

REVIEW

# UNDERSTANDING BARRIERS TO HEALTH CARE: A REVIEW OF DISPARITIES IN HEALTH CARE SERVICES AMONG INDIGENOUS POPULATIONS

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## ABSTRACT

**Objectives.** To review the current status of health care access and utilization among Indigenous people in the North America, Australia and New Zealand.

**Study Design.** Literature review.

**Methods.** A systematic search and critical review of relevant studies using online searches of electronic databases (PubMed, PsychINFO, MEDLINE) that examined issues relating to health care utilization and access.

**Results.** Most studies found that health care access and utilization rates were found to be significantly lower among Indigenous populations. Factors such as rural location, communication and socio-economic status were found to be barriers to health care services that disproportionately affected Indigenous communities compared with the general population.

**Conclusions.** Inequalities in health care access and utilization among Indigenous populations may play an important role in understanding why disparities in the health status of Indigenous populations continue to exist despite public health interventions. Further research is needed to understand the factors that contribute to these inequalities and to develop specific interventions to increase access and utilization among Indigenous populations.

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## INTRODUCTION

The state of health care provided to Indigenous people around the world is an often ignored and under-researched topic. A ubiquitous challenge for Indigenous communities globally is adequate access to and utilization of quality health care services. Many of these communities tend to be isolated in remote rural locations that have limited access to ambulatory, acute and specialized health care (1, 2). Indigenous populations in both the western and eastern hemispheres tend to have higher rates of chronic disease, such as hypertension, obesity and type 2 diabetes than the majority population. For example, Native populations in North America have a significantly higher prevalence of type 2 diabetes than white majority populations (3, 4). Furthermore, Indigenous people in several industrialized countries tend to have a shorter life expectancy and higher mortality rates compared with other ethnic groups (5–7). For example, the death rate in Canada for Native populations is six times higher than the national average (4). Other known health disparities that unequally affect Indigenous populations are cardiovascular disease, cancer, obesity and smoking (8–11). Even when other extraneous factors are controlled for – such as socio-economic status, insurance coverage and comorbidities – these racial and ethnic disparities are still apparent (12).

Health disparities among populations in colonized countries such as Canada, the United States (U.S.), Australia and New Zealand have long been observed. The introduction of infectious diseases by European colonists as well as dramatic changes in lifestyle factors associated with relocation to reserves have contributed to significant increases in disease and obesity

among these Indigenous populations (13–15). Even though the health status of Indigenous populations has improved in the last 50 years, significant health disparities continue to exist (15).

In countries where the lives of Indigenous groups were significantly altered by colonization, it is critically important to understand the sociological and biological consequences of colonization and how these have affected the health status of Indigenous people historically and currently. Although this is a multifaceted and complex issue, an important component of this process is to investigate current differences in health care access and utilization between Indigenous and majority populations. The purpose of this paper is to review the literature on the access and utilization of health care among Indigenous people in North America, Australia and New Zealand. In an effort to understand how ethnic, cultural and racial factors influence access and utilization, this paper will review the literature on disparities in this area by examining barriers to health care such as communication, rural location and socio-economic status that disproportionately affect Indigenous populations.

## MATERIAL AND METHODS

A systematic review of studies and papers published between 1998 and the present were selected from online searches of electronic databases such as PubMed, PsychINFO and MEDLINE. These articles examined issues related to health care service access and utilization among Indigenous populations in Canada, United States, New Zealand and Australia, and were selected based on their

contents' relevance to the objectives of this paper. Based on this search, 37 studies were included in the review that examined issues concerning barriers to health care utilization and access such as ethnicity, culture, rural location, communication and socio-economic status. The outcomes of this review include a critical discussion of these barriers to health care services, how barriers relate to disparities in health care status among Indigenous populations and implications for future research and practice.

### *Ethnicity, culture and race*

In order to understand how Indigenous groups may differ in their use of and access to health care, it is important to understand the influence of ethnicity, culture and race. However, because these concepts are so closely related, they are often used interchangeably and can be conceptually confusing. This is particularly true in North America where the majority of published research articles concerning the health of U.S.-based populations use race in some way (16).

Culture is defined as "a dynamic system of rules, explicit and implicit, established by groups in order to ensure their survival, involving attitudes, beliefs, norms and behaviors shared by a group but harbored differently by each specific unit within the group, communicated across generations" (17). Phinney defines ethnicity as "broad groupings of Americans on the basis of both race and culture of origin" (18). The ethnic identity that group members hold determines their cultural attitudes, behaviours and values. For example, among the First Nations groups of North America, the tendency is to value the group over the individual and there is a focus on finding harmony with nature (18,

19). The notion of harmony is also important to the origins of illnesses and the healing process. Although each tribe has its own healing ceremonies and traditions to cope with diseases, all tribes share the notion that diseases arise and end within a person's spirit, therefore healing must focus on restoring wholeness to a person's spirit which in turn affects the mental, emotional and physical aspects of a person's state of well-being (20). The origins of sickness or disease are thought to result from an imbalance in a person's spirit, of which there can be a myriad of causes and which depend on the beliefs of a particular tribe. For example, the Navajo tribe of the south-western U.S. believes that illness can occur by speaking about something "bad" that happened to someone else (20).

These cultural values may present a conflict between Western medicine and health care delivery; therefore, Western health care systems must take into account the influence of Native spirituality on an Indigenous person's view of health and healing. To illustrate the importance of cultural views of traditional healing practices, a study completed with a Mi'kmaq tribe in Canada found that 66% of participants reported using Mi'kmaq traditional medicine to address health problems (13). Even though the majority (58%) of respondents believed that Western medical doctors were better at treating illness, 23% of participants reported that Mi'kmaq medicine was better at treating illnesses. Furthermore, a U.S. study that surveyed 869 American Indians from both rural and urban communities in Washington State, examined the extent to which traditional health practices were used and the factors related to the use of these practices (21). The results of the study found that 70% of the respondents reported using traditional practices for health-

related reasons such as smudging, using traditional herbal medicines and participating in specialized healing ceremonies (21). Moreover, participants who identified more with the Native culture were more likely to use traditional healing practices (21). These findings highlight the importance of considering the influence of traditional medical beliefs among Indigenous populations and how this may impact health care utilization.

The concept of race is a social construction that is used to classify different groups of people based on physical characteristics like skin colour (22). This type of classification is problematic because research has shown that there are more differences within-group differences than between-group differences (23). In countries where there is a great deal of ethnic and racial diversity, such as in the U.S., the concept of race is also used to classify groups based on social and cultural variables. For example, in order to reflect the ethnic and cultural diversity of the U.S., the Census Bureau includes 5 race categories that are not specifically based on biological characteristics of race: white, African American, American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander and Other (24). According to this classification, American Indian and Alaska Native refers to any person identifying themselves as being related to the original peoples of North or South America and who maintain tribal affiliations.

Race is an important consideration in health care access and utilization, particularly for ethnic and racial groups that are socially marginalized; social marginalization has been shown to negatively affect access to health care (12). One factor that may account for these disparities is racial discrimination

within the health care system. Studies suggest that racism can impact several areas of an individual's functioning, including physical health. A review of 138 population-based studies on racism and health suggest that when various confounding factors such as socio-economic status (SES), employment, marital status and education are controlled there is a significant relationship between self-reported racism and poor health (25). The results from this review concluded that longitudinal studies suggest that self-reported racism precedes negative health outcomes. The strongest associations were observed for mental health outcomes (psychological stress and depression) and health-related behaviours (substance abuse, alcohol abuse and smoking). Rates of substance and alcohol abuse are substantially higher among Indigenous groups, which have also been shown to be related to increased rates of suicide (26). A review of suicide rates among Indigenous populations in Canada, the U.S., New Zealand and Australia found that suicide rates among Indigenous young adult men was the highest out of all age groups and was 2 to 5 times higher than the general population (26). Moreover, studies have shown that among American Indians and Alaska Natives perceptions of racial discrimination and marginalization are related to substance use (27, 28) and depressive symptoms (29).

One such explanation for high rates of suicide, substance use and depression among Indigenous populations is the long-term effects of historical trauma. Historical trauma is a constellation of symptoms that occur as a result of cumulative emotional and psychological trauma, which are transmitted across the life span of generations as a result of colonization and genocide (30, 31). Centuries of post-colonial

contact have irrevocably damaged the cultural traditions and practices of Indigenous populations in the U.S., Canada, Australia and New Zealand and have had a lasting, negative impact on generations of Indigenous youth. Scientific investigation that shows how historical trauma continues to negatively affect the health status of Indigenous populations is gravely lacking. There is a great need to develop trauma-based theories and interventions specifically for Indigenous communities in order to address the consequences of historical trauma (30).

### ***Barriers to health care***

Several studies have examined the barriers to adequate health care utilization that contribute to the health disparities between minorities and the majority population. Indigenous people globally share many factors that contribute to health disparities and unequal access to health care. For Indigenous peoples in New Zealand, Australia and North America, issues such as rural location, isolation, poverty and communication barriers all contribute towards disparities in health care (5). The impact of each of these barriers will be discussed.

*Rural location.* Living in a rural location has been found to be a barrier to adequate health care for communities regardless of race (32). Health care facilities in rural areas tend to be understaffed and have a difficult time recruiting health care providers to live and work in remote rural communities, especially in northern communities in North America such as Alaska and the Arctic regions of Canada (33). The majority of tribal reserves in North America, Australia and New Zealand are located in remote rural areas. In North America, the Inuit populations of Canada and the Alaskan Natives are often situated in remote

communities that are even more economically disadvantaged and isolated than reserves in southern provinces and states. These areas tend to have the poorest access to health care and the highest rates of substance use and suicide (34, 35). Therefore, rural location and isolation from urban centres widens the health care disparity gap between the majority and Indigenous populations.

Studies that have compared the rates and quality of health care services between the rural-dwelling Indigenous population in Canada and the U.S. and the general population have been equivocal. Some studies have found that rural location is not related to health disparities such as renal disease (36) or rates of preventive care (37). However, one of the difficulties with comparing hospital rates of rural American Indian populations is the use of IHS data, which can underestimate hospitalization rates because IHS does not collect data on individuals who obtain health care at a non-IHS health care facility. To address this issue, Korenbrot, Ehlers and Crouch (38) compared hospitalization rates in California among rural Indigenous populations to the general population regardless if care was obtained from an IHS clinic or payer. The results showed that the not only did the Indigenous population have higher rates of hospitalization but also that their rate of avoidable hospitalizations was double that of the general population (38).

Similar rural health disparities are faced by the Aboriginal and Torres Strait Islander populations of Australia. Over 70% of these tribes reside in remote rural locations (39). In comparison to Canada, New Zealand and the U.S., Australia's Indigenous population continues to experience significant health disparities that are in stark contrast to the

majority population. For example, the infant mortality rate among Indigenous Australians and Torres Strait Islanders is three times greater than the general Australian population, twice that of American Indian infants and 50% greater than the Maori tribes of New Zealand (40). Additionally, health care expenditures for rural Indigenous communities is substantially less than the general population. For every \$1 that is spent on health care for the general population, only \$.74 is spent on Indigenous Australians (40).

One of the ubiquitous issues of rural health care is the recruitment of medical professionals to work in rural practice settings. This is an issue that not only affects Indigenous communities but all rural communities. However, since the majority of Indigenous communities in North America, New Zealand and Australia are located in remote rural locations, this issue is of particular importance to them (34, 35, 39, 40).

Although new developments in the area of telemedicine hold promise for increasing the range of health care services to remote Indigenous communities, these kinds of initiatives will take many years to develop across all rural communities. Overall, there is a great need for rural health research that focuses on investigating the unique needs of rural indigenous populations and developing ways to address the disparities in health services in these areas.

*Communication barriers.* Effective communication between a patient and the provider is paramount in a health care setting. Therefore, language barriers present a formidable obstacle to accessing adequate health care. Language differences have been shown to be a serious barrier among various cultural and ethnic groups (42). However, even if the provider and

the patient both speak the same language, the cultural values and experiences of the patient influences how they communicate their symptoms and how they perceive feedback about their health status from the provider. For example, a qualitative study investigating Navajo beliefs about care planning found that receiving negative information from a medical provider was often troubling to patients and resulted in less access to care (43). The results from this study were able to generate useful information to inform medical practices how to be culturally consistent with traditional Navajo cultural beliefs and values while meeting patients' medical needs. Another study by Garroutte, Sarkisian, Arguelles, Goldberg and Buchwald (44) found that in 40% of health visits there were significant differences in health perceptions between Cherokee patients and their medical provider. This source of this discordance was the provider rating (68%) the patients as healthier than the patients rated themselves. Patients who reported that they weakly identified with the white majority culture tended to have greater discordance with their provider while those who reported that they strongly identified with the white culture tended to show no significant differences in their health perceptions from their provider. This study demonstrates that identification with the majority white culture affects how Indigenous populations may perceive their own health and how they seek out medical services.

*Socio-economic status.* Rates of economic disadvantage and poverty among Indigenous populations in North America, New Zealand and Australia are considerably higher than the majority populations in these countries (1, 6, 10, 25). Socio-economic status (SES) also affects an individual's ability to access

and obtain adequate medical services. In the United States, health care is a tiered system based on insurance coverage, therefore access to health care is greatly affected by SES (29, 43). However, health care services to enrolled members of federally recognized tribes are provided by the Indian Health Service (IHS) as part of treaty agreements. Unfortunately, the services provided by the IHS continue to be affected by budgetary constraints and IHS only receives approximately half the per capita funding needed to provide health care services to all enrolled tribal members (44, 45). Despite services provided by IHS and Medicaid, American Indian and Alaska Native rural populations show significantly lower use of Medicaid-paid medical services such as prescriptions, hospitalizations and ambulatory care compared with white rural populations. These effects are still significant even after controlling for age, gender, Medicaid aid category, health risks and country of residence (45).

There is also an increasing percentage of American Indians moving to urban centres, which presents a considerable barrier for obtaining health care from IHS clinics (46). According to the 2000 U.S. Census, approximately 61% of American Indians and Alaska Natives report living in an urban area (47). However, there are only approximately 34 IHS-funded urban Indian health organizations that serve over 400,000 urban-dwelling American Indians and Alaska Natives. Although IHS does not routinely report data on urban American Indians or Alaska Natives, studies suggest that the level of health disparities are similar to those residing on rural reserves (48) and considerably worse than the general urban population (46). For example, a study that

examined the travel to rural reserves among a group of low-income urban American Indian respondents found that more travel to rural reserves was associated with greater presence of lung disease, absence of thyroid and mental problems and greater dissatisfaction with health care (48). Furthermore, another study found that urban-dwelling American Indian/Alaska Native mothers received late or no prenatal care at twice the rate of the general urban population and that maternal smoking and alcohol consumption rates were three times the rate of the urban population (46).

In contrast, Canada uses a public health care system, which operates on the principle that regardless of income all citizens should have equal access to health care. However, several studies have demonstrated that Canadians with lower incomes, particularly Aboriginal populations, show lower rates of health care access and utilization (49, 50). For example, a study conducted by Heaman, Gupton and Moffatt (51) compared the adequacy of prenatal care provided to Aboriginal and non-Aboriginal women in Winnipeg, Manitoba. The results indicated that a significantly greater proportion of Aboriginal women received inadequate prenatal care. Significant predictors of inadequate care for this sample were SES, high levels of stress, low self-esteem and Aboriginal descent. Another study of northern Ontario rural residents also demonstrates that Aboriginal populations tend to show higher rates of ambulatory care and lower rates of referral to other specialists compared with non-Aboriginal rural residents who were matched for lower SES and rural isolation (2). These studies reveal that even when SES is taken into account, Indigenous populations in a publicly funded health care system

have less access to and use of adequate and quality health care services compared with the majority population.

New Zealand and Australia both have a largely publicly funded health care system with co-payments provided by patients (6). Approximately 60% of primary care providers' income is generated from patient co-payments. Therefore, SES also affects health care access and utilization. The Indigenous populations of New Zealand, the Maori and Pacific New Zealanders, are more likely to live in socio-economically deprived communities. Several studies have shown that the Maori tribes have lower life expectancies and have higher rates of mortality than the New Zealand majority population (5, 52). In a comparison of Indigenous disparities in disease-specific mortality in the United States, Canada, Australia and New Zealand, it was found that the Maori populations showed the highest disease-specific mortality for ischemic heart disease and malignant neoplasms (5). Furthermore, this study also found that Australian Aboriginals had the lowest life expectancy and greatest relative health disparity of the 4 countries. Overall, the Australian Aboriginal and Maori of New Zealand Indigenous populations had the greatest relative health disparities, highlighting the fact that access to health care is both influenced by income and ethnicity.

### ***Future research***

There are many areas of health research for Indigenous populations that have not been well-investigated and would benefit from further research. There is a dearth of research focusing on the effects of racism on health care utilization specifically among Indigenous populations. In the United States, much

of the research on racism and health care examines this phenomenon and impact upon African American and Hispanic populations. However, American Indian populations have unique circumstances that may differ from other minority populations. Similarly, further research needs to understand how to detect racial discrimination within the health care system and develop effective, empirically validated interventions to eradicate racial discrimination among health care professionals.

Further studies should also explore effective interventions that address the unique health disparities of Indigenous populations, taking into account the rural isolation and lack of resources that are available on reserves. For example, many community interventions that target obesity attempt to improve nutrition through increasing fruit and vegetable intake; however, availability and cost of fresh produce is a barrier for Indigenous communities and therefore these kinds of factors must be taken into consideration. In addition to location, interventions for Indigenous populations must take into account cultural beliefs and how traditional Native medicine can work in harmony with Western medical practices. Given the collectivistic nature of Indigenous populations, there is a need for research to understand how this construct may play a role in elucidating health disparities and health care service utilization. A study by Caldwell-Harris and Aycicegi (53) examined the psychological risk factors of participants who were living in highly individualistic cultures but who had originated from highly collectivistic cultures. The results showed that measuring high on measures of collectivism was associated with depression,

social anxiety, obsessive-compulsive disorder and dependent personality disorder. These results suggest that understanding the role of collectivism within Indigenous cultures living in highly individualist cultures may contribute to higher rates of depression or other mental health difficulties. These results also suggest that marginalized cultural groups living among a majority culture where the value system, particularly surrounding beliefs about health, may account for decreased health care use among these groups. The way in which Indigenous populations conceptualize illness differs from the majority population, yet the way in which these groups are treated for illnesses is from a majority perspective of illness. It is critical, therefore, that further research takes this into account in order to develop cultural competent treatments. Additionally, the training of health care professionals must also emphasize the importance of cultural competence and viewing the notion of “illness” from perspectives other than the dominant Western perspective.

The rates of suicide, alcohol use and mental health problems are staggeringly high among Indigenous groups across the 4 countries reviewed in this paper. In some cases, the rates of suicide are five times the rate of the general population (26). Similar results have been found when comparing rates of alcohol use, post-traumatic stress and depression (54–56). Although this is a multifaceted issue that likely involves many levels of explanation, one area of research that is emerging to understand this public health issue is exploring the effect of historical trauma upon generations of Indigenous communities. Although this is a newer area of research, it holds promise for elucidating the complex relationship between

rates of mental illness such as depression, post-traumatic stress disorder, substance abuse and suicide that occurs at a much higher rate among Indigenous populations. Historical trauma has been extensively examined among other marginalized groups that have suffered severe trauma, such as Holocaust survivors and their families, but has not been extensively investigated among Indigenous populations that have been exposed to significant trauma related to colonial contact (30). In order to better understand the long-term consequences of historical trauma, this must be examined among Indigenous populations globally to understand the impact of colonization on mental and physical health as well as how to develop interventions that can effectively begin to address these effects.

### Conclusions

The health status of Indigenous populations globally tends to be much poorer than the majority populations. These disparities in health continue to increase and this suggests that the current level of societal intervention has not been effective in quelling these trends. Therefore, it is critically important to understand the unique influences that underlie these health disparities for a population that continues to be vulnerable to social marginalization and oppression.

Given the health disparities among Indigenous populations globally, their unequal access to and lower utilization of health care services is an important area of investigation. This paper has discussed several factors that may account for the health disparities of Indigenous populations such as SES, rural location, racism, cultural and communication

differences. However, further research is needed to understand more clearly the contribution of each of these factors and how they influence health care access and utilization.

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