Predictors of Health Service Barriers for Older Chinese Immigrants in Canada

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Elderly people from ethnic minority groups often experience different barriers in accessing health services. Earlier studies on access usually focused on types and frequency but failed to address the predictors of service barriers. This study examined access barriers to health services faced by older Chinese immigrants in Canada. Factor analysis results indicated that service barriers were related to administrative problems in delivery, cultural incompatibility, personal attitudes, and circumstantial challenges. Stepwise multiple regression showed that predictors of barriers include female gender, being single, being an immigrant from Hong Kong, shorter length of residency in Canada, less adequate financial status, not having someone to trust and confide in, stronger identification with Chinese health beliefs, and not self-identified as Canadian. Social work interventions should strengthen support and resources for the vulnerable groups identified in the findings. Service providers should adjust service delivery to better serve elderly immigrants who still maintain strong Chinese cultural values and beliefs.

KEY WORDS: *culture; ethnicity; older Chinese immigrants; service barriers*

Despite public awareness of the aging population's needs, service barriers continue to be a major challenge for this subpopulation. The cultural diversity within the aging population adds complexity to the issue. Historically, North American societies have been organized in ways that are most convenient to the general majority. It is not surprising to see people who are different, no matter in what respect, dealing with additional hurdles to have their legitimate needs met. Segments of the aging population are struggling with basic issues crucial to their well-being. Among them, immigrants from different cultures are particularly vulnerable. Dowd and Bengtson (1978) argued that being old could be a disadvantage in a "youth-oriented" society and that being old and being a member of an ethnic minority group may further jeopardize one's well-being.

LITERATURE REVIEW

For ethnic minority older adults and elderly immigrants in North America, access to services is a major concern. There is ample evidence that this concern is well-founded (Institute of Medicine, 2002; Johnson & Smith, 2002). Indeed, various studies on the disparities in health care and health outcomes among ethnic minority groups, including older adults, have identified race, ethnicity, and cultural variables as predictors of poorer health outcomes and less access to health care services than people not of visible minority status (Institute of Medicine). However, the identification of these factors is only a beginning for understanding the complexities of how health care service systems reinforce health disparities, including how a lack of, or inadequate access to, services affects the well-being of individuals (Zhan, Cloutterbuck, Keshian, & Lombardi, 1998).

The disparities in access to health services are also shaped by the structural characteristics of health care delivery systems in terms of users' financial ability to afford medical coverage. This is evident when comparing the health service delivery systems of the United States and Canada. In the United States the government provides no universal health care insurance. Many employees may receive employer-paid medical insurance coverage. However, not all employers provide health care coverage to their employees. Some employees purchase their own health care coverage privately. The U.S. federally funded health insurance programs consist of both Medicare and Medicaid (Clarfield, Bergman, & Kane, 2001).

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Medicaid covers low-income Americans who are on welfare. Medicare covers residents age 65 and older or those younger than 65 who have a disability or those with end-stage renal disease. Many low-wage earners from racial and ethnic minority groups in the United States cannot afford private medical insurance (Betancourt & Maina, 2004). At the same time, many low-wage earners do not have incomes low enough to qualify for Medicaid coverage. Therefore, it is not surprising to find disparities in health outcomes and service access among ethnic minority groups. In contrast, the Canadian health care system is characterized by universal access; all Canadian citizens have access to health care services as a right of citizenship. Gaining access, however, does not necessarily imply access to quality health care. Although ethnic minority groups have universal access to health care services in Canada, researchers have reported health disparities. Older immigrants who have settled for a longer period of time tend to report less favorable health than Canadian-born individuals in the same age group (Gee, Kobayashi, & Prus, 2004). It has been argued that in addition to lifestyle changes that cause health deterioration, systemic challenges such as racism, discrimination, and social and political inequities are the possible reasons for the immigrant population being less healthy than their Canadian-born counterparts (Hyman, 1997). It appears that inability to gain access to timely and appropriate services not only threatens the health and well-being of elderly immigrants, but also intensifies the negative experiences of immigration settlement for elderly immigrants as they adjust to a new country.

Some studies have identified common barriers of culturally diverse elderly populations (Ortiz & Fitten, 2000; Wallace, Levy-Storms, & Ferguson, 1995). Personal beliefs, language proficiency, and economic status are the major perceived health care barriers reported by elderly Hispanics with memory or cognitive problems—barriers that have major implications related to delay in early diagnosis and treatment (Ortiz & Fitten). Other researchers found financial difficulties (Wallace et al.) and transportation (Morgan & Sampsel, 1994) were barriers to obtaining services for elderly Hispanics. Lack of knowledge about services, language differences, and lack of transportation were major barriers to the use of formal services faced by a nonrandom sample of elderly Chinese immigrants in California (Tsai & Lopez, 1997).

Earlier research has also pointed to the fact that Chinese culture is related to the barriers experienced by service users of Chinese ethnicity (Liu, 2003; Zhan & Chen, 2004). Researchers have identified that barriers to services are related to a lack of knowledge about service availability and language proficiency (Jang, Lee, & Woo, 1998). Barriers to service use related to Chinese culture identified in the literature have predominantly come from ethnographic studies (Liu; Pang, Jordan-Marsh, Silverstein, & Cody, 2003; Torsch & Ma, 2000). This body of literature has provided an in-depth look at the meanings of Chinese culture in relation to health, quality of life, health perceptions, and coping strategies (Cheung, 1989; Torsch & Ma). Some of the barriers to service utilization identified in the literature specifically related to Chinese culture are the reluctance to seek external help out of fear that the discovery of an illness might bring "shame" to the family and the need to protect family and friends from the burden of the individual's health problem. Other barriers included the lack of trust of Western medical practices, the belief that Western medicine lacks understanding about human physiology and wellness as found in the traditional, holistic Chinese health belief systems and practices, and the belief that health status is partly or entirely related to being punished or rewarded through uncontrollable, external forces such as luck, fate, or karma (Torsch & Ma). Many of these cultural factors are also found among other ethno-racial elderly groups (Yee & Weaver, 1994).

In this study we examined the nature and predictors of the health service barriers facing the older Chinese immigrants in Canada. The two major reasons for our focus on this group are first, with a total population of more than 1.1 million, Chinese people account for 25.8 percent of all visible ethnic minority groups in Canada (Statistics Canada, 2003). Yet published research for understanding the needs of this subpopulation, particularly its elderly members, is limited. Second, their experience as immigrants in a Western country such as Canada

could be particularly challenging because of the unique cultural values, beliefs, and languages of the older Chinese immigrants who are often perceived as "traditional" and as having a different worldview from Western culture. Although there are common circumstances and experiences faced by older immigrants of different cultural backgrounds, we believe that it is important to acknowledge the specific cultural contexts of elderly members of each ethnic group.

METHOD

The data for this study were collected in research examining the health and culture of older Chinese immigrants (age 55 and older) in the seven Canadian cities in which about 89 percent of all the Chinese people in Canada reside. A three-step sampling process was used. First, Chinese surnames were identified from telephone directories in each site to form the sampling frame. Second, based on the size of the Chinese Canadian population and the estimated proportion of the population 55 years of age and older in each location, a subsample of telephone numbers listed under Chinese surnames was randomly selected. Third, telephone screening was used to call all randomly selected telephone numbers to identify eligible participants who self-identified as ethnic Chinese 55 years of age or older. For households with more than one eligible participant, one was randomly selected. This method of using surnames as the identification keys for locating Chinese and other Asian participants, although not without limitations, has been well researched and established (Lauderdale & Kestenbaum, 2000; Rosenwaike, 1994; Tjam, 2001).

Eligible participants identified in the telephone screening process took part in a face-to-face interview to complete a structured questionnaire. The interviews were conducted in either English or a Chinese dialect of the participants. Data collection took place between summer 2001 and spring 2002. From the 297,064 Chinese surname listings identified, 40,654 phone numbers listed under 876 Chinese surnames were randomly selected. Trained telephone screeners called the randomly selected numbers and identified 2,949 eligible participants who were ethnic Chinese 55 years of age or older. Informed consent was obtained from each participant before the interview. The 2,272 participants who agreed to take part and completed the survey represented a response rate of 77 percent. As this study focused only on immigrants, the findings from the 2,214 older Chinese immigrants were included in data analysis.

Measurements

A structured questionnaire was verbally administered. The questions were initially constructed in Chinese, except for the standardized instruments that came with a Chinese language version. These questions were then translated into English and translated back into Chinese to ensure consistency and accuracy of both versions. The participants were interviewed using either the English or Chinese version according to their preference.

As a dependent variable, service barriers were measured by asking the participants to indicate the barriers they faced in using health services from a list of 21 potential service barriers. The list included service barriers identified in earlier research on elderly Chinese immigrants (Tsai & Lopez, 1997) and through inputs from services providers in the Chinese communities. Examples of the barriers included waiting list being too long, professionals not understanding users' culture, users' lack of transportation, and professionals not speaking the users' languages. The total number of barriers reported by the participants could range from zero to 21.

Several sociodemographic and cultural variables were assessed as independent variables, including age, gender, marital status, living arrangement, education, self-rated English competency level, country of origin, length of residency in Canada, personal monthly income, self-rated financial adequacy, social support, Chinese cultural values, Chinese health beliefs, and ethnic identity. Age referred to the chronological age of the participants. Gender was grouped into male and female. Marital status was grouped into either married or single. Living arrangement was grouped into either living alone or not living alone. Education level was grouped into no formal education, elementary, secondary, and postsecondary and beyond. Self-rated English competence was assessed using two questions asking the participants whether they could understand and speak English very well, a little bit, or not at all. Scores were assigned to the answers to form an ordinal variable ranging from two to six, with a higher score representing a higher level of English competence. Country of origin referred to the country from which the participants immigrated to Canada. Length of residency referred to the total number of years the participants had resided in

Canada. Personal monthly income was grouped into less than $500, $500 to $999, $1,000 to $1,499, and $1,500 or more. Self-rated financial adequacy was measured by asking the participants to indicate how well their income satisfied their financial needs on a four-point scale ranging from 1 = very inadequate to 4 = very well. Social support was represented by two questions adopted from the items in the Older Americans Resources and Services (OARS) Social Resource Scale (Pfeiffer, 1975): (1) Do you have someone you can trust and confide in? and (2) Is there someone who would give you any help at all if you were sick or disabled? Both questions were answered in a yes or no format.

Elderly immigrants' cultural values and beliefs are particularly relevant to their social context. A higher level of migratory grief was found to be associated with a higher level of depression (Casado & Leung, 2001). Immigrants who were most acculturated or most bicultural reported themselves as healthiest and least depressed (Shapiro et al., 1999). Chinese cultural values, Chinese health beliefs, and ethnic identity were the cultural variables assessed in this study.

To assess Chinese cultural values, we drafted a list of items representing a range of culture values of the Chinese community in Canada. Using the drafted list, we solicited inputs and comments from community professionals serving the Chinese community in different data collection sites. Finally, an 11-item list was used for this study. The statements in the list reflected Chinese cultural beliefs and values with respect to language use, gender roles, interracial marriage, food and diet, and parent–child relationships. Examples of the statements are "Taking care of children's daily routines should be the women's major responsibility at home" and "Chinese children should maintain their Chinese languages." For each statement, the participants were asked to indicate their levels of agreement on a five-point scale, ranging from 1 = strongly disagree to 5 = strongly agree. The answers were coded to form an average sum ranging from 1 to 5, with higher scores indicating stronger belief in Chinese cultural values. A Cronbach's alpha of .82 was reported for this scale by the older Chinese immigrants in this study.

A similar process was used to develop the list measuring Chinese health beliefs, which consisted of 12 statements assessing the participants' levels of agreement toward health beliefs related to eating, health maintenance, and functions of traditional Chinese medicine. Examples of the items include "Eating too much deep-fried food will cost Re Qi," and "Traditional Chinese herbal medicine could balance yin and yang in the body." The participants were asked to indicate their levels of agreement on a three-point scale with disagree = 1, neither agree nor disagree = 2, and agree = 3. The scores were summed and weighted by the total number of items in the scale, with a higher score (between 1 and 3) indicating a stronger level of Chinese health beliefs held by the participants. A high internal consistency (Cronbach's alpha = .80) was reported for the scale by the participants.

Ethnic identity is also an indicator used to determine the acculturation level of the immigrants (Gee, 1999; Hyman, 1997). In this study, ethnic identity of the participants was measured by a question asking them whether they thought of themselves more as a "Canadian," "Chinese–Canadian," or "Chinese." This same method was used in earlier research examining ethnic identity of elderly Chinese in Canada (Gee).

FINDINGS

Demographic Information

Among the 2,214 participants, 56.1 percent were women and 43.9 percent were men (Table 1). Their ages ranged from 55 to 101 years (M = 69.74, SD = 8.7). Nearly 66 percent of the participants were married; the others were unmarried. Living alone accounted for 13.8 percent. More than half (58.3 percent) of the participants reported a secondary and beyond education level. Although all participants self-identified as ethnic Chinese, they migrated from different countries and regions. More than half (51.9 percent) of the participants migrated from Hong Kong (Table 1). The second largest group was participants who had migrated from mainland China (27.6 percent). The others immigrated from Taiwan, Vietnam, and other countries in Southeast Asia; Europe; the United States; and Central and South America. The mean length of residency in Canada for the participants was 18.25 years (SD = 12 years). (See Table 1 for the means, standard deviations, and frequency distributions of other sociodemographic and cultural variables.)

Barriers to Accessing Health Services

The older Chinese immigrants reported an average of 4.8 (SD = 4.9) types of access barriers to health

Table 1: Descriptive Findings on Demographics and Predicting Variables for Older Chinese Immigrants in Canada (*N* = 2,214)

Variable	*M* (*SD*)	%
Age (years)	69.74 (8.7)	
Gender		
Female		56.1
Male		43.9
Marital status		
Single		34.1
Married		65.9
Living arrangement		
Not living alone		86.2
Living alone		13.8
Education		
No formal education		12.9
Elementary		28.8
Secondary		37.6
Postsecondary and beyond		20.7
Self-rated English competence (range: 2– 6)	4.05 (.3)	
Country of origin		
Mainland China		27.6
Hong Kong		51.9
Taiwan		4.4
Vietnam		8.1
Southeast Asia		4.1
Other countries		4.0
Length of residency (years)	18.25 (12.0)	
Self-rated financial adequacy (range: 1–4)	2.76 (.6)	
Personal monthly income		
Less than $500		16.4
$500–$999		38.4
$1,000–$1499		34.1
$1,500 or greater		11.1
Have someone to trust and confide		
Yes		74.9
No		25.1
Have someone to provide help if sick or disabled		
Yes		94.9
No		5.1
Chinese health beliefs (range: 1–3)	2.48 (.4)	
Chinese cultural values (range: 1–5)	3.72 (.6)	
Ethnic identity		
Canadian		6.3
Chinese–Canadian		67.2
Chinese		26.5

services. "Professionals there do not speak your language" was the most commonly reported (46.9 percent) barriers by the older Chinese. "Waiting list being too long" ranked second (38.4 percent). "Do not know about existing health services" ranked third (34.3 percent). "Programs are not specialized for Chinese," "professionals there do not understand your culture," and "professionals there are not Chinese" ranked fourth to sixth, with a range of 31.2 percent to 30.6 percent of the participants indicating such barriers. Except for "waiting list being too long" and "not knowing about existing services," most of the top services barriers were related to language, culture, or ethnic differences between the immigrants and service providers or the services provided.

Using the 21 service barrier items, we initially conducted exploratory principal-components analysis with oblimin rotation to explore the underlying factor structure. Both the eigenvalue-one rule and scree plot were used, and a four-factor model was identified. The component correlations among the resulting factors indicated very mild correlations ranging from –0.41 to 0.22 between the factors identified. A nonorthogonal varimax rotation procedure was then conducted, resulting in a similar four-factor model (Table 2).

These four factors accounted for 54.44 percent of the total variance, meeting the general norm that eigenvalues should account for at least 50 percent of the variance (Streiner, 1994). The first factor, administrative problems in service delivery, referred to problems such as waiting list being too long, office hours being inconvenient, and procedures being too complicated. This factor accounted for 17.28 percent of the variance. Cultural incompatibility was the second factor, which accounted for 15.74 percent of the variance. Professionals do not speak the users' language, programs not specialized for Chinese, and professionals do not understand the users' culture, are examples of the items included in this factor. Personal attitudes was the third factor. They included items such as feeling ashamed, uncomfortable with asking for help, and not believing that the professionals can help. This factor accounted for 11.27 percent of the variance. Circumstantial challenges was the fourth factor, including items such as lacking means of transportation, weather being too cold to get out, and not knowing about existing health services. This factor explained 10.15 percent of the variance.

Table 2: Rotated Factor Structure of Service Barriers for Older Chinese Immigrants in Canada

Items	Factor 1	Factor 2	Factor 3	Factor 4
Bad experience heard from others	.75			
Professionals are too busy	.75			
Not satisfied with the services	.71			
Waiting list is too long	.61			
Office hours are inconvenient	.59			
Procedures of using the services are complicated	.57			
Services are too expensive	.57			
Professionals there are not Chinese		.83		
Professionals there do not speak your language		.81		
Programs are not specialized for Chinese		.75		
Professional there do not understand your culture		.73		
No other Chinese clients		.63		
Feeling ashamed			.80	
Uncomfortable with asking for help			.74	
Worry that you are being seen as having problems			.65	
Do not believe that the professionals can help			.49	
Professionals are too young			.38	
No one is available to take you there				.75
Do not have the transportation to go				.70
Weather is too cold for you to get out				.66
Do not know about existing health services				.31

Extraction method: principal component analysis; Rotation method: varimax with Kaiser normalization.

Predictors of Health Service Barriers

Stepwise multiple regression analysis was conducted, with number of barriers as dependent variable and the sociodemographic and cultural variables as predicting factors. The findings indicate that being female, being single, being an immigrant from Hong Kong (when compared with those from mainland China), having lived in Canada for a shorter period of time, being less financially adequate, not having someone to trust or confide in, having stronger identification with Chinese health beliefs, and considering oneself as Chinese or Chinese–Canadian, but not Canadian, were the predictors for more services barriers (Table 3). These predictors explained only about 9 percent of the variance in service barriers.

DISCUSSION

This study provides empirical data from factor analysis to support the classification of service barriers experienced by older Chinese immigrants in Canada. This study adds to the knowledge base by identifying predictors of barriers, facilitating service providers to develop solutions or interventions for reducing the challenges faced by this vulnerable group.

Among the barriers identified, barriers associated with cultural incompatibility, personal attitudes, and circumstantial challenges were all related to cultural uniqueness, values, and beliefs, of the older Chinese immigrants. However, service barriers were not solely due to individual causes. As indicated in the findings, administrative problems associated with service delivery form barriers to obtaining services.

It is difficult to compare the predictors of barriers identified in this study with those reported in earlier research because little research is available on examining the predictors of service barriers for older immigrants. We conducted a comprehensive search of the *Social Work Abstracts* and AARP AgeLine databases and found no similar empirical studies on predictors of older immigrants in Canada. Nevertheless, the predictors reported here are not unexpected and can be understood from the sociocultural context of the older Chinese immigrants in Canada.

Table 3: Stepwise Regression Analysis—Predictors of Service Barriers for Older Chinese Immigrants in Canada

Predictor Entered	Standardized Coefficients Beta	*SE*	*p*
Gender			
Male	–0.07	0.23	0.01*
(Female)			
Marital status			
Married	–0.06	0.24	0.01*
(Single)			
Country of origin			
Hong Kong	0.09	0.22	0.00*
(mainland China)			
Length of residency	–0.18	0.01	0.00*
Self-rated financial adequacy—range: 1–4	–0.10	0.19	0.00*
Have someone to trust and confide in—range: 0 or 1	–0.10	0.25	0.00*
Chinese health beliefs—range: 1–3	0.10	0.28	0.00*
Ethnic identity			
Chinese–Canadian	0.13	0.45	0.00*
Chinese	0.09	0.48	0.04*
(Canadian)			
R^2	0.10		
Adj. R^2	0.09		

Note: Reference groups are in parentheses.
*$p \leq .05$.

The finding that older women are more vulnerable to experiencing service barriers is consistent with earlier research findings in which older women from ethnic minority backgrounds were reported to be more disadvantaged because of their age, gender, and ethnic background (Brown & Williams, 1994). For the older Chinese women who used to live in a patriarchal tradition, which may still exist in parts of the Chinese community, not having the education, language skills, and financial resources are the probable causes for their vulnerability.

This explanation is also echoed by the finding that financial inadequacy predicts more barriers. Being financially inadequate had a "double-jeopardy" effect on the older Chinese immigrants. That is, those who were financially disadvantaged seemed to be further disadvantaged by facing more service barriers when they attempted to obtain the services or resources they needed.

Having someone to trust and confide in predicted fewer access barriers. This can be explained by the instrumental social support function of a confidant in providing the assistance the participant needs, a finding well established in earlier research on social support (Tsai & Lopez, 1997). The availability of a confidant also facilitates participant access to services, such as through providing information, transportation, or interpretation. Being married reduced service barriers, meaning that spousal support helped to mitigate access barrier.

Among the nine predictors identified, five are related to culture and acculturation of older Chinese immigrants. The central theme that emerged is that those sharing backgrounds that are more different from the Western or mainstream culture faced more service barriers. Length of residency in Canada affects level of acculturation toward the mainstream culture (Ghaffarian, 1998); therefore, it was not surprising to find that those who have resided in Canada for a shorter period of time reported more access barriers. Immigrants from Hong Kong may reflect certain cultural values different from the Canadian culture and therefore report more service barriers than immigrants from other places. Stronger identification with Chinese health beliefs and a self-perceived Chinese ethnic identity also predict

more access barriers. This is particularly true in a health system that predominantly values Western health beliefs and practices. Very often, the mainstream health care delivery system is structured on a universal assumption that everyone is the same and therefore will experience similar health outcomes from using the same system.

The findings show that the cultural gap between service providers and service users has played a key role in access barriers. Therefore, strategies to close the gap should be developed as ways to reduce the access barriers experienced by users from cultural background different from the mainstream population. Based upon the types of service barriers identified and the predictors of barriers reported, we recommend several strategies for practice.

High quality and performance of service delivery has to be maintained to avoid turning administrative problems into access barriers for clients. Service providers have to address the long waiting lists, complicated procedures, and administrative inconveniences associated with using the services and understand the potentially worsening effect of these administrative problems on users from cultural backgrounds different from the mainstream system.

To facilitate access, service providers should take into account the potential circumstantial difficulties faced by the older immigrants and provide appropriate facilities to remedy the challenges. For instance, providing transportation or personal companions to the older immigrants would facilitate better access, particularly during winter. Use of a one-stop service information and consultation system would help users who do not have adequate knowledge about the services that are available.

Strategies to mitigate language, culture, and ethnic barriers may include providing services or service information in languages of the immigrant users, hiring professionals who speak the clients' preferred languages or dialects, and hiring professionals who share similar cultural and ethnic backgrounds as the clients. Language, culture, or ethnic matching is only one aspect of demonstrating cultural sensitivity and cultural appropriateness in providing services. The cultural competence of service providers can also be enhanced through ongoing training and upgrading opportunities for developing culturally appropriate knowledge and skills for working with culturally diverse clients. Accreditation or ongoing evaluation of workers' performance and effectiveness in working with culturally diverse clients is another effective method to identify training needs at the practice level.

Interventions to reduce service barriers should also focus on strengthening the social support resources for older adults, as shown by the protective effects of marital status and having a confidant on reducing service barriers. For those without a confidant or those who are unmarried, it is important to provide community support services to compensate the social support roles and functions so as to prevent further service access problems.

Canada has a universal health care system, yet financial status continues to affect the number of access barriers. Providing adequate financial support to older immigrants, who very often are excluded from the Canadian pension system because of their limited work years in Canada, is another strategy to further reduce service barriers. Finally, a few limitations of this study should be noted. First, the use of the Likert scale may sometimes be challenging for elderly people from some ethnic minority communities who have difficulty expressing themselves along a continuum of numbers or descriptors (Land & Hudson, 1997). Although it appears that completing the measurements in this study did not present major problems for older Chinese immigrants, the findings obtained should be interpreted with caution. Second, using the self-reporting method can only capture access barriers of which the participants are aware. This may be the reason for the four factors identified accounting for only 54.44 percent of the total variance, meaning that more different types of service barriers may have gone undetected or unreported. Further research is needed to measure service barriers of which participants are unaware. Finally only 9 percent of the variance in service barriers was explained by the predictors identified, leaving a majority proportion of the variance unaccounted for. Although the predictors identified are related to individual characteristics of older Chinese immigrants, it appears that the societal-structural factors such as racism, discrimination, cultural insensitivity of service providers, unavailability of community resources, economic and sociopolitical inequity, and other system issues relating to service delivery are the potential predictors for access barrier that were not measured. Additional research to examine the predicting effects of these factors is recommended. HSW

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