



First Nations and Métis Health Service: **A Literature Review of First Nations and Métis’ Use of the Emergency Department**

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INTRODUCTION

The Emergency Department (ED) of a hospital is a facility that is universally believed to be responsible for the provision of urgent care. Putting in place the necessary equipment and human resources to maintain optimal functionality of the ED comes at a cost. Thus, stakeholders show great concerns when the ED is used by individuals more frequently than it ought to or used for non-urgent complaints that can easily be handled at the level of primary care.

First Nations and Métis people are believed to be heavy users of the ED, presenting visits mainly for non-urgent or inappropriate concerns. The purpose of this review is to present objective evidence from existing literature that would support or dispel these claims, as well as identify reasons that may explain the findings.

A Masters of Public Health practicum student under supervision of the Office of the Associate Vice-President Research – Health was requested to conduct the following literature review for the First Nations and Métis Health Service. The review sought to answer the following questions:

- 1) Are First Nations and Métis people using the ED at a high rate and why?
- 2) Are First Nations and Métis people using the ED appropriately?
- 3) Are there issues concerning racism, stereotyping or a lack of cultural competency with First Nations and Métis people using the ED?
- 4) If the First Nations and Métis people's use of the ED is high or inappropriate, what is being done to address it?

The evidence obtained from the review of the literature is displayed in the body of this document.


BACKGROUND

Background on First Nations and Métis People

The Aboriginal population in Canada is a broad categorization which refers to three distinct groups: the First Nations people (which constitute the Indigenous groups across Canada), the Métis (which constitute the descendants of the union between European fur traders and First Nations people) and the Inuit (which constitute the Indigenous inhabitants of the Arctic) (Aboriginal Affairs and Northern Development Canada, 2003). Fifty-seven percent of the First Nations people in Canada live 'on reserve' (Aboriginal Affairs and Northern Development Canada, 2003). Reserves are lands held by the crown for use and benefit of the respective bands (groups of First Nations people) for which they are set apart, as governed by the Indian Act (Mccue, 2014). The rest of the First Nations people who do not live on reserve lands are said to live 'off reserve'. Though similarities can be drawn between the First Nations, Métis and Inuit people, each of these Aboriginal populations has their own unique practices and dispositions.

Health Disparities for First Nations and Métis people

The Aboriginal population tends to be portrayed as a singular group; however, this review shows that the First Nations, Métis and Inuit people have differing health profiles. In a report by the Canadian Institute for Health Information (CIHI) (2013) on hospital care for heart attacks among First Nations, Métis and Inuit people, varying health disparities were identified. The report obtained data for the First Nations and Inuit population by identifying residential areas with a relatively high proportion of self-identified First Nations (high-First Nations areas) and a relatively high proportion of self-identified Inuit



people (high-Inuit areas). This approach could not be used for the Métis people because of their wide dispersion. Thus, data reported for the Métis population was taken from provincial studies.

The CIHI report stated that individuals from high-First Nations areas tended to have heart attacks at a younger age and the rate of occurrence was 76 percent higher compared to individuals from low-Aboriginal areas (CIHI, 2013). Despite this greater burden, individuals from high-First Nations areas were less likely to get the needed investigation and treatment (CIHI, 2013). In Manitoba, the incidence of heart attacks among Métis people was 26 percent higher than among the general population and the Métis people were more likely to get the required investigations and treatment (CIHI, 2013). The Inuit differed entirely, with heart attack rates 35 percent lower for individuals from high-Inuit areas compared to individuals from low-Aboriginal areas. Heart attacks tended to occur at a younger age for residents of high-Inuit areas and there was no difference observed with regards to obtaining the needed investigation and treatment (CIHI, 2013). A federal report on comparable health indicators found that the risk of death from ischemic heart diseases and cerebrovascular diseases over a 10 year period measured between 1991 and 2001, was higher for registered First Nations compared to Non-Aboriginal people (Health Canada, 2011).

Garner, Carrière, and Sanmartin (2010), in trying to demonstrate the impact of socioeconomic status on inequalities in health, showed that differences existed in the determinants of health amongst the distinct Aboriginal populations. The analysis was carried out on data from the 2006 Aboriginal Peoples Survey and the 2007 Canadian Community Health Survey. First Nations and Métis people were more likely to be diagnosed with diabetes compared to the Non-Aboriginal population, even after consideration of certain factors like age, sex, income, etc. The Inuit people on the other hand, were generally less likely to be diagnosed with diabetes compared to the Non-Aboriginal population. These findings buttress the concept that varying disparities exist not only between the Non-Aboriginal and Aboriginal populations, but also within the constituent Aboriginal populations (Garner et al., 2010).

As shown above, First Nations and Métis people suffer from an increased burden of diseases such as diabetes and heart attacks. These differences should be considered when objectively reviewing the literature for evidence on First Nations and Métis' use of the ED.

THE EVIDENCE

Are First Nations and Métis people using the ED at a high rate and why?

Anecdotal evidence gives the impression that the Aboriginal population are high users of emergency services. The evidence from the literature largely supports this notion and identifies a lack of access to primary care and the presence of health disparities as potential factors. Although two studies showed contrasting evidence, they were conducted at least 15 years ago and their findings may not be relevant today.

There is a paucity of evidence in the literature that determines how many ED visits constitute high or frequent use. Most articles use arbitrarily set values. However, in a Manitoba based study on adult ED users, Doupe et al. (2012) analysed ED data for over 105,000 patients with close to 201,000 ED visits to determine an objective classification of ED use frequency. By observing how the trend of the ED data changed with increasing number of ED visits, they were able to categorize the frequency of ED visits. Less than 7 ED visits in a year was termed *less frequent*, 7-17 ED visits per year *frequent* and ≥ 18 visits per year was categorized as *highly frequent* (Doupe et al., 2012).



Research Evidence


Of the articles reviewed, Gershon et al. (2014) found that the Métis population in Ontario had a higher rate of ED visits for respiratory pathology such as Chronic Obstructive Pulmonary Disease (COPD) and Asthma compared to the general population. The results from this study attributed the pattern of use to the fact that Métis patients had challenges with access to and utilization of primary care and specialist services. Gershon et al. (2014) suggested that the difficulties with access to the aforementioned health services arose because a majority of the Métis patients resided in remote communities. This explanation is plausible given that a greater proportion of the participants studied were rural dwellers. However, it fails to entirely explain the findings because the prevalence of Asthma and COPD amongst participants in this study was highest among the Métis urban dwellers (Gershon et al., 2014). An alternate explanation may be drawn from Browne et al. (2011), who noted that primary care providers often refused caring for some Aboriginal patients because of their complex social and health situations resulting in increased visits to the ED for less urgent complaints.

Similar findings of increased ED use have been noted amongst First Nations children (Newton et al., 2012). Newton et al. (2012), in their work on ED visits for mental health concerns in Alberta, found that First Nations children had more return ED visits. They also found that First Nations children accounted for 13.8 percent of total ED visits among children despite only making up 6 percent of Alberta's pediatric population. These findings were believed to be perpetuated by a lack of access to primary care. In the same vein, Pohar and Johnson (2007) whilst studying healthcare utilization and costs in Saskatchewan's registered First Nations population with diabetes, identified ethnicity as a contributing factor to the use of healthcare services. Their study demonstrated that irrespective of diabetes status, an individual's ethnic identity had an influence on healthcare service utilization.

A study conducted in the United States also noted that Native American children were two times more likely to have visited the ED on one or more occasion in the past year when compared to Caucasian children (Flores & Tomany-Korman, 2008). Data from their study attributed this finding to the absence of regular primary care. However, LaCalle and Rabin (2010) in a systematic review of the literature identified frequent users of the ED to also be heavy users of primary care and healthcare in general. LaCalle and Rabin (2010) posited that access to timely quality care and not the lack of primary care was the principal driver of ED use. Field and Lantz (2006) also share this viewpoint. They point out that only three percent of patients did not have a family physician. Field and Lantz (2006) identified the following factors as being responsible for non-urgent use: use of services available in the ED, perceived severity, referral from the community, and lack of timely access to a family physician. It has also been suggested that frequent ED use might be a result of patients' preferences for ED care (Newton et al., 2012).

Contrary Evidence

There is some contrary evidence suggesting ED use among the Aboriginal population does not differ from the Non-Aboriginal population. However, it should be noted that these studies were carried out in 1997 and 1999 respectively; therefore this data may be out of date. A study carried out in Manitoba showed no difference between registered First Nations and the rest of the population's use of acute care services (DeCoster, Roos, Carriere, & Peterson, 1997). The study involved a review of 3,904 patient charts from a total of 26 hospitals, which were carefully selected from 76 hospitals in Manitoba to ensure a good rural and urban representation. They found no difference in the use of acute care services between the individuals residing in the most privileged parts of society and individuals living in the highest income neighbourhoods (DeCoster et al., 1997). These findings made DeCoster et al. (1997) question the generalization that poor and Aboriginal groups were high end users of acute care services. The above finding was echoed by Fong (1999), who found that race and ethnicity did not affect the number of urgent and non-urgent ED visits made by children.



It was demonstrated by Doupe et al. (2012) and LaCalle and Rabin (2010) that frequent users of the ED do not necessarily fit a defined ethnic or demographic characteristic, but are a heterogeneous group. Highly frequent users (defined as ≥ 18 visits per year), however, tend to be more homogeneous, using the ED as a substitute for other health services (Doupe et al., 2012). Frequent users of the ED are often sick patients with a chronic illness associated with high admission rates and high mortality (LaCalle & Rabin, 2010). This finding might help explain some of the differences that may exist in the volume of ED use between the Aboriginal and Non-Aboriginal population. Aboriginal people are more likely to develop diabetes at a younger age and are also more likely to suffer from the complications of diabetes as compared to their Non-Aboriginal counterparts (Public Health Agency of Canada (PHAC), 2011). As much as 17.2 percent of the First Nations population on-reserve is burdened with diabetes (PHAC, 2011). The percentages of diabetes, even though less dramatic for the off-reserve First Nations population and the Métis population, at 10.3 percent and 7.3 percent respectively, is still larger than the 5 percent prevalence seen amongst Non-Aboriginal people (PHAC, 2011). Thus, the patterns and volume of ED use by First Nations and Métis' may be due to the health burdens they face and not ethnicity or identity as Aboriginal people. This idea is based on the fact that 53 percent of Aboriginal people in Canada live with one or more chronic health condition (Statistics Canada, 2011).

In summary, the evidence above shows that the First Nations and Métis population use the ED at a high rate. Although two studies presented contrasting evidence, they were conducted at least 15 years ago and their findings may not be relevant today. The evidence suggested that the increased use of the ED in Aboriginal people may not be due to their ethnicity, but rather related to a lack of access to primary care and greater health disparities.


Are First Nations and Métis people using the ED appropriately?

Issues pertaining to non-urgent and inappropriate use of the ED, because of their cost implications, are of keen interest to policy makers and stakeholders. This review has identified a large gap in the literature in determining appropriate use of the ED in general, with very little available evidence to support the claim that First Nations and Métis patients use the ED inappropriately.

Most healthcare providers disapprove of patients presenting to the ED without seeing their primary care providers or patients presenting to the ED for complaints that have been ongoing for 2 or more days (Breen & McCann, 2013). These complaints are automatically viewed as inappropriate regardless of how legitimate they may be (Breen & McCann, 2013). Two of every hundred patients classified as non-urgent would return to the ED for lack of care alternatives (Durand et al., 2011). Fong (1999) estimates the amount of non-urgent pediatric ED visits to be between 58 and 82 percent of all pediatric ED visits. However, it is estimated that 4 of every 1000 ED visit is misclassified as non-urgent, despite having a high risk condition (Durand et al., 2011).

Despite the issue of inappropriate use of the ED being persistently on the front burner, a systematic review of the literature carried out by Durand et al. (2011) showed that there is still no agreement on what constitutes appropriate or inappropriate use of the ED. According to Durand et al. (2011), matters concerned with the severity of the presenting ailment alone determined if a case was to be considered urgent or non-urgent. Appropriateness however, encompassed the medical, social and psychological context of the individual's presenting complaint (Durand et al., 2011). Thus triaging tools like CTAS (Canadian Emergency Department Triage and Acuity Scale), used in hospitals to determine who gets treated first, should not be construed as measures of appropriate use (Durand et al., 2011).

Of the articles found in the literature review, there was no evidence specifically on the appropriateness of First Nations and Métis' use of the ED. Nonetheless, a systematic review of the prevalence and factors associated with inappropriate use of emergency services, revealed an inconclusive relationship



between inappropriate ED use and race or skin color (Carret, Fassa, & Domingues, 2009). The systematic review identified lack of access to primary care, patients presenting without a referral and patients not having a primary care provider as reasons for inappropriate use of the ED. Given that all of these reasons have been identified as issues affecting the Aboriginal population, one may be tempted to extrapolate that Aboriginal people are inappropriate users of the ED. However, more research is needed on this area before any conclusions can be made.

Are there issues concerning racism, stereotyping or a lack of cultural competency with First Nations and Métis people using the ED?

There is evidence in the literature to suggest that racism and stereotyping are realities suffered by the Aboriginal people presenting to the ED for care. According to Durand et al. (2011), healthcare providers tend to assume that most patients present to the ED for trivial issues solely to receive timely care. Healthcare providers view this type of use as abusive and irrational. These assumptions become heightened when healthcare workers have background stereotypes about the individual presenting to the ED for care (Browne et al., 2011). Unfortunately, Aboriginal people are victims of care disparities as a result of these overlapping assumptions (Browne et al., 2011).


First Nations and Métis patients worry about how decisions on the management of their health issues in the ED tend to be obscured by bias based on their ethnicity, illegitimate pain issues and/or inappropriate use of the ED (Browne et al., 2011). Interestingly, there is ample evidence in the literature to show that these concerns are valid (Browne et al., 2011; Harrison, Finkelstein, Puumala, & Payne, 2012; James, Feldman, & Mehta, 2006; Johnson et al., 2013; Lambert, 2014; Miner, Biros, Trainor, Hubbard, & Beltram, 2006; Park, Lee, & Epstein, 2009; Payne & Puumala, 2013; Tang & Browne, 2008). A survey carried out by the Saskatchewan Health Quality Council (2011) found that patients who self-identified as being First Nations, Métis or Inuit consistently reported worse ED experiences compared to those individuals who did not self-identify. The survey report did not give any reasons why this occurred; however, the following statement by a First Nations patient may explain these views:

“Was in the city of (name), the service there was excellent. I am from another small city, where they are not so kind and courteous to me as a First Nations woman, when I take myself to the ED. Not so much the service but the unkind words” (Saskatchewan Health Quality Council, 2011).

Profiling of patients by race and/or social class can constitute an impediment to care (Tang & Browne, 2008). An Aboriginal man with a brain hemorrhage who presented at night to an ED with a severe headache and vomiting, was suspected to be inebriated and was dismissed home with a few pills following a brain scan with no findings (Tang & Browne, 2008). The patient represented to a second ED the next day where a repeat scan discovered the bleed. The patient explained why he did not return to the first ED:

“Because I knew I was going to get the same treatment that I was having the night before (in the first ED). I just wanted to get rid of what was happening to my brain because it was so painful and they didn’t believe me; they wanted to kick me out, ‘you are a drunk Indian or whatever.’ I wasn’t drunk or nothing. It was just a bad headache, really bad” (Tang & Browne, 2008).

Unfortunately, a good number of healthcare providers remain intentionally oblivious of the disparities in care and profiling by race or class (Tang & Browne, 2008). They firmly believe that equal care is given to all patients irrespective of colour, race or class (Tang & Browne, 2008). In 2008 within the province of Manitoba, an Aboriginal patient died after waiting for care in the ED for about 34 hours (Lambert, 2014). The patient’s family pulled out of the second phase of the inquest into his death. They were angered by



the court's decision to investigate how ED overcrowding and delay in treatment played a role in his death, rather than investigating the impact of racial profiling (Lambert, 2014). This decision by the court gives credence to Tang and Browne's (2008) belief that the utopian ideology of equal and fair treatment of all in the Canadian mainstream society glosses over issues such as racial profiling and thus widens the inequities. Aboriginal patients, because of the anticipated stereotypes and discrimination in some EDs, often prefer to seek care at distant and less convenient facilities in order to avoid racism and or stereotyping (Browne et al., 2011).

Literature from the United States found that Native Americans (Miner et al., 2006) and other ethnic minorities (Johnson et al., 2013) were least likely to receive any pain medication, and tended to have longer ED wait times than the rest of the population (Johnson et al., 2013; Park et al., 2009). Also Native American patients had the highest physician VAS (visual analog scale) score for perceived exaggeration of symptoms to obtain medications (Miner et al., 2006). In a study conducted in the United States, investigators found that patients of ethnic minority tended to be asked questions about their behaviours (e.g. smoking, alcohol use) by their physicians as compared to Caucasian patients (James et al., 2006). It was also noted that patients of ethnic minority in the United States were less likely to get a laboratory or radiologic investigation. This disparity persisted even after controlling for all possible explanations such as the diagnosis (Payne & Puumala, 2013). Also, patients of ethnic minority had an increased likelihood of leaving the ED without complete evaluation and treatment compared to the rest of the population (Harrison et al., 2012). This disparity was not explained by the wait times (Harrison et al., 2012).

The evidence reinforces the common theme of differing care for Aboriginal patients as well as other ethnic minorities in the ED. Besides care disparities, Aboriginal patients coming from remote locations report stress from increased financial expenses, social isolation and absence of regular activities (e.g. hunting) when in the ED (Arnaert & Schaack, 2006). These all contribute to a dissatisfying experience in the ED.

A dearth of culturally competent care has also been identified as one of the factors contributing to these negative ED experiences. Miner et al. (2006) stated that demographic, language and cultural discordance between patients and healthcare professionals can lead to communication gaps and thus suboptimal care. In addition, patients with limited English proficiency tend to get low triage scores, and thus may have their concerns dismissed as non-urgent leading to more frequent return to the ED (Gallagher, Porter, Monuteaux, & Stack, 2013).


The evidence suggests that racism and stereotyping exist when First Nations and Métis patients access care in the ED. Similar situations were also noted among other ethnic minorities. More research is required to objectively determine how care is impacted by these situations.

If the First Nations and Métis people's use of the ED is high or inappropriate, what is being done to address it?

Various ideas have been suggested and tested in an attempt to reduce non-urgent and inappropriate use of the ED. Improved access to primary care is a key strategy identified in this review as a means to overcome frequent ED use. Of the articles reviewed, none of the solutions identified were specific to the First Nations and Métis population; however, some of the suggestions were based on studies or trials among other ethnic minorities or individuals in similar circumstances.

Suggested Solutions

The most common suggestion made was to address the issue of access to primary care (Breen & McCann, 2013; Durand et al., 2012; Field & Lantz, 2006). Durand et al. (2012) suggested that primary



care facilities be located close to the ED for immediate referral of non-urgent patients from triage. They believed this would reduce non-urgent use of the ED. Similarly, Breen and McCann (2013), as well as Field and Lantz (2006) suggested referral of non-urgent cases from the ED back to primary care centers. This variation may face challenges given that primary care providers commonly refer non-urgent patients to the ED (Field & Lantz, 2006). Other suggestions offered by Breen and McCann (2013) included: patient education; improved public awareness; improved services within the ED and primary care centers; and faster access to specialist services. Field and Lantz (2006) suggested improving access to services such as diagnostic imaging outside of the ED, and the provision of alternate sources for non-urgent care.

Payne and Puumala (2013) made a strong suggestion on how to eliminate racial disparities in the ED. They suggested the use of algorithms (a step by step standardized approach to case management) to reduce subjectivity and improve consistency in the evaluation and treatment of all patients coming into the ED. This belief is hinged on findings from their study where they sought to identify if racial disparities existed with regards to ordering laboratory or radiological tests in the pediatric ED. Payne and Puumala (2013) identified that head injured patients were almost entirely managed following clearly delineated algorithms or protocols and they observed no racial disparities in the care of patients with head injuries.

Tested Solutions


Driscoll et al. (2013) showed a decrease in ED use by Alaskan Natives and American Indians following the implementation of patient centered medical homes (PCMH) in Alaska. PCMH involved an integrated and comprehensive care team; open access and expanded office hours; and a multidisciplinary team approach in the primary care center. Using both quantitative and qualitative methods, Driscoll et al. (2013) showed a significant decrease in overall ED use, a decrease in ED use for unintentional injuries and a decrease in ED use for chronic conditions like asthma. It should be noted that ED use for unintentional injuries and overall ED visits were increasing prior to the implementation of the PCMH program. ED use for asthma was already decreasing and continued to do so after PCMH.

A hospital in the United States tested a system which involved placing a team of healthcare providers in triage and reported impressive outcomes (Love, Murphy, Lietz, & Jordan, 2012). The goal was to improve patient satisfaction, increase efficiency of ED flow and eliminate patients leaving the ED without evaluation and treatment (Love et al., 2012). The staff in triage included: a nurse practitioner, a physician assistant, a registered nurse, patient care technicians, a phlebotomist/ECG technician and a financial registrar. They showed a 66 percent decrease in the time from arrival to contact with a physician and a 73 percent decrease in the number of patients leaving the ED without being seen.

Of the literature reviewed, the different solutions suggested for reducing the volume of ED use centred on improved primary care. Strategies included enhancement of access to primary care providers and the strategic placement of care providers in the ED to minimize wait time and ensure referral of non-urgent cases to other centres. Evaluative and treatment algorithms were suggested as a means to overcome the issue of racial disparity, though more research is needed on how to implement this idea.

CONCLUSION

Of the evidence examined in the present review, the literature suggested that First Nations and Métis people are more frequent users of the ED. An individual's identity as a First Nations or Métis should not be misinterpreted as a causal factor for heavy ED use; rather the literature identifies health disparities and lack of primary care among First Nations and Métis people as the root cause.



The literature search found no evidence of inappropriate use among First Nations and Métis patients. There is a large gap in the literature in determining appropriate use of the ED in general, and an even larger gap when investigating appropriate use among First Nations and Métis people. Clearly, further research is warranted.

The present literature review found evidence of racial profiling and stereotypes that resulted in care disparities for First Nations and Métis patients in the ED. The literature also suggested that racism and stereotyping may impact upon care received by First Nations and Métis patients in the ED; though its true impact on care was not ascertained.

Improved access to primary care was identified as a recurring theme to reduce the volume of ED use. Despite how appealing the suggestion of evaluative and treatment algorithms may seem, more research is needed on the logistics and practicability of its implementation. In conclusion, further investigation is needed to understand the use of the ED in the First Nations and Métis population, including testing solutions to improve care.

REVIEW ARTICLES SEARCH METHODS

Peer reviewed literature was retrieved through searches of the following electronic databases: MEDLINE, PUBMED, CINAHL and PROQUEST with the help of a Health Sciences librarian. A grey Literature search was conducted on Google Scholar and the following websites were identified and reviewed: Canadian Institute for Health Information, Health Canada, National Collaborating Centre for Aboriginal Health, Public Health Agency of Canada, Aboriginal Affairs and Northern Development Canada, Ebrary and Statistics Canada.

The following keys terms (searched individually and in different combinations) were used in conducting the literature search:

- Emergency Department
- ED
- Emergency Room
- Emergency Services, Hospital
- Emergency Medical Service
- Health Services
- ED Use
- ED flow
- ED Care
- Emergency Care
- Critical Care
- Aboriginal
- Indians, North America
- Indigenous People
- Canada First Nation
- First Nation
- Métis
- Inuit
- Length of Stay
- Wait Time
- Time Factors
- Inappropriate Use
- Patient Discharge



- Leaving Without Treatment
- Healthcare Access
- Personal Satisfaction
- Stereotyping
- Cultural Competency
- Racism
- Attitudes
- Health Disparities

Articles obtained from the search were narrowed down by reading through the titles to determine their relevance. The shortlisted articles were ranked on a scale of 1 (most relevant) to 5 (least relevant) following a review of their abstracts. A total of 110 articles were ranked. The most relevant articles to the review were thoroughly read and used in writing the review.

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