

Immigrant-Non-immigrant Differences in Canadian Health Care Utilization
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Introduction

Do immigrants and non-immigrants utilize health care services to the same extent? Or are immigrants more – or less - likely than the native born population to access health care services? These questions are addressed in our study, using a model of utilization that conceptualizes access to health care services as a function of three sets of factors: 1) people's predispositions to use services (predisposing factors); 2) condition that facilitate or hinder access (enabling factors); and 3) need for care (health related factors) (Andersen, 1995). In past studies, this model has been applied primarily to medical care. Using a recent nationally representative survey, the 2000-2001 Canadian Community Health Survey, we assess the utilization of three types of health care: medical, dental and general services, controlling for these factors. Unlike many previous studies that are limited by questionnaire design or by sample selection, our analysis thus provides one of the most comprehensive investigations of immigrant-non-immigrant differences or similarities with respect to health care utilization in North America. We find that immigrants and non-immigrants are very similar in their utilization of medical services that involve contact with physicians and nurses. However, differences exist with respect to utilizing dental and other non-medical services. Our findings differ from results obtained from studies of immigrant health care in the United States, where immigrants often are less likely to access physician care than are the native born. Patterns found in Canada appear to reflect individual decisions based on costs of services and country differences in the funding of medical care.

The 2000-2001 Canadian Community Health Survey

The CCHS originated from the National Task Force on Health Information. In 1991, this task force cited the following issues and problems with Canada's health information system: data were fragmented; data were incomplete; data could not be easily shared; data were not being analysed to the fullest extent; and the results of research were not consistently reaching Canadians. In responding to these needs, the Canadian Institute for Health Information

(CIHI), Statistics Canada and Health Canada joined forces to create a National Health Information Roadmap which subsequently focused on two crucial questions: 1) how healthy is the health care system; 2) how healthy are Canadians?

The Canadian Community Health Survey (CCHS) was created to answer these two broad questions, and Cycle 1.1 (CCHS 2000/01) was fielded in September 2000 through November 2001 (Bèland, 2002). The entire CCHS sample consists of approximately 131,500 respondents aged 12 or older living in households in all provinces and territories, weighted to represent almost 26 million Canadians. For this analysis of the health care utilization patterns of immigrants and the Canadian-born, 118,336 Canadians aged 18 or older are selected from Cycle 1.1. In our analysis, non-immigrants, or the *Canadian-born population* refers to people who are Canadian citizens by birth. Although most were born in Canada, a small number were born outside Canada to Canadian parents. *Immigrants* or the *foreign-born* are defined as anyone who was born outside of Canada and was not born a Canadian citizen.

The CCHS has a complex sampling design, described in detail by Bèland (2002; also see: Morono, Lessard and Bèland, 2001). Because of the multistage stratified cluster design of the CCHS, in our multivariate analyses we employ the bootstrap method (Rao, Wu and Yue, 1992; Yeo, Mantel and Liu, 2000), using B weights (the bootstrap weights) that have been produced for use with the CCHS.

Modeling Health Care Utilization

A basic model of health service use conceptualizes use by individuals as a function of predisposing characteristics, enabling resources and need. Developed in the late 1960s, it has been subsequently elaborated (Andersen, 1995). However the core component is that of predisposing characteristics, enabling resources and need as both predictive of, and explanatory of health care service utilization (Andersen, 1995, Figure 7).

In our study, age is defined as a predisposing factor. So too is sex, although we conduct analyses separately for men and women.

Length of residence in the host country for immigrants also can be conceptualized as a predisposing factor. But often it is considered to be a facilitating one. Its categorization depends on what the variable is thought to capture. If length of residence merely reflects the situations of different entry cohorts, then it may be more properly understood as a predisposing factor. But, duration in a country also may be viewed as a measure of acculturation leading to a convergence of health related practices, health status and growing familiarity with health care systems. In the latter case, length of residence could facilitate, or create barriers, to health care utilization (LeClere, Jensen, Biddlecom, 1994). Certainly, numerous North American studies document the healthy immigrant effect in which recently arrived immigrants have better health than the Canadian born, only to converge (and thus to decline) with increasing length of stay. Given the cross-sectional design of the CCHS, we cannot resolve this debate of cohort versus acculturation effects here. Instead, length of residence in Canada is included as a critical dimension of health care utilization in its own right and it appears early on in the analysis.

Enabling factors are defined as those socioeconomic resources which facilitate the use of health care services, such as education and income. Other enabling factors include the contexts which surround individuals and which affect health care utilization, such as the presence of others and, for immigrants, the capacity to speak the host country language(s). Need refers to those self-perceived and assessed functional capacity and general health statuses which in turn affect propensities to search for and use health care services. Our study uses three indicators of need: consultation with practitioners of alternative medicine (acupuncture, meditation experts etc); whether or not the respondent indicated restriction with one or more activities; and an indication of having one or more chronic diseases.

Utilization may be conceptualized as potential use of services although most studies emphasize realized access, or the actual use of services (Andersen, 1995). Health services have been variously defined in research. Although a few studies include emergency room visits and overnight stays, physician services, and to a far lesser extent, dental services, remain the primary indicators of health care utilization in North American research. In our study, we employ three measures of health care utilization in our multivariate analyses: consultation with medical personnel, consisting of physicians and nurses; consultation with dentists; and consultation with other health care specialists.

Immigrant Utilization of Health Care Services

Do immigrants over or under utilize health services relative to those born in the host country? In Canada, the answer is that the two groups appear remarkably similar. Over nine out of ten of the Canadian and foreign born populations age 18 and older have utilized some kind of health services in the past 12 months prior to the survey, with women slightly more likely to do so than men (Table 1). The extent of consultation varies with type of service. The highest percentages of consultation are with medical personnel, with higher percentages consulting family physicians compared to specialists or nurses only. Lower percentages use dental services, and far lower percentages utilize other types of services such as chiropractors, physiotherapists, audiologists or occupational therapists. Throughout women are slightly more likely than men to access services. However, differences between the immigrant and Canadian born populations within each sex group are small or negligible.

As previous studies show, there is substantial evidence that relates health care utilization to the existence of facilitating factors, enabling resources and health status factors. We reassess nativity differences in health care utilization during the preceding 12 months, controlling for these factors as operationalized in the preceding section (our presented paper provides the full models indicating the effects of these control factors).

Does taking into account the enabling resources and health related needs alter the previously observed patterns of health care utilization by immigrants compared to the Canadian born? As shown in Table 2 (panel 1), the answer is a resounding "No." Multivariate analyses that control for the effects of age, enabling resources and health related needs show that immigrants for the most part do not differ from the Canadian born in accessing medical services during the 12 months preceding the Canadian Community Health Survey. With respect to consulting dentists and/or orthodontists, immigrants of both sexes at first under-utilized these services relative to the Canadian born; however, the odds of consultation exceed those of the Canadian born for immigrants with twenty or more years since immigration. And immigrants, regardless of years since arrival are less likely to have consulted with other health related services, represented by contact with chiropractors, physiotherapists, social workers or counsellor, psychologists, and/or speech, audiology or occupational therapists.

Frequency of Health Care Utilization

Utilization of health care services so far is defined as consultation with various health care practitioners during the 12 months preceding the Canadian Community Health Survey. However, utilization of health care is not limited to an “either/or” motif; substantial variation may exist in the frequency of consultation and thus in the frequency of health care utilization. Even if immigrants do not appreciably differ from the Canadian born with respect to accessing medical care, dental services and other health care services, they may differ in the frequency of use. To address these possibilities, differences between the Canadian born and immigrants in the number of consultations specific to the three main types of health care services was estimated for those individuals who indicated at least one consultation during the preceding 12 months. Estimates were calculated using the general linear model with the Poisson distribution, and the resulting coefficients, displayed in Table 2 (second panel) indicate the log of the number of consultations.

The analytical results again confirm that little difference between immigrants and the Canadian born exists with respect to the frequency of medical care use. Among those who have consulted a medical provider at least once in the year preceding the survey, only immigrant women, particularly those who immigrated within the past 9 years and those immigrating 20-29 years ago, have lower (log) counts than the Canadian born. However, immigrant users of dental care are somewhat different, often exhibiting a higher (log) number of consultations than characterizes Canadian born users. Finally, among those who have consulted other health related service providers (chiropractors, physiotherapists, social workers or counsellor, psychologists, and/or speech, audiology or occupational therapists), immigrants either have the same levels of contacts or have fewer (log) numbers of consultations, depending on time since immigration.

Conclusion

The main conclusion to be drawn from the analysis of health care utilization is that immigrants and the Canadian born are remarkably similar in their utilization of medical care services. These findings on the absence of differential access by nativity to medical services counter numerous United States studies which find reduced access to medical practitioners, particularly for immigrants who are members of economically disadvantaged groups or who are recent arrivals. However, Canada and the United

States differ dramatically in the funding arrangements on which medical care rests. In contrast to the Canadian system of universal medical care for residents, the American system is user-pay, HMO and private insurance based.

We do find that Canadian born – immigrant differences exist with respect to other kinds of related health care services, such as dental service or other health related services. Who pays for health care services is the most likely cause of the variation in immigrant-Canadian utilization patterns by type of health care services. Dental and other health services are not part of the Canada Health Care Act, and they are paid for either by private employment based dental and supplementary health plans or by users. In such a user-pay system, usage is highly correlated with income (and thus the ability to pay).

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Table 1: Health Care Utilization by Type of Service, Nativity Status and Sex, Population Living in Households, Age 18 and Older Canada

	Percentages, weighted data			
	Canadian Born		Foreign Born	
	Male (1)	Female (2)	Male (3)	Female (4)
Consultation with Medical (MD/Nurse only) specialist				
Total (a)	81.6	92.3	82.7	91.1
Family doctor	71.8	85.0	75.4	84.2
Eye Specialist	33.9	41.3	34.1	40.8
Other Medical Doctor	24.0	35.1	22.2	33.8
Nurse	8.6	13.0	4.9	7.5
Consultation with other health care specialist				
Total (a)	64.1	69.8	63.1	66.1
Dentist	55.0	61.0	57.4	60.4
Chiropractor	12.4	13.2	7.9	7.7
Physiotherapist	8.3	9.4	7.8	9.3
Social Worker	4.0	6.2	2.7	3.8
Psychologist	2.6	4.1	1.4	2.1
Speech therapist	2.0	1.7	1.2	1.2

Table 2: Consultations^(a) with Health Practitioners by Type of Service, By Nativity and Duration, Net of Other Factors, Population Living in Households, Age 18 and Older, Canada

	MD, Nurse only		Dental		Other	
	Male (1)	Female (2)	Male (3)	Female (4)	Male (5)	Female (6)
Odds of consulting at least once during 12 months preceding survey						
Canadian Born	(rg)	(rg)	(rg)	(rg)	(rg)	(rg)
Foreign born by Duration						
0-9	1.18 *	0.88	0.83 **	0.84 **	0.56 ***	0.54 ***
10-19	1.09	1.04	1.31 ***	1.02	0.59 ***	0.56 ***
20-29	1.12	1.14	1.43 ***	1.28 **	0.75 **	0.70 ***
30+	1.08	1.01	1.65 ***	1.72 ***	0.84 ***	0.83 ***
Parameter estimates (Poisson model) for number of consultations						
Canadian Born	(rg)	(rg)	(rg)	(rg)	(rg)	(rg)
Foreign born by Duration						
0-9	-0.038	-0.146***	0.210***	0.231***	-0.457***	0.089
10-19	0.067	0.001	0.133***	0.035	-0.282**	*0.063
20-29	-0.048	-0.096*	0.039	-0.009	-0.076	-0.048
30+	-0.001	0.042	0.056**	0.050**	0.090	0.092

(rg) Canadian born is the reference group.

(a) Significance results refer to the logits on which the presented odds are based. * p<0.1 ** p<0.05 *** p<0.01