indigenous People.
- ⇒ Decision-makers should provide human and financial resources to primary care clinics to enable them to use culturally safe interventions

## INTRODUCTION

Indigenous people are more likely to live with chronic diseases, such as cardiovascular diseases and diabetes, than non-Indigenous people.<sup>1-5</sup> Lack of adequate self-management programmes, support for chronic health conditions and difficulty in accessing care, often result in poor health and ultimately, death.<sup>1 5 6</sup> These factors lead to higher proportion of overweight and obesity, higher smoking and less physical activity.<sup>2 7</sup>

Historically, colonialism has had an impact on health disparities and inequities that Indigenous People still experience to this day.<sup>8</sup> As for racial discrimination, the link

with one's health status is documented and established as an important determinant of health.<sup>9</sup> The concept of historical trauma refers to an intergenerational transmission of behaviours, unresolved grief and wounds, among other issues, that directly impact physical, emotional, mental and spiritual aspects of indigenous health.<sup>10</sup> Morbidity, multimorbidity (co-occurrence of two or more unrelated chronic diseases) and mortality rates are significantly higher in Indigenous populations than in non-Indigenous ones.<sup>5 11</sup>

Over the last few years, an increasing number of Indigenous People have chosen to live in cities, as high as 55% in some urban areas, whether it is to study or for work.<sup>12 13</sup> In addition, numbers are underestimated due to the difficulty in reaching Indigenous populations to complete censuses.<sup>14</sup> Indigenous People in urban areas are more likely to experience food insecurity and poverty than Indigenous People living in rural areas or on-reserve, as well as compared with non-Indigenous people.<sup>15</sup>

This migration to urban centres leads to increased primary healthcare needs since it increases the number of persons attended to in healthcare services. However, services offered in urban areas are not consistently appropriate for Indigenous People who often feel forgotten by the healthcare system.<sup>16</sup> Moreover, cases where Indigenous People are verbally abused by staff in hospitals are reported regularly.<sup>17</sup> In a study led by Poitras *et al*,<sup>16</sup> urban Indigenous participants admitted having reservations about consulting in the publicly funded healthcare services,<sup>18</sup> fearing being bullied by hospital staff based on past experiences. Limited access to healthcare is an important social determinant of health.<sup>19</sup> Moreover, gaps exist between quality of care provided to Indigenous People, as opposed to that of non-Indigenous.<sup>20</sup> While some indigenous organisations, such as Native Friendship Centres in Canada, provide culturally safe health and community services, this is still not common in mainstream healthcare systems. In a recent study, Tremblay *et al*<sup>21</sup> described the concept of cultural safety in healthcare as a transformative approach. Through culturally safe healthcare services, Indigenous patients can expect their core values to be recognised and respected through an equitable partnership between both parties. Cultural safety means that health professionals consider and acknowledge the needs, rights and culture of their Indigenous patients. Because the indigenous view of health refers to holistic wellness, including the spiritual, physical, mental and emotional spheres,<sup>22</sup> it sometimes conflicts with western primary care.<sup>18 23</sup> Therefore, healthcare providers must include both indigenous and western perspectives in their approach to providing culturally safe care for Indigenous People.<sup>23</sup>

Thus, with a growing proportion of Indigenous People living in urban areas, the implementation of culturally safe healthcare is essential. Recent calls for action, launched by different indigenous organisations,<sup>24</sup> outline the necessity of delivering culturally safe services, as well as the need for a shift in the approach to healthcare.

Moreover, it has been demonstrated that the first steps toward reducing inequities in healthcare services are to implement and test interventions.<sup>25</sup> In this sense, the objective of this scoping review was to report on culturally safe interventions for the management of chronic diseases among urban Indigenous People. This scoping review sought to examine types of interventions, proposed key elements to deliver culturally safe care, as well as reported facilitators and barriers.

## METHODS

### Patient and public involvement

Community members (Canapé and Bacon) were involved in the development of the research question, as implementing culturally safe interventions in chronic disease prevention is one of their priorities. They were also involved in identifying sources of information by targeting relevant websites and in the knowledge transfer plan by proposing efficient strategies to disseminate results to their communities.

### Protocol

We developed a search protocol based on the Preferred Reporting Items for Systematic Reviews and Meta-analyses extension for scoping reviews (PRISMA-ScR). We used the Population (P), Concept (C) and Context (C) approach, to define the search strategy and eligibility criteria (online supplemental table 1). The research question was 'What are the culturally safe interventions (Concept) for the management of chronic diseases in primary care (Context), for Indigenous People living in an urban area (Population)?' The PCC research question was discussed and validated by the authors. Specifically, we searched for culturally safe interventions in prevention and management of chronic diseases (mental or physical) of urban Indigenous people provided by primary healthcare professionals.

### Eligibility criteria

To be included in this study, articles had to present culturally safe interventions such as models of care, programmes, training for professionals, conceptual frameworks or any other actions leading to positive outcomes for Indigenous patients in the management of chronic diseases in primary care settings. Peer-reviewed original research articles had to be published by 27 October 2020, in English or French. All study designs were included except scoping and systematic reviews. We excluded articles for which we could not retrieve the full text through the Université de Sherbrooke library. From the perspective of a broader inclusion of sources, we searched for any grey literature related to our research question. Thus, two strategies were used to find additional data: (1) a customised Google search engine and (2) targeted websites. The inclusion criteria for the grey literature search were:

- ▶ Most current version of the document (final or approved version).

- ▶ Available in French or English.
- ▶ Published by a government, professional association or an organisation representing Indigenous People.
- ▶ Describing culturally appropriate methods to provide primary care in chronic diseases management.
- ▶ Methods intended for urban Indigenous People.

### Information sources and search

Five databases were searched: EBSCO, PsycArticles, SocINDEX, MEDLINE and PsycINFO. We used four main research concepts: ‘indigenous population’, ‘chronic disease’, ‘primary care’ and ‘cultural safety’. The exhaustive list of terms used for each database is available in online supplemental file 1. A manual search of the bibliography of relevant reviews identified by the initial searches was also performed. The results were imported into EndNote V.X7 (Clarivate Analytics, USA) for screening. For each internet search hit (5), we reviewed the first five pages by reading the titles and abstracts. The rationale behind the decision to screen the first five pages was to ensure that articles that were the most relevant would be captured. Moreover, by limiting to this number of pages, the articles to screen represented a reasonable number.<sup>26</sup> The coauthors then created an Excel spreadsheet where all potentially relevant records were imported for further examination.

### Selection of sources of evidence

To ensure a common understanding of the exclusion criteria, the two principal reviewers (T Vaillancourt and Boudreault) screened the first 10 articles independently and then discussed the results. Where there was insufficient or unclear information regarding the criteria, they discussed with a third reviewer (Poitras) to ensure common understanding. The exclusion criteria were then updated. Then, the two reviewers screened the titles and abstracts of the remaining articles in increments of 30 or 50, according to their schedule. The agreement rate of the reviewers was between 92% and 100%. There were no disagreements remaining after discussion.

### Data charting process

The three reviewers (T Vaillancourt, Boudreault and Poitras) jointly developed an Excel data-charting form to select the variables to extract, and the Indigenous authors (Canapé and Bacon) of this paper participated in the discussion about the variables to be extracted from the texts. Two reviewers (T Vaillancourt and Boudreault) independently tested the chart by extracting data from two articles and having a discussion. Variables were added or removed according to this process. Each of the two reviewers performed the main extraction of half of the articles. Then, the second reviewer validated and improved the extraction of the other reviewer’s articles if necessary. A third reviewer (Poitras) validated the final extraction.

### Data items

The final chart allowed the extraction of article characteristics (eg, country in which the study was done, year of publication, language, study design, goals) and population characteristics (eg, number of participants, age, sex ratio, type of chronic disease). Two reviewers (T Vaillancourt and Boudreault) also extracted data related to settings (context of primary care, number of clinics involved), interventions (type, tools used, name, cultural appropriateness, outcome measured), barriers and facilitators to implementation, and any other information deemed relevant. Moreover, they also performed a search of websites to inquire about any organisation, government, or other, that offers healthcare services for chronic diseases using a culturally safe approach.

### Synthesis of results

The research team completed a narrative synthesis of the interventions described in the articles included. Based on the expertise and needs of urban indigenous community members, represented by the two Indigenous coauthors (Canapé and Bacon), we classified these interventions according to the following categories: relationships, cultural landmarks, spirituality/holistic health and access. When reported in the papers, the barriers and facilitators in the implementation of these interventions to inform future work were listed. Based on our research team’s expertise, we also explored the data from the perspective of Indigenous People and healthcare professionals to identify differences or similarities.

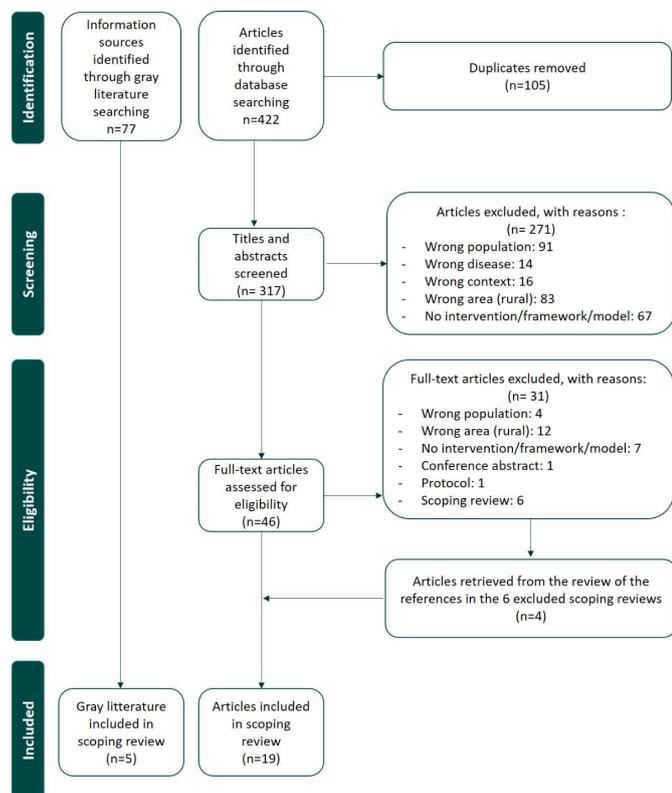
## RESULTS

### Selection of sources of evidence

The research team conducted the search in October 2020 and assessed 422 articles for eligibility. One hundred and five duplicates were removed from the list and the two independent reviewers forwarded 317 articles to titles and abstracts screening. After an independent screening of titles and abstracts by the reviewers, 46 articles were selected for full-text reading. Of these, 31 did not meet our inclusion criteria and were excluded. The reviewers excluded scoping and systematic reviews but screened their references to identify potentially relevant articles. Thus, four additional articles were added making a final total of 19 articles that were included for data extraction. For the grey literature internet search, 77 potentially relevant websites/documents were found among the first five pages of results. After screening, five were kept for data extraction. **Figure 1** presents the flow chart for the selection of sources of evidence.

### Characteristics of the sources of evidence

All articles that were included in this scoping review had received ethic approval. All the included articles were published after 2008 and the number of articles increased with the year of publication (2008–2010 n=3; 2011–2013 n=1; 2014–2016 n=6; 2017–2019 n=9). From



**Figure 1** Flow chart for the selection of sources of evidence.

these studies, five (26%) used a qualitative design, seven (37%) a mixed-methods design, two (11%) were cohort studies, two (11%) were randomised control trials and one (5%) was a pilot study. Most studies ( $n=14$ ; 74%) were conducted in Australia and New Zealand (online supplemental figure 1a), and interventions were mainly targeted to Torres Islanders and Aboriginal Australians (5/16; 31%) or Maori and Pacific Peoples (5/16; 38%). Most studies explored diabetes issues ( $n=9/15$ ; 60%) and were single disease oriented (68%) (online supplemental figure 1b). Characteristics of included studies such as place of origin, study design, population and setting are presented in table 1. As for websites, we aimed to retrieve data from different organisations that provide culturally safe healthcare to urban Indigenous People. We identified five websites describing culturally safe interventions for chronic diseases of urban Indigenous Populations. More than half were government sites (3/5) and two were private or community organisation sites. Four referred to Canadian entities and one to Australian ones.

### Results of individual sources of evidence

The studies and websites reported interventions, for the most part, in the form of programmes ( $n=8$ , 1 website), models of care ( $n=3$ , 2 websites),<sup>27–29</sup> programmes of care ( $n=5$ , 1 website),<sup>30–34</sup> training for clinicians ( $n=3$ )<sup>19 35 36</sup> or patients ( $n=3$ ),<sup>36–38</sup> and frameworks guiding the delivery of culturally safe care ( $n=1$ , 1 website). They were all implemented in clinical settings to provide culturally safe care for Indigenous populations. The interventions

reported involved mostly nurses ( $n=14$ ),<sup>19 27–29 32–41</sup> social workers or community workers ( $n=11$ ),<sup>19 27 28 30 31 35 37–40 42</sup> physicians ( $n=9$ ),<sup>19 28 29 32–35 41 43</sup> coordinators ( $n=3$ ),<sup>27 35 42</sup> administrative staff ( $n=4$ ),<sup>32 34 35 40</sup> dietitians ( $n=4$ ),<sup>27 36 38 39</sup> managers ( $n=4$ ),<sup>30 35 38 42</sup> pharmacists ( $n=2$ ),<sup>19 30</sup> Elders ( $n=4$ ),<sup>19 29 32 34</sup> psychologists/psychiatrists ( $n=5$ ).<sup>27 29 32 34 39</sup> All the interventions presented on the websites mentioned the involvement of interprofessional teams. Table 2 presents culturally safe interventions.

### Synthesis of results

To enhance cultural safety of practices in chronic disease management in primary care, several types of interventions were used. First, educational interventions aimed at patients were reported such as the ‘DEFEND’ programme focusing on diabetes and its complications as described by Hotu *et al*.<sup>37</sup> or the Te Hauora O Ngati Rarua programme, a 6-week course about wellness and self-management education implemented by Janssen and Nelson.<sup>38</sup> Other educational interventions were aimed at clinicians, such as ‘My Health Story’, which is a training programme composed of a toolkit and a booklet reported by Battersby *et al*.<sup>35</sup> Some were intended for both patients and clinicians, such as the ‘Curriculum’ detailed in the Sinclair Ka’imi *et al*’s study.<sup>44</sup> Some implemented models of care, such as He Pikinga Waiora<sup>28</sup> that aims to increase access to podiatrists, provide frequent follow-ups with a nurse and give financial support to Indigenous patients. Several studies reported enhanced practices for clinicians following the intervention. For example, recognising culture as an interactive process, focusing on patient’s context and priorities, securing more time for interaction with patients<sup>43</sup> and promoting collaborative work as solutions to enhance practice.<sup>42</sup>

All the interventions had high acceptability among Indigenous participants and, although some did not have significant results on biological target values (eg, weight, high-density lipoprotein level), they all had positive results on patient-reported outcomes (PROMs) or patient-reported experience measures (PREMs), which align with the indigenous vision of health. Feeling respected and supported was the most common PREM reported in the studies included.<sup>27 28 32 35 36 39</sup> In the Battersby *et al*’s study, a training and booklet for self-management of chronic conditions was used by healthcare professionals and patients reported feeling supported, respected and understood, and able to discuss their concerns for the first time.<sup>35</sup> Culturally safe interventions in care also influenced PROMs, as reported by Askew *et al*, who used a home-based case management model that led to improvements in the mental and emotional health of Indigenous patients.<sup>27</sup> Battersby *et al* reported decreased stress and anxiety levels, improved social support and ability to manage prescription payments, and the ability to maintain a healthy diet and level of exercise.<sup>35</sup> The inclusion of Elders in the direct care of Indigenous patients reported in both of the studies by Hadjipavlou *et al*, led to

**Table 1** Characteristics of the studies included

Author/year	Objective	Study design	Coutrny/population
Askew 2016 <sup>27</sup>	To determine the feasibility, acceptability and appropriateness of the Home-based, outreach case management of chronic disease exploratory model of care.	Mixed-methods exploratory study, developmental evaluation approach	Australia Aboriginal and Torres Strait Islander People
Bailie 2015 <sup>30</sup>	To examine how a national multicomponent programme aimed at improving prevention and management of chronic disease among Australian indigenous people addressed various dimensions of access.	Mixed-methods	Australia Aboriginal Australians
Battersby 2018 <sup>35</sup>	To increase capacity of Australia's health workforce to support Australian Aboriginal people to self-manage their chronic conditions.	Mixed-methods	Australia Aboriginal Australians
Browne 2018 <sup>62</sup>	To enhance the capacity of healthcare organisations to provide care that is explicitly equity oriented.	Mixed-methods	Canada N/A
Conway 2017 <sup>31</sup>	To explore indigenous health workers' perceptions of the effectiveness and appropriateness of the Flinders Closing the Gap Programme.	Case study	Australia Indigenous Health Workers
Coppell 2017 <sup>36</sup>	To examine the implementation and feasibility of a multilevel primary care nurse-led pre-diabetes life-style intervention compared with current practice on weight and glycated haemoglobin.	Mixed-methods	New Zealand Maori, Pacific
Crowshoe 2018 <sup>43</sup>	To describe Canadian physicians' perspectives on diabetes care of Indigenous patients.	Qualitative study	Canada Physicians caring for Indigenous patients with diabetes
Freeman 2019 <sup>39</sup>	To investigate the implementation of comprehensive primary healthcare in Australia. This paper focuses on the role of group work in achieving the goals of comprehensive primary healthcare.	Mixed-methods	Australia Staff of primary healthcareservices, clients, clients with diabetes, clients with depression and practitioners
Gifford 2017 <sup>42</sup>	To examine how the primary and secondary prevention of chronic conditions is being modelled, practiced and measured in three case study sites; to define what short-term outcomes are being achieved; and to ensure findings from case studies inform wider health service development.	Case study	New Zealand N/A
Hadjpvilou 2018 <sup>32</sup>	To explore how encounters with elders affected patients' overall mental health and well-being to identify the therapeutic mechanisms underlying improvement.	Qualitative study, prospective cohort	Canada Adult indigenous with mental issues
Hayman 2009 <sup>40</sup>	To guide a series of changes to the service. Following further community participation and feedback, five key strategies were developed and implemented.	Mixed-methods	Australia Indigenous patients attending the Inala Indigenous Health Service (IIHS)
Hotu 2010 <sup>37</sup>	To determine whether an integrated, community-based model of care using culturally appropriate healthcare assistants to manage hypertension in Māori and Pacific patients with diabetes and chronic kidney disease is more effective than conventional care.	Randomised Control Trial	Australia Patients of Māori, Tongan, Samoan, Cook Island Māori, Niuean and Tuvaluan ethnicity
Janssen 2014 <sup>38</sup>	To develop an understanding of how the Te Hauora O Ngāti Rārua programme provided a culturally appropriate service; to identify the salient features for Māori clients of having diabetes and attending this programme; and to identify the extent to which the programme contributed to an improvement in knowledge, diabetes monitoring, lifestyle behaviours and physiological outcome measures.	Mixed-methods case study	New Zealand Maori
Levack 2016 <sup>33</sup>	To understand the experiences of Maori with chronic obstructive pulmonary disease (COPD), accessing pulmonary rehabilitation in New Zealand.	Qualitative study, grounded theory method, kaupapa Maori methodology	New Zealand Maori
Masters-Awatere 2019 <sup>28</sup>	To understand experiences of being diagnosed with pre-diabetes and diabetes for Maori.	Qualitative, participatory based research	New Zealand Maori
Mehl-Madrona 2010 <sup>29</sup>	To explore three models for providing care to patients with diabetes mellitus.	Pilot study	USA Native Americans
Sinclair Ka'imi 2013 <sup>44</sup>	To evaluate a culturally adapted community-based diabetes self-management intervention.	Two-arm randomised controlled trial	USA Native Hawaiian, Filipino, other Pacific islander ethnic backgrounds

Continued

**Table 1** Continued

Author/year	Objective	Study design	Country/population
Tan 2014 <sup>41</sup>	To evaluate the effectiveness of a community-based intervention delivered through a community-based team, on the remission of albuminuria and on diabetes kidney disease progression.	2-year prospective uncontrolled cohort study	New Zealand Pasifika (45 were Tongan, one Niuean and one Cook Islander)
Tu 2019 <sup>34</sup>	To determine whether including Indigenous Elders as part of routine primary care improves depressive symptoms and suicidal ideation in Indigenous patients	Prospective cohort study with quantitative measure	Canada Adult indigenous with mental issues
N/A, not available.			

**Table 2** Culturally safe interventions for the prevention and management of chronic diseases

Author	Name of intervention	Type of intervention
Askew <sup>27</sup>	Home-based: Outreach case Management of chronic disease Exploratory Study	Model of care
Baillie <sup>30</sup>	The Indigenous Chronic Disease Package	National multicomponent programme and framework
Battersby <sup>35</sup>	My health story	Educational programme for clinicians (training and booklet)
Browne <sup>19</sup>	Equipping Primary Healthcare for Equity	Educational programme for clinicians (training)
Conway <sup>31</sup>	The Flinders Closing the Gap Programme	Educational programme with booklet
Coppell <sup>36</sup>	The Pre-diabetes Intervention Package	Educational programme for clinicians and patients
Crowshoe <sup>43</sup>	None	Practice
Freeman <sup>39</sup>	None	Support groups
Gifford <sup>42</sup>	National Public Health Partnership	Practice
Hayman <sup>40</sup>	None	Strategies for implementation
Hotu <sup>37</sup>	DElay Future End-stage Nephropathy due to Diabetes	Programme of care with an educational package for patients
Janssen <sup>38</sup>	Te Hauora O Ngati Rarua programme	Educational programme for patients (training and coaching)
Levack <sup>33</sup>	Marae-based programme	Programme of care
Masters-Awatere <sup>28</sup>	He Pikinga Waiora	Model of care
Mehl-Madrona <sup>29</sup>	Shared care	Model of care
Sinclair <sup>44</sup>	Partners in care	Community-based programme of care with educational intervention for patients
Tan <sup>41</sup>	None	Community-based programme of care
Tu and Hadjipavlou <sup>32 34</sup>	Elders programme	Programme of care
www.mushkiki.com <sup>63</sup>	Anishnawbe Mushkiki Health Centre Programmes	Model of care
https://www.interiorhealth.ca <sup>64</sup>	Aboriginal self identification	Practice
www.saskatoonhealthregion.ca <sup>65</sup>	First Nations and Métis health strategy	Model of care
www.aihw.gov.au <sup>66</sup>	The Cultural Respect Framework 2016–2026	Framework
www.vch.ca/your-care/aboriginal-health <sup>67</sup>	Primary care 'hub' for Aboriginal services	Programme of care

**Table 3** Strategies identified to promote cultural safety in chronic disease prevention and promotion

Relationships	<ul style="list-style-type: none"> <li>▶ Include the family for medical visits and for self-management (family's responsibility rather than solely the individual's)<sup>28 29 33 36 38 42 67</sup></li> <li>▶ Include kinship and build strong and respectful relationships (crowshow)<sup>38 40 43 44</sup></li> <li>▶ Ensure nonverbal responses are respectful<sup>40</sup></li> <li>▶ Share meals with patients<sup>29</sup></li> <li>▶ Accept Indigenous child behaviour<sup>40</sup></li> <li>▶ Show interest in them and their lives<sup>27</sup></li> <li>▶ Include grandchildren in care activities<sup>38</sup></li> <li>▶ Spend adequate time with patients<sup>29 43</sup></li> <li>▶ Avoid staff turn-over<sup>43</sup></li> <li>▶ Hire Indigenous health providers and staff<sup>27 40</sup></li> <li>▶ Invite other Indigenous people in group sessions<sup>33 38 39</sup></li> <li>▶ Provide care with a staff trained for cultural safety<sup>19 41 43 66 67</sup></li> </ul>
Cultural landmarks	<ul style="list-style-type: none"> <li>▶ Have Indigenous cultural landmarks in clinics (eg, music, art pieces)<sup>30 33 40 66</sup> and create a culturally familiar environment<sup>33</sup></li> <li>▶ Use relevant and accessible wording<sup>31 33 35 38 44</sup> and visuals<sup>31 44</sup></li> <li>▶ Use pictorial layouts<sup>31 35 44</sup></li> <li>▶ Offer health promotion bush trips<sup>39</sup></li> <li>▶ Use storytelling and yarning approach<sup>29 31 44</sup></li> </ul>
Spirituality and holistic health	<ul style="list-style-type: none"> <li>▶ Use indigenous traditional therapeutic approaches (eg, lomilomi (Hawaiian therapeutic massage) and medicine herbs)<sup>39 63–65 67</sup></li> <li>▶ Focus on well-being rather than medical targets<sup>31 37 62</sup></li> <li>▶ Focus on patient's own goals<sup>27 43</sup> and use a holistic approach<sup>27 37 38 43 63</sup></li> <li>▶ Use Indigenous protocols and cultural processes, such as starting and ending meetings with prayer and songs<sup>29 38</sup></li> <li>▶ Use smudging<sup>39 67</sup></li> <li>▶ Not be constrained by Western models of disease<sup>33</sup></li> <li>▶ Have an Elder involved (in medical visits or as a caregiver)<sup>29 32 34 35</sup></li> <li>▶ Provide care at home<sup>37 41</sup></li> </ul>
Access to healthcare	<ul style="list-style-type: none"> <li>▶ Use technology (eg, audio-visual and social media) and electronic health tools to deliver health information at the time, in the place and in multiple formats and languages to meet consumers' needs<sup>66</sup></li> <li>▶ Make home visits (minimising the inconvenience and cost of having to travel to the clinic)<sup>27 37 41</sup></li> <li>▶ Offer transportation to clinic, pharmacy, local laboratory for tests, etc<sup>33 37 65</sup></li> <li>▶ Use relevant and accessible wording<sup>31 33 35 38 44</sup> and translate health material<sup>65 66</sup></li> <li>▶ Offer financial support for medication<sup>28 30</sup> or drop it off to patients<sup>28</sup></li> <li>▶ Cooperate with local pharmacy to ensure medication adherence<sup>41</sup></li> <li>▶ Have an interpreter<sup>66</sup> or indigenous liaison client representative<sup>65</sup></li> <li>▶ Have an indigenous patient navigator<sup>64 67</sup></li> </ul>

a decrease in suicidal thoughts and depressive symptoms among the Indigenous participants.<sup>32 34</sup>

Multiple strategies for cultural safety were employed to promote the success of the interventions presented by the authors of the articles selected for this scoping review. They are classified in five categories and presented in [table 3](#). Briefly, the first category, relationships, refers to strategies that promote the development of trusting relationships between healthcare providers and Indigenous People such as the inclusion of the family in care.<sup>28 29 33 36 38 42</sup> The second category, cultural landmarks, refers to concrete elements of indigenous culture that should be included in environments where Indigenous patients receive care, such as the inclusion of indigenous artwork in clinics.<sup>30</sup> Spirituality and holistic health, the third category, proposes strategies to provide more holistic care, and to consider the four dimensions of indigenous well-being (physical, emotional, mental and spiritual), including

the use of prayers and songs.<sup>38</sup> Access to healthcare, the last category, lists strategies to increase access to care of Indigenous patients such as offering transportation to clinics.<sup>33 37</sup>

While some practices tend to be facilitating in building good relationships and allowing cultural safety in the delivery of care, others can hamper it. [Table 4](#) presents barriers and facilitators for Indigenous patients living in urban areas, for clinicians and for both, in the implementation of culturally safe interventions. According to Indigenous patients, components such as the absence of a holistic approach<sup>42 43</sup> as well as discrimination<sup>31</sup>, jeopardised effective healthcare. For clinicians, one of the reported barriers was the lack of support from government<sup>42</sup>, managers and peers.<sup>35</sup> From both the perspectives of clinicians and patients, language<sup>37 42</sup> and medical jargon hindered care.<sup>43</sup> The only facilitator reported by both clinicians and patients were the recognition of

**Table 4** Barriers and facilitators in the implementation of culturally safe interventions

	Patients	Both	Clinicians
Barriers	<ul style="list-style-type: none"> <li>▶ Negative past experiences of accessing care<sup>30</sup></li> <li>▶ Staff turnover (loss of continuity of care and trust for patients)<sup>31 43</sup></li> <li>▶ Inherent bombardment with referrals for patients newly diagnosed with diabetes<sup>31</sup></li> <li>▶ Situations of power differentials<sup>43</sup></li> <li>▶ Mistrust and fear of Western institutions<sup>43</sup></li> <li>▶ Discrimination<sup>31</sup></li> <li>▶ Lack of holistic approach<sup>42 43</sup></li> <li>▶ Focus on following guidelines rather than on patient-centred approach<sup>32 43</sup></li> </ul>	<ul style="list-style-type: none"> <li>▶ Competing priorities<sup>27 31 44</sup></li> <li>▶ Low food budget makes difficult to develop realistic and manageable goals<sup>36 43</sup></li> <li>▶ Language barriers<sup>37 42</sup> and excessive use of medical jargon<sup>43</sup></li> <li>▶ Inconsistent levels of care after initial contact<sup>30 36 37</sup></li> </ul>	<ul style="list-style-type: none"> <li>▶ Lack of time<sup>35 37 38</sup></li> <li>▶ Engaging clients or patients in the programme or in the use of the tool<sup>35</sup></li> <li>▶ Lack of support from government<sup>42</sup>, managers and peers<sup>35</sup></li> <li>▶ Resistance to change<sup>35</sup></li> <li>▶ Misunderstanding role of interdisciplinary team members<sup>36</sup></li> <li>▶ Family crises, lack of transportation and unemployment, drug and alcohol issues and mental illness of Indigenous patients<sup>31</sup></li> <li>▶ Lack of basic understanding of sociocultural, historical and political contexts of Indigenous patients by colleagues<sup>43</sup></li> <li>▶ Low education of Indigenous patients<sup>37</sup></li> </ul>
Facilitators	<ul style="list-style-type: none"> <li>▶ Support groups<sup>39</sup></li> <li>▶ Community-based peer-led educational, cultural components<sup>44</sup></li> <li>▶ Free medication<sup>41</sup></li> <li>▶ Home visits<sup>37 41</sup></li> <li>▶ Free or organised transport to clinic, pharmacy and local laboratory<sup>30 37</sup></li> <li>▶ Community-based health activities<sup>40</sup> (walking or art groups)<sup>36</sup></li> <li>▶ Use of self-management tools<sup>31</sup></li> <li>▶ Family support<sup>31</sup></li> <li>▶ Appropriate language<sup>31</sup></li> </ul>	<ul style="list-style-type: none"> <li>▶ Recognition of culture<sup>38 42 43</sup></li> </ul>	<ul style="list-style-type: none"> <li>▶ Staff within the clinics that challenge the status quo<sup>62</sup></li> <li>▶ Requiring little technology and few healthcare resources<sup>44</sup></li> <li>▶ Reduced caseload<sup>36 42</sup></li> <li>▶ Promoting a collaborative way of working across sectors<sup>27 42</sup></li> <li>▶ Patient-centred care<sup>43</sup> and social determinants-based approach<sup>43</sup></li> <li>▶ Securing more time in health service interactions<sup>43</sup></li> <li>▶ Use of case conferences<sup>27</sup></li> <li>▶ Demedicalised approach<sup>31</sup></li> </ul>

culture.<sup>38 42 43</sup> In addition, patients are favourable to the use of community-based activities,<sup>40 44</sup> while clinicians identified the reduction of caseloads<sup>36 42</sup> and a demedicalised approach<sup>31</sup> as facilitators. We observed no differences in intervention characteristics when we compared studies by country or population.

## DISCUSSION

In this scoping review, the research team identified 19 studies, published before 27 October 2020, and 5 websites describing culturally safe interventions for Indigenous populations. There were several culturally safe interventions for chronic disease management in urban Indigenous populations that were implemented in primary care organisations. The interventions described took the form of educational programmes, models and programme of care, and frameworks, mostly targeted diabetes, were largely implemented in Australia or New Zealand, and involved nurses, physicians and social workers more than other professionals.

One of the findings of this scoping review is that even though chronic diseases in the form of multimorbidity are constantly increasing,<sup>45</sup> the vast majority of the culturally safe interventions studied targeted a single disease, and few incorporated a global approach to care or multiple chronic conditions. However, the literature shows that a single disease approach to care provides fragmented, incomplete and even ineffective care<sup>46 47</sup> and that integrated care brings positive outcomes for patients.<sup>48 49</sup>

Furthermore, as Indigenous patients are experiencing difficulties in navigating Western healthcare services, a single disease approach brings even more barriers. Indeed, with a global approach to care, the number of healthcare professionals involved in a patient's trajectory is limited and allows Indigenous patients to build trusting relationships that are essential to cultural safety of care. Also, a single disease approach conflicts with indigenous cultural values related to holistic health.

In this scoping review, several interventions were in the form of educational interventions aimed not only at patients but also at healthcare professionals that lack training in cultural safety. This observation is in line with the literature.<sup>50 51</sup> One of the key aspects of improving cultural safety in the delivery of care and services in primary care is the development of cultural competency of caregivers.<sup>52–54</sup> Cultural awareness and training of healthcare professionals is the cornerstone of this process. By being more aware of Indigenous people's history and culture, healthcare professionals will be able to include more easily elements of cultural safety in their practice, such as the inclusion of family, the use of appropriate visual aids, or the consideration of spirituality. This cultural competency increases the equity and quality of delivered care but also reduces broader healthcare inequities between Indigenous and non-Indigenous people.<sup>55 56</sup> This is also consistent with the *Etuaptmumk* (two-eyed seeing) framework,<sup>57</sup> which aims to use both Western and traditional strengths and

knowledge so that the patient benefits from the advantages of each.

This scoping review also strengthened the importance of Elders as traditional healers and guides for Indigenous People to maintain wellness and balance between the different spheres of holistic health. Elders' experiential knowledge is a valid and legitimate source of evidence in indigenous culture.<sup>58 59</sup> They play an important part in implementing culturally safe practices. In Canada and even more in the Province of Quebec, Elders have very little presence in public primary care. In addition, they generally live in communities, and few are present in urban areas. Thus, access to their teachings and holistic care is limited in urban areas. Indigenous People must travel to their communities to access this traditional care. As urban Indigenous populations are growing and getting younger, there is a need to think about ways to increase access to Elders. As identified in this scoping review, the active role of Elders in chronic disease prevention and promotion is a key strategy in promoting cultural safety. Although Elders are increasingly involved in primary healthcare delivery in some countries, they are not yet recognised as legitimate providers, at least in Canada.<sup>34</sup> This lack of recognition reduces their ability to provide culturally safe and indigenous-recognised health services in urban primary care. Government authorities could legislate this and recognise Elders as healthcare professionals in the same manner as a nurse or social worker. To facilitate this recognition, longitudinal studies are needed to explore the outcomes of Elders as primary care providers to support this innovative proposal with decision-makers.

Finally, we did not observe any real differences between populations or countries where the studies were conducted. Regardless of their origin, the basic principles of cultural safety are the same whether care is provided in urban or non-urban settings. On the other hand, despite similarities in historic and social determinants of health of Indigenous populations from Canada, Australia, New Zealand and the USA,<sup>60</sup> the extent of the literature differs between these countries. This scoping review highlighted the lack of literature on contributions by Canada to implementing culturally safe interventions for Indigenous People living with chronic diseases in urban settings. Canada is still in the early stages of indigenous research in primary care. Indeed, Canada's Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2), included for the first time a chapter on research involving First Nations, Inuit and Metis peoples in 2010. However, the Canadian Institutes of Health Research has committed since 2017 to investing a minimum of 4.6% of its annual budget on research aimed at improving the health of Indigenous People.<sup>61</sup>

Our article provides practical tools for family medicine and community health professionals who provide urban primary care to Indigenous People. This article provides concrete examples of interventions to improve cultural safety in care. It offers a starting point for thinking about how to implement culturally safe practices. PRISMA-ScR guidelines were used to report the scoping review findings

and the study selection process was rigorous. Due to time constraints, the internet search was limited to the first five pages of results and therefore some sources of information may have been missed. The criteria of the search strategy are a limitation of our study. The selection of the search engine (EBSCO) and databases, as well as the research terms certainly influenced the list of articles obtained and again some data may have been missed. Finally, as indigenous people transmit their knowledge orally, we could have missed some culturally safe interventions in our research.

## CONCLUSION

This scoping review highlights the development and implementation of culturally safe interventions for chronic disease prevention and management among urban Indigenous People. The studies reviewed identified multiple and varied strategies to promote cultural safety in this context, as well as barriers and facilitators to their implementation. However, the study found that the interventions promoted more chronic disease management in favour of a holistic approach. In addition, our work also shows that there is a lack of support for the development of professionals' skills. Finally, the presence of an Elder is an essential condition in the context of chronic diseases that promotes recovery and global health. These elements, which are abundantly listed in the literature, could be included in the chronic disease management interventions that will be developed by urban and primary care settings.

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## REFERENCES

- Bruce SG, Riediger ND, Lix LM. Chronic disease and chronic disease risk factors among first nations, Inuit and Métis populations of northern Canada. *Chronic Dis Inj Can* 2014;34:210–7.
- Australian Institute of Health Welfare. *Australia's health 2016*. AIHW: Canberra, 2016.
- Australian Bureau of Statistics. Australian Aboriginal and Torres Strait Islander health survey: biomedical results, 2012–13. In: *Statistics ABO*. A.B.o. Statistics, 2015.
- Earle L. *Understanding chronic disease and the role for traditional approaches in Aboriginal communities*, 2013: 8.
- King M. Chronic diseases and mortality in Canadian Aboriginal peoples: learning from the knowledge. *Prev Chronic Dis* 2011;8:A07.
- Australian Indigenous HealthInfoNet. *Overview of Aboriginal and Torres Strait Islander health status 2016*. Perth, Australia: Australian Indigenous HealthInfoNet, 2016.
- Thurber KA, Joshy G, Korda R, et al. Obesity and its association with sociodemographic factors, health behaviours and health status among Aboriginal and non-Aboriginal adults in New South Wales, Australia. *J Epidemiol Community Health* 2018;72:491–8.
- Harris R, Cormack D, Tobias M, et al. The pervasive effects of racism: experiences of racial discrimination in New Zealand over time and associations with multiple health domains. *Soc Sci Med* 2012;74:408–15.
- Paradies Y. A systematic review of empirical research on self-reported racism and health. *Int J Epidemiol* 2006;35): :888–901.
- Duran E, Duran B. *Native American postcolonial psychology*. Albany, NY State: University of New York Press, 1995: 246.
- Tjepkema M, Wilkins R, Senécal S, et al. Mortality of urban Aboriginal adults in Canada, 1991–2001. *Chronic Dis Can* 2010;31:4–21.
- Statistiques Canada. Profil de la population autochtone, Recensement de 2016. Saguenay [Région métropolitaine de recensement], Québec, 2016. Available: [https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/abpopprof/details/page.cfm?Lang=F&Geo1=CMACA&Code1=408&Data=Count&SearchText=saguenay&SearchType=Begins&B1=All&C1=All&SEX\\_ID=1&AGE\\_ID=1&RESGEO\\_ID=1](https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/abpopprof/details/page.cfm?Lang=F&Geo1=CMACA&Code1=408&Data=Count&SearchText=saguenay&SearchType=Begins&B1=All&C1=All&SEX_ID=1&AGE_ID=1&RESGEO_ID=1) [Accessed 08 Sep 2020].
- Congrès des Peuples autochtones. *Autochtones en milieu urbain : Qui ne sont pas seulement de passage, in Rapport de recherche*. Canada, 2019.
- Norris MJ. Aboriginal mobility and migration within urban Canada: outcomes, factors, and implications. In: Newhouse EPD, ed. *Not strangers in these parts: urban Aboriginal peoples Policy research initiative*. Ottawa, 2003: 51–78.
- Arriagada P, Hahmann T, O.D. V. Indigenous people in urban areas: vulnerabilities to the socioeconomic impacts of COVID-19, 2020. Available: <https://www150.statcan.gc.ca/n1/pub/45-28-0001/2020001/article/00023-eng.htm> [Accessed 09 Nov 2020].
- Poitras M-E et al. *COVID-19 Pandemic : Challenges and Needs Experienced by First Nations Living in An Urban Area*, 2020.
- Allan B. S.J., First Peoples, Second Class Treatment. In: *The role of racism in the health and well-being of Indigenous peoples in Canada*. Toronto, 2015: 71.
- Schill K, Terbasket E, Thurston WE, et al. Everything is related and it all leads up to my mental well-being: a qualitative study of the determinants of mental wellness amongst urban Indigenous elders. *Br J Soc Work* 2019;49:860–79.
- Brown AJ, Smye VL, Rodney P, et al. Access to primary care from the perspective of Aboriginal patients at an urban emergency department. *Qual Health Res* 2011;21:333–48.
- King M, Smith A, Gracey M. Indigenous health Part 2: the underlying causes of the health gap. *Lancet* 2009;374:76–85.
- Tremblay M-C, Graham J, Porgo TV, et al. Improving cultural safety of diabetes care in Indigenous populations of Canada, Australia, New Zealand and the United States: a systematic rapid review. *Can J Diabetes* 2020;44:670–8.
- Gallagher J. Indigenous approaches to health and wellness leadership: a bc first nations perspective. *Healthc Manage Forum* 2019;32:5–10.
- Katz A, Enns J, Kinew KA. Canada needs a holistic first nations health strategy. *CMAJ* 2017;189:E1006–7.
- Commission d'enquête sur les relations entre les Autochtones et certains services publics. *Final report: public inquiry Commission on relations between Indigenous peoples and certain public services in Québec: listening, reconciliation and progress*. Québec: Gouvernement du Québec, 2019.
- Blanchet-Cohen N, Edith C, Carole L, et al. Moving toward Indigenous-Centred perinatal care in urban Quebec. *Int J Indig Health* 2020;16:54–69.
- Godin K, Stapleton J, Kirkpatrick SI, et al. Applying systematic review search methods to the grey literature: a case study examining guidelines for school-based breakfast programs in Canada. *Syst Rev* 2015;4:138.
- Askew DA, Togni SJ, Schluter PJ, et al. Investigating the feasibility, acceptability and appropriateness of outreach case management in an urban Aboriginal and Torres Strait Islander primary health care service: a mixed methods exploratory study. *BMC Health Serv Res* 2016;16:178.
- Masters-Awatere B, Rarere M, Gilbert R, et al. He AHA te MEA nui O te AO? He tāngata! (what is the most important thing in the world? it is people!). *Aust J Prim Health* 2019;25:435–42.
- Mehl-Madrona L. *Comparisons of health education, group medical care, and collaborative health care for controlling diabetes*. *Perm J* 2010;14:4–10.
- Baillie J, Schierhout G, Laycock A, et al. Determinants of access to chronic illness care: a mixed-methods evaluation of a national multifaceted chronic disease package for Indigenous Australians. *BMJ Open* 2015;5:e008103.
- Conway J, Tsourtos G, Lawn S. The barriers and facilitators that Indigenous health workers experience in their workplace and communities in providing self-management support: a multiple case study. *BMC Health Serv Res* 2017;17:319.
- Hadjipavlou G, Varcoe C, Tu D, et al. "All my relations": experiences and perceptions of Indigenous patients connecting with Indigenous Elders in an inner city primary care partnership for mental health and well-being. *CMAJ* 2018;190:E608–15.
- Levack WM, Jones B, Grainger R, et al. Whakawhanaungatanga: the importance of culturally meaningful connections to improve uptake of pulmonary rehabilitation by Māori with COPD - a qualitative study. *Int J Chron Obstruct Pulmon Dis* 2016;11:489–501.
- Tu D, Hadjipavlou G, Dehoney J, et al. Partnering with Indigenous elders in primary care improves mental health outcomes of inner-city Indigenous patients: prospective cohort study. *Can Fam Physician* 2019;65:274–81.
- Battersby M, Lawn S, Kowanko I, et al. Chronic condition self-management support for Aboriginal people: adapting tools and training. *Aust J Rural Health* 2018:232–7.
- Coppell KJ, Abel SL, Freer T, et al. The effectiveness of a primary care nursing-led dietary intervention for prediabetes: a mixed methods pilot study. *BMC Fam Pract* 2017;18:106.
- Hotu C, Bagg W, Collins J, et al. A community-based model of care improves blood pressure control and delays progression of proteinuria, left ventricular hypertrophy and diastolic dysfunction in Māori and Pacific patients with type 2 diabetes and chronic kidney disease: a randomized controlled trial. *Nephrology Dialysis Transplantation* 2010;25:3260–6.
- Janssen J, Nelson K, Victoria University of Wellington. Meeting the needs of Māori with diabetes: Evaluation of a nurse-led service. *Nursing Praxis in New Zealand* 2014;30:6–18.
- Freeman T, Baum F, Javanparast S, et al. The contribution of group work to the goals of comprehensive primary health care. *Health Promot J Austr* 2021;32:126–36.
- Hayman NE, White NE, Spurling GK. Improving Indigenous patients' access to mainstream health services: the Inala experience. *Med J Aust* 2009;190:604–6.
- Tan J, McCreedy F, Noovao F, et al. Intensification of blood pressure treatment in Pasifika people with type 2 diabetes and renal disease: a cohort study in primary care. *N Z Med J* 2014;127:17–26.
- Gifford H, Cvitanovic L, Boulton A, et al. Constructing prevention programmes with a Māori health service provider view. *Kōtuitui: New Zealand Journal of Social Sciences Online* 2017;12:165–78.
- Crowshoe LL, Henderson RI, Green ME, et al. Exploring Canadian physicians' experiences with type 2 diabetes care for adult Indigenous patients. *Can J Diabetes* 2018;42:281–8.
- Sinclair Ka'imimi A, Makahi EK, Shea-Solatorio C, et al. Outcomes from a diabetes self-management intervention for native Hawaiians and Pacific people: partners in care. *Ann Behav Med* 2013;45:24–32.
- Barnett K, Mercer SW, Norbury M, et al. Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. *The Lancet* 2012;380:37–43.
- Albrecht T, Dyakova M, Schellevis FG, et al. Many diseases, one model of care? *J Comorb* 2016;6:12–20.

- 47 Minkman M, Ahaus K, Fabbriotti I, *et al.* A quality management model for integrated care: results of a Delphi and concept mapping study. *International Journal for Quality in Health Care* 2009;21:66–75.
- 48 World Health Organization. *Framework on integrated, people-centred health services*, 2016: 12.
- 49 Lewis ME, Myhra LL. Integrated care with Indigenous populations: a systematic review of the literature. *AIANMHR* 2017;24:88–110.
- 50 Doran F, Wrigley B, Lewis S. Exploring cultural safety with Nurse Academics. Research findings suggest time to “step up”. *Contemp Nurse* 2019;55:156–70.
- 51 Lee SE, Lee MH, Peters AB, *et al.* Assessment of patient safety and cultural competencies among senior Baccalaureate nursing students. *Int J Environ Res Public Health* 2020;17:4225.
- 52 Guerra O, Kurtz D. Building collaboration: a scoping review of cultural competency and safety education and training for healthcare students and professionals in Canada. *Teach Learn Med* 2017;29:129–42.
- 53 Shepherd SM. Cultural awareness workshops: limitations and practical consequences. *BMC Med Educ* 2019;19:14.
- 54 Viscogliosi C, Asselin H, Basile S, *et al.* Importance of Indigenous elders' contributions to individual and community wellness: results from a scoping review on social participation and intergenerational solidarity. *Can J Public Health* 2020;111:667–81.
- 55 Taylor SL, Lurie N. The role of culturally competent communication in reducing ethnic and racial healthcare disparities. *Am J Manag Care* 2004;10 Spec No:Sp1–4.
- 56 Anderson LM, Scrimshaw SC, Fullilove MT, *et al.* Culturally competent healthcare systems. *Am J Prev Med* 2003;24:68–79.
- 57 Martin DH. Two-eyed seeing: a framework for understanding Indigenous and non-Indigenous approaches to Indigenous health research. *Can J Nurs Res* 2012;44:20–42.
- 58 Ermine W, Sinclair R, Browne M. *Kwayask itôtamowin: Indigenous research ethics*, S. Saskatoon, Canada: Indigenous Peoples' Health Research Centre, 2005: 57.
- 59 Marsh TN, Cote-Meek S, Toulouse P, *et al.* The application of Two-Eyed seeing Decolonizing methodology in qualitative and quantitative research for the treatment of intergenerational trauma and substance use disorders. *Int J Qual Methods* 2015;14:160940691561804.
- 60 Lithopoulos S. *International comparison of Indigenous policing models*, P.S. Canada, 2007: 34.
- 61 Canadian Institute of Health Research. *Departmental plan*. Ottawa, ON, 2018: 30.
- 62 Browne AJ, Varcoe C, Ford-Gilboe M, *et al.* Disruption as opportunity: impacts of an organizational health equity intervention in primary care clinics. *Int J Equity Health* 2018;17:154.
- 63 Anishnawbe Mushkiki. Our programs, 2021. Available: <https://mushkiki.com/our-programs/> [Accessed 04 Feb 2021].
- 64 Interior Health. Aboriginal self identification project, 2021. Available: <https://www.interiorhealth.ca/YourHealth/AboriginalHealth/StrategiesInitiatives/Pages/SelfIDProject.aspx> [Accessed 08 Mar 2021].
- 65 Saskatchewan Health Authority. First nation and Métis health service, 2021. Available: [https://www.saskatoonhealthregion.ca/locations\\_services/Services/fnmh/service/Pages/Home.aspx](https://www.saskatoonhealthregion.ca/locations_services/Services/fnmh/service/Pages/Home.aspx) [Accessed 10 Mar 2021].
- 66 Australian Government. Culturally safe health care for Indigenous Australians, 2021. Available: <https://www.aihw.gov.au/reports/australias-health/culturally-safe-healthcare-indigenous-australians> [Accessed 29 Jan 2021].
- 67 Vancouver Coastal Health. Aboriginal health., 2021. Available: <http://www.vch.ca/your-care/aboriginal-health> [Accessed 12 Feb 2021].

## Supplementary File

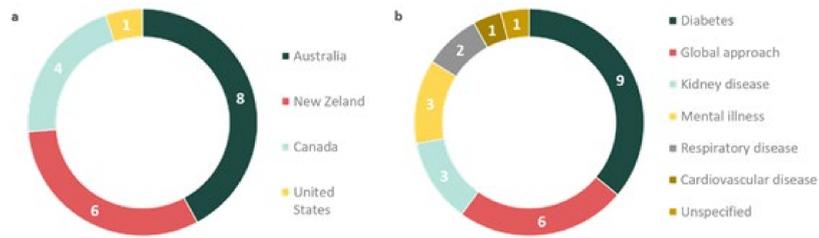
Table 1 – Description of the Research Question

Acronym	Definition	Description	Inclusions	Exclusions
P	Type of participants	Indigenous people : People who face the following realities: <i>“eviction from their ancestral lands, being denied the opportunity to express their culture, physical attacks and treatment as second-class citizens.”</i> <sup>1</sup>  Urban: <i>“Urban areas are very developed, meaning there is a density of human structures such as houses, commercial buildings, roads, bridges, and railways. Refers to towns, cities, and suburbs. An urban area includes the city itself, as well as the surrounding areas.”</i> <sup>2</sup>	Any Indigenous population living in an urban area	Remote areas Rural areas On-reserve
C	Concept	Health interventions: <i>“ need to reach people either by being provided at their homes, schools, and workplaces or by encouraging them to visit health facilities.”</i> <sup>3</sup>  Cultural safety <i>“results in an environment free of racism and discrimination, where people feel safe when receiving healthcare.”</i> <sup>4</sup>	Culturally safe interventions to prevent or manage chronic diseases	Interventions that are not culturally safe or with no social acceptability  Medical conditions other than chronic diseases
C	Context	Primary care: <i>“Primary care is the element within primary healthcare that focuses on healthcare services, including health promotion, illness and injury prevention, and the diagnosis and treatment of illness and injury.”</i> <sup>5</sup>	Services delivered by front-line healthcare professionals in primary care settings	Other contexts than primary care (eg, school systems, justice systems)

Table 2 – List of terms used in the search strategy

Concept	Keywords	Databases and search engines
<b>Indigenous population</b>	AB Native OR AB Aboriginal OR AB Indians OR AB Indigenous OR AB Ancestry group OR AB Indigenous elders OR AB Alaska natives OR AB American indian OR AB Underserved populations OR AB Torres strait islanders OR AB Cree OR AB Inuits OR AB Native-born OR AB Metis OR AB First nations OR AB Native tribes OR AB Alaskan natives	EBSCO, MEDLINE, PsycArticles, PsycInfo, SocINDEX
<b>Chronic disease</b>	AB Diabetes OR AB High blood pressure OR AB Obesity OR AB Hypercholesterolemia OR AB Chronic pain OR AB Multimorbidity OR AB Chronic kidney disease OR AB Peripheral arterial disease OR AB Heart failure OR AB Long term condition OR AB Chronic illness OR AB Chronic condition	
<b>Primary care</b>	AB Primary healthcare OR AB Models of service delivery OR AB Well being model OR AB Health services accessibility OR AB Indigenous health services OR AB Ambulatory care facilities OR AB Aboriginal access to services OR AB Models of care OR AB Primary care OR AB Family practice OR AB Family medicine group OR AB Family medicine OR AB Family health clinic OR AB Primary health care	
<b>Cultural safety</b>	TX Cultural quotient OR TX Appropriateness OR TX Acceptability OR TX Cultural safety OR TX Cultural adaptability OR TX Cultural intelligence OR TX Patient acceptance of care OR TX Cultural respect OR TX Cultural competency OR TX Cross-cultural safety OR TX Culturally competent care OR TX Cultural competence	
<b>Internet Search strategy</b>		
<b>1</b>	Native, Chronic diseases, Primary care, Cultural safety	Google, first five pages of results
<b>2</b>	Aboriginal, Chronic diseases, Primary care, Cultural safety	
<b>3</b>	Indians, Chronic diseases, Primary care, Cultural safety	
<b>4</b>	Indigenous, Chronic diseases, Primary care, Cultural safety	
<b>5</b>	Torres strait islanders, Chronic diseases, Primary care, Cultural safety	

Figure 1 Geographic distribution and diseases targeted by included studies



## References

1. International, A. *Indigenous Peoples*. 2019 Accessed on: 18 July 2021  
<https://www.amnesty.org/en/what-we-do/indigenous-peoples/>
2. Geographic, N. *Urban area*. Encyclopedic entry 2011 Accessed on: 9 July 2021  
<https://www.nationalgeographic.org/encyclopedia/urban-area/>
3. Jamison DT, B.J., Measham AR, et al., *Chapter 6, Providing Interventions*. , in *Priorities in Health* 2006, The International Bank for Reconstruction and Development / The World Bank: Washington DC.
4. Authority, F.N.H. *Cultural Safety and Humility*. 2021 Accessed on: 17 July 2021  
<https://www.fnha.ca/wellness/wellness-and-the-first-nations-health-authority/cultural-safety-and-humility>
5. Canada, G.o. *About primary health care*. 2012 Accessed on: 17 July 2021  
<https://www.canada.ca/en/health-canada/services/primary-health-care/about-primary-health-care.html>